Approaches for Institutional Investors in the Netherlands to increase the middle rent segment stock

Ana Luiza Barros | Master thesis | June 2020

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Colophon

PERSONAL INFORMATION

Ana Luiza Ferreira Veiga Barros
4914511
Date: 30.06.2020

Contact information
Email: analu.barros@gmail.com

THESIS SUPERVISORS

Graduation phase | P5
Date of proposal | 23.06.2020
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Course | MBE Graduation Laboratory
1st mentor | Dr. Ilir Nase
2nd mentor | Dr. Peter Boelhower
Delegate of the board | Dr. Peter Eigenraam

EDUCATION

Institution | Delft University of Technology
Faculty | Architecture & the Built Environment
Master | Architecture, Urbanism & Building Sciences
Mastertrack | Management in the Built Environment
Scientific domains | Housing Management (HM)
Real Estate Management (REM)

Preface

The complexity of the housing market, as well as the elaborated forms of investments in real estate, makes it an interesting object of study. The housing market is a dominant segment as it encompasses the vast majority of the built real estate. In the Netherlands, 92% of all real estate stock accounts for housing (Rabobank, 2018). Thus, individuals should be accommodated within this stock in a manner in which their needs are met. However, in The Netherlands, the right to live in a suitable dwelling has been jeopardized by the lack of stimulus for the rental segment if compared to the social and to the owner-occupied segment. Also, the current market conditions hamper the accommodation of individuals in the middle-income segment.

Notwithstanding, the demand for dwellings in the segment is not met. As so, the population that earns more than the threshold of social housing but not enough to be part of the owner-occupied segment is harmed as they have to settle further or settle in dwellings that are unsuitable for their needs. Increasing the middle segment is, therefore, of utmost importance to restore a healthy housing market and to meet the needs of the population that rely on that housing segment. Institutional investors play an important role in increasing the segment and are part of the solution to increasing the stock. In this regard, this thesis makes recommendations to assist these actors in doing so.

The Dutch housing market and its complexities caught my attention due to how its structure, players and drivers have a direct impact on the population. It is fascinating how the manner the market is organized sets conditions to the way people live. Spending almost one year understanding the housing market and the development process of the middle segment was laborious but also compensating as this study can be used to guide or assist a part of the population that requires change. By completing this thesis my time as a master student at TU Delft comes to an end. However, the knowledge that was created here can be hopefully carried on and used in further matters.

Moreover, the research process was important for the outcome of this thesis. It can be said that the final product of the thesis is a reflection of hard work, decision making and many cups of coffee. But help and support during the process were also of utmost importance. In this regard, I would like to thank my graduation tutors Ilir Nase and Peter Boelhower for their time, patience, thorough explanations and insightful inquiries that were made throughout the process. Secondly, I would also like to thank the research participants for their insights and inputs. Their experience and point of view were essential for this research. Finally, a special thanks to all my family and friends for their support and for appeasing the stressful days. Thank you for believing and being there along the way.

I hope you enjoy reading this thesis.

Ana Luiza Ferreira Veiga Barros
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Abstract

Purpose: The Dutch housing market is under pressure. Shifts on the drivers, structures and economic factors of the residential market are causing the middle-segment to be excluded from it. As a consequence, the middle-segment rental stock needs to increase. Institutional investors are willing to develop middle-segment rental dwellings, but they have already missed out on an opportunity of using available resources for this purpose. However, they still have a chance to do so with new investment funds. Therefore, the development process and the market of the middle segment was researched so that pitfalls that halt the delivery of the middle-rental stock could emerge. These pitfalls were discussed through semi-structured interviews with institutional investors and knowledge experts so they could be validated and expanded. As a result, recommendations that solve the pitfalls were created. These recommendations thereby aim to increase the middle-segment rental stock.

Research question: How can institutional investors increase the delivery of the middle rent segment?

Methodology: A qualitative approach is used to answer the papers main question. First, a literature review about the housing market and the development process in which institutional investors takes part is conducted. Later, semi-structured interviews with institutional investors are carried out. The collected information is then used to create recommendations to increase the middle-rental stock.

Conclusion: Recommendations aimed at institutional investors and municipalities were tailored. Capacity-building, diversifying, shaping and stimulus instruments were used for this purpose. In this regard, investors should pursue measures such as the diversification of their portfolio by investing in various cities, having a holding period of 10 to 15 years, setting up a program of requirements and making a public statement of intentions. While municipalities should develop a framework to guide investors, establish a tax break for investments in the G4 cities, make use of ground lease, focus on quality when issuing a tender, establish a tax break for developers and increase skills and capability of their workers.

Limitations: This research focuses on institutional investors and therefore, the perspective of developers and municipalities about the pitfalls was not collected. Thus, the outcomes of the research are upheld by institutional investors but not by the two other actors of the development process. Further research that collects the point of view of developers and municipalities should be conducted.

Keywords: middle-segment, institutional investors, rental segment, Dutch housing market, affordable housing

Executive summary

Problem statement and research objective

The Dutch housing market is divided upon the commercial market and the non-for-profit. The last is a service of general economic interest (SGEI) in which the government has intervened since 1901 (European commission, n.d.). It is currently a regularized segment and housing associations are responsible for providing this housing service (BNG Bank, 2017). Nonetheless, the owner-occupied sector, of the commercial housing market, has also received support by the Dutch government through mortgage interest deductibility. This segment, therefore, becomes highly attractive since paying for mortgage debt is currently cheaper than paying for rents in the private sector (Hekwolter et al. 2017).

The free rental sector of the commercial market, on the other hand, has never received financial support of the government as has the social housing segment and the owner-occupied sector. Consequently, the quantity of dwellings in the free rental sector has never been so significant (Eskinasi, 2017). To add up to this problem, a part of the Dutch population is not eligible for social housing and is also not eligible for a mortgage. (Boelhouwer, 2018). Thus, they turn to the middle rental segment to find accommodation. However, the low supply of middle rental dwellings does not allow them to be accommodated and therefore, they end up in a marginal position in the housing market.

Furthermore, the Dutch housing market is experiencing a housing shortage caused by competition, increase in demand for housing and the inability of the construction sector to meet this demand (Nijskens, Lohuis, Hilbers, & Heeringa, 2019). These factors increase the selling and renting prices, impacting the affordability of the market and hindering the middle-income segment from being part of the housing market. Consequently, this fraction of the population settles further away from cities or / and in dwellings with a lower quality (Ivens, 2019).

According to the UN Declaration of Human rights, everyone is entitled to a living standard that is adequate to one's health and well-being (Bengtsson, 2001). The welfare of the middle segment is, therefore, affected by the above-portrayed problem. Also, the small number of affordable houses halts the proper functioning of the housing market as a sufficient number of middle-segment dwellings is needed to ensure that households can move from one segment to another (Groot & Spiegelaar, 2019). Thus, finding a solution for this matter is relevant in a national and municipal scale.

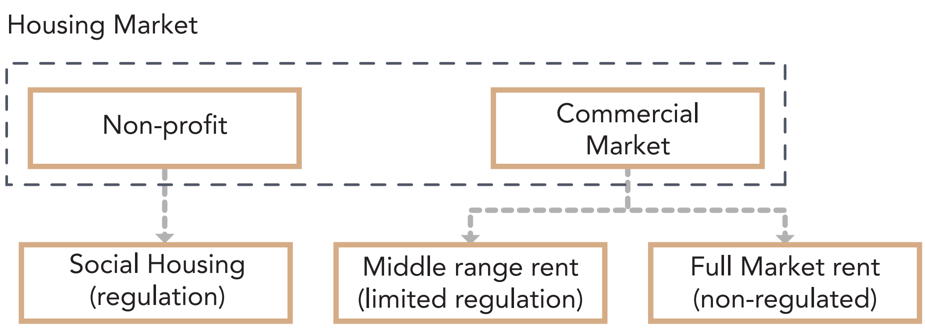


Figure 0.1 Composition of the housing market (own illustration).

Increasing the middle-income rental dwellings is seen as a solution (Boelhouwer, 2019) and three stakeholders of the development process can be responsible for this increase: institutional investors, housing associations and private investors. The thesis focus on institutional investors due to the scope of the research. Bearing that in mind, institutional investors want to invest more in the middle rental segment in the Netherlands (IVBN, 2018). However, they have missed out on the opportunity of investing in the segment in 2016 when 5 to 6 billion euros were available for that purpose (IVBN, 2016; Vastgoed Berichten, 2016). As so, Dutch institutional investors have about 6 to 8 billion euros in 2019 to invest in the segment, and international institutional investors have about 12 billion euros to do so (Capital value, 2019 B). Considering the above-mentioned information, this thesis aims to answer the following question:

How can institutional investors increase the delivery of the middle rent segment?

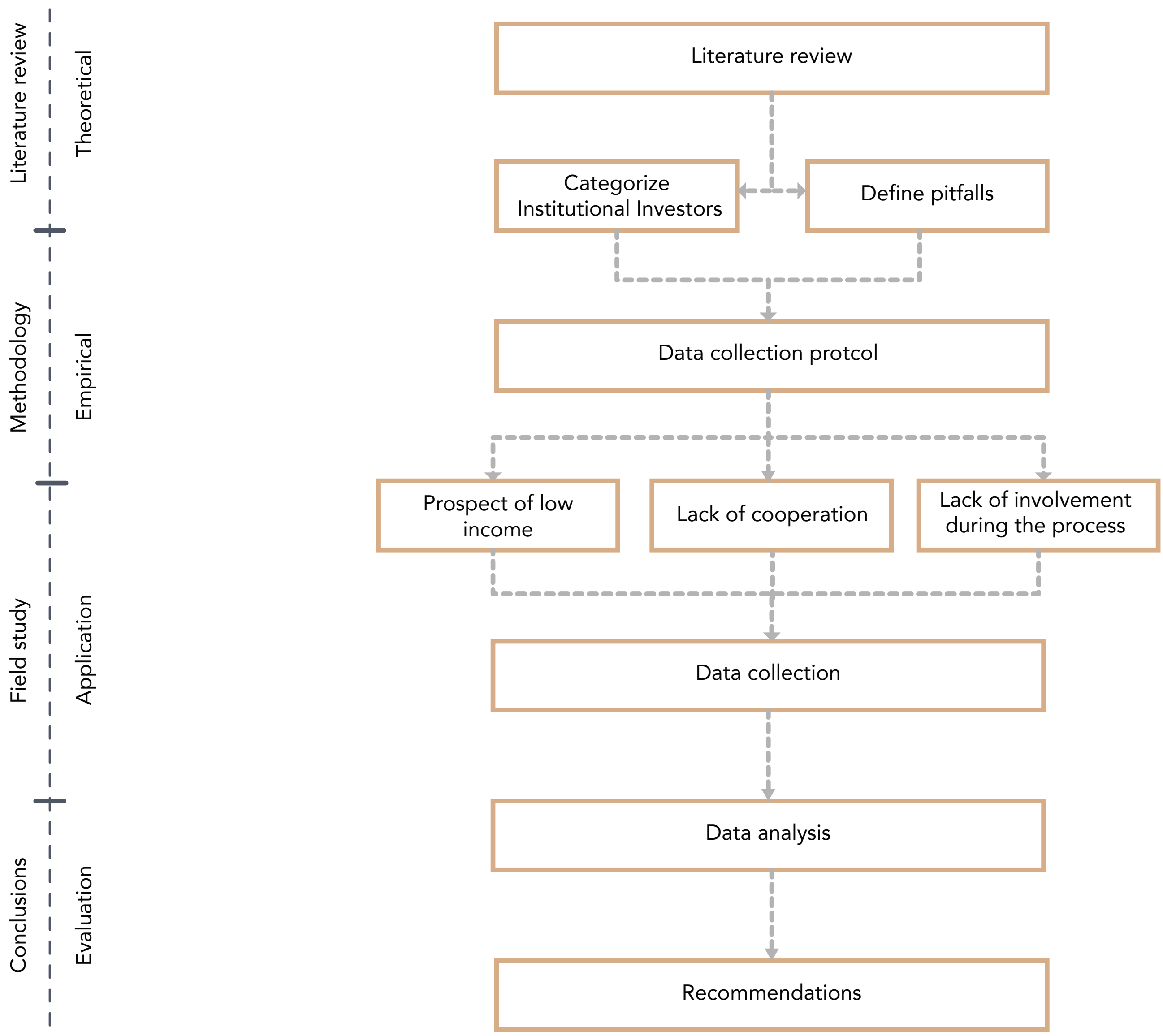
The following sub-questions were formulated to enable the main question to be answered:

- What are the variables that influence the production of the middle rental stock according to the market and development process?

- What conditions contribute to the prospect of low income when investing in the middle-income rental segment?

- What conditions halt the increase of middle-income rental dwellings by affecting the development process?

Figure 0.2: Methodology diagram (own illustration).



Research approach

For the sub-questions and main question to be answered a literature review is conducted where the development process and market conditions of the middle-income segment are scrutinized and pitfalls that halt the increase of the stock, as well as a categorization of institutional investors, emerge. The pitfalls consider the prospect of low income and the development process of the middle-income dwellings. They are the outcomes of the literature review and also answer the first sub-question of the thesis. Later, empirical research is conducted through semi-structured interviews with institutional investors and advisors. Through the interviews, the pitfalls are discussed and validated so the knowledge frame of the pitfalls can be expanded. The second and third sub-questions are answered through the findings of empirical research. Finally, recommendations that assist in increasing the middle-income stock are made and the main question of the thesis answered (Figure 0.2).

Empirical results

The revisited pitfalls are the outcomes of the empirical part of the thesis. The results of the literature review were validated through the empirical section as practice was added to theory, resulting in the revisited pitfalls. These, therefore, indicate gaps, regarding the development process and the yields of investments in the middle rental dwellings, in which the recommendations of this thesis assist to overcome. In this matter, the outcome of the revisited pitfalls are as follows:

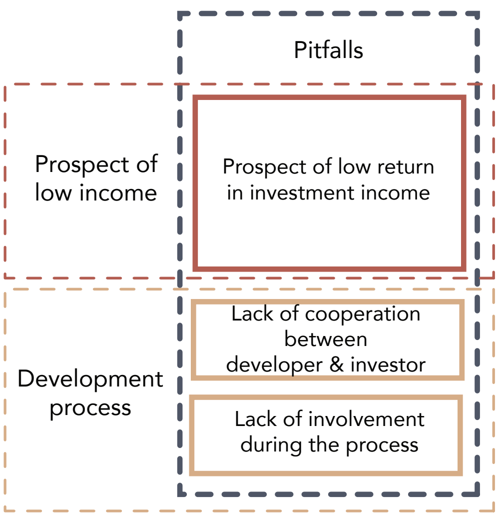


Figure 0.3: Categorization of the three pitfalls (own illustration).

Revisited pitfall 1

As defined by the interviews, the high demand for the middle-income segment makes it an attractive investment for institutional investors, since it has the biggest target audience of the Dutch housing market. As a consequence, the segment becomes not volatile and therefore secure. Investing in the middle-income segment, therefore, is considered a low-risk investment because of its stability. Thus, low-risk investments can be associated with low yield investments.

However, the cash flow stability of this type of investment overrules the low yields the investment bestows. This occurs as institutional investors act as bond investors and rely on stable cash flows and inflation-protected characteristics of investments in the middle-income rental segment. This type of investment is unique in the real estate market and therefore, it becomes attractive for institutional investors. Nonetheless, investing in the segment matches the investment needs of pension funds and insurance companies.

The low direct yields of investments in the middle-income rental segment are added up to an exit yield to formulate the internal rate of return. Investors rely on a long investment perspective because they can endure non-ideal economic situations due to their strong investment position. Nonetheless, there is an expectation of achieving higher indirect yields due to the increase in construction prices, location of dwellings in areas that have an expected demographic growth and the strong investment position of institutional investors.

In this matter, investing in the middle-income rental segment matches the requirements of pension funds and insurance companies and is considered to be an attractive investment as the type of investment justifies its yields. However, possible restrictions of municipalities and the national government towards the middle-income segment concerns institutional investors as these restrictions can make their business plans unfeasible. Furthermore, the location of dwellings also has an impact on the direct and indirect yields of the investments. Thus, there is a preference for investing in the G40 cities, while the G4 cities become unappealing. Also, the size of dwellings is another factor that influences the return on investments, as it is easier to achieve the expected returns with smaller dwellings. As so, these mentioned factors are findings that hider an investor to achieve its expected yields and are, therefore, considered for the recommendations of the thesis.

Revisited pitfall 2

It is evident through the interviews that developers can achieve higher yields by developing to the owner-occupied segment. However, municipalities have policies that incentivize the production of middle-income dwellings and as a consequence, developers become obligated to develop dwellings in that segment. Nonetheless, some advantages can make developers choose to sell dwellings to institutional investors and therefore, not achieve the maximum profit they could have in the case they sold the portfolio to the owner-occupied sector. This occurs as the developer can save time and money by selling their portfolio all at once to an investor instead of selling the portfolio to the owner-occupied segment and therefore employ time and money for marketing, to pay brokers and to find interested buyers.

Cooperation between developers and investors works well mainly because developers are obligated to build in the middle-income segment. Interviewees recognize that current negotiations between developers and investors run smoothly and that other countries look up to the Netherlands as an example of a country with good cooperation competencies. What happens in the Netherlands is that the developer is responsible for making a business case that is profitable for themselves but also for institutional investors. Thus, investors can start the negotiations and can give inputs for developers, but in the end, the developer needs to make a feasible business case for both parties. Nonetheless, institutional investors have a program of requirements in which they point out specificities that would make the development more attractive for investors in case the requirements are followed by the developers. This program of requirements can work as a tool, in the negotiation phase, to enhance cooperation between both parties. However, the programs of requirements need to be updated and in line with the needs of the middle-income rental segment.

In this regard, there is not a lack of cooperation between investors and developers since municipalities obligate developers to build a percentage of dwellings in the middle-income sector. Thus, pitfall 2, that was the outcome of the literature review, is not perceived as a pitfall according to the empirical findings, since cooperation is achieved due to municipal influence. Furthermore, according to the empirical findings, institutional investors are in a more risk-free position than developers and can be more passive during negotiations as the developers make the business plan. Thus, investors can participate more actively upfront in the development process to enhance cooperation. As so, an up to date program of requirements can be used as a tool for this matter.

Revisited pitfall 3

The lack of involvement of institutional investors in the initial stages of the development process was perceived as a pitfall by the literature review. It was suggested that institutional investors only gain control over the development process in the ownership phase. According to the interviews, some institutional investors are willing to participate in the early stages of the development process by giving inputs. They assist developers by maximizing the market value of the development so the final result can benefit investors in a long-term and can impact positively their direct and indirect yields. This occurs as the direct yields would be impacted by the need for less maintenance and the indirect yield would be impacted by the futureproof characteristics of dwellings.

However, institutional investors are not willing to inject money upfront in the development process because this can hamper their cashflows and can increase their risk in the development. In this regard, investors make use of forward funding to steer the development but also inject money in the final phase of the development process. In this case, investors can be involved in the early stages of the development by collaborating with inputs and still only inject money in the final stage. Thus, the lack of involvement of capital in the early stages has not been seen as a problem by the interviewees. It is important to highlight that most of the interviewees represent the point of view of investors.

The parties that were identified as lacking involvement in the development process were the municipalities. This lack of involvement can halt the development process as it hampers collaboration and trust in partnerships and therefore, hampers the increase of the middle-income rental dwellings. Thus, the lack of involvement of pitfall 3 occurs because of a capacity problem and lack of trust of municipalities, as well as a lack of injection of money of institutional investors in early phases.

Recommendations for institutional investors	
Shaping instruments	1. Institutional investors should have their own program of requirements
	2. Institutional investors should tailor a public statement of intentions
	3. Institutional investors should sell dwellings after the holding period of the investment to an actor that will keep it in the middle rental segment
Diversifying instruments	1. Institutional investors should diversify their investments and invest in different cities
Recommendations for municipalities	
Stimulus instruments	1. Tax break for investments in the G4 cities
	2. Allowance for a portfolio that is kept in the segment for more than 15 years
	3.Ground lease
	4.Tender focusing on quality
	5. Tax break for developers
Shaping instrument	1.Development framework to guide investors
Capacity-building instrument	1.Increasing skills and capability

Figure 0.4: Recommendations (own illustration).

Recommendations for stakeholders

The outcomes of the empirical research underpin the recommendations of this thesis. Those of which are aimed at institutional investors and municipalities. This occurs since the interviews were made from the standpoint of investors, and the municipality was one of the actors frequently mentioned as having the power to assist in increasing the middle-income segment. In this regard, the recommendations are divided between recommendations for investors and municipalities.

Recommendations for investors

1. Shaping instruments:

Institutional investors should have their own program of requirements

What: Institutional investors should tailor a program of requirements aimed for developers that refers to physical characteristics of a residential unit such as the presence or absence of a balcony, floor finishing, types of kitchen, among other characteristics. The program should set dwelling sizes and specifications of preferred rents.

Why: An up to date program of requirement directed to the middle income is important as it can be used as a tool to enhance cooperation with developers. The actor will then know beforehand what factors are needed in a development for institutional investors to endorse it. The tool will also help investors in increasing their investment possibilities as the developments can become more attractive.

Institutional investors should tailor a public statement of intentions

What: Institutional investors should tailor a public statement of intentions designed for the municipality, regarding their culture and mindset when investing in the middle-income rental segment. This statement should be broader than the program of requirements and can encompass the actor's social responsibility and visions towards the middle rental segment. The statement, can, therefore, be shared with the municipality in early stages of a partnership so it can be used as a cooperation tool.

Why: The main goal of the statement is to change the behavior of market actors. In this matter, for cooperation between different actors not to be jeopardized by mistrust, the behavior of the market actors should change.

Institutional investors should sell dwellings after the holding period of the investment to an actor that will keep it in the middle rental segment
What: Dwellings from the portfolio of institutional investors should be sold, after the holding period, to an actor that will maintain the dwellings in the middle rental segment.
Why: Dwellings must stay in the segment for the middle rental stock to increase. Therefore, this can be done when dwellings are sold to parties that will keep them in the middle-income rental segment.

2. Diversifying instruments:

Institutional investors should diversify their investments and invest in different cities
What: Institutional investors should invest in different Dutch cities and therefore diversify their portfolio.
Why: One of the biggest threats that can halt the development of the middle-income rental segment is the number of regulations of a municipality or the Dutch national government. Thus, new regulations can hinder an investor's future and/ or ongoing business cases. When diversifying a portfolio only a percentage of dwellings of a portfolio located in a municipality would be affected by regulations in case the municipality implements regulations that makek an investor's business case unfeasible. This can protect investors from the implementation of policies that can make their business cases unfeasible.

Recommendations for municipalities

1. Stimulus instruments:

Tax break for investments in the G4 cities
What: Municipalities should support investments in the G4 cities as they impart lower yields than investments in the G40 cities. They should introduce a tax break package for investments in these cities that have a period of 10 years. They should introduce a tax break package with a period of 10 years.
Why: Cities such as the G40 become more attractive to invest in than the G4 cities. This occurs due to the high residential and land prices of the G4 cities. In this regard, there needs to be government support especially for investments in the G4 cities as they impart lower yields.

Allowance for a portfolio that is kept in the segment for more than 15 years
What: Municipalities should grant an allowance for investors to not sell their portfolios and keep it for more than 15 years.
Why: A holding period longer than 15 years for an investment in the middle rental segment is not interesting for investors as maintenance costs increase over the years and consequently decrease the direct yields to a standard that it may not be appealing to maintain the portfolio. Thus, municipalities should assist investors in maintaining the portfolio in the segment to uphold that the size of the segment is maintained.

Ground lease
What: It is recommended that municipalities think of returning to a more active ground policy to assure the construction of dwellings in the middle segment. Thus, municipalities should create investment criteria that are implemented by the land lease contract. The more criteria, the lower the land price should be. The time length of the land lease should also be stated in the criteria and after this time, the investor and the municipality can be freed of the investment.
Why: The high value of building costs and ground price is detrimental to the expected yield of institutional investors. The construction costs cannot be changed as they depend on the market. However, the ground costs can become more affordable. The decrease of the ground value would decrease the whole price of a dwelling as the total selling cost depends on the construction cost and the ground price. In this matter, municipalities can have a more active ground policy to assure the construction of dwellings in the middle segment.

Tender focusing on quality
What: Municipalities can make tenders that will stimulate the production of the middle-income rental dwellings. When opening a tender, the municipalities can opt to make specific arrangements in which lower ground prices are settled for the construction of the middle rental segment.
Why: When the municipality owns the land and wants to achieve the highest return for that plot it normally opens a tender process. It is a common practice for municipalities to do this. However, the current practice is not effective as the municipality achieves the highest yields, but not the highest quality, nor stimulates the development of the middle segment. This occurs because the rise of building costs disrupts the plans of the party who won the tender as the rise in building costs make the quality of the project decrease. Thus, to stimulate the middle segment as well as to solve the high ground and construction prices, when opening a tender, municipalities can opt to make specific arrangements in which lower ground prices are settled for the construction of the middle rental segment.

Tax break for developers
What: Municipalities should introduce a tax break for developers.
Why: Developers need cash liquidity in the early phases of the development so they can acquire land and start building. The high increase of construction costs and the high ground values only makes it harder for developers to build for the middle segment and achieve their expected yields. On the other hand, institutional investors cannot inject money in the development process in the early stages due to their FBI tax status. Therefore, the tax incentive is important as it will allow developers to produce middle-income rental dwellings and therefore increase the stock.

2. Shaping instrument

Development framework to guide investors
What: Municipalities should tailor a development framework to guide investors through the development process. This framework will serve for two-fold purposes. The first is to guide investors and developers regarding suggestions of the municipalities about the middle-income rental segment. These suggestions will concern dwelling sizes and rents. The second is as a risk-reducing instrument that reassures that the segment will be kept in the non-regulated market.
Why: A mistrust feeling towards municipalities assists in increasing the risk of investing in the segment. This can hamper the collaboration between parties and, therefore, negatively affect the production of dwellings in the middle segment. The development framework is tailored to stimulate trust and openness towards cooperation as well as reduce risk perception.

3. Capacity-building instrument

Increasing skills and capability
What: Municipalities should increase the skills and capability of their workers. This can occur through training sessions among the workers as well as seminars given by experts about the development processes and the different stakes of the actors of the process. There can also be an increase in the headcount to make the process of issuing building permits faster.
Why: Investors acknowledge the collaboration with municipalities as not being effective due to mistrust among the parties and due to the capacity problem of municipalities. Therefore, solving collaboration and trust issues is important to enhance partnerships between municipalities, investors and developers and as a consequence, increase the middle segment. Moreover, the capacity problem of municipalities also delays the emission of building permits and therefore halts the increase of the middle segment. As so, a capacity-building tool that solves delays and collaboration issues is needed.

Discussion
The main finding of this thesis is that municipalities have a bigger scope of actions to increase the middle rental segment than institutional investors. This occurs as institutional investors have to abide by tax regulations and cannot take decisions that will increase the risk of their investment. They cannot inject money in the early stages of the development process and are also not interested in doing so. Since they are interested in low-risk investments there is not so much scope for actions that can be taken to increase the middle rental stock as any action can make their business plan unfeasible. Municipalities, on the contrary, have a bigger scope of actions to increase the middle rental segment.

In this regard, the subsidy given by municipalities is necessary to balance the market. The subsidy given to institutional investors and developers to increase the middle rental segment will level the playing field of investments in the middle rental segment when compared to the investments in the non-for-profit segment and owner-occupied segment, as the last two received or currently receives subsidies from the government.

The recommendations made for institutional investors make use of shaping instruments to enhance the cooperation of investors and increase the presence of investors in the early stages of developments. While the recommendations for the municipality makes use mostly of stimulus instruments in which certain activities are subsidized. With this stimulus instrument, the government will subsidize the segment as it does or already has done to the other segments of the housing market.

Furthermore, institutional investors and advisors were chosen for the interviews of the empirical part. In this matter, representative of developers and municipalities were not interviewed due to the scope of the thesis. This can be understood as a limitation since the new inputs of interviewing these two actors would assist in refining concepts and in increasing or modifying the recommendations. Interviewing developers and the municipality can add to the thesis as they have stakes in the development process and are part of the traditional partnership of the development process. This limitation provides, therefore, an opportunity for further research in which the developer’s and municipality’s point of view is collected.

Table of content

1. Introduction

1.1 Background

Real estate bares an economic value and can be seen as a complex form of investment as properties are tangible assets by virtue of their physical quality (Investopedia, 2019). The unique physical form of properties and its location sets real estate as a part of a product-differentiated market. Nonetheless, supply and demand of markets fluctuate, and cities try to adjust to these new markets, as a response. However, these adjustments unfold at a slow pace due to the immobile characteristics of the city's resources such as real estate. The limited supply as for labor, capital and structure gives rise to temporary imbalances and creates cyclical patters (DiPasquale & Wheaton, 1996).

The Netherlands has approximately 8.7 million buildings. Housing accounts for 92% of the stock (Rabobank, 2018). According to article 25 of the UN Declaration of Human rights, everyone is entitled to a living standard that is adequate to one's health and well-being. This statement comprehends housing as it is an important element for citizen welfare and is also a market good that is ruled by consumer preference (Bengtsson, 2001). Despite the great amount of money invested in housing, owners are always exposed to financial risks when owning a property. The market value of real estate impacts one's asset (Rabobank, 2018) whereas consumers are always dependent on the purchase or rental market (Tweede Kamer, 2013).

The current high property prices and increase in rents cause affordability problems as the shortfall of private rental housing in the Netherlands is making it hard for the middle segment to find an appropriate housing (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). The welfare of the middle segment is therefore affected as they are unable to find adequate accommodation (Vrieselaar, 2017). The limited rental segment stock is the cause of this lack of opportunity (Tweede Kamer, 2013).

Furthermore, the response time to adjust to this demand is worthy of attention. Money has been available for investments that would increase the middle segment stock but the opportunity to do it was missed (IVBN, 2016). Institutional investor's current development models may not be adequate to the current need and should be studied. Moreover, challenges arise from the increase in demand for housing and the current development processes must adapt to fulfill this new demand. In this sense, current development processes should be explored so that problems in this process can be highlighted and changes can be made so that suitable recommendations can be tailored.

1.2 Problem Definition

The Netherlands has been experiencing a housing shortage due to competition between real estate investors and house buyers, increase in demand for housing and the inability of the construction sector to meet this demand (Nijskens, Lohuis, Hilbers, & Heeringa, 2019). As a consequence, selling and renting prices are increasing making the market less affordable (CBRE Research, 2019). The lack of affordability impacts especially the middle-income group (Ollongren, 2019).

The middle segment finds itself in a marginal position in the housing market as it is not eligible for social housing and does not have the means to find an affordable house that is in accordance to their demands (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). Therefore, households in this segment are settling further away from the cities or in dwellings with a lower quality than the ones that would solve their housing demands (Ivens, 2019). Nonetheless, they struggle to find a suitable place and the housing shortage only aggravates this problem (Rabobank, 2019 A).

Politicians, private and public parties have reacted to this issue by creating guidelines to which they commit to solve the housing shortage and the middle segment affordability problem (Ollongren, 2019). The Nationale woonagenda 2018-2021 and the Dutch national budget are examples of documents that create guidelines to solve the housing problems and that allocate a part of the budget for housing. In this sense, they create a favorable environment for investment in the middle-segment and according to IVBN (2015) reports it has been noticeable that the free rental sector properties pose an opportunity as institutional investors can and want to invest more in this segment.

Furthermore, society needs these investments to solve the middle segment shortage problem. Even though the government is supportive as portrayed by the previous examples of attempts to back up these investments, in 2016, 5 to 6 billion euros were available for Dutch and foreign parties to invest in the free rental sector. Despite the available budget, institutional investors missed out on the opportunity (IVBN, 2016). From 2019 and 2020 there will be more than 20 billion euros available for investments. Thus, the first quarter of 2019 registered the lowest amount of construction licenses issued over the past 10 quarters (IVVD, 2019).

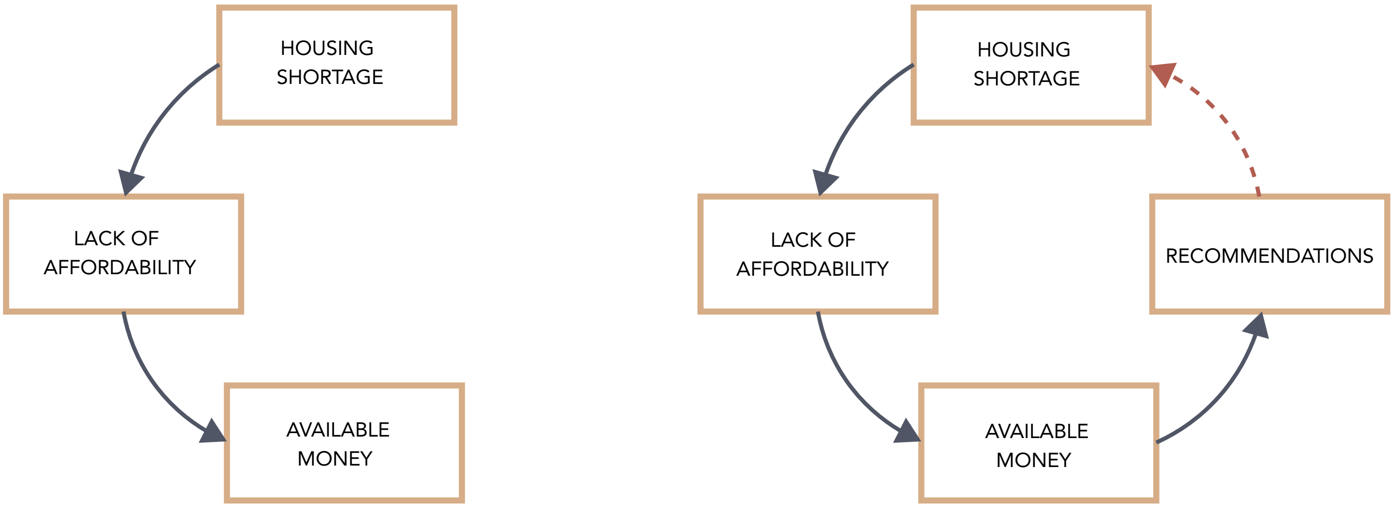


Figure 1.0: The image portrays the cyclic state of the middle-segment problem. The diagram on the left depicts the current situation of the Dutch housing market. Money is available for private investors to build more middle-segment rental dwellings. However, the money is not being used. The diagram on the right, on the other hand, depicts the scenario in which new strategies assist private institutions to use the available money and build middle-segment dwellings. The addition of dwellings in the housing market automatically affects the housing shortage and the lack of affordability. The addition of dwellings should make the supply meet the demand and bring the market back to equilibrium (own illustration).

Despite the two-fold growth of the middle segment market from 2012 to 2018 the segment consists of only a share of 6% in the total housing stock with the supply only covering approximately 59% of the demand for this housing segment. It can be concluded according to all that has been laid out, that investments in this segment are needed to increase the mid rent stock for the housing market to function in a proper manner (Groot & Spiegelaar, 2019; Capital value, 2019 B). Therefore, increasing the middle-segment rental dwellings is seen as a solution (Boelhouwer, 2019) and there are three possible paths to increase the middle-rental stock. The first is the increase in stock through institutional investors as it has been portrayed that they are interested in investing in the sector (IVBN, 2018). The second is the increase in stock by Housing Associations as is has become less complicated for them to build middle-sector housing due to the approval of a new law that has been adopted in 2019 (Aedes, 2019). The third is the increase of stock by private investors (Groot & Spiegelaar, 2019). This paper, however, will focus on finding a solution to increase the stock of middle-segment rental dwellings by the standpoint of the institutional investors. In this sense, this thesis aims at understanding the current development process of the middle rental segment to later create recommendations that if followed can successfully increase the housing stock of the segment.

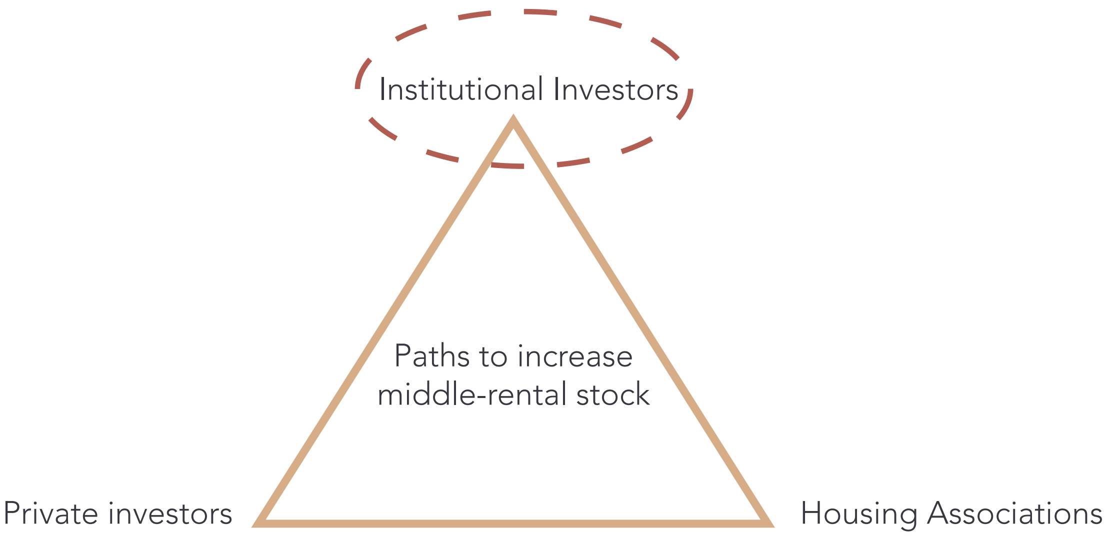


Figure 1.1: Approaches to increase the middle-rental stock (own illustration).

1.3 Relevance

Societal relevance

The Dutch real estate market is comprised of 1.2 billion sq. meters of floor area. Two-thirds of this stock consists of the housing market (Rabobank, 2018b). Within this stock, each individual has a right to live in a dwelling that suits their needs. However, in light of the foregoing increase in owner-occupied and rental properties the right to live in a suitable dwelling has been harmed as the market is experiencing a shortage of affordable dwellings. The lack of affordability affects especially the middle segment of the housing market (Ollongren, 2019) and as a consequence, this share of the population is moving away from city centers and settling at lower quality dwellings that do not fulfill their needs (Ivens, 2019). In this sense, the middle segment is in need of solutions that solve the affordability problem and that will reclaim their position in the Dutch housing market.

Moreover, only 6% of the dwellings are allocated to the free rental segment. The small share of affordable houses affects the housing market as a whole since a sufficient quantity of middle-segment dwellings are needed to ensure that households may move from one segment to another. A shortage of affordable dwellings causes the housing market to not function properly and can also have a negative impact on the labor and mobility of cities (Groot & Spiegelaar, 2019).

In this matter, recommendations that will increase the middle segment and will restore favorable housing market conditions is of utmost relevancy. This strategy will mitigate the housing market pressure, will help a needed share of the population and will restore balance in the market. As a consequence, cities will properly function with a mix of population that enables different job positions to be occupied and with space to accommodate and conform to the movement of people to different social levels (Schilder, & Conijn, 2015). Furthermore, the findings and recommendations of this paper may be used as a basis for institutional investors who want to change their current involvement and position in the development process to increase middle-rental stock. It can also be used to inform institutional investors and other actors about the possibility of enhancing the current development processes.

Scientific relevance

A lot has been discussed about the challenges of the Dutch housing market. A spotlight is aimed at the sector due to its importance and wide-range impact on cities and the population. Nonetheless, since 2018 the housing sector has become the real estate sector that received the highest investments (CBRE Research, 2019). Favorable economic conditions have been the cause for the rise in competition in the housing market and also the cause of the increased inflow of people to central locations (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). As a consequence, the middle segment has been put in a marginalized position in the housing market and the government has been trying to change this situation by making policies and plans (Ollongren, 2019). Examples are the Nationale woonagenda 2018-2021 that sets targets to solve the middle segment problem and the Amsterdam 2017-2025 action plan that sets conditions for medium-term rents. Besides these two cases, even more, is being done to solve the mid-segment problem and more has been published about it.

However, not a lot has been published about what the private sector and institutional investors are doing and have planned to do to assist with the shortage of middle segment dwellings problem. Institutional investors play an important role in the housing market while being part of the solutions for the middle segment affordability problem. Solutions of which involve the cooperation from all players in the housing market (Ollongren, 2019). That being said, investors have the innovative capacity to boost the medium sector rental segment (Sweco, 2018). IVBN (2018) has published information about the increasing willingness of institutional investors as pension funds to invest in the middle sector. But there are no publications about the development process that are being currently used in the Dutch housing market and why are they not being effective. Furthermore, there is also a gap in literature of how changes in the development process can assist stakeholders to increase the middle segment and not loose opportunities. In this matter, this paper is relevant in the scientific field as it will add to a gap of literature and may also be used as a tool to assist institutional investors in overcoming the middle segment challenge.

1.4 Research question

This paper aims to answer the following research question:

How can institutional investors increase the delivery of the middle rent segment?

The following questions will help answer the main research question:

1. What are the variables that influence the production of the middle rental stock according to the market and development process?

2. What conditions contribute to the prospect of low income when investing in the middle-income rental segment?

3. What conditions halt the increase of middle-income rental dwellings by affecting the development process?

1.5 Methodology

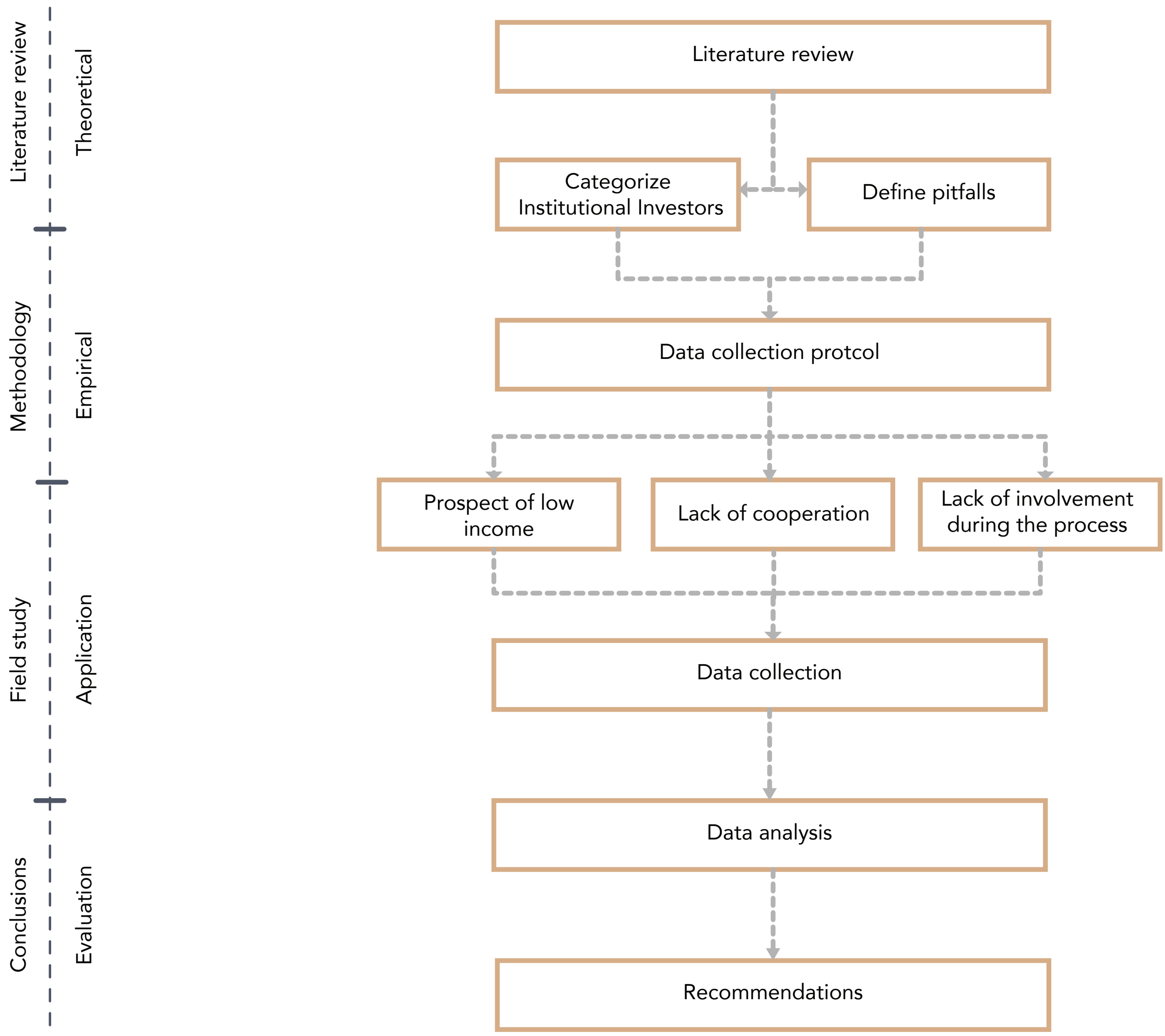


Figure 1.2: Methodology (own illustration).

A methodology is designed to underpin the research process by making it more reliable so that a strategy that increases the stock of middle rental dwellings in the Netherlands is created. A qualitative approach is conducted within a cross-sectional design. Meaning that the research problem is first formulated, and a literature review is then conducted so that its theoretical outcomes are used to frame the empirical design. The outcomes of the literature review assist in creating the empirical framework that makes it possible to understand what is being done in practice and what can be changed so that the research problem can be solved.

The designed framework of this thesis enables the selection of a sample in which more than one cases of data are collected concerning a certain point in time. In this respect, information regarding the specific market conditions that currently affect the middle rental segment is collected from practice. This collection of data occurs through semi-structured interviews. Data is then processed, and its outcomes are further used to tailor a strategy to increase the delivery of the middle rent segment (Bryman, 2012).

This thesis is divided into four main sections so information can be organized more efficiently for better outcomes to be achieved. The division of sections assists in answering the paper's sub-questions. The overall outcome of the four parts answers the main research question. The first section is the theoretical section in which a literature review is conducted. A market analysis and an analysis of the development process of the middle rental dwellings is performed. The outcomes of these analysis answer the first sub-question.

Later on, the outcomes of the first section are translated into pitfalls that halt the production of the middle rental dwelling stock from the standpoint of Institutional Investors. In this regard, by overcoming these pitfalls more middle rental dwellings can be produced. Therefore, these theoretical underpinnings are used as inputs for the next section. Nevertheless, a categorization of institutional investors also arises from the analysis of the development process and is also used as a basis for the second section.

The second section is the methodology. In this part, the design of the empirical study is conducted. Semi-structured interviews are chosen as a method of data collection. The interview sample is selected based on the previous categorization of institutional investors, while the interview protocol is tailored based on the pitfalls that emerge from the literature review. The protocol is created so the pitfalls can be thoroughly explored, validated and other obstacles and possibilities of increasing the middle rental stock can be discussed.

The third section is the field study. In this part, the application of the empirical study is conducted. From the interviews, a thematic analysis is carried out. The emerged information thus, answers the second and third sub-questions. With the input of the interviews, the pitfalls found through literature review are revaluated and new themes emerge. The gathered information is then used in the last section of this thesis.

The fourth and last section is the conclusion. In this part, the combination of information from the field study and the literature review assists in tailoring recommendations that increase the delivery of the middle segment. The recommendations are the output of this thesis and answer the main question of this research.

2. Literature review

2. Literature review

2.1 Introduction

The Netherlands housing market is under pressure. A shortage of dwellings has increased house prices in recent years. As a consequence, house seekers are having a hard time to find a house that matches their budget, needs and preferences (Lennartz, Baarsma, Vrieselaar, 2019). The middle-segment group is especially affected by these problems (Rabobank, 2019 A) as they become excluded from the market by not affording a house (Ivens, 2019).

The private rented sector must increase to accommodate this demand and therefore, restore the position of the middle-segment in the housing market (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). For this matter, institutional investors are seen as a secure solution for developing these dwellings (IVBN, 2015). Moreover, they also aspire to invest in the middle segment rental houses (IVBN, 2018). Despite the will of investing in this segment, these private institutions have missed out in using available resources for this purpose (IVBN, 2016). Nonetheless, there is still a chance to make use of funds that are available for housing developments of the middle-segment (Capital value, 2019 B).

In this sense, this chapter illustrates the problem that this thesis aims at solving. Understanding the problem is important as the exclusion of the middle-segment occurs due to the structure, players and drivers of the housing market. These factors may work dependently with others or independently and understanding them allows the current situation to be built up (Squires & Heurkens, 2016) as well as assists in identifying pitfalls that halt the development process of the middle segment.

In chapter 3, the actor-network theory is used to create a detailed literature review that explains the institutional interaction in a development process. Real estate development processes require a complex organization system to deliver the desired outcomes due to it being a form of shaping and reshaping the built environment, similar to other production processes (Adams & Tiesdell, 2013). Institutional actors are part of this complex process and they operate within a strategy of property development and investment activities that creates this built environment (Healey, 1994).

Therefore, the actor-network theory assists to interpret the network of a development process so that the role of the institutional investor is understood. The actor-network theory interprets the process in which actors and entities interact together in a network (London & Pablo, 2017). Phenomena such as a development process are the consequence of these different networks created by the complexity of interactions and agencies. In this respect, the chapter explores how the interaction of agents creates an environment that enables the network to exist. This involves identities, roles and relationship of power (Ruming, 2008).

Finally, chapter 4 makes use of the previous chapters to establish pitfalls that may halt the increase of middle-rental housing stock. In this chapter, the development process and the role of institutional investors are evaluated at different scales and aspects that concern the middle-segment problem. All the information from the literature review is analyzed and its outcomes answer the paper's first sub-question and are further used to create recommendations that will increase the middle rent segment and answer the paper's main question.

2.2 The problem

Changes in the built environment can be understood as an elaborate outcome of social, economic, cultural processes in which geography and history are important underpinning factors (Pan & Goodier, 2012). These changes are a consequence of property development and investment activities that create opportunities and extract values of sites and locations (Healey, 1994). Moreover, these activities are structured by a contextual framework in which the organization of a country combined with its economic and political organizations as well as social and economic values, result in the formal rules of the 'game' that gives, therefore, the basis to investigate property markets (McGreal, Parsa & Keivani, 2002; Pan & Goodier, 2012).

This chapter focuses on explaining the middle-segment problem. However, the social-political-economic principles of the Netherlands are not touched upon, since these conditions occur in a wider context than the context that is outlined in this first chapter of the literature review. The broader context illustrates the Dutch spatial planning system as well as its regulative institutions and structure. It is, however, important to set this wider context because it encompasses the housing market and also influences the market (Squires & Heurkens, 2016). For this purpose, this broader context is therefore explained in appendix 01.

Moreover, the Dutch contextual framework influences the property market of the middle-segment. It is in the property market that the exclusion of the middle-segment occurs as the Dutch housing structure does not encourage the middle-segment (Boelhouwer, 2018). In this matter, this chapter explains the middle-segment problem by laying out the market driver's, structures and wide economics mechanism that are the causes of this problem. It is noteworthy that due to the complexity of the Housing market the combination of these factors such as drivers, structures and economics are the driving forces that determine the condition under which real estate development can take place (figure 2.0) (Squires & Heurkens, 2016). These characteristics are a jump-start to grasp how property development and investment activities conceive the middle-segment rental stock. They also assist in introducing the specific agencies of the process that are later scrutinized in the next chapter.

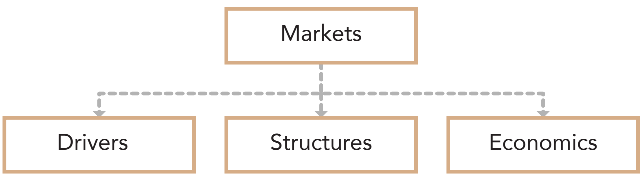


Figure 2.0. Market layer of the development model after Squires & Heurkens (2016).

2.3 Drivers

2.3.1 Housing Shortage

The housing shortage in the Netherlands is caused by structural and cyclical drivers (Lo Duca, Nicoletti-Altimari, 2019) such as growth in competition, supply deficit of the construction sector and increase in population. The drivers of the housing shortage will be used to understand the middle-segment problem. Their combination will deliver part of the factors that cause the middle-segment problem.

Driver 01 - Growth in competition

In the Netherlands, the residential sector was one of the largest investment sectors in 2018 (CBRE Research, 2019). There has been an increase in understanding the benefits of real estate investments to diversify portfolios and diversify income returns by global investors (Van Doorn, Arnold, Rapoport, 2019). Therefore, the low-interest rates for investments in the housing sector have increased the inflow of foreign capital. The previously low rents added to the high competition between investors and house buyers drove house prices up (Rabobank, 2018b).

A diverse pool of investors has been attracted to this context of low bowering costs, strong price appreciation and a higher yield of buy-to-let investments if compared to other investment alternatives. As a consequence, competition increases and therefore, house prices rise. Among these investors, there are domestic and foreign individuals, domestic institutional investors such as insurance companies and pensions funds, and foreign institutional investors (Lo Duca, Nicoletti-Altimari, 2019).

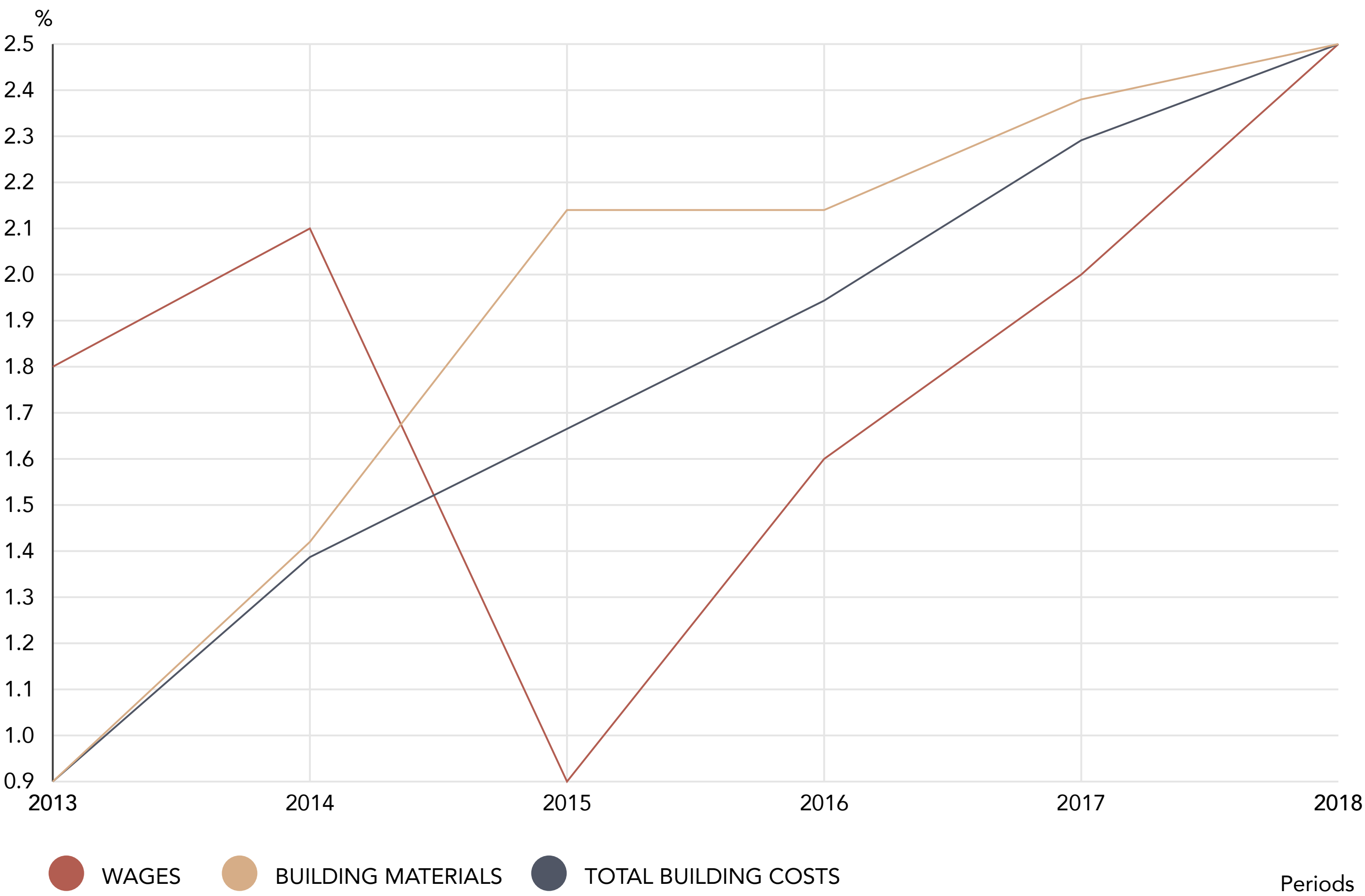
Furthermore, because of the attractiveness of the housing market, the quantity of buy-to-let domestic investors has also increased (Ivens, 2019). This increase has also contributed to the rise in house prices and rents by two-fold: turning owner-occupied dwellings into rental units, consequently increasing the scarcity of dwellings in the owner-occupied sector in urban areas and by adding the new rental units to the unregulated rental segment, a segment that has been experiencing sharp rent increases. The injection of more rental units in a context with expensive rents has made investors purchase the dwellings for a high price forecasting high returns and later justifying high rents and rent increases to meet their expected returns, adding to the increase in the rising price problem (Lennartz, Baarsma, Vrieselaar, 2019).

Competition also drives prices up in international cities with growing tourism. Many homes that were once in the unregulated housing market are now being rented out for short periods in websites such as Airbnb (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). In this matter, the rental online platforms for short-term rents along with the influx of foreign investors and the increase of domestic investors have also contributed to price increases in the Dutch housing market.

Driver 02 - Supply deficit of the construction sector
The rise in competition incites a response from the construction sector to increase housing supply and if the construction sector is not able to adapt to the new demand, housing prices will further increase (Lennartz, Baarsma, Vrieselaar, 2019). In the Netherlands, the construction sector is experiencing a shortage of labor, shortage of materials and the increase in construction prices (Capital Value, 2019 A). These factors result in low construction rates and cause dwelling scarcity in the market and therefore, price increase.

The Dutch construction sector has been experiencing a slow recovery after the 2013 economic crisis due to municipalities and construction companies reducing their construction capacity after the crisis. Construction capacity has still not increased since 2013, even though housing completions have picked up from 2016 onwards (Hekwolter of Hekhuis et al., 2017). The fixed supply in construction (labour, material and tool) causes the stagnation of the construction capacity. This stagnation adds up to the increase in demand for new projects and causes an increase in the price of labour, materials and tools. Furthermore, delivery time becomes longer, and land prices rise. In 2018, a very dry summer decreased water levels in the Netherlands and made shipping time longer. All of these facts reduce construction capacity and therefore, raises development prices as developers need to make a profit. In turn, some projects become no longer possible, are delivered late or even postponed, adding to the housing shortage problem (Capital Value, 2019 B).

Figure 2.1 illustrates the increase of construction costs, the increase in building costs and the increase in wages of construction and civil engineering sector (CBS, 2019b).



Therefore, a slowdown in capacity is a consequence of the production in the construction sector being dependent on the market, economic growth, consumer confidence, growth in business and investor sentiment (Ollongren, 2019). This can be portrayed by a reduction of 80,000 jobs in the construction sector since 2010 (Hekwolter of Hekhuis et al., 2017). Furthermore, the gap between the supply of housing and the expected demand for housing will continue increasing in the upcoming years (CBRE Research, 2019). One reason being the late-cyclic of the construction sector meaning that the sector has a slow response to economic changes (Ollongren, 2019).

Physical supply constraints caused by the inability of the construction sector to respond to the increase in demand in housing (rigid planning system) as well as an increase in urbanization, that will later be scrutinized, are linked to a low supply elasticity (Öztürk, van Dijk, van Hoenselaar, Burgers, 2019). The price elasticity of the Netherlands is the second-lowest among the 36 countries that are members of the Organization for Economic Co-operation and Development (OECD) (Hekwolter of Hekhuis et al., 2017). This means that high prices do not drive to more new-build developments (Swank, Kakes, Tieman, 2002). In this sense, the shortage of new homes due to the above-mentioned problems in the Dutch construction sector also lead to price rises and adds up to the reasons for housing shortage (Figure 2.2) (Lennartz, Baarsma, Vrieselaar, 2019).

Driver 03 - Increase in population

Increase in urbanization along with physical supply constraints, as previously mentioned, are causes of low supply elasticity that drives house prices up. Following the same trend as other parts of the world, The Netherlands has been experiencing a demographic growth in its urban areas (Figure 2.3). The increasing pace of the population in the country's four major cities has been faster than in the rest of the country and the urban population growth has been approximately three times faster than the remaining area. The number of households has grown by 9 %, as a result (Nijskens & Lohuis, 2019).

This high population growth trend will only increase in the future (CBRE Research, 2019) meaning that the demand for houses will rise while the housing stock will not be able to accommodate this increase causing, therefore, a societal problem. Over the next 15 years, there will be a demand of around 1 million new houses (Rabobank, 2018b). This shortage of housing is illustrated by the tightness indicator of 3.8 in 2019 implying that a buyer had on average only 3.8 options of dwellings. This value can be compared to 2014 when a buyer had an average of 18 options (Figure 2.4) (NVM, 2018; Bokeloh, 2019).

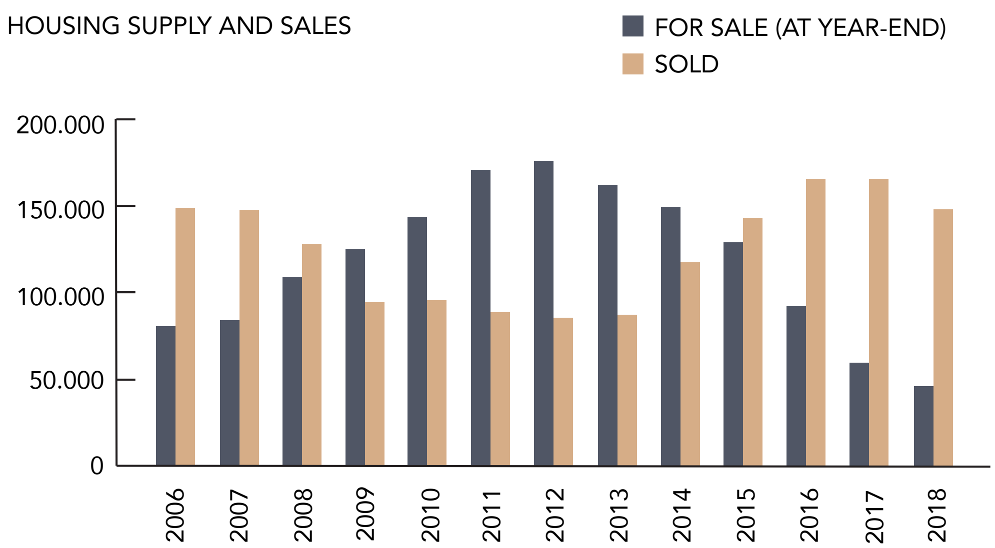


Figure 2.2 illustrates the numbers of housing supply and sale (NVM, 2018).

POPULATION GROWTH

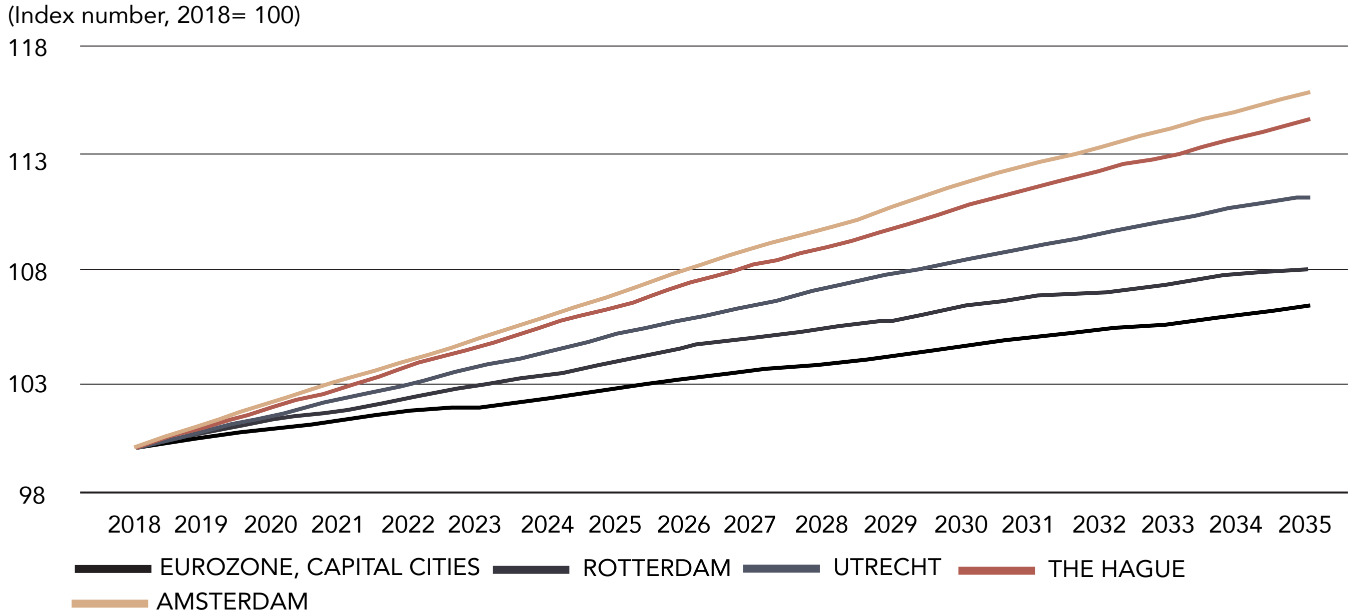


Figure 2.3 illustrates the population growth of the Netherlands (CBRE Research, 2019).

Furthermore, this increase in urban areas is caused mainly by the arrival of young people given what the city has to offer to the population on account of agglomeration economies (Claessens, Schanz, 2019). The causes of the influx of people to urban areas are fourfold. The first cause is the migration of young people due to a high number of enrolments in universities and colleges (PBL Netherlands Environmental Assessment Agency 2015). The second is the increase in the number of jobs for highly educated people in cities due to the rise of the service economy and technological developments (Nijskens & Lohuis, 2019).

Moreover, natural growth is the third cause of the increase in population. The presence of young people also means an increase in the number of children that are born. Finally, immigration to large cities for job search, for education and to connect to a community also contribute to the increase in population in urban areas and is the fourth reason (Nijskens & Lohuis, 2019). This influx of people is one of the many motives for the rise in housing prices, especially for rental prices as international students and highly educated foreign starters seek for homes in the rental segment due to their flexibility and quick availability (Ivens, 2019).

HOUSING SHORTAGE VERSUS HOUSE PRICES

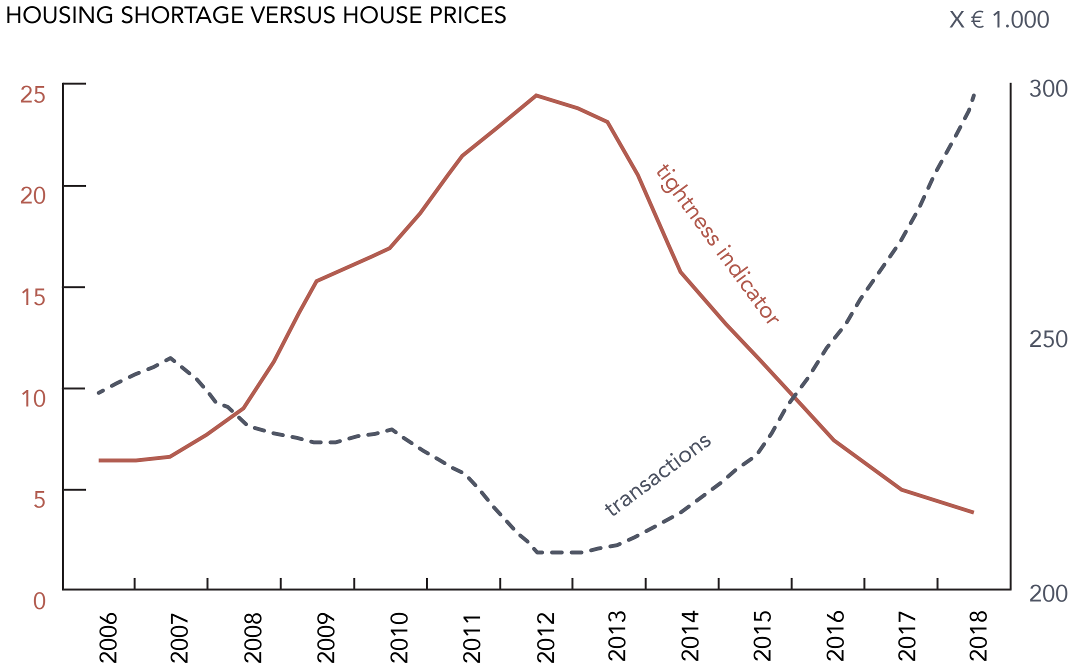


Figure 2.4 illustrates the housing shortage of the Netherlands (NVM, 2018).

Conclusion - Shortage in housing stock

Finally, the competition of the housing stock, the inability of the construction sector to provide housing and the rise in demographics is causing a housing shortage problem to the Dutch society. The combination of these problems has only added to increase the shortage challenge. Until 2030 there will be a shortage of more than 300,000 homes. To reduce this deficit 75.000 more dwellings should be built every year (Capital Value, 2019 A; de Groot & Vrieselaar, 2019; De minister van Binnenlandse Zaken en Koninkrijksrelaties, 2018). However, in 2019 around 66,000 new dwellings were expected (Groot & de Waal, 2019). Furthermore, until 2030 the housing stock will increase 8.9% while the households will grow 7.4%, meaning only a slight decrease of the housing shortage in the future (figure 2.5) (Rabobank, 2019 b).

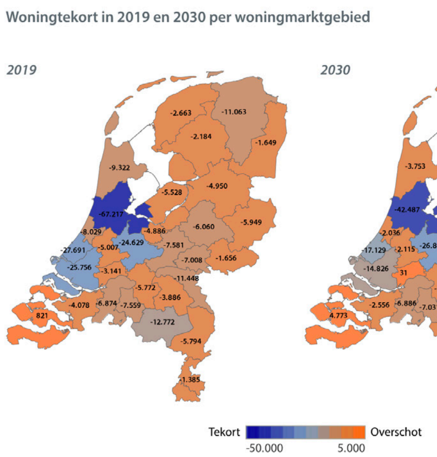


Figure 2.5 Rabobank (2019 b).

Housing shortage causes a malfunction in the economy as it affects economic development, labor market dynamics and the stability of the financial system. Therefore, it becomes a matter of concern for politicians and other private and public parties (Tweede Kamer, 2013). The commitment to increase dwelling supply is essential to solve the housing shortage (Groot & de Waal, 2019) and the potential of building lays in the hand of government but also private investors. (Vrieselaar, 2017). In this sense, institutional investors have to deal with this background. So, understanding the motives for the housing shortage and how it affects the middle-segment market, as it is later on portrayed, helps to create development recommendations that increase the middle-rental stock.

2.3.2 Affordability

The housing shortage is causing affordability problems in the Dutch housing market (Nijskens, Lohuis, Hilbers, & Heeringa, 2019). Therefore, with the sharp increase in housing and rental prices (CBRE Research, 2019) it has become difficult for some market segments to buy or rent a dwelling, especially the middle segment (Rabobank, 2019 a). In this matter, the lack of affordability that halts the middle segment in entering the housing market is the second factor that will be scrutinized. Understanding the causes of affordability will assist in laying the basis of the driving forces of real estate developments caused by the middle-segment problem. It will also assist in creating further recommendations.

Price-to-income ratio

In 2018 housing prices rose 9.2% between July and September, meaning an increase of 7,000 euros in three months, with Amsterdam being the city with the biggest price increase (Rabobank, 2018; Statista, 2019e). The market pressure also affects the rental segment with an increase of 2,5% per square meter in the rental segment in 2019 while the house prices rose 5,7% (Statista, 2019a; Statista, 2019b). Furthermore, the rent increase in Amsterdam and Rotterdam, as an example has been 3.4% and 3.2% respectively, higher than the average Dutch increase (Statistics Netherlands, 2019d). This being the case, affordability relates to the annual price or rent paid for housing consumption (Haffner & Boumeester, 2010). In this sense, the price-to-income ratio is used as a benchmark for affordability meaning that owner-occupied properties become less affordable when house prices rise faster than incomes. This can be seen in chart 3B of figure 2.6 where price-to-income ratios are higher than on the pre-crisis average. Nonetheless, the increase in prices has also been higher than the Dutch average in some cities as Amsterdam and Utrecht, meaning that some cities also become less affordable than others (Nijskens & Lohuis, 2019).

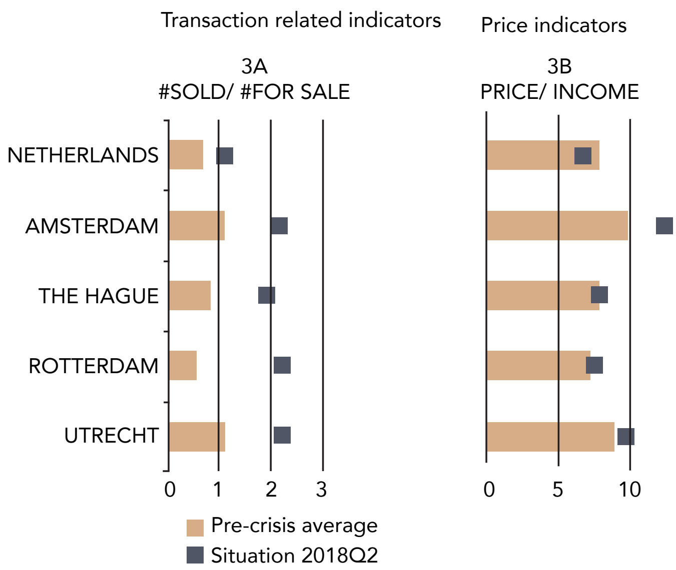


Figure 2.6 (Nijskens & Lohuis, 2019).

RENTAL RATE AND LIVING RATE

	Rental rate			Living rate		
	2012	2015	2018	2012	2015	2018
Housing allowance	23 %	26 %	24 %	36 %	38 %	37 %
Other HA target groups	28 %	30 %	30 %	38 %	39 %	39 %
Middle income	22 %	24 %	25 %	30 %	32 %	32 %
High income up to 2x modal	19 %	21 %	22 %	26 %	27 %	28 %
High income from 2x modal	14 %	16 %	17 %	19 %	21 %	21 %
Total	23 %	26 %	25 %	33 %	35 %	35 %

Figure 2.7 (Het ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019)

From 2015 to 2018 the percentage of net disposable income of a household that is spent on net rent (rent subtracted by rent allowance) has risen 2 %, considering all income groups. For the middle income, this percentage has risen 3%. A similar trend can be observed by the percentage of the net disposable household income that is spent on net living expenses. In this case, the percentage has risen 2% for the total income group and the middle-income group as portrayed in figure 2.7 (Het ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019). This means that a bigger share of wages is being used for housing expenses causing, therefore, a decrease in purchasing power and as a consequence a lack of affordability to rent and buy a dwelling.

Debt-service-to-Income

Moreover, the mortgage costs as a percentage of one's income can also determine home affordability (ING, 2017). Due to the current low-interest rates, homebuyers are able to borrow more money and as a consequence, contribute with more money for a house (de Groot & Vrieselaar, 2019). The Dutch debt-service-to-Income (DSTI) is the percentage of one's gross monthly income that goes to debt payments (Investopedia, 2019, July 9). In the Netherlands, this value has increased since 2015 and in 2018 has been between 35% and 40% while the loan-to-value ratio has decreased (Nijskens & Lohuis, 2019). Meaning that a bigger percentage of an owner-occupied income is used to buy a house.

WOZ

In Amsterdam, the lack of affordability can also be seen by an increase of about 50% on the average WOZ values of homes since 2014. This rise in prices does not follow the rise in wages since from 2015 to 2018 the wages have increased annually between 1.2% to 2% (less than the increase in WOZ). The increase in WOZ value impacts specific groups such as the low and middle income (Ivens, 2019; Statista, 2019) since according to Schwabe's Law of Renting the lower the income the greater the proportion that will be spent in rent (Haffner & Boumeester, 2010). Thus, families with children that want to find a larger home do not find an affordable place in the city and as a consequence have to move to the outskirts of a municipality. Starters are also having problems to find a suitable place and are, therefore, living in shared homes or smaller studios, in case they can afford it (Nijskens, Lohuis, Hilbers, & Heeringa, 2019).

Small-sized dwellings

Unaffordability can also be portrayed by the size of dwellings built in the middle-income rental segment. In the inner-cities, most of the newly built dwellings are small-sized apartments of single-person households or multi-person units for the high-end segment. This uniform living environment is not a sustainable option as cities should accommodate different typologies that are suitable for different target groups. In this sense, to solve the affordability problem it is not only sufficient to increase the number of dwellings. Rather the market needs to be diverse to accommodate different target groups (Lennartz, Baarsma, Vrieselaar, 2019; Jongeneel, 2018).

Conclusion - Affordability

According to the Dutch government, everyone is entitled to a home. However, the increase in house prices has made housing unaffordable for some groups, as they have difficulties finding a suitable home in the city (Ollongren, 2019). Competition due to increase in real estate investment, the limited land supply in addition to the low deliverable capability of the construction sector, rising costs of the housing market and inflexible regulations are causes for an affordability crisis (van Doorn, Arnold, Rapoport, 2019). Therefore, guaranteeing affordability is essential for who does not have sufficient resources for accommodation to also live well (Tweede Kamer, 2013).

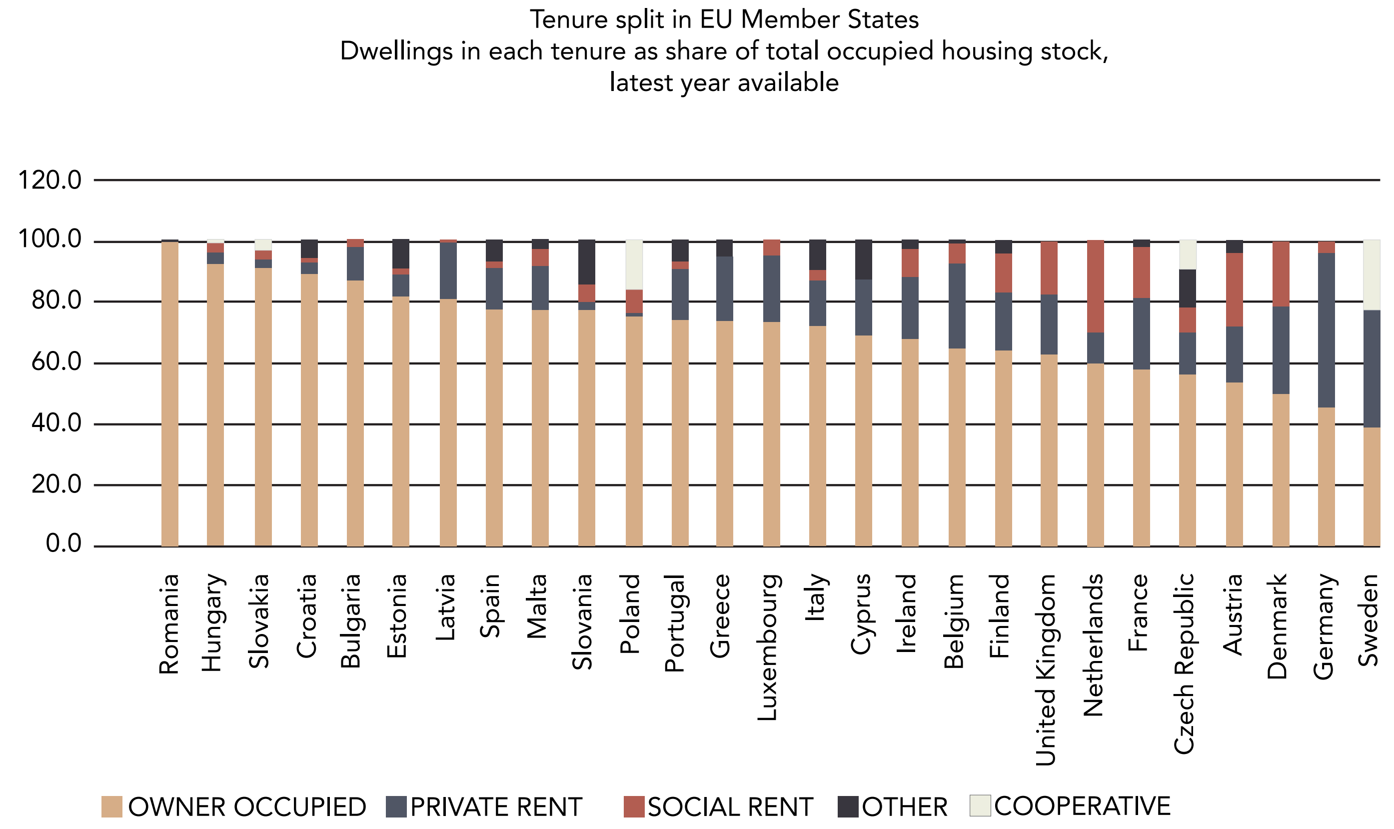


Figure 2.8: Share of housing stock in European countries (Housing Europe, 2017).

2.4 Structures

A government may intervene in the market to achieve a welfare state. This occurs when one of the following assumptions do not hold: perfect competition, complete market, no market failure and perfect information (Barr, 2012). As housing is a public good (Bengtsson, 2001) the Dutch government has intervened in the market since 1901 when the Housing act came into being. Since then policies have changed to adapt to market fluctuations, change in demographics and as a manner to respond to societal problems (Haffner, Hoekstra, Oxley, & van der Heijden, 2009). As a result, the Netherlands strongly regulates its housing market directly and indirectly by instruments such as subsidies, regulations, supervision of Housing Associations, land policy and spatial plan interventions (Czischke & Bortel, 2018). This regulation can be portrayed by the share of social rental in the country's housing stock that corresponds to the highest number of social housing stock in Europe (Housing Europe, 2017).

Furthermore, the housing sector is categorized by the commercial market and the non-for-profit. The last is the service of general economic interest (SGEI) that are important activities for citizens that would not be supplied without government intervention (European commission, n.d.). This segment comprises of rented dwellings by Housing Associations (Haffner, Hoekstra, Oxley, & van der Heijden, 2009) that are independent organizations that run under private law and are binding by a legal framework (Czischke, 2015).

In 1901, the Dutch government started providing subsidies for housing associations and consequently increasing their influence in the social housing sector. Since then the government has developed regulations and enforcement for housing associations as they are responsible for providing affordable houses to low-income groups. To be able to provide dwellings for one-third of the country's population Housing Associations invest their own equity, make use of bank loans and make use of the collective asset funds (BNG Bank, 2017).

This non-profit sector consists of rents with values below € 720.42 (Government of the Netherlands, 2019). According to the Housing act of 2015, the income ceiling for eligibility of social housing is fixed and adjusted annually. In 2018, the maximum income for eligibility was € 36,798. Housing Associations can only provide housing for households with a modest income (Boelhouwer, 2018). Therefore, incomes that are slightly above the ceiling are not eligible for social housing and will have to be accommodated in the second category of the housing sector: the commercial market (Wind, 2018).

Housing Associations, however, may rent 10% of its stock to incomes between €36.798 and €41.056 (in 2018) (Government of the Netherlands, 2019). Nevertheless, these rents are not bound by a regulatory boundary and rent control is less strict. Municipalities may have different middle segment bandwidths with a maximum between €9.000 and €10.000 (Czischke & Bortel, 2018).

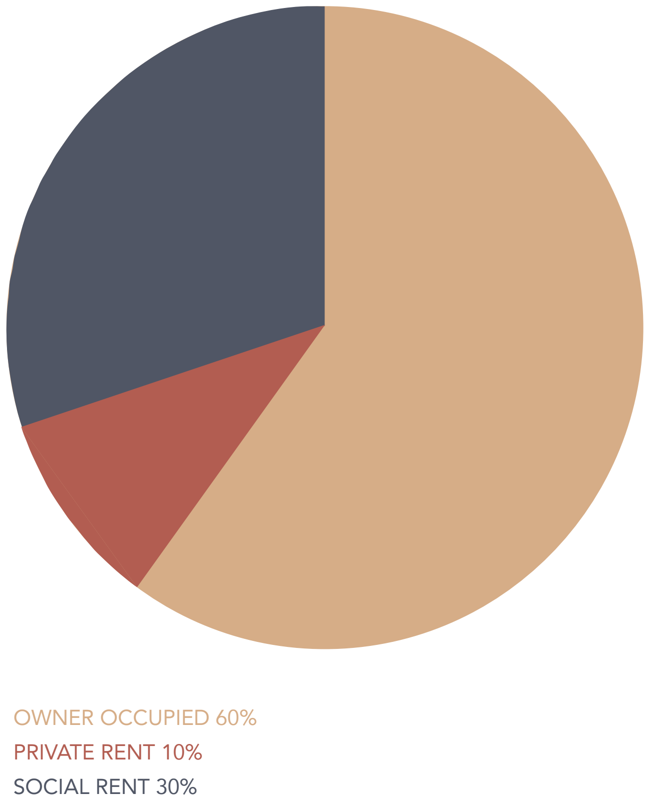


Figure 2.9: Share of housing stock in The Netherlands (Housing Europe, 2017).

Middle segment
The commercial market segment comprises of non-SGEI activities and can be divided into affordable housing and full market rent. There are no national allocation or eligibility rules for this segment. Furthermore, the target group that lies between the social housing threshold and the income level in which a household can choose to buy a house or not is considered to be in the affordable housing market (Czischke & Bortel, 2018). In the Netherlands, the middle-income group represents the affordable segment and is comprised by the households with an income above the social housing threshold up until twice as much as the standard/modem income (Hoekstra & Boelhouwer, 2014). This means that in 2019 households with an annual income of 38.000 euros up until 62.000 are classified in middle-segment. From this share, 10% of all Dutch households have an annual income of up to 45.000 while 16% earn between 45.000 to 62.000 (Boelhouwer, 2019). This paper focuses on the middle-segment group as they are especially affected by the shortage of housing and affordability problem. Moreover, an understanding of the mid-segment situation is essential for the recommendations to increase the supply of middle segment dwellings.

Middle-income households that are not eligible for social housing may find obstacles to become an owner-occupier. Some may not be eligible for a mortgage due to reasons such as not having a fixed income, not having sufficient income for eligibility or having debts such as study debts that will not allow them to borough sufficient capital to buy a house (Boelhouwer, 2018). In this sense, the price increase of dwellings makes homes less accessible and households who were interested in owning a dwelling may turn to the private rental sector (Nijskens & Lohuis, 2019). However, the free rental sector has never received financial support of the government as has the social housing segment and the owner-occupied market. Therefore, the quantity of free-market rented dwellings has decreased over the years (Eskinasi, 2017).

In 2018, only 7% of the Dutch housing stock belonged to the free rented sector and two-thirds of the share belonged to the affordable market. The middle segment has risen from 227.000 dwellings in 2012 to 420.000 dwellings in 2018, thus this increase was mainly due to changes in the existing stock and not because of newly built dwellings. Despite this increase, there is still not enough houses for the housing market to function properly as the shortage does not assist households in having dwelling options. This inhibits households to move and can also impact the labour market (Vrieselaar, 2017, Groot & Spiegelaar, 2019).

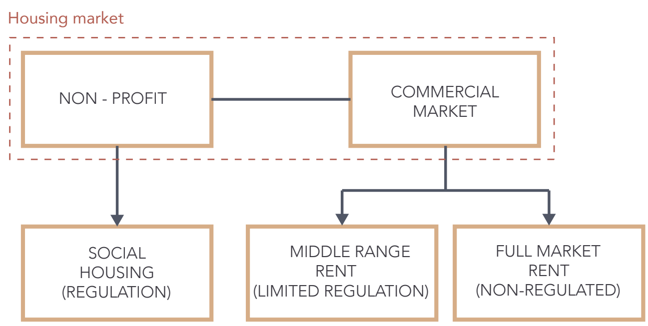


Figure 2.10: Dutch Housing market (own illustration).

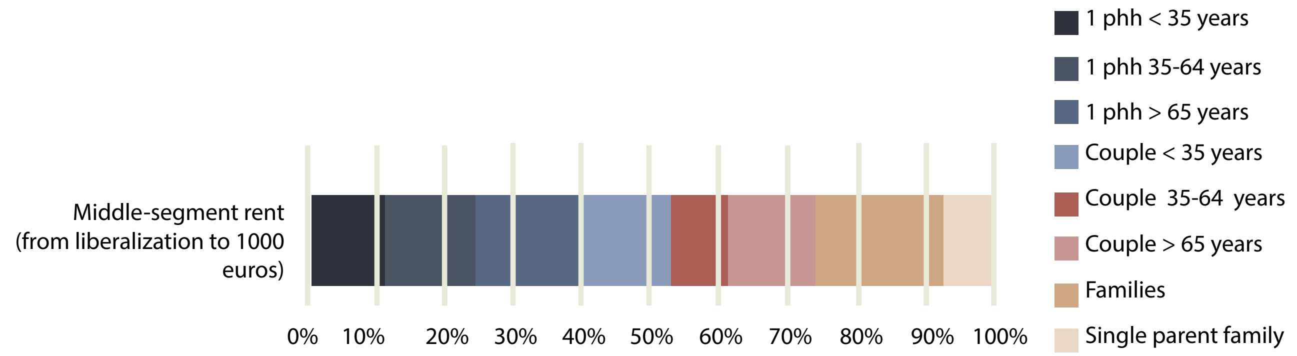


Figure 2.11: Household composition of middle segment and rental segment (Het ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019).

In this matter, the construction of dwellings in the private rental segment is crucial to create a market that is aligned to an increase in demand of the middle segment and that will allow a healthy housing market (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). Increasing the number of middle-segment rental homes is often mentioned as a solution to the middle-income housing problem (Boelhouwer, 2019). The households built for this rental middle-segment should have a rent bandwidth that starts with rents that are just above the limit of liberalization that is set annually by the government up until 1.000 euros. This means affordable rental properties for middle-income households (Vrieselaar, 2017; van Gijzel, 2018).

Furthermore, in 2018 approximately 26% of the middle segment stock was located in the G4 cities (Amsterdam, Rotterdam, The Hague and Utrecht), and 33% were located in the G40 (medium-sized cities). Nonetheless, household groups in this segment are allocated homogeneously (Figure 2.11). In 2018, the most significant group were families encompassed by 18% of the share. Followed by one-person households older than 65 years with 15% and by 14% of one-person household from 35 to 65 years old. In this manner, 40% of the share is for one-person households while the rest are for families or couples (Het ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019).

2.5 Economics

Among the private rental sector, there are units owned by organizations and others owned by private individuals (Haffner, 2011). The growth of the middle segment experienced in recent years was caused mainly by dwellings owned by private individuals (van der Harst & de Vries, 2019). This fact is concerning as these landlords have shorter investment horizons. As a consequence, this increases the risks for the Dutch housing market. If prices rise or fall and if interest rates rise other investments may become more attractive and buy-to-let developments will not be as attractive as they were previously. Landlords may then decide to sell the rental property that may be reallocated to the owner-occupied market, impacting the housing and rental prices (Groot & Spiegelaar, 2019).

In this matter, private rental dwellings owned by an institutional investor are seen as a more secure solution. Positive features of institutional investment in rental properties are a higher volume of dwellings built for rental purposes. The current minimum number of properties built in an area is around 25 since there needs to be an investment volume. Another positive feature is the longer investment duration as these investors are interested in long-term stable returns. Furthermore, there is also the interest of these parties in additional investments to the middle-segment stock, so the high quality of the property is maintained (IVBN, 2015).

The portrayed features would impact the private rental market positively. However, in 2018 only 22% of the private rental sector was rented by institutional landlords (Groot, & Spiegelaar, 2019). Nonetheless, institutional investors can and want to invest more in the middle rental properties in the Netherlands (IVBN, 2018). Despite the previous desires of these institutions, investment opportunities were lost. In 2016, 5 to 6 billion euros were available for Dutch and foreign institutional parties to invest in the Dutch rental property market. But the opportunity was missed because no investment offer was made (IVBN, 2016; Vastgoed Berichten, 2016).

In 2018 investors announced the availability of 20 Billion euros to invest in rental properties. The Dutch institutional investors have an amount of 6-8 billion euros, 2- 3 billion are from private investors and 12 billion from international investors (Capital value, 2019 B). Furthermore, in 2019 the Dutch government announced a 1-billion-euro subsidy on the Prinsjesdag for municipalities of scarce housing areas for the construction of housing (Groot & de Waal, 2019).

2.6 Summary

Real estate developments reflect societal needs and market demands of specific places (Squires & Heurkens, 2016). Shifts within and between external factors are the driver of developments (Adams & Tiesdell, 2013). In the Dutch housing market, external factors such as competition, increase in demographics and the supply deficit of the construction sector are causes for the shortage of dwellings. This shortage added up to the lack of affordability shifts the supply and demand equilibrium and drives the middle-segment out of the housing market (Nijskens, Lohuis, Hilbers, & Heeringa, 2019). Therefore, it becomes harder for this share of the population to find a suitable house that is within their budget and needs (Ivens, 2019).

The Dutch housing structure does not encourage the middle-segment to find suitable dwellings as they are not eligible for social housing and cannot become an owner-occupier due to obstacles such as not being eligible for a mortgage (Boelhouwer, 2018). This segment share, therefore, turns to private rental dwellings (Nijskens & Lohuis, 2019). However, the low percentage of rental dwellings for the middle-segment halts the inclusion of this share of the population into the housing market. Thereby, new rental dwellings should be built to alleviate the pressure of the housing market and increase the middle segment dwellings share (Groot & Spiegelaar, 2019; Hekwolter of Hekhuis, Nijskens & Heeringa, 2017).

Institutional investors are a secure solution to invest in middle-segment rental dwellings (IVBN, 2015). Although they have missed out on the opportunity of using available money to build rental dwellings for the middle-segment share in 2016, they still have the opportunity to make use of other sources of available funds to invest in this segment (Vastgoed Berichten, 2016; Capital value, 2019 B). In this context, the factors depicted in this chapter form the condition in which real estate processes take place. Because institutional investors missed out on an opportunity the current development process and actors that take part in it will be analyzed so that there is an understanding of the situation. Therefore, this chapter has helped to understand the drivers of supply and demand of the development process.

3. Development Process

3.Development process

3.1 Introduction

Places are shaped by complex governance processes that can shape and materialize. These transformation forces create places by conceptualizing a strategy from the institutional site of formation to the institutional arena in which projects are conceived (Healey, 2006). These strategies that create the built environment are understood as property development and investment activities that create opportunities and generates value (Healey, 1994). They are a result of the relationship between institutions and agents that occurs in a specific market (van der Krabben, & Lambooy, 1994).

Aiming to understand the development industry of the middle segment and to answer the main question of this research, the property development and investment activities of this segment need to be scrutinized. In this sense, by understanding that the built environment is a relation of institution and agents, how these agents operate, process and in which way they are involved to deliver the strategy that modifies the built environment needs to be understood. Therefore, this chapter focuses on understanding the individual agents involved in this process by utilizing the actor-network theory. In this sense, the relation and events between the agents that take part in the development process of the middle-segment are analysed as well as their current strategies.

The point of departure of this chapter will be to understand the concept of agency. According to Adams & Tiesdell (2012) agency is the term used to understand the capacity of how actors of a development process pursue and define their strategies, actions and interests. Since these agencies are rooted in a specific environment this environmental context will impact their decisions. Meaning that agents take decisions according to the institutional arrangements and regulations as well as the power of the functioning market. Due to the heterogeneity of this market and the groups involved, the organisations in which these actors may take part will differ in their decision making according to their cultural and institutional differences. Therefore, the relationship between agents and institutions will be the structuring force that enables property developments and investment activities to create and change the built environment (van der Krabben & Lambooy, 1993).

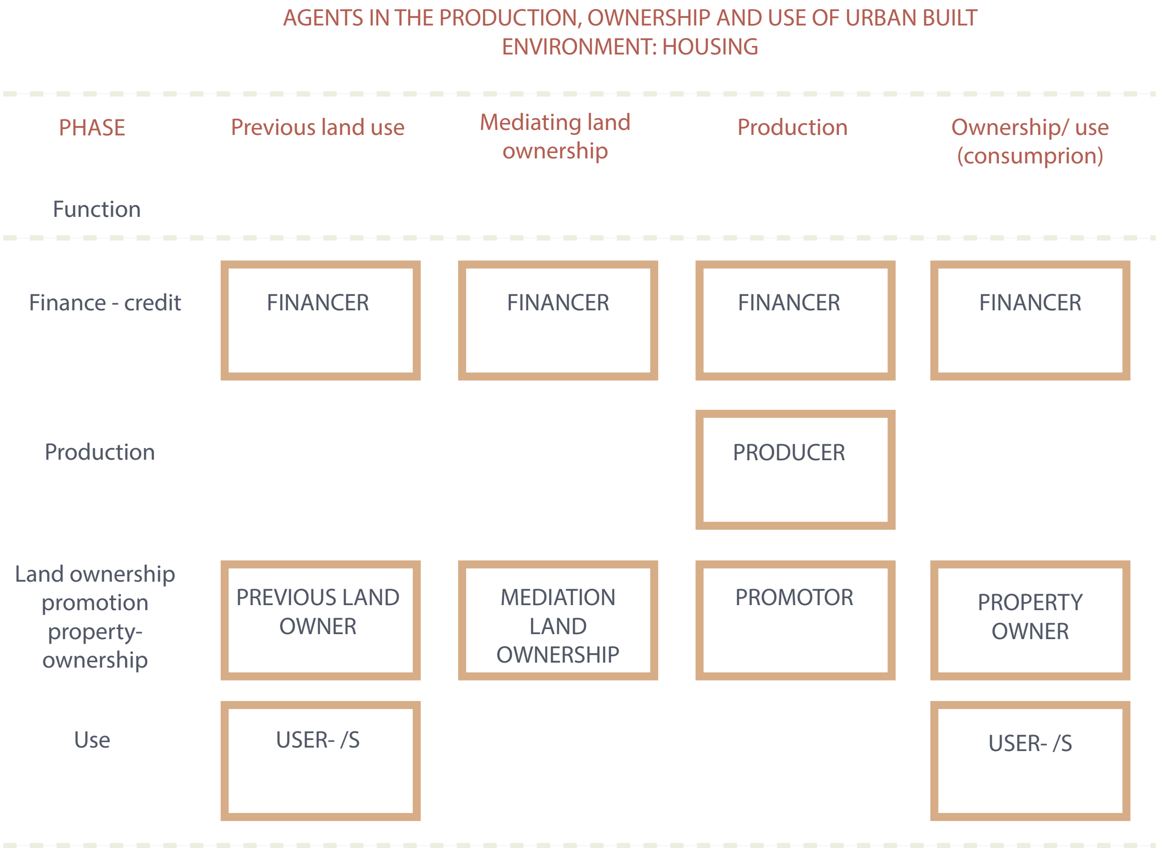


Figure 3.0: Model for comparative/historic analysis of forms of housing production (Chambert, 1988).

3.2 Development process

Market and institutions work concurrently, one influencing the other. Considering that a current development model has evolved from a previous one, a basic residential model will be used as a basis so that the agencies and processes that are part of the development process of middle segment rental dwellings can be understood. The model of Chambert (1988) of comparative/ historical analysis of housing will be used as a basis to understand how housing models started and how have they changed (van der Krabben, & Lambooy, 1994).

In the following model the housing development process is divided into four stages: previous land use, mediating landownership, production and ownership use. Agents that are identified as financer, producer, landowner, promotor, property owners and users carry out functions in each of the four stages. The functions that are carried out concern the following: provision of finance- credit, production of the building, land and property development and the final use of the building (Chambert, 1988).

In this matter, the phases of the development process helps identify the agencies that take part in that phase. Therefore, the first phase in which agencies are illustrated is the previous land use. In this stage, the land is still owned by a party that may not have a land development function. As so, the supplier of unserviced land is the first actor of the development process of the middle-segment rental properties and is accommodated as the user agent of the previous land use phase of Chambert (1988) model.

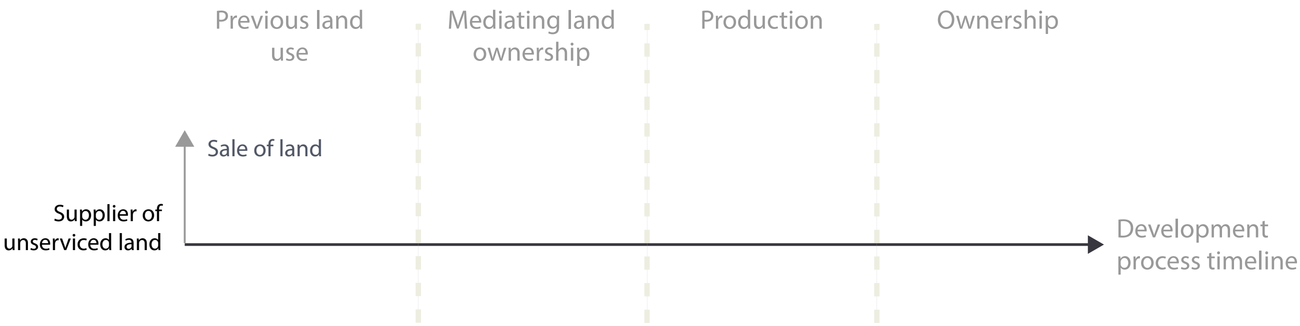


Figure 3.1: Development process timeline of Suppliers of unserviced land (own illustration).

3.2.1 Supplier of unserviced land

The supplier of the unserviced land is the owners of the land which in many cases do not have the financial means to service the land for development. The landowner is the actor that does not have a dependency relationship with others from the development process. He has a passive role as he only sells the land, thus he does not take risks. In this case, the land or land and building can be acquired by the municipality, at the beginning of the development process, with an active land development process or it can also be acquired by a private land developer. In this last case, the municipality will participate passively (Needham, Koenders and Kruijt, 1993; Orsini, 2007).

3.3 Municipality

In the Netherlands, municipalities can employ a public land development strategy in which active planning of land use occurs by purchase, ownership and servicing of land in spite of it to be sold for future development parties. In this context, real estate is drawn up according to public policies. The public comprehensive top-down land development model encompasses these characteristics and is common in the country. In this model, the costs of purchasing and servicing of land are recovered by the sale of the serviced plots (van der Krabben & Jacobs, 2013). The costs can also be partly covered by government grants or by profits from the servicing of another area in case this one is unprofitable (Leväinen & Altes, 2005).

Municipalities are involved in this type of public land development strategy because of public interest. They do not prioritize the pursuit of development gains. Thus, most (re)developments occurred in land supplied by municipalities (van der Krabben & Lambooy,1993). However, since the 1990s there has been an increase of public-private partnerships (Leväinen, & Altes, 2005). Therefore, private land developers and large construction firms also take on the land development role (van der Krabben & Samsura, 2011). There has been a shift from the public led development towards a development form that is stimulated by municipalities by the transfer of activities to market players and public-private developments. As the incorporation of entrepreneurial activities into municipalities is inadequate for public accountability and brings more risks to the municipality (Kang & Altes, 2014).

In the land development process, raw land is acquired and then serviced by laying out water, gas, electricity and drainage infrastructure. Implementation of the public structure as roads and car parking's can also be built, if necessary. Moreover, the land has to be often drained and/or the land level must be raised (Needham, Koenders and Kruijt, 1993; Leväinen & Altes, 2005). In this matter, the high costs involved with servicing the land entails considerable financial risks. In some cases, municipalities invest hundreds of millions of Euros overviewing the return of these investments by selling land. These costs are initially paid by money borrowed on capital markets. Attractive low-interest loans are offered by a special purpose bank for municipalities (Bank Nederlandse Gemeenten), facilitating their financial activities (van der Krabben & Jacobs, 2013). Moreover, developers are also purchasing land from farmers before it has been allocated into plans or zoned as a means to enter into agreements with municipalities (Monk, Whitehead, Burgess & Tang, 2013; Orsini, 2007).

Nonetheless, the active process that is partaken by municipalities is seen as the two-hats dilemma (Needham, 2007). The local government 'wears the hat' of the land developer as well as the hat of the statutory planning agency. As a statutory planning agent, its ambitions for the middle rent segment as well as the initial rent can be stated in the housing vision document. The municipality thus applies instruments in their disposal that will arrange for the constriction of middle-segment homes, that will target the segment and specify the period in which the property should stay for rent. Since July 1st of 2017, the middle-segment rental dwellings can be placed in the zoning plan (bestemmingsplan). In this sense, if the middle-rental segment is mentioned in the zoning plan a middle-rent regulation that indicates the maximum initial rent and the period in which rental houses are retained in the middle-segment (at least 10 years) needs to be drawn up. Furthermore, one of these instruments is to conduct private law agreements with buyers for a specific destination of land, and in this case wear the hat of the land developer (Ministerie van Binnenlandse Zaken en Koninkrijksreaties, 2017).

While acting as a land developer, municipalities can opt to sell or lease their land. By doing so they enter the mediating land-ownership phase of Chambert (1988). Regarding the middle segment properties, when opting to sell land the municipality enters into a private law agreement with the buyer in which there will be arrangements concerning the number of medium-sized rental properties, the minimum area of a dwelling, the initial rent and the annual rent increase or average rent increase (IVBN, 2018). The municipality can also issue a leasehold for their ownerships in which conditions for this leasehold are established in a private law agreement. In this case, the municipality gives the leaseholder the right to use the land whereas the leasehold pays rent (Ministerie van Binnenlandse Zaken en Koninkrijksreaties, 2017).

Land prices are valued according to the residual land value method. Therefore, the land price of an owner-occupied home will be higher than the land price of a rental dwelling. This happens because while valuing land in which owner-occupied properties will be built the market value of these dwellings is determined based on their sale value. In the rental case, the land valuation will be made according to the investment value of the rented properties since they will be rented after they are built, contrary to the owner-occupied case. The investment value is lower than the value of the free sale of the owner-occupied dwellings, so the residual land value of the rental properties will also be lower than the owner-occupied property (IVBN, 2018).

Furthermore, the municipality can make agreements with Housing Associations to develop middle-rental segment. This can occur by Housing Associations re-allocating current stock, restructuring and new constructions. These agreements are more certain to be realized if the local government includes middle-rental segment in their housing vision. Housing Associations can deliver middle rental houses by adopting a split function variant where they create a distinction between capital and management activities by setting up a company where the activities of the Housing Association will be transferred to (Boelhouwer & Priemus, 2012). Delivering these houses has become less complicated with the bill approved in 2019 that mitigates the market test for Housing Associations to build middle rented houses (Tweede Kamer der Staten-Generaal, 2019). However, the primary task to provide owner-occupied dwellings as well as middle-rental segment dwellings are bound to be realized by market parties (Ministerie van Binnenlandse Zaken en Koninkrijksreaties, 2017).

Additionally, municipalities can also participate in three development approaches that are the building claim model, the public-private partnership and private land development. The building claim model is the most similar to active municipal land development. In this case, farmland is purchased by developers and investors. They, later on, sell the land to the municipality in return for rights to buy back a certain amount of that serviced land in which they can build a fixed amount of real estate. With this building right agreement, the municipality becomes responsible for the servicing of land. The second model is the public-private partnership. This model is based on the collaboration between private and public actors where developers buy farmland in advance and then join the municipality in a private company with limited liability to acquire the remaining land and service it. The company is terminated as soon as the task ends. In this case, the developer buys the land in advance foreseeing the opportunity of the partnership and the retaining of part of the company's shares that may come from the serviced land (Orsini, 2007).

Finally, the last model is the private land development model that concerns a more passive planning approach for the municipality. In this case, the land is acquired, assembled, serviced and developed by private parties. Thus, the private sector company develops its plans for the area considering it is following the zoning regulation of that location. Special agreements can be signed with the municipality for cooperation on how the land will be served, on the destination of the land regarding public issues, for financial issues and others. There is also the possibility of developers servicing the land and later transferring it to the municipality (Orsini, 2007). However, large building constructions and private land developers could assume the land development role from the municipalities. Nonetheless, these private developers appreciate the land development role of the municipality as they can focus their activities on earning money by building new dwellings (van der Krabben & Jacobs, 2013).

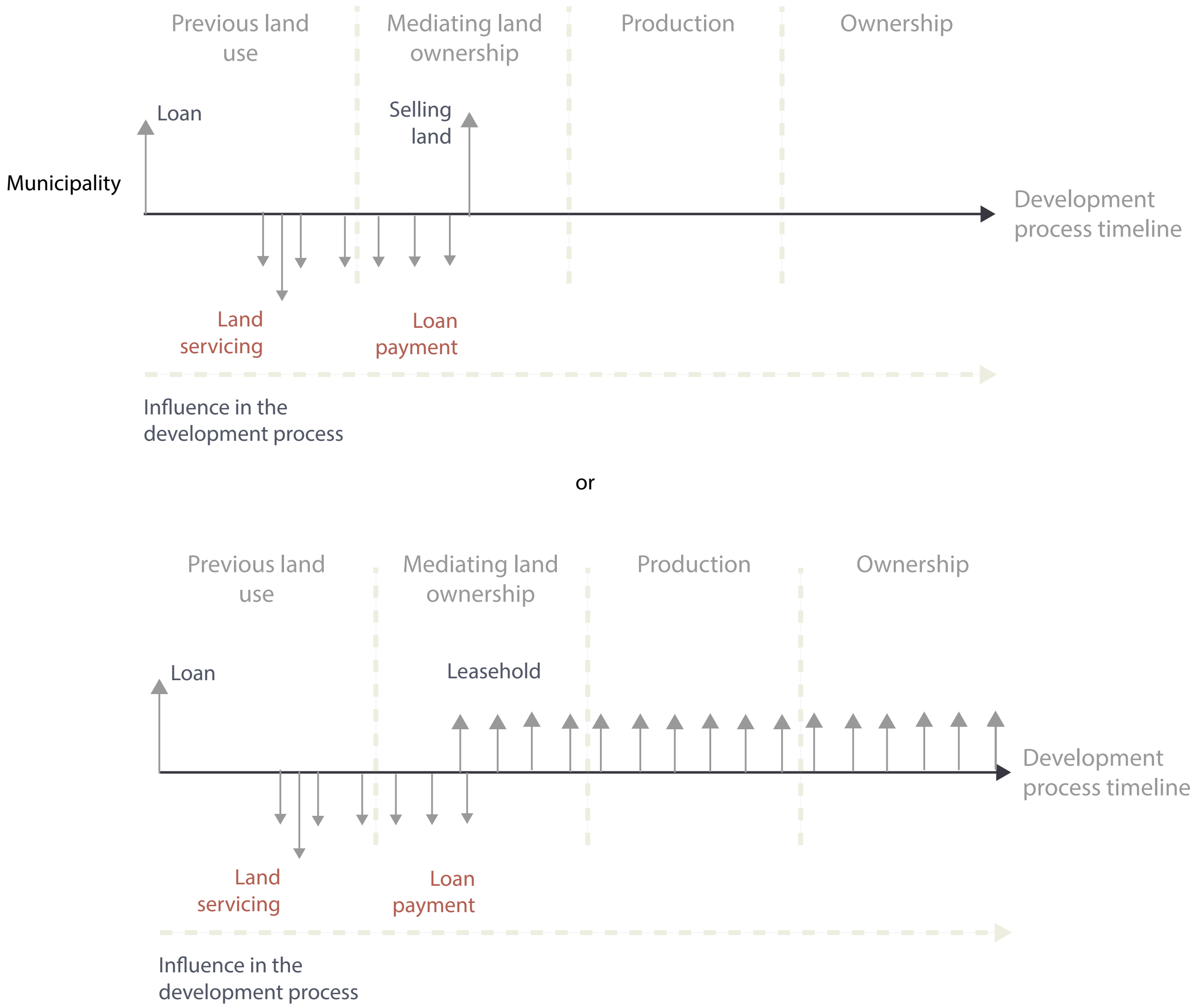


Figure 3.2: Development process timeline of the Municipality (own illustration).

3.3.1 Conclusion

According to the model of Chambert (1988) municipalities are actively present in the previous land use phase as well as the mediating land ownership phase. With the standpoint of influencing the development process and realizing their vision for the area, the municipality can engage in an active planning mode. As a consequence, their influence persists throughout the development process. They receive loans from banks (that become a financial actor of the process) with low-interest rates to realize their servicing of land and therefore, consolidate yet more their influence in the development process. Furthermore, the interaction with other actors of the development process as developers and investors is necessary to make their plans go from the institutional site of formation to the institutional arena. Partnerships become even more important to maintain their influence when the municipality does not hold the land development role. Finally, they are important actors in the process of increasing the stock of middle-rental dwellings as they possess tools that can assist in that matter, such as defining a percentage of middle-segment in the zoning plan.

3.4 Demand for serviced land

As seen previously, the municipality takes part in the previous land use and mediating land ownership phases of the model of Chambert (1988). Private developers can also take part in servicing land and selling land for development purposes. In this regard, the agents that demand serviced land for the development of middle-segment rental dwellings are the next portrayed agents in the development process. According to Needham, Koenders and Kruijt (1993), there are three categories of actors who demand serviced land: non-profit making as semi-public trusts, private parties that build for their use and parties that develop overviewing profit. Since the thesis aims at creating recommendations to increase the middle-rental stock for institutional investors the next part of the paper focuses on the actors that develop overviewing profit.

3.4.1 Developer

Real estate developers are one of the parties that develop overviewing profit. Therefore, this section investigates the role of developers in the production of the middle-rental segment. Developers represent the promotor roll in Chambert's model (1988) and are the first agent of the production phase to be investigated. They play an important role in the production of the built environment whereas they organise the development process. Their expertise is used to identify a suitable plot, to find financial institutions who are willing to invest in the development and to make the development process more efficient by addressing any constraints inherent to the process. Furthermore, developments led by a developer are known as developer-led (van der Krabben & Lambooy, 1994, Heurkens, 2017).

Real estate developers can be divided between essentially dealers/ traders and the ones that combine development with investment. The trader-developer does not pursue long-term investments. He becomes interested in the development potential of a site, develops the site and then sells or lets it. In case the development has been let to tenants, the trader-developer will act as a landlord and sell the property to an investor. The developer/ investor, on the other hand, holds and manages the development by retaining the full equity as a long-term investment. These developer/investors decided upon actions and strategies that correspond from those of institutional investors (in most cases insurance companies and pension funds) (Adams & Tiesdell, 2012).

In the Netherlands, property developers are divided into three types. There are the ones who are attached to large construction firms. These aim at always having continuous project flow. The second type of property developer is the one associated with banks or insurance companies. These focus on selling a complete project to investors. The third type is independent project developers that pursue their own objectives. Additionally, these three types of property developers may also develop a property commissioned by an end-user (Needham, Koenders and Kruijt, 1993).

Furthermore, according to Adams & Tiesdell's (2012) real estate developers' distribution, it is more likely that the Dutch developers attached to large construction firms (1) are interpreted as trader-developer since their focus lies on always having projects to be built. The Dutch developers associated with banks or insurance companies (2) are more likely to be interpreted as developer/investor since their strategies need to be aligned with the ones of institutional investors. Finally, the Dutch independent project developer (3) can be associated as trader-developer or a developer/investor depending on their objectives.

Types of Dutch Developers	Dutch developers according to Adams & Tiesdell (2012)
(1) Developer attached to large construction company	Trader developer
(2) Developer associated to investment institution	Developer/ investor
(3) Independent developer	Trader developer or Developer / investor

Figure 3.3: Classification of Dutch developers according to Adams & Tiesdell (2012) developer typology.

Each development plot will have a specific development concept due to the heterogenic characteristic of real estate. For these concepts to arise from the site, the developer needs to establish site control. The developers usually buy land with a combination of private equity and debt (Heurkens, 2017). When that is not the case, there is the possibility to take part of ground lease, in which the initial land rent will be paid by the developer before the developments start. This is a long-term arrangement in which the value of the land rent is initially based on the land value. Moreover, there is the possibility to purchase an option of the land. In this case, the developer pays a certain amount to choose by a certain date whether to go through with the purchase or not (Korthals Altes, 2019).

During the period of financing land, developers are reluctant or unable to employ substantial funds since the previous period from the construction can last several years (Adams & Tiesdell, 2012). The capital of a developer, also, bears a high opportunity cost due to the foregone value of the high liquidity for its current projects, making developer hesitant to apply their equity. Because land generates little or no cash flows, institutional lenders are also reluctant to lend. Likewise, if the developer finds an investor who is willing to lend the amount of loan-to-value will be no more than 50%. Thus, purchasing an option lease or engaging in a leasehold, as explained previously, are a possibility. If that is not the case and the landowner is not the municipality, the developer can bring the land seller into a joint venture partnership, when the property is not owned by the municipality (Ling & Archer, 2013).

Similar to the behavior of other actors that are part of the development industry, developers operate with a maximizing behavior. This means that they choose a strategy in which they will have a maximum result. However, due to uncertainties caused by knowledge limitation from the incomplete information available in development environments, the ability to choose between strategies becomes limited (Ling & Archer, 2013). Developers are interested in projects that are expected to sell or rent easily, due to their financial gains (van der Krabben & Lambooy, 1994). Furthermore, developments are mainly used to increase the expected rate of return (van Loon & Aalbers, 2017). With these objectives in mind, the practice of behavior maximization is conducted by feasibility analysis to evaluate the feasibility of the project. Through this study, the expected cash flows will be projected, and the feasibility will be determined by cash multiple or net present value (NPV) analysis. The last is the preferred indicator of investment performance. If the development appears to be feasible and following the expected return, then it can be carried on. If not, the developer can revise the plan or abandon the project (Ling & Archer, 2013).

Furthermore, in traditional developments the following activities are realized: a land plot is identified, an idea for the development comes into view, the developer assembles a team, signs contracts, builds the real estate and then sells it or leases it. Many actors are necessary for these activities to take place. Actors of which take part in legal activities, environmental, marketing, finance, architecture, engineering, construction, quality control, management and so on. These actors can be hired by the developer to work on a specific project or they might function in-house. For these activities to function within the developer company the business volume should justify the hiring of these different functions. An advantage of having these in-house functions is that the developers cost decreases. If that is not the case, the team should be organized according to the timing, need and cost of the development company (Peca, 2009). Moreover, due to the variety of activities that should be carried out by the developer, the construction work can be performed by the developer or even a construction team can perform a development. In this last case, developers and constructors permute in the producer role of Chambert's (1988) development model.

Finally, the developer has other costs besides from financing the land. There are soft costs that usually occur up until the construction phase. These are related to the many actors involved in the development process as for architects, consultants and other actors that work prior to construction. These expenses are mostly paid by equity capital that may be financed by investors. Furthermore, developers also bear construction costs. In this case, they can apply for construction funding in which the source of the funding are typically banks. The construction lender usually expects the loan to be paid off within two to three years and preselling or preleasing is normally required for the construction financing to occur. In case the development is leased there will also be management costs in the operating phase. Notwithstanding, investors will be the agents that will be illustrated in the next section (Ling & Archer, 2013).

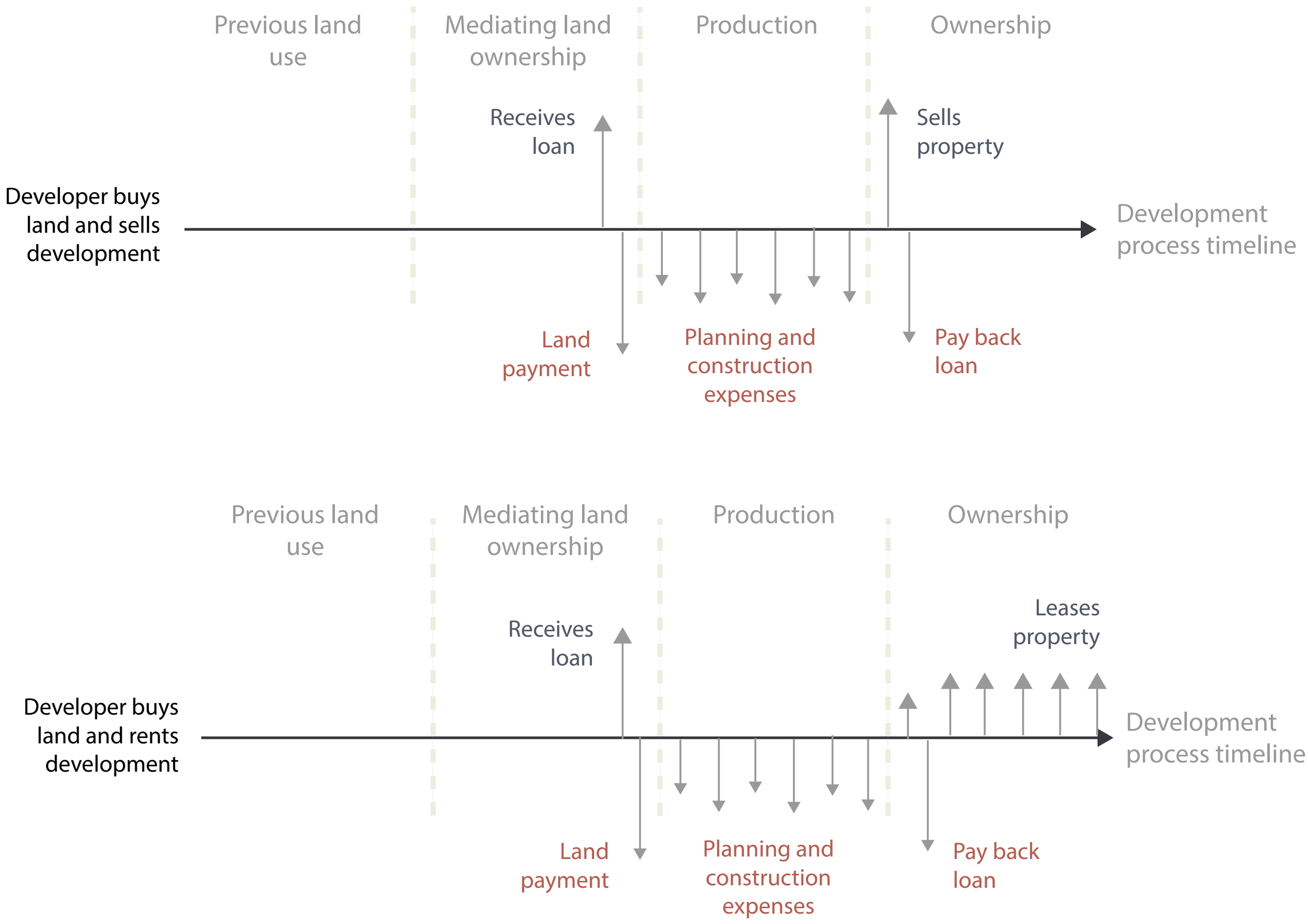


Figure 3.4: Development process diagram in which developer buys the land. The diagram was made for explanatory purposes and does not consider the exact specificities and of different developer (own illustration).

3.4.2 Conclusion

The development process is a complex activity in which a developer takes the lead in organizing different actors and parties so that the combination of the individual efforts of these parties can be materialized in real estate (Peca, 2009). Each developer works according to strategies that overview profit (van der Krabben & Lambooy, 1994). Moreover, they work with different parties to achieve their objectives (Adams & Tiesdell, 2012). When building for the middle segment, the developer will not be able to rent according to the market value since the middle-segment rental is somewhat fixed. It starts from above the liberalization limit up until approximately 1.000 euros (Vrieselaar, 2017; van Gijzel, 2018). This means that developers will be constraint when wanting to act in accordance with the maximizing behavior (Ling & Archer, 2013). Developers will not be able to make use of high rents in their cash flows and will, therefore, have to adopt new strategies to achieve their expected return. As a consequence, they may turn to municipalities and other parties for agreements and partnerships (Bouwinvest, 2019).

In the middle-rental segment, there is the developer/investor that builds aiming at renting the properties in accordance to the middle rent, and there is the trader developer that builds aiming to sell the properties for a third party that will rent the properties for the middle income. In all these situations, the developer must have a strategy and a reason for doing so (Adams & Tiesdell, 2012). Reasons to do so may be to conform to the middle-rental segment housing percentage specified in the zoning plan. Since this percentage obligates developers to have a certain number of middle-segment dwellings in the plot they intend to develop (Ministerie van Binnenlandse Zaken en Koninkrijksreaties, 2017). Another reason might be to achieve social targets by producing middle-segment rental dwellings (Adams & Tiesdell, 2012). Despite the reasons for it, the biggest challenge for developers is to tailor a strategy that will overlook their maximizing behaviour to achieve adequate rates of return.

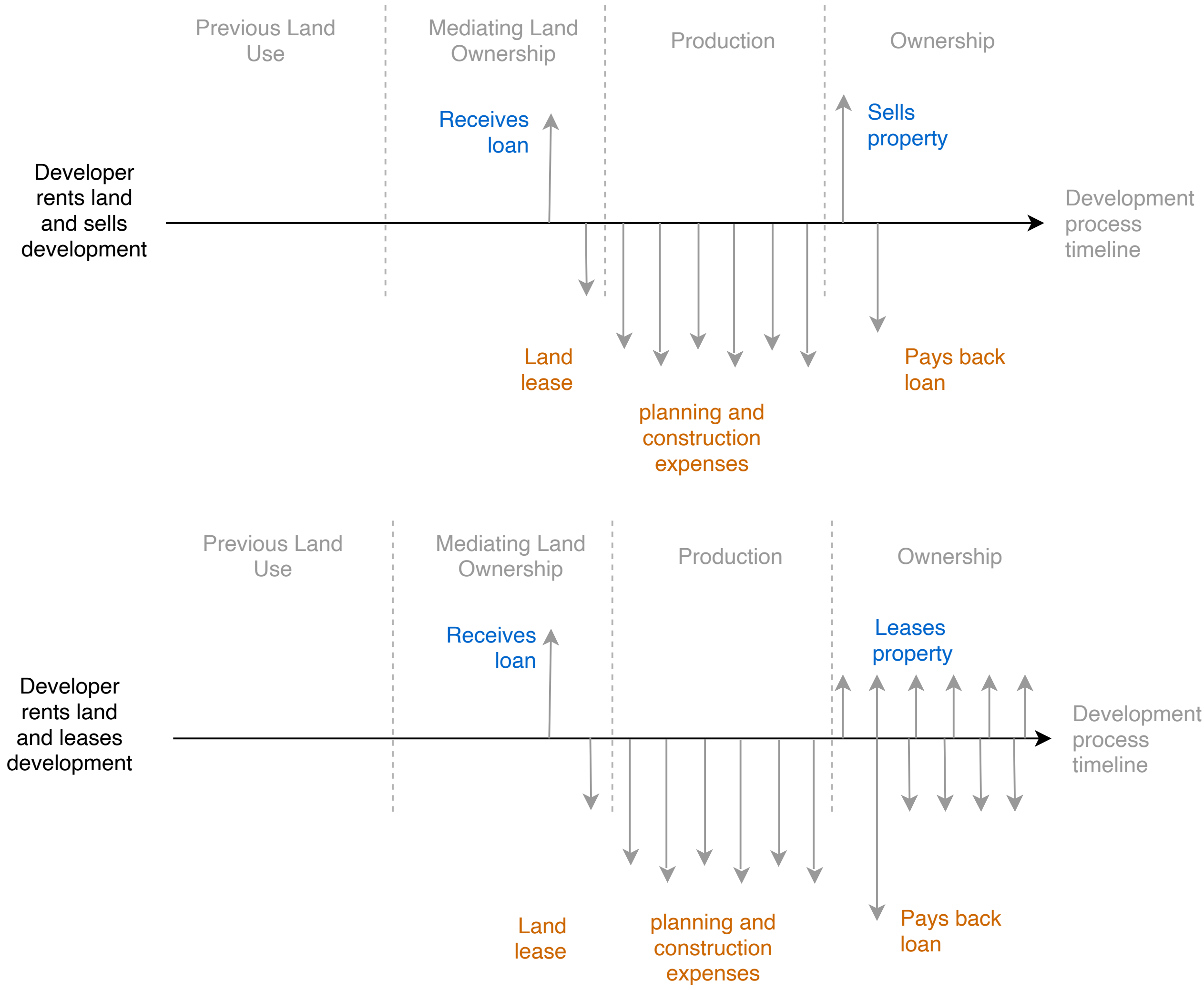


Figure 3.5: Development process diagram in which developer rents land. The diagram was made for explanatory purposes and does not consider the exact specificities and of different developer (own illustration).

3.5 Investors

As portrayed in the previous section, it is common for developers not to finance a development with their reserves. External fundings will then be needed for real estate to be conceived (Ling & Archer, 2013). These external fundings are usually associated with the transferring of power from who promotes to who funds (Adams & Tiesdell, 2012). This can be illustrated by financial arrangements of some institutional investors in which they impose constraints in terms of yields, loans, pre-letting and forward sales for the development (Ratcliffe, et al. ,2009). In some cases, this transfer of power is implicit while in others it is not (Adams & Tiesdell, 2012).

In a development process, short-term finance, as well as long-term finance, is required. The first is usually arranged for a maximum of 5 years. During this time, activities such as site acquisition, construction, professional fees and marketing are financially covered. After the real estate has been built the short-term finance is repaid while the long-term finance is raised (Ling & Archer, 2013). Nonetheless, the money for these two types of investments can be raised through debt funds and equity funds. Parties who lend through debt funds do not have the right to own a share of the development but will be repaid with interest. While parties that lend with equity funds are entitled to a share of the development profit (Adams & Tiesdell, 2012). The sources of these funds can be banks, pension funds, life insurance companies, REITs, foreign investors and other funds (Peca, 2009).

The main used forms of debt funds are bank loans and overdraft, commercial mortgage and debt corporate paper (Adams & Tiesdell, 2012). In commercial mortgages, a developer can acquire long-term development finance with long-term fixed interest rates. The fixed interest loans are dependent on market conditions and can be extended from 10 to 25 years depending on the project and the needs of the borrower (Ratcliffe, et al. ,2009). Debt corporate papers, on the other hand, enables large companies to raise long-term loans through bonds (Adams & Tiesdell, 2012). Furthermore, bank loans are explained in the next section.

In equity funds, one of the options of finance can be the building up of equity by a developer. A second form would be to establish a joint venture with parties that will share risks and rewards (Ratcliffe, et al. ,2009). Moreover, contractual arrangements between developers and investors are also categorized as equity fund. In that matter, financers can choose among different types of contractual arrangements. The most common are forward funding, forward sales agreements and sale and leaseback. In the first case, investors cover the cost of construction. In the second case, the financers mostly aim at short-term gains and want to guarantee selling arrangements by previously agreeing upon long-term investors for the post-construction phase or prospective owners (Adams & Tiesdell, 2012). Sale and leaseback arrangements, on the other hand, constitutes the selling of the freehold interest of the development by a developer to an investor. This settlement is followed by a leaseback of the development with an initial yield that reflects the selling price. Notwithstanding, the developer sublets the property with a higher renting price than the one he pays to the investor. This becomes an advantageous agreement for the lessee as it frees capital that otherwise would not be available for a lower cost and longer period (Ratcliffe, et al. ,2009).

The above-mentioned agents that are sources of debt and equity funds mentioned by Peca, (2009) have distinct motivations to provide these funds. However, all of these motivations have an underpinning concept that is matching fund. This means that the essence of the cash flow of an investor will need to match the essence of the loan or investment that is made. In this manner, the source of a commercial bank derives from the money of savings and deposits. The source of the money is considered to be a short-term investment. Therefore, Banks will also lend money to investments that seek short-term gains. The same occurs to insurance companies that acquire money from insurance premium payments, that are considered to be a long-term investment. Insurance companies will, therefore, be interested in lending or financing an investment that also aims at long-term gains (Peca, 2009).

3.5.1 Investors and funders

In the model of Chambert (1988), investors can have a promotor role as well as be part of the financial roll. These investors are traditional real estate agents that can be depicted as three-fold. Institutional investors, investment banks and developer/ investors (Heurkens, 2017). In the Netherlands, these investors invest in properties mainly to spread risks as real estate is considered to be a safe investment. However, there is always an uncertainty component in each development. To reduce this component and therefore the risk that it bears, investors look into market conditions and try to find a balance between risk and returns (van der Krabben & Lambooy, 1994). These returns can be achieved by capital gain that takes place when profit is achieved due to the increase of a capital asset or investment income that is the return that is not reliant on the initial capital expenditure. The first occurs when selling real estate while the last is achieved when renting real estate (Investopedia, 2019, April 20; Sherman, n.d.). Furthermore, in the Dutch property market it is common for investors to have a sufficient financing option but a scarce number of dwellings with the right profile and good risk-return ratio (Joep, 2014). Therefore, it is important to understand the focus and strategies of different investors.

3.5.2 Developer/investor

According to the three types of investors of Heurkens (2017), the developer/investor develops real estate for their investment portfolio. They also, take on leading roles in a development, unlike many pension funds and insurance companies. These investor/developers take initiative from the land phase to the operation phase and they are financed through institutional capital and/or private equity. In the Netherlands, development business models are shifting to become more developer/ investor lead. Meaning, that developers are focusing more on long-term yields. The developer/investors have also increased its attention in matters such as place-making, sustainable real estate development, new development coalition, among others (Heurkens, 2017). Nonetheless, these actors have already been portrayed in the developer's section, but due to their duo characteristic of being a promotor as well as a financer of developments, they have also been portrayed in this section.

3.5.3 Investment banks

The next type of investor portrayed by Heurkens (2017) is the investment banks. This investor is a debt provider that aims at short-term development finance (Adams & Tiesdell, 2012). They are risk-averse and because they do not share profits of successful development, they are cautious about payment of interest and full repayment of the loan (Calcutt, 2007). As construction lenders and short-term development financer, they require recourse to the borrower assets so they can be insured by potential losses (Ling & Archer, 2013). Therefore, before lending, banks demand four requirements to be satisfied: the borrower's track record and creditworthiness, a viability study, cash flow forecast and suitable assurances of the project (Adams & Tiesdell, 2012).

Furthermore, since banks do not share profits, they also do not focus on the project and are perceived as asset based. Implying that they focus on monitoring and controlling the balance sheet and security cover of the borrower. Nonetheless, the bank sector consists of stock banks, merchant banks, finance houses and international banks. In this sense, the finance needs to be tailored for its purpose (Ratcliffe, et al. ,2009). The loans given by these banks are usually between 65-70% of the development value or 70-80% of the development cost (Adams & Tiesdell, 2012). In the Netherlands, Dutch banks want to finance less real estate developments due to the forecast of declining economic growth (CBRE, 2019 B). Thus, international investors are bringing capital from foreign banks as there is a positive financial climate for investments in Dutch rental dwellings due to demographic growth, high demand for houses and stable returns (Capital value, 2019 B; Capital Value, 2018).

3.5.4 Institutional investor

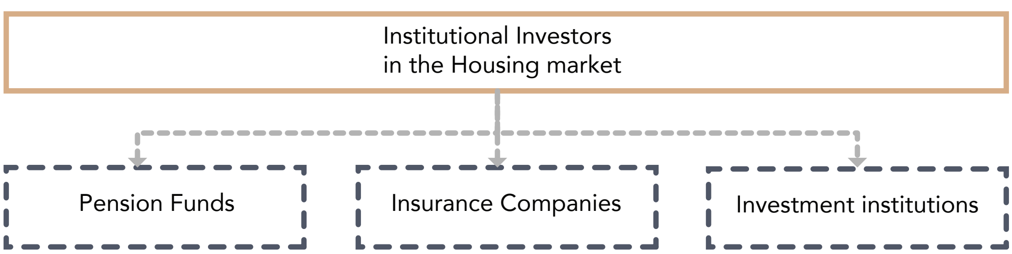
The next type of investor is the institutional investors. There is no straightforward definition of an institutional investor since they are legal entities that can be organized in various legal forms (Çelik & Isaksson, 2014). However, a common characteristic of these organizations is the investment and management of money on the account of other people (Investopedia, 2020) and the purchase of real estate from developers (Heurkens, 2017). These organizations can operate independently or operate as part of a larger company group. They are often understood as institutional or professional asset managers that have a mandate to manage a portfolio through mutual funds, hedge funds, commercial banks, endowment funds, pension funds and insurance companies. Therefore, they invest resources that come from their principal function, have a low-risk profile and pursue different investment strategies depending on their investment style (Basak & Pavlova, 2013; Investopedia, 2020; van Donselaar, 2015; Çelik & Isaksson, 2014).

Figure 3.6: Division of Institutional Investors of the housing market (own illustration).

According to Çelik & Isaksson (2014), there are three categories of institutional investors. The first is referred to as “traditional” and is comprised of pension funds, investment funds and insurance companies. The second is categorized as “alternative” and includes private equity firms, hedge funds, sovereign wealth funds and exchange-traded funds. While the third category comprises of asset managers that invest in their client’s name. These institutional investors have an increasingly complex investment chain where an organization invests in instruments provided by other institutional investors. As an example, pension funds can also invest in mutual funds.

Investing in different instruments makes categorizing institutional investor hard as there can be an overlap of investment instruments for each organization. In order not to leave out what was classified by Çelik & Isaksson (2014) as alternative institutional investors such as hedge funds, private equity firms, exchange-traded funds and sovereign wealth funds, the classification of Elsinga, Hafner, Hoekstra, Vandenbroucke, Buyst, & S (2007) will be used. In this matter, institutional investors are divided into pension funds, insurance companies and investment institutions. Asset management companies can be representative of these three classifications if their investment instrument is represented by a pension fund, insurance company or investment institution. In the Netherlands, the majority of these investors are members of the IVBN, an association of Institutional Investors in Real Estate (Elsinga, Hafner, Hoekstra, Vandenbroucke, Buyst, & S ,2007).

The degree in which an institutional investor can be present in development schemes is set within the constraints of the fiscale beleggingsinstelling (FBI). The FBI is a tax status used by large investors who invest in Dutch Real Estate. In 1969, the Dutch Corporate Income tax act set in motion the FBI. By adopting the FBI status companies confirm they have activities that consist of investing assets. They, therefore, abide by certain conditions and their Dutch corporate income tax is set at a rate of 0%. Thus, one of these conditions is that taking part in land and property development is forbidden (Stooker, 2011; Belastingdienst, 2020; De Koning & van der Horn, 2007).



Institutional investors rely on the market climate and the development schemes when investing. In all cases, they have a long-term vision and adopt a cautious attitude over development proposals (Ratcliffe, et al. ,2009). Likewise, when an investor has a leading role in a development, the process is called investor-led. In some situations, the close involvement of an investor is necessary for a successful development. Nonetheless, investor-led developments are still not as expressive as a developer-led development (Heurkens, 2017).

When an investor purchases a property, he gains complete control of that real estate and with control, he also needs to have the expertise of how to manage the property. For large investors, this means retaining in-house expertise (Ling & Archer, 2013). When institutional investors maintain the building themselves, they also become property managers (van Loon, & Aalbers, 2017). In this case, they take part in the financer and property owner roll of the ownership phase in Chambert's (1988) model. Furthermore, as the portfolio of an institution increases, economies of scale affect retaining in-house expertise and the drawbacks of owning property diminish. With greater control over its ownership, the institutional investor can also increase its control over construction and operation to meet objectives (Ling & Archer, 2013). However, since the end of the '90s, the Dutch institutional investors have placed real estate at a distance by keeping the roles of investor, developer and manager separate (Joep, 2014).

In the Netherlands, examples of institutional investors who own residential property in their portfolio are: Amvest, Vesteda, among others (Montezuma & Gibb, 2006). These investors focus geographically on areas where the number of households increases and that have favorable economic perspective. They mainly invest in new homes with good locations and that are energy efficient. They aim at achieving the highest possible and stable return. In this matter, maintaining a new stock of dwellings can meet this objective as an older stock has higher maintenance costs (Joep, 2014). In this sense, a partnership between institutional investors and developers is interesting as developers can engage in a large construction volume and investors can buy these properties that are built. Furthermore, these investors have 6 to 8 billion euros until 2020 to invest in rental dwellings. 87% of their investments in past years were in multi-family homes and that trend will continue, whereas three-quarters of the parties prefer to invest in middle-income rental dwellings with rent just above the social housing threshold up to 1.000 euros. This is due to the high demand and large shortage of these properties (Capital value, 2019 B).

Pension funds and insurance companies are known as the main financial institutions since they dominate the property market (Adams & Tiesdell, 2012) and in the Netherlands are the active institutional investors that invest in the housing market (Capital value, 2019 B). They pursue a high degree of stability if compared to other investors and are therefore more cautious. The most popular form of finance of these institutions is the forward sale, that has been explained in the first section of the investors' chapter. This form of finance is often coupled with other forms of finance. Pension funds and insurance companies have a project base financing nature where they seek control over the entire project. This may undermine the authority of developers. Moreover, due to their large size, they will search for a large development volume. However, by being a large institution they may suffer from the lack of flexibility and tend to be more conventional towards development approaches (Ratcliffe, et al. ,2009).

The Dutch pension fund is one of the richest funds in the world (van der Krabben, E & Lambooy, 1993). They have the highest pension-fund-assets-to-GDP ratio (van Loon & Aalbers, 2017). Furthermore, they need reliable stable income from investments to pay out retirement benefits for an increasing number of retirees and beneficiaries (Ling & Archer, 2013). Pension funds that have high participation of people with increased age in their core business will lean to a more short-term and direct investment strategy so the high liquidity can help pay for the increase in pensions. While pension funds with middle-age participants will pursue a more long-term and stable strategy (van Donselaar, 2015). In 2018, pension funds invested 3.5 billion euros by purchasing newly built dwellings. This accounts for 45% of the institutional investment coming from pension funds. Nonetheless, pension funds were also the investors of 69% of the share of newly built dwellings that were sold in 2018 (Capital value, 2019 B).

Insurance companies are paid premiums by the insured for benefits that will be paid upon the death of the insured. These companies use mortality tables to predict the mortality rates of their policyholder and they do that with a high degree of accuracy. Therefore, insurance companies are responsible for long-term and predictable investments. With the concept of matching funds, they will then invest on a long-term basis. It is not necessary for the assets in which they invest to have high liquidity as it is unlikely that they will have to make large and unexpected payments for the insurance holders. In this sense, these institutions are suited for low liquidity and high transaction costs investments in real estate (Ling & Archer, 2013). Furthermore, they have a more homogeneous investment strategy than pension funds (van Donselaar, 2015).

Finally, investment institutions are divided into investment funds and investment companies. Investment companies have legal personality and invest in direct property or listed funds. Thus, the ownership of the investment company lies with the legal institution. The investment fund, on the other hand, does not have legal personality. They invest in direct property or non-listed funds such as real estate limited partnership and private equity funds. The economic ownership belongs to the participants (Groffen, Spoor & Van der Velden, 2010; Strum, 2013). Investment institutions can be private equity firms, mutual funds, hedge funds, labour union funds, unit trusts, among others (Haffner, Hoekstra, Tang & Oxley, 2015; Çelik & Isaksson, 2014).

3.5.5 International institutional investors

Investing in the housing market in the Netherlands has become increasingly more popular for international investors. These parties have capital that comes from abroad that can have a private or institutional origin. However, these investors are increasingly investing with pension funds and have invested less with private equity. In 2018, 85% of international investments used fully or partially money from pension funds. These are investments with a long-term perspective and with a preference to invest with a buy and hold strategy. Moreover, a large part of this capital comes from the United States, United Kingdom, Germany and Asia (Capital value, 2019 B) and in 2019 46% of the residential investments were conducted by international investors (Capital Value, 2020).

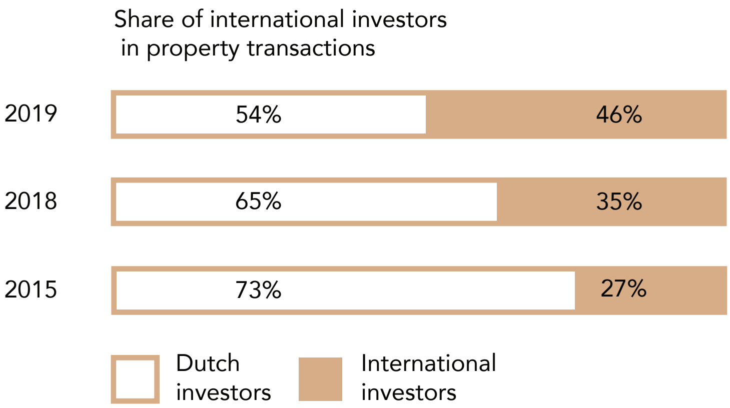
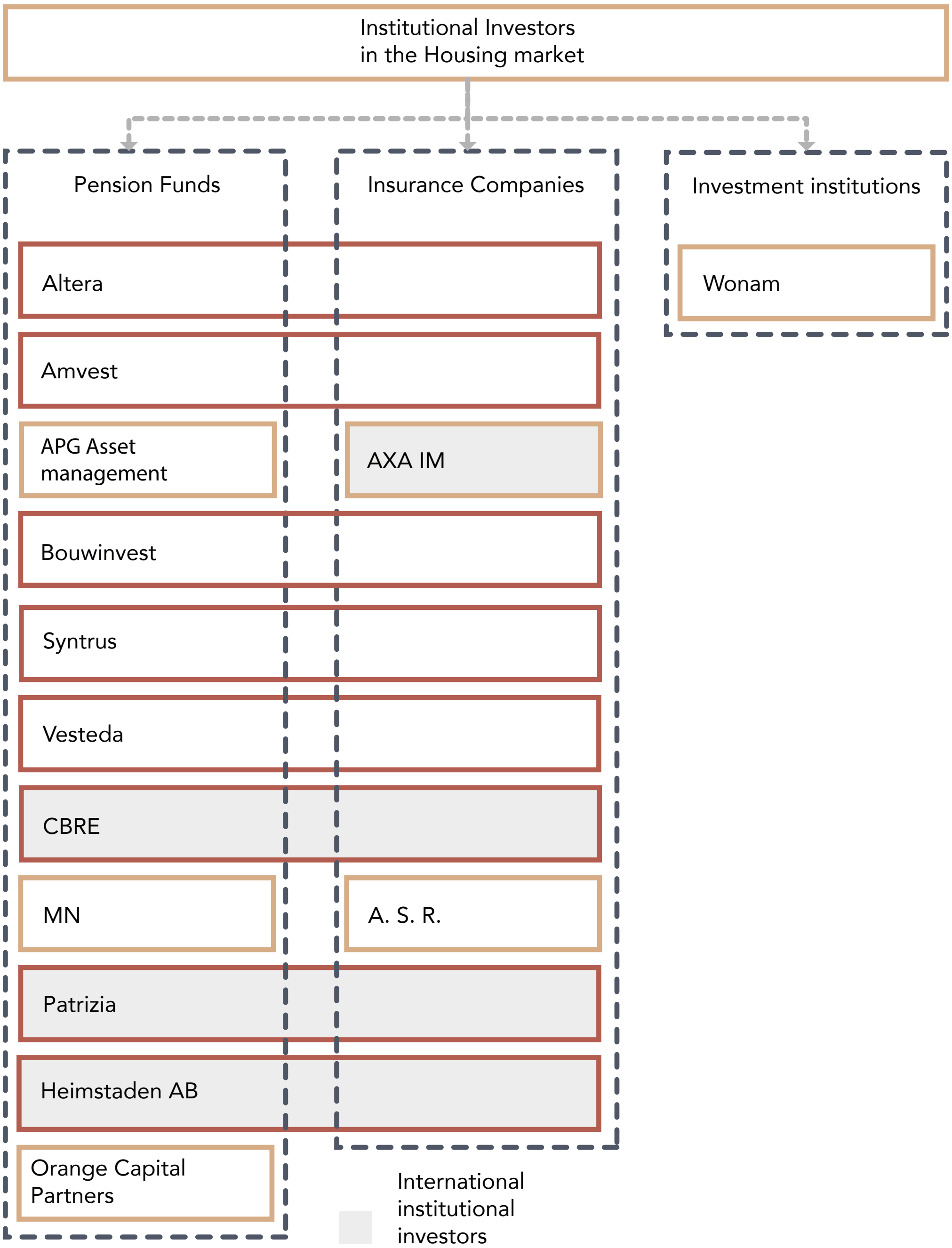


Figure 3.7: Share of international investors in property transactions of the Dutch housing market (Capital value, 2020).

3.6 Conclusion

As previously portrayed, investors can pursue short-term or long-term finance. The first will last approximately 5 years and will encompass activities such as site acquisition, construction site, professional fees among other activities related to the ownership and construction phase of the development. While the second form of finance starts in the ownership phase after the development has been realised (Ling & Archer, 2013). By pursuing this second strategy the investors take part in the ownership/ use phase of the model of Chambert (1988), concluding the development cycle.

Figure 3.8: Institutional Investors of the Dutch housing market categorized by pension funds, Insurance companies and investment institutions. The shaded companies are classified as international companies (own illustration). Data collected from (Crunchbase, n.d.; Altera vastgoed, 2020; Amvest, n.d.; APG, n.d.; A.S.R. Real Estate, n.d.; AXA IM, n.d.; Bouwinvest, n.d.; Syntrus, n.d.; Vesteda, n.d.; CBRE, 2020; MN., n.d.; Patrizia, n.d.; Heimstaden, 2020; Greystar, n.d.; Orange Capital Partners, n.d.; Wonam, n.d.; Credit Linked Beheer, n.d.).



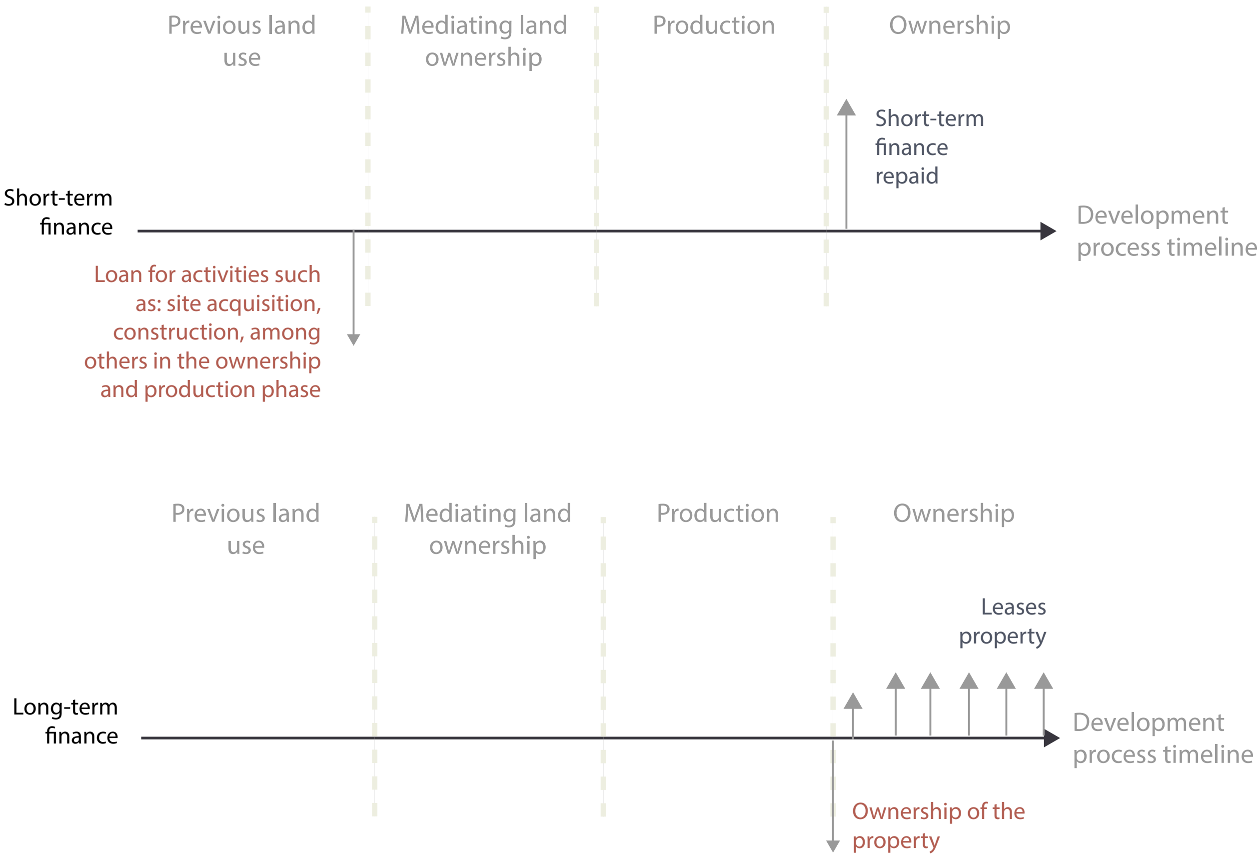


Figure 3.9: Development process diagram of short-term and long-term investments. The diagram was made for explanatory purposes and does not consider the exact specificities and of different developer (own illustration).

Moreover, the Dutch institutional investors that are active in the housing market are pension funds and insurance companies (Capital value, 2019 B). These pursue a long-term finance strategy by buying real estate from developers and then obtaining returns through cash flows in the operation phase (Heurkens, 2017). This means that institutional investors gain control over the development process only in the ownership period. Gaining control only in the ownership period is inconsistent to their will of investing in middle-income rental dwellings (Capital value, 2019 B) as certain characteristics should be met for a property to become part of the middle-rental share as seen in the chapter where the middle-income problem is laid out.

In this sense, it is easier for institutional investors to meet their objectives if they have more control over the construction and operation phases of a development (Ling & Archer, 2013). However, this is not what is happening due to their current strategy of buying real estate in the ownership phase. Thus, as large institutions they may suffer from a lack of flexibility towards conventional development approaches, causing its current strategy to be carried on (Ratcliffe, et al. ,2009). However, to increase their control over development processes, changes regarding their role and position in the process should be implemented. An investor-led approach, with the investor leading the development and/or partnerships with developers, as an example, may be a way of being certain that housing for the middle-rental segment will be delivered and the institutional investor's objectives met (Heurkens, 2017; Capital value, 2019 B).

4. Pitfalls

4.Pitfalls

Regarding the market analysis in chapter 2 and the actor-network theory in chapter 3, pitfalls of the development process of the middle-rented sector have emerged. This chapter portrays these pitfalls and answers this paper's first sub-question. These identified malfunctioning moments of the development process, so-called pitfalls, appears as the efficiency of the production of the middle-rented stock is interrupted. These moments emerge from the current conditions of the housing market for the middle-segment and from the agents and institutions that are part of the development process of this sector (van der Krabben & Lambooy, 1993). Nonetheless, by overcoming these malfunctioning moments the development process becomes more efficient and therefore, more dwellings for the sector can be built. The increase of the middle-segment rental dwellings can then assist with solving the middle-segment problem (Boelhouwer, 2019). Likewise, the identified pitfalls are further used to create a strategy for institutional investors to increase the development of the middle-rented housing stock.

In this regard, actors such as municipalities, developers and institutional investors were identified as having great influence in the development process. They interact with other actors and are bound to governance processes that materialize the built environment (Healey, 2006). Each of them has their strategies and expected return (Adams & Tiesdell, 2012; Ling & Archer, 2013). Thereby, the first identified pitfall arises due to the expected return of developers and investors and the maximizing behaviour in which they operate.

Pitfall 1

As portrayed in chapter 3, there are short-term investors and long-term investors. The short-term investors achieve profit by capital gain meaning that the high increase of housing prices in cities is beneficial to their returns. This implies that the growth or shrinkage of real estate value if compared with the initial investment, produces a yield. This yield achieved with the fluctuation of the price compared to the investment is called indirect yield. As a consequence, real estate with a high increase in value will deliver higher yields (Investopedia, 2019; De Koning, 2010). According to chapter 2, some cities have had a higher increase in prices than others. In 2019, Utrecht and Rotterdam were the cities with the highest price increase (Hypotheek platform, 2019). In this matter, if this trend continues, short-term investors will be interested in investing in these cities with a higher price increase.

However, the opposite holds for long-term investors and the first pitfall rests with the search for these long-term investments from Institutional Investors. This type of investor profits by investment income, meaning that they gain money through the rents of the dwellings in their portfolio (Investopedia, 2019). These returns can be measured by direct yields that express the attractiveness of an investment. Bearing that in mind, the direct yield is known as the annual rent paid divided by the purchase price (principle amount) (French & Patrick, 2015; De Koning, 2010; Gilmour, 2016). As illustrated in chapter 2, the price of houses has had a higher increase than the increase in rents (Statista, 2019a; Statista, 2019b; Statistics Netherlands, 2019), meaning that housing yields are lower than in past years (Savills,2019). When prices increase at a higher rate than the increase rate of rents, yields shrink. As so, it becomes harder to achieve the investor's expected yield.

Moreover, the difference in values of rents and house prices is exacerbated by the fixed rent growth of the middle-income segment (Ministerie van Binnenlandse Zaken en Koninkrijksreaties, 2017). This implies that the prices of dwellings increase according to the market and rents do not. Resulting in a higher house price increase than rent increase. Thus, this problem is greater in cities that experience a higher level of housing prices. In this sense, the direct yields of these cities will be lower than the direct yields of cities that have slightly lower house price levels. Amsterdam is an example of a city with low direct yields (Statistics Netherlands, 2019). As a consequence, investors and developers with a long-term investment horizon will then preferer cities in which they can obtain higher direct yields and will, therefore, not want to invest in cities with a high level of housing prices despite the need of the middle-rented segment dwellings in these cities.

Cities with high yields may be more attractive in an investment perspective but may not be attractive in a user perspective as people may not desire to live there. This can be illustrated by Schiedam being one of the best cities to invest in 2018. This assumption considers risk factors and returns factors, as Schiedam has a low-risk and high return possibilities. However, the study does not consider the living preferences of the population (Colliers International, 2018). In this matter, the success of renting out property also plays a role in the investment decisions of long-term investors and may indicate a preference of investment in certain cities attenuating the disparity of investments in Dutch cities.

Nonetheless, long-term investors are not able to apply full market rents due to the fixed bandwidth in which middle-income rent prices can fluctuate (van Gijzel, 2018). Thus, these actor's direct yields will not be as high as it could be if they acted following the maximizing behavior (Ling & Archer, 2013). In this sense, they will have to adapt their business plans to build middle segment dwellings and have good risk-return ratios. Along with that, the location of the investment is also critical to achieving the investor's expected yield. According to Joep (2014), in The Netherlands, it is common for investors to not have financing options that have a good profile and a good risk-return. In this matter, for these two factors to investors should create strategies to invest in the middle income and continue having a profitable business plan. Therefore, recommendations to achieve this actor's expected return needs to be tailored.

Pitfall 2

A second pitfall may arise due to mortgage conditions. Those of which may hinder the middle-income population of owning a property, as discussed in chapter 2. The current circumstances involve low-interest rates of the housing market and mortgage interest deductibility. Due to the subsidy of becoming owner-occupied and the national mortgage regulations, paying for mortgage debt is currently cheaper than paying for rents in the private sector. Therefore, it becomes easier for the population to live in an owner-occupied property (Hekwolter et al. 2017).

On the other hand, not everyone can live in the owner-occupied sector because of the tightened mortgage regulations and the need to own a determined amount of funds for that purpose. Likewise, the middle-rented sector finds itself in a gap of not being eligible for a mortgage and not having funds to pay for the free market rent, as portrayed in chapter 2 (Nijskens & Lohuis, 2019; Boelhouwer, 2018). According to a developer's perspective, this entails that there will be a high demand for the population to purchase real estate. In addition, the high increase of dwelling prices enables developers to achieve a high indirect yield. Consequently, it is easier for developers to follow a maximizing behavior and pursue the highest indirect yield by selling properties to the owner-occupied sector. In this matter, the second pitfall emerges as to why would developers choose to sell their properties to institutional investors? And by doing so, take part in the development of the middle-rented accommodation segment. Therefore, cooperation between investors and developers should be further explored (Bouwinvest, 2019).

Pitfall 3

The third pitfall is the lack of involvement of institutional investors during the development process. Because institutional investors usually pursue a long-term investment, they only gain control over the development process in the ownership phase. That is the phase in which real estate is bought (Heurkens, 2017). Due to this lack of involvement during the initial phases of the development process, institutional investors may have a hard time developing houses for the middle-rented segment. This occurs because it is easier to control a development's outcome when there is involvement over the entire process (Ling & Archer, 2013). Nonetheless, institutional investor's objective of investing in the middle-income is already set (Capital value, 2019 B) and being involved throughout the development process will help achieve these objectives (Ling & Archer, 2013). Thereby, understanding how to be involved and understanding, if Institutional Investors want to be more involved in the initial phases of the development process, will assist in understanding how to increase the middle segment's dwelling stock.

The combination of approaches to overcome the three portrayed pitfalls will answer the paper's main question. As so, the first-mentioned pitfall will assist in understanding how expected returns can be achieved in unfavourable situations such as investing in cities such as Amsterdam and Rotterdam where yields are low. While the second and third pitfall will be tackled by understanding how the development process can change to benefit investments for Institutional Investors. In this case, cooperation between developers and investors will be understood and achieving control in the initial phases of the development process will also be further studied.

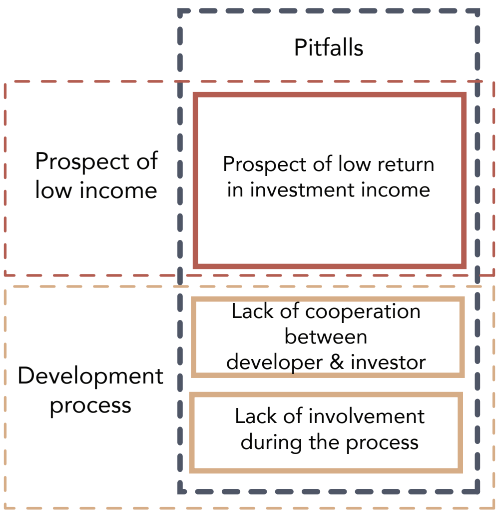


Figure 4.0: Pitfalls categorized by the ones related to yields and the ones related to the development process (own illustration).

5. Conclusion of the literature review

5.Conclusion of the literature review

Sales and rent prices in the housing market are increasing due to the housing shortage that is caused by the growth in competition from investors and buyers, raise in demand and the inability of the construction sector to keep up with the demand (Nijskens, Lohuis, Hilbers, & Heeringa, 2019). With the rise of prices, a greater share of one's income is being used for housing expenses and therefore the purchasing power is consequently decreasing. This means that owning or renting a house becomes less affordable (Het ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 2019). The lack of affordability affects mainly the middle-income group as they are not eligible for social housing and find obstacles in becoming an owner-occupier (Boelhouwer, 2018). This segment cannot find an appropriate affordable house and thus, becomes marginalized in the housing market (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017).

Notwithstanding, the construction of dwellings in the private rental segment becomes necessary to meet the demands of this group and to maintain a healthy housing market (Hekwolter of Hekhuis, Nijskens & Heeringa, 2017). As so, the development process of middle-rented dwellings is analyzed so that the process is understood and malfunctions that halt the construction of dwellings for this segment identified. The three identified pitfalls are as follows:

• There is a prospective of low income due to investment capital and success of renting out factor. Investing in some cities may not enable long-term investors to achieve their expected direct yield. Thus, these actors will prefer to build in cities where higher direct yields are possible. This becomes a problem for the cities in which only low direct yields can be achieved. Also, the success of renting out factor is important in the equation of achieving an expected direct yield. Because of these two factors, investing in the middle-rented segment may not enable investors to achieve the expected return that they would have achieved if they invested pursuing a maximizing behavior. Thus, new strategies to achieve this expected return should be tailored.

• The development process should be modified to allow cooperation between developers and investors. Due to current mortgage conditions and high demand of homeownership, developers may want to act according to a maximizing behavior and therefore, sell the developed properties to other parties that are not institutional investors. Consequently, they do not take part in the middle-rented segment development process. Thus, strategies that will assist developers to work with institutional investors to develop middle-income segment properties should be made.

• The development process should be modified to allow the involvement of Institutional Investors during the process. Institutional investors have an aim to invest in the middle-rental segment. But, in most cases, they will buy real estate that is already developed. This behavior decreases their possibilities in finding a good profile and risk-return real estate (Joep, 2014) as they do not have control over the development process and therefore cannot steer its outcome. Thus, this behavior should be understood so a strategy that also concerns the development process can be tailored.

Finally, by tackling these pitfalls, there can be an increase of the middle-rental segment housing stock. In this matter, these malfunction periods are further used to underpin the second half of this paper where recommendations are tailored to enable institutional investors to use the available money for investments and therefore increase the middle-rented segment (IVBN, 2016).

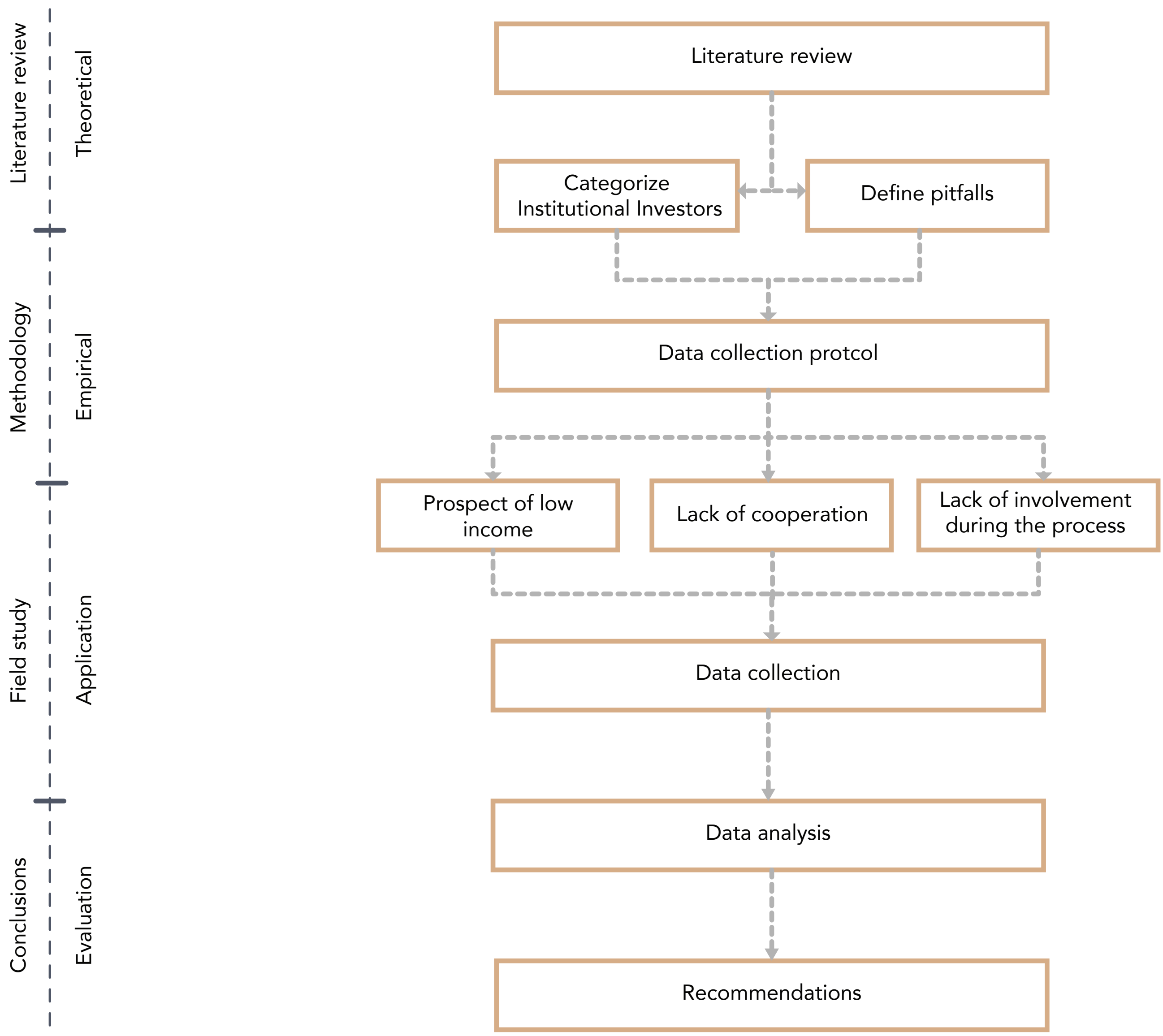
6. Methodology

6. Methodology

A methodology is designed to ground the research process and make the process more reliable, in view of creating recommendations for institutional investors and therefore, answering the paper's main question (Bryman, 2012). This thesis aims to change the current situation of institutional investors so there can be an increase in the middle rental stock. By doing this, the paper creates knowledge by understanding what is being done in practice and what can be changed so the problem can be solved. An empirical review is used for this purpose and research questions are tailored to guide the thesis in achieving its main goal (Van Wee & Banister, 2016).

In this matter, a qualitative approach is conducted. Likewise, two research methods are used to answer the paper's main question. The first method to be used is an exploratory approach through a literature review that explains the middle-income problem as well as the current development process in which institutional investors take part. In this sense, information about the middle-rental market and the development process of the segment is collected and thereby, the first sub-question of the paper is answered. Many variables influence the production of middle-rental stock and the relationship between them produce the reasoning behind why institutional investors missed out on the opportunity of investing in the middle rental stock, even though money was available for this purpose.

Figure 6.0: Methodology (own illustration).



Furthermore, the reasons for missing out in the opportunity of investing in the middle rental segment are translated into obstacles (pitfalls) that halt the production of the middle rental stock. Given a deeper understanding and validation of the obstacles that emerge from the literature review a confirmation and an expansion of new perspectives on these matters is achieved by a qualitative approach where data is collected through semi-structured interviews. This approach is tailored to complement the literature review with insights from practice and further understand the reasons that halt the increase of middle rental stock, so recommendations can be tailored. The second and third sub-questions of the paper are answered with the outputs of this second approach.

Therefore, qualitative research within a cross-sectional design is carried out. The cross-sectional design is chosen as it allows more than one cases of data to be collected at a point in time. In this case, the information that is collected from practice regards the specific market conditions that currently affect the middle rental segment (Bryman, 2012). Moreover, a sample of the institutional investors which emerge from the literature review is chosen to be interviewed and data from the selected sample is collected by semi-structured interviews. This collected data is then analyzed and patterns of association are detected (Bryman, 2012). The output of the interviews combined by the literature review then underpins the strategy that is created and that answers the main question of this thesis.

Part 1: Literature review

Based on the literature review, institutional investors that invest in the housing market are portrayed in figure 6.1. The selected sample to be interviewed will be presented in the next section. The active institutional investors of the housing market in the country are mainly pension funds and insurance companies (Capital value, 2019 B). However, in 2019, 46% of the housing investments were made by international investors (Capital Value, 2020). Moreover, a small share of these investors is classified as investment institutions (Elsinga, Hafner, Hoekstra, Vandenbroucke, Buyst, & S,2007). Thus, the currently selected companies are categorized in pension funds, insurance companies and investment institutions.

Some companies work with a combination of pension funds and funds of insurance companies, as Altera and Amvest. They work on behalf of these institutional investors by investing in real estate (Altera, 2020; Amvest, n.d.). This means that some pension funds and insurance companies do not manage their assets directly. Due to this outsourcing of activities, some companies of asset management also rely on other types of investment funds and can, therefore, be called an investment institution. However, due to classification purposes for this paper and because of the concept of matching funds only the companies that do not work on behalf of insurance companies and pension funds are portrayed as investment institutions. A reason for this is that companies that manage pension funds and funds of insurance companies may act in a less risky way than investment companies that do not manage these types of funds due to the concept of matching funds.

The categorized companies are members of the Association of Institutional Property Investors in the Netherlands (IVBN) and therefore, consist of a profile of real estate asset managers that have a Dutch office or Dutch based management platform. All categorized companies displayed an interest in investing in the middle-rented sector by portraying a residential portfolio in the middle segment or demonstrating the desire to invest in that segment (IVBN, n.d.).

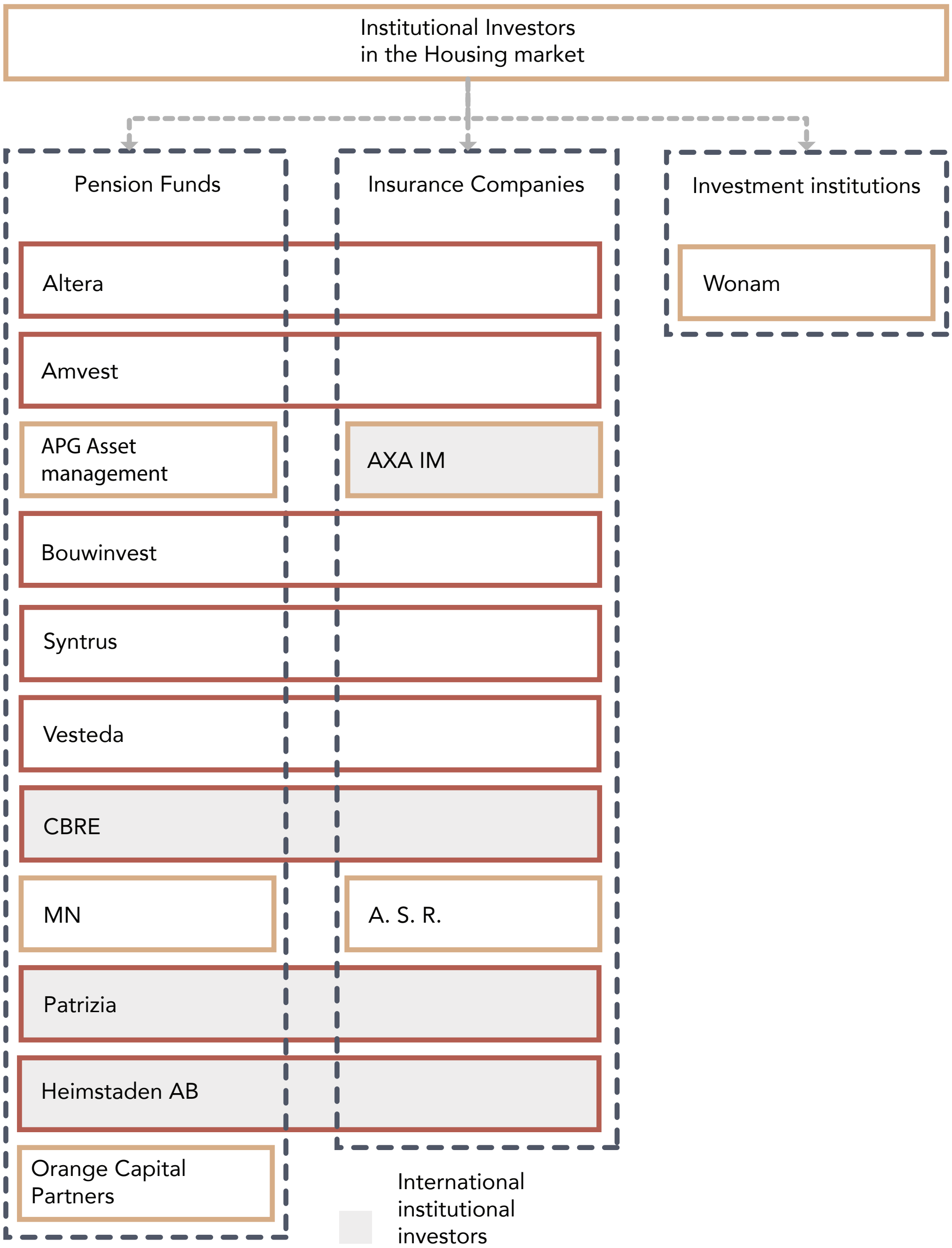


Figure 6.1: Categorization of institutional investors that are interested in investing in the middle rental segment and members of IVBN (own illustration). Data collected from (Crunchbase, n.d.; Altera vastgoed, 2020; Amvest, n.d.; APG, n.d.; A.S.R. Real Estate, n.d.; AXA IM, n.d.; Bouwinvest, n.d.; Syntrus, n.d.; Vesteda, n.d.; CBRE, 2020; MN., n.d.; Patrizia, n.d.; Heimstaden, 2020; Greystar, n.d.; Orange Capital Partners, n.d.; Wonam, n.d.; Credit Linked Beheer, n.d.).

Furthermore, the outcomes of the literature review are the pitfalls that halt the increase of the middle-segment dwellings in the institutional investor's perspective. The three pitfalls that emerge from the study are clustered into two groups: pitfalls that emerge from the prospect of low income and pitfalls that emerge from the current development process. This division will later be used in the organization of the interview protocol. Also, the pitfalls underpin the qualitative approach of the second part of the research. The emerged pitfalls are as follows:

• **Pitfall 1:** As Institutional investors pursue long-term investments; they profit by investment income. With this type of profit, differently from short-term investors that profit from capital gain, their returns are measured by direct yields. In this matter, cities that have a higher price level will deliver lower direct yields than cities in which the price level of dwellings are not as high. This occurs as the direct yield is achieved by the relation of annual rent and purchase price and also because of the fixed rent growth of the middle segment. As so, cities with a lower housing price level deliver higher direct yields and become more attractive for investors than other cities with a higher level of housing prices.

In addition to the level of house price, the success of renting out also plays a role in the investment selection of cities. Thus, a city that does not have a stable demand for rental dwellings will not be as attractive as a city with higher demand. The combination of the price level and success of renting will hinder long-term investors from achieving their direct yields as it becomes unprofitable to invest in some cities. Moreover, investing in the middle rental segment may not allow investors to achieve an expected return that would be in accordance with their maximizing behavior.

• **Pitfall 2:** The current mortgage conditions do not assist the middle income to find a property, but it does make it easier for the population with higher income to own property due to the subsidy of becoming owner-occupied and the national mortgage regulations. As a consequence, there will be potential buyers interested in purchasing houses from developers. This may halt the cooperation between developers and institutional investors as developers may not want to sell the properties to institutional investors or even cooperate with them. This occurs as developers can earn more money by selling real estate to the homeownership sector due to the high demand and the high indirect yields caused by a high increase in dwelling prices.

• **Pitfall 3:** It is common for institutional investors to only gain control over the development process in the ownership phase. The lack of involvement of institutional investors during the development process may halt the development of the middle-rental sector as investors have objectives to be achieved but may not achieve them due to the lack of control during the process.

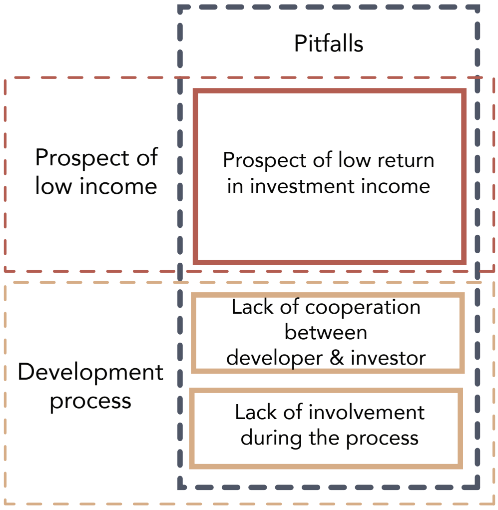


Figure 6.2: Categorization of pitfalls (own illustration).

Part 2: Semi-structured interviews

In the second part of the research, a qualitative approach with semi-structured interviews is conducted. Interviews were chosen as an approach because this type of data collection allows information to be gathered in a certain set of topics. The semi-structured interviews reflect the structure of the research, implying that the outcomes of the literature review (pitfalls) are used to tailor the interview protocol. Moreover, this type of data collection allows details from practices, opinions and knowledge from the institutional investors to be revealed (Harrell & Bradley, 2009). In this sense, the descriptive/interpretive typology of interviews was conducted. The purpose of this typology is to discover how institutional investors perceive the pitfalls and possible solutions for these pitfalls. As well as explore other obstacles and possibilities of increasing the middle rental sector. In this matter, the interviewees are viewed as a knower and the knowledge frame of the pitfalls can be expanded by new perspectives or even refuted as new themes arise (McIntosh & Morse, 2015).

The sampling for the interviews is categorized by the cluster sampling method as the research focuses on the standpoint of institutional investors in the Netherlands (Harrell & Bradley, 2009). Thereby, the above-mentioned diagram of institutional investors is used as a start to select the interviewed companies. For the interview sampling, information about institutional investors is raised to underpin the categorization of suitable companies for the interview. As so, Capital Value (2020) depicts that 29% of the Dutch rental dwellings are hold by investors. 19% of this total is owned by institutional investors. According to their classification, this type of investors are pension funds and insurance companies and they consist of approximately 10 Dutch institutional investors that are active in the housing market. Combined with international investors, these investors possess approximately 19.000 rental dwellings. From this value, 55% is in the middle segment.

Nonetheless, Capital value (2020) also portrays that the rest of the rental dwellings (81%) are owned by private investors. According to their classification, this group is composed of investors that own up until 25 dwellings and investors with a portfolio between 5.000 to 15.000 dwellings. However, in accordance to the classification of institutional investors of this thesis, illustrated in the literature review, a portion of what is called private investors for Capital Value can be classified as investment institutions (sub-group of institutional investors) if they comply with the characteristics described in section 3.5.4. This group has increased in the past years and is still growing due to Dutch market conditions. Finally, in 2019, 54% of the investments in dwellings have been made by Dutch investors while 46% was made by international investors and approximately 40 institutional investors had Dutch rental dwelling units in their portfolio (Capital value, 2020).

This heterogeneous group of investors operate in a changing environment. This means that their dwelling portfolio and percentage of investments of each category can change over time. However, according to the current developments and market conditions, a growth of international investors and institutional investors is expected, especially investment institutions that are becoming more active due to market conditions. Pension funds and insurance companies will also have the opportunity to invest more in the middle segment due to the available money and they will continue rejuvenating their portfolio (Capital value, 2020). Regarding the above information, this thesis will focus on institutional investors such as pension funds and insurance companies since they are the main financial institutions that dominate the Dutch property market (Adams & Tiesdell, 2012; Capital value, 2019 B).

Given this heterogeneous environment, the size of the purposive interview sample follows the theoretical saturation level proposed by Guest, Bunce & Johnson, (2006). A saturation level is achieved when after a certain number of interviews, no further development of theory emerges as all the main variations of theory have been identified. New information will have little or no change to the codebook. According to the authors, approximately 70% of the codes emerge up until the first six interviews and until the 12th interview, approximately 90% of the codes have already emerged. These values are assumed under three assumptions: the interviews deal with knowledge instead of perceptions as external truths exist in the specific domains of study, interviewees are interviewed independently, and the questionnaire comprises a domain of knowledge. These three assumptions hold for this thesis; therefore, the sample size aims to be as close as possible to 12 interviewees as soon as a saturation level can be observed. Thus, during the interviews, a saturation level is observed by the 10th interview. This indicates that there are no new findings by the 10th interview and consequently 10 is the appropriate sample size for this study.

The jump start of the interviewee selection is the previous categorization of institutional investors (figure 6.2) as they are members of IVBN and are interested in investing in the middle rental segment. In this matter, companies that invest on behalf of pension funds and insurance companies that have expertise in the middle rental segment were chosen. After these companies from the previous categorization were chosen, new interviewees that were not in the previous categorization were added to the selection for the optimal number of interviews to be achieved. The added interviewees follow the condition of being institutional investors and/or being knowledgeable about the research subject.

By choosing institutional investors that work on behalf of insurance companies and pension funds to be interviewed the spectrum of institutional investors that invest in the middle segment of the Dutch housing market is covered, indicating a representative sample. This occurs as pension funds and insurance companies are the main financial institutions that dominate the Dutch property market (Bryman, 2012; Capital value, 2019 B). Furthermore, representatives of advisor companies of institutional investors are also interviewed. These companies are chosen as they deal with different types of institutional investors that have different investment strategies amongst them and therefore, are knowledgeable about investing in the middle rental. Nonetheless, other knowledge experts of institutional investors were also interviewed as well as an investment institution so that the investment approach of the last can be compared to the investment approach of pension funds and insurance companies. In this sense, the knowledge experts, as well as the investment institution, are chosen according to judgment sampling because their opinion is important for the research (Capital Value, n.d.).

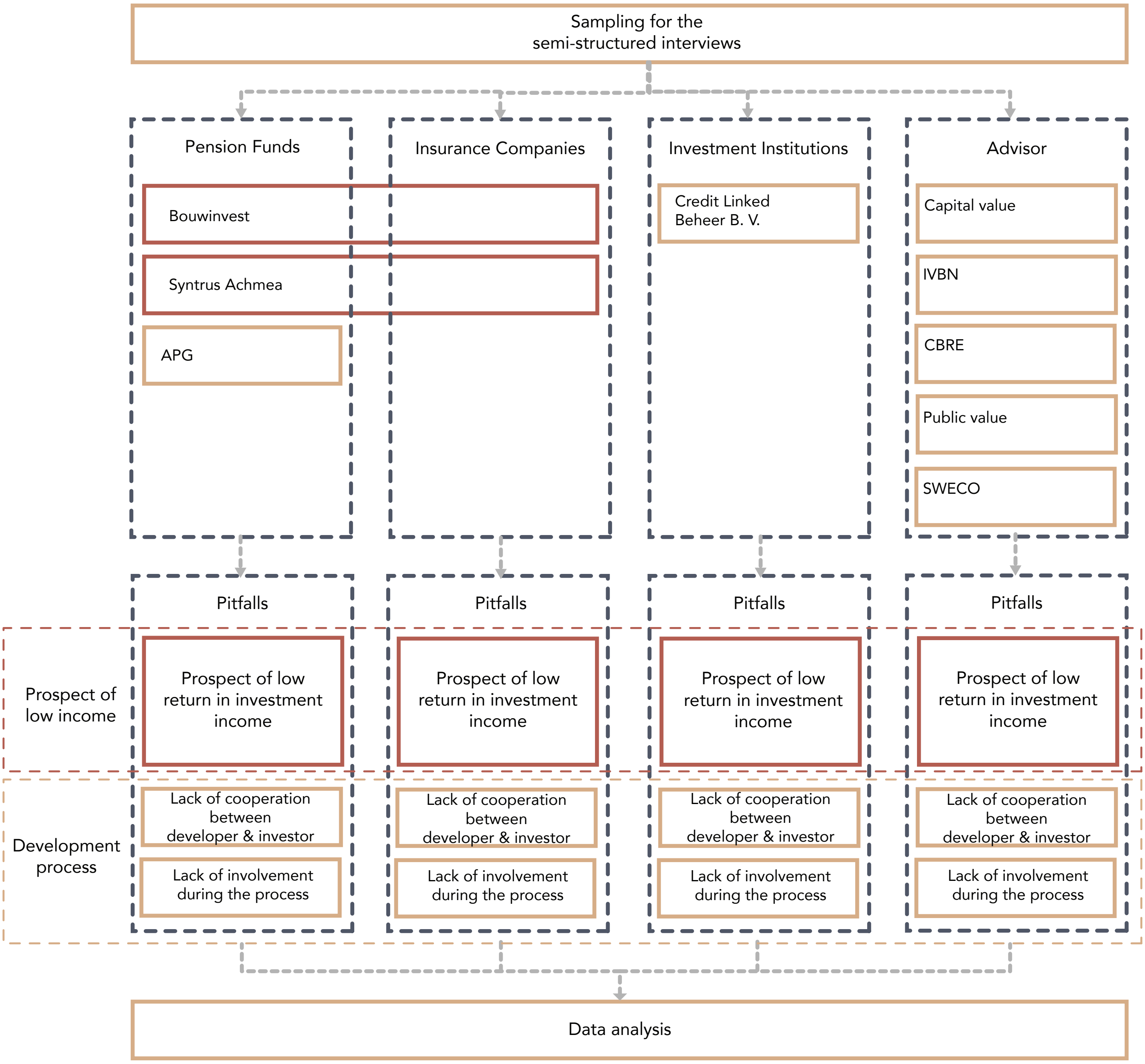


Figure 6.3: Data from the Selected interviewees about the three pitfalls is collected so it can be later analyzed (own illustration).

The interview questions and protocol are based on the above-mentioned pitfalls that emerge from the literature review. In this matter, the protocol is divided into two main sections. The first with questions regarding the pitfalls that emerge from the expected yields and the second with questions from the pitfalls that emerge from the development process. Thus, theories about these pitfalls and how to overcome them emerge out of the collected data. The questions are designed following the inverted funnels scheme, where the interview starts with closed background questions that are gradually built up to open-ended questions. This enables the gathering of important background information as well as the exploration of the pitfalls and its solutions. This data is then transcribed, and thematic analysis is conducted to extract information that assists in answering the remaining sub-questions. The information obtained is then compared and analyzed. Later, recommendations that increase the middle-rental stock is created from this cross-analysis of the interviews and the market analysis (Bryman, 2012; Harrell & Bradley, 2009; Barriball & While, 1994). Moreover, the collected data is recorded, and the interviews' are made upon consent. All interviewees are informed of the purpose of the research. The interviews are then transcribed and analyzed using Atlas TI (Bryman, 2012).

Part 3: Creating recommendations

The qualitative methodology enables a set of recommendations to be created from theory and from the interviews that have been conducted. This means that these recommendations are tailored to answer the main question of this thesis. In this matter, the findings of the empirical research are presented in the next chapter, the Application chapter.

To arrive at these findings a thematic analysis is conducted after the transcripts of the interviews have been incorporated within Atlas TI. Thus, core themes are extracted from the transcripts. These themes are organized based on the division of the interview protocol that is structured from the three pitfalls that emerge from the literature review. In light of this division, codes from all the transcripts are identified. The recurrence of these codes is later analyzed and links between them are created. These links involve connecting the data gathered from the interviews to the main question of this thesis as well as the literature review (Bryman, 2012).

The themes that emerge are portrayed in the next chapter and underpin the recommendations of the thesis. They are divided into; definition of Institutional Investors, the three pitfalls that are the findings of the literature review and new themes that have emerged from the interviews. The first part portrays the differences from pension funds, insurance companies and investment institutions as concepts that emerge from the interviews can affect how recommendations might be tailored. By consolidating this definition, the pitfalls that emerged from the literature review are then discussed and assessed. Further concepts that also emerged from the interviews are later discussed. The sum of the emerged information is then used to create recommendations for institutional investors to increase the delivery of the middle rent segment and answer the main question of this research.

Finally, an evaluation section is made where concepts as credibility, transferability and dependability will be discussed as well as the significance of the research (Bryman, 2012). The recommendations, as well as the whole research, are evaluated and a possibility of follow up research is made.

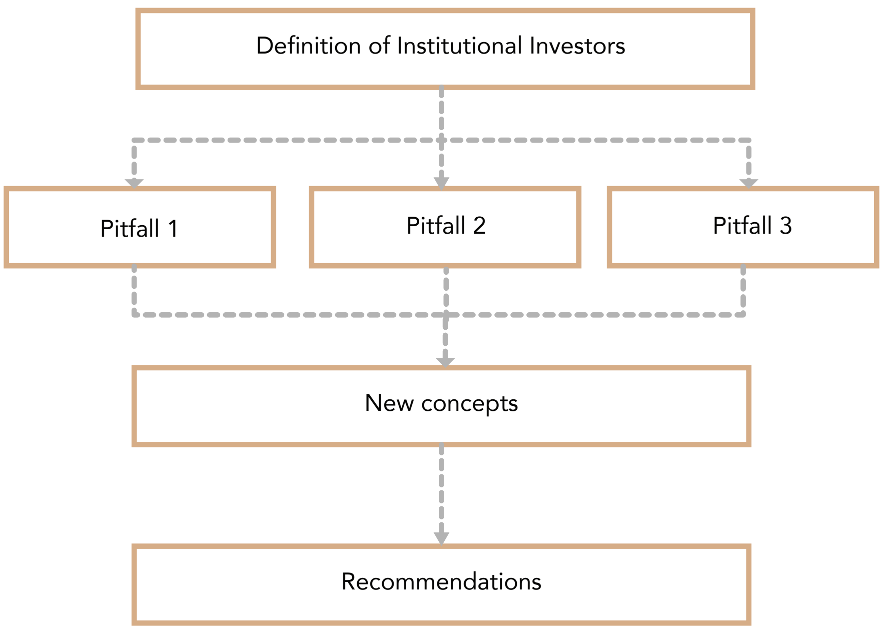


Figure 6.4: Scheme of empirical research (own illustration).

7. Empirical findings

7.Empirical findings

This chapter depicts the findings of the empirical research. Based on the pitfalls that emerged from the literature review of this thesis, a field study is carried out where interviews with institutional investors and advisors are conducted. As previously mentioned in chapter 6, this thesis will focus on Institutional Investors such as pension funds and insurance companies.

Bearing that in mind, 10 interviews were conducted, as seen in table 7.0. and outputs of the interviews are analyzed so recommendations to increase the delivery of the middle rental dwellings are made. For these recommendations to be tailored, an overview of the definition of institutional investors with new concepts that emerged from the interviews is carried out. These new concepts support the discussion of the pitfalls and allow perspectives to be refuted or expanded. Later the pitfalls are also be discussed as well as new themes that emerge from the interviews.

Figure 7.0: Interviewee profile. Institutional Investors have been classified according to Elsinga, Hafner, Hoekstra, Vandenbroucke, Buyst & S, 2007. Because of their increasingly complex investment chain one organization can use investment instruments provided by other institutional investors. The portrayed organizations in figure 7.1 are classified in conformity with their most relevant investment instruments. In most cases an asset management company is the representative of a combination of the classified Institutional Investors, as they invest on behalf of these organizations.

	Type of Institutional Investor		
Type of organization	Pension Fund	Insurance company	Investment Funds
Institutional Investors	X	X	
Institutional Investors	X	X	
Institutional Investors	X	X	
Institutional Investors	X	X	
Institutional Investors	X		
Institutional Investors			X
Advisor			
Advisor			
Advisor			
Advisor			

7.1 Institutional Investors

7.1.1 Different structure and fund style

According to the literature review, Institutional Investors are long-term investors that have a low-risk profile and that invest the resources that come from their principle function (van Donselaar, 2015). These investors comprise of pension funds, insurance companies and investment institutions (Elsinga, Hafner, Hoekstra, Vandenbroucke, Buyst, & S ,2007). Pension funds and insurance companies are the main financial institutions that dominate the Dutch property market (Capital value, 2019 B). Because of the increasingly complex investment chain of these organizations, the differences of structure among them should be highlighted. The finding of this section will complement section 3.5.4.

Pension funds and insurance companies have been increasingly outsourcing their investment activities to asset managers (Çelik & Isaksson, 2014). This finding is illustrated by the interviewed companies as they mostly function as asset management companies that have pension funds and also insurance companies as clients. A given definition for pension funds and insurance companies is pointed out by interviewee 8:

"They invest all the money they collected from individual persons. They bring all the money together into a fund and start investing. But there is no direct ownership of the people that are entitled to a pension plan or an insurance plan to the money that is invested in the fund."

This means that the ownership of the properties lies with the institutional investor. However, the variety of institutional investors bestows a variety of ways of investing. Interviewee 5 as an example mentions that he works for a financial service provider that manages pension assets. He adds that when the company opts to invest in real estate, they do it through an institutional investor in which they are shareholders. This institutional investor manages its residential portfolio. This means that the institutional investor has a residential portfolio, and if there is an intention of acquiring more dwellings then it will contact the asset management company. The asset management company will then provide capital as long as the acquisition of the dwellings gives them sufficient returns. Thus, the asset management company has to report their returns and what is being done to the pension fund.

On the other hand, two other interviewees have a different type of business plan, as it is mentioned by interviewee 3:

"And our clients can invest in residential real estate in two different ways. They can invest through funds, so they are participating in their sectorial funds. We have different sector funds. We have a health care fund, retail fund, office fund and we also have two residential funds. So that is when different participants participate. And we also have separate accounts, so that's when pension funds or insurance funds have their own real estate fund and their own residential fund."

In this regard, their clients are pension funds and insurance company that can opt to invest in residential real estate in two different ways: through sectorial funds or separate accounts. In the first case, the asset management company provides different types of real estate funds in which pension funds and insurance companies can participate in. In the second case, pension funds and insurance companies have their separate account for investing in real estate. This last type of account matches their specific goals such as having a low-risk investment and investing in middle rental dwellings. In both cases, pension funds and insurance companies have asset allocation plans. This means that they invest a percentage of their portfolio (2% to 15%) in real estate and a part of this percentage is invested in the residential sector. Also, most of the real estate is funded by their equity.

In contrast, two other interviewees also invest in real estate on behalf of pension funds and insurance companies. They have five Dutch sector funds that are financed by pension funds and insurance companies which have a long-term and sustainable view of the future. When investing in the residential sector they make use of three strategic pillars that are: quality, sustainability and affordability.

Despite the portrayed structural differences of institutional investors, there are also differences in fund styles. There are three types of styles according to the classification of INREV (2012): the core style, value added style and the opportunity style. Interviewee 8 explains the difference between these styles:

"… there is the core investment style. Core means not all that high of a risk. I simply want to rent out the dwellings, I want to cash in the rent. I don't want to bother all that much about maintenance and all that. It should be done of course; it should be done properly. But I don't want to invest into a property that is of a high level of maintenance or needs to be refurbished within a period of time or five years, for instance. That is a core investment."

In this regard, the first has a low-risk profile and returns are generated through income. Investors rent out dwellings and obtain a return through their income. With the core style, there is a preference of not investing in a property with a high level of maintenance or that needs refurbishment. Thus, the biggest part of the applied capital derives from equity (INREV, 2012).

In the second investment style, the investor buys properties that may need refurbishments, meaning that there will be a need for active management. In this case, the investment will be riskier than the first style. Therefore, the amount of debt in the investment is also higher than if compared to the core investment style. The returns are obtained by both direct and indirect yields. On the other hand, the last fund style is the opportunity style, and it is linked to property development or redevelopment, meaning it has high exposure to active forms of asset management. This style has a high degree of debt to the investment and there is a preference for selling off individual units to the market as a primary form of return (INREV, 2012).

It can be perceived by the interviews that Institutional Investors have different structures and fund styles. However, what is recurrent is that they pursue long-term investments and by investing in the middle rental residential sector they can realize stable returns.

7.1.2 Difference from investment institution

Apart from the above-portrayed differences, investment institutions are also divergent from pension funds and insurance companies. It is important to highlight their differences for future recommendations. As so, an investment institution differs from the other portrayed institutional investors as they make use of market funds for their investments, of which capital derives from parties that are not pension funds or insurance company, as reinforced by interviewee 10:

"We get funds from the market; we get money from 70 percent private people and 30 percent company. They invest with us. And people can invest anywhere from five thousand euros up to a few million euro. We have everything. With those funds, we buy the project. The housing projects. And three to four months before completion, we make sure that they're rented, that by completion we have tenants. And then another company that we own takes care of the houses after they're delivered to us and somebody moves in."

The capital from these funds is then used to buy out dwellings that are rented out three to four months before their completion. According to the business plan of investment institution 10, only new dwellings or dwellings that are up to three years old are acquired. This occurs as the company does not want to spend so much money with maintenance as this can affect their yields.

The respond time of agreeing to invest also differs from the time of pension funds and insurance companies. Interviewee 10 reinforces that the responding time of an investment institution is faster. As the interviewee claims:

"I think what sets us apart from the institutional fund is that we can decide very quickly, within a number of like 3 days we can commit in a project. And that's because we have short lines to the people who are allowed to make the decision of the acquisition meeting. We have an investor committee that meets every week. So, we move very quickly, and a lot of the developers know that."

It is interesting to note that differently from pension funds and insurance companies most of the money from the interviewed investment institution comes from private persons. The initial amount of money that can be invested into funds are also adapted for their clients. In the case of pension funds and insurance companies, they have more money to invest, and a value of 500 euros would be small if compared to the proportion of capital they have to invest. This is portrayed by two other interviewees that represent pension funds and insurance companies and that have a client that invests 2% of 34 million euros into real estate. Interviewee 3 confirms:

"One of my clients has 34 million euros that they invest yearly base in total and they have a way of asset allocation. So they look from a really strategic point of view and with the asset allocation they decided: yeah, we invest in real estate for about 2 percent of our total portfolio. But that differs between pension funds."

7.1.3 Differences between Dutch and international investors

Dutch institutional investors are also different from international institutional investors. This difference is stresses by two interviewees, as they mention that international institutional investors make use of leverage as an investment strategy. In this sense, they borrow money to make investments in Dutch real estate while the Dutch mostly use their equity. On the other hand, the biggest difference between the two types of investors occurs due to market differences. This is reinforced by interviewee 9:

"and that has to do with the fact that all Housing markets are different. … The good and the bad thing is that in the Netherlands, the tenant has a protective right. So, if you rent a house, he cannot be forced to leave the house unless he stops paying the rent. In the United States, you only have a rental contract for a year. So, every year, the tenant and the owner can say: we will stop the lease. So, the tenant is not that much protected. So, we have this unique system in the Netherlands of rent protection. And that has a disadvantage for the owner and the investor. But on the other hand, it gives safety as well, because we can be certain that we can collect the rent and we can increase rents by that price level index."

In this matter, this difference affects the business plans of institutional investors. This occurs as the investors in the United States can easily terminate a rental contract in case a dwelling is not having the expected return, and therefore disinvesting becomes easier. In the Netherlands, due to tenants' protective rights, investors cannot terminate a contract whenever they desire. This means that when they disinvest, they may have to consider a selling price of an occupied property, that is lower than a non-occupied property in the Dutch residential market (McCrone, 2018). On the other hand, they can also make business plans considering a stable increase in price levels. Specific market conditions can, therefore, affect the lease time of investors.

The time of lease is also seen as a determining factor that differentiates investors, according to interviewee 8. He divides institutional investors into 3 groups in which the time of lease is a determining factor for the division. He mentions that there is the Anglo Saxon, the European Continental institutional investors and the Asian institutional investors. The Anglo Saxon has an investment focus of six to eight years in which they divest after this period. The European Continental are investors such as German, French, Dutch, Swedish. They make longer investments of perhaps 15 and 20 years. While the Asian Institutional Investors also focus on long-term investments therefore, they focus on cash flows more than the capital appreciation.

7.2 Redefining the pitfalls

7.2.1 Pitfall 1

Institutional investors profit by investment income but also by capital gain. In the first case, cities that have a high price level of dwellings will deliver a low direct yield. As so, some cities become more attractive for investors than others. Also, the success of renting out plays a role in achieving direct yields. As so, cities that do not have a high demand for middle-income rental dwellings will not be attractive and as a consequence will not provide the investors with the expected direct yield. Thus, pitfall 1 concerns the low direct yields that are achieved by long term investors due to the high price level of dwellings of some Dutch cities along with the success of renting out of the city. Investments in the middle-income rental sector may not allow investors to achieve an expected return that would be in accordance with their maximizing behavior. As so, the next sections will discuss this pitfall by portraying the perspectives of the interviewees about the pitfall. In this regard, some concepts will be refuted while others will be expanded.

High demand

All the interviewees that represent an institutional investor such as pension funds and insurance companies said that an important factor when investing in the middle rental segment is the high demand for the segment. This finding is important as it is one of the main drivers for institutional investors to invest in the middle-income segment. It is mentioned by interviewee 4:

"What we see in the Netherlands is that our target audience is the biggest in the middle segment. When we draw a line to incomes, we see that the target audience for the middle segment in relation to the incomes is the biggest in the Netherlands. So, we have to do more investments in the middle segment also to create more flow from the social housing segment to what we call the free sector housing."

This means that more investments in this housing sector have to be made. He continues saying that it is all about supply and demand. Before investing in the middle rental segment, the company's department of research strategy identifies possible investment locations by identifying high demand locations. This occurs by the analyzes of the population and the income of the area in which they might take place.

The reason for a high demand for the middle sector in the Netherlands is explained by interviewee 8. He illustrates the discussion by indicating that the rents of the high-end segment in the Netherlands start from about 1.000 euros a month and that the regulated sector ends with rents of 735 euros a month (2020). Also, the gross average household income in the Netherlands is 36.500 euros annually. Thus, at a policy level, the rental costs of a residential unit should not be more than 30% of the gross income of a household. The middle segment becomes, therefore, more attractive because there is more demand for the segment than if compared to the high-end segment. This occurs because a person that earns the medium gross income could only afford a rent of up to 912,50 euros a month according to the equation explained by interviewee 8.

Pension funds also have annual investment plans in which they state they want to invest in the middle rental segment due to the high demand, as recalled by interviewee 4. They do not want to invest in the social housing segment because housing associations already invest in that segment. They also do not want to invest in the high-end segment as it can become a volatile segment during a crisis. In this regard, it can be hard to re-rent high-segment dwellings in a crisis as matching these types of dwellings with incomes can become a problem. The difference in investing in the middle rental segment and the high-end segment is also illustrated by Interviewee 5:

"Yes, well we think that mid rental segment is a lot more stable a lot more sustainable than the high-end rental segment. In the past, we have invested in the high rental segment as well as far that it's quite volatile and it's quite dependent on for instance expats. So, if there are some problems for example like now, when many expats leave the country then your high-end residential units tend to be empty. So, the high end in our view has a high-risk profile in terms of vacancy, the stability of rents etcetera. And the mid rental segment is a lot more stable because first of all there is a very significant and stable demand for mid-segment, mid rental segment residential. It is affordable for many tenants. So, it has a very attractive risk-return profile."

The high risk of investing in the high-end segment compared to the middle-income segment is also mentioned by interviewee 3 as it is asserted that there is no interest in investing in the high-end segment because the demand is not as high as in the middle rental segment, and as a consequence, there is a risk of devaluation of the properties of the high-end segment. The time of renting out dwellings in the high-end segment compared to the middle-income segment is another reason for choosing to invest in the later, as discussed by Interviewee 10:

"We prefer only middle segments, but sometimes you need to take on a fewer, higher segments houses and we always regret it afterwards. They are the most difficult to find a tenant. If you have a project with apartments of a thousand euros average or 900 euros average, and Penthouse apartments for 1400 euros. They are always the ones difficult to find someone. It takes the longest. I mean, who would get an apartment for 1.400 euros if you can get a house."

The interviewee entails that it takes longer to rent out dwellings in the high-end segment if compared to renting out dwellings in the middle segment. Moreover, when asserting that it is easier for tenants to get a house instead of an apartment for 1.400 euros the interviewee is referring to the Dutch mortgage interest deductibility. Thus, paying for mortgage debt is currently cheaper than paying for rents in the private sector (Hekwolter et al. 2017).

Low risk

It is a consensus among the interviewees that investing in rental dwellings for the middle segment bears a low risk. This finding is also one of the reasons why institutional investors are interested in the segment, as they match the essence of their cashflows with the essence of the investment (Peca, 2009). Investing in the middle segment bears less risk if compared to investing in the other Dutch residential segments due to the high demand for the first, as supported by interview 3. One of the reasons for this high demand is its low turnover rate if compared to the turnover rate of the high segment, as emphasized by interviewee 6. Moreover, he adds that few risk factors affect the middle rental segment. These are the cost of maintenance, taxes and turnover rates, as he asserts:

"I don't think there are many risks in this segment. Your risks are that you get a cost for maintenance and taxes. And of course, you have some turnover. You need to find new renters, which costs money. Maybe the home was empty for a month or two months. So you miss out on some rents. However, I don't think this is a very risky segment. Less risky than the high-end segment."

This means that renting a portfolio in the middle-income segment bears low risk because of the stability of the segment. In this regard, the high stability, high demand and low turnover rates are the reasons for investments in the segment being classified as low risk.

Stability of cashflows that functions as bond-like investments overrules low yields

The stability of cashflows that function as bond-like investments overruling low yields is one of the main findings of pitfall1. The reasoning for it explains why institutional investors are so eager to invest in the middle-income segment. Thus, understanding these reasons can be important to understand how institutional investors can increase the segment and still achieve their expected yields. Factors such as cashflows functioning as a bond, direct yield bestowed from the stable cashflows being higher than yields bestowed by bonds, and the increase of the cashflow following inflation and/or increasing with a higher percentage than the inflation, compute the causes for the stability of cash flows of the middle-income rental segment being compared to bonds and therefore, being so attractive.

As previously mentioned, investing in the middle-income rental segment bears a low risk and consequently, the outputs of low-risk investments are low yields, as asserted by interviewee 1. In this regard, understanding the motives of how a low yield investment can be so attractive is important as yields are directly linked to how appealing investment is (Investopedia, 2019). In this matter, other factors apart from yields are making investments in the middle-income rental segment so appealing. The factors that make institutional investors accept these lower yields and still be interested in investing in the middle-income segment were given throughout the interviews. The first portrayed reason was mentioned by Interviewee 9. He mentions that the guaranteed stability of cashflows makes investors accept low yields. The interviewee explains this stability by comparing investing in the middle rental sector with investing in the bond market, as follows:

"So, you are in a very liquid segment of the market with very bond-like characteristics. So people are going to behave more like a bond investor than they are behaving like a real estate investor. Because as a real estate investor, you would do probably different things."

He mentions that there is an intrinsic value of owning real estate as the cash flows of renting out middle rental dwellings function as a bond. Bearing that in mind, cash flows would be a quite secure bond due to the high demand for rental properties in the middle-income segment. This means that tenants constantly pay their rents as they do not want to be forced out of their homes in the case they fail to meet their obligations. As so, the rent protection of tenants influences the stability of rents as residential rental contracts in the Netherlands has a longer span than in other countries as mentioned in section 7.1.3. The rental contract can only be broken if the rent is not paid. In this matter, not paying the rent becomes a concern for the tenants of this segment as they have few alternatives to turn to if their rental contract is broken. They cannot go to the social housing segment nor can they pay for higher rents. The interviewee continues by mentioning:

"So, it is a very very secure cash flow stream. And that is what is so attractive for, a pension fund who has the obligation to pay out their pensions. And so that stability of cash flow is very important for them. And it's actually unique in the real estate market."

The second reason for the cashflows of the middle-income segment to be so attractive is the stability caused by the rent increase indexed by inflation and/or increase with a higher percentage than the inflation. Due to this fact, investing in the middle rental sector can also be compared to investing in bonds because of the rent increase being indexed by inflation as pointed out by interviewee 9. This occurs as inflation is one of the biggest fears for institutional investors and investing in the middle-income rental segment can be perceived as an inflation protection investment because of the rents indexation that builds up their cash flows.

However, for investors to make a feasible business plan it is not enough to increase the rent only with inflation as pointed out by interviewee 6. He mentions that the rental growth should be indexed with inflation plus a percentage of the rent increase. In the case of Amsterdam, the rent increases are indexed with inflation plus 1%, and that is necessary as all the costs will increase faster than inflation. He adds:

"And for example, maintenance costs will increase faster than only CPI but also municipal taxes, for example, will also increase faster than CPI. So, if they can only increase rents by consumer inflation index, CPI, their net yield will go down over the long run. So, they really need the CPI plus one. That also will make a business work or not. So, in Amsterdam, the international approach was only CPI. But now they allow CPI plus 1 for new projects. And that was a big step. And then again, we see that investors and institutional investors are willing to accept this kind of heavy regulations in Amsterdam and Utrecht and other large cities. "

The aforementioned fact is backed by interviewee 1 as he mentions that he only invests in a project if the rent increase is indexed with CPI plus 1%. Furthermore, the comparison of investing in the middle-income segment to index-linked bonds continues as the yields of investing in the first are higher than investing in the second. This means that the first becomes more attractive for investors. As so, investing in the middle rental sector is quite unique since you cannot find commercial basis investment-linked bonds in the market which are so cheap compared to buying rental homes, as interviewee 9 affirms:

"And it's quite unique because you can't find on a commercial basis investment-linked bonds in the market, which are so cheap compared to buying rental homes because if you look at the market for index-linked bonds, they are very expensive. And the good thing is this, so the index-linked bond is much more expensive than residential housing. And also, the yield from houses is higher than normal bonds because the yield nowadays for normal bonds is about zero to zero point something percent. And the net income from rental homes is 3% to 4%. For an investor, that's tremendous because they are dependent on the income from their investments. And this is a very stable cash flow as it is index-linked. It's unique. And it is asset-backed because there is a true asset underneath it. So, for multiple purposes, this middle-rented segment is from an investment perspective, very attractive."

On the other hand, the direct yields of investing in the middle-income segment should have a premium if compared to investing in bonds due to market risks, mentions interviewee 3. He comments that it is possible to invest in the middle rental segment with direct gross returns of 3% that bestows a 2% net return due to maintenance, insurance and taxes that have to be paid. So, approximately 80% of the gross rate becomes net rate. He believes this target yield is necessary because real estate investments do not have the same liquidity as investing in government bonds, as he mentions:

"And that's necessary because if you compare these investments to, for example, government bonds, these investments are not that liquid. So, you need a premium for illiquidity. And these investments also have certain market risk. If you look at the last five years, it was booming. But five years from the global financial crisis, the value growth was very negative. Now we are in the crisis of Corona. We think also that the capital growth will be negative. So, there is a certain market risk and that's why investors also ask a premium for that market risk. That's why we need a net return of 2 %. If you compare it to government bonds, they are liquid, and these bonds don't have the market risk of the real estate market. So that's the reason that there's a spread between the risk-free return and the real estate return for residential."

In this regard, the stability of cash flows of the middle-income rental segment is compared to bond investments and therefore appeals to institutional investors as these investors search for low-risk investments in which they have a stable return that can be used to pay out their clients. Nonetheless, a stable investment that is inflation-protected, that is cheaper than investing in bonds and that delivers higher yields than investing in bonds is more attractive for institutional investors than the fact that the investment bears a low yield. This occurs as investors act as bond investors when investing in the middle-income rental segment.

Long investment perspective due to strong market position and long-term shortage of supply
Another reason for institutional investors to accept low direct yields is the fact that they also rely on exit yields for their internal rate of return. Investments of the middle-income rental segment, therefore, rely on direct and indirect yields. In this sense, even though the stability of cash flows is one of the main factors for investors to choose to invest in the middle-income rental segment, the exit yields also play an important role in achieving investor's internal rate of return. In this regard, they rely on a holding period of the investment of approximately 10 to 15 years. As so, this finding is important because the investment perspective of a portfolio influences the efforts of increasing the middle-income rental stock.

Despite the deep understanding of the market and understanding of future trends, investors cannot be 100% sure of the value of an exit yield. In this matter, it would be risky to rely on a long holding periods, especially for investors that seek low risks. However, institutional investors rely on long holding periods because of their strong market position and the long-term shortage of supply in the market. The last aforementioned factor is a consequence of the good urban area location of their dwelling portfolios that will hopefully endow future high demand and consequently secure a good exit yield. This belief imparts from the high growth perspective and high building costs of these locations. This means that the high rebuilding costs make it more attractive for investors to sell the portfolio in the future instead of rebuilding it.

In this regard, the composition of yields of the middle-income rental segment will be first understood so that the holding period can be discussed. As so, the composition of returns on real estate is explained by interviewee 5:

"So basically, we look generally at a 10-year term. We look at the cash flow and it should generate an internal rate of return which should be, for residential in the Netherlands, at least 6% to 6,5%. And basically, this IRR is composed of direct rental income of around 3,5% to 4%. The remaining 3% to 2.5% percent would be a long-term increase in value."

The dwelling acquisitions of the segment are made for a term of 15 to 20 years, asserts interviewee 4. While the returns on the investment are always calculated with as exit yield and after this period the dwellings are sold. Traditionally the dwellings were sold to the owner-occupied market, but now large portfolios are being sold to other investors as the Dutch private investors or large international investors. Furthermore, a portfolio is also sold if the maintenance costs of the dwellings are too high or if their net yields are lower than expected, reinforces interviewee 6. Interviewee 5, as an example, said that the asset management company that works on behalf of the pension fund he works at reviews each investment regularly and makes a regular hold or sell analysis. Thus, investors are always evaluating their cashflows to achieve a maximum result. However, a holding period of 25 years has been considered too long by some interviewees.

An explanation of how Institutional investors can rely on holding periods of a maximum of 20 years to achieve their expected returns is made by interviewee 9. According to him, institutional investors rely on the long-term shortage of supply and also on a growth prospect of yields for about 20 years. They rely on this growth prospective because their dwellings are located in a good urban area. In this matter, the rebuilding value in these locations is high. So, demolishing a real estate and rebuilding it is much more expensive than keeping it. Consequently, there can only be an increase in the value of these dwellings due to their location.

Furthermore, investors can also rely on the longer holding periods for the middle segment because of the crisis-proof characteristic of the sector. This means that the high demand for the middle-rental segment is unwavering even during a crisis. This segment is considered to be crisis-proof because a part of the population would not be able to pay for mortgages in a crisis and consequently would rely more on the middle rental dwellings. Thus, there would be an increase in demand for the segment. The interviewee also mentions that the value of the properties can be affected by a crisis however, institutional investors are more concerned with the cash flows of the properties and not so much with the end price fluctuation as he adds:

"But these institutional investors they are less concerned about price fluctuations in the value than they are concerned about the fundamental cash flow driver. Because they know markets go up and down and they have the strength to sit through any cycle. So that is not a problem for them. So, therefore, they are concerned about the continuity of the cash flow and the fact that they can price in any inflation component."

In this regard, the reliance of holding periods of 10 to 15 years occurs due to the strong market position of institutional investors. Thus, they can endure an economic crisis and can wait for the market to start performing well again. Moreover, the long-term shortage of supply of the segment assists dwellings to be attractive for an end buyer, and therefore easier to sell.

Threat of too much regulation

One of the biggest threats spotted by all the interviewees that can directly affect their yields is the regulations towards the middle-income rental segment. This is an important finding as it is a major concern for investors that regulations imposed by municipalities or the national government will hinder future business cases as well as ongoing business cases. Investors are interested in investing in the middle-income segment and do not want the segment to become regulated as the social housing segment. Thus, there is a fear that the middle-income segment will be as regulated as the social segment.

Interviewee 1 upholds these facts by mentioning that institutional investors want to invest in the non-regulated market, thus the mid-segment must stay in the non-regulated sector. Social housing, as an example, is not a sector in which institutional investors want to invest in because it is in the regulated sector and the number of regulations jeopardizes the expected returns of investors, as indicated by interviewee 3. Nowadays, there are some regulations in the middle-income segment, however, they are not as many as the ones in the social housing segment. Nonetheless, the emerged regulations are making investors think twice or even avoid investing in cities with a large number of regulations. This occurs as the middle-income rental market is becoming more volatile and the risk of investing in it is increasing. Additionally:

"What is difficult right now is the changing regulations from the local government. So, they change their regulations now and then. That influences on your return too. So, you are not sure of your income over a longer-term because of regulations. When regulations change your income can change too and that makes it a higher risk to invest in it. And our clients always look for a lower risk. So, they want to be sure of what the income is going to be over at least 10 to 15 years."

Increasing the amount of regulation does not assist to increase the supply of the middle rental sector since that only limits the interest of institutional investors in the segment, asserts interviewee 5. These limitations also affect the investments of foreign investors in The Netherlands. The amount of regulations holds foreign investors back as they bring insecurities regarding the future of investments. Thus, it would be easier for foreign investors to invest in the Dutch middle-income rental market if there were fewer regulations, claims interviewee 3. The solution provided by interviewee 9 for the increase in the number of regulations is:

"So that is the true risk in the middle market segment that government regulation can really affect this segment and it needs to be taken care of. And therefore, it is, I think, useful for an institutional investor to not put all their eggs in one basket. And so not only invest in Amsterdam but also invest in multiple cities or perhaps in multiple countries, in this segment. And then, of course, there can be the possibility that some markets are getting more regulated and that will hit them. But it will not happen everywhere at the same time. So, we do believe that spreading their investments can help in reducing the political risk."

In the Netherlands, each municipality has its package of restrictions. According to interviewee 7, Rotterdam is one of the most attractive cities for end investors as investors can achieve their required internal rate of return (IRR). In this regard, many investors are moving their investments from Amsterdam and Utrecht to The Hague and Rotterdam due to the number of local constraints in the first two cities. This occurs because the policy of a municipality directly affects investors and developers. An example of these restrictions given by the interviewee is the 40 40 20 restriction in Amsterdam, where 40% of the dwellings in a new project are designated to the regulated rental segment, 40% are designated to middle segment and 20% to the high-end segment (Gemeente Amsterdam, 2020). When the city implemented this policy there was a shift of investment from Amsterdam to other cities as the internal rate of return of residential investments in the city became too low for some investors. These investors could not make a feasible business case and as a consequence, they left Amsterdam, as he mentions:

"If the restrictions are too heavy and too many then they say: Okay, then we look for municipalities where there are no restrictions because there are still municipalities with less heavy restrictions. There are more attractive for an investor to invest in."

Another problem caused by market regulations that may affect institutional investors is the possibility of restraining the middle rental segment. Interviewee 9 explains the problem by reminding that the threshold for middle-income rents is about 1000 euros to 1200 euros. Due to the continuous high demand for the segment, more people will be willing to pay rents close to the threshold. This becomes a problem as part of the middle-income population may not be able to pay rents in the higher end of the segment. In this regard, investors are asked to have a clear policy on how to distribute the rent along the bandwidth of the middle-income segment in a fair way.

Due to the aforementioned problem, governments are afraid to have a scarcity of dwellings in the low-end section of the middle-income segment. To protect the current stock, they impose rent control and they also control the selling of middle-income portfolios by maintaining the conditions of the middle-income rental market to the portfolio's buyer. Also, there is a plan to diminish the cheaper side of the middle-income rental market and relocate it to the social housing segment. The interviewee explains that it was said by the minister that the market should deliver units of 700 or 750 euros even though they can be rented in the middle market by a higher price as 900 euros. He adds:

"And that the minister said: 'well if the market does not supply enough in the cheaper segment, I will change the lower rents limits from seven hundred sixty euros or seven hundred something to nine hundred euros. And then it's all controlled. And then it's all in the reach of housing associations.' Because then the minister said: 'well, I will make this a more political agenda and make sure that we deliver enough cheap houses for the nurses the firemen and policemen and the people who cannot afford it. And we will control it. And it's not for the investors anymore.' And that's a threat, …"

The threat of too much regulation is also a concern for interviewee 1 as he mentions that in the Netherlands the social housing rent is based on points, huur punten. In this case, each house is equivalent to a certain number of points and houses up until 142 points are classified as being in the social housing segment. In this regard, if the government changes the point system by changing the weight of the tax worth of a house, a house that was just above the 142 points and was, therefore, classified in the non-regulated sector can suddenly be classified as being part of the regulated segment. He emphasizes his concern with the government being able to suddenly make restrictions that can make his business plans unfeasible. Thus, a possible solution for the specifications of the market to be solved is given by Interviewee 2 as he points out that:

"They must give more guidance. Ok, for which target group are these new dwellings? For what income category do we build these new dwellings? What's the holding period of the investors? Because they need to hold it a longer period because otherwise, after five years, they will sell the property and they will get the money out of it. And also make a lot of profit. To get the guidance of the municipalities and the government is very important."

Better risk return ratio in G40 cities
As mentioned in the previous concepts, institutional investors invest in areas where there are population growth and economic growth due to the long-term demand for middle-income rental dwellings. Thus, some cities become more attractive to invest in than others. That is the case of the G40 cities (40 biggest municipalities of the Netherlands excluding the 4 biggest cities) that become more attractive than the G4 cities (biggest 4 cities in the country). This is a significant finding as there will have to be government support for investments in some of the cities that bestow lower returns. The government support is important, in affordable terms, so that the demand for middle-income rental dwellings in cities that do not impart good returns is met.

The preference for investing in the G40 cities is explained by interviewee 2 as he mentions that in the G4 cities the direct return is lower than in other cities, but the capital growth is high. In the middle-sized cities the direct yields are higher but the capital growth lower. If a return comparison is done among these cities the differences of returns from a medium city to a big city is not high, but significant for there to be a preference of investing in the G40 and not in the G4 cities. He adds that if the returns in the G4 cities are taken in account, it is still difficult to make a feasible business case for dwellings in the middle rental sector because residential prices and land prices in these cities are high. He also mentions that there needs to be support from the government for the lack of return in these cities.

Approximately 5 years ago institutional investors were only investing in the G4 cities, but know they are expanding and diversifying their portfolio and also investing in cities of 100.000 inhabitants up until 250.000 inhabitants that have good market conditions, asserts interviewee 7. Interviewee 5 mentions that the investors he represents invest in cities in the Randstad, cities in Brabant and cities such as Groningen or Maastricht that have a strong market position. These cities are also mentioned by interviewee 8 that elaborates on the attractive Dutch cities for institutional investors. He mentions:

"So, I say the Randstad area, in a global point of view, is the only metropolitan area we have in the Netherlands. And from a global point of view, we should look into that as one big city. … Then you have within the Randstad area, you have the north wing that is Haarlem, Zaanstad, Amsterdam, Utrecht. That is from a demographic point of view, and a household income point of view, and an employability point of view, that is the strongest area within the Randstad. And then you have the south wing that is The Hague, Delft, Rotterdam, Dordrecht, that is now an area in the Randstad, which is economically restructuring. And is also catching up with the north wing. But still, demographics and also household income and employability is lower than that of the North wing."

He continues by mentioning that there are also middle-sized cities in the Netherlands that are good to invest in. These are Eindhoven, Tilburg, Breda, which is what he calls the Brabants stedenrij. It is a row of middle-sized cities that along with Den Bosch are interlinked within a network. All the aforementioned cities can have returns that are more attractive than the ones in Amsterdam and Utrecht when investing in the middle-income rental segment. He adds:

"So, the volatility of your returns in Amsterdam and Utrecht is much higher. And volatility means risk. Well, that said the volatility of your returns in middle-sized cities outside of the Randstad area is much lower. But therefore, the risk is lower. So, the risk-return ratio of your investment is much better. So, when your volatility is lower, your return, your internal rate of return is lower. That might be the case, that is definitely the case, but therefore the risk-return ratio of your investment is much better. And factually core investors, which is the vast amount of investors looking for residential investment or investors with the core investment style are definitely looking into a relatively lower risk-return ratio. "

In this regard, cities as the ones that are part of the Brabants stedenrij, Arnhem, Nijmegen, Deventer, Zwolle, and Appeldoren, Amersfoort are also very attractive to invest in residential properties. Thus, the initial amount of money to invest per square meter and per dwelling is low. The internal rate of return (IRR) might be low, as well, but the risk-return ratio is high and that is appealing for institutional investors. Furthermore, the G4 cities become not so attractive as the other mentioned cities that are part of the G40. Thus, assistance to invest in the G4 cities might be needed in case the demand of those cities become greater than the investments in them as the other G40 cities are more attractive.

Preference for building smaller units

Another factor that influences yields is the size of dwellings. There is a preference for building smaller as it is easy to achieve an investor's expected return with smaller units. This finding is important as the preference to build smaller affects the affordability of the middle-income rental segment as the demand for larger units may not be met. The minimum dwelling size is a concern for interviewee 2 and interviewee 4 as they represent institutional investors. The first mentions that the minimum size of dwellings they invest in is of 30 m2 . He also adds that dwellings with a size up until 50 m2 are only considered as an investment option if they are livable. This occurs as it is easy to rent out these dwellings when they are new. On the other hand, the size of dwellings for interviewee 4 needs to be a minimum of 45 m2 . He adds that the institutional investor he works on behalf of wants bigger apartments but not as big as 100 m2 or 120 m2 . Moreover, the excel size of dwellings for many pension funds is between 65 m2 to 85 m2 . Interviewee 6 acknowledges that for institutional investors the average size of dwellings should be around 60 m2 to 70 m2 as he adds:

"The average size should be around 60 m2 to 70 m2 net size, net floor area. Because if their homes are too large like 100 m2 you need to ask a lot of rent to make it an interesting investment. So, they also have yield requirements that are different for each fund, but each investment needs to tick some boxes. Needs a proper yield per size and it needs proper quality in terms of technical quality but also location quality."

In this regard, investors find it harder to achieve their expected yields when renting out bigger apartments. This is also a concern in cities such as Amsterdam where the municipality wants big houses for low prices as asserted by interviewee 1. However, the interviewee finds it difficult to invest in bigger dwellings in Amsterdam as the dwelling sizes in which the company he works on behalf of can achieve their expected returns is of 45 m2 to 50 m2 . Other municipalities are also setting a minimum net floor area for developments in the middle-income sector, explains interviewee 6. However, this minimum size of dwellings needs to fit in the business case of developers.

Interviewee 9 addresses the demographics of the Netherlands to explain the investments in small dwelling sizes. He explains that the demand for single households in cities is growing and consequently this becomes a driver for the residential market. Factors such as population growth, divorces, increasing trend of living alone, the attractiveness of single households for students and becoming a widow or widower, increases the demand for single households and makes it attractive for dwellings in this segment to be built. Thus, more smaller apartments can be built in a fixed area. As so, a higher number of dwellings allows the high demand for single household to be met and also allows the rent per m2 to be optimized. In this case, the rent per m2 of bigger dwellings can only increase until the maximum rent threshold of the segment, meaning that rent optimization is only possible in smaller dwellings. Interviewee 9 comments regarding the actions of institutional investors towards building smaller sized dwellings:

"So, they (institutional investors) are very careful in developing and investing in these kinds of bigger apartments. These are needed, of course, because in the living career of a person: you are a student and then you live together and then you marry and get children and so on. But the thing is, of course, we would like to develop buildings that will go through the whole lifecycle of people's living career, so to speak. But that's not possible because as a student or as a single-family homeowner or as a single household, you have different needs. … So, these are challenges in our industry, and we see that in the urban areas. There is a very high percentage of single-family households which are quite attractive because you can build smaller charging fare to high rent relatively. So, per square meter you have a very worthwhile investment, so you don't have to build so much but still get a high price for that."

As pointed out, institutional investors prefer to build smaller dwellings to achieve their expected returns. By investing in smaller units, they can invest in a higher quantity and more can be built in a determined plot. A higher rent per m2 ratio is also achieved when investing in smaller dwellings. However, due to the preference of building smaller, the demand for bigger dwellings for the middle-income is not met. This affects the affordability condition of the middle-income rental sector.

7.2.2 Pitfall 2

Pitfall 2 concerns the will of developers to build dwellings in the middle rental segment. Due to the high increase of dwelling prices developers can achieve a high indirect yield by producing owner-occupied dwellings. The second pitfall emerges because developers may choose to build owner-occupied dwellings instead of middle rental dwellings. The lack of cooperation between developers and investors should, therefore, be solved.

Cooperation occurs due to obligation of building middle-income dwellings

Building for the owner-occupied segment will bestow a higher return for developers. Consequently, they would prefer to build owner-occupied instead of middle-income dwellings. However, developers build the latter due to policies that obligate them to build in the middle-income segment. They, therefore, cooperate with institutional inventors due to the convenience of selling dwellings from the rental segment to the party. In this regard, this finding is important as it contradicts the idea of lack of cooperation of pitfall 2.

As aforementioned, it is more lucrative for developers to build owner-occupied dwellings as stated in three interviews. Interviewee 1 elaborates that investors want to invest in the middle-income dwellings, however, building these types of dwellings grants developers less revenue. Consequently, the high land prices and construction prices may limit the supply of middle-income rental dwellings as it encourages construction companies to build owner-occupied dwellings as added by interview 5. Despite the higher returns that can be achieved with the owner-occupied sector, developers build middle-income dwellings and cooperate with investors due to municipal policies that obligate them to build a certain percentage of middle-income dwellings.

Municipalities have an important role in enforcing the production of middle-income dwellings as asserted by interviewee 9. Due to the price bandwidth of the middle-income rents, developers can sell dwellings for a higher price to the owner-occupied market than to the rental segment. However, developers still develop for the middle-income rental market and Interviewee 9 explains how:

"If I sell it (dwelling units) to an institutional investor who is rent-controlled in this segment, they will not pay the so-called empty value. They will only pay a percentage of the empty value because they are rent-controlled. And they have uncertainties over the longer period of time. And they will see that as a risk factor to deduct from the price. And so, the developer will only do that as soon as he is obliged to produce for the rental sector. So, then there is a good match. He is obliged to deliver a certain percentage of buildings to the middle market rental segment or he will do it out for his own interests because he can sell 30 or 50 apartments at once. For a discount of course, because he will not get the full price. But he doesn't have the hassle to sell 50 individual homes. And that costs time, you need extra cost for that. You need a broker for that. You need so many people viewing the house. And so, it is a hassle."

Finally, the cooperation between developer and investor to build middle-income rental dwellings occurs because of the obligation of the developer to build dwelling in the middle-income segment. As so, the policy of the municipalities is important to stimulate this cooperation.

Cooperation between investor and developer is efficient

Despite the municipalities obligating developers to build dwellings in the middle segment, the cooperation of developers with inventors is grasped as efficient by the interviewees. This is an interesting finding as cooperation is stimulated due to the constraint environment in which the development process is realized. Interviewee 1 signalizes content to the fact that municipalities determine the percentage of middle-income dwellings that should be built for new residential projects as this makes the developers more willing to cooperate in increasing the middle segment rental houses. He also adds that the restriction of the percentage of middle-income dwellings assist investors to obtain their expected yields as developers are obligated to build middle-income dwellings. By the developer side, interviewee 7 adds that:

"There is a lot of interests of residential investors that invest in middle segment rent. Developers are quite willing to develop those schemes because the municipality would like more affordable housing in their city. They are willing to cooperate with developers to get it done, basically. What we see and do a lot of suggestions during the year. Nine out of ten cases that the developer is doing its own homework together with the architect and then when there is a design, he starts a conversation with the end investors. And with the investors basically, there's a kind of competition approach and they have to bid on the project and bid with their conditions and then the best bidder gets a kind of exclusivity phase, where they start one or one conversation with the developer and the buyer together in order to come to a good deal. That's mostly the case in the Netherlands. "

A mismatch between the investors and developers does not exist according to interviewee 10. The interviewee mentions that the current situation is efficient, and negotiations are important to make an investment work. A mismatch is also not perceived by interviewee 4 as he believes the current partnerships with investors and developers work well. However, he adds that all parties have to make the same effort for negotiations to work out. The same opinion is upheld by interviewee 7 as he understands the current situation between developers and investors to be efficient. He adds that developers are behaving actively by searching for good plots in the city and its outskirts, while investors are willing to invest and cooperate in partnerships. He prolongs his argument about the partnership between developers and investors:

"And I can tell you that within Europe, I also have contact with my colleagues in other countries, the Netherlands is one of the countries where a lot of other countries in Europe look at the Netherlands and say: 'Okay, How do you do it? Can we learn from how they develop and sell it off to an investor?' So, in a way, they learn from us. Because it's quite efficient already. So, I don't see any ways to optimizing it."

In this regard, interviewee 2 talks about the importance of the collaboration between developers and investors and the different roles each party carries out. The core business of a developer is to build dwellings, while for the investors it is to make a good product for the tenants. Thus, the requirements of the tenants will be brought up by the investors in the development phase of the project. The developers usually incorporate that to their plans so that the built dwellings fit tenants' requirements. Thereby, the interviewee believes good collaboration is important and highlights that the company he represents always works together to achieve good results. This means that they have been cooperating with developers and this partnership has been carried out efficiently as each party contributes with their specific knowledge to make the investment plan work.

Developers make the business case

From the interviews, it is clear that during negotiations between investors and developers, the developer is the party that is responsible for making a business plan that works for itself and zthe investor. This is an important finding that implies that developers have a big influence on the increase of the middle-income rental stock because they are responsible for making the business plan work. The sentiment among investors is that the developers should make a feasible business plan, even in the case an investor starts the negotiations. This is reinforced by interviewee 5 that points out that the development process takes place if developers can develop attractive projects in which the institutional investors would like to invest in. He also adds that making an attractive project for investors depends on the market, on who would like to pay for the project, and if an agreement can be met. Interviewee 6 also mentions that it is the responsibility of the developer to make the business plan work:

"Well, it is the developer really who needs to make the business case work and not the institutional investor. The institutional investor actually turns it around. He says, well I can ask the rent. I want this yield for a minimal. … And this will be the input for the developer. We then, in turn, he makes his business case work or not work."

Some investors even have a more passive behavior and wait for developers to contact them about a possible business plan as developers may be perceived as having the monopoly position towards a development, as mentioned by interviewee 3. The developers own the ground and therefore, they have the plans to develop. This means that investors are in a less risky position than the developers because the latter is the party that initiates the development process. Interviewee 1 also points out that the developer will contact them. However, he mentions that he has to be alert about investment opportunities and contact developers in the case the company he represents is interest in investing in a plot. This happens as there are other investors also interested in the residential segment that are spotted as competition.

In this matter, the first decisions made by the developer in a development process regards to what will be developed, and how will the developer make the business case. The developer considers to whom will the real estate be sold to, if the real estate will be owner-occupied or not and if the developer should contact an investor or not, as asserted by interviewee 1. Interviewee 7 reinforces that an important question to be made is if the real estate will be sold for the owner-occupied market or the rental market. This question is important because rental apartments have a different program and different size than an owner-occupied apartment. Thus, to assign an architect to make the design there needs to be an upfront knowledge about to whom will the real estate be sold to and therefore, a strategy so the business case can be made.

After understanding the criteria that makes the middle-income rental dwellings attractive, the developer tailors the business case. In this regard, investors know the rent bandwidth of the middle-income sector and they can then steer the sizes of apartments to get a feasible business plan for the developers and investors. Interviewee 7 adds:

"So, what's important to know is that investors cannot buy from the developer apartments which belongs to the luxury segment. And they say if the rents on average in the whole scheme, in a residential scheme, is higher than 5.000 euros per sqm then they are not interested in the proposition. So, developers, they steer on the program to get a housing program which fits between the 720 until the 1.500 euros ..."

By what was exhibited, institutional investors believe it is a developer's responsibility to make the business plan. They, therefore, stand in a comfortable position in which they give inputs for developers and wait for their business plan to work for them as well. They can assist developers with inputs and start negotiation but in the end, the developer will make the business case that will be appropriate for the development to go through.

Requirements of institutional investors

Throughout the interviews, it was understood that institutional investors, in many cases, have their program of requirements. It is important to understand this program of requirements since they can affect the cooperation between investors and developers and can assist or halt the production of middle-income dwellings. Nonetheless, the program or requirements can be a tool to enhance cooperation between investors and developers and therefore, is an important finding. Interviewee 7 explains this program of requirements:

"Okay, so normally it is the case when institutional investors buy a housing complex from a developer and then they have their own program of requirements. And what does that mean: For instance, how big should be the sleeping room how big should be the living room. How big should be the balcony. What should be integrated into the kitchen. What should be the floor finishing all those details are summed up basically in a program of requirements and it is a quit general document."

Through the interviews, the institutional investors that are represented by asset managers have confirmed that they have a program or requirements. However, the institutional investor that represents directly a pension fund and which is a shareholder of an asset management company mentions that he does not have a program of requirements, only a mandate to invest the pension money on behalf of the pension fund. In this matter, asset management companies can make use of a program of requirements to steer their investments as they are in direct contact with developers while pension funds and insurance companies are in direct contact with the asset management companies and not with developers and therefore might not need a program of requirements.

Regarding this issue, an explanation of a program of requirement is made in three interviews. Interviewee 6 reports this program of requirements as being an acquisition profile in which:

"Institutional investors have a kind of an acquisition profile. It is basically kind of the same for all the institutional investors. Not exactly the same. It is predictable that they want to invest in interesting cities. Which is to say they do have some kind of economic attractiveness."

Interviewee 4 describes the program of requirements that is used in the company he represents:

"What we call our own program. And that program, it tells us what kind of kitchen, what kind of bathroom, how we want the walls to be finished. But that's not specific for a client or a pension funds, but that's like more generic. So, we have made some, we have made that program to make it generous for all the projects we do, and the pension funds accept that."

In this regard, the interviewee asserts that the program is not specific for a client and a pension fund meaning that asset management companies understand the investment requirements of their clients and then tailor a program that can be useful for developers. A similar program is mentioned by interviewee 2. He adds that his program also refers to the floor area of dwellings, facilities, sustainability measures, among other factors. Thus, the requirements regarding sustainability are similar to the requirements of municipalities.

However, the program of requirements can be old and also outdated as in some cases the requirements are for the high-end segment, as mentioned by interviewee 7. On the other hand, there is the possibility of the institutional investor making a program of requirements for the middle-income segment. This would assist developers to understand the type of developments that would be interesting for investors. This program of requirements addressed to the middle-income segment would then promote cooperation between developers and investors, as mentioned by the interviewee:

"So, I could imagine that institutional investors make its own program of requirements for the middle segment rent sector. So, the developer knows exactly what you should make for an investor that would like to buy this property for a middle segment rent. So, that could be a quite good measure. Quite good instruments for a developer, so that they can more easily cooperate with the investors. To defend the middle segment rental housing."

The reasons for some of the program of requirements to be outdated is also explained by interviewee 7 as he mentions that institutional investors may not have enough capacity in their company to come up with an up to date program that considers the specificities of the middle-income segment. He highlights that the program of requirements can be a strategic tool for institutional investors and the financial feasibility of developments may depend on investors downgrading the requirements as the building costs are increasing. In this matter, having a program of requirement that is in line with the requirements of the middle-income rental tenants is important for the feasibility of projects and consequently for the yields of developers and investors. Nonetheless, the program can be used as a cooperation tool between developers and institutional investors.

7.2.3 Pitfall 3

Pitfall 3 regards the lack of involvement of institutional investors in the initial stages of the development process as it is common for institutional investors to only gain control over the development process in the ownership phase. This lack of involvement may halt the development of the middle-income rental segment.

Capital is only injected in later phases of the development process despite interest in working together in initial phases

Institutional investors have a stake in the development process of residential units. In this matter, their involvement in the development process is important as they can steer the process, so the outcome influences their business case in a positive way. Some institutional investors are interested in participating in the early stages of the process. However, they inject money only after the real estate is built due to their tax status and due to their interest in low-risk investments. Participating in the construction phase would drive the investment to be riskier. Thus, this is an important finding because bringing investors upfront in the development process would be ideal to increase the middle-income stock so the risks could be shared between developers and investors. However, the current tax situation does not allow that, and the belief that developers should make the business plan also contributes to this behavior.

Institutional investors are not allowed to develop real estate due to their tax status as pointed out by interviewee 3. By adopting the fiscale beleggingsinstelling (FBI) status they can pay fewer taxes as long as they do not take risks, asserts interviewee 6. He continues by saying that developing is associated with risk because the land needs to be bought, then permits need to be obtained and then real estate needs to be built. All these activities bear a risk. However, some investors are keen to participate in the initial phases of the development process, as he adds:

"They want to be involved because they want to have a hold on the development process, or they want to have a hold on the acquisition. It is more kind of a commercial thing. They want to have it and they want to maybe steer the design and have their acquisition criteria more internalized in the project. It is all possible. However, they cannot not participate in any risk-taking or cost-sharing due to the FBI. That is at this moment they used to; they could do this in the past. But at this moment they cannot."

Pension funds and insurance companies would have to pay higher taxes if they took risks, reports interview 4. In this regard, the company he works for does not develop actively but participates in the development process by giving inputs to the technical drawings and the program of the development. As so, he assists during the development process to add quality to the floorplans and the program of the dwellings. He mentions that his job is to reach out to developers and builders and manage the requests of developers. Thus, it can be acknowledged that during the development process either developers or investors can be the first to reach out to one another.

Interviewee 5 mentions that there are no set rules to when an investor is involved in the development process, he adds:

"There are no fixed rules in that respect. It's often a matter of relationships. And what we see is that sometimes an investor has its own development company or that the investors and a construction company makes an agreement for a pipeline of projects or it is a one-off transaction that developers/ construction companies offers a project to various institutional investors and see who is willing to pay the highest price."

In this regard, institutional investors can be involved in many phases of the development process. However, that does not mean that there is an injection of capital in the phases they are involved in. As an example, interviewee 6 supports the information that institutional investors can be present in all phases and adds that they can be involved in the initial phase of developments in case there is a municipal tender of land, or they can be contacted by developers who are interested in a new development or they can also search for new developments themselves.

Developers also have a say on the phase they want investors to be involved in the development process. They can be interested in the investor's inputs in initial phases or maybe only interested in their involvement after the definitive design or after the building permit is issued. Moreover, there are pros and cons for each of the different phase that the investors start being involved in. If they are involved in initial phases, they can influence the outcomes of the development, but they may have to wait 2 to 5 years before they can invest. If they are involved only after the permit is issued, the investment decision is faster, but they will not be able to steer the development. Interviewee 1 prefers to be involved before the definitive design is made as he believes his inputs are valuable to maximize the market value of the properties.

Interviewee 7 depicts his experience of working closely with developers. He points out that what happens the most among his clients is that, as a first step, developers make a plan with an architect and discuss it with municipalities. Then when the preliminary design is ready developers start a conversation with investors as they can already show floorplan drawings and visualizations of what was produced during the first step. After negotiations, and before the start of the realization phase there is the transfer of land from the developer to the investor and in most cases, the investor bases the contract to the end of completion. He adds:

"So, the end investor is on board at the moment the ground is transferred from the developer to the end investor. There are different strategies of how to acquire the building, but this is policy. Like what you see in the market that the investor steps in before the start of construction. It could also be that the investor steps in when the project is completed. As by the completion of the project then they say: 'it is okay, now I would like to acquire it and then I could rent it out.' That could also be a case. But what we normally see is that he steps in before construction and basically, he funds, in a kind of loan, the contractor so he can complete the project. We call that forward funding."

In a forward funding contract, the institutional investor agrees to buy the real estate before or during the construction phase. In this case, the parties involved settle at a yield in which the building will be purchased. This type of agreement enables the investor to have access to the project in an early stage and therefore, steer the project to maximize its market value and to be beneficial in a long term for institutional investors (Leman Solicitors, 2016). Interviewee 9 adds that with a forward contract an investor's requirements can be met. These requirements assist the different needs of the tenants to be met and also assists to maximize the market value for investors as owner-occupied and rental dwellings should have different programs. In this sense, investors do not want to lose money with maintenance issues especially since they are buying the property at such a low yield and any maintenance issues can have a negative effect on the yields. The interviewee continues illustrating how the forward contract is done:

"…the moment that they (institutional investors) invest in the building phase and then they have some form of construction risk and actually you don't want any form of development or construction risk, but you would like to have this forward contract because of the low yields. You only want to buy the building when it's finished. And of course, you will sign for that. So, you have a real purchasing agreement. But the purchasing agreement is about the fact that you will buy the building on completion. That gives the developer the possibility to go to the bank. And he says, well, I have sold my building and that's guaranteed to an institutional investor who will pay me 20 million euros at the day of completion. But I have to build, he has to build for, let's say, 16 million. So, give me a loan for 60 million so I can deliver this building and I get paid on the date that I'm finishing it."

Therefore, forward funding is interesting for an investor's cashflow as it is better for them to pay the developer later in the future and then get their first income on the cashflow as soon as they can. Thus, receiving the first income near the time they pay the developer is beneficial to their cashflows because they would have a shorter time span with no inflow or outflow of capital during the two transactions. Interviewee 9 illustrated what happens in an opposite case where the investors inject money in the development phase:

"But if you invest during the development phase, you have in a building period of let's say a year, no income. So, your IRR is going to look very rubbish because you invest in year one or year zero. So, to speak. After one year, the building is completed and after a year you get your first rental income. But that is not attractive. You're missing out a year or 16 months, as well, having invested, but no returns. So, you would like to have a risk premium for that. It's much cheaper for the developer to say well you keep your money; I will collect it when the building is finished. I go to the bank and the bank will give me a loan and I only distract the loan that I need. So, I'll be very wise to only draw what I need, and loans are cheap, and I can deduct that from all the costs that I have. So, I can have a profit anyway and deliver the building at the agreed time."

As so, investors are not interested in injecting money upfront in the development process because this would have a negative impact on their cashflows and because they cannot take risks due to their FBI status. However, they are interested in working together and giving inputs for developers as they can steer the development to have a program that fits their needs and that would maximize its market value. In this regard, there is not much interest from investors to inject money in initial phases but there is interest to participate and give inputs in the development process.

Collaboration and trust between stakeholders

Collaboration and trust between stakeholders of a development process are important to increase the middle-income rental stock as it has been mentioned by almost every interviewee. However, the collaboration with municipalities is not as effective as it could be due to the mistrust between parties and due to a capacity problem within some municipalities. These factors halt collaboration and hinder the success of partnerships that could result in increasing the middle-income rental stock. Thus, this finding is noteworthy as solving collaboration and trust issues will have a direct impact on the outputs of a development process.

The involvement of investors in a development process is important as the investor should build trust and a relationship with the other stakeholders of the process asserts interviewee 2. According to interviewee 1, that represents an institutional investor, there is always an intention of cooperation from his side. All parties that have a stake in the development process should collaborate and make partnerships. Good contact between parties is essential for a successful partnership as interviewee 7 asserts:

"… I think an instrument or measure for that is that those stakeholders should be in close contact with each other. So, as a municipality, you could say: ok, I want this but if that's not feasible in the project then you can want it, but it is a wish, it will never become real. I think that all those stakeholders, the municipality, the investors, developers should be in good contact with each other."

The ground rule of a successful collaboration is that all parties of a partnership are happy, mentions interviewee 4. The developers and the builders should get their expected returns, the pension funds and insurance companies should also get their returns. He continues by saying it is a challenge to make successful partnerships possible and that the traditional partnership in a development process occurs among the municipality, developer, builder and investor. These partnerships only work if all the parties have similar intentions, as parties cannot command others to engage in activities they do not want to, asserts interviewee 6. Interviewee 5 and 4 also mention that trust is important for collaboration to occur. The last mentions that if there is trust among parties there is also the possibility of partnering up in future occasions. As so, if parties have a track record with each other and if they have done successful projects, then the chances of repeating the partnership increases.

For the traditional partnership to work all parties have to make the same effort to make the development possible, adds interviewee 4. However, there is uncertainty whether municipalities make the same effort. Interviewee 8 mentions how he grasps the relationship between public and private parties to be. He states that civil servants and policymakers at the municipality side do not have a proper understanding of property investors as they believe investors are only down for making profits. They also assume investors treat tenants badly and want to make a profit as soon as possible and leave the problems to the municipality. While, on the other hand, the property investors believe the civil servants want to get hold of their money as they forget institutional investors invest in behalf of people with life insurance policies and pension plans. In this regard, the different points of view harm collaboration between parties.

Another reason for municipalities not to make the same effort while collaborating is a lack of capacity to deal with partnerships. Interviewee 7 mentions:

"I think it is quite good if different stakes look together at a very early stage of the process. I would suggest that if there could be more active ways of working from the municipality then it could be quite efficient. So, there are a lot of schemes that yes investors and developers, architects are quite willing to work together in every stage. But there is still also a problem of a lot of municipalities in the Netherlands that they have a capacity problem."

He mentions the Hague as being one of the municipalities with a capacity problem and he asserts that if the municipality cannot collaborate properly and therefore cannot overcome the capacity problem, then they should just be more flexible when setting policies and values. As a consequence, collaborations would be more efficient as it would not take so long for municipalities to negotiate and come up with decisions about a development. As so, increasing the organization can also be a solution for the capacity problem.

Collaboration and trust between stakeholders affect the outcomes of the development process and are important for successful partnerships. It was identified through the interviews that collaboration and trust of current partnerships are effective from the side of investors, developers and architects but not so effective from the municipal side. Therefore, the interviewees suggest that municipalities should increase their headcount and if that is not possible, they can become more flexible in their values and restrictions. Nonetheless, there should be more transparency regarding the intentions of all parties involved in a partnership, especially between the private stakes and the public stakes as a common goal should be set.

7.3 Emerged themes

According to the interviews new themes have emerged. This section will portray these emerged themes.

High development costs hamper the increase of the middle-income rental stock

The high prices in building costs and ground value are a risk for producing middle-income rental dwellings because high costs directly affect the yields of an investor and therefore, can make a business case unfeasible. The increase in costs affects the middle-income rental dwellings as there is a bandwidth of rents for the segment. This means that the rents cannot increase as much as the costs involved in developing the real estate and the price of acquiring the property consequently increases. It becomes more expensive for a developer to build and therefore, for the investor to buy the property while the returns do not follow the same increase. Thus, the yields of developers and investors decrease.

Regarding the aforementioned problem, interviewee 4 upholds the information that the two factors that make the increase of middle-income rental stock possible would be to lower building costs and have a more active ground price policy that would decrease ground prices. Interviewee 7 illustrates the current situation in Rotterdam where the municipality has the ambition to build high-rise buildings and build middle-income rental dwellings. However, the high building costs and the determined rent bandwidth of the middle-income rental segment hinders the financial feasibility of the project:

"The rise in building cost is a big issue nowadays in all developments. It is quite expensive to assign contractors to build the building for you. The building costs are absolutely high. …Building high towers and the increase of sustainability, in the end, cost you more money to realize the project. And on the other hand, they would like the municipality to extend supply for the middle segment rent. That should be kept for instance around one thousand (1.000) euros, the cap rate of the asking rent to the tenants. So, as you can understand, the costs are increasing and the revenues, the rental income, is dropping because it should be stick to the middle segment rent instead of the more luxury segment rent. So the financial feasibility of those projects are in a very big pressure and I think that's a very important point. In order to make most from the middle rental segment is that those parameters or elements were quite important for the feasibility of housing for the middle-income segment."

Due to the high costs of building, achieving the middle rental prices becomes a challenge since high construction prices will have a negative effect on a short and long-term return, adds interview 3. Furthermore, high ground values also add up to high construction costs. Interviewee 2 mentions that it has become harder to achieve good business cases in the four biggest cities of the Netherlands because of the high land price and high construction costs in the inner cities. Thus, the government needs to support this lack of return. The difficulty in building middle-income dwellings due to the high ground prices that are charged by the municipality is also mentioned in three interviews. Interviewee 4 adds:

"Well, the maximum rental (for middle-income dwellings) that is a choice of a municipality as long as they understand that the height of the rent also determines the height of the ground value. And sometimes a municipality doesn't want to understand that principle. Obviously, they put a very low maximum rent and they also want high prices (in land). Well, then there's nothing developed."

He continues by saying that when a municipality has a ground position and wants to achieve the highest possible return for that plot, the municipality puts on a tender for the area. According to his experience, tenders made by the municipality are a common practice, but that does not mean they are effective, as tenders assist a municipality in getting the highest price but not the highest quality. Because the building costs are still rising, it becomes a problem for the party who won the tender to continue with its plan, as the rise in building costs makes the quality of the projects decrease. Interviewee 6, on the other hand, sees tenders as a practice that can assist in solving the high construction prices and ground prices. He mentions that the municipality can make specific arrangements, in the tender, for lower ground prices to be settled for the middle rental segment.

The high development costs due to high land value and high construction value can affect the yields of developers and investors and make it harder to develop middle-income rental dwellings. Building costs depend on the market and therefore, cannot be changed by parties involved in the development process. However, the ground value also adds up to the final costs of dwellings and this value can be changed by a municipality in case the municipality owns the land. In this matter, the ground value of middle-income rental dwellings should be in line with the maximum rent price of the segment as the ground price reflects what will be built on it. Furthermore, due to the high construction costs municipalities can also negotiate with developer and investors to set a ground value in which they can achieve their expected returns.

Delays in building permits halt the increase in dwellings

According to the interviews, the production of building permits does not follow the same speed as the development plan and is considered to be slow and therefore halt the production of the middle-income rental dwellings. This is an important finding as speeding up the issuing of building permits will assist the middle-income rental stock to increase. The urban planning departments of the municipalities were once big, however, due to a crisis 10 years ago the departments were downsized, and they never grew again, as asserted by interviewee 6. Thus, the lack of capacity decreases the delivery of building permits. He adds:

"And if they (developers) don't own the land but there is also no zoning plan which allows housing, and the developer wants to change the zoning plan, of course, they can enforce some kind of program or regulation for cooperation with changing the zoning plan. But building permits. We need to fasten up the process, so municipalities need more capacity to make the building permits"

The long-time length of getting a building permit is also mentioned as interviewee 10 adds that there is not enough space to build, so the developers try to change the zoning plan but that is never efficient as municipalities do not assist in making the process efficient. The procedure is illustrated as follows:

"Now, well, the changing zoning plans. If there is as an office building now and they (municipality) want to change it to a residential area, it takes them years. There are places in Holland where they have the office park. And I want to make it more residential and redevelop the current building. That is a good thing because we need houses. They (current buildings) are not being used. They (municipality) don't want to demolish it. They just want to, you know, redo them and make them from offices into apartments. To get something like that approved, it takes forever. And that is the government. That is local government."

The process of approving a building permit has also been recently delayed by the restrictions related to the Nitrogen emissions, as suggested by interviewee 4. He mentions that there is a European agreement to protect big nature areas and according to the agreement there is a maximum amount of nitrogen that should be produced when dismantling existing real estate and creating new ones. To proceed with these aforementioned activities the level of nitrogen released needs to be below a certain value for. Thus, this new measure also adds to the problem and delays the issuing of building permits.

The urgency to deliver building permits can become such a big problem that it needs intervention from the Dutch minister of housing to be solved, as mentioned by interviewee 2:

"At this moment, still, we have the delay in new projects because of the building permits, but the urgency is becoming more and more also on the government's side, also on the municipality side. So, we have the example of a Falconbuurt which is near to Delft, I think in South Holland, where the minister of housing in the Netherlands speeded up the process of the building. So the urgency is very high at the moment. The government and municipalities are willing to speed up these processes, so that is good. That is a good part of the news, the bad part of the news is that there are still projects now in delay and we do everything we can to speed up. But yeah, sometimes that's just a pity."

As a solution for the delay in building permits, interviewee 4 mentions that the municipality should hire more people so they can increase their capacity and qualify their employees. Municipalities and cities in each other's vicinity can also cooperate more with zoning plans and coordinate the development and construction of housing activities. This would be interesting as often every municipality works on its own and more cooperation between them can be helpful, mentions interviewee 5. Thus, the increase in the speed in which building permits are issued will only assist the increase of middle-income rental dwellings.

The Amsterdam agreement is a good start and good example for cooperation instruments

Agreements such as the Amsterdam agreement is seen by investors as outputs of negotiations that when followed can make business cases viable. It is considered as being an important milestone of cooperation with the municipality as it is a tool that makes investing in Amsterdam viable. Thus, it is a good example of cooperation instrument. However, there are still some issues in the agreement that could be changed to assist in the increase of middle-income rental dwellings, according to investors. As so, it is understood that the agreement of cooperation is the first step into more collaborations and partnerships with the municipality. This is an interesting finding as it helps to understand and evaluate if the current practices can assist in increasing the middle-income rental dwellings.

The Amsterdam agreement is considered by interviewee 5 to be the outputs of the current economic and political climate of Amsterdam. That means that compromises had to be made from all parties involved. Thus, the Amsterdam program is a result of the discussions and negotiations between all the members of the IVBN and the municipality of Amsterdam in which the output makes it possible for institutional investors to invest in the middle rental segment in Amsterdam at an acceptable rate of return. However, the interviewees assert that it would be better for the investors if the municipality allowed more plots for the development of residential units.

Interviewee 4 also believes the agreement is workable for all parties. However, he believes that the current conditions in Amsterdam make it difficult to set a final development price in the early stages of the project. This means that it is hard for developers to make a business case for the development of dwellings. It also becomes a problem for institutional investors as the development price determines the selling price of the dwellings. Moreover, the interviewee also mentions a second problem with the Amsterdam agreement. He asserts that 25 years is a long time for an investor to keep a portfolio. This concern is also shared by interviewee 5 as it is pointed out that institutional investors should be able to sell their portfolios to realize returns to the pension funds and insurance companies. Interviewee 3, on the other hand, asserts that the agreement secures investors of their investment for 25 years. This occurs as the investment becomes less volatile and consequently it will have a low-risk and will appeal to institutional investors.

Furthermore, the heavy regulations seen in the Amsterdam agreement is understood by interviewee 6 as only being possible in big cities such as Amsterdam as he asserts:

"And that was a big step. And then again, we see that investors and institutional investors are willing to accept this kind of heavy regulations in Amsterdam and Utrecht and other large cities. However, the slightly smaller cities when they tried to set regulations for 25 years, I don't think institutional investors would really accept that. 10 or 15 years in the smallest cities is OK. "

In this matter, the heavy regulations are only possible in cities such as Amsterdam and Utrecht due to the high price level of dwellings in the cities and high demand for the segment. A solution to enhance the cooperation between institutional investors and municipalities to increase the investments in the middle segment is given by interviewee 9. He mentions that another option other than a cooperation agreement is the local governments investing in land. He asserts that the local government should own land and lease it out during a certain period to investors. When leasing out the land, the local government can then create investment criteria that will be implemented by the land lease contract. Thus, the more investment criteria in the contract, the lower should be the value the investor has to pay to the local government. The interviewee adds some of the information that should be mentioned on the contract:

"And in that land lease contract, there should be a clear agreement. Also, on when the land lease is going to end. And when the investor is allowed to sell off the units to the owner-occupied market or to redirect the units into another rental category or no longer in the middle segment or with another tender with regards to lifting the rent, the annual rent, it can be. And of course, at that moment in time, governments should be freed of its investment. So, therefore, then the investor has to pay to the government the total amount of money for getting the ownership of the land. So factually, by doing that, the local government sets for a restricted period of time that can be 10 to 5 years, 10 years, 15 years, 25 years, whatever. They have control, they can influence the restrictions within which the investor is renting out the units."

This solution is interesting as there is an economic tradeoff between investors and the municipality so that interests can be aligned. However, the Dutch central government, the provinces and the municipality are retracting from investing in the market sector. Nonetheless, the interviewee understands that this might change in the future. Furthermore, cooperation agreements such as the Amsterdam cooperation agreement is a start for successful cooperation. The current agreement still has some restrictions and does not solve all the problems. It is still hard for developers to make a business case, more plots should be made available for residential units, and 25 years is a long time for an investor to keep a housing portfolio. Thus, a solution in which tradeoffs are possible and the municipality can have control of restrictions is making use of ground lease.

7.4 Synthesis

Information was gathered through the semi-structured interviews, and concepts emerged. The different types of interviewees allow different perspectives to be understood and information about increasing the middle-income rental housing segment not to be left out. In this matter, this section highlights the concepts that emerged from the interviews by revisiting the pitfalls so that information from practice can be added to theory for future recommendations to be tailored.

The aforementioned concepts are divided into four categories according to the structure that emerged from the literature review, as portrayed in figure 7.1. They are clustered into groups in which their content is aligned to. Therefore, they are clustered into one of the three pitfalls that emerged from the literature review, or clustered in the group of newly emerged concepts that are not related to the pitfalls, or in the group of concepts that underpinned the definition of institutional investors.

Furthermore, this chapter answers the second and third sub-questions of this research. In this matter, the aforementioned concepts portray the conditions that contribute to the prospect of low income or the conditions that halt the increase of middle-income rental dwellings by affecting the development process. The concepts that underpin pitfall 1 as mentioned in section 6, regard the prospect of low income. Therefore, these concepts and the first concept of the emerged themes answer the second sub-question of this thesis. While, pitfall 2 and 3 concern the development process, and both pitfalls combined with the last two concepts of the emerged themes group answer the third sub-questions of this thesis, as illustrated in figure 7.1.

Figure 7.1: Emerging concepts. Concepts in blue assist in answering sub-question 2 and concepts in yellow assist in answering sub-question 3.

Institutional Investors	Pitfall 1	Pitfall 2	Pitfall 3	Emerged themes
Different structure and fund style	High demand	Cooperation occurs due to obligation of building middle-income	Capital is only injected in later phases	High develop-ment costs hamper the increase of middle-income
Difference from investment institutions	Low risk	Cooperation between investor and developer is efficient	Collaboration and trust between stakeholders	Delays in building permits halt the increase in dwellings
Institutional Investors x International Investors	Stability of cashflows that function as bond-like investmnets	Developers make the business case	-	The Amsterdam agreement is a good start for cooperation agreements
-	Reliance on exit yield	Requirements of institutional investors	-	-
-	Threat of too much regulation	-	-	-
-	Preference for building smaller units	-	-	-
-	Better risk return ratio in G40 cities	-	-	-

8. Discussion and recommendations for stakeholders

8. Discussion and recommendations for stakeholders

Based on the empirical findings the pitfalls, that are the outputs of the literature review, are revised. In this regard, they are validated and expanded. The revision of the pitfalls is important as they portray the gaps that should be filled to increase the supply of middle-income rental dwellings. In this matter, recommendations based on the literature review and the empirical findings are made to fill in the gaps created by the pitfalls. Thus, this chapter portrays the revisited pitfalls in its first section and the recommendations for stakeholders in its second section. The chapter, therefore, answers the main question of this thesis.

8.1 Discussion of empirical findings

8.1.1 Revisiting Pitfall 1

Pitfall 1 concerns the achievement of low direct yields when investing in the middle-income rental sector due to the high dwelling values of some Dutch cities. As mentioned in chapter 4, these high values plus the success of renting out can determine if an investment can achieve its expected direct yields. Thus, cities with a higher price level will bestow lower direct yields than cities in which the price level of dwellings are not as high. This means that some cities become more attractive than others. Moreover, the returns of investing in the middle-income rental segment are composed of direct and indirect yields and the low indirect yields can make business cases unfeasible (French & Patrick, 2015; van Gijzel, 2018; Ling & Archer, 2013; Joep, 2014; Statista, 2019a; Statista, 2019b; Statistics Netherlands, 2019).

Findings from the empirical chapter are in line with the literature review as institutional investors achieve low direct yields due to the high price level of dwellings in the Dutch cities and to the fixed rent growth of investing in the middle-income rental segment of the residential market. However, low yields also mean the segment bears low investment risk. The low yields associated with low risk become attractive for investors due to the stability caused by the high demand for dwellings of the segment. Thus, this stability is in line with the concept of matching funds, for institutional investors, as the essence of the cash flow of the investor matches the essence of the investment.

New findings also emerged to complement theory, as institutional investors act as bond investors when investing in the middle-income rental segment. Investing in the segment is compared to investing in bonds, and there is a preference for investing in the first over the second. The advantages of choosing the first are the lower costs and higher yields that are bestowed if compared to investing in bonds. Nonetheless, investments in the middle-income rental segment are also preferred as they display similar characteristics as investing in bonds, such as relying on stable cash flows and being inflation-protected due to the rent increase being indexed to inflation or having an indexation higher than inflation.

The internal rate of return (IRR) of investments in the middle-income rental segment also depends on exit yields. Thus, investors rely on their strong market position and on the long-term shortage of supply to create business cases with cashflows of approximately 10 to 15 years with a forecast of an exit yield for the same period. Moreover, it is a challenge for institutional investors to make a feasible business case in the current market conditions since any disturbance of the market can make their business cases unfeasible. As so, the biggest fear of these investors is having their current and future business case become unfeasible due to new restrictions towards the segment. Nonetheless, factors such as dwelling size and location can also impact an investor's yields.

Therefore, the second point in which pitfall 1 is validated from practice occurs due to the attractiveness of some cities outweighing the attractiveness of others. This means that the interviews depict investments in the G40 cities outperforming investments in the G4 cities. This is a consequence of the higher direct yields that can be achieved in the G40 cities if compared to the G4 cities. Moreover, other findings from the empirical research complement the literature review as the restrictions of the municipalities, restrictions from the national government and the dwelling sizes, arouse as factors that can hamper investors in achieving their expected direct yields and indirect yields.

Thus, recommendations that assist the investment environment to become less volatile and therefore more secure should be tailored. Investments in the G4 cities should be supported by municipalities, and recommendations that help cities to fulfil the demand for different dwelling sizes and still consider the negative effect that large dwelling sizes have on the yields of institutional investors should be made. In all cases, the demand of the market needs to be met so that affordability can be achieved when increasing the stock of middle-income rental dwellings.

8.1.2 Revisiting pitfall 2

According to the literature review, developers achieve higher indirect yields by producing owner-occupied dwellings. The second pitfall occurs as developers may choose to build owner-occupied dwellings instead of middle rental dwellings and consequently, the lack of cooperation between developers and investors may halt the delivery of middle-income rental dwellings (Investopedia, 2019; De Koning, 2010; Bouwinvest, 2019). However, this finding is not in line with the empirical findings as the cooperation between investors and developers is not seen as a problem for the interviewees. This occurs because the municipal restrictions regarding the percentage of middle-income dwellings that should be built oblige developers to build in the segment and therefore, cooperate with investors. The current way of working together is understood as being efficient, despite the obligation of cooperating.

Nonetheless, it is brought up by the interviews that developers are the party responsible for making the business case work for themselves and the investor. The latter can start the negotiations, but in the end, the developer needs to make a feasible business case for both parties. This means that investors will only agree to be part of an investment if the developer can tailor a project that suits the investor's needs and that makes them achieve their expected yields. In this matter, institutional investors take a more passive stand in the development process if compared to developers. It is stated by the interviewees that the current situation works well for investors. Furthermore, investors can also assist developers with inputs in the initial stages of the development. But, in this case, the developer will make the business case and will, also, follow the investor's recommendations.

Moreover, interviewees mentioned that investors have a program of requirement that can assist in negotiations with developers and can work as a tool to enhance cooperation. This program of requirements can be understood as a strategic tool in which institutional investors can steer investments and facilitate communication. However, modifications should be implemented for it to be up to date with the needs of the middle rental residential segment. In some cases, downgrading the requirements can also help developers make a business plan as the construction costs are increasing.

According to the empirical findings, there is not a lack of cooperation between developers and investors. As so, pitfall 2 is not considered as a pitfall. This means that theory is not in line with practice, as cooperation between investors and developers is considered efficient due to the obligation of building dwellings in the middle-income segment. Furthermore, new findings regarding cooperation between developers and investors complement pitfall 2. Developers are more active than investors in the development process as they are responsible for making a business plan work. In this sense, institutional investors are in a more risk-free position than developers. Thus, cooperation can be enhanced by more active participation of investors upfront in the development process. Thus, an up to date program of requirements can assist in enhancing cooperation. In this regard.

8.1.3 Revisiting pitfall 3

According to the literature review, pitfall 3 occurs due to the lack of involvement of institutional investors in the initial stages of the development process as it is common for these investors to only gain control over the development process in the ownership phase (Heurkens, 2017). This lack of involvement may hamper the delivery of middle-income rental stock. Regarding this pitfall, the theory is in line with practice as the interviews show that institutional investors only gain control over the development process in the ownership phase since they only inject cash in later phases of the process.

However, practice adds to literature as some investors are interested in participating in the early stages of the development. Due to this interest, these investors collaborate with developers by giving inputs and providing assistance in early stages. Forward funding is an example of an approach where investors only inject money in later phases but can give inputs in the early stages. Thus, the lack of injection of money in the early stages occurs mainly because of the tax status of investors and their interest in low-risk investments. In this matter, investors do not want to and cannot share risks during the initial phases of the development process, meaning that capital will only be present in later stages.

Furthermore, practice also adds to theory by stating that collaboration and trust between stakeholders of a development process are important for successful outcomes. Currently, the lack of involvement that halts the delivery of middle-income rental dwellings occurs due to the absence of involvement of municipalities in the development process and not by the absence of investors, as it was initially assumed. Thus, mistrust and a capacity problem of the municipality jeopardize collaboration and also the success of a project.

In this regard, the lack of involvement of capital of institutional investors in the early stages of the development process is a finding that is in line with the literature. However, this lack of involvement of investors is no longer perceived as a pitfall as forward funding can assist investors to steer the development process by committing to the project in an early stage, but injecting money in a later stage. What is perceived as a pitfall, therefore, is the lack of involvement of the municipality during the development process.

Thus, recommendations that help municipalities to become more involved in the development process should be tailored. The capacity problem, as well as the lack of trusts from the parties of a development process towards municipalities, should be addressed. Nonetheless, these factors jeopardize the successful functionating of the development process of the middle-income rental sector.

8.1.4 Emerged themes

Pitfalls that emerged from the literature review were discussed throughout the interviews and their content evaluated as new themes that complemented the pitfalls or that deny the pitfalls arouse. However, themes that were not similar to the content of the pitfalls and that also jeopardize the yields of the development process of middle-income rental dwellings emerged. In this regard, these themes are clustered in section 7.3 of the thesis and this section synthesizes them.

Three new concepts arose from the interviews. The first is the high development costs that hinder the increase of the middle-income rental stock. These high costs can make it difficult for developers to make a feasible business case, as high construction costs directly affect the price of dwellings and therefore, investments can become less attractive. The second concept is the delay in building permits that hampers the efficiency of the development process. The slow issuing of building permits due to a capacity problem of the municipality can slow down the delivery of middle-income rental dwellings.

The third concept is the Amsterdam agreement being a good example of a cooperation agreement and good start of cooperation intention. In this regard, other cities can use the Amsterdam agreement as an example of a good shaping decisions tool. Yet, some institutional investors think some points can still be changed. As so, ground leasing can be seen as a solution to enhance cooperation in a manner that enables trade-offs between municipalities and investors and developers. Moreover, the above-mentioned concepts can hinder the increase of middle-income rental stock and therefore, recommendations that overcome them should be made. Nonetheless, the first concept affects the yields of investment while the last two can jeopardize the successful functioning of a development process.

8.2 Recommendations for stakeholders

This section depicts recommendations that assist to increase the middle-income rental segment thus, overcome the pitfalls and answer the paper's main question. The recommendations depicted are the solution for the pitfalls. They are aimed at a certain actor that has the power to put them into effect. Moreover, the literature review and the information collected through the semi-structured interviews underpin these recommendations. The interviews portray the point of view of institutional investors and advisors. As so, the recommendations are aimed towards institutional investors, but also municipalities since the role of the municipality was discussed many times throughout the interviews. On the other hand, the role of developers was not brought up as much and developers were also not interviewed, resulting in a lack of recommendations for developers as their point of view in unknown.

The goal of the recommendations is to increase the middle-income rental stock. Nonetheless, each party of the development process has a stake and the successful outcome of the project depends on the collaboration of these different parties (Adam & Tiesdell, 2012). In this manner, the recommendations consider the different stakes so that the different actors can successfully follow the recommendations to achieve the final goal.

8.2.1 Recommendations for investors

Institutional investors have a smaller scope of action space to increase the middle-income rental segment than the municipality. The actor will rely more on shaping instruments that can enhance cooperation with developers and the municipality, due to their tax status, lack of interest in participating in early stages of the development process and low yields. Institutional investors can also rely on a diversifying instrument while safeguarding their portfolio by any possible restrictions from the municipality that can make their current and future business plans unfeasible. Furthermore, to promote affordability for the segment, the time the portfolio should stay in the segment is also indicated by a capacity-building instrument.

8.2.1.1 Shaping instruments

Cooperation between different actors as well as cultivating network and trust is essential for a successful development (Adam & Tiesdell, 2012). The partnerships between developers and investors of a development process of the middle-income rental segment are considered to be efficient. However, for partnerships to work, all parties have to make the same effort. The municipality is the party that was indicated as not making the same effort as the other actors of the traditional development process partnership. Nonetheless, institutional investors can also be considered as a party that lacks involvement as it has a more passive stand in the process than developers. This occurs because investors take less risk than developers due to their FBI tax status and because of the concept of matching investments. To overcome taking fewer risks, institutional investors can make use of shaping instruments that can enhance cooperation between investor and developer and can, therefore, enhance partnerships as investors would make their plans and visions more accessible. These recommendations can, therefore, increase the middle-income rental stock as it enhances cooperation.

Institutional investors should have their own program of requirements

Asset managers that represent pension funds and insurance companies have their program of requirements that aims to steer developers to produce real estate that is in line with their needs. This program of requirements is general as it can be used for every development of residential unit. It refers to physical characteristics of a residential unit such as size, the presence or absence of a balcony, floor finishing, types of kitchen, among other characteristics. However, some program of requirements are outdated and/ or were made for the high-end segment, since some institutional investors do not have enough capacity to update the program.

In this regard, a program of requirements that is up to date and directed to the middle income will be used as a tool to enhance cooperation with developers as the latter will know beforehand what factors are needed in a development for institutional investors to endorse it. Nonetheless, this tool will also help investors in increasing their investment possibilities as the developments can become more attractive for investors. Thus, more developers could be willing to invest in the middle-income rental sector as they would know about what is needed to realize the development. In this matter, institutional investors have the necessary data to create this program of requirements as they can analyze their current portfolio and understand what variables make an investment more attractive and what works better. In this sense, institutional investors should develop their human capital to update and/ or make a new program of requirement.

It is recommended to set dwelling sizes in the program of requirements. The preference of institutional investors to build smaller units was stated throughout the interviews. Thus, this preference affects affordability measures of the middle segment as the demand for larger dwellings may not be met. In this sense, institutional investors should state the dwelling sizes that makes them achieve a feasible business case. Additionally, it should be mentioned that this point can be discussed with the municipalities in case there is a need for larger units and/ or if the municipality requires these larger units. Thus, there needs to be a tradeoff between private and public parties for bigger dwellings to be built.

Nonetheless, it is also recommended to specify the preferred rents in the program of requirements. By following a maximizing behavior, institutional investors would invest in dwellings of the high end of the middle segment. This occurs as higher yields can be achieved if the dwellings are rented out in the higher end of the rent bandwidth. Nonetheless, the lack of supply would also make future tenants pay rents on the high end of the bandwidth. Thus, these factors may hamper the affordability of the segment. In this regard, institutional investors should indicate the rent values that makes them achieve their expected yields. Accordingly, to the previously mentioned topic, this issue should also be indicated as a point for negotiation with municipalities as tradeoffs can make the lower rents of the middle segment attractive to investors.

Finally, it is recommended that institutional investors build up capacity within their organization to tailor a program of requirement that is in line with their needs, that is up to date and that is targeted to the middle-income rental dwellings. Institutional investors should indicate their preferences on these topics so it can be easier for them to achieve their expected return. In case there is a need for a different value than the ones indicated, then investors or the municipality can start negotiations so that both parties can make tradeoffs and come up with an output that is beneficial for the middle segment and that also benefits the affordability of the segment. In this regard, the program of requirements can be used to enhance negotiation with developers as developers will know what is needed for investors to become attracted to a project. Furthermore, the program of requirements can also be used as a tool by the municipality or even by investors to start negotiations with the investor in the first case and the municipality in the second, since the tradeoffs between the two parties are important to achieve the goal of increasing middle-income rental stock.

Investors should tailor a public statement of intentions
The empirical study depicts cases of mistrust among private parties and public parties due to the lack of comprehension about the objectives and end goals of these parties when engaging in a partnership. This occurs mainly between private parties and public parties. For cooperation between different actors not to be jeopardized by mistrust, the behavior of the market actors should change. In this matter, it is recommended that institutional investors provide a public statement of intentions, designed for the municipality, regarding their culture and mindset when investing in the middle-income rental segment. This statement should be broader than the program of requirements and can encompass the actor's social responsibility and visions towards the middle rental segment. The statement, can, therefore, be shared with the municipality in the early stages of a partnership so it can be used as a cooperation tool. However, the main goal of the statement is to change the behavior of market actors.

Sell dwellings after the holding period of the investment to an actor that will keep it in the middle rental segment
The ideal holding period of an investment for institutional investors is up until 20 years. A longer time is not ideal for investors as they prefer to avoid large maintenance and refurbishment costs. Thus, this investment perspective is interesting to maintain a steady cashflow. Amsterdam has set a condition in which the dwellings of the middle rental segment can only be sold without restrictions after 25 years. This time frame for keeping the dwellings in the segment is not appreciated by investors as it increases the risk of the investment. Nonetheless, older dwellings need more maintenance and the increase in maintenance costs over the years makes it harder for investors to maintain their returns. However, the dwellings must stay in the segment for the middle rental stock to increase. In this regard, it is recommended that the dwellings are sold to parties that will keep them in the middle-income rental segment. This is important as the current size of the middle rental stock should be maintained so that the new stock can increase the segment.

8.2.1.2 Diversifying investments

Investors should diversify their investments and invest in different cities
One of the biggest threats that can halt the development of the middle-income rental segment is the number of regulations of a municipality or the Dutch national government. Institutional investors are concern about the rise of regulations that can hinder future and/ or ongoing business cases. Investors do not want the middle segment to be regulated as the social segment. A municipality with many regulations can push investors away instead of attracting investors. Amsterdam is an example of a city in which this happened and as a consequence, investors shifted their investments from Amsterdam to other cities when the 40 40 20 regulation came into being.

In this matter, there is a risk of a municipality implementing a regulation that can make a business case of an investor unfeasible. As so, institutional investors should diversify their investments. In the case of the middle-income rental dwellings, investors should invest in different cities. By doing so, the total investment risk decreases. This occurs because if a municipality implements regulations that makes an investor's business case unfeasible, only the percentage of dwellings of a portfolio located in that municipality would be affected by the regulation. The percentage of the portfolio in other cities would not be affected by the regulation. In this regard, if investors do not diversify, then its whole portfolio will be affected, and its business cases will become unfeasible. In this regard, it is advised that institutional investors diversify their portfolio.

8.2.2 Recommendations for municipality

The municipality has a bigger scope of instruments to increase the middle-income segment than institutional investors. One of the most important is the stimulus instrument in which the municipality can support the middle-income segment as it has supported the other housing segments throughout the years. Moreover, the municipality can also make use of a shaping instrument and a capacity-building instrument that will enhance cooperation so that cooperation can be effective, and trust restored.

8.2.2.1 Stimulus instruments
The high prices in building costs and ground value can hamper the feasibility of an investor's business case. These factors affect the middle segment as the bandwidth of rents of this segment cannot increase as much as the construction costs and consequently increase as much as the selling price of real estate. Thus, it becomes more expensive for developers and investors to build and acquire real estate and as a consequence, their yields decrease.

Tax break for investments in the G4 cities
Building costs and ground value are affected by location. The G4 cities as an example have high ground and construction prices if compared to the G40 cities. For this reason, their direct returns are lower than the direct returns of the later. However, this makes the capital growth of the G4 cities higher than the capital growth in the G40 cities. Thereby, the difference among the returns of the two clusters of cities is not so high but it is significant to make the G40 cities more attractive than the G4 cities, as specified in the empirical research.

As mentioned above, cities such as the G40 become more attractive to invest in than the G4 cities. This occurs due to the high residential and land prices of the G4 cities. In this regard, there needs to be government support especially for investments in the G4 cities as they impart lower yields. Thus, it is recommended that the municipalities of these four cities make use of price adjustment instruments to make developing in the middle segment more attractive. A package of tax break should be introduced for institutional investors to be able to achieve their expected yields.

This tax break package should have a period of 10 years as the demand for middle rental houses will continue to increase over the years. The 10-year time span is chosen as the demand for middle segment housing will continue increasing and in 15 years there will be a need for 1 million houses. However, it is predicted that in 10 years, in 2030, the housing stock will be increasing more than the households, meaning a natural decrease in the housing shortage (Rabobank, 2019 b). In this sense, the tax break package should have a length of 10 years with the possibility of extension if needed.
The package can include capital allowances of the property tax, transfer tax, transfer contract tax, among other taxes. For the tax break to be achieved, there first needs to be a study within the municipalities of the cost of the package and the costs that will be generated from it. This must happen because the value of the allowances should match the value that is saved by investors due to the benefits employed by theses allowances.

Allowance for a portfolio that is kept in the segment for more than 15 years

The empirical findings state that an average of 15 years is a good holding period for a portfolio of middle rental dwellings. This investment perspective is interesting for institutional investors as maintenance costs increase over the years, therefore if a time span of an exit yield is longer than 15 years, the maintenance costs will decrease the direct yields to a standard that it may not be interesting to maintain the portfolio. In this matter, it is recommended that municipalities grant an allowance for investors to not sell their portfolios and keep it for more than 15 years. This will allow the middle rental segment to maintain the size of its stock, as well as assist in increasing the segment's stock as new dwellings will add up to the existing ones. Moreover, this allowance can be granted annually, and it can start in the 16th year.

Ground lease

The high value of building costs and ground price is detrimental to the expected yield of institutional investors. The construction costs cannot be changed as they depend on the market. However, the ground costs can become more affordable. The decrease of the ground value would decrease the whole price of a dwelling as the total selling cost depends on the construction cost and the ground price. In this matter, municipalities can have a more active ground policy to assure the construction of dwellings in the middle segment. Nonetheless, since the beginning of the 21st century, many municipalities started moving away from the ground lease system (Ploeger & de Wolff, 2014). However, it is recommended that local governments think about returning to being more active in ground policy and therefore, owning land and leasing it to investors. This stimulus instrument can assist developers and investors to achieve their expected yields and will make investing in the middle rental segment more attractive.

For the ground lease to take place, the municipality should create investment criteria that should be implemented by the land lease contract. The number of investment criteria should be inversely proportional to the amount that an investor has to pay for the land. Thus, the more criteria, the lower the land price should be. Furthermore, the criteria should state the time length of the land lease. After this time, the investor and the municipality should be freed of the investment. This means that the investor can choose what to do with the dwellings, it can sell it to the owner-occupied market or even change the rental segment of the units. However, the investor has to pay the municipality for the ownership of the land. In this regard, the municipality will be able to influence the middle segment during the ground lease period and also stimulate the production of middle-income rental dwellings.

Tender focusing on quality

Due to the high and continuous rise of construction prices the municipalities can, when owning the land, make tenders that will stimulate the production of the middle-income rental dwellings. As stated in the empirical research, when the municipality owns the land and wants to achieve the highest return for that plot it normally opens a tender process. It is a common practice for municipalities to do this. However, the current practice is not effective as the municipality achieves the highest yields, but not the highest quality, nor stimulates the development of the middle segment. This occurs because the rise of building costs disrupts the plans of the party who won the tender as the rise in building costs make the quality of the project decrease. Thus, to stimulate the middle segment as well as to solve the high ground and construction prices, when opening a tender, municipalities can opt to make specific arrangements in which lower ground prices are settled for the construction of the middle rental segment.

Tax break for developers

Developers need cash liquidity in the early phases of the development so they can acquire land and start building. The high increase of construction costs and the high ground values only makes it harder for developers to build for the middle segment and achieve their expected yields. On the other hand, institutional investors cannot inject money in the development process in the early stages due to their FBI tax status. Therefore, they are unable and also do not want to assist developers with capital in these stages. In this matter, developers turn to banks or to other investors to acquire capital to build the project. This happens because developers are unable or reluctant to employ their equity in the early stages of development (Adams & Tiesdell, 2012) and therefore have to rely on capital from banks or investors.

To increase the middle-income rental housing stock, developers need to acquire capital to build dwellings in the segment. Since institutional investors cannot assist in that matter, municipalities should help. In this regard, it is recommended that municipalities implement tax incentives for developers to build dwellings in the middle rental segment. This tax incentive is important as it will allow developers to produce middle-income rental dwellings and therefore increase the stock. As so, municipalities should produce a study to understand what tax incentives will allow developers to increase the middle rental stock.

8.2.2.2 Shaping instrument

Development framework to guide investors

According to the empirical part of this thesis, the large number of regulations towards the middle-income rental segment can halt the increase of the stock. There is a fear of the segment becoming regulated such as the social housing segment. Thus, the high amount of regulations can jeopardize the current and future expected returns of investors. Consequently, the prospect of investing in the segment becomes less attractive as the investment risk increases. Nonetheless, the mistrust feeling towards municipalities also assists in increasing the risk of investing in the segment. These factors hamper the collaboration between parties and can, therefore, negatively affect the production of dwellings in the middle segment.

Municipalities need to meet their social obligations. As so, it is necessary to be aware of institutional investor's preference for building smaller sized dwellings because achieving their expected return is easier with smaller sizes. In this matter, it is recommended that the municipality encourages dwelling sizes that match the needs of the middle-income market. Notwithstanding, the municipality should also be aware that there is a preference from institutional investors to achieve their expected returns by requesting rents from the higher end of the rent bandwidth of the middle segment, as it is easier to achieve their expected returns with these rents. Due to the lack of supply of the segment, likely, future tenants will also pay rents in the higher end to secure a rental dwelling in the middle segment. In this matter, it is also recommended that the municipality incentivizes an assorted rent value for the middle income so that the segment can be affordable and can also function properly. For the two aforementioned facts to be incentivized the municipality should create a development framework.

It is recommended that a development framework for the middle-income rental segment is tailored. This framework will serve for two-fold purposes. The first is to guide investors and developers regarding suggestions of the municipalities about the middle-income rental segment. These suggestions will concern dwelling sizes and rents. The second is as a risk-reducing instrument that reassures that the segment will be kept in the non-regulated market.

In this sense, this document should reaffirm the intention of the municipality in maintaining the middle segment in the non-regulated market. It should also portray market analysis research indicating the demands that should be met. As so, the document gives guidance regarding the rent values, dwelling units as well as target groups, the income category and the holding period of the rental portfolio. Furthermore, it should confirm that it is open for negotiations and tradeoffs. This last part is important to stimulate trust and openness towards cooperation as well as reduce risk perception.

8.2.2.3 Capacity-building instrument

Increasing skills and capability
Investors acknowledge the collaboration with municipalities as not being effective due to mistrust among the parties and due to the capacity problem of municipalities. Therefore, solving collaboration and trust issues is important to enhance partnerships between municipalities, investors and developers and as a consequence, increase the middle segment. Moreover, the capacity problem of municipalities also delays the emission of building permits and therefore halts the increase of the middle segment. As so, a capacity-building tool that solves delays and collaboration issues is needed.

According to the aforementioned facts, enhancing the skills and abilities of the workers of the municipalities can assist the public party to become more active in negotiations. In this matter, training among the workers of the municipalities is recommended as well as seminars given by experts about the development processes and the different stakes of the actors of the process. These capacity-building moments should assist the workers of the municipality to understand that they have a place making task and that cooperation is essential for that to happen. There can also be sessions in which examples and ideas of successful developments and practices are displayed, as well as the overview of the cooperation agreements that result in these successful developments.

Furthermore, an increase in headcount to make the process of issuing a building permit faster is also recommended. Nonetheless, cooperation between municipalities and cities in the municipality's vicinity is also recommended so that the different parties can assist in making the process of issuing building permits faster. There can be cooperation about zoning plans and coordination of the development and construction of housing activities, to enhance future partnerships. Finally, enhancing the human capital of municipalities, increasing its headcount as well as having cooperation between municipalities and nearby cities can assist to increase the capacity of municipalities to cooperate and consequently issue more building permits.

Figure 8.0: Summary of recommendations

Recommendations for institutional investors	
Shaping instruments	1. Institutional investors should have their own program of requirements
	2. Institutional investors should tailor a public statement of intentions
	3. Institutional investors should sell dwellings after the holding period of the investment to an actor that will keep it in the middle rental segment
Diversifying instruments	1. Institutional investors should diversify their investments and invest in different cities
Recommendations for municipalities	
Stimulus instruments	1. Tax break for investments in the G4 cities
	2. Allowance for a portfolio that is kept in the segment for more than 15 years
	3.Ground lease
	4.Tender focusing on quality
	5. Tax break for developers
Shaping instrument	1.Development framework to guide investors
Capacity-building instrument	1.Increasing skills and capability

9. Conclusion

9. Conclusion

9.1 Discussion

This thesis analyzes how to increase the delivery of the middle-income rental stock and, therefore, assist in solving the problem of the exclusion of the middle segment in the Dutch housing market.
A thorough analysis involving the yields of investments in the middle-income segment and an analysis of the development process was done by semi-structured interviews. Institutional investors, as well as advisors, were interviewed so there could be an understanding of how these actors can make use of the available money to increase the middle-income rental sector. The outcomes of the literature review that are translated as the pitfalls that halt the increase of supply of the middle-income rental segment were discussed throughout the interviews so the thesis could come forward with recommendations that fill in the gaps that hinder the production of middle-income rental dwellings.

The key finding of this thesis upholds the need for government involvement to increase the middle rental segment. This is the consequence of the hurdle of institutional investors not willing to be involved upfront in the development process and also not being able to inject cash in early stages of the development process due to their tax status. The influence of the government in the development process was brought up in all the interviews and may be explained due to the profile of the interviewees (figure 7.0). This influence can be perceived in two different ways: the first is the important role of the government in delivering middle-income rental dwellings since they are the actor that enforces restrictions regarding the percentage of dwellings of the segment that should be built. The second is the difficulty to cooperate with the government due to the lack of capability and trust during collaborations. In both cases, the municipality is understood as an actor that has great influence in the delivery of the middle-income rental stock.

Institutional investors, on the other hand, have limited influence on the development process of the middle segment. They have to abide by tax regulations and cannot take decisions that will increase the risk of the investment. They cannot inject money in the early stages of a development and are also not interests in doing so. Thus, disruptive factors can make their current and future business cases unfeasible. They, therefore, adhere to activities of the development process that are not risky. The lack of participation of investors in the early stages consequently makes developers the party that takes higher risks in the development process. This occurs as the absence of actions of investors and municipalities only raises the responsibility of developers to increase the middle rental segment.

In this matter, municipalities can have a more active role in increasing the middle-income rental segment and can be responsible for mitigating the developers' risk in the process. Due to their influence, the scope of instruments of municipalities to increase the segment is larger than the scope of instruments of institutional investors. Thus, this is also a consequence of the last actor not having sufficient freedom to apply instruments to increase the middle segment, since they act cautiously towards their yields and the development process. Therefore, a municipal subsidy is necessary to balance the market.

The middle-income rental segment has not received financial support from the Dutch government as has the non-for-profit segment and the owner-occupied sector (European commission, n.d; Hekwolter et al. 2017). In this regard, the middle segment has never grown in size as the other segments (Eskinasi, 2017). Therefore, the subsidy given by the government to institutional investors and developers to increase the middle rental segment will level the playing field of investments in the middle rental segment when compared to the investments in the non-for-profit segment and owner-occupied segment.

The above-mentioned information influences the recommendations to increase the middle-income rental segment. As so, recommendations for institutional investors aim to enhance cooperation with the other actors of the development process. Despite cooperation among developers and investors being stated as effective, there is always scope for improvement. In this respect, the recommendations for institutional investors of this thesis are mostly concentrated in shaping instruments. Municipalities, on the contrary, have various tools to increase the middle-income segment. One of the most important ones would be to assist financially investors and developers to increase the supply of the segment. In this matter, the government should make use of stimulus instruments to subsidize the middle rental segment. As so, this is one of the most important measures that will assist developers and investors to achieve their expected yields.

Nonetheless, the recommendations are based on the pitfalls from the literature review that were revisited in the empirical part of this thesis. The high amount of recommendations for institutional investors regarding cooperation is explained by the revisited pitfalls. The key understandings from the empirical findings are that pitfall 1, that concern the prospect of low return in investment income, and pitfall 3, that concern the lack of involvement of investors during the development process, are in line with the new findings. While pitfall 2, that concerns the lack of cooperation between investor and developer, contradicts the findings.

The conclusions drawn by pitfall 1 are that institutional investors achieve low yields when investing in the middle-income segment. However, they act as bond investors and understand the investments in the segment as being more advantageous than investing in bonds. Therefore, they prefer to invest in the first than the second. Thus, the low yields make these investments sensible to any disturbance that may negatively impact the investments. This means that there is a small scope of actions that can be taken to increase the delivery of the middle rental segment as any measures can negatively affect their yields. In this regard, the recommendations aimed to investors have a shaping and diversifying nature, as aforementioned.

The conclusions drawn from pitfall 3 are that investors inject money in later phases of the development process as they are not interested and cannot invest in early stages due to their tax status. Nonetheless, the inputs of investors in the early stages are important to support and steer the development process. The lack of involvement of capital in these stages is compensated with inputs by some investors, while other investors are not involved due to their lack of interest. In this regard, the recommendations of this thesis make use of shaping instruments to enhance the cooperation of investors and overcome the lack of injection of money in the early stages. Therefore, the recommendations that enhance the cooperation of investors are important as they can increase the presence of investors in the early stages of developments.

The empirical findings regarding pitfall 2 are not in line with the findings of the literature review. It is stated, by theory and practice, that developers can achieve higher yields when investing in the owner-occupied sector if compared to the middle rental segment. The contradiction is, therefore, caused because the empirical findings state that regulations that obligate developers to build middle-income dwellings elicits cooperation between the parties. While the literature review states the absence of cooperation among the two parties. However, due to the obligation of building in the segment, the cooperation of developers with investors is understood, by the empirical findings, as efficient. This contradiction is the aftermath of the interviews being set up with investors and advisors that understand the development process according to an investors' perspective. Developers' perspectives were not gathered for this thesis; thus, their point of view is not known. Moreover, the absence of regulations that make developers build in the segment may halt cooperation. In this regard, recommendations to enhance cooperation were tailored and are the main tools of investors to increase the supply of middle rental dwellings.

As aforementioned, institutional investors and advisors were chosen for the interviews of the empirical part. In this matter, representative of developers and municipalities were not interviewed due to the scope of the thesis. This can be understood as a limitation since the new inputs of interviewing these two actors would assist in refining concepts and in increasing or modifying the recommendations. Interviewing developers and the municipality can add to the thesis as they have stakes in the development process and are part of the traditional partnership of the development process. This limitation provides, therefore, an opportunity for further research in which the developer's and municipality's point of view is collected.

Furthermore, this thesis analyzes how to increase the middle-income rental stock by the standpoint of institutional investors, specifically pension funds and insurance companies. Thus, there is room for further research regarding increasing the middle-income stock by the standpoint of housing associations, private investors and even by investment companies. These different stakeholders require different yields and act in their specific way in the development process. Thus, this can be further elaborated in a follow-up study.

Moreover, the interviews with institutional investors and advisors complement themselves as institutional investors know the market but also practical knowledge about the business. In this sense, the outputs of the interviews of this group will be influenced by the governance of the company in which they work. While advisors will also have knowledge about the market but will have a broader understanding of institutional investors and will not be attached to the governance of a specific company. In this sense, information is triangulated, making the thesis more reliable and assisting in its transferability. The transferability concept is therefore achieved through convergent validity of the information gathered by the two groups of interviewees as well as information gathered from the literature review.

The interview sample of this thesis is chosen according to the saturation level. Based on Guest, Bunce & Johnson (2006), approximately 90% of the codes emerge until the 12th interview, as no further development of theory emerges. In this sense, the saturation level of this thesis was observed in the 10th interview, meaning that from the 10th interview new codes stopped emerging. This sampling method indicates that stability of information is achieved in the sense that information is being repeated and no new information emerges from the interviews. Thus, the concept of dependability is achieved as it refers to the stability of information of the thesis.

10. Reflection

10.Reflection

The purpose of this thesis was to increase the middle-income rental stock by the standpoint of institutional investors. In this regard, recommendations that assist in increasing the stock were made. These recommendations were underpinned by the literature review as well as by the empirical part of the thesis. With the literature review, a market analysis, as well as an analysis of the development process, was carried out. Then, based on the literature review, pitfalls that halt the production of the middle-income rental segment were made. These pitfalls were later on discussed in the interviews of the empirical phase. As so, the pitfalls were validated or refuted, and practice was added to theory to enhance the pitfalls which were later solved by the recommendations of the thesis. This section will reflect upon the product, process and planning of the portrayed research.

The main problem that this thesis aimed to solve was uncovered in an early initial phase. In this sense, the thesis aimed to assist in increasing the middle-income rental stock as the lack of stock is a social problem. However, many factors affected the production of dwellings in the middle segment. Understanding the process means being knowledgeable about different fields of study such as the urban redevelopment field, economic field, residential market field and construction management field. Notwithstanding, the information that needed to be analyzed in each one of these fields was also complex as many factors affect the development of the middle rental segment. As an example, the different stakeholders of the development process of the middle segment should be understood, as well as their goals, governance and moment in which they were present in the timeline of the development process. In this regard, it was difficult to organize all the information in a narrative that would allow information to be laid out into a manner that would fit the scope of the thesis and that would be funneled so that the thesis could have a scope that fits the university's requirements.

This funneling process of the thesis occurred in an iterative process. The market analysis was the first part to be written while the second was the development process. However, the writing of these two parts did not occur linearly. Every time new information on the development process was analyzed, there was a need to go back to the market analysis and add or remove some existing parts. Thus, one part was always complementing the other. This process of going back to what was already written and changing it due to newly acquired information was common during the whole process of the thesis. Even during the empirical part. In this sense, it could be said that the process of writing this thesis was laborious.

However, with a deeper understanding of the process of increasing the middle segment as well as with the assistance of the tutors of this thesis it was possible to choose a scope that was interesting and not researched before and that could promote the solution of the problem of the thesis. In this regard, three actors could be studied and that would assist to increase the middle-income rental dwellings. These were the government, private investors and institutional investors. However, this thesis focused on the last due to their representativeness in the middle segment and due to the available money, they have to invest in the segment. These two factors, as well as the small scope of the master thesis, made institutional investors an interesting research subject.

Nonetheless, not so much was written about institutional investors in the Dutch residential market, especially, in the middle segment market. As so, it was a challenge to find literature about it as well as insert this actor in the middle segment of the Dutch residential market. Due to this lack of literature, there was a need to rely on the governance and goals of institutional investors towards other market segments, as well as understand their role in the timeline of the development process. In this regard, the assistance of the tutors of this thesis was important during this phase. However, a complete understanding of the role of institutional investors, as well as their goals and structure, was only possible because of the interviews. Thus, after the interviews, the iterative process continued, and some information had to be added or changed in the literature review so that the narrative of the thesis would answer the main research question.

In this regard, this iterative approached worked out. However, the inputs of the tutors were extremely important since some of the information added to the thesis was unknown as the topic regarding institutional investors can be understood as an addition to the content of the first year of the MBE master program. Furthermore, the thesis process would have happened more smoothly if an advisor or even a representative of institutional investors was interviewed in the beginning so that the organization of the company, as well as their role in the development process, could be understood.

Also, the underlying concepts of the thesis assist in understanding how a development process works. In this sense, these concepts can be applied to future studies and to understand any other development process of any real estate segment. The thesis assists in understanding that for a development process to work there needs to be cooperation, therefore each actor takes on a certain risk that is in accordance to their goals and to the activities they carry out. These actors work in an environment that is affected by economic, social, political, technological, cultural and environmental factors.

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Appendix 01

The Dutch environment

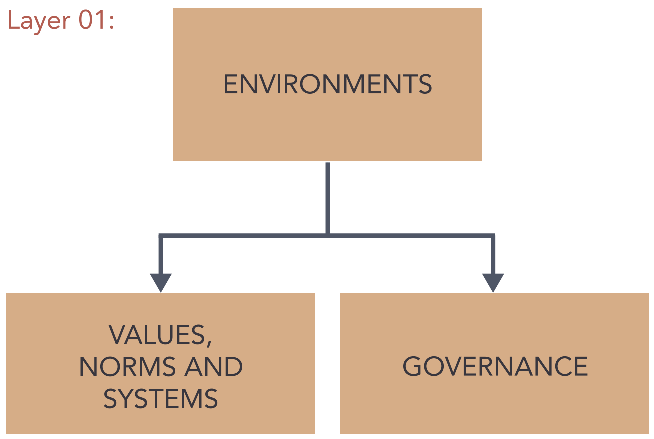

Figure A1. illustrates the mechanisms that constitute the layer of environments of the development model of Squires & Heurkens (2016) (own illustration).

This appendix explains the wider context of real estate development in the Netherlands according to Squires & Heurkens (2016) environmental layer. The socio-economic-principles, as well as the institutional norms and values that affect real estate developments, will be portrayed (Squires & Heurkens, 2016).

Values, norms and systems

The Dutch planning system follows an integrated approach in which the coordination of spatial developments is more important than the economic development of these plans (Nadin & Stead, 2008). This style led the country to a large-scale comprehensive and integrated project development for the urban extension. However, in the late 1990s, there was a shift for a focus on urban regeneration (Buitelaar, 2014). This is in line with the Dutch urbanization policies in which during the 1980s the country's policies aimed at implementing compact urbanization, with efforts directed to the Randstad (polynucleated urban centers that comprise the four biggest cities of the Netherlands). In the first phase, urban growth was accommodated in overspill centers. Later, policies changes to prioritize the 'compact city'. Recently, the government tries to steer (re) development locations within urban areas such as brownfields and 'greenfields' near city centers (VINEX areas) (Geurs & van Wee, 2006).

These urbanization policies affect residential construction as portrayed by Rietveld & Wagtendonk (2004) as the government aims to build residential areas with high density in numbers of dwelling per hectare, concentrate these constructions in centers and create compact cities. This led the Dutch average parcel to be smaller than in neighboring countries and halted a dispersed pattern of residential growth. Furthermore, the country's planning culture prioritizes order and the government is an essential key player in promoting it (Buitelaar, 2014). Therefore, the government influences the land market by the following tools: permitting, subsidizing and facilitating. The first tool gives the government the power to permit or restrict the construction of dwellings in some areas. While the subsidizing and facilitating tools provide location subsidies (Rietveld & Wagtendonk, 2004). These may affect private parties as the government can stimulate the free rental sector market.

Governance

The Dutch planning system emphasis a market-oriented approach (Monk, Whitehead, Burgess & Tang, 2013).The country relies on a passive regulatory system where government tailors a spatial plan, in which stakeholders are consulted in early stages of planning procedures, that indicates the preferred development areas or plots of land that are allocated for specific use (Spaans, 2006). Developers also influence the content of the plan which brings a development-led character to the planning system. (Nadin & Stead, 2008; Squires & Heurkens, 2016). With this approach, a major role in the realization of developments is left to parties such as developers and private individuals (Spaans, 2006).

However, the Dutch government announced its intention to concentrate efforts in more proactive planning, especially at the regional level. In this case, they operate with a more development-oriented spatial policy where the government authorities have clear responsibilities (Spaans, 2006). In this matter, the planning system is gradually shifting to a more development-led approach (Squires & Heurkens, 2016). The cabinet is operating with a development-oriented spatial policy where responsibilities are divided between the decentralized government authorities and the national government (Spaans, 2006). Plans are becoming action-oriented and are seen as a strategic document that guides project decisions. Decisions of which are realized by local and regional parties in strategic alliances, with less national control (Janssen-Jansen, & Woltjer, 2010).

The Netherlands is a decentralised unitary state (van der Valk, 2002) with three levels of government: the central government, the provinces and the municipalities (Louw, van der Krabben & Priemus, 2003). Each level has its own specific spatial planning instruments and is not obligated to align their spatial plans with the strategic plans of a higher-level government authority. However, elements of plans from higher-level authorities can be binding on lower authorities. In this sense, the national government upholds the provinces' and municipalities' place of decision making by providing a toolbox that enables the implementation of spatial policies (Spaans, 2006).

Provinces and municipalities have the same statutory powers and are loyal to the central government (van der Valk, 2002). The first has a regional plan as the main policy instrument while municipalities make use of the local land-use plan (bestemminsplan), which is the only plan, among the three levels of authorities, that is legally binding on citizens (Spaans, 2006). Land-use plans are mostly changed with new demands for dwellings and industrial estates. In this regard, municipalities act actively in the land policy realm accounting for proper implementation of the plan. They become actors of the development process by buying land to service and later divide it into building lots that will be developed by builders and occupiers (Louw, van der Krabben & Priemus, 2003).

Furthermore, the three levels of authority communicate through consensus building and mutual adjustments. Hierarchical relation between the levels is rarely activated (van der Valk, 2002). The Dutch planning system is partly dominated by formal procedures and partly by negotiations between government authorities and developers (Spaans & Louw, 2009). As a result, the planning community is skilled in negotiation, meditation and planning strategies. This organized community is represented in government, politics, professional organisations, business and pressure groups. As a consequence, the Dutch planning system is inclined towards consensual policy-making (van der Valk, 2002).