

Industry considerations about cross-border real estate
Framework and principal drivers

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Preface

'A smooth sea never made a skilled sailor'

In front of you lies the final product in order to graduate for the Master of Science in Real Estate Studies at the Faculty of Spatial Sciences of the University of Groningen. This Master thesis is a literature study completed with interviews held with professionals, respectively real estate investors, real estate developers and real estate service providers. In the International Real Estate Markets course my curiosity about international real estate markets was triggered by an assessment comparing four metropolitan regions. When the notion of real estate market maturity came along when looking for topics for my Master thesis, I was directly attracted. During the process the topic changed from measuring real estate market maturity into industry considerations about cross-border real estate. I did manage to sail the rough sea and to develop a framework, which can be very useful when diving into specific real estate markets. However, because I had to change the topic the latest stage of the process writing my Master thesis, I lost a lot of time, which I deeply deplore. On this topic, one could undertake a PhD research.

It is a worthy duty to give thanks and show gratitude for every given help including the extended time it took to complete this Master thesis. My interviewees, as well as the institutions they stand for are given my gratefulness. I was utterly surprised by their cooperation and conducted very inspiring interviews as well extended my network.

I would sincerely like to thank Prof. Dr. E.F. Nozeman for supervising the entire graduation project, for providing constructive feedback, motivating me greatly during a long breath combining the master with a part-time job at DTZ Zadelhoff V.O.F and an internship at Savills Investment B.V. Also I would like to thank Dr. X. Liu for reviewing my Master Thesis and his contributions to the discussion on the initial structure of this Master Thesis. I believe his feedback improved the quality of my Master thesis. Lastly, I would like to thank my family and friends for their encouraging and continuous support.

Sincerely,

Janine de Ruiter

Summary

This Master thesis is an attempt to explore industry considerations about cross-border real estate decisions. The motivation is to reveal what considerations are taken into account when looking to invest in new markets. Even though experts a lot is written, clear criteria and indicators taken into account both investors, developers and corporate occupiers, preferably is numbers, comparing markets for real estate opportunities remains a serious challenge. There is a need for clarity on this issue.

Enabling to differentiate between for example emerging, developing and mature markets would be tremendously valuable when an objective controllable system of assessment becomes available which also takes into account the different weights per indicator. The research problem of this Master thesis is therefore: Lacking insight into industry considerations in cross-border real estate decisions. Combining the motivation and research problem to contribute to an improved coordinated manner as well as to existing knowledge in literature in order to solve the problem of lacking insight into industry considerations in cross-border real estate, the aim can be stated. The aim of this Master thesis is: Designing a framework, which gives insight into the considerations of the industry nowadays about cross-border real estate. In order to define a widespread proclamation on how to approach cross-border real estate as industry, the following central question will act as guidance throughout this Master thesis:

How should the industry approach the world of cross-border real estate?

This will be answered using three sub questions focussing on available literature, tools, indicators and the usage in practice.

The concept of international real estate markets is a relatively new phenomenon according to Tiwari & White (2010). They claim that the idea of markets for certain commodities or services existing on an international or even global scale is relatively new. The past 30 years have witnessed the most significant growth in, or internationalisation of, the real estate industry, which is set within a wider context of global economic change and international economic integration. Significant differences across countries create inefficiencies, which makes real estate investment interesting on an international level. Cross-border capital flows have increased in all asset markets. Real estate markets have been relatively slow to follow suit, but now seem beyond the tipping point, where more investment globally leads to new investment products and supporting institutions that in their turn facilitate yet a more international orientation. Existing frameworks used when exploring cross-border real estate opportunities among respectively Keogh & D'Arcy (1994), The Global Real Estate Transparency Index (JLL, 2014), Hax & Majluf (1995) and Geltner & Miller (2006) do not consider aspects of international real estate developers or corporate occupiers and focus largely on investment. The upper works show many differences especially in measurement of economic factors as well as demographic. The focus of the tools differs as well as of spatial level (i.e. one tool measures transparency of countries where the other focuses on metropolitan regions) The research analyst observes several aspects not or not much considered in the examined tools deserving more attention. These aspects are technology, the use of open data, sustainability, culture and political stability.

Combining tools created a provisional measurement tool which has been presented to professionals asking to grade the importance as well as asking within the three interest groups what they normally look at when investing/developing/advising clients entering specific real estate markets, what data and what weighting they use. After capturing professionals' view the outcomes of interviews are reproduced in adjusted measurement tool, which is tested in usability by asking the opinion of three professionals. The outcome of this part is a clustered adjusted measurement tool, which can be found in the last table. The result is a list of four indicators and 27 measures originated from a list of 9 indicators and 34 measures. The outcome is that governance is an overruling indicator when looking to invest/develop/settle in a new market.

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1. Introduction

This introduction presents the motivation, the research problem, the aim, the research questions, the research design and the scientific as well as the societal relevance of the selected topic. This chapter ends with a tassel that will provide insight into the structure of this Master thesis.

1.1 Motivation

Real estate was traditionally a primary local business, but as global capital market integration progresses capital markets are rapidly becoming more international (Geltner & Miller, 2006). Due to globalization the number of foreign investments is constantly increasing. Increasing global economic integration makes real estate opportunities more compelling than ever, thriving for high returns, portfolio diversification and the ability to hedge inflation (Lynn & Wang, 2010).

Investors in international real estate have as one of their key objectives, to perform transactions with satisfying risk and return ratios (Worzala, 1994). Managerial decisions should be made based on thorough information and sound logic in a coordinated manner. This should be done in a way that can be clearly justified and openly communicated to stakeholders, whether it concerns investors, developers or corporate occupiers to be advised by real estate service providers.

Not only is the real estate investment market becoming increasingly global, in addition the real estate service providers themselves are increasingly becoming global operators (Tiwari & White, 2010). Tiwari & White (2010) note that many firms have moved beyond their home country base and have established overseas operations. Both 'push' and 'pull' factors have contributed to this change. Home markets may be relatively small or saturated, causing firms to look for new opportunities abroad. Also the firms' clients may be opening operations in other countries and require real estate service provision.

This also accounts for developers, which is created by the increasing interaction between national economies and the globalisation of businesses as a result of access to fast, reliable information due to advances in communications technology (Reed & Sims, 2015). Reed & Sims (2015) mention that many real estate developers now operate in countries other than their own. Some have established second or satellite offices in other offices, whereas other operate solely from overseas locations and no longer have sole country operations. Many developers are following the global market seeking for opportunities to identify markets, which have potential for future growth or are currently underdeveloped. In many instances this will require the developer to be an early adopter in the market place, rather than waiting until the market reaches maturity with many competing for prospective sites. Hence a developer with foresight to enter a growing market has the benefit of rapidly establishing goodwill and strong links with the local market, as opposed to entering a competitive mature market from a standing start. According to Reed & Sims (2015) at the same time as real estate developers have been expanding globally, there has been a parallel increase in global investment.

Motivation of this Master thesis is to contribute to an improved coordinated manner as well as to a contribution to existing knowledge in literature, since literature combining three viewpoints of respectively real estate investors, real estate service providers and real estate developers, is scarce notwithstanding searching Google, Google Scholar and EconLit¹. The contribution is to reveal what considerations are taken into account in the case of cross-border real estate in order to go beyond currently used tools.

1.2 Research Problem

Building an international real estate portfolio often means venturing into the unknown, where one meets unfamiliar political, legal and economic environments, difficulties in finding local partners and potentially illiquid exit markets alongside different cultures and languages (Worzala, 1994).

These unfamiliar aspects require research, preferable in a structured manner so comparison of different international real estate markets can result in adequate classification and judgement.

The focus of this Master thesis will be on those aspects i.e. characteristics that the industry takes in consideration with cross-border real estate (either real estate investment, real estate development or settling as an corporate occupier). The research problem of this Master thesis is therefore: Lacking insight into industry considerations in cross-border real estate.

¹ Using search terms as: *Cross-border investment, Entering Real Estate Markets, Property Markets; Real Estate Investment; Property Investment; International Real Estate; International Property Markets; International Real Estate Portfolio Allocation; International Property Portfolio Allocation; Real Estate Market Attractiveness*

1.3 Aim

Combining the motivation and research problem to contribute to an improved coordinated manner as well as to existing knowledge in literature in order to solve the problem of lacking insight into industry considerations in cross-border real estate, the aim can be stated. The aim of this Master thesis is: Designing a framework, which gives insight into the considerations of the industry nowadays about cross-border real estate.

1.4 Research questions

In order to define a widespread proclamation on how to approach cross-border real estate as industry, the following central question will act as guidance throughout this Master thesis:

How should the industry approach the world of cross-border real estate?

To gain more insight to answer this question, the sub questions stated below should be answered:

1. *Why is real estate capital going cross-border now?*
2. *What frameworks are useful for analysing real estate opportunities in other countries and what are the principal drivers?*
3. *What is the experience in using frameworks of considerations for cross-border real estate in practice?*

This Master thesis is an attempt to do full justice to these questions.

1.5 Research design

The step after stating the research problem, its scientific relevance, the aims and the sub questions, is to formulate a research design describing how to tackle the problem. The starting point for most research designs is, in fact, bringing up research questions and hypotheses that have been carefully developed. Essentially, those research designs show how answers to these sub questions will be obtained and how hypotheses will be tested.

The forementioned research design is a plan of action indicating the specific steps necessary to provide answers to those questions, test the hypotheses, and thereby achieve the aims of the research that helps potential investors to decide where and how to invest.

When a designing type of research is at stake, there are no hypotheses. According to Van Aken (2011) Hoetjes (2010), and Verschuere & Dorewaard (2000) the essence of such a type of research is to test the applicability of a tool and whether it works in practice.

The approach of this research is twofold. The methodological emphasis of this work is placed on existing literature and specific real estate studies which are published in the conventional academic literature. The objective is to create a framework. A selection of three professionals will judge the framework in the end to conclude with a workable product.

1.5.1 Sub question 1

For the first sub question: *Why is real estate capital going cross-border now?* it can be stated that in order to completely understand investment in any other market than the home market it is necessary to consider the nature of international real estate markets and its stakeholders as well as related risk profiles. By using scientific literature to define cross-border real estate this first sub question will be answered.

1.5.2 Sub question 2

The second sub question: *What frameworks are useful for analysing real estate opportunities in other countries and what are the principal drivers?* detects what framework cross-border real estate requires, what aspects need to be taken into account based on conventional literature and whether it applies for all the three stakeholders.

1.5.4 Sub question 3

The last sub question: *What is the experience in using frameworks of considerations for cross-border real estate in practice?* tries to display nowadays industry considerations of the three different stakeholders to go abroad to aiming at a list of objectives to create a framework to take into account when searching for cross-border real estate opportunities based on data collection by interviewing professionals of the three stakeholders of cross-border real estate. These three sub questions together can answer the main question: *How should the industry approach the world of cross-border real estate?* by creating a framework which can be useful for the industry to keep aside so no

aspects will be forgotten when regarded as cross-border real estate opportunities. This research is categorized as an example of design research, which can be seen in lower figure, Figure 1.



Figure 1: Building an approach

1.6 Scientific and societal relevance

The relevance of this research is two-fold both scientific and societal.

The scientific relevance is the white spot of knowledge. The contributions related to the topic emphasize the difficulty of identifying the appropriate criteria for cross-border real estate for the three viewing points. There is no consensus about the most important criteria, no weighting or any ranking that includes all the factors mentioned in the literature. While some aspects are discussed more comprehensively and of course bear considerable significance, it remains unclear how these criteria hold. The topic can be placed under the umbrella of “*measurement and judgment tools*”.

The societal relevance is from a business point-of-view. Potential (foreign) real estate investors, corporate occupiers, developers and governments can provide themselves with objective and transparent information concerning the real estate market activity in order to identify the strengths and weaknesses. A framework would enable investors to get a well-founded impression of a certain real estate market. For investors, developers and corporate occupiers, on whom the main focus of the research is, also the opportunities and risks are interesting in comparison to global investment alternatives as bonds and shares. In order to capture the performance of real estate markets to detect whether cross-border investment is interesting, the economic conditions as well as the social, political, legal and institutional aspects have to be considered. Managerial decisions should be made using solid information and sound logic in a coordinated manner that can be clearly justified and openly communicated to stakeholders. Where is a market now and where is it heading to is the result of a complex mix of underlying factors. Using such a framework would allow investors to underpin their management decisions of selecting a market to invest in. This could attract more shareholders wanting to invest in a project. In the future, this could bridge the gap between investment opportunities and the absence of foreign real estate investment activity. A recommendation using the framework is to examine what aspects to consider before allocate the assets, looking at several factors largely based on what level of risk the investor/developer/corporate occupier is accepting.

1.7 Tassel

Chapter 1 provides the introduction, the aim, the research questions, the research design and both the scientific and societal relevance. Chapter 2 answers the first two sub questions in a theoretical framework. In chapter 3 the designation of the approach is build after which the operationalization follows in chapter 4. In chapter 5, the results of the interviews are presented. In chapter 6, the approach is slid under the nose of three professionals whether it is applicable in practice answering sub question 3. Chapter 7 provides conclusions and recommendations. This Master thesis ends with listed used literature and appendices.

2. Theoretical Framework

A conceptual framework for this research evolves from the theoretical discourse and the reviewed literature on cross-border real estate. Hereby the overall objective is to establish a stable base for anchoring the analysis. This chapter contains a definition and an overview of the stakeholders and related risk profiles as well as frameworks to analyse opportunities from literature consisting of cross-border investment strategies and their drivers are useful by answering the first two sub questions.

2.1 Defining international real estate markets

Among international real estate markets, one can consider international real estate investment, international real estate development and settlement of corporate occupiers in the form of tenants. The concept of international real estate markets is a relatively new phenomenon according to Tiwari & White (2010). They claim that the idea of markets for certain commodities or services existing on an international or even global scale is relatively new. The past 30 years have witnessed the most significant growth in, or internationalisation of, the real estate industry, which is set within a wider context of global economic change and international economic integration. As an asset class, real estate has been often treated differently from other assets (Hendershott & White, 2000) since it is usually an expensive asset due to its high unit value, it tends to be illiquid and heterogeneous, and consequently real estate markets display limited information, which can lead to the inefficiency in resource allocation. Significant differences across countries create inefficiencies, which makes real estate investment interesting on an international level. Countries vary in the extent to which they view real estate as an investment class. A definition as followed by Seabrooke & Kent (2004): The term international real estate describes a relatively new phenomenon, beginning in the 1980s and keeping pace with globalization. The term encompasses real estate development, sales and leasing transactions across national borders. International real estate could be viewed as one of the most dynamic branches of real estate although it is, by definition, influenced by fluctuating market value in various sectors between countries, as can be evidenced by the 2008 global credit crisis.

2.1.1 Cross-border real estate investment

One of the three viewing points on cross-border real estate investment can be defined as money invested in real estate either commercial or residential, as opposed to investment in securities or other financial instruments (Van Gool, 2009). Real estate investment can be distinguished into direct real estate investment and indirect investment whereas direct real estate concerns investments in bricks and indirect real estate in real estate shares (Van Gool, 2009). Direct real estate refers to the direct ownership and operation of assets such as houses, shopping centres, hotels and offices. Indirect real estate refers to the use of public listed real estate companies, private real estate funds, REITs, MBS, and related investments. These investments offer exposure without direct involvement in the selection, creation, and management of physical real estate (Baker and Chinloy, n.d). This Master thesis focuses on direct real estate investment and disregards indirect real estate investment. The direct real estate investment market is characterized by a number of advantages and disadvantages as can be seen in the list below.

Advantages direct real estate (Van Gool, 2009)

1. Portfolio diversification
2. Stable income stream
3. Favourable return/risk-rate
4. More return by intensifying management
5. Specific opportunities on real estate markets
6. Rational protection against inflation
7. Fiscal advantages

Disadvantages direct real estate (Van Gool, 2009)

1. Knowledge and management intensive investment
2. Large capital requirement
3. Intransparency
4. Illiquid market
5. Hard to measure performance

One of advantages is portfolio diversification. For example, including international real estate assets in an investment portfolio can be explained in risk reduction through geographic diversification, although its viability and effectiveness are sometimes challenged (Baker and Chinloy, n.d). Cross-border capital flows have increased in all asset markets.

Real estate markets have been relatively slow to follow suit, but now seem beyond the tipping point, where more investment globally leads to new investment products and supporting institutions that in their turn facilitate yet a more international orientation.

Even though commercial real estate markets are typically considered as global markets and interlinked with the macro economy (Ball et al. 1998), the origin and destination of investment capital aimed at real estate now includes a greater number of countries than ever before (Gordon, 2004). Gordon (2004) states that the volume of capital seeking cross-border investment is also growing rapidly. Why is real estate capital going cross-border now? At first, it is useful to clear up some common misconceptions. Even though real estate is becoming more and more global, in the terms of the number of countries involved, cross-border capital flows are mainly dominated by a relatively small subset. According to JLL (2014) most of the capital willing to move cross-borders into real estate comes from 8-10 countries and is directed towards 20-25 countries. Lack of transparency and secure property rights excludes many of the world's emerging real estate markets from consideration by institutional investors or developers. Transparency regarding the nature of these differences is rising, but comparing remains a serious challenge since real estate practices remain closely tied to long-held institutional frameworks such as legislation (e.g. Civil Law versus Common Law) and culture of doing business. According to the institutional economics theory (D'Arcy, 1994 and Lee, 2001), the commercial attractiveness of a country as an investment destination depends on its socio-economic environment and institutional framework. Therefore, one possible explanation for the long-term aberration from expected values are market entry barriers encompassing a broad range of institutional, legal and real estate specific risks.

The motivations and objectives of cross-border real estate stakeholders vary greatly. It can be defined in two categories: Return enhancers whom are seeking premiums to a home market; or risk minimizers whom are seeking diversification away from limited or inefficiently priced home markets. There are four basic strategies when investing in real estate: Core, Core-Plus, Value Add and Opportunistic (INREV; Van Gool, 2009). They vary in return potential as well as risk, and investors tend to stick to specific strategies over the long run as they hone their skills and improve. Core is considered the least risky of the four; core investments also provide the lowest returns in exchange for the lowest risk. Real estate investments in a high rise apartment building with a low vacancy rate and fully stabilized is an example of a core opportunity. Core-Plus is a core property that is in need of some sort of repairs, remodel, tenant retention or other addition needed in order to bring the property to value for an acceptable rate of return and considered a bit higher on the risk scale due to the additional enhancements needed. Value Add investments are those where the property needs more than just minor repair work or amenity and addresses other factors such as cash flow, management or physical and mechanical needs. Opportunistic is a strategy considered to carry the greatest risk of the four but also provides higher returns. Opportunistic investments are those where the property is in need of significant improvement, rehabilitation including new construction

2.2.2. Timing

At present, the interest in cross-border real estate is growing most rapidly from the return enhancer. Record flows of capital aimed at real estate in the Commonwealth of Nations and Western Europe have pushed up prices and pushed down yields. As a result, investors have struggled with falling point-forward estimates of domestic real estate returns and so are seeking ways to invest in parts of the world that may offer more attractive risk-returns combinations. The notion that all cross-border real estate must deliver opportunistic-style returns is also giving way to a more sophisticated approach that acknowledges the very different risk-return profiles to be found in the real estate markets of London, Paris by contrast to e.g. Bangkok, Beijing or Moscow (JLL, 2014). The other major reason that more investors are considering international real estate for the first time is that more tools are now available to implement a cross-border program and more investment managers offer international capabilities. Higher transparency makes it a lot easier to determine required risk premia in far-flung markets. More sophisticated approaches to tax, legal and currency advice make the job of cross-border somewhat easier. In recent years, the most rewarding aspect of real estate investment has come from riding the yield compression or multiple expanding that accompanies the move of real estate from a marginal to a mainstream asset class in various countries. However, to do this with confidence requires taking the time to gauge the pace of change (from low to high transparency) and the stability of the local legal/political/economic framework that governs real estate. The transparency and stability of the institutional framework surrounding real estate markets is of the utmost importance to cross-border investment. A thorough understanding of these institutions and their pace of change holds the key to worthwhile or successful investment. This knowledge is key to getting paid appropriately for assuming the risks inherent during periods of upheaval or when property rights are insecure. Whether an investor puts return enhancement or risk reduction as his primary goal of its

cross-border real estate program, the principle of setting an appropriate risk premium creates an important investment discipline to ensure compensation for transparency and structural risks (alongside market and asset specific risks) as they move into unfamiliar markets. This Master thesis investigates the determinants of cross-border capital flows into direct real estate markets. In particular what aspects as existing institutional, regulatory and real estate specific barriers affect cross-border real estate inflows

Tiwari & White (2010) emphasize the increased role of another stakeholder being the international real estate service providers and their role in transferring ownership of real estate, when looking at direct real estate, and supply of space for use. Real estate generates income for an investor through rent and capital (through change in capital values over time). These investors can be both national and international. The nature of capital flows in real estate consists of two types: (i) portfolio investment, where an investor resident in one country invests in stocks, bonds and other financial instruments related to the real estate in another country; and (ii) foreign direct investment (hereafter: FDI), where an investor based in one country acquires real estate in another country with the intention of managing it. This type requires a lot of local knowledge and intense management. Lastly, the development market is the market where developers combine land, material, capital, local knowledge and expertise to realize new space (or transform existing space for a different use). These organizations may be as well either national or international. Upper authors claim that a number of international developers have been involved in development overseas. Notable are three types of issues to consider: (i) internationalization of the economy through trade and FDI, which have implications for demand for physical space; (ii) international capital flows in assets, including real estate; and (iii) internationalization of real estate production processes and organizations.

Diving into performance reports written by real estate service providers in order to de-mystify real estate opportunities, enormous variations among metropolitan commercial real estate markets are shown. Barkham (2012) explains that these variations do originate from two mechanisms. First, the differential speed of adjustment across international real estate markets. Some metropolitan markets in more open economies may be more deregulated than others and, therefore, more responsive to changes in market fundamentals. Secondly, the initial macroeconomic conditions could be different in the various metropolitan areas before the GFC hit the market such that emerging and developing markets responded differently compared to mature markets. According to upper author such cross-sectional variations relate to differences in global connectivity, differences in tenant structure and the associated demands for space, size and sources of capital flows, the existing stock of real estate, and the supply, uptake and vacancy rate in that market. Zonis, a professor of international economy at the University of Chicago, coined the phrase *The Kimchi Matters* to describe the important role that local culture, political regimes and institutions play in determining the success of international investment and cross-border investment practices. He emphasizes on how important it is to understand the "rules of the game" when investing in other countries. Kimchi, a pickled cabbage salad favored by Koreans is a metaphor for the cultural differences that even though capital as well as goods move across borders, kimchi is not sincerely seen as a delicatessen by non-Korean (Zonis and Lefkowitz, 2003)

Global real estate development has been expanding globally as well. According to Reed & Sims (2015) the pace of expansion of development companies depends on the challenges per market with differences in currency, culture and varying levels of development in each country. As some real estate markets move through the transitional stage to a truly market-based structure, it is important that valuations align with the expectations and requirement of an international standard. They claim that knowledge about the inside workings of a property market can be one of the largest barriers to a successful property development in another than home market. The increased internationalisation of real estate markets has increased the level of demand for real estate, although arguably it has times exposed property investors to more risk. One view is that the international construction industry can be characterised as highly volatile, subjecting contractors to financial and geopolitical risks. An example is that after the Paris office market fell by two-thirds in value between 1990 and 1995, North American hedge funds were the first to enter the market and were skilled in investing against the business cycle. These funds then benefited from large capital gains from 1995-1999, although this was closely followed by a 40-50% increase in rent for prime office space. This example highlights the risks associated with understanding demand for real estate in an overseas market. Risks for developers can not only come from the property development itself but also from the related anticipated growth (e.g. competition). Reed & Sims (2015) recommend an approach in addressing local responsiveness of a market to organise a strategic alliance with a local partner. Pressures for global integration occurs when a real estate developer is selling a standardised good or service with a little ability to differentiate its product through features of quality. Griffin & Pustay (2007) there are four strategies to differentiate. First is the global strategy, which occurs when pressures for global integration are high but the need for local responsiveness is low, such as the expansion of Japanese consumer goods into global

markets. The transnational strategy is when both global integration pressures and local responsiveness pressures are high, such as producing motor vehicles although designed to meet local market specifications. Home replication is adopted when pressures for global integration and local responsiveness are low, for example a retailer who sells the same commodities successfully to all global markets and lastly a multi-domestic strategy occurs when the response to local conditions is high but pressures for global integration are low, such as where global producers sell a product known worldwide at a premium to the local market using local market resources (Griffin & Pustay 2007).

The relevant legislation and political climate are also major considerations that may hinder a prospective international real estate developer. Although these are completely outside the control of a developer, extensive research needs to be undertaken prior to entering the market place.

To answer sub question 1 globalisation is the key word. Cross-border real estate as mentioned previously is a relatively new phenomenon, beginning in the 1980s and keeping pace with globalization. Significant differences across countries create inefficiencies, which makes real estate investment interesting on an international level. Cross-border capital flows have increased in all asset markets. Real estate markets have been relatively slow to follow suit, but now seem beyond the tipping point, where more investment globally leads to new investment products and supporting institutions that in their turn facilitate yet a more international orientation.

2.2 Framework to analyse opportunities

As described above, variations in markets can be explained by the macroeconomic conditions and the phase of the real estate market.

2.2.1 Tool 1

Keogh & D'Arcy (1994) defined and designed a real estate market maturity framework using three market types with seven market characteristics, which has gained prominence over the years for studying the real estate market evolution process and maturity (see Armitage, 1996; McGreal, et al. 2002; Chin & Dent, 2006; Chin, Dent, & Roberts, 2006). The real estate market maturity framework was developed incrementally (Armitage, 1996) and evolved out of concern to fully incorporate all factors economic as well as socio-political underpinning the evolution, structure, and scope of real estate markets considered necessary to understand market behaviour and performance. This requires a treatment of the institutional aspects of real estate that drive real estate markets alongside the wider economic factors that impact their operations. They had characterized a priori maturity factors in the context of the London real estate market, which is generally considered 'mature' relative to other markets. On the basis of their analysis of the qualities of these markets from the findings of their work they reconsidered each factor's place in determining maturity. Besides some discernible characteristics stated above, viz. tourism, other fundamental nuts and bolts for measurement are the accommodation of a full range of use and investment objectives, the flexible market adjustment in both the short- and long-run, the existence of a sophisticated real estate profession with its associated institutions and networks, the extensive information flows and research activity, the openness in spatial, functional and sectoral terms, standardization of real estate rights and market practice and an acceptable level of governance (Keogh & D'Arcy, 1994). These can be seen as pickets to give some structure in approaching cross-border real estate and whether it is interesting to invest. The yardstick is how far have markets made progress?

The latter characteristics can be worked out in more specific indicators. For the first pillar we can have a look at probably the most important indicator: 'The accommodation of a full range of use and investment objectives' (Keogh, D'Arcy, 1994). This sets out in five indicators respectively the creation of licenses and tenancies, offering wide-ranging opportunities to tailor real estate rights, the effective establishments of district real estate submarkets, the overcoming of problems in invisibility in real estate transactions and the provision of mechanisms for dividing legal interests in specific real estate in smaller lots.

As far as for the second indicator: 'Flexible market adjustments in both long and short-run' are measured by a grade on the physical real estate rights of a country. This is done because one of the most important aspects of physical real estate rights is the possibility to repackage the stock of interests. However, it is debatable if building new real estate very quickly does not influence quality negatively or has other negative effects. The measures of maturity considering the second indicator are respectively the availability of a tenancy law, the ease of doing business (economies that rank high tend to combine efficient regulatory processes with strong legal institutions that protect real estate and investor rights e.g. the ranking of the economies with the most business-friendly regulation, when it comes to the ease of doing business is as follows: the United States is for example ranked 4th; South Africa is ranked 39th; Spain is

ranked 44th and China is ranked 91st (World Bank, 2013), the protecting investors' indicator and the overall level of transparency.

Examining the third indicator: 'Professionalization of the real estate market' generally involves the creation of recognized vocational education programs. "*The urge for real estate professionals who are trained in integrated financial and economic geographic skills with knowledge of local institutions rose since real estate markets have become global*". This argument made The Faculty of Spatial Sciences at the University of Groningen decide on translating the name of their Master program Real Estate Studies from Dutch into English offering a study that integrates financial engineering, location theory and planning on a global level (Faculty of Spatial Sciences of the University of Groningen, 2013). This verdict provides us a pragmatic example of adjustment to globalization in the real estate sector and moreover the attendance of a continuously improving educational quality of the Master of Real Estate Studies in Groningen, the Netherlands. The existence of full-grown real estate education at university and college level in conjunction with the presence of renowned real estate institutions on national and international level was stated by Keogh et al. (1994) as one of the indicators to measure maturity of real estate markets. The specifications for this characteristic are the full-grown real estate education at university and college level and the renowned institutions on a national and international level.

Another characteristic stated by Keogh & D'Arcy (1994) is the fourth characteristic: 'The gradient of extensive information flows and the degree of research activity', which can be set out in two indicators respectively the establishment of an adequate information base and secondly the qualitative research and quantitative analysis to the public.

The establishment of an adequate information base can be gauged by the presence of systems, which manage land. Land management is the process by which the resources of land are put into good effect (UN-ECE, 1996). Even though cadastral systems around the world are clearly different in terms of structure, processes and actors, their design is increasingly influenced by globalization and technology towards multipurpose cadastres (Van der Molen, 2003). According to the United Nations (UN-ECE, 1996), the land administration system encompasses the "processes of recording and disseminating information about the ownership, value and use of land and its associated resources". Dale and McLaughlin (1999) add land use regulation and land tax collection to this definition. Therefore, these authors distinguish between the (broader) land administration system, and the land information system.

The fifth indicator is 'The market openness in spatial, functional and sectoral terms'. How open a real estate market is in spatial, functional and sectoral terms can be set out in the presence of national and international participants, the free flow of capital enabling creation of real estate asset portfolios, the opportunities for substitution between real estate and non-estate interests and lastly, the level of transparency again since its cohesion with real estate investment volumes. Rising levels of transparency are also associated with higher levels of foreign direct real estate investment (JLL, 2012).

For the sixth pillar: 'The existence of real estate rights and market practice' can be described by the presence of formats for transfer of real estate and by the legislation on real estate rights. The presence of formats can be indicated by the full sequence of procedures for transfer of real estate (The World Bank, 2014). The three indicators about the efficiency of registering real estate are the amount of procedures including the time and costs involved (% real estate value). Based on these three measures, The World Bank gave national economies a rank out of 189. A higher position on the ranking list means that the process of registering real estate is more efficient.

The last characteristic measures 'The acceptable level of governance' based on the voice and accountability, the political stability, the government effectiveness, the regulatory quality, the rule of law and the control of corruptions. These measures, known as the Worldwide Governance Indicators (WGI), are determined through research by the World Bank Group (2013) and quite comparable. Its dataset summarizes the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms (Kaufmann et al., 2010).

Overall this tool is quite extensive but it doesn't contain any weighting of the indicators or mentioning some kind of ranking on what is crucial in deciding to invest in a certain market. Nor is taken into account the different views of

stakeholders that could use a framework as this one. The characteristics contain no weight, but measures contain the possibility to grade. All measures and indicators can be found graphically shown in Appendix A.

2.2.2. Tool 2

Hax & Majluf (1995) look at the topic of cross-border real estate by using an economic framework (1995) with four market types and nine market characteristics. In recent years, the BRIC countries, Brazil, Russia, India and China have received much attention, and rightfully so (Lynn & Wang, 2010). Lynn and Wang claim they are receiving this focus while these markets are among the biggest and fastest-growing economies encompassing a significant percentage of the world's land coverage, viz thirty percent. Whether being an institutional or private investor (or developer or corporate occupier), the ability to achieve higher returns and portfolio diversification – while accessing a larger investment universe is essential (Lynn & Wang, 2010). Lynn & Wang (2010) report about the BRIC countries and measure their attractiveness of real estate foreign direct investment (REFDI) in emerging markets where REFDI is a function of three main variables: (i) locational factors (L); (ii) the competitive environment factors (C) and; (iii) growth factors (G). That is,

$$(1) (REFDI) = f(L, C, G)$$

Lynn & Wang (2010) explain locational factors as aspects including geographical location, natural features and institutional factors such as natural endowments (i.e. in labour, raw materials, controlling or owning specific locations within an urban market that confer special advantages (i.e. local monopolies of a sort). Competitive factors can consist of advantages firms possess (core competencies of firm-specific advantages) in the competitive environment (Lynn & Wang, 2010). Investing in real estate must be competitive vis-à-vis other types of investment. The firm with advantages abroad, relative to domestic competitors, may achieve higher returns or lower costs, thus leading to more total profit (Lynn & Wang, 2010). Forementioned authors claim that these advantages may include greater access to investment capital, better practices and processes, better management, superior technology as well as branding and brand-equity (firms with more recognition and trusted brands may receive better terms on financing, stronger relationships with suppliers and higher customer demand). Growth, lastly, is related to locational factors but is considered separately because it is such a critical driver of real estate demand (Lynn & Wang, 2010). They claim that in many 'mature' countries, long-term growth prospects in terms of the economy and real estate markets appear limited. The shaded regions of the market matrix describe the current state of the real estate markets of China, Brazil and India (respectively young and growing markets) (Lynn & Wang, 2010)

2.2.3 Tool 3

Another framework which can be used when looking for opportunities to invest, build or settle cross-border is the Global Real Estate Transparency Index of JLL. This index was first published in 1999, currently covering 102 real estate markets globally presents four market types with four market characteristics, firstly the real estate market transparency (which is characterized by the free flow of high-quality market information, robust regulatory enforcement and fair transaction processes), the connectivity with international real estate capital markets in terms of both capital inflows and outflows, the commercial building offer that is equipped for future generations of corporations, in terms of environmentally-sustainable, resource-efficient and well-managed buildings and the robust domestic and international corporate base in terms of depth and breadth of activities and functions, leading-edge firms, headquarters and high-order activities (JLL, 2014)

Looking at the tool used by JLL, the focus is on these four key elements using 115 measures. Figure 2 reveals the differentiation of the elements into topics and Appendix B shows the 115 different measures set out in 78 questions.

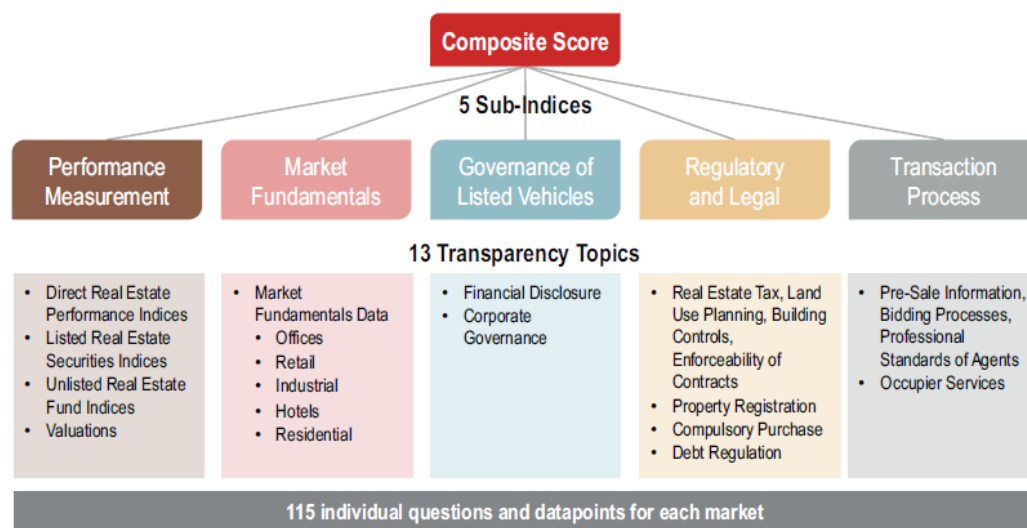


Figure 2: Global Real Estate Transparency Index Topics (Source: JLL, 2014)

In an interview, drs. A. Sharapova-Koeman, Associate Director at LaSalle Investment Management London explains that The Global Real Estate Transparency index is published every two years and determines transparency in 102 real estate markets. The top improvers in each survey generally correlate with a surge in foreign direct investment and corporate occupier activity. This can be explained as foreign investors help to accelerate transparency reforms and governments realize that poor transparency will affect continued inward investment, long-term growth prospects and the quality of life of their inhabitants. It is evident that the higher the transparency level, the higher the maturity level of real estate markets (Lee, 2001). The Global Real Estate Transparency Index by JLL provides an overview of market status in global cities, but provides no conclusions regarding definitions of what is meant by “poor”, “medium” and “high” since forty percent of the questionnaires is obtained qualitatively by conducting interviews with their local offices. This index provides investors, developers and corporate occupiers with data and analysis critical to transacting, owning and operating in global markets. The levels of transparency are classified based on transparency scores composed by weighting 83 different factors. The composed scores are displayed on a 0 to 5 scale. The United States is ranked as world’s most transparent real estate market in 2014. All topics have the same weight when totalling the individual scores. Again, it is not clear which points are crucial and weigh more in deciding to invest in a certain market and no distinguishment in stakeholder is made.

2.3 Principal drivers

Above, already some drivers have been given some light. Furthermore, a study by Han (1996) identifies that real estate investment opportunities, demographical characteristics and market structure are the most important drivers of cross-border real estate. La Porta et al. (2002) show that the size of the capital market and foreign financing of domestic companies strongly depends on the institutional settings. Institutional settings govern how real estate is traded in each market. Different institutional settings can lead to different real estate performance. They cover a wide range of issues including the legal framework, accounting and reporting standards. Glaeser et al. (2004) and Djankov et al. (2000) suggest that countries, which have similar law structure, can more easily enforce their commercial contract rights. Institutional barriers such as property rights, taxation (Worzala, 1994) are shown to be important drivers of investment. Cross-border capital flows are shown to be restrained by regulatory limitations, exchange and ownership controls and the repatriation of capital. Daude and Stein (2007) find that institutional barriers such as unpredictable laws, regulations and policies, excessive regulatory burden and government instability play a major role in deterring foreign direct investment (FDI). Crime and corruption within a country can also be a dominant barrier to foreign capital flows (Lee, 2001).

Geltner & Miller (2006) did not develop a framework but do report characteristics of rising globalization. There are sure much is happening around the world in terms of the emergence of a global real estate market, and this can be characterized by looking at the invested capital flows, the size of the market and the market segments. According to the authors a rather practical question is how to determine optimal country allocation. A number of ways have been put forward to accomplish that. The first way is to use the Modern Portfolio Theory to find optimally diversified international portfolios, the second is to track international index weights and the third is to use weights based on GDP. By using the Modern Portfolio Theory, a Markowitz optimizer, establishment of optimally diversified portfolios in

the standard risk/return trade-off can be made. Nevertheless, the theoretical basis for using that approach within the real estate portfolio is weak, and this approach also encounters a number of practical problems, like data availability. Studies using this approach have mostly been based on historical time series, and the resulting optimal portfolios were usually very period specific, making them not very useful in practice. A logical alternative is to track the composition of the global market using the market weight of the global index. In equity investment, tracking indexes like the S&P 500 or the international MSCI is a widely accepted and frequently used approach. However, using these tracking indexes has two disadvantages: (i) it underestimates so-called emerging markets at the chicken-and-egg-problem stage, not yet having an index, because they do not have historical data, not (yet) having much international capital, and not attracting capital because they do not have an index. Secondly, the index route is also liable to the information coincidence that market weights are high in countries that happen to have a well-developed information stream. Upper authors mention that investors commonly possess an intuitive map of what the global real estate market should look like, which is partly based on what the capital market looks like, but probably also partly based on what the economies look like. Indices have been created in line with this idea, allowing international investors to measure their performance when choosing their international allocation this way (Geltner & Miller, 2006).

Obviously the most aligned example of a performance report obviously is The Global Transparency Index by JLL. Many more real estate service providers examine performance of international real estate markets (e.g. Resilient Cities Research report by Grosvenor, Global Cities Index by Knight Frank, Real Estate Assets Investment Trend Indicators by EY, Property Market Outlook by CBRE, Fact Sheets by former DTZ). For this research has been chosen to leave these asides, assuming possible valuable indicators result from interviews with real estate service providers focusing on. Nevertheless the tool by JLL (2015) is used due to its extensiveness, worldwide coverage and usage and stands throughout the whole Master thesis.

To conclude this chapter, the answer of sub question 2: *What frameworks are useful for analysing real estate opportunities in other countries and what are the principal drivers?* several frameworks have been selected to examine. Furthermore other sources have been consulted to examine what kind of tools are available now usable when overthinking cross-border real estate. It stands out that the tools focus primarily on real estate investment and do not focus on developers or corporate occupier. The goal of combining the view of this stakeholders in this Master thesis could therefore contribute to existing knowledge.

3. Designing a provisional measurement tool

Three frameworks have been selected in the previous chapter considered as appropriate to be used to allocate cross-border real estate. The tool by Keogh & D'Arcy (1994) is far out the most extended tool measuring real estate market maturity, which can be used when investing/developing or settling abroad. It is a tool especially made for real estate markets whereas Hax & Majluf (1995) and Geltner & Miller (2006) use the macro economy to measure market performance. The Global Real Estate Transparency Index by JLL (2014) is the most practical tool, taking into account weights and adapting their tool every two years.

3.1 Selection of principal drivers

The tool by Keogh & D'Arcy (1994) leaves aside taking into account the quantity as well as the quality (or existence and quality e.g. availability of a tenancy law). The indicator: 'The accommodation of a full range of use and investment objectives' set out in the creation of licenses and tenancies, the offer of wide ranging opportunities to tailor real estate rights, the effective establishment of district real estate submarkets, the overcoming of problems of invisibility in real estate transactions and the providing mechanisms for dividing legal interests in specific real estate in smaller lots. A deeper measurement of both quality and quantity would be more precise. For the indicator is the same is applicable, e.g. the first measure of this indicator 'the availability of a tenancy law' should cover both quantity (on how extensive the law is) as well as quality (how advanced the law is). For the indicator: From Table 7 the two measures can be read, namely 1. A full-grown real estate education at university and college level; 2. Renowned institutions on a national and international level. These measures are measured using an ordinal scale combining the number of both education providers and institutions and their quality. In the opinion of the research analyst, a distinction between these would be more precise. In order to capture quality of education at university and college level as well as institutions on a national and international level, a kind of accreditation must be used (as RICS is used in the UK). The indicator: Extensive information flows and research activity; is set out in deeper measures namely: 1. Establishment of an adequate information base; 2. Qualitative research and quantitative analysis open to the public. The first measure could also include the quality of this information base. The second measures the accessibility; also here the quality needs to be considered as well. The indicator: Market openness in spatial, functional and sectoral terms is measured by 1. Presence of national and international participants; 2. The free flow of capital enabling creation of real estate asset portfolios; 3. Opportunities for substitution between real estate and non-real estate interests; 4. Level of transparency (since its cohesion with real estate investment volumes). The indicator looks at the number of steps needed as well as the timeframe plus its costs. This can be seen as a good way to measure the standardization of real estate rights and market practice. The last indicator looks at the acceptable level of governance. These indicators are very strong and very useful.

The tool by Hax & Majluf (1995) is an economic tool focusing on a company wanting to penetrate new markets. Their indicators can be seen in Appendix C. The indicator on market growth rate on how fast growth is defined compared to GDP. If this growth rate is high and sustainable, this could yield the attractiveness. The second indicator, industry potential looks at the level of saturation of the market of a company and how much market share is there to take in. The indicator 'breadth of product lines' is not applicable on real estate investors/developers and therefore left out. Their fourth indicator is the market share stability concerning the volatility of the market share. The fifth indicator about purchasing patterns is left out for the same reason as above. The sixth and seventh indicator is the ease of entry resp. exit, which show resemblances with the part of ease of doing business of Keogh & D'Arcy (1994). Their last measure concerns product technology and productivity but could still be interesting converting it to how advanced technology in a market is.

3.2 Weighting

The tool of both Keogh & D'Arcy (1994) and Hax & Majluf (1995) does not take weighting per measure nor per characteristics into account. The analysis of the tool by Keogh & D'Arcy is ranking (ordinal scale). JLL groups the 115 individual transparency measures into 13 topic areas, to be grouped and weighted into five broad sub-indices: (1) Performance Measurement for 25% (2) Market Fundamentals for 20% (3) Governance of Listed Vehicles for 10% (4) Regulatory and Legal for 30% (5) Transaction Process for 15%. The Transparency Index scores range on a scale from 1 to 5. A country or market with a perfect 1.00 score has optimal real estate transparency; a country with a 5.00 score has total real estate opacity. Markets are then assigned to one of five transparency tiers. The thresholds for these tiers are based on Jenks' Natural Breaks classification (JLL, 2014). 2012 scores are used to fix the thresholds, so that markets can move between tiers as transparency changes over time, even if their relative position does not

change. This algorithm finds the cut-offs that minimize within-group variance and maximize between-group differences. The balance of the scoring factors, are qualitative survey questions scored by local JLL teams. For each, local research teams are provided with a detailed rubric of five answer choices, ranging from 1 – most transparent – to 5 – opaque. Based on where their market fits within that rubric of options, local experts assign a score (JLL, 2014)

3.3 Spatial level

The spatial level of the tool will be on a metropolitan level due to more and more differences within a country between rural and urban areas. An example: Milan (Italy) is seen as a mature real estate market with an interesting international investment climate whereas the south of Italy is far behind on the scale of maturity and less seen as an international real estate market due among other factor especially institutional uncertainty (CBRE Global Investors, 2015)

3.4 Provisional measurement tool

Combining these tools including critical assessment provides the provisional list of cross-border real estate industry considerations, shown in Appendix D and explained below. The coherence of this tool and weights will be subject to the opinion of experts.

Table 1: Provisional measurement tool

1.Economy	Scale: Invested capital / Size of the market (combination of two aspects by Geltner & Miller (2006))	For this first measure has been chosen due to the fact that invested capital shows the dynamic of a real estate market. This aspect is related to the size of the market to show relative market numbers rather than absolute numbers where a small market could not be mature. Already stated in the part about the bottlenecks, this cannot be correct. The market size is defined through the market volume and the market potential (Daaker, 2012). Daaker (2012) mentions the following examples of information sources for determining market size: (i) Government data, (ii) Trade association data, (iii) Financial data from major players.
1.Economy	Market growth rate (Hax & Majluf, 1995)	The market growth rate resembles how fast growth is defined compared to GDP. If this growth rate is high and sustainable, this could yield the attractiveness (Hax & Majluf). These numbers can be obtained by using data both historical and rational forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
1. Economy	Market share stability (Hax & Majluf)	The market share stability concerns the share the party has in a certain market, which also related to the exit possibility. These numbers can be obtained by using data both backwards historical and rational forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
1. Economy	Ease of entry (Hax & Majluf, 1995)	The ease of entry depends on both the opportunities in terms of room for more competitors and the system treating (foreign) investment in terms of incentives (Hax & Majluf, 1995). A possible way to measure the ease of entry is the number of steps, including the time it costs to enter a market. These numbers can be obtained by using data both backwards historical and rational forecasting expectations of government data.
1. Economy	6. Ease of exit (Hax & Majluf, 1995)	The ease of exit refers to two aspects, first whether there is enough competition (both national and international) able to buy an asset for a reasonable market price compared to the exit yield (in the case of investors/developers) or if you can literally pack your bags and end the lease agreement (in the case of corporate occupiers). The second aspects considered is the ease of transfer capital flows outside the economy towards own currency, which depends on currency stability, and governance of banking. This can be measured by looking at export limitations, tax regulations and competition. This can be obtained using government data and numbers of competitors in a specific market.
1. Economy	7. Technology and Productivity	This measure related to the level of technology and productivity. Technology can be measured by the accuracy and level of technology used by the population. Productivity can be defined as “the overall efficiency of a firm with which inputs are transformed into outputs” (Steindel & Stiroh, 2001) there are two standard concepts of output in the economic literature: <ul style="list-style-type: none"> • Value added (also called gross product originating) and; • Gross output. Gross output equals the total value of sales and other operating receipts of an economic unit, while value added subtracts from gross output the value of goods and services purchased from other units and used in the course of

		production. These numbers can be obtained by using data both historical and rational forecasting expectations of government data.
2. Transparency	1. Connectivity with international real estate capital markets in terms of both capital inflows and outflows (JLL, 2014)	This measure is obtained by real estate capital flow, both inwards and outwards. These numbers can be obtained by using data both backwards historical and rational forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
2. Transparency	2. Real estate market transparency (JLL, 2014)	This measure can be obtained by using the scores from the Global Real Estate Transparency Index by JLL (2014). Even though this is not an objective measurement it is the most advanced tool in measuring specific transparency.
2. Transparency	3. The opportunities for substitution between real estate and non-real estate interests (Keogh & D'Arcy, 1994)	This measurement can be obtained by scores of market liquidity/.
3. Accommodation of a full range of use and investment	1. Commercial building offer that is equipped for future generations of corporations, in terms of environmentally-sustainable, resource-efficient and well-managed objectives buildings (JLL, 2014)	This measure refers to the supply of quality investment buildings/development possibilities/settling options in terms of interesting to consider. This can be obtained using data from local real estate companies.
3. Accommodation of a full range of use and investment objectives	2. The creation of licenses and tenancies (Keogh & D'Arcy, 1994) Quantitative: The level of extensiveness of these licenses and tenancies. Qualitative: The quality of licenses and tenancies used in that market	The creation of licenses and tenancies depends on the number of steps to obtain licenses and the reliability of these licenses. This can be obtained using data from the local government.
3. Accommodation of a full range of use and investment objectives	3. Offering wide ranging opportunities to tailor real estate rights (Keogh & D'Arcy, 1994)	This measure refers to the quality of real estate rights and can be measured by comparing real estate rights internationally. These can be obtained using government data.
3. Accommodation of a full range of use and investment objectives	4. Effective establishments of district real estate submarkets (Keogh & D'Arcy, 1994)	Effective establishments of district real estate submarkets refers to different types of real estate offered as investment class in a specific real estate market.
3. Accommodation of a full range of use and investment objectives	5. Overcoming problems of invisibility in real estate transactions (Keogh & D'Arcy, 1994)	This measure refers to transparency and whether there is a system that holds transaction data by either market parties or government.
3. Accommodation of a full range of	6. Providing mechanisms for dividing legal	This measure depends on regulation and local law practice and can be obtained by consulting local real estate providers or government.

use and investment objectives	interests in specific real estate in smaller lots. (Keogh & D'Arcy, 1994)	
4. Flexible market adjustment in both short and long term	1. The availability of a tenancy law (Keogh & D'Arcy, 1994) Quantitative: The level of extensiveness of this law	The availability of a tenancy law can be obtained by consulting government legal information. The extensiveness of a tenancy law is hardly to measure. It requires an intensive comparison of tenancy law where the aspect of ' <i>who wears the cap</i> ' also comes along in the discussion (protection for the tenant or the owner of the building?).
4. Flexible market adjustment in both short and long term	2. The ease of doing business (Keogh & D'Arcy, 1994)	Economies are ranked on their ease of doing business, from 1–189. A high ease of doing business-ranking means the regulatory environment is more conducive to the starting and operation of a local firm. The rankings are determined by sorting the aggregate distance to frontier scores on 10 topics, each consisting of several indicators, giving equal weight to each topic (World Bank, 2014). Appendix E shows an example of what aspects are considered taking in account when reviewing the ease of doing business per economy. The aspects are respectively: Starting a Business, dealing with construction permits, getting electricity, registering property, getting Credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency.
4. Flexible market adjustment in both short and long term	3. The protecting investor's indicator (Keogh & D'Arcy, 1994)	This measure refers to the regulations regarding the investor in real estate and his rights concerning real estate in a specific real estate market.
5. Existence of a sophisticated real estate profession with its associated institutions and networks	1. A full-grown real estate education at university and college level (Keogh & D'Arcy, 1994) Quantitative: how many educational providers exist taking in account the size of a country in terms of population Qualitative: of what quality are these educational providers, testable by using the RICS accreditation standards	A full grown real estate education at university and college level refers to how many educational providers exist taking in account the size of a country in terms of population and of what quality are these educational providers, testable by using the RICS accreditation standards.
5. Existence of a sophisticated real estate profession with its associated institutions and networks	2. Renowned institutions on a national and international level (Keogh & D'Arcy, 1994) Quantitative: how many institutions exist taking into account the size of a country in terms of population Qualitative: of what quality are these institutions, testable by using the RICS accreditation	This can be obtained by how many institutions exist taking into account the size of a country in terms of population and of what quality are these institutions, testable by using the RCS accreditation standards.

	standards	
6. Extensive information flows and research activity	1. Establishment of an adequate information base	This measure refers to the existence and quality of an adequate information base. With other words, is there a lot of information concerning real estate performance numbers from either real estate service providers or government data.
6. Extensive information flows and research activity	2. Qualitative research and quantitative analysis open to the public	This measure refers to the accessibility of research and depends on the openness of research institutions and universities.
7. Standardization of real estate rights and market practice	1. Amount of procedures needed to legally transfer title on immovable real estate (Keogh & D'Arcy, 1994) - How much time does it take? - How much it cost to complete each procedure (% real estate value) (Keogh & D'Arcy, 1994)	This measure comprises the number of steps required to transfer title and well as the time needed as well as the costs 9% real estate value) to complete each procedure. This information can be obtained by using government data.
7. Standardization of real estate rights and market practice	2. Robust domestic and international corporate base in terms of depth and breadth of activities and functions, leading-edge firms, headquarters and high-order activities (JLL, 2014)	This measure refers to the number and quality of real estate companies within a specific real estate market.
8. Acceptable level of governance	1. The voice and accountability (Keogh & D'Arcy, 1994)	<p>Voice and accountability captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.</p> <p>The Worldwide Governance Indicators (WGI) project reports aggregate and individual governance indicators for 215 economies over the period 1996–2013, for the latter and the five following dimensions of governance initiated by the World Bank. These aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. They are based on 32 individual data sources produced by a variety of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. Governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them Kaufmann (Kraay & Mastruzzi, 2010). The WGI draw on four different types of source data: Surveys of households and firms (9 data sources including the Afrobarometer surveys, Gallup World Poll, and Global Competitiveness Report survey), Commercial business information providers (4 data sources including the Economist Intelligence Unit, Global Insight, Political Risk Services), Non-governmental organizations (11 data sources including Global Integrity, Freedom House, Reporters Without Borders), and Public sector organizations (8 data sources including the CPIA assessments of World Bank and regional development banks, the EBRD Transition Report, French Ministry of Finance Institutional Profiles Database) (World Bank, 2014)</p>

8. Acceptable level of governance	2. The political stability (Keogh & D'Arcy, 1994)	The political stability is capturing perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism.
8. Acceptable level of governance	3. The government effectiveness (Keogh & D'Arcy, 1994)	Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
8. Acceptable level of governance	4. The regulatory quality (Keogh & D'Arcy, 1994)	Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
8. Acceptable level of governance	5. The rule of law (Keogh & D'Arcy, 1994)	Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
8. Acceptable level of governance	6. The control of corruptions (Keogh & D'Arcy, 1994)	Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
9. Other	1. Sustainability	Expectations are changing rapidly in the global property industry. This trend is fuelling demand for disclosure and information on the sustainability performance of property companies and fund managers. An increasing number of investors want to incorporate such Information directly into their investment processes and strategies (GRESB, 2015). As mentioned before, JLL provides an index for real estate sustainability. This score can be used for this measure.
9. Other	2. Open data	The policy by the local government in the use of open data. This can be obtained looking at their policy regarding the latter notion.
9. Other	3. Technology	Measured by the level of technology concerning the use and policies.
9. Other	4. Culture	The notion of culture plays part, but is hard to quantify.

3.4.1 Unselected indicators

A few indicators are left out due to doubling or the fact they are not applicable for real estate. From Keogh & D'Arcy (1994) almost all measures are used for the provisional measurement tool. Only the measure The level of transparency together with the indicator Market openness in spatial, functional and sectoral terms has merged with one of the measures by JLL covering transparency. From the tool by Hax & Majluf (1995), number. 3, Breadth of Product Lines, is left out as well as Purchasing Patterns. Number. 4, the Number and Quality of Competitors is merged with 2. Robust domestic and international corporate base in terms of depth and breadth of activities and functions, leading-edge firms, headquarters and high-order activities (JLL, 2014). Number 9, Technology and Productivity is merged with Technology.

3.4.2 Added indicators

As mentioned, some topics are not considered in the examined tools. To keep up with modern day expectations, the notion of sustainability as well as the use as open data, technology and culture are added to the list. The notion of politics is mentioned in the previous part as shed little light and therefore expected to rank high after interviewing professionals.

4. Operationalization

To answer the third sub question, interviews are held with professionals from different real estate fields to cover all stakeholders' considerations. First the structure of the interviews is explained followed by an overview of the approached interviewees. The chapter ends with a short impression of the quality of the interviews.

4.1 Interviews

The interviews conducted are two-fold. The first part contains questions (see Appendix F) about the cross-border real estate considerations, principal drivers, what tools are used when looking for cross-border real estate opportunities and what data are used.

The second part is the ranking of a list of considerations. The interviewees are asked to grade every principal driver where a 1 stands for not important and a 10 stands for highly important. Chosen is to use ratio scales since they contain more information than ordinal. They are better for making refined and informed trade-off choices.

The principal drivers, presented in the second part of the interview is based on the work of Keogh & D'Arcy (1994), JLL (2014), Geltner & Miller (2006) and Hax & Majluf (1995) aiming at a: (i) complete set where are no further criteria which can be used; (ii) operational set where each criterion must be capable of being measured in some significant way, (iii) decomposable since a complex decision requires both value judgments and empirical estimates about many things; (iv) non-redundant, meaning no aspect of the problem should be accounted for more than once; lastly (v) minimal where no smaller set of criteria that satisfy the conditions above should be available (Keeney & Raiffa, 1976). This list is adjusted through a critical assessment by professionals requesting them to grade the drivers. This step is highly important in order to give weight to the various drivers aiming at sharpening a view on how to approach cross-border investment, composed on the basis of the critical assessment of chapter 3.

4.2 Interviewees

By interviewing three types of stakeholders, this research attempts to cover various views. These various views come from (i) investors; (ii) developers and; (iii) real estate service providers, all operating on an international level. This research conducted comprised preferably five interviews per interest group. This enabled the research analyst to look at differences and similarities between the three groups. First, a potential list of companies has been composed selecting internationally focused firms which were reachable, after which these companies have been approached either already mentioning a specific expert. Selection of interviewees has been made in consult with Prof. E.F. Nozeman or asking companies' whom could answer questions on a decision making level. These companies were selected by firm size and operations abroad. A list of the interviewees is shown below. The representativeness of the interviewees in order to conclude sector broad is high since different interest groups give insight in all possible opinions of the target groups. Due to distance, the interviews with ir. J.E.M. de van der Schueren MRICS who currently works from his office in Spain as well as the interview with dr. R.T. Lie, who holds office in Hongkong, as well as drs. A. Sharapova-Koeman, residing in London and dr. H.J. Kok, whom is often abroad, have been conducted via Skype. A try-out interview has been held with dr. H.J. Kok, director Research at Multi International Development. This try-out interview was a pilot aiming to test the questionnaire as well as the approach of interviewing. After interviewing it became clear that it needed a more practical focus and the questions were adjusted. The interview with drs. A. Sharapova-Koeman was held to complete the theoretical chapter and is not included in the operationalization of composing the measurement tool. From the developers views only four interviews have been held due to the impossibility reaching the appropriate professional.

Table 2: List of interviewees

Name interviewee	Position, company	Date of interview
<i>Investors</i>		
1. drs. R. Buijtendijk MSc MSRE	Research analyst international real estate at Syntrus Achmea Real Estate and Finance	June, 2, 2015
2. drs. H. Op 't Veld	Head of listed real estate at PGGM Investments	June, 11, 2015
3. drs. M. Braam-Mesken MRICS	Senior Associate & Head of EMEA Retail Strategy & Research at CBRE Global Investors EMEA BV	June, 11, 2015
4. dr. R.T. Lie	Managing director at CITIC Capital Hongkong	June, 12, 2015
5. drs. M. van der Spek RBA/CEFA	Senior strategist at PGGM Investments	June, 22, 2015
6. ir. J.E.M. de van der Schueren MRICS	Head of international retail clients at Redevco Retail Spain	June, 25, 2015
<i>Developers</i>		

1. dr. H.J. Kok	Director research at Multi International Development	May, 17, 2015
2. dr. A. Bongenaar	Co-owner and managing director at Acteeum Group	June 18, 2015
3. M. de With MSc RE	Market analyst at BPD Development	June, 15, 2015
4. ir. N. Neary MSRE	Developer at ASR Real Estate Development	June 18, 2015
<i>Real estate service providers</i>		
1. dr. E. Mitsostergiou	Director European Research at Savills	June, 21, 2015
2. drs. J.M. Lokerse MSRE MRICS	Managing partner The Netherlands at Cushman & Wakefield	June, 21, 2015
3. R.B.M Kroeze MSc	Head of Global Corporate Services at CBRE Netherlands	May, 28, 2015
4. drs. M.A. Wolters MRICS	Head of Industrial & Logistics Research at CBRE Netherlands	May, 28, 2015
5. S. Bertens	Head of Research at JLL The Netherlands	May, 26, 2015
6. drs. A. Colpaert	Head of EMEA Offices Research at JLL Netherlands	May, 26, 2015

4.3 Impression interviews

The research analyst interviewed sixteen internationally operating professionals. The pilot interview held with dr. H.J. Kok, director Research at Multi International Development, was very insightful. After a guest lecture from dr. H.J. Kok regarding retail development in developing countries, contact was easily made. Since dr. H.J. Kok spends his time often abroad, meeting each other was difficult and an interview via Skype was held. During the interview, which was already split up in two parts both a list of questions and the provisional measurement tool to be graded, soon the research analyst concluded that the list of questions had to be refined and adjusted to lesser open questions in order to make comparison between interviews possible.

After adjustment of the question a duo interview was arranged with S. Bertens, head of Research at JLL The Netherlands and drs. A. Colpaert, head of EMEA Offices Research at JLL The Netherlands. The research analyst did try to arrange an interview with an expert working at the Investments department at JLL The Netherlands but the research analyst got redirected to the Research department supported by the argument that the foundation of an investment analysis by JLL The Netherlands lies in particular at the research department. Even though JLL The Netherlands responded quickly and enthusiastic, setting an appointment was rather difficult. At CBRE, an interview was arranged with R.B.M Kroeze and drs. M.A. Wolters MRICS. Setting the appointment was easily done. Both interviewees were very enthusiastic, however little resourceful due to the fact they did not use the term that much and emphasized on the focus on investment opportunities rather than demographics or macro-economic numbers. They turned the questions the other way around, looking at The Netherlands and how to advice for example Korean investors to invest in The Netherlands. The interview with drs. R. Buijtendijk MSc MSRE from Syntrus Achmea Real Estate and Finance was very insightful, even tough as well more focused on what indicators foreign investors use when investing in The Netherlands. From PGGM both drs. H. Op 't Veld and drs. M. van der Spek RBA/CEFA were interviewed. Even though drs. H. Op 't Veld is more focused on listed real estate their issue remains the same, since they are investing in a certain market. drs. M. Braam-Mesken MRICS, from CBRE Global Investors was very prepared and provided many background information. The interview with dr. R.T. Lie from CITIC Capital was conducted via Skype and very focused on governance due to his experience of working in Asia. M. de With MSc RE from BPD Development prepared very well, but was mainly focused on The Netherlands and differences nationally. The same occurred in the interview with ir. N. Neary MSRE, which was therefore not very useful. The interview with dr. A. Bongenaar from Acteeum was very comprehensive due to his experience of development in several Polish cities. At Savills, the research analyst talked to two professionals from the Research department. The interview with drs. J.M. Lokerse MSRE MRICS was very hard to schedule but also very insightful since he had done several investment transactions with Asian investors in Amsterdam. The last but most resourceful was with ir. J.E.M. de van der Schueren MRICS and conducted via Skype since he holds office in Barcelona. The interview was very well structured due to the fact Redevco uses a model to measure attractiveness which looked quite a lot like the principal drivers from literature. The research analyst was provided with a lot of background information. In general interviews did result in more insight in how experts from various real estate branches deal with cross-border real estate.

5. Results

After conducting interviews the considerations can be filtered and listed. From the perspectives of the three interest groups a short synopsis of the interviews is given. With these outcomes, the aspects to form the approach is presented. Regarding the second part of the interviews, the graded outcomes are given and evaluated.

5.1 Synopsis of the outcomes

A synopsis of the outcomes, resulting from the interviews is given with emphasis on the characteristics, the weights and the data used, both similarities and differences between perspectives. The interviewees have been asked to sum up characteristics they consider as important when looking for opportunities to invest, develop or settle abroad (see Table below). The rows show the percentage of how often the characteristic is mentioned. Note must be made these characteristics are mentioned without notion of literature.

Table 3: Characteristics mentioned by interviewees

	Investors	Developers	Real Estate Service Providers	Mean
Size of the market	2/6 = 33.33%	3/4 = 75%	6/6= 100%	69.44%
Market stability/volatility of the market	2/6 = 33.33%	2/4 = 50%	6/6= 100%	61.11%
Stability of economic growth	2/6 = 33.33%	2/4 = 50%	3/6 = 50%	44.44%
Stability of the local currency	2/6 = 33.33%	0/4 = 0%	1/6 = 16.67%	16.67%
Number of unemployment	2/6 = 33.33%	1/4 = 25%	0/6 = 0%	22.8%
Modernity of the economy	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Trade tradition	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Population	1/6 = 16.67%	4/4 = 100%	6/6 = 100%	72.22%
GDP	4/6 = 66.67%	2/4 = 50%	6/6= 100%	72.22%
Growth of GDP	0/6 = 0%	2/4 = 50%	3/6 = 50%	33.33%
Number of households	1/6 = 16.67%	2/4= 50%	3/6= 66.67%	44.45%
Population growth	0/6 = 0%	3/4 = 75%	4/6 = 66.67%	47.22%
Catchment area of a specific city	1/6 = 16.67%	2/4 = 50%	0/6 = 0%	22.22%
Migration patterns (within country and flow out of the country)	0/6= 0%	1/4 = 25%	0/6 = 0%	8.33%
Purchasing power per capita	1/6 = 16.67%	1/4 = 25%	1/6 = 16.67%	19.45%
Distribution of purchasing power	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Percentage of the middle class	2/6 = 33.33%	0/4 = 0%	0/6 = 0%	11.11%
Certain educational level	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Local partners	2/6 = 33.33%	1/4 = 25%	5/6 = 83.33%	47.22%
Number of potential branches	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Geographic location	1/6 = 16.67%	2/4 = 50%	2/6 = 33.33%	33.33%

Transparency	2/6 = 33.33%	3/4 = 75%	2/6 = 33.33%	47.22%
Presence of benchmarks/references/numbers about yields/vacancies	3/6 = 50%	2/4 = 50%	6/6 = 100%	66.67%
Fiscal legislation	2/6 = 33.33%	1/4 = 25%	1/6 = 16.67%	28.33%
Reliability of institutions	3/6 = 50%	2/4 = 50%	5/6 = 83.33%	61.11%
Planning	2/6 = 33.33%	1/4 = 25%	0/6 = 0%	19.44%
Degree of governance control	2/6 = 33.33%	2/4 = 50%	0/6 = 0%	27.78%
Quality of cadastre	1/6 = 16.67%	3/4 = 75%	0/6 = 0%	30.56%
Capturing of property rights	2/6 = 33.33%	2/4 = 50%	1/6 = 16.67%	33.33%
Ease of exit	3/6 = 50%	1/4 = 25%	3/6 = 50%	41.67%
Ease of entry	1/6 = 16.67%	0/4 = 0%	0/6 = 0%	5.67%
Political risks	1/6 = 16.67%	2/4 = 50%	3/6 = 50%	38.89%
Markets' focus on sustainability	1/6 = 16.67%	0/4 = 0%	0/6 = 0%	5.67%
Liquidity	2/6 = 33.33%	1/4 = 25%	0/6 = 0%	19.44%
Access to real estate	1/6 = 16.67%	1/4 = 25%	1/6 = 16.67%	19.67%
Share of international companies	1/6 = 16.67%	2/4 = 50%	0/6 = 0%	22.22%
Presence of competitors	0/6 = 0%	2/4 = 50%	1/6 = 16.67%	22.22%
Cultural understanding (law & language)	1/6 = 16.67%	1/4 = 25%	0/6 = 0%	13.89%
Presence and quality of a tenancy law	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%
Polarization in a shopping area cq. city quality measured with tourism, creative professionals, historic points of interest, average age of peoples	0/6 = 0%	1/4 = 25%	0/6 = 0%	8.33%

In Appendix H the outcomes are graphically shown per aspect mentioned by the professionals. It stands out the professionals often mention the same aspects. It also stands out that the real estate service providers focus mostly on macro market numbers and demographics rather than aspects as institutions and governance. Investors on the other hand focus more on institutions and governance over macro market numbers and demographics. Nevertheless it could depend on their risk horizon when e.g. risk averse aspects as size of market and GDP are stable and less considered when risk seeking and looking for growth markets. Other differences can result from the fact that real estate service providers themselves are no risk bearers or the fact developers look at a longer time path (10-15y) rather than investors and real estate service providers.

More than half the interviewees mentioned the following aspects: Size of market; Market stability/volatility of the market; Population; GDP, Presence of Benchmarks/references/numbers about yields/vacancies; Reliability of institutions. In the eye of the research analysts these can be therefore defined as dominant measures. Noteworthy is that besides the Global Real Estate Transparency Index, Redevco launches a City Performance report focused on attractiveness of a specific real estate market as does BPD and the real estate service providers launch their market outlooks, yet not much on specific measuring attractiveness of (new) markets or using any kind of weighting (except for the Global Real Estate Transparency Index by JLL). To underpin decisions regarding investment (or development or settlement) several data is used among: IPD benchmarks, Governance Indicators by the Worldbank, yields/liquidity/vacancies by real estate service providers (transaction data), EUROSTAT, CBS, PMI, CoStar, SNL, municipalities and independent market researchers. These benchmark focus on historical data rather than forecasting.

5.2 Outcomes grading

All interviewees have been asked to grade the principal drivers from literature in scale of importance between 1 and 10. In Appendix I, the list of grades is attached. Further, the grades are listed in descending order in Appendix J. These lists per interest group show important drivers graded above 5.5 and less important ones graded below 5.5. The important drivers are considered as dominant aspects and the less important ones as 'nice-to-know' aspects. It stands out that developers consider fewer aspects dominant than investors or real estate service providers do. The driver from the first indicator "Macro economy" score high as does the second indicator "Transparency" (graded respectively 8.5/7.5/8.75 out of 10 by investors/developers/real estate service providers) ranked 1st/3rd/2nd. The third driver "Accommodation of a full range of use and investment objectives" ranks medium/low and half of the drivers is ranked as nice to know but not dominant. The fourth driver "Flexible market adjustment in both short and long term" is graded medium high. The fifth driver "Existence of a sophisticated real estate profession with its associated institutions and networks" is ranked as nice to know graded below 5.5. Interviewees mentioned that a specific real estate education is not really necessary since business economic/finance/law backgrounds are suited for the real estate profession as well. The sixth driver "Extensive information flows and research activity" is ranked medium/high. The seventh driver "Standardization of real estate rights and market practice" is ranked medium/low. The eighth driver "Acceptable level of governance" is ranked high and noteworthy seen as important covering the top 10 from all perspectives. The last driver covering the millennial factors is ranked low/less important.

5.3 Approach

The conclusion on how to approach cross-border real estate is to be used for metropolitan regions (metropolitan regions are considered as representing real estate markets instead of nations, but some indicators refer to national institutions), filters the aspects that are mentioned as less important in general (score below 5.5) and descends the rank of importance as a result from the grading. The research analyst chose for a one size fits all tool rather than three tools nevertheless added or merged are the characteristics mentioned by more than half of the interviewees. Table 4 shows the adjusted measurement tool.

Table 4: Adjusted measurement tool

Measure	Way of measurement
1. Real Estate Transparency	This measure can be obtained by using the scores from the Global Real Estate Transparency Index by JLL (2014). Even though this is not a completely objective measurement it is the most advanced tool in measuring specific transparency. Note: This measure measures real estate transparency in an advanced manner, which covers multiple aspects. It is possible that this adjusted measurement tool contains doubling due to this fact.
2. Political stability	This measure can be obtained by using the World Governance Indicators. The political stability is capturing perceptions of the likelihood of political instability and/or politically motivated violence, including terrorism.
3. Control for corruptions (merged with Reliability of institutions)	This measure can be obtained by using the World Governance Indicators. Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
4. Rule of law	This measure can be obtained by using the World Governance Indicators. Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
5. Ease of exit	The ease of exit refers to two aspects, first whether there

	<p>is sufficient competition (both national and international) able to buy an asset for a reasonable market price compared to the exit yield (in the case of investors/developers) or if you can literally pack your bags and end the lease agreement (in the case of corporate occupiers). The second aspects considered is the ease of transfer capital flows outside the economy towards own currency, which depends on currency stability, and governance of banking. This can be measured by looking at export limitations, tax regulations and competition. This can be obtained using government data and numbers of competitors in a specific market.</p>
6. Ease of doing business	<p>Economies are ranked on their ease of doing business, from 1–189. A high ease of doing business-ranking means the regulatory environment is more conducive to the starting and operation of a local firm. The rankings are determined by sorting the aggregate distance to frontier scores on 10 topics, each consisting of several indicators, giving equal weight to each topic (World Bank, 2014). Appendix E shows an example of what aspects are considered taking into account when reviewing the ease of doing business per economy. The aspects are respectively: Starting a Business, dealing with construction permits, getting electricity, registering property, getting Credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency.</p>
7. Scale (Invested capital /Size of the market/ Market potential)	<p>This aspect is related to the size of the market to show relative market numbers rather than absolute numbers where a small market could not be mature. Already stated in the paragraph on bottlenecks, this cannot be correct. The market size is defined through the market volume and the market potential (Daaker, 2012). Daaker (2012) mentions the following examples of information sources for determining market size: (i) Government data, (ii) Trade association data, (iii) Financial data from major players.</p>
8. Regulatory quality	<p>This measure can be obtained by using the World Governance Indicators. Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.</p>
9. Availability of a tenancy law	<p>The availability of a tenancy law can be obtained by consulting government legal information.</p>
Quantitative: The level of extensiveness of this law	<p>The extensiveness of a tenancy law is hardly to measure. It requires an intensive comparison of tenancy law where the aspect of '<i>who wears the cap</i>' also comes along in the discussion (protection for the tenant or the owner of the building?)</p>
10. Establishment of an adequate information base	<p>This measure refers to the existence and quality of an adequate information base in other words, is there a lot of information concerning real estate performance numbers from either real estate service providers or government data.</p>
Existence of an adequate information base	<p>See above</p>
Quality of this information base	<p>See above</p>

11. Qualitative research and quantitative analysis open to the public	This measure refers to the accessibility of research and depends on the openness of research institutions and universities.
Accessibility	See above
12. Amount of procedures needed to legally transfer title on immovable real estate	This measure needs the number of steps required to transfer title and well as the time needed to complete each procedure. This information can be obtained by using government data.
Time required to complete each procedure	See above
Cost to complete each procedure (% real estate value)	See above
13. Government effectiveness	This measure can be obtained by using the World Governance Indicators. Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
14. Protecting investor's indicator	This measure refers to the regulations regarding the investor in real estate and his rights concerning real estate rights in a specific real estate market
15. Connectivity with international real estate capital markets in terms of both capital inflows and outflows	This measure is obtained by real estate capital flow, both inwards and outwards. These numbers can be obtained by using data both backwards historical and rational forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
16. Market growth rate	The market growth rate resembles how fast growth is defined compared to GDP. If this growth rate is high and sustainable, this could yield the attractiveness (Hax & Majluf). These numbers can be obtained by using data both historical and forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
17. Ease of entry	The ease of entry depends on both the opportunities in terms of room for more competitors and the system treating (foreign) investment in terms of incentives (Hax & Majluf, 1995). A possible way to measure the ease of entry is the number of steps including the time it costs to enter a market. These numbers can be obtained by using data both historical and rational? forecasting expectations of government data.
18. Sustainability	Expectations are changing rapidly in the global property industry. This trend is fuelling demand for disclosure and information on the sustainability performance of property companies and fund managers. An increasing number of investors want to incorporate such information directly into their investment processes and strategies (GRESF, 2015)
19. Creation of licenses and tenancies	The creation of licenses and tenancies depends on the number of steps to obtain licenses and the reliability of these licenses. This can be obtained using data from the local government.
Quantitative: Level of extensiveness of these licenses and tenancies	See above

Qualitative: Quality of licenses and tenancies used in that market	See above
20. Use of open data/presence of benchmarks/references/numbers about yields/vacancies	This measure refers to the accessibility of research And depends on the usage of open data/presence of research institutions and real estate service providers.
21. Market share stability/volatility of the market	The market share stability concerns the volatility of the market share. If volatility is high, stability is low, reflecting high risks in terms of investment. These numbers can be obtained by using data both backwards historical and rational forecasting expectations of: (i) Government data, (ii) World Bank, (iii) Financial data from major players.
22. Voice and Accountability	This measure can be obtained by using the World Governance Indicators. Voice and accountability captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.
23. Robust domestic and international corporate base in terms of depth and breadth of activities and functions	This measure refers to the number and quality of real estate companies within a specific real estate market.
24. Technology, Innovation and Productivity	This measure related to the level of technology and productivity. Technology can be measured by the accuracy and level of technology used by the population. Productivity can be defined as "the overall efficiency of a firm with which inputs are transformed into outputs" (Steindel & Stiroh, 2001) there are two standard concepts of output in the economic literature: <ul style="list-style-type: none"> • Value added (also called gross product originating) and; • Gross output. Gross output equals the total value of sales and other operating receipts of an economic unit, while value added subtracts from gross output the value of goods and services purchased from other units and used in the course of production. These numbers can be obtained by using data both historical and rational forecasting expectations of government data.
25. Offering wide ranging opportunities to tailor real estate rights	This measure refers to the quality of real estate rights and can be measured by comparing real estate rights internationally. These can be obtained using government data.
26. Population (growth)	Size of population per year and growth rate
27. GDP (growth)	Size of GDP per year and growth rate

6. Measurement tool in practice

In order to decide what is important in practice, this chapter covers the third sub question: What is the experience of cross-border real estate in practice? This question is answered by judging the efficacy of the adjusted measurement tool, which is done through reflection of three professionals. These are asked whether the adjusted measurement tool is appropriate and applicable to measure maturity of a specific real estate market.

6.1 Application of the adjusted measurement tool

In order to judge the efficacy of the adjusted measurement tool three professionals were asked the following questions:

1. Does the adjusted approach has practical value in orientating on developing/investing in new markets?
2. Are there aspects missing in the approach, if so which and why?
3. Are there any redundant or irrelevant issues and if so which and why?
4. What aspects would be defined differently?
5. If considered as a workable schedule, which considerations or circumstances then lead to non-application within an organization like yours?
6. Should there be "One size fits all"? or different schemes per interest group?

6.2 Reflection of three professionals

Three professionals were contacted again to ask them to shed some light upon the adapted version. From the perspective of investors, ir. J.E.M. de van der Schueren MRICS (Redevco) was contacted, from the perspective of developers dr. H.J. Kok (Multi International) whom also was willing to cooperate in the pilot interview, from the perspective of service providers was contacted E. Mitsostergiou (Savills). Unfortunately she moved to her office in Bucharest, Romania but luckily her colleague J. Jansen MSc MSRE MRICS was willing to help. He is not new to the topic since he was also present at the first interview held with E. Mitsostergiou.

6.2.1 Reflection by an investor

ir. J.E.M. de van der Schueren MRICS mentioned that the tool contains a complete list of factors to take into account. He concluded that there are no aspects missing or aspects redundant or irrelevant and therefore contains a high integrality. Nevertheless he did mention that a lot of aspects look alike and contain some overlap. Besides the overlap, the interviewee suggested the consideration of making the tool somewhat clearer by grouping the indicators along a certain theme as well as the remark that with grouping it is possible to assign which theme weights as most important by summing the points per indicator.

6.2.2 Reflection by a developer

From the perspective of a shopping centre developer, dr. H.J. Kok emphasized that the measurement tool is workable however, if markets are newer respectively further away from the home market, more attention is needed before undertaking any steps. All aspects are mutually important for measuring whether a market is interesting for investment or development, even though sustainability is getting there. Furthermore, the indicator about technology, innovation & productivity is of indirect interest as is industry potential. Most important is to take into account the regulations, purchasing powers, growth in purchasing patterns, performance and growth potentials of both international and national retailers, predictability of spatial planning and a stable macro-economic environment both historical and in the future (e.g. inflation, public debt, budget deficit etc.) Those aspects are included in the tool, but require, from the perspective of a shopping centre developer, large weighting. Mr Kok did suggest clustering from e.g. the rule of law or control for corruptions etc. under transparency or government, aspects as market growth etc. under market and macro-economic numbers under economy. When looking at opportunities in new markets it depends from case to case, from market to market what considerations or circumstances need to be taken into account, the more known the market is the quicker the process goes.

6.2.3 Reflection by a service provider

J. Jansen MSc MSRE MRICS mentioned the heavily present overlap in the tool and suggested to cluster some measures and to point out the level of importance per measure since some measures are crucial where others are more nice to know. Actually, this point mentioned by Jansen is identical to the remark by Mr. De van der Schueren. Mr. Jansen came up with some important notes per measure starting with real estate transparency. It is noteworthy that there are differences between internal and external transparency i.e. are data open to the public or not? Many foreign investors knock on the door of Savills The Netherlands while orientating on the Dutch investment market.

Savills can provide them with many numbers due to accessibility of many data banks, which are not public. Aspects missing on the list are culture and personal contact, even though culture fell of the list due to being graded too low to get a place in the tool. Furthermore Mr. Jansen came up with the fact that the whole list is based on historical numbers rather than forecasting trying to discover inefficiency for investment opportunities. This point was also mentioned in previous interview with Mr. Op 't Veld, PGGM. However, this way of orientating for investment opportunities depends on the risk profile of the investor, developer or corporate occupier. It is much easier for a ZARA branch to shut down the shop, end the lease and pack their bags than it is for a developer whom takes much more risk. Another remark made by Mr. Jansen denies the existence of a "one size fits all" tool. A tool should be useful and easily to adapt taking into account the requirements of the client.

6.3 Outcome reflections

Bringing the reflections together it stands out that even though the list is feasible, clustering is needed to improve the list and to make it easier to add weighting to the measures. One size fits all does not work, but according to the professionals, to distinguish in the weight adding.

A suggestion of clustering in the table below (the various numbers per measure are the numbers assigned previously which show the rank in the first place).

Table 5: Clustered adjusted measurement tool

Indicator	Measure
1. Governance	2. Political stability
	3. Control for corruptions
	4. Rule of law
	8. Regulatory quality
	9. Availability of a tenancy law (Quantitative: The level of extensiveness of this law & Quantitative: The level of extensiveness of this law)
	12. Amount of procedures needed to legally transfer title on immovable real estate (Time required to complete each procedure & Costs to complete each procedure (% real estate value)
	13. Government effectiveness
	14. Protecting investor's indicator
	20. Creation of licenses and tenancies (Quantitative: The level of extensiveness of these licenses and tenancies & Qualitative: The quality of licenses and tenancies used in that market)
	23. Voice and Accountability
	27. Offering wide ranging opportunities to tailor real estate rights
2. Market	5. Ease of exit
	6. Ease of doing business
	7. Scale (Invested capital / Size of the market)
	15. Connectivity with international real estate capital markets in terms of both capital inflows and outflows

	17. Ease of entry
	18. Invested capital flows
	24. Robust domestic and international corporate base in terms of depth and breadth of activities and functions
	28. Culture
3. Transparency	1. Real Estate Transparency
	10. Establishment of an adequate information base (Existence & Quality)
	11. Qualitative research and quantitative analysis open to the public and its accessibility
	21. Use of open data
4. Economy	16. Market growth rate

To conclude this chapter, sub question 3 *What is the experience of cross-border real estate in practice?* is answered by diving into considerations and listing them in upper scheme, which can be seen as a guideline when exploring cross-border real estate opportunities.

7. Conclusions and recommendations

This chapter concludes the outcomes of this research answering the main question: How should the industry approach the world of cross-border real estate? After listing the results in order to compose the adjusted measurement tool, professionals were asked to give their opinion about the measurement tool. Besides concluding whether this research succeeded in arriving at a feasible approach, this chapter contains recommendations for further research and a reflection on the process.

7.1 An adjusted measurement tool

This research did arrive in clearing the topic but remains a serious challenge since hard data is hard to obtain. The outcome of the repeatedly adjusted list is a number of aspects, which can show support where to invest/develop or settle in. Unfortunately, no weighting is added to this tool since comparison per measure is very hard or even undoable. Due to this level of difficulty, one must guard for spurious precision and comparing apples with oranges. A lot is dependent from the intended risk profile.

The list is clustered in themes and the number of the measure stands for the level of importance, the result of sixteen professionals giving grades to the measures. Approximately the first ten aspects (number 1-10) are regarded crucial in orientating in specific real estate markets whereas the other aspects should be considered as more nice to know. Another point mentioned is that half of the decision to invest/develop/settle has to do with both personal contact (culture) and maybe even more influenced by a gut feeling. Measurement and the availability of data is a large obstacle, so that is an important issue. Table 21, from the previous chapter is the outcome after the reflection on the adjusted measurement tool. The conclusion that can be drawn from this table is that governance is substantial when entering new markets. This also came up largely from the interviews, when entering new markets, stability of governance and an understanding of the system seems crucial and moreover important than economy and the market. Furthermore it is noteworthy that from the institutions the research analyst has spoken to, not many use a standard list to tackle cross-border real estate opportunities. At least the real estate analyst was able to reveal a list of aspects ordered with respect to their importance, viewed as valuable by experts. Complications in data availability are at stake. Other factors do play a role in decisions, i.e. a gut feeling. Limitations in answering the main question are the inability to introduce weights, partly owing to the difference in risk profile of interest groups (or even between individual companies).

7.2 Recommendations

After the conclusions, recommendations can be suggested in the levels of relevance, both social and scientific. Most of these suggestions are mere common sense, but indispensable considerations. In doing this research, the research analyst encountered several interesting by-lines that make for interesting further research subjects.

For further research about cross-border investment it would be interesting to make the analysed topic more operational and more market specific. A more tactical research can trigger more indicators.

Furthermore the weighting remains difficult due to the fact it is very dependent on the risk profile of the interested party. An interesting study would be to offset these profiles against each other trying to standardize the tool per profile.

Another aspect would be to offset findings against other markets globally; are the same considerations have to be taken into account? Other interesting research topics would lie in effect studies: e.g. has the size of a country effect on the level of attractiveness or what effect has the presence of many multinationals on the level of attractiveness.

7.3 Reflection

This Master thesis has been written and re-written due to shifting the topic. In the beginning the focus was more on market maturity rather than on industry considerations on cross-border real estate. The most rewarding part of the process of writing the Master thesis came from the interviews, which were largely resourceful offering valuable insight and where the pieces fell together as well as the relevance. A certain tool as designed in this research is highly valuable when a foreign organisation is looking to invest/develop/settle in a domestic market or a domestic organisation looking for opportunities abroad.

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Appendix A: Measures and indicators by Keogh & D'Arcy (1994)

1. Accommodation of a full range of use and investment objectives	<ol style="list-style-type: none"> 1. The creation of licenses and tenancies; 2. Offering wide ranging opportunities to tailor real estate rights; 3. Effective establishments of district real estate submarkets; 4. Overcoming problems of invisibility in real estate transactions; 5. Providing mechanisms for dividing legal interests in specific real estate in smaller lots.
2. Flexible market adjustment in both the short- and long-run	<ol style="list-style-type: none"> 1. The availability of a tenancy law; 2. The ease of doing business, (economies that rank high tend to combine efficient regulatory processes with strong legal institutions that protect real estate and investor rights e.g. the ranking of the economies with the most business-friendly regulation, when it comes to the ease of doing business is as follows: the United States is for example ranked 4th; South Africa is ranked 39th; Spain is ranked 44th and China is ranked 91st (World Bank, 2013)); 3. The protecting investor's indicator; 4. The level of transparency.
3. Existence of a sophisticated real estate profession with its associated institutions and networks	<ol style="list-style-type: none"> 1. A full-grown real estate education at university and college level; 2. Renowned institutions on a national and international level.
4. Extensive information flows and research activity	<ol style="list-style-type: none"> 1. Establishment of an adequate information base; 2. Qualitative research and quantitative analysis open to the public
5. Market openness in spatial, functional and sectoral terms	<ol style="list-style-type: none"> 1. The presence of national and international participants; 2. The free flow of capital enabling creation of real estate asset portfolios; 3. The opportunities for substitution between real estate and non-real estate interests; 4. The level of transparency (since its cohesion with real estate investment volumes).
6. Standardization of real estate rights and market practice	<ol style="list-style-type: none"> 1. Amount of procedures needed to legally transfer title on immovable real estate; 2. How much time there is required to complete each procedure; 3. How much it cost to complete each procedure (% real estate value).
7. Acceptable level of governance	<ol style="list-style-type: none"> 1. The voice and accountability; 2. The political stability; 3. The government effectiveness; 4. The regulatory quality; 5. The rule of law; 6. The control of corruptions.

Appendix B: Measures and indicators by JLL (2014)

JLL (2014)

1. Real estate market transparency (which is characterized by the free flow of high-quality market information, robust regulatory enforcement and fair transaction processes);
2. Connectivity with international real estate capital markets in terms of both capital inflows and outflows;
3. Commercial building offer that is equipped for future generations of corporations, in terms of environmentally-sustainable, resource-efficient and well-managed buildings;
4. Robust domestic and international corporate base in terms of depth and breadth of activities and functions, leading-edge firms, headquarters and high-order activities.

1. Existence of Direct Property Index
2. Reliability of the Index and Extent to which it is Used as a Benchmark of Performance
3. Type of Index (Valuation-based vs. Notional)
4. Length of Direct Property Level Returns Index Time Series
5. Size of Institutional Invested Real Estate Market
6. Market Coverage of Direct Property Index
7. Dominant Type of Listed RE Securities (i.e. Long-term Holders of Real Estate vs. Home developers and Conglomerates)
8. Use of Listed Real Estate Securities Data on the Real Estate Market
9. Years Since the First Commercial Real Estate Company was Listed
10. Value of Public Real Estate Companies as % of GDP
11. Existence of a Domestic Listed Real Estate Index and Its Use as a Benchmark
12. Existence of an International Listed Real Estate Index and Its Use as a Benchmark
13. Length of Public Real Estate Index Time Series
14. Existence of a Domestic Fund Index and Its Use as a Benchmark
15. Existence of International Fund Index and Its Use as a Benchmark
16. Length of Unlisted Fund Index Time Series
17. Independence and Quality of Third-Party Appraisals
18. Use of Market-based Appraisal Approaches
19. Competition in the Market for Valuation Services
20. Frequency of Third-Party Real Estate Proposals
21. Existence and Length of Time Series on Property Rents (Office, Retail, Industrial, and Residential)
22. Existence and Length of Time Series on Take-up/Absorption (Office, Retail, Industrial, and Residential)
23. Existence and Length of Time Series on Vacancy (Office, Retail, Industrial, and Residential)
24. Existence and Length of Time Series on Yields/Cap Rates (Office, Retail, Industrial, Residential, and Hotels)
25. Existence and Length of Time Series on Capital Values (Office, Retail, Industrial, Residential, and Hotels)
26. Existence and Length of Time Series on Investment Volumes (Office, Retail, Industrial, Residential, and Hotels)
27. Existence and Length of Time Series on Revenue per Available Room for Hotels
28. Existence of a Comprehensive Database of Individual Buildings (Office, Retail, Industrial, Residential, and Hotels)
29. Existence of a Comprehensive Database of Leases (Office, Retail, Industrial, Residential, and Hotels)
30. Existence of a Comprehensive Database of Property Transactions (Office, Retail, Industrial, Residential, and Hotels)
31. Stringency of Accounting Standards
32. Level of Detail in Financial Statements
33. Frequency of Financial Statements
34. Availability of Financial Reports in English
35. Manager Compensation and Incentives
36. Use of Outside Directors and International Corporate Governance Best Practice
37. Free Float Share of the Public Real Estate Market
38. Extent to which the Tax Code is Consistently Applied for Domestic Investors
39. Extent to which Real Estate Tax Rates are Predictable for Domestic Investors

40. *Extent to which the Tax Code is Consistently Applied for Foreign Investors*
41. *Extent to which Real Estate Tax Rates are Predictable for Foreign Investors*
42. *Existence of Land Use Rules and Zoning*
43. *Predictability of Changes in Land Use and Zoning*
44. *Enforcement of Land Use Rules and Zoning*
45. *Existence of Building Codes and Safety Standards for Buildings*
46. *Enforcement of Building Codes and Safety Standards for Buildings*
47. *Simplicity of Key Regulations in Contract Law*
48. *Efficiency of the Legal Process*
49. *Level of Contract Enforceability for Domestic Investors*
50. *Level of Contract Enforceability for Foreign Investors*
51. *Existence of Land Registry*
52. *Accessibility of Land Registry Records to Public*
53. *Availability of Title Insurance*
54. *Accuracy of Land Registry Records*
55. *Completeness of Land Registry Records on Ownership*
56. *Completeness of Public Records on Transaction Prices*
57. *Completeness of Public Records on Liens and Easements*
58. *Notice Period Given for Compulsory Purchase*
59. *Fairness of Compensation to Owners in Compulsory Purchase*
60. *Ability to Challenge Compulsory Purchase in Court of Law*
61. *Availability of Data on Real Estate Debt Outstanding*
62. *Availability of Data on Maturities and Originations of Real Estate Loans*
63. *Depth and Length of Real Estate Debt Data*
64. *Data on Delinquency and Default Rates of Commercial Real Estate Loans*
65. *Regulatory Requirements for Lenders to Monitor Property Collateral Values and Cash Flow*
66. *Regulatory Requirements for Lenders to Carry Out Appraisals*
67. *Strength of Regulatory Enforcement*
68. *Quality and Availability of Pre-Sale Information*
69. *Fairness of the Bidding Process*
70. *Confidentiality of the Bidding Process*
71. *Professional and Ethical Standards of Property Agents*
72. *Enforcement of Professional and Ethical Standards of Property Agents*
73. *Providers of Property Management Services Known to Occupiers*
74. *Service Expectations for Property Management Clear to Occupiers*
75. *Alignment of Occupier and Property Manager Interests*
76. *Frequency of Service Charge Reconciliation*
77. *Accuracy and Level of Detail in Service Charge Reports*
78. *Ability for Tenants to Audit Landlord's Accounts and Challenge Discrepancies*

Appendix C: Measures and indicators by Hax & Majluf (1995)

Descriptors	Embryonic	Growth	Mature	Aging
Market Growth Rate	Accelerating; accurate rate cannot be calculated because the base is too small.	Faster than GCP, but constant or decelerating.	Equal to or slower than GDP; cyclical.	Industry volume cycles but declines over long term.
Industry Potential	Difficult to determine.	Substantially exceeds the industry volume, but is subject to unforeseen developments.	Well known; primary markets approach saturation industry volume.	Saturation is reached; no potential remains.
Breadth of Product Lines	Basic product line established.	Rapid proliferation as product lines are extended.	Product turnover, but little or no change in breadth.	Shrinking and increasingly specialized.
Number and Quality of Competitors	Increasingly rapid number of relatively unsophisticated players.	Increasing to peak; followed by shake-out, differentiation, and consolidation.	Stable with increasing capability and segmentation.	Declines, but business may break into many small regional suppliers.
Market Share Stability	Volatile.	A few firms have major shares; rankings can change, but those with minor shares are unlikely to gain major shares.	Firms with major shares are entrenched.	Concentration increased as marginal firms drop out; or shares are dispersed among small local firms.
Purchasing Patterns	Little or none.	Some: buyers are aggressive.	Suppliers are well known; buying patterns are established.	Strong; number of alternatives decreases.
Ease of Entry	Usually easy, but opportunity may not be apparent.	Usually easy; the presence of competitors is offset by vigorous growth.	Difficult; competitors are entrenched, and growth is slowing.	Difficult; little incentive to enter.
Ease of Exit	Legal preclusions, absence of market, high transactions costs.	Developing market; increasing number of buyers.	Strong secondary market; securitization occurring; many buyers and liquidity.	Highly liquid market but weak demand and unattractive market.
Technology and Productivity	Concept development and early product design.	Product line refinement and extension.	Processes and methods refinement; new product line development to spur growth.	Role is minimal as underlying market fundamentals render both technology and productivity less vital.

Appendix D: Provisional measurement tool

1. Macro economy	<ol style="list-style-type: none"> 1. Size of the market (Geltner & Miller, 2006) 2. Invested capital flows (Geltner & Miller, 2006) 3. Market segments (Geltner & Miller, 2006) 4. Market share stability (Hax & Majluf, 1995) 5. Market growth rate (Hax & Majluf, 1995) 6. Ease of entry (Hax & Majluf, 1995) 7. Ease of exit (Hax & Majluf, 1995) 8. Technology and Productivity (Haf & Majluf, 1995) 9. Industry potential (Hax & Majluf, 1995)
2. Transparency	<ol style="list-style-type: none"> 1. Connectivity with international real estate capital markets in terms of both capital inflows and outflows (JLL,2014) 2. Real estate market transparency (which is characterized by the free flow of high-quality market information, robust regulatory enforcement and fair transaction processes) (JLL, 2014) 3. The opportunities for substitution between real estate and non-real estate interests (Keogh & D'Arcy, 1994)
3. Accommodation of a full range of use and investment objectives	<ol style="list-style-type: none"> 1. Commercial building offer that is equipped for future generations of corporations, in terms of environmentally-sustainable, resource-efficient and well-managed buildings (JLL, 2014) 2. The creation of licenses and tenancies (Keogh & D'Arcy, 1994) Quantitative: The level of extensiveness of these licenses and tenancies Qualitative: The quality of licenses and tenancies used in that market 3. Offering wide ranging opportunities to tailor real estate rights (Keogh & D'Arcy, 1994) 4. Effective establishments of district real estate submarkets (Keogh & D'Arcy, 1994) 5. Overcoming problems of invisibility in real estate transactions (Keogh & D'Arcy, 1994) 6. Providing mechanisms for dividing legal interests in specific real estate in smaller lots. (Keogh & D'Arcy, 1994)
4. Flexible market adjustment in both short and long term	<ol style="list-style-type: none"> 1. The availability of a tenancy law (Keogh & D'Arcy, 1994) Quantitative: The level of extensiveness of this law Quantitative: The level of extensiveness of this law 2. The ease of doing business (Keogh & D'Arcy, 1994) 3. The protecting investor's indicator (Keogh & D'Arcy, 1994)
5. Existence of a sophisticated real estate profession with its associated institutions and networks	<ol style="list-style-type: none"> 1. A full-grown real estate education at university and college level (Keogh & D'Arcy, 1994) Quantitative: how many educational providers exist taking in account the size of a country in terms of population Qualitative: of what quality are these educational providers, testable by using the RCS accreditation standards. 2. Renowned institutions on a national and international level (Keogh & D'Arcy, 1994) Quantitative: how many institutions exist taking in account the size of a country in terms of population Qualitative: of what quality are these institutions, testable by using the RCS accreditation standards.
6. Extensive information flows and research activity	<ol style="list-style-type: none"> 1. Establishment of an adequate information base (Keogh & D'Arcy, 1994) Existence Quality of these information base 2. Qualitative research and quantitative analysis open to the public (Keogh & D'Arcy, 1994) Accessibility
7. Standardization of real estate rights and market practice	<ol style="list-style-type: none"> 1. Amount of procedures needed to legally transfer title on immovable real estate (Keogh & D'Arcy, 1994) 2. How much time there is required to complete each procedure (Keogh & D'Arcy, 1994) 3. How much it cost to complete each procedure (% real estate value) (Keogh & D'Arcy, 1994) 4. Robust domestic and international corporate base in terms of depth and breadth of activities and functions, leading-edge firms, headquarters and high-order activities (JLL, 2014)
8. Acceptable level of governance	<ol style="list-style-type: none"> 1. The voice and accountability (Keogh & D'Arcy, 1994) 2. The political stability (Keogh & D'Arcy, 1994) 3. The government effectiveness (Keogh & D'Arcy, 1994) 4. The regulatory quality (Keogh & D'Arcy, 1994) 5. The rule of law (Keogh & D'Arcy, 1994) 6. The control of corruptions (Keogh & D'Arcy, 1994)
9. Other	<ol style="list-style-type: none"> 1. Sustainability 2. Use of open data 3. Technology 4. Culture

Appendix E: Ease of doing business (World Bank, 2014)

Market	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Getting Electricity	Registering Property	Getting Credit	Protecting Minority Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
Singapore	1	6	2	11	24	17	3	5	1	1	19
New Zealand	2	1	13	48	2	1	1	22	27	9	28
Hong Kong SAR, China	3	8	1	13	96	23	2	4	2	6	25
Denmark	4	25	5	14	8	23	17	12	7	34	9
Korea, Rep.	5	17	12	1	79	36	21	25	3	4	5
Norway	6	22	27	25	5	61	12	15	24	8	8
United States	7	46	41	61	29	2	25	47	16	41	4
United Kingdom	8	45	17	70	68	17	4	16	15	36	13
Finland	9	27	33	33	38	36	76	21	14	17	1
Australia	10	7	19	55	53	4	71	39	49	12	14

Appendix F: Interview questions

1. What characteristics should a real estate market have to be attractive to you as an investor /developer/ service provider? (distinction between economic factors, demographic factors, socio-cultural factors and geographical location) Does your company have a standard checklist to judge an investment opportunity
2. Which factors are crucial and do you use weighing?
3. What data are used?
<i>Part 2</i>
There are two categories. A general category of 8 rough characteristics and a refined one with some 35 indicators. First your opinion on the general category;
1. How would you grade these characteristics/indicators in terms of importance?
2. Would you add or skip characteristics/indicators?
3. How would you formulate these? (e.g. open data: processing and use of open data)

Appendix G: Outcomes of the interviews	1. drs. R. Buijtendijk MSc MSRE	2. drs. H. Op't Veld	3. M. Braam-Mesken MRICS	4. drs. R.T. Lie	5. drs. M. van der Spek RBA/CEFA	6. ir. J.E.M. de van der Schueren MRICS	7. drs. H.J. Kok	8. drs. A. Bongenaar	9. M. de With MSc RE	Ir. N. Neary	Dr. E.Mitsostergiou	R.B.M Kroeze MSc	drs. M.A. Wolters MRICS	4. drs. J.M. Lokerse MSRE MRICS	5. S. Bertens	6. drs. A. Colpaert
Q1: Characteristics of a mature market																
Size of the market	X						X		X	X	X	X	X	X	X	X
Market stability /volatility of the market	X		X				X		X		X	X	X	X	X	X
Stability of economic growth		X			X		X		X		X	X	X			
Stability of the local currency		X			X						X					
Number of unemployment						X			X							
Modernity of the economy								X								
Trade tradition								X								
Population				X			X	X	X	X	X	X	X	X	X	X
GDP	X	X			X	X		X		X	X	X	X	X	X	X
Growth of GDP								X	X		X				X	X
Number of households	X								X	X	X	X	X			
Population growth						X		X	X	X	X	X	X	X		
Catchment area of a specific city						X			X	X						
Migration patterns (within country and flow out of the country)								X								
Purchasing power per capita	X						X				X					
Distribution of purchasing power							X									
Percentage of the middle class		X			X											
Certain educational level								X								
Local partners	X		X							X	X	X	X		X	X
Number of potential branches							X									
Geographic location	X*								X	X		X	X			
														X		
Transparency	X			X				X	X	X	X	X	X	X	X	X
Presence of benchmarks/references/yields/vacancies	X			X		X				X	X	X	X	X	X	X

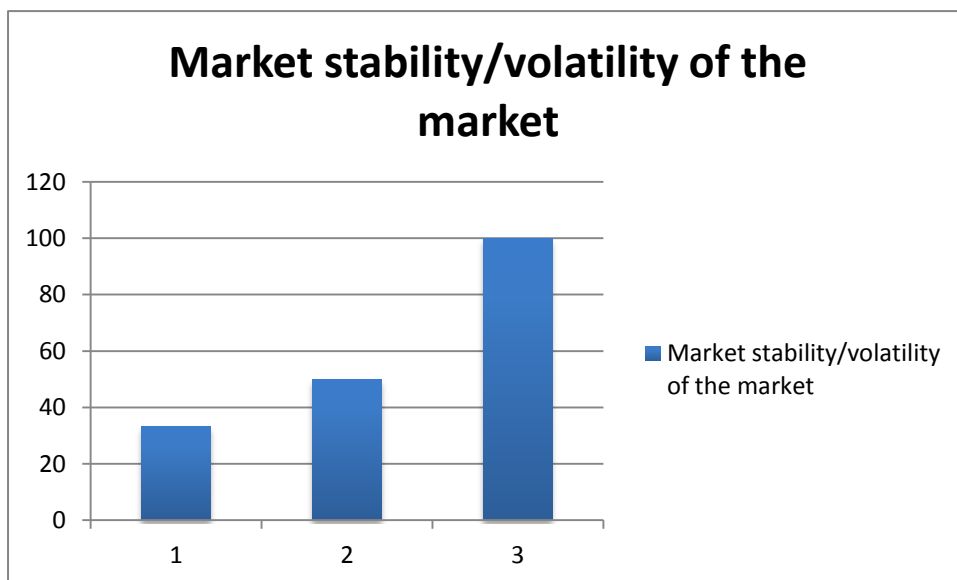
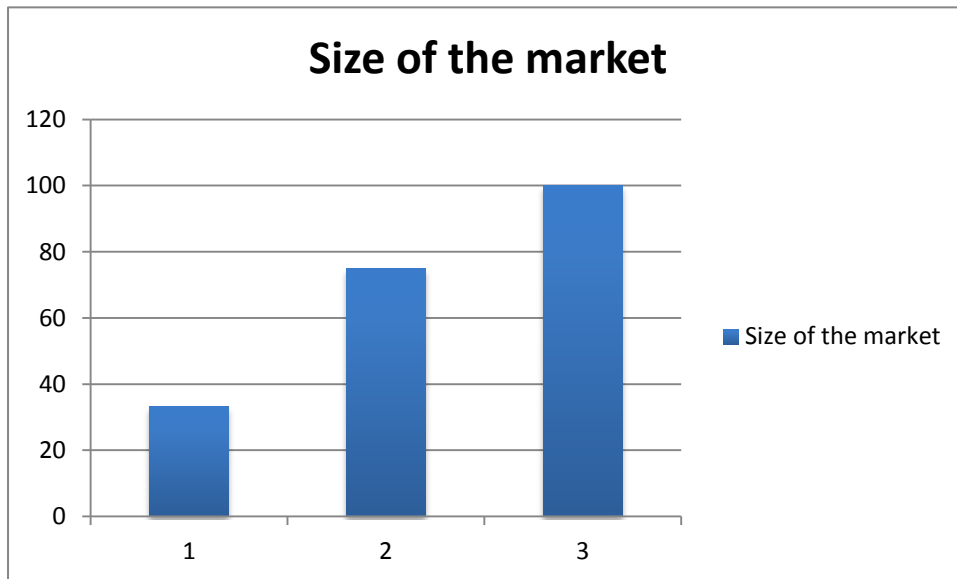
Fiscal legislation	X			X				X						X		
Reliability of institutions	X		X	X					X	X	X	X	X		X	X
Planning			X	X					X							
Degree of governance control			X	X					X	X						
Quality of cadastre				X			X		X	X						
Capturing of property rights			X	X			X		X					X		
Ease of exit			X	X		X				X				X	X	X
Ease of entry							X									
Political risks			X					X			X				X	X
Markets' focus on sustainability						X										
Liquidity			X				X				X					
Access to real estate			X					X							X	
Share of international companies							X	X	X							
Presence of competitors								X	X			X				
Cultural understanding (law & language)							X	X								
Presence and quality of a tenancy law								X								
Polarization in a shopping area cq. city quality measured with tourism, creative professionals, historic points of interest, average age of peoples							X									
Company tool	Syntrus Achmea Real Estate and Finance launches every quarter an outlook report focusing on investment and mortgages focusing on trends and macro-economic numbers (Syntrus Achmea Real Estate	PGGM does not launch reports publicly on attractiveness of markets of what so ever.	CBRE GI launched a report about the merits of international real estate allocation about diversification benefits across markets. The main aspects of defining maturity of real estate as an investment class is market transparency.		CITIC Capital does not launch reports publicly on attractiveness of markets of what so ever.	PGGM does not launch reports publicly on attractiveness of markets of what so ever.	Redevco designed a model to formulate an objective opinion about the attractiveness of markets. Their City Analysis Model helps to understand the fundamental of more than 750 cities and	Multi does not launch reports publicly on attractiveness of markets of what so ever	Acteeum does not launch reports publicly on attractiveness of markets of what so ever	BPD launches market outlook on residential markets in The Netherlands/Germany/Belgium and France, focussing on demographics, economic macro	ASR looks at the macro number of an area. We differentiate between areas and do not use a standardized report.	Savills launches several reports on performance, focusing on investment opportunities rather than settlement for	CBRE launches several market view reports focusing economic aspects as well as demographics and trends.	CBRE launches several market view reports focusing economic aspects as well as demographics and trends.	Cushman & Wakefield launches several market reports so-called snapshots: brief summaries of sectors in key cities, providing commen	JLL uses their Global Real Estate Transparency Index

	and Finance, 2015)						1440 regions in eighteen countries based on twenty variables with regard to population, economy, city quality and real estate market.			number and the structure of the residential markets		corporate occupiers.			t on recent trends as well as market data and analysis	
Other	Buitendijk (Research Analyst International Real Estate at Syntrus Achmea Real Estate and Finance) indicates that it depends on the risk profile of the investor and the type of real estate (resp. office, retail, residential and so on) what phase of maturity is interesting	Another aspect is the considering of overhead costs. If conducting research ahead of investment is rather costly, few benchmarks are available, not only could the investment be less valuable, also less competitors are present which endangers the exit possibility														
Data used	Global Real Estate Transparency Index by JLL, Governance Indicators by the World bank, benchmarks from IPD concerning	PGGM Investments uses demographic data as well as statistics as EUROSTAT, CBS. Real estate data used are PMI, IPD,				PGGM Investments uses demographic data as well as statistics as EUROSTAT, CBS. Real estate data used are PMI,			Real estate service providers, municipalities, independent market researchers since academic							

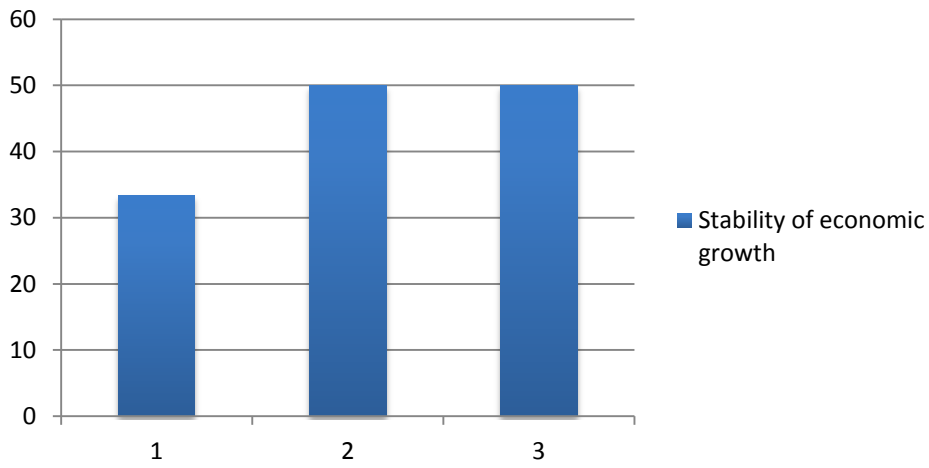
	risk and return, numbers relating to liquidity (research by real estate service providers).	CoStar, SNL and research by real estate service providers. Noteworthy by PGGM Investment that these benchmark focus on historical data rather than forecasting.				IPD, CoStar, SNL and research by real estate service providers. Noteworthy by PGGM Investment that these benchmark focus on historical data rather than forecasting.			analysis is necessary .							
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Appendix H: Graphical differences measures between perspectives

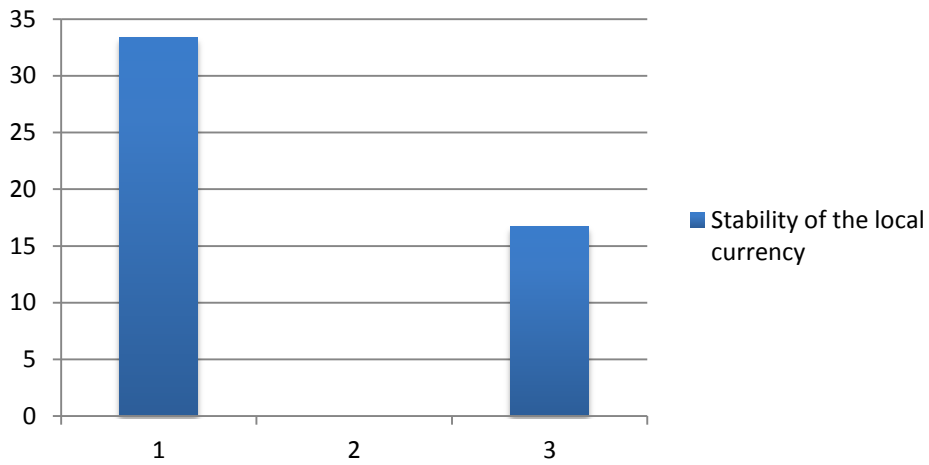
(1 stands for the percentage investors, 2 for the percentage developers, 3 for the percentage real estate service providers who mentioned the measure)



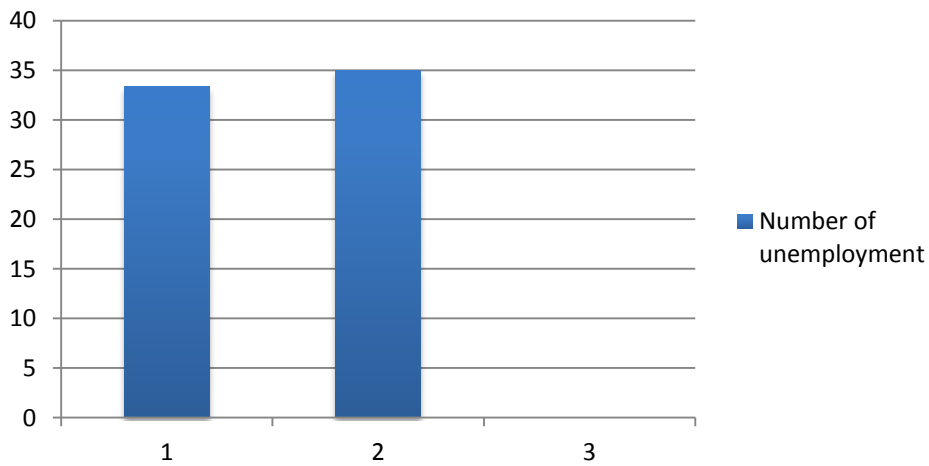
Stability of economic growth



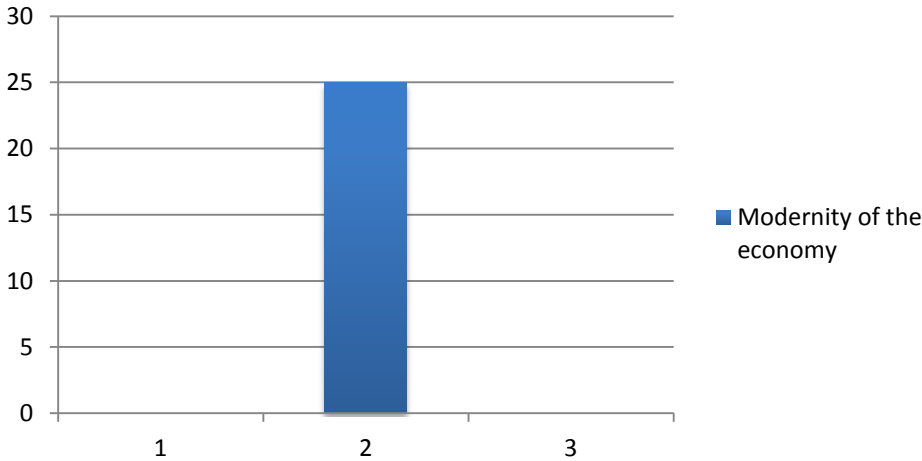
Stability of the local currency



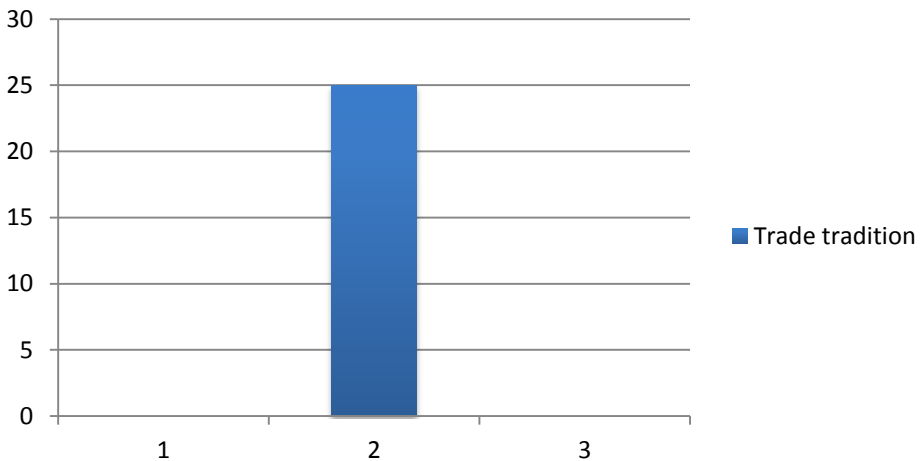
Number of unemployment



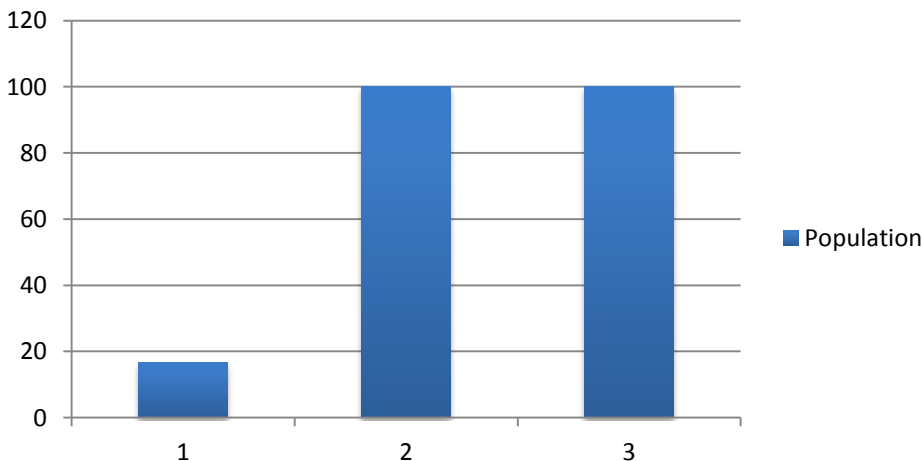
Modernity of the economy

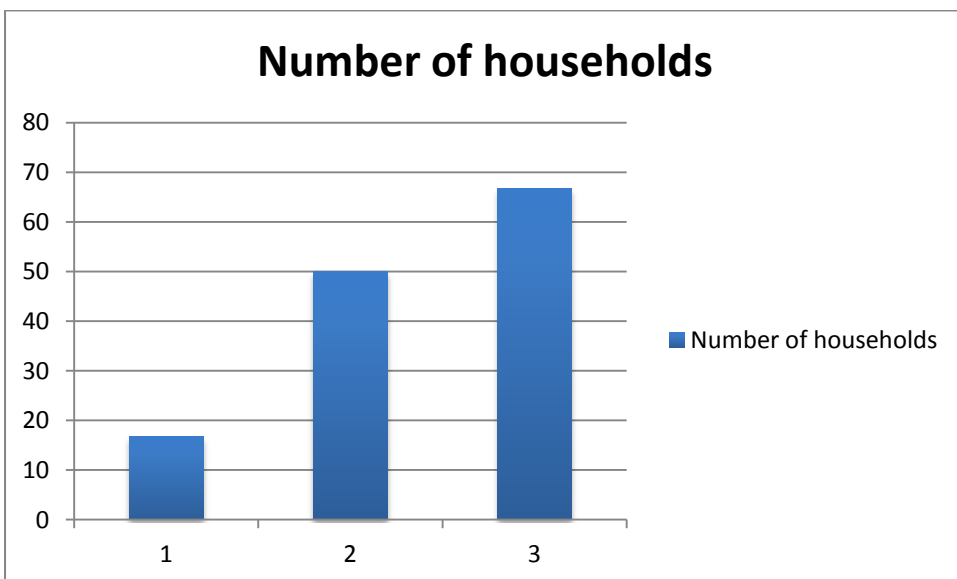
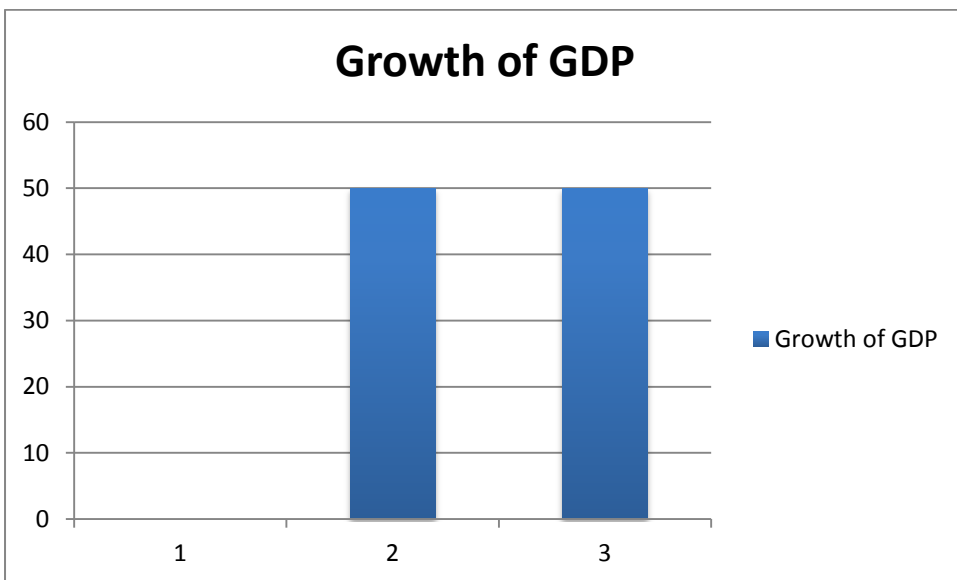
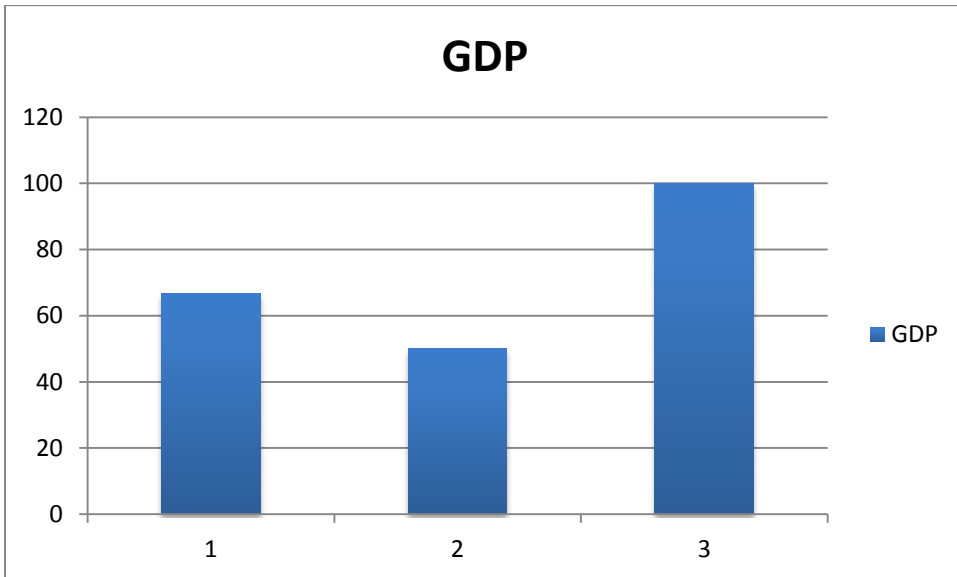


Trade tradition

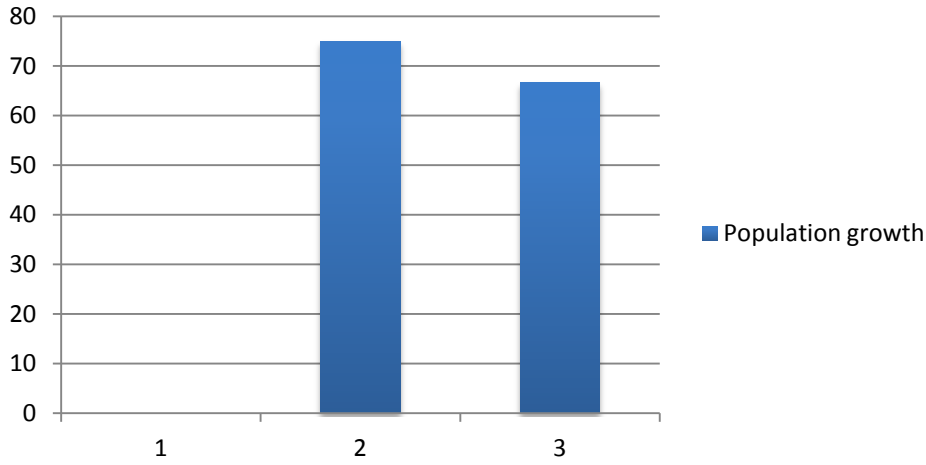


Population

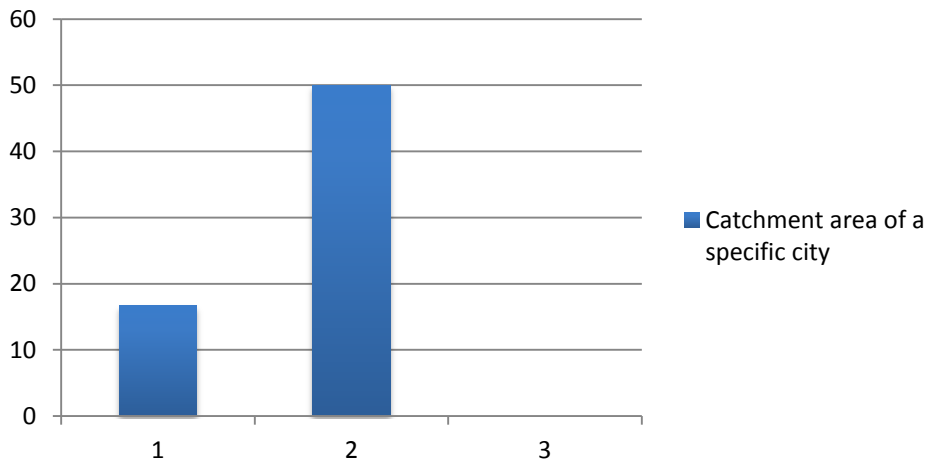




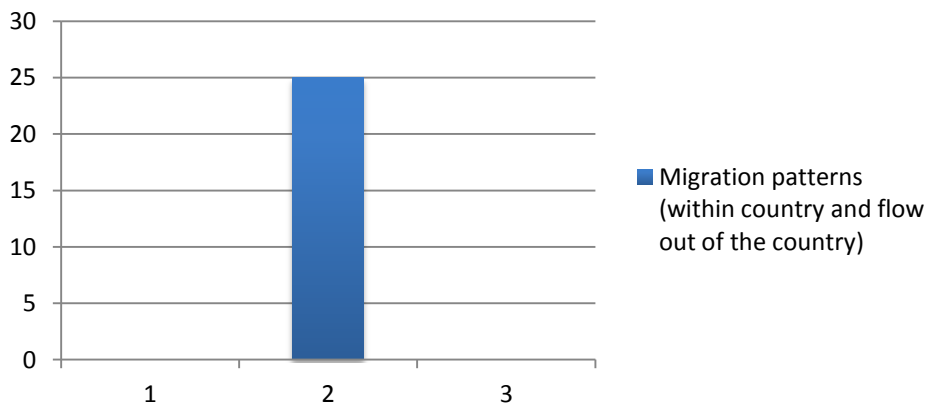
Population growth



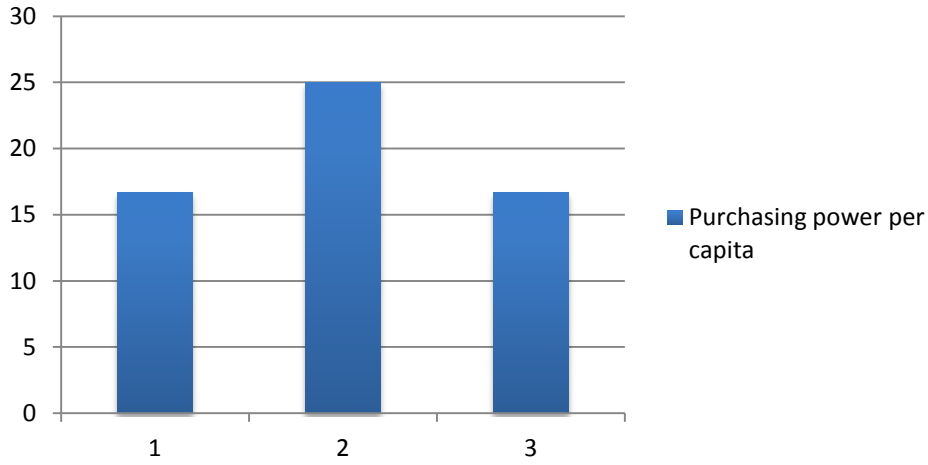
Catchment area of a specific city



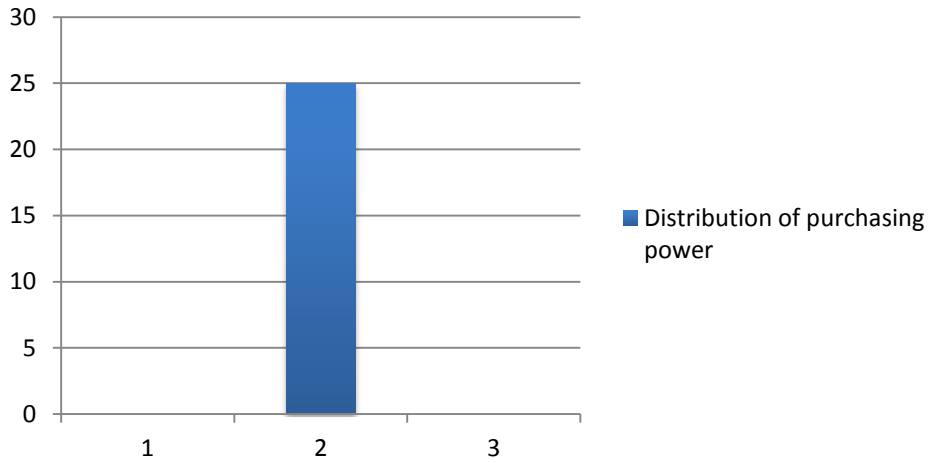
Migration patterns (within country and flow out of the country)



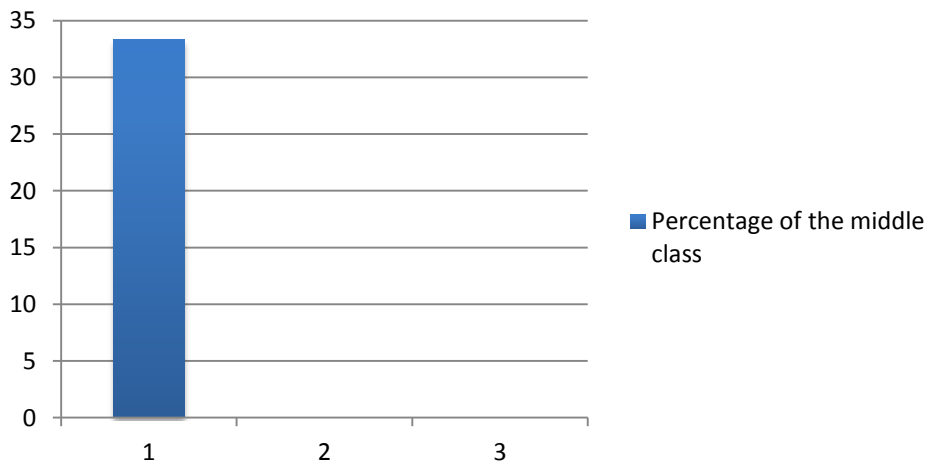
Purchasing power per capita



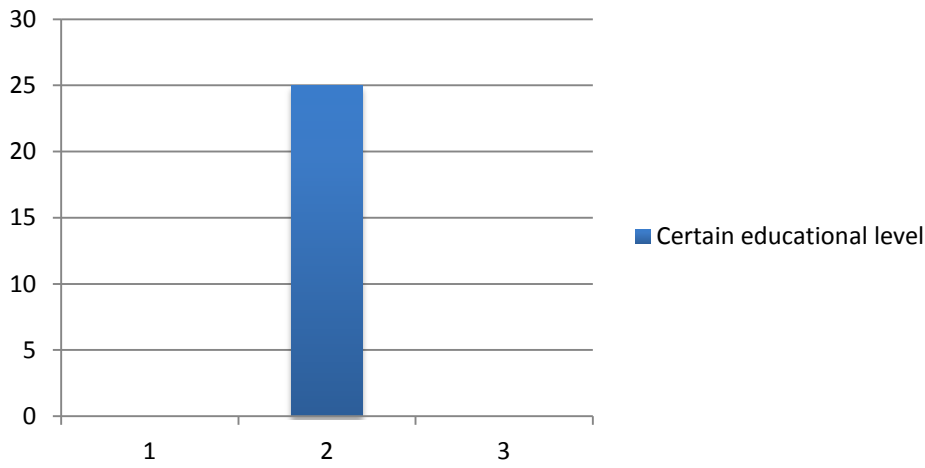
Distribution of purchasing power



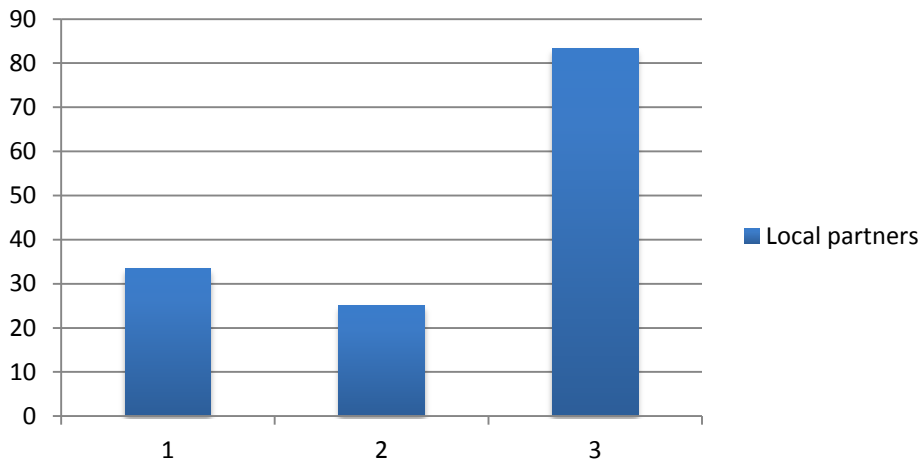
Percentage of the middle class



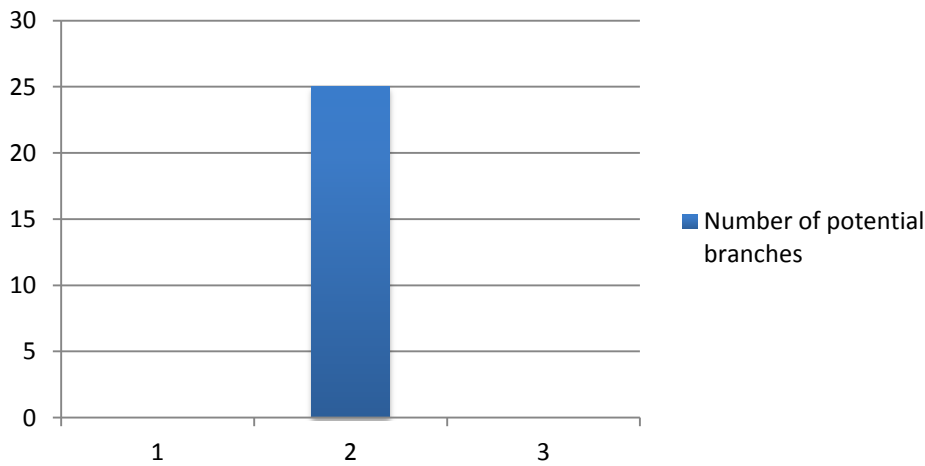
Certain educational level



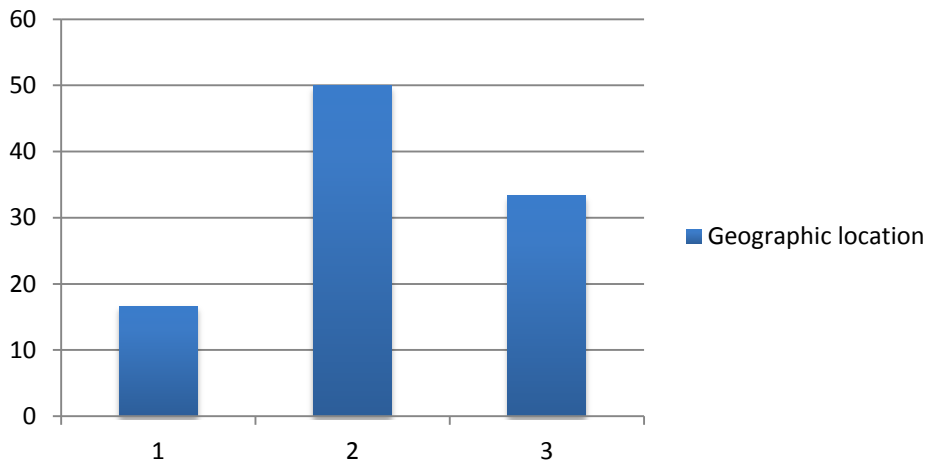
Local partners



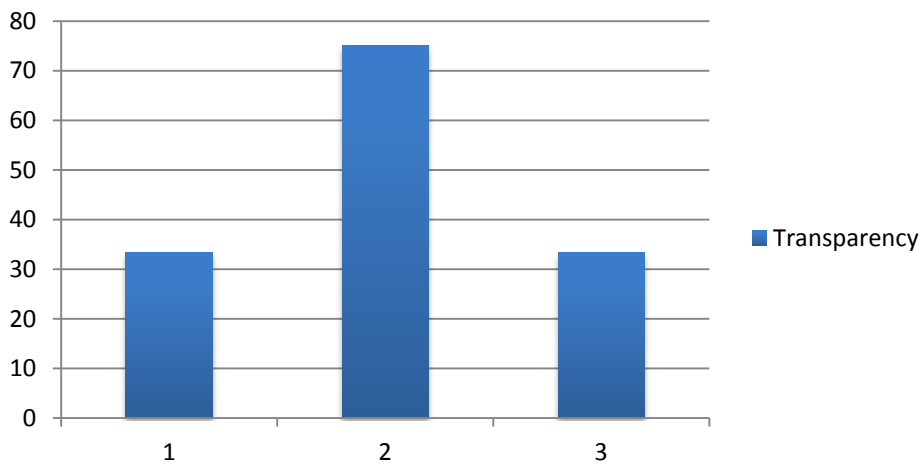
Number of potential branches



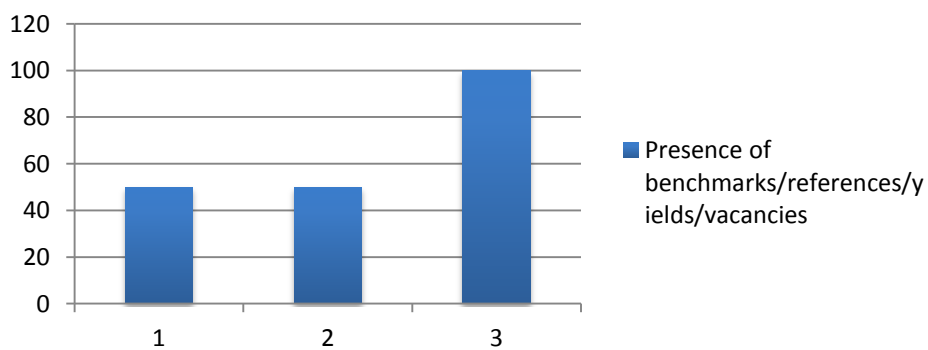
Geographic location



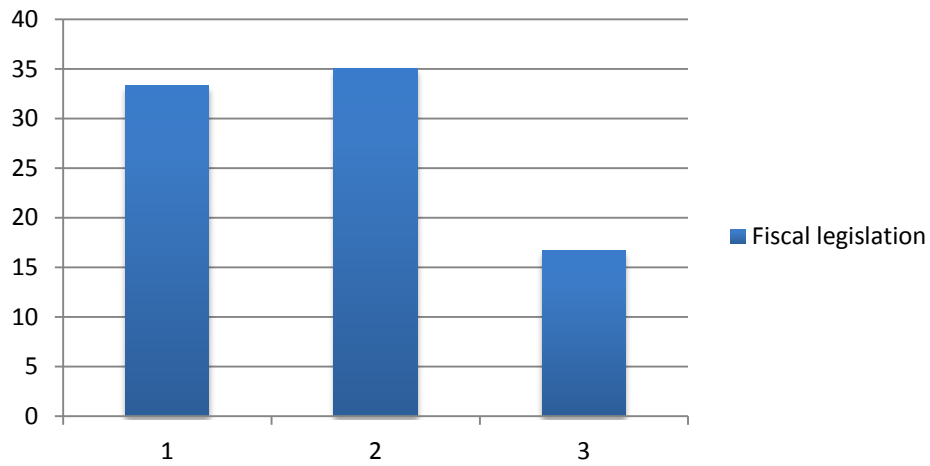
Transparency



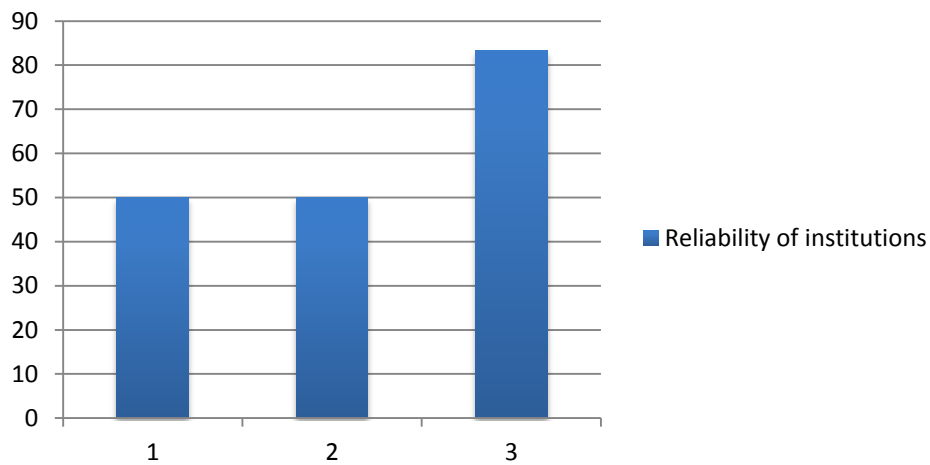
Presence of benchmarks/references/yields/vacancies



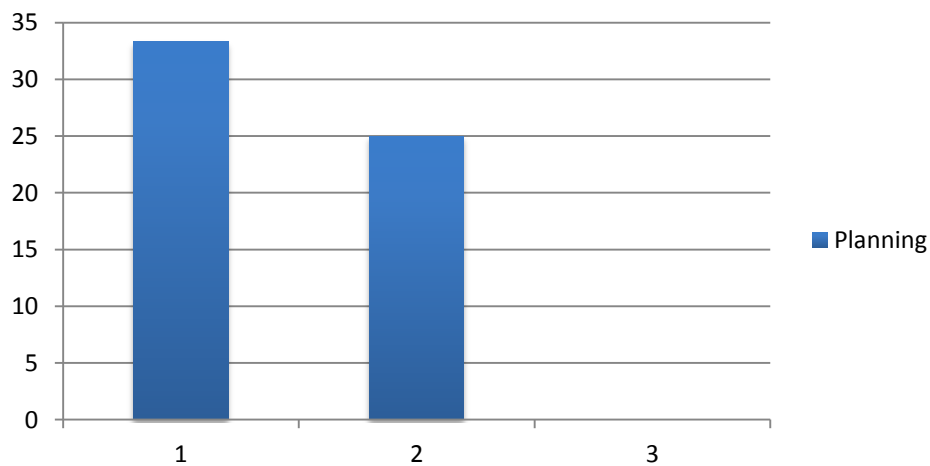
Fiscal legislation



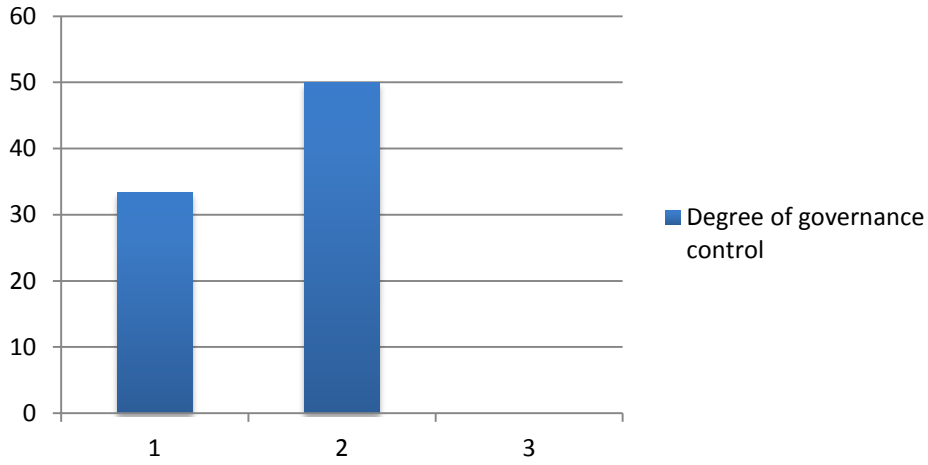
Reliability of institutions



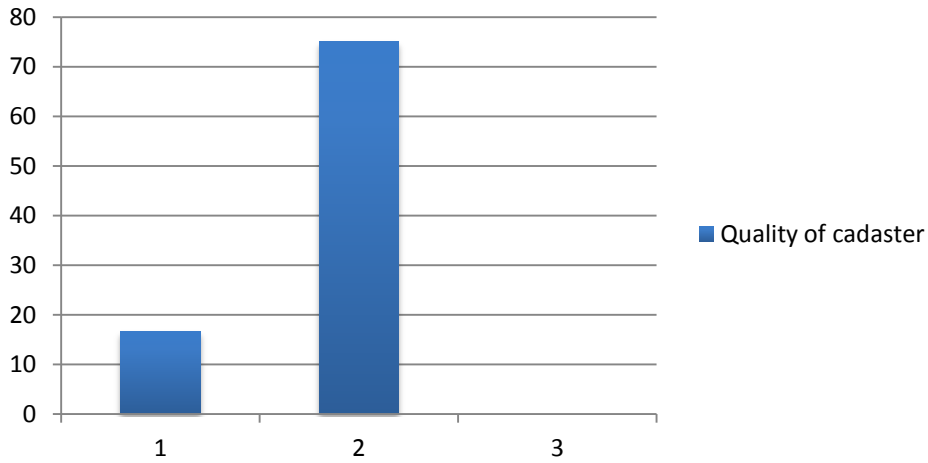
Planning



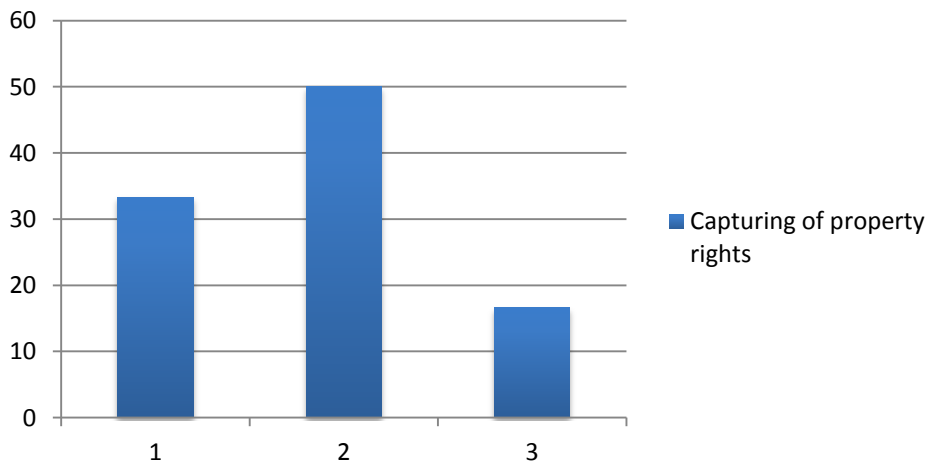
Degree of governance control



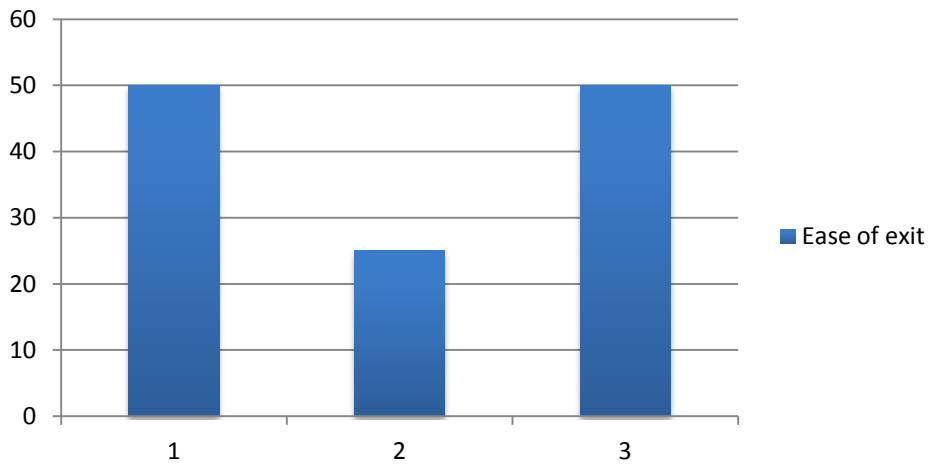
Quality of cadaster



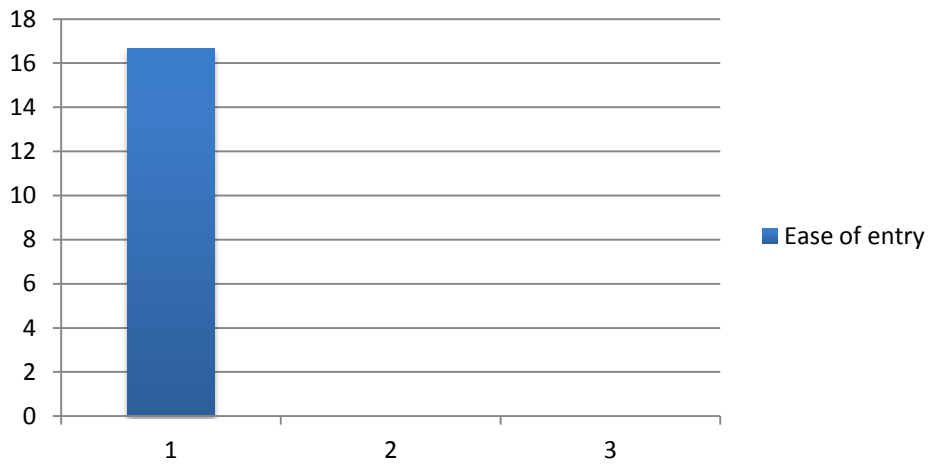
Capturing of property rights



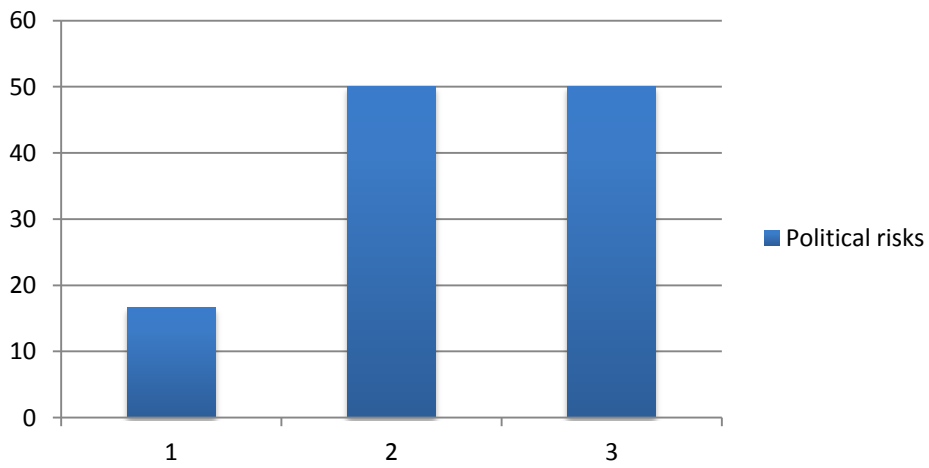
Ease of exit



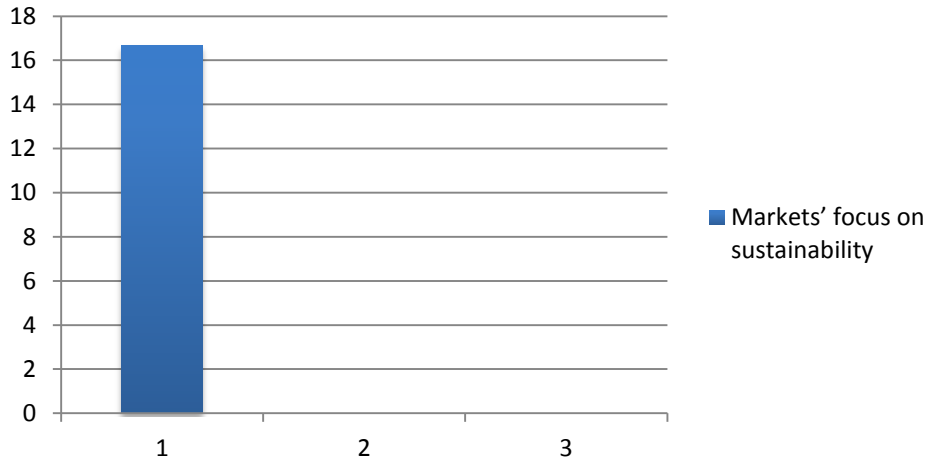
Ease of entry



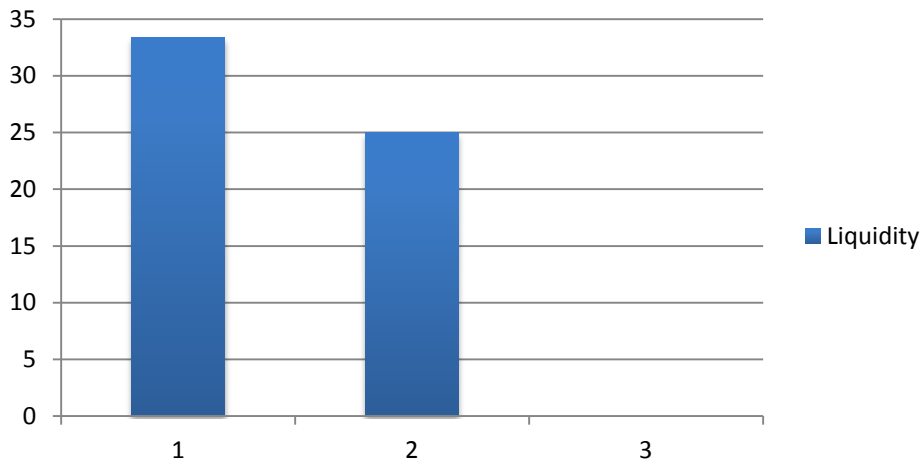
Political risks



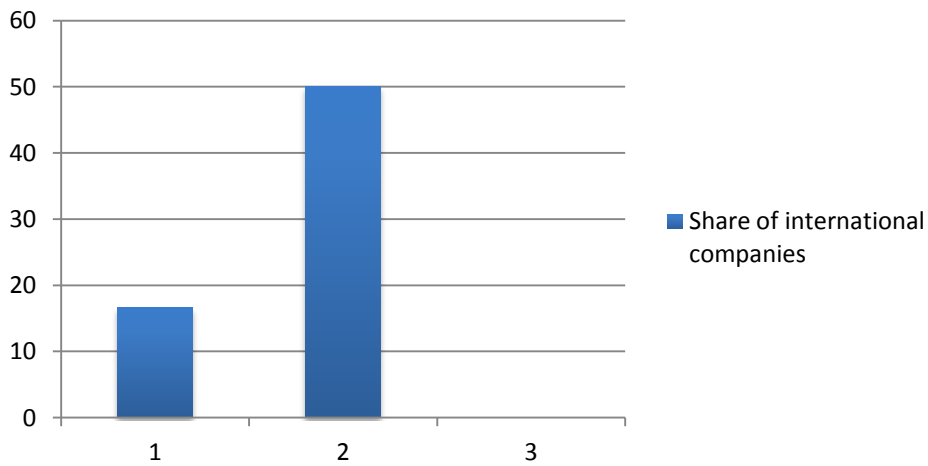
Markets' focus on sustainability



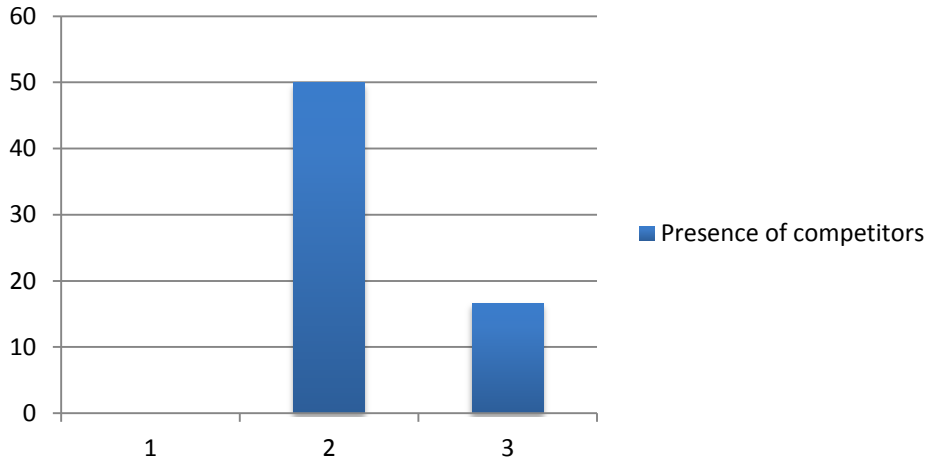
Liquidity



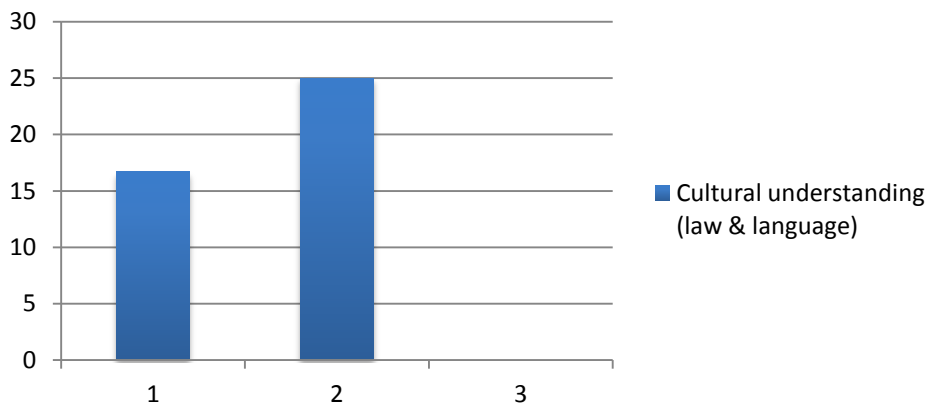
Share of international companies



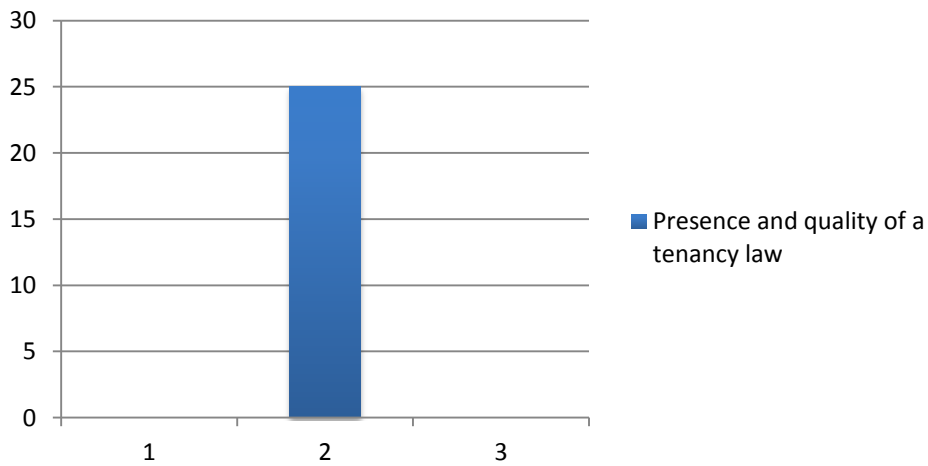
Presence of competitors



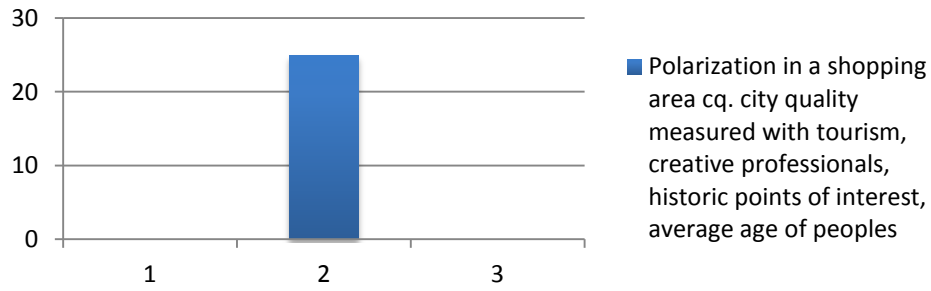
Cultural understanding (law & language)



Presence and quality of a tenancy law



Polarization in a shopping area cq. city quality measured with tourism, creative professionals, historic points of interest, average age of peoples



Appendix I: Graded measurement tool

	CITIC	REDEVCO	CBRE GI	SYNTRUS	PGGM	MEAN	BPD	ASR	ACTEUM	MULTI	MEAN	CBRE	SAVILLS	JLL	C&W	MEAN
1. Scale (Invested capital / Size of the market)	7	8	7	9	8	7,8	8	10	8	8	8,5	6	6	7	7	6,5
2. Invested capital flows	6	9	7	8	6	7,2	7	8	8	4	6,75	6	6	4	6	5,5
3. Market share stability	6	7	7	8	6	6,8	6	7	8	5	6,5	4	2	6	6	4,5
4. Market growth rate	1	8	7	6	7	5,8	8	8	8	6	7,5	8	9	6	6	7,25
5. Ease of entry	9	8	7	7	6	7,4	6	6	7	7	6,5	7	7	6	6	6,5
6. Ease of exit	9	10	9	7	6	8,2	9	6	8	7	7,5	7	9	80	6	25,5
7. Technology, Innovation and Productivity	5	6	6	5	3	5	6	7	6	6	6,25	6	6	6	6	6
8. Industry potential	1	6	7	5	3	4,4	4	6	6	7	5,75	7	6	8	7	7
1. Connectivity with international real estate capital markets in terms of both capital inflows and outflows	9	9	7	8	5	7,6	7	4	9	5	6,25	8	7	7	7	7,25
2. Real estate market transparency (which is characterized by the free flow of high-quality market information, robust regulatory enforcement and fair transaction processes)	10	7	7	9	8	8,2	8	8	7	7	7,5	8	9	8	10	8,75
3. The opportunities for substitution between real estate and non-real estate interests	5	5	7	5	2	4,8	1	4	4	3	3	2	6	7	6	5,25
1. Commercial building offer that is equipped for future generations of corporations, in terms of environmentally-sustainable, resource-efficient and well-managed buildings	7	5	7	5	8	6,4	1	4	6	1	3	6	6	6	6	6
2. The creation of licenses and tenancies	5	8	6	7	6	6,4	2	6	7	1	4	7	6	8	8	7,25
Quantitative: The level of extensiveness of these licenses and tenancies	5	8	7	7	4	6,2	2	7	7	1	4,25	7	6	8	7	7
Qualitative: The quality of licenses and tenancies used in that market	5	10	7	7	6	7	2	7	7	1	4,25	7	7	8	7	7,25
3. Offering wide ranging opportunities to tailor real estate rights	8	7	7	6	5	6,6	5	8		1	3,5	7	7	7	7	7
4. Effective establishments of district real estate submarkets	8	5	7	7	6	6,6	6	8	3	1	4,5	3	5	5	5	4,5
5. Overcoming problems of invisibility in real estate transactions	1	8	7	7	4	5,4	6	9		1	4	8	6	7	6	6,75
6. Providing mechanisms for dividing legal interests in specific real estate in smaller lots	5	8	6	5	4	5,6	4		2	1	1,75	5	5	5	5	5
1. The availability of a tenancy law	5	8	7	8	7	7	3	8	8	8	6,75	9	9	9	9	9
Quantitative: The level of extensiveness of this law	5	8	7	8	7	7	3	8	8	8	6,75	9	9	8	9	8,75
Quantitative: The level of extensiveness of this law	5	8	7	8	7	7	3	8	8	8	6,75	9	9	8	9	8,75
2. The ease of doing business	9	6	7	8	5	7	10	7	7	6	7,5	8	9	8	9	8,5
3. The protecting investor's indicator	9	7	7	9	7	7,8	10	4		7	5,25	8	9	8	9	8,5
1. A full-grown real estate education at university and college level	6	3	7	5	4	5	8	4		5	4,25	3	5	5	5	4,5
Quantitative: how many educational providers exist taking in account the size of a country in terms of population	5	3	6	5	4	4,6	4	4	6	5	4,75	3	5	5	5	4,5
Qualitative: of what quality are these educational providers, testable by using the RICS accreditation standards.	8	5	6	5	4	5,6	8	4	6	5	5,75	3	5	5	5	4,5
2. Renowned institutions on a national and international level	6	4	6	7	4	5,4	8	4		5	4,25	5	5	5	5	5
Quantitative: how many institutions exist taking in account the size of a country in terms of population	5	4	6	7	4	5,2	7	4	6	5	5,5	2	5	5	5	4,25
Qualitative: of what quality are these institutions, testable by using the RICS accreditation standards.	8	5	6	7	4	6	9	4	6	5	6	6	6	6	5	5,75
1. Establishment of an adequate information base	7	6	7	9	7	7,2	8	8	6	7	7,25	8	9	8	8	8,25
Existence	7	6	6	7	7	6,6	7	8	6	7	7	8	9	8	8	8,25
Quality of these information base	9	5	8	9	7	7,6	8	8	6	7	7,25	8	9	8	8	8,25
2. Qualitative research and quantitative analysis open to the public	9	5	6	8	6	6,8	8	8	6	7	7,25	8	9	8	8	8,25
Accessibility	9	4	6	8	6	6,6	7	8	6	7	7	8	9	8	8	8,25
1. Amount of procedures needed to legally transfer title on immovable real estate	8	8	6	7	7	7,2	8	6	7	5	6,5	8	9	9	7	8,25
2. How much time there is required to complete each procedure	8	7	6	7	5	6,6	8	7	7	5	6,75	7	7	7	7	7
3. How much it cost to complete each procedure (% real estate value)	7	7	6	7	8	7	10	6	7	5	7	6	6	6	7	6,25
4. Robust domestic and international corporate base in terms of depth and breadth of activities and functions	8	8	6	7	5	6,8	8	5		1	3,5	7	7	7	7	7
1. The voice and accountability	8	8	7	7	8	7,6	7	7		7	5,25		6	6	6	4,5
2. The political stability	10	8	9	7	7	8,2	10	7	7	5	7,25	7	9	10	8	8,5
3. The government effectiveness	9	8	8	7	6	7,6	8	7	7	7	7,25	7	7	6	8	7
4. The regulatory quality	10	8	7	8	7	8	8	7	7	7	7,25	8	7	7	8	7,5
5. The rule of law	10	8	7	8	8	8,2	7	7	9	8	7,75	8	7	7	8	7,5
6. The control of corruptions	10	8	8	8	7	8,2	8	7	8	8	7,75	8	9	6	8	7,75
1. Sustainability	8	6	8	3	9	6,8	7	6	7	6	6,5	3	6	7	6	5,5
2. Use of open data	8	6	7	3	3	5,4	9	6	6	7	7	3	6	7	6	5,5

Appendix J: Descending grades

Investors		Developers		Real Estate Service Providers	
Ease of exit	8,2	Scale (Invested capital / Size of the market)	8,5	The availability of a tenancy law	9
Real estate market transparency	8,2	The rule of law	7,75	Real estate market transparency	8,75
The political stability	8,2	The control of corruptions	7,75	Quantitative: The level of extensiveness of this law	8,75
The rule of law	8,2	Market growth rate	7,5	Quantitative: The level of extensiveness of this law	8,75
The control of corruptions	8,2	Ease of exit	7,5	The ease of doing business	8,5
The regulatory quality	8	Real estate market transparency	7,5	The protecting investor's indicator	8,5
Scale (Invested capital / Size of the market)	7,8	The ease of doing business	7,5	The political stability	8,5
The protecting investor's indicator	7,8	Establishment of an adequate information base	7,25	Establishment of an adequate information base	8,25
Connectivity with international real estate capital markets in terms of both capital inflows and outflows	7,6	Quality of these information base	7,25	Existence	8,25
Quality of these information base	7,6	Qualitative research and quantitative analysis open to the public	7,25	Quality of these information base	8,25
The voice and accountability	7,6	The political stability	7,25	Qualitative research and quantitative analysis open to the public	8,25
The government effectiveness	7,6	The government effectiveness	7,25	Accessibility	8,25
Ease of entry	7,4	The regulatory quality	7,25	Amount of procedures needed to legally transfer title on immovable real estate	8,25
Invested capital flows	7,2	Existence	7	The control of corruptions	7,75
Establishment of an adequate information base	7,2	Accessibility	7	Ease of exit	7,5
Amount of procedures needed to legally transfer title on immovable real estate	7,2	How much it cost to complete each procedure (% real estate value)	7	The regulatory quality	7,5
Qualitative: The quality of licenses and tenancies used in that market	7	Use of open data	7	The rule of law	7,5
The availability of a tenancy law	7	Invested capital flows	6,75	Market growth rate	7,25
Quantitative: The level of extensiveness of this law	7	The availability of a tenancy law	6,75	Connectivity with international real estate capital markets in terms of both capital inflows and outflows	7,25
Quantitative: The level of extensiveness of this law	7	Quantitative: The level of extensiveness of this law	6,75	The creation of licenses and tenancies	7,25
The ease of doing business	7	Quantitative: The level of extensiveness of this law	6,75	Qualitative: The quality of licenses and tenancies used in that market	7,25
How much it cost to complete each procedure (% real estate value)	7	How much time there is required to complete each procedure	6,75	Industry potential	7
Market share stability	6,8	Market share stability	6,5	Quantitative: The level of extensiveness of these licenses and tenancies	7
Qualitative research and quantitative analysis open to the public	6,8	Ease of entry	6,5	Offering wide ranging opportunities to tailor real estate rights	7
Robust domestic and international corporate base in terms of depth and breadth of activities and functions	6,8	Amount of procedures needed to legally transfer title on immovable real estate	6,5	How much time there is required to complete each procedure	7
Sustainability	6,8	Sustainability	6,5	Robust domestic and international corporate base in terms of depth and breadth of activities and functions	7
Offering wide ranging opportunities to tailor real estate rights	6,6	Technology, Innovation and Productivity	6,25	The government effectiveness	7
Effective establishments of district real estate submarkets	6,6	Connectivity with international real estate capital markets in terms of both capital inflows and outflows	6,25	Overcoming problems of invisibility in real estate transactions	6,75
Existence	6,6	Qualitative: of what quality are these institutions, testable by using the RICS accreditation standards.	6	Scale (Invested capital / Size of the market)	6,5
Accessibility	6,6	Industry potential	5,75	Ease of entry	6,5
How much time there is required to complete each procedure	6,6	Qualitative: of what quality are these educational providers, testable by using the RICS accreditation	5,75	How much it cost to complete each procedure (% real estate value)	6,25

Commercial building offer that is equipped for future generations of corporations, in terms of..]	6,4	standards.			
		Quantitative: how many institutions exist taking in account the size of a country in terms of population	5,5		Technology, Innovation and Productivity
The creation of licenses and tenancies	6,4	The protecting investor's indicator	5,25		Commercial building offer that is equipped for future generations of corporations, in terms of
Quantitative: The level of extensiveness of these licenses and tenancies	6,2	The voice and accountability	5,25		Qualitative: of what quality are these institutions, testable by using the RICS accreditation standards.
Qualitative: of what quality are these institutions, testable by using the RICS accreditation standards.	6	Quantitative: how many educational providers exist taking in account the size of a country in terms of population	4,75		Invested capital flows
Market growth rate	5,8	Effective establishments of district real estate submarkets	4,5		Sustainability
Providing mechanisms for dividing legal interests in specific real estate in smaller lots	5,6	Quantitative: The level of extensiveness of these licenses and tenancies	4,25		Use of open data
Qualitative: of what quality are these educational providers, testable by using the RICS accreditation standards.	5,6	Qualitative: The quality of licenses and tenancies used in that market	4,25		The opportunities for substitution between real estate and non-real estate interests
Overcoming problems of invisibility in real estate transactions	5,4	A full-grown real estate education at university and college level	4,25		Providing mechanisms for dividing legal interests in specific real estate in smaller lots
Renowned institutions on a national and international level	5,4	Renowned institutions on a national and international level	4,25		Renowned institutions on a national and international level
Use of open data	5,4	The creation of licenses and tenancies	4		Market share stability
Quantitative: how many institutions exist taking in account the size of a country in terms of population	5,2	Overcoming problems of invisibility in real estate transactions	4		Effective establishments of district real estate submarkets
Technology, Innovation and Productivity	5	Offering wide ranging opportunities to tailor real estate rights	3,5		A full-grown real estate education at university and college level
A full-grown real estate education at university and college level	5	Robust domestic and international corporate base in terms of depth and breadth of activities and functions	3,5		Quantitative: how many educational providers exist taking in account the size of a country in terms of population
The opportunities for substitution between real estate and non-real estate interests	4,8	The opportunities for substitution between real estate and non-real estate interests	3		Qualitative: of what quality are these educational providers, testable by using the RICS accreditation standards.
Quantitative: how many educational providers exist taking in account the size of a country in terms of population	4,6	Commercial building offer that is equipped for future generations of corporations, in terms of	3		The voice and accountability
Industry potential	4,4	Providing mechanisms for dividing legal interests in specific real estate in smaller lots	1,75		Quantitative: how many institutions exist taking in account the size of a country in terms of population

Appendix K: Adjusted measurement tool

1. Real Estate Transparency
2. The political stability
3. The control for corruptions
4. The rule of law
5. The ease of exit
6. The ease of doing business
7. Scale (Invested capital / Size of the market)
8. The regulatory quality

9. The availability of a tenancy law
Quantitative: The level of extensiveness of this law
Quantitative: The level of extensiveness of this law
10. Establishment of an adequate information base
Existence
Quality of these information base
11. Qualitative research and quantitative analysis open to the public
Accessibility
12. Amount of procedures needed to legally transfer title on immovable real estate
How much time there is required to complete each procedure
How much it cost to complete each procedure (% real estate value)
13. The government effectiveness
14. The protecting investor's indicator
15. Connectivity with international real estate capital markets in terms of both capital inflows and outflows
16. Market growth rate
17. Ease of entry
18. Invested capital flows
19. Sustainability
20. The creation of licenses and tenancies
Quantitative: The level of extensiveness of these licenses and tenancies
Qualitative: The quality of licenses and tenancies used in that market
21. Use of open data
22. Market share stability
23. Voice and Accountability
24. Robust domestic and international corporate base in terms of depth and breadth of activities and functions
25. Technology, Innovation and Productivity
26. Industry potential
27. Offering wide ranging opportunities to tailor real estate rights