

Strategic delay or logical strategy?

Master's Thesis Spatial Planning

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Planning, land and Real Estate Development

January 2023

Colophon

This document is a master's thesis to complete the master's in Spatial Planning, Land and Real Estate Development at Radboud University Nijmegen in the Netherlands.

Title: Strategic delay or logical strategy?

Subtitle: A qualitative study on the reasons for developers to delay a project.

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Word count: 20.968

Date: 18-1-2022

Preface

In front of you is the thesis 'Strategic delay or logical strategy?: A qualitative study on the reasons for developers to delay a project.' completing the master's degree in 'Spatial Planning, Land and Real Estate Development' at Radboud University in Nijmegen. This research studied the degree to which project developers influence speed of development and factor project timing into their strategy. After a process of over a year, my master's research has come to an end and this report is the final result in which I present my findings.

This research will never have come about without the help, cooperation and support of various people. I would like to thank several people: my parents, fellow students and friends for their support and help during the time I was working on writing the thesis. I would also like to thank all the respondents who took the time to participate in this research. Without their cooperation, I would never have been able to complete this study.

In addition, I would like to thank Ary Samsura for all the help and feedback. The support and critical perspective helped me a lot throughout the process of writing my master's thesis.

Then it only remains for me to wish you much reading pleasure.

Hugo van Peer,

Nijmegen

Summary

The government has a goal of adding 900,000 houses to the housing stock. Since the 2008 economic crisis, control of the housing market has slowly shifted from the government to the market. Dutch land policy shifted from active to facilitative. Property developers and developing contractors have become more powerful in housing developments.

This study considers three different strategies that could be used by the developer or contractor. First, it examines whether land speculation by developers affects development speed. Next, it examines whether developers with market power use market power. Finally, it examines whether developers balance in their output to be more cost-efficient.

Land speculation has limited impact on development speed, according to the developer. Speculation drives up the price of land. This high price has to be earned back. The higher costs and money withdrawn from the construction column make the feasibility of a project more difficult. So land speculation affects development speed, but the developer's share is limited. The developer would rather develop on land owned by the municipality, here prices are lower and agreements are more reliable.

The developer uses advantages they have through market power. Market power is the result of a developer being the only supplier in an area. Therefore, the developer can also ask the price he wishes to get. The price of a property does not move down with it due to competition from other developers. The developer phases his projects so that the market can cope and therefore the price of the house can remain at a certain level. This affects the rate of development. If no house is sold, the developer does not build additional houses either. The condition of sale determines the developer. So there is power present that affects the speed.

Finally, balance in the organization was studied. Balance means building roughly the same number of houses every year. The high demand for houses would allow developers to build more houses. The developing contractor has no ambition to grow. This type of company develops purely for the construction business. So there is a clear balance in the organisation here. These companies do not want to grow quickly only to shrink again quickly if demand is

lagging. The pure developer does want to do as many projects as possible. However, this one is inhibited by the people around its organization. The lack of technical staff inhibits growth. The balance that exists in the industry influences the speed of development.

It can be concluded that there are certainly strategic considerations of developers to control the speed of development. No situations were found where the developer left licensed land undeveloped to take advantage of price increases in residential development.

Abstract

The Netherlands is facing a major shortage of housing. The government is making plans to add more housing. In 2021 a plan capacity of 130% is made. However, there are challenges involved in the realization of these plans. For example, these plans are not fully or immediately implemented. This is due to three factors. 1) Land speculation. 2) Making use of monopoly powers 3). Balancing the capacity of the company

This study will examine whether these factors apply to the Dutch market. The research will look at a developer's decision-making process whether or not to build on a licensed site. The three factors will form the basis for the decision-making process. Possible interventions to speed up the process will also be discussed. This research is part of a larger study. The large study answers the question 'why not build faster?'.

Keywords

Implementation gap –Development time– Stalled sites – Plan capacity – Market adaption speed

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1. Introduction

1.1 Research problem statement

In the Netherlands there is currently a major shortage of housing. The number of houses in short supply in the Netherlands will be 279,000 in 2021 (Ministry of the Interior and Kingdom Relations, 2021). It is expected that the shortage of housing will increase. Recent research shows that the housing shortage will grow to 317,000 in 2024 (ABF,2022). House prices are rising, and it is harder for first-time buyers to find a home. The housing crisis is now being called a national problem by the media (WNL, 2022). A solution according to government parties is building (VVD,2022). In this research, it is examined what the planning process looks like. From greenfield to residential area, what are the pitfalls? In 2018 the Dutch minister Ollongren launched the 'Nationale Woonagenda'. The goal of this project is 1 million new houses before 2030 (Nationale Woonagenda, 2018). This is the solution for the housing crisis found by the government. The planning process of new houses will be further explained in this introduction. This is to make the purpose and relevance of this research clear.

1.1.1. Policy and plan capacity

The government has a steering role in the planning of new houses. In structural visions, the government indicates what the plans are for the coming decades. However, the plans are not made at a detailed level. It is only a document containing a vision. This document is not binding. In the years up to 2030, a total of 812,000 homes will be needed. To realize these homes, plans are needed. In total, there are now plans for 961,000 homes until 2030. As reported in 'The state of the housing market', there is a planning capacity of 136%. The sum that this report makes is 961,000 (Net capacity plan)/ 706,300 (Net construction assignment). The planning capacity is the number of housing plans / the number of homes that are needed. To be able to achieve these numbers, a plan capacity at 100 is not enough. More plans must be made, otherwise the goal will not be achieved. Because there will always be unsuccessful plans. According to the government, the planning capacity of 136 is sufficient to be able to fulfill the plans (Ministry of the Interior and Kingdom Relations, 2021). ABF confirms that the plan capacity is sufficient to reach the goals of 2030. High planning capacity is no guarantee of achieving the 2030 targets. It is proving difficult to realise hard plans. Of the concrete plans, only half have been converted into a permit a year later (van der Krabben, 2022). According

to Jonkman et al (2022), it appears that there is a lot of ambition among municipalities to make the plans a reality. It is difficult to realize this ambition. Hugo de Jonge sharpened this ambition with the housing plans per province. Here de Jonge makes the agreement to make 2/3 of the houses to be built affordable. An affordable home is a home that is either in the social rental sector or in the middle segment. The middle segment is middle rent or owner-occupied home up to the NHG limit of 355,000 (Kamerbrief- 2022-2030). The role of the government is steering, but they have no power to realize it. The market has to develop and build these houses.

1.1.2 Perspectives to the problem

To solve the problem, there are two directions which one can think of. The demand for housing can be reduced. Initiatives such as co-housing are a good example of this. By increasing the number of people per average household. There will be more supply on the market. After all, the need for housing is falling. This solution would be nice in a stagnant market. The market just doesn't stand still. An average household is 2.14 persons. In 2030 will this be 2.08 persons (CBS, 2022). The grown in absolute more households is a major factor that influence the shortage of housing. In the ten largest cities is the population growth the strongest. In the Randstad the growth will be 25% in 2035. The growth is caused by young people who start working in the city and foreigners who come to work in the Netherlands (CBS, 2022).

A solution for the housing problem may be an increase the average household. A solution might be to be more flexible with rules about renting out a room. The Dutch government is not supportive with tax rules to people who want to live together. People lose a part of their settlement if they rent out a room. Or the housing corporation has policy that's doesn't support co housing.

The other idea is to expand supply. When expanding supply, we can look at converting offices or retail properties to housing. In 2020, a total of 10200 homes were added through transformation (CBS,2020). The share of new homes built in 2020 was 70.000 homes. Also, 12,800 houses were added by other means. These include remodeling or house splits.

In the large cities such as Amsterdam, Rotterdam and Utrecht, transformations of offices are about 15% of the total added supply. The homes added are small. This is in line with the trend of the average household becoming smaller. The added homes through transformations are not enough to meet the targets of 100,000 new homes per year. More needs to be done to do so.

The NOS (2021) did a survey to stakeholders of the housing problem. They came up with a couple of solutions.

Stakeholder	Solution
Renters	Stop Landlords tax
House owners	Build faster Support co-owing
Real-estate agents	Speed up the pace of the municipality
Experts	More money for municipally to have more power in the field.
Building sector	More insights in building plans. Faster procedures
Housing corporations	Stop Landlords tax
Bank	Faster procedures Create a shift in the housing market. Build more suitable houses for older people.
Investors	More plans for locations. Increase plan capacity to 140 %.
EIB	More smaller locations
Municipality	More money for public infrastructure and schools. Easier procedure to ask for money

Table 1 - Possible solutions by different stakeholders

All these solutions are based on the idea to build more houses to solve the problem. The main solution to the housing shortage is to build more houses or transform buildings into houses according to this stakeholder.

According to CBS, 70,000 new homes were completed in 2020. Also, by transforming real estate, 22,900 homes have been added to the housing stock. 18,000 homes have been withdrawn from the housing stock. This makes an addition of a total of 74,400 new homes (CBS, 2022). This addition is higher than expected. The fact that the addition is higher does not mean that the problem will be solved. Since the end of the crisis in 2013, the addition of new homes has not been at the same level (CBS, 2022).

Michielsen (2019) shows that little land has become available for housing construction. From 2000 -2015, only 7% of sites for housing construction were added. This can be explained by regulations that the government imposes on itself. For instance, there are many requirements on inner-city expansion. In fact, commercial sites outside the city have grown very fast. The space is there, only the opportunity is not (Michielsen et al, 2017).

According to Murray (2020), construction on pieces of licensed land is not self-evident. The addition of permits does not directly contribute to the supply of the number of houses. There is only a very little correlation between planning permission and the number of dwellings completed (Bramley, 1993). According to Buitelaar and van Schie, there is a problem with stalled sites. This is unused plan capacity. A reason for unused plan capacity may be the long-term damage the financial crisis has done in 2008 (Buitelaar, 2018).

1.1.3. The shift from active land policy to facilitating land policy

There are different ways to conduct land policy. This study is limited to the Dutch market. Basically, there are two types of land policy in the Netherlands. The first type of policy is active land policy. Here, the municipality itself is in charge of development. The municipality exploits the land itself. For land exploitation, the municipality actively buys land itself or already owns it. The municipality commissions a company to prepare the land for construction and residential purposes. The municipality then sells this land to a developer or private individual.

The process of active land policy consists of six steps

- | | |
|----|---|
| 1. | Plan formation (zoning plan amendment) |
| 2. | Acquiring land |
| 3. | Negotiating with landowners |
| 4. | Possible expropriation of existing land owner |
| 5. | Pre-construction works |
| 6. | Disposal of land |

To prevent land prices from rising, it is wise to acquire the land before a zoning plan amendment is implemented. Then the land is still relatively cheap. The municipality does bear the risk of the interest. These interest costs can add up if the plan cannot go ahead in time. Land purchases are large investments for the municipality. Once the land is made ready for building, the plots are issued at market value to developers or individuals. With the profit made on the land, the municipality can finance part of the costs incurred for infrastructure and public facilities.

In facilitative land policy, the municipality sets the framework of the plan by means of a zoning plan but leaves the implementation to the developer. The developer is actually responsible for realization. The municipality does not purchase land. The initiative lies with the developer. The municipality's influence is limited. The only instrument the municipality has is the zoning plan. It is more difficult to recover costs with just a zoning plan. Therefore, a separate agreement must be made with each initiator to settle the costs.

1.1.4. Public-private partnerships in the form of building claims

The profits that municipalities accumulated through active land policy were used to bear the costs of social housing and infrastructure in the community. The municipality tried to negotiate with other landowners to contribute to incurred costs for public space. The municipality only had no instrument to actually enforce this contribution. Expropriation was not possible due to the self-realisation right. The solution found was the building claim model. This model involves the municipality buying a piece of land from the developer at market price. The developer actually paid this price for it from a farmer or other landowner. After the

municipality has worked the land into developable land, the developer may buy the land back at a higher price. The land that the developer gets back is a piece proportionate to what was actually put in. The developer is concerned with the plots that are freehold. The municipality's advantage was that it could work out a large master plan containing all its wishes. The developer was also satisfied because it could start developing in a neighborhood where everything is well organized, which affects the price of the house.

The most municipalities changed the land policies from active to facilitative (Buitelaar, 2010). There are three underlying reasons for this. The first reason is a change in the law. This change made it possible to designate private land for social housing. The municipality no longer needs to buy land itself to implement municipal policy. The second cause was an increased financial risk. The crisis caused the demand for housing to drop. This resulted in developments no longer getting off the ground. Developers and municipalities holding land had to pay a lot of interest. This was a huge financial setback for the landowner. Agreements between developer and municipality were not foolproof. The developer had a right to first purchase, but the developer did not have to redeem this right. The municipality was then left with a lot of land that could not be sold. Finally, the type of construction shifted. Whereas initially expansion locations were popular, now inner-city locations are (van der Krabben, 2021). Inner-city locations are more difficult to develop and involve greater risk. Therefore, municipalities refrained from doing so. Because of these events, municipalities have decided to switch to facilitative land policy. The initiative is now in the developer's hands. An active land policy does seem to be a solution to the speed of development. Research by (Brugman, Schoone, Rouwendal en Wisman, 2022) shows that preparation and construction phases are faster on municipal land.

There has been a notable shift in the market towards organic area development, as opposed to the previously prevalent approach of integral area development. In integral development, municipalities would have a comprehensive plan for an entire area, whereas in organic development, the initiative is placed on the landowner. With organic development, any individual with a plan for a piece of land can approach the municipality and request permission to implement their plans. The municipality, in turn, provides support in terms of infrastructure development to facilitate the execution of these plans.

The developer has the initiative to develop in the Netherlands. Previously, this was the government itself. But after the crisis of 2008, the municipality abandoned the active land policy. There was too much financial risk involved in active land policy (Buitelaar, 2010).

1.1.5 The process from soil to ready-to-build soil

The process from land to houses is complex. The process can be roughly divided into six steps. First, the land must be acquired from the current owners. Next, financing must be sought for the acquisition of the land. Next, the land must be reallocated, then the land has to be reallocated and infrastructure and public facilities are constructed. Finally, there is a transaction of developable land. The new owner is an end user, developer or investor (see Figure 1) (Van der Krabben, Tiwari, & Shukla, 2020). In the example below, the process is owned by several parties. One party doing plan development and one-party doing land development. The process may also be owned by one party. Since the shift away from active land policy, the developer has become plan maker. The municipality's policy has become organic and facilitative (van der Krabben,2021).

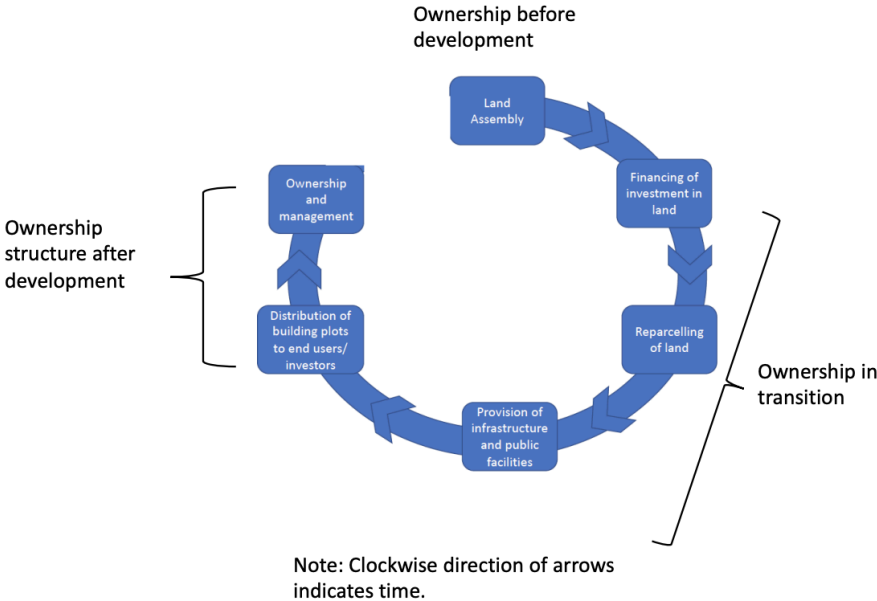


Figure 1 – Ownership model (van der Krabben, 2020)

The complexity of the land acquisition process is caused in part by the fragmentation of property rights (Buitelaar, 2008). Land must be acquired from multiple parties. This can range from a few agricultural owners on greenfield sites. To hundreds of owners on brownfield sites. The government has instruments to force landowners to sell. This does affect the speed of the process. Local governments must consider landowners to acquire inner-city land. The amount of landowners makes the process more complicated. The landowner also has a "hold-out" option. This means the landowner does not cooperate. This model shows the complexity of the process.

1.2 Research aims and research questions

This study focuses on the developer's view on the speed of the development. Therefore, any strategic delay caused by the developer is discussed. No scientific evidence can be found in the literature that these theories are in use on the Dutch land market. These theories are:

1. Developers are creating more scarcity on the housing market, which causes an increase in house prices.
2. Developers are waiting for a further rise in housing prices to start building.
3. Developers balance their housing production over several years to be more cost-effective.

There is a presumption that these theories apply to the land and housing market (van der Krabben, 2021). Research has been done into how these theories influence a developer's development strategy. The conclusion was that developers determine the speed of production on the sales figures of the houses (Adams, 2009).

This research is about mapping strategic factors that developers use to influence the pace of the development. Furthermore, an examination of the specific implementation of these factors is conducted. In addition, this research looks at the relation of these factors to the development speed. This research is relevant because it is not known in the Netherlands how large these strategic factors are. It is known that there is an implementation gap. Research has been done into what the causes are for this gap. One of these causes is the development

strategy. A precise interpretation and motivations to use this strategy are lacking. It is therefore relevant to do more research into this.

1.3 Research problem statement

The objective of this research is providing insight into factors that are important for the decision-making process of project developers to build licensed plots of land in the Netherlands. With this insight, it is possible to see which strategies developers use. In this research the role of the three independent variables is tested. A sub aim is to nuance the discussion in the housing market. There are multiple reports that indicate what the problems are in the housing market. The developer points to the municipality, the municipality points to the developer (BNR, 2022). The goal is to give a picture of how the developer looks at these problems. The main question from this research is formulated as follows:

‘What is the role of strategy in the project developer's decision-making process about whether to start developing at a project?’

To be able to answer the main question, sub-questions will first be answered. These sub-questions are derived from the theories about the influence of the development speed

1. What is the role of balancing in production in the housing market?
2. What is the role of speculating on land on the Dutch housing market?
3. What is the role of scarcity on the rise of house prices on the Dutch housing market?

1.3.1 Delimitation

The first delimitation of this research is the type of developer. The type of developer researched are developers active in housing construction. The developers analyzed are all listed in magazines showing how many housing units they have completed. How the developers achieved this numbers study by Buitelaar (2022) shows all the additional activities a developer is involved in. These activities can be investing, building and managing. Because the developer does more than just develop, the rationale for speed of development becomes different for each respondent. So there is demarcation for the type of activity. The largest

group that is interviewed is a developer with also a construction business. Since the crisis in 2008, more and more private developers have emerged. The municipalities have stopped the active land policy since 2008. This was the usual way to develop until the crisis (Deloitte, 2017) (Janssen, 2012). The grow of parties that develop is an interesting trend. The study is offered to a geographical area. This area is the Netherlands. The study was conducted between March and June 2022. This is also the zeitgeist in which this study should be seen.

1.4 Relevance

This chapter discusses the scientific and social relevance of this research. This research aims to contribute to the development of knowledge in the field of planning speed.

1.4.1. Scientific relevance

This study explains the gap that exists between the figures that indicate that too less is being built and the motives of the developer to build. There is a gap between the planning capacity and the actual addition of houses. This is called the implementation gap (Buitelaar, 2018) (Ploegmakers, Rouwendal & van der Krabben, 2022). This research examines the reason why this gap exists, and the way developers look at it.

In the United Kingdom, research has been done into this problem. This research has not yet been fully carried out in the Netherlands. It is therefore scientifically relevant to also carry this out in the Netherlands. Perhaps the factors in the Netherlands are different. The study was carried out in 2009. Then there was an economic crisis, the research assumes that the market behaved the same after this crisis. After the economic crisis, the Netherlands shifted their policy for active to facilitating ground policy. This means that the ground market became more like the United Kingdom (Adams,2009) (Buitelaar,2010).

The studies by Adams and van Buitelaar and van Schie (2018) give a picture of indicators that influence the development speed. The zeitgeist of these studies differs from the present time. Both studies were conducted in or just after the economic crisis in the Netherlands. Impactful events such as a corona crisis and a Ukrainian war were also not included in these studies. The

playing field in which the developer finds himself has changed. This makes a study into these factors interesting.

Another scientific relevance comes from ACM report. In this ACM report 'The functioning of the land market, 2021' states that there is no convincing evidence for the strategic considerations for leaving pieces of land unused. However, according to the real option theory, it is logical to do this (Beckers, 2021) (Brugman et al, 2022). This research is partly exploratory and partly testative. First the theoretical concepts will be mapped out by literature research. These factors will then be tested by means of interviews with developers. This is evidence of suspected strategy. Buitelaar and van Schie (2018) made a framework with reasons why there are delays at housebuilding projects, this theory is used in this research. This research is complementary to their framework. This study contributes to the strategic part of the framework.

Ploegmakers et al (2022) shows that there are drastic differences in the execution of building plans. The majority of the plans are carried out on time. However, there are plans that remain unresolved. In this research, an exploration is made of what the arguments are of market parties to abandon plans.

1.4.2. Social relevance

The housing crisis is a hot topic. The newspapers and news sites are full of news about causes and developments in the housing market. This research contributes to the social discussion. In the media, developers are portrayed as powerful parties. For instance, the Dutch television program 'Pak de Macht' states that developers own land to build at least 50,000 homes. The land that the developer owns are stalled sites and are ready for housing construction. The picture is suggested that the developer deliberately leaves land vacant to make money from it (NEPROM, 2022). The industry association disagrees with these statements and therefore refutes them. Such programmes and statements add to the public debate. The lack of reciprocity makes this issue relevant. This research highlights the other side of the story.

There is a housing shortage of 331,000 houses. The prices of the houses have risen a lot in recent years (CBS,2022), which means that affordability is under pressure. The government also sets goals. These goals are more challenging than the previous goals. 150.000 more houses in 2030 are needed compared to current production. The government has a planning capacity of 130 per cent to complete this challenge. To achieve these targets, the government expects extra efforts from local government and project developers in the coming years (Rijksoverheid, 2021). This research gives clarity about the role of the developer in this process. This research helps external parties to gain insight into the developer's way of thinking. By gaining an insight into the mindset of the developer, parties gain more understanding for each other.

1.5 Reading guide

This study is organized in the following manner. Chapter 2 presents an overview of general real estate frameworks and relevant theories related to the real estate market. In Chapter 3, the operationalization of these concepts is discussed, including the development of a framework that connects the various theories. Chapter 4 contextualizes the problem by discussing the current state of the Dutch real estate market. The results of the study are presented in Chapter 5, and Chapter 6 includes a conclusion and recommendations. The study concludes with a reflection on the research process and its outcomes.

2. Theoretical framework

This research focuses on identifying delaying planning strategies used by project developers. This research is also looking for explanations for the implementation gap. This chapter summarizes theories that can form a foundation for the actions of a project developer. A model is also explained in which the general planning process is described. The combination of general economic theories combined with a general development process model provide a scientific basis for this research. This theoretical framework gives a clear explanation about the development process. Additional theories give clearance to the delay in the development process.

2.1 The event sequence model

The "Event Sequence Model" proposed by Barrett (1978) provides a means of categorizing the responses of developers and is therefore relevant for this research. Buitelaar and Van Schie (2018) mention that there are strategic reasons for delays in the development process, but only briefly discuss these reasons. The theory proposed by Buitelaar and Van Schie (2018) complements the Barrett (1978) model, as it identifies the location of delays within the development process described by the Event Sequence Model, while the Barrett model primarily outlines the process itself.

This study delves deeper into the strategic reasons for delays in the development process. Several theories from the literature are discussed that are relevant to this research, including theories on speculation, different market forms, and balancing production rates. These theories provide insight into the various motivations that influence the market. The model proposed by Barrett (1978) is divided into three phases, and delays may occur in each phase. In this research, we examine classical economic models that are associated with each phase of the event sequence Model.

The development process has many different steps to achieve development. The process can be roughly divided into three chains of events. Each side in the model below represents a phase. This model is the development framework that is used in this research. This framework assumes that a party takes the initiative in development. Public-private partnerships exist in

the Netherlands. This model does not take that into account when considering collaborations in land exploitation. Barrett's model is simple, which makes this model suitable for indicating at which moments in the process the developer can apply a delaying strategy.

The development process has many different steps to achieve development. The process can be roughly divided into three phases. This framework assumes that one party takes the initiative in development. However, public-private partnerships exist in the Netherlands and this model does not take that into account when considering collaborations in land exploitation. Barrett's model is simple, making it suitable for indicating at which points in the process the developer can apply a delaying strategy or where the delay is.

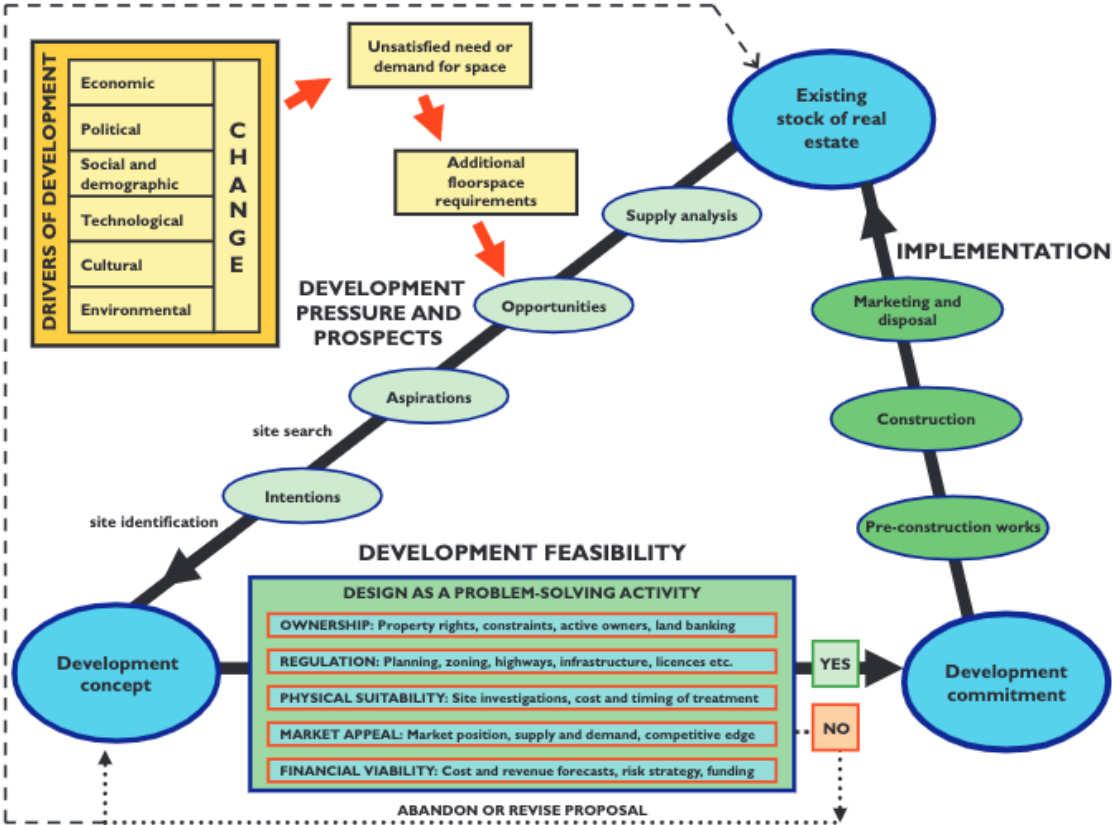


Figure 1 - Pipeline model

Development pressure and prospects

The first is the development pressure and prospects phase. This is where plans are made for development. Change outside the development market creates pressure to develop. Drivers of development are Economic, political, social & demographic, technological, cultural and

environmental. These drivers result in a demand for space. This demand creates opportunities for development. These opportunities are designed into a development concept plan.

Development feasibility

After a draft plan is created, feasibility is tested. There are five different requirements that a plan must meet. Otherwise, the plan can't continue. These requirements are:

Ownership (1): In order to develop, the developer must own the land or agreements must have been made about the land. It is therefore important to see what type of ownership arrangement exists. For example, the land may be very fragmented. This could block development. It is also necessary to look at how the current landowners envision the development. They may want to sell, but not at the right price in the eyes of the developer, or the current owners may not want to sell at all (Adams & Tiesdell, 2012). To achieve viable development, ownership issues need to be resolved. Land acquisition is usually the solution. Speculative house builders like to have a land bank with land two to three years before construction starts. Contracts are then signed with options to buy. Purchasing land is not easy and can take a long time. The purchase of land can then be done through third parties. (Adams & Tiesdell, 2012)

Regulation (2): The real estate market is one in which a lot is fixed by the government. The government has a lot of influence on projects. There are various permits required to start building. In the Netherlands, the zoning plan is the most important permit to be obtained. The permits that are issued are also the handles for the population to express dissatisfaction with plans. Through the judiciary, objections can be raised against the issuance of a permit or the modification of a plan. (Adams & Tiesdell, 2012)

Physical suitability (3): The developer must be able to guarantee that the development site meets all the requirements for building. This includes examining the type of land to be built on. Soil testing is also done. The soil may be contaminated, which affects the cost of the land. It is also necessary to find out what facilities exist on the site and which ones need to be extended. Consider sewerage, telecoms and road network capacity. (Adams & Tiesdell, 2012)

Market appeal (4): Market demand needs to be developed into a plan. The development pressure has been built in the first side of the model. Now the type of housing needed in the plan area must be considered. A demand may have arisen for a special type of housing, it should be in the plan. For the commercial developer, the demand should relate to its financial viability. The government has a different type of market demand to fill. (Adams & Tiesdell, 2012)

Financial Viability (5): This parameter uses the information from the previous four parameters. The project's investor wants to know if the project is viable. Therefore, costs and revenues are made up. Costs can be better estimated in advance than revenues. Revenues depend entirely on the house price at the time of sale. The developer can use the residual value method to estimate the feasibility of the project. But looking into the future remains difficult. The plans often change because of different requirements. Feasibility is retested every time. If the development seems feasible, a financier is sought for the project.

Implementation

If the feasibility analysis is successful, development can begin. The implementation phase is characterized by three components.

The pre-construction phase involves preparing the land for construction. This may include demolition of existing structures or the development of underground and overhead infrastructure. During the construction phase, the actual building process takes place. The developer may choose to construct the project themselves or outsource the work. In the marketing and disposal phase, the development becomes profitable once the building is in use. The building must therefore be sold or leased, a process which was previously addressed in the feasibility phase through demand estimation techniques such as pre-registration. These estimates are now put into practice, with a team of estate agents working to sell or rent the property.

2.2.1. Real options theory

A humorous way to define speculation is to consider it as investment in real estate in a rising market that is undertaken for the purpose of protecting one's financial well-being and providing for one's retirement and family. "When I invest in real estate in a rising market, it's to safeguard my financial well-being and provide for my retirement and my family. When someone else does it, it is speculation." In this broad sense, speculation can be viewed as a synonym for investment. However, the term "speculation" has also been used to refer to investments with a short-term time horizon, as well as investments in land that are held vacant or used in a less-intensive manner in anticipation of future development opportunities. This type of speculation is often related to the optimal timing of development, as discussed in the works of Capozza (1976), Titman (1985), and Mayo and Sheppard (2001).

To explain the speculative behavior of the developers, the real options theory is used. Real options can be defined as 'the possibility, but not the obligation, to invest in real estate assets, with an uncertain future value, at a pre-determined price, during a certain period of time or at a certain moment in time when this proves to be advantageous' (Blokland, 2009). The developer does not know in advance what conditions will change. However, the developer does know that there are a few options that are likely to change. In this way, the developer can respond in a clever way to the situation. The developer can limit his risk in this way, but the speculation can continue. There are a few real options that can be chosen (Trigeoris, 1995) (1) exit option. This is to stop the development. (2) Waiting to invest option. This is waiting to invest. (3) Scaling option. In this option, the size of the development is adjusted. (4) Flexibility option. In this option the supply is better adjusted to the demand. There is also a complex option, which is a combination of several options (Blokland, 2009). According to the real option theory, there is also the option that the developer delays, stops or adjusts the project. These events can lead to delays (Titman, 1985).

Developers make use of the real options. This has been demonstrated by Hughes, Ott & Read (2012). Their research describes developers phasing land or holding land in portfolio. These actions could be linked to the real option theory. Research by Murray (2020) shows that market adaptation speed is important in relation to construction speed. Developers prefer to

keep pieces of land in their portfolio if it affects the prices of other homes they make in the same area.

2.2.2. Market structures theory

By studying the characteristics of the market in which the developer is active, something can be said about the strategy of a developer. Therefore, this theory is relevant to this research. There are different market forms. The market forms are (1) perfect competition, (2) pure monopoly, (3) monopolistic competition and an (4) oligopoly. These markets each have their own characteristics. Table 2 gives the characteristics for each market.

Characteristics	Perfect competition	Pure Monopoly	Monopolistic competition	Oligopoly
N/O Firms in the market	Many	One	Many, but fewer than perfect competition	Few
Ability to control the price	None	High	Some	Some
Barriers to entry	None	Governmental regulation	Few	Many
Product differentiation	Very little	No products that compete directly	Similarities but not identical	Some differences

Table 2 - Market structures

The market forms relevant to this research are monopoly and oligopoly. A monopoly is characterized by the fact that only one party is active on the market. With an oligopoly there are several parties (Chamberlin,1933). Monopoly Powers can be used for price discrimination, the supplier of the product can offer this for an amount which he can determine himself (Schmalensee, 1988). This could be a motive to create a monopoly market oneself. To determine which market structure, the developer is operating in, characteristics are needed. These characteristics are (1) Number of suppliers, (2) the degree of the number of buyers in a market, (3) product differentiation and (4) the conditions for entering the market (Barthwell, 2004). The number of suppliers indicates how many competing parties are active in the same market. The number of buyers in the market indicates how popular a product is. If the product

is in demand, it is easy to raise the price. Product differentiation indicates how many alternatives there are to a product. The possibility of torpedoing indicates how difficult it is to enter the market. This could be high entry costs for a certain production facility. They can also be government regulations. The government regulates the power grid, for example. The degree of entry in this market is then very high.

The land market is a market based on rights (Segeren, 2007). There are two different rights relating to land. The first is the right of ownership, the second is the right to use land in a certain way. Also, the self-realization right belongs to the bundle of rights. The self-realization right is the right to be allowed to develop on a site if it is owned. The self-realization right eliminates competition on that piece of land.

One strategy used to achieve monopoly power is land banking. Land banking is the creation of a land bank. Land is strategically purchased for the purpose of zoning change. Land banking can also help acquire regional market power (Adams & Tiesdell, 2012) (Adams, Leishman, & Moore, 2009). In the Netherlands the self-realization right exists. This means that the owner of the land also has the right to develop his land himself (Groen, 2014). The owner of the land is then the only provider of houses. This means that there is a monopoly on the realization of houses on this piece of land, because only one provider is active. It may happen, however, that several pieces of land together form a plan. In that case, there is not just one supplier of houses. There are several active providers. This is called an oligopoly (Chamberlin, 1933). Cosman & Quintero (2021) show the relationship between fewer players in the market and house production. Less competition leads to reduced supply of houses. By knowing which market forms the developers use, it is also likely that the other characteristics of these market forms are also used, such as determining the price. These market characteristics will be tested in this research and discussed in chapter 4. This research looks at the behavior of developers. The developer is active in two markets. These are the land market and the housing market. First a piece of land is bought then houses are sold. The market form can change in this process.

2.2.3. Balancing in production

Land banking is the acquisition of such an amount of land that construction production is secured for a long time. According to the theory, there are multiple reasons why developers do this. The reason is to wait to build housing is more efficient business operations. A developer who builds himself likes to spread his production over the years. This provides a guarantee for work, which is also cost-effective (Van der Krabben, 2021). According to Adams (2009), developers work with a schedule for selling homes. As soon as a piece of land has been purchased, the asking price of the houses has already been determined. The balancing of production can be explained by the marginal cost theory. The marginal cost is what it costs to make an extra product. If the marginal costs equal the marginal revenue, the profit is at its maximum. It may happen that the maximum profit has been achieved and it is no longer worthwhile to produce extra. For example, an extra branch must be opened, or extra staff must be recruited. These events make it too expensive to produce extra (O'Sullivan & Shiffrin, 2003). This theory is consistent with the theory of economies of scale. Economies of scale can occur when buying in bulk, which means that the fixed costs are spread over more products. As a result, the average costs per product are lower. Scale disadvantages can also occur. These can be explained by capacity problems (Anderton, 2006).

2.3 Conceptual framework and Operationalization

2.3.1. Conceptual framework

After presenting the theories utilized in this research, it is necessary to take an intermediate step in order to create a conceptual model. This intermediate step involves visualizing the theories in order to understand their relevance in the development process. Figure 3 illustrates the integration of Barrett's pipeline model, three economic concepts, and a Pestel analysis in relation to the development process. Table 2 shows the stages of the development process combined with which theoretical concept is being compared.

Phase	Concept
Development pressure phase	Speculation behavior
Feasibility phase	Monopolistic positions
Implementation phase	Balancing strategy

Table 2 - Phases linked to concepts

The literature review shows that the battle for residue negatively affects project feasibility. By trading land, value has been extracted from the building column, this brings into question the feasibility of a project. Therefore, it is relevant to explore how the developer views this concept.

The development speed is dependent of external events according to Barrett (1978). The developer has no influence on these events, but it has to deal with them. Barrett uses the drivers of development in his model. In this study, the PESTEL model is used to interpret the external events. The models both have six sub-subjects. The drivers of development model uses a the parameter cultural and the PESTEL model uses legal. In the Netherlands, there are many legal cases currently going on that relate to area development. These are the Didam judgment, the upcoming environmental law and the rulings of the high council on nitrogen. Therefore, we chose to use the parameter legal. Table 3 shows a comparison between the theories.

Drivers of development model	PESTEL analyze
Political	Political
Economical	Economical
Social and demographical	Social and demographical
Technological	Technological
Environmental	Environmental
Cultural	Legal

Table 3 – Difference between Development and PESTEL Model

During the feasibility phase, the effect of establishing a monopoly or oligopoly position on the development speed will be studied. Additionally, the implementation phase will be assessed for potential delays, and elements of the marginal cost theory will be examined in order to identify potential explanations for any observed delays.

2.3.2. Conceptual model

The conceptual model here is a simplified visualization of Figure 3. The conceptual model indicates the essence and structure of the research. To initiate the study, the relationship between speculative behavior and the development speed will be analyzed. Subsequently, the impact of gaining market power on the development speed will be evaluated. Finally, the influence of balancing production on the development speed will be examined.

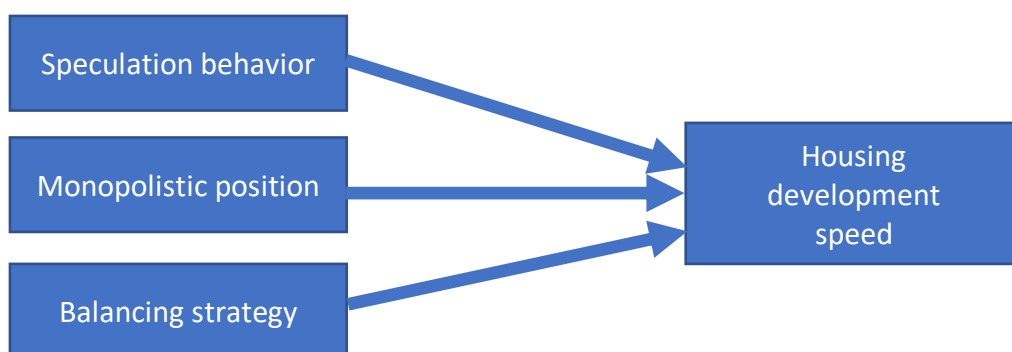


Figure 2 - Conceptual model

2.3.2. Operationalization

2.3.2.1. Speculation

Concept	Dementie	Indicators	Source
Real options	Exit development	Abandon	Blokland, 2009
	Waiting to investment	Defer Extend	Blokland, 2009
	Scaling	Contract Expand	Blokland, 2009
	Flexibility options	Switch program	Blokland, 2009

Table 3 - Operationalization speculation options

Speculating on land can be interpreted in several ways. Speculating can look like gambling. But it can also be a considered choice. The problem with well-considered choices is that they can be delayed. To get a grip on this concept, the real option theory is used (Van Blokland, 2009). The options are;

- Exit option (Stop development)
- Waiting to invest option (Delay investments)
- Scaling option (Adjust the scale of development)
- Flexibility option (Match demand and supply)

These options are asked for in the interviews. The options are concretely translated into terms of the real estate world. In the interviews, the underlying reason for the delay is further questioned. The aim is to understand why the developer is withdrawing or why the developer is adjusting its plan.

This study looks at the whole chain of the development process. At the start of development, the product owned by the developer is land. The properties of this piece of land change in the process. The land goes from undeveloped land to raw building land to developable land to new real estate (Buitelaar, 2021). Between the zoning change, from undeveloped to raw building land can land speculation happen. So, the options of real option theory are applied over that period. But speculation can also happen after the period of change in the zoning plan.

2.3.2.2. Monopoly

In order to operationalize the concept of market structures, this study looked at market characteristics. The characteristics are the dimensions. To make the dimensions measurable, the dimensions have been translated into indicators. These indicators have been translated into questions that measure the influence on the development speed. For example, the question posed for competition is: 'What is the influence of competition on the speed of development?' According to Adams (2009), market power can influence the price. By looking at the degree of influence, it can be seen whether this has an influence on the development speed. One barrier to entering the development market is capital. That is the reason to look at the influence of capital on the speed of development. Price and quality are two indicators of product differentiation. This study looks at the influence of price and quality on the development speed. An overview of the operationalization in Table 4

Concept	Dimension	Indicators	Source
Market structures	Number of firms in the market	Competition	Bresnahan & Reiss, 1991
	Ability to adjust the price	Market power	Adams, 2009
	Barriers to entry	Capital	Linneman and Summers (1987)
Product differentiation		Price	Heskett et al. (1994)
		Quality	Barker, 2004

Table 4 - Operationalization monopoly strategies

2.3.2.3. Balancing strategies

Balancing work can be explained in the following way. By spreading production over several years, fewer costs can be incurred. This is because fewer people must work for the company. Production can then be secured for a longer period. This provides certainty for the coming years. The other way is to spread the capacity of the company. A company would rather make the same thing over the years than work with peaks and troughs in production.

Secure work for the future

Securing production for a longer period. This can be done in several ways. Firstly, by buying a lot of land yourself. This ensures a full portfolio; in the future these projects will partly

continue. There is then work for the company. This is not a factor that directly affects the construction speed. It is a factor that can influence the strategy. Due to 'land hoarding', the company will have no ambition to build up all the plots of land as quickly as possible. Therefore, it is relevant to measure whether they are hoarding on land. This is measured by if the make a long-term strategy and if the plan their projects. It is interesting how long the horizon of strategy is how long the developers plan ahead. To gain more information about land hoardig strategies, questions about the strategy and the project planning are asked.

Efficient with people and materials

When balancing capacity, it is important to look at what type of company it is. There are many types of different developers, there are investing developers and building developers (Buitelaar, 2022). Measuring the balance in capacity mainly concerns the building developers. This is because they employ construction workers who can only be deployed once a day. If there is a high demand for materials and personnel, prices will rise. Therefore, it is relevant to look at the influence of personnel and material on the speed of construction projects. The spread of capacity can be explained by the profit maximization theory. Table 5 gives an overview of the operationalization of the concept

Concept	Dimension	Indicator	Source
Balance in production volume	Secure work for the future	Strategy	Van der Krabben,2021
		Phasing	O'Sullivan & Shiffrin, 2003
	Spreading capacity	Employees	Anderton, 2006
		Materials	Anderton, 2006

Table 5 - Operationalization balancing strategies

3. Methodology

This chapter will make clear which methods are being used in this research to obtain the results for answering the main and sub questions. In addition, the choices made in the implementation of the research and the way this research will be carried out will be explained.

3.1. Research strategy

There are many ways to conduct research. Verschuren & Doorewaard (2015) describe five types of research strategies: Survey, experiment, case study, grounded theory approach and desk research. A survey would be a suitable research strategy to conduct quantitative research, but in this case, it is not the right strategy to answer the research questions. With a survey, a researcher can reach many respondents and a large number of research units can be involved in the research (Verschuren & Doorewaard, 2015). The research unit are a small group of companies. These are the large project developers in the Netherlands. Bouwkennis has mapped this group of companies. There are 45 large developers in total. A survey is also very superficial. A survey lacks detail and is therefore not suitable for answering the main and sub questions.

The experiment is an appropriate strategy for investigating causal relationships by performing an intervention on a research object (Babbie, 2013). The aim of this study is to identify the effects of strategy on developmental speed and thus experiment would be a way to demonstrate possible causal relationships. However, experiment is not the most appropriate strategy as it has a number of limitations. There are very many factors that influence the development speed. It is therefore difficult to reproduce these situations. Also, a causal relationship or motive has been shown before (Adams, 2009; Tilman 1985). It is therefore not necessary to prove this by means of an experiment.

Creswell (2012) defines a case study as a qualitative approach in which the researcher studies certain phenomena or processes within one or more cases, using multiple forms of data to arrive at a complete picture of the case. In addition, a case study is characterised by the fact that it often makes use of a limited number of research units (one to dozens at most) (Verschuren & Doorewaard, 2015). Since this research will focus on identifying different motives that developers have for determining the development pace, the case study is a

suitable research strategy to answer the main question. The case is the development pace of the project developer. Through multiple interviews, multiple insights are given on this case.

The grounded theory approach does not suffice as a research strategy because it aims to develop a theory and is therefore purely theory-oriented (Verschuren & Doorewaard, 2015). This research is rather practice oriented as it aims to identify a particular reason. The theory is already there, only the rationale for using the theory is missing.

Also, desk research does not fit as a research strategy for this study since not all the necessary data can be collected from external sources. In the case of a desk research, the researcher uses material produced by others, trying to reach new insights and gather more information on the subject through reflection, analysis and consulting literature (Verschuren & Doorewaard, 2015). For the complete picture of factors that influence the speed of development, it is important for this research to conduct interviews, which means that this research strategy is not appropriate.

3.1.2. Qualitative research approach

The research is a qualitative study. The research is qualitative because interviews make it easier to look for underlying reasons. Due to the semi-structured interview strategy, it can be asked on topics. It is also difficult to quantify a type of strategy. The aim of the research is to gain insight into strategies of developers. Qualitative research is better suited for this.

In the literature is searched for theories that can influence housing production. These theories are then operationalized into concepts. These concepts are processed in interview guides. These questions are administered to relevant people from the development world. This data will be analyzed. Conclusions will be drawn from the analysis. The data that is collected will be from 18 companies.

The data used for the research is primary data, this means that its collected by the researcher. The examination will be inductive. Some interesting theories have already emerged from the literature. These theories are the basis of the research. After the interviews have been

conducted, these theories are compared again with the observed data. Then a theory will be confirmed, or a theory will be adjusted.

The research is exploratory. It explores in depth what the influences of the different concepts are on the strategy of the developer. It also researches the relationship between the different concepts.

3.2 Data collection

The data is collected in three different ways. The primary source of data are interviews. The second source is opinions of real estate professionals expressed in the media. The third way of gathering data is literature review. Quite a bit was already known about the subject.

Existing literature was taken as a basis for this study. Media statements are used to make the Pestel analysis. The developer mentions many external factors why delays occur in area developments. No conclusions are drawn from media statements. This data is not collected in a scientific way. However, this data does provide context for the situation.

3.2.1. Literature study

This research also included a literature review. The results of this review were incorporated into Chapter 2. Previous studies have been conducted on the factors that contribute to delays in the real estate development process, and these served as the foundation for the conceptual model of this research. The literature review involved reading numerous articles that provided a foundation for the knowledge utilized in this study. This knowledge was taken into consideration when operationalizing the research concepts.

3.2.2. Interviews

The respondents for this study were selected through a multi-step process. First, a selection was made of development companies who focus on building houses. While real estate development encompasses a wide range of projects, the current societal discussion on housing shortages made this group particularly relevant for this research. Next, the size of the developer was considered, with the assumption that larger developers with a higher volume of house construction would have greater strategic decision-making power. A list of research firms that estimate the total number of houses built was consulted, resulting in a pool of 50

potential respondents. These individuals were contacted via email, yielding a response rate of 20%. Additionally, visits were made to the PROVADA real estate conference, resulting in four promised interviews, but only one being conducted. Follow-up phone calls were also made, but the response rate remained at 26% of the 50 largest home developers in the Netherlands. To increase the sample size, smaller developers were also included in the data through a random google search and an internal email sent to members of a homebuilder's association. In total, 16 interviews were conducted, with some respondents representing multiple individuals within their company.

Primary data for this study was collected through interviews with key informants within the company, including individuals in leadership positions and developers. These respondents were selected due to their extensive knowledge of company strategy or involvement in its development. An interview guide (see Annex 2) was developed based on prior research and organized by topic to facilitate a semi-structured conversation that allowed for both flexibility and depth in the interviews. The topics covered in the guide varied significantly in order to capture a diverse range of perspectives and experiences.

3.2.3. Characteristics of respondents

The respondents in this study do not have the same characteristics, but share a few. Firstly, all of them were involved in the development of houses. However, the scope of their work varied, with some managing the entire development process from land acquisition to construction and management, while others focused on specific aspects. A factor that distinguished the respondents was the source of their financial resources, as this could potentially influence their development strategies. Additionally, there was a range of company sizes represented, with some respondents responsible for a significant portion of the houses built in the Netherlands in 2020, averaging 844 homes per company. Finally, the respondents included both greenfield and brownfield developers, with the majority specializing in ground-based housing and a smaller group focused on the transformation and renovation of inner-city homes.

3.2.4. Internet

The housing crisis is a current and widely reported topic. Sources such as Cobouw, Follow the Money, BNR Nieuwsradio, and Het Financieel Dagblad providing extensive coverage of delays in the housing market. In order to gain insight into the perspective of developers on these issues, journalists frequently interview them and report on their views. This information was useful in the development of the interview guide for this study, as it allowed for the examination of the opinions of developers as they have been expressed in the media.

3.2.5. Inclusion and exclusion of data

The interviews conducted for this study were semi-structured, allowing for the comparison of data by topic. However, some questions stayed unanswered due to the fact that some respondents not engaged in certain activities, such as construction. These inconsistencies were not included in the analysis. Some interviews were also conducted over the phone, but these proved to be too brief and were also excluded from the analysis. Most interviews were conducted digitally, lasting an average of one hour with an effective interview time of 50 minutes. The interviews were often rushed due to the lengthy list of questions, and some were not recorded, with notes taken instead. These results were still included in the research.

3.2.6. Research progress

The interviews for this study were conducted with 18 real estate developers was based on industry reports (Bouwkennis, 2021). Of the original pool of 50 companies, 13 participated in the study. In order to increase the sample size, smaller developers were also included in the data collection. However, this resulted in a too diverse range of company types, making it difficult to compare the data. The original plan was to only approach larger companies, but this proved to be more challenging in practice. The differences between the companies include the number of projects in their portfolio at any given time, with larger companies typically having multiple projects and smaller developers often only having one or two. The size of the projects themselves does not vary significantly, and it cannot be said that the size of the company determines the size of the development. Another factor that makes comparison difficult is the type of housing being developed. The selection of respondents was based solely on the number of houses they completed in a year, without considering the type

of housing. This resulted in a mix of inner-city developers building different types of houses than greenfield developers. As a result, it is difficult to make generalizable statements. One difference that does emerge between large and small companies is the range of activities they undertake. The larger developers have more integrated activities.

3.3 Data analysis

The data collected through interviews was analyzed in a structured manner. The transcribed interviews were summarized in a document, which was an Excel file with all operationalized topics in rows. The columns contained the answers of each developer for each topic. This cross tabulation provided an overview of each topic, allowing for an analysis and conclusion to be drawn by considering the opinions of all 18 developers.

	Developer A	Developer B	Developer C
Item 1			
Item 2			

3.4. Validity

The research focuses on the decisions of companies. The information I want to get is not public, this can be sensitive. The question is therefore whether companies are willing to help with the collection of data. If so, are they honest about the results.

The research is paradoxical. The problems of the housing crisis are opposed to the interests of the builder or developer. For the developer or builder, it can be difficult to show the back of their tongue. So, I doubt that the validity is good. However, this is not an open interview that is published. The figures are also online at most companies. Every company wants to make a profit and guarantee the continuity of its company. It is therefore not surprising that there are strategies to make a profit. The answers will be consistent with the truth. This research is about the perspective of the developer. So, if they said that their perspective is the truth, then we have to believe that.

The present study aims to examine the decision-making processes of companies in the housing industry. Given that the desired information may be sensitive in nature, the research question centers on the willingness of companies to participate in data collection and the honesty of their responses.

The study acknowledges that there is a paradox in the research, as the issues surrounding the housing crisis may be at odds with the interests of developers and builders. As such, the validity of the results may be called into question. However, it must be noted that this is not a public interview and that the figures used in the study can be found online for most companies.

It is acknowledged that companies, like any other business, have the ultimate goal of profit-making and ensuring the viability of their organization. As such, it is not surprising that companies may have strategies in place to achieve these goals. The results of this study, therefore, should be understood in the context of the perspective of the developer. If the developer claims that their perspective is the truth, then it should be acknowledged as such within the limitations of this study.

3.5 Reliability

This research is carried out by using interviews. The interviews are conducted by means of an interview guide. This guide is equal for every developer. The reliability will therefore be good. The interview guide has been drawn up by means of literature research and expert interviews. Before the first interview was held, there have already been several test versions. This helps the reliability. The interviews were conducted through ZOOM. The time per interview per developer was too short to explore each topic in detail. The issue investigated is too large for the time taken per interview. Combining three different surveys does not improve reliability.

3.6 Ethical considerations

Ethical choices were made during this study. A choice was made in this study to conduct the interviews anonymously. A choice was made to explore developer strategy. This strategy can be sensitive, so it was chosen not to mention company names. This research describes the motivations of the developer. There is no need to name them in this study. This has no contribution to validity and reliability of this research. All but one of the interviews were recorded. The recordings were only used for analysis. After the study, they will be destroyed. This was communicated to the participants in advance.

4. Housing Development Issue in the Netherlands

4.1.1. Stalled sites

This research will study which factors influence the development speed and therefore factors that are delaying. Because there are pieces of land with a zoning plan, there are also pieces of land without a build ready zoning plan. These pieces of land are called 'soft plans'. The total plan capacity consists of soft and hard plan capacity. For the hard plan capacity, all permits are in order; for the soft plan capacity, the plans have not yet been finalized (Buitelaar & van Schie, 2018). The term stalled sites is often used in the literature. Recent research by Murray (2020) provides insight into the moment when the decision-making lies with which party. It also shows the difference between hard and soft plan capacity. Murray is critical to the zoning plans of the government. Murray proves that planning is not related to building speed. If the government makes it easier to build, the builders will not speed up their production. Making more plans is not a solution to produce more houses.

Phase	Moment
Phase 1 (soft plan capacity)	Between informal approval and zoning plan.
Phase 2 (hard plan capacity)	Between zoning plan and building permit
Phase 3 (hard plan capacity)	Between building permit and finishing

Table 6 - Phases of permits



Much of the research that has been done has been done by researchers in the United Kingdom. For example, Adams wrote an article in 2009 about the relationship between the speed of construction and the speed of sale. This research showed that large developers used their monopoly powers to determine the price of a house (Adams, 2009). In articles of the last years, the causes of stalled sites are increasingly discussed. McAllister provides a definition

of the term 'stalled sites' in his article. 'Stalled sites are sites where there is an abnormally long duration of inactivity after plan permission' (McAllister, 2016). Buitelaar and van Schie call a site stalled if it has still not been built on 24 months after planning permission (Buitelaar & van Schie, 2018).

Study shows the scale of the problem of stalled sites. Figure 3 shows how many days there are between building permit delivery and construction start in the Netherlands. It is referred to as a long and fat tail. 188 days after permit issuance, 50% of construction projects have started. 1000 days after permit issuance, 4% of projects have not yet started. After 24 months (730 days), the term stalled sites can be used. The graph shows that about 8% of projects take longer than 24 months. This 8% can be referred to as stalled sites. Residential construction projects vary considerably in speed among themselves. (Ploegmakers et al, 2022)(Burgman et al, 2022).

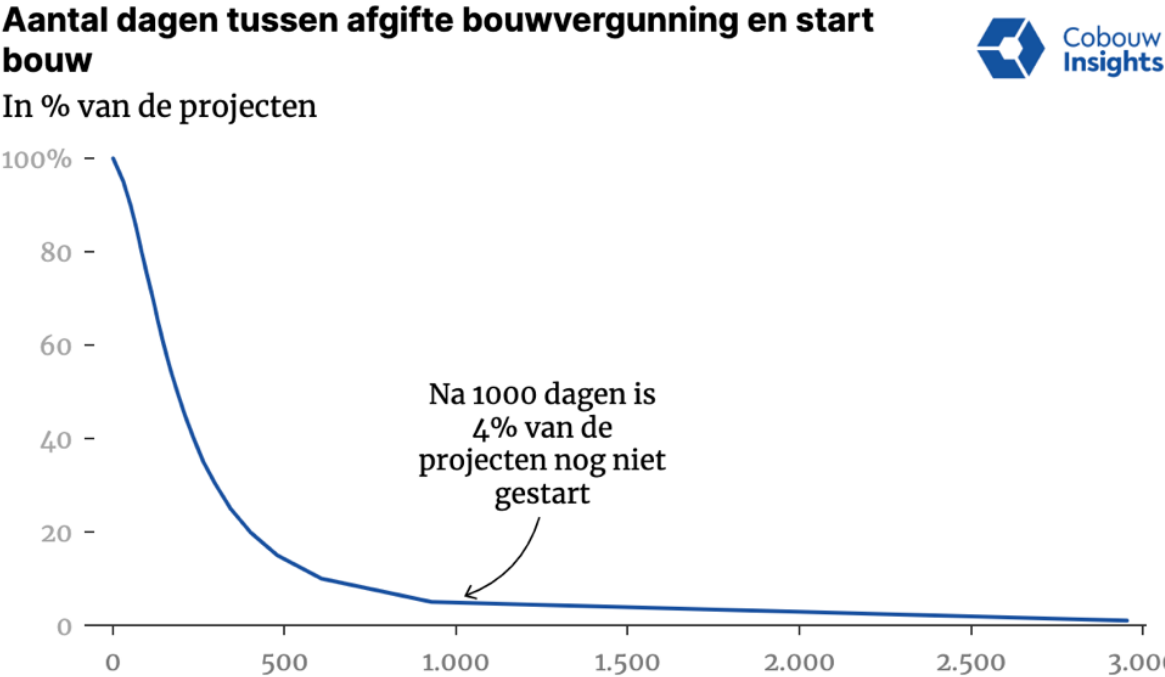


Figure 3 – Days between building permit and start

4.1.2. Factors influencing construction speed

Buitelaar and van Schie (2018) made five categories that indicate why the construction speed is delayed. These causes relate to the hard plan capacity. Buitelaar and van Schie causes provide an overview of all causes. These are discussed briefly to indicate where the strategic causes stand in the discussion. There are 3 phases in which delay can occur. The causes of delay discussed are in phases 2 and 3.

4.1.2.1. Policy & laws

Policy and regulation can be divided into two reasons. The first cause is appeal to the Council of State. After the building permit has been granted, parties can still appeal. This can delay the process (Buitelaar and van Schie, 2018). If a citizen disagrees with the decision of the municipal council, a citizen may appeal to the Council of State. This can be done up to 6 weeks after the publication of the decision. The administrative court applies the standard that it gives a ruling within one year of receipt of the case.

The second example that falls into this category is the nitrogen problem. Scientific literature has not yet demonstrated that nitrogen is one of the causes of the slowing down of the construction rate. However, this could become a problem in the future. In recent years, for example, projects have been halted because of nitrogen problems (NOS, 2022). Construction requirements are also becoming stricter (Advisory Committee on Nitrogen Problems, 2020). This is causing problems. The Council of State has determined that the construction industry must also comply with the nitrogen rules. This means that a test must be carried out per project to see whether there is no damage to a Natura 2000 site. The ruling of the Council of State has no influence on the projects for which a permit has already been issued (Raad van state, 2022).

4.1.2.2. Feasibility problems

The second category that reduces the speed of construction are feasibility problems. In most cases, feasibility problems mean that the plans are not financially correct. De Greef is the founder of a theory called Fight for the Residue. De Greef argues that the battle for margins makes land prices more expensive. This can cause land to become more expensive, making it

harder to build houses (de Greef, 1997). The value of land is calculated on a residual basis. The residual value (land value) is determined by the difference between the expected revenues of a function to be realized and the expected costs of that realization (Buitelaar et al. 2004). The residual land price is always an approximation. At the start of a project, the costs are not known. If the costs and revenues of a project are close to each other, there are factors that go into the feasibility. Interest costs and plan and process costs cannot then balance the development. The result is an unfeasible project (Buitelaar, Segeren, & Kronberger, 2008). Another cause of financial feasibility problems are disappointing land exploitation costs. Making a plot ready for construction can also slow down the process. Rising costs of employees and rising costs of materials also play a role in the financial feasibility of a project (Buitelaar and van Schie, 2018). Because there are more and more parties that earn from a piece of land and do not reinvest the value in this piece of land, the price of land is rising. This makes the exploitation of land very complicated. Rises and falls in real estate prices have a direct impact on the land market (Buitelaar, 2019). A fall in price can cause delay in the project.

According to Adams & Tiesdell (2012), there is a strong competitive landscape in the land market. Developers pay a higher price for raw building land than the residual land value. This is a form of land banking strategy. Land is purchased without a purpose of living. The land is purchased with the idea that this destination will change on it. There is a part of this land that must be covered by the returns on the investment. An explanation for the unused plan capacity can be found here. Housing production must be slowed down for economic reasons, in the hope that house prices will rise further, because 'too much' has been paid for this construction land (Adams & Tiesdell 2012).

The land in the city is already cultivated or intended. The value jump of the land is therefore less high than with land outside the city. The profit on land exploitation is therefore also lower. In order to achieve more profit or feasibility, costs must be cut. This can be done by reducing the design. Another way to achieve more profit is to increase the density of homes or to add more expensive type of housing to the project (Buitelaar, Segeren, & Kronberger, 2008). A consequence of this is that the original idea changes.

4.1.2.3. Location problems

The third category used by Buitelaar and van Schie is location problems. Location problems are polluted ground, archaeological findings or the groundwater level. Delays can also occur when stakeholders oppose the plan (Buitelaar and van Schie, 2018).

4.1.2.4. Cooperation problems

The fourth category used by Buitelaar and van Schie in their theory is landowners who don't cooperate with each other. There may be parties who cannot or do not want to develop. This may be for financial reasons (Buitelaar and van Schie, 2018).

4.1.3.5. Strategic reasons for delay

Buitelaar and van Schie (2018) also have a category to label the actions of developers. It is argued that developers have strategic reasons to influence the speed of construction. They do this for various reasons. Balancing capacity is one of the reasons mentioned in the theory. There are also parties who practice land banking (Adams & Tiesdell, 2012). This means that for a longer period they make sure that there is enough land in stock to secure production. This strategy is not aimed at developing the land as quickly as possible (Adams, Leishman & Moore, 2009; McAllister et al. 2016). When using this land bank strategy, it is possible that pieces of land will yield more money later on. It may therefore be that these plots of land are not immediately developed (Hughes, Ott & Read, 2012; Murray, 2020). There are several options possible in this strategy.

The first options is to develop the project in phases or to develop all the plots at once. The other option is to keep a stock of building plots. Both options entail delays. Not developing immediately results in less supply. This can result in scarcity or a local monopoly of land. Michielsen et al. (2017) supports this theory. He indicates that a working strategy may be. Price elasticity can cause the price of land to rise. This is caused by market conditions, policy and available space. By taking advantage of these conditions, the price of a piece of land can be increased. Another reason mentioned is waiting for further value increases. An increase in the value of land can have several causes. For example, a more favorable political climate may

arise, because of which land becomes more valuable. For example, a municipality may give a piece of land a different type of residential use (Buitelaar and van Schie, 2018). Lange and Teulings (2021) provide a logical explanation as to why in some situations it is more convenient to wait to build. The construction of real estate is very definitive, the developer wants to be careful with this opportunity, and therefore make the most of it. The developer wants to wait until the last moment to make final choices. The destination of the plan can still change in this phase.

The framework of Buitelaar and van Schie (2018) focuses on the delays that occur in the hard plan phase. Another problem that is not emphasized is building claims. The municipality can issue building claims to companies in exchange for re-parcelling. A developer brings in a piece of land, the developer then gets plots of land in another location. He can build on these plots; he has a claim (exclusive right) to them. If these plots are not built on, there is also a delay in the speed of housing construction. There is no information in the literature about the number of building claims under development.

5. Results

In this chapter are the results of the data collection discussed. First is speculation behavior discussed then the use of market powers then the balancing strategies are discussed.

5.1. Speculation behavior

In this section, the results are presented in relation to the influence of speculation and the pace of project development. The development process is a complex process that requires a significant amount of time. There are often opportunities to enter or exit the development process at various stages. For instance, in addition to speculation on land, speculation can also occur during the construction process. During the initiation phase of a project, land speculation may occur as soon as the government makes plans and speculators begin to purchase or resell land. These transactions are motivated by external development pressures, which are influenced by a variety of external factors analyzed using a PESTEL analysis in the annex.

As previously noted in Chapter 2, there are four options that exist within the domain of speculation. These options have been presented in the form of questions for the developer to consider. Each option is subsequently analyzed in detail to assess the potential effect it may have on the speed of development.

5.1.1. Exit option

The option of exiting the development process refers to the discontinuation of planning or the sale of the land on which the project is intended to be built. The developers interviewed uniformly conveyed the belief that they do not purchase land with the intention of reselling it, but rather with the goal of developing it themselves. However, they are open to engaging in discussions with interested parties, and it is not uncommon for positions to be sold to other developers under certain conditions, such as when the current owner does not perceive potential for profitability or when the buyer can leverage a subsidy or has a more efficient method of construction. In some cases, the developers attribute the need for exit to changes in the municipality's plans or requirements that make the project financially infeasible. When it is no longer feasible to pursue the original development, alternative uses for the land may be considered.

'We had a position in Helenglo. We had agreements with the municipality. Subsequently, the municipality does not comply with its plan. Then such a piece remains unused. Then you see that the municipality is also struggling with the real estate crisis.'

Developer 11

Number of houses build: 220

One developer indicated that sun parks were being built on unused pieces of land. A change in municipal plans has negative effects on development speed. Because the developer has to make a new plan.

'Some development locations never come to development again, then we look at alternatives, for example, we recently opened a solar park on one of our plots of land from the ground bank. '

Developer 7

Number of houses build: 500

What can be concluded after the interviews is that the developer is not a land trader, though it can be said that land was bought with the hope of development but not appreciation. It is difficult to call this speculation. This is because the developer claims to have done very strong research on it. Land was bought with an idea that it will be developed, not with the idea that it will earn from trading the land. The developer indicates that the speculators operating are not real estate companies. These speculators have made money with other projects and see land as an interesting investment. These parties drive up the price.

'In recent years, land positions have been taken by foreign parties in the market. The parties are funded by, for example, a telecom company or supermarket business. These parties find the real estate market an attractive investment and have therefore generally bid more money at locations.'

Developer 12

Number of houses build: 150

According to the literature, speculation in land can have negative effects on the feasibility of a project. The ownership shifts of land can influence the pace of development. Developers are

5.1.2. Defer investment option

The defer can take place on several phases in the development process. Buitelaar and van Schie (2018) described the different phases. In the figure 4 below are the phases indicated.



Figure 4- Stages of zoning plan

The option to defer involves delaying an investment or project until a more favorable time. This decision is postponed until a later date, and in real estate terms, it involves starting the project later. According to Trigoris (1995), this option allows for the choice to start later. However, the interviews conducted in this study indicate that developers do not typically use this option themselves, as other parties such as the government or a housing organization often determine the start date for the developer. The developer may be required to wait for these parties to initiate the development process, and the option to wait may no longer be available due to the lengthy procedures involved in timing a project.

According to theory, the option to defer a project exists, but in practice, it is more complex. The process of starting a project requires a significant lead time and obtaining permits can take several years. Therefore, it is difficult to predict when the permits will be granted, which complicates the decision to defer the project as it is unclear for how long the project would be delayed. Logically, deferment might occur once the permits for the project have been issued. According to theory, this form of deferment contributes to the implementation gap (phase 3). However, the developers interviewed denied contributing to this, as the risk of waiting is too high. The costs incurred during the initial phase of the project are too significant to gamble on the potential appreciation of the targeted real estate. The interviews did not reveal any instances of strategic deferment occurring between the issuance of permits and the start of construction. The Interviews indicated some project delays. But these delays were due to protected species and archaeological finds.

'I'm glad we just sold those apartments. If that had been up to the brokers, we wouldn't have been halfway there yet. If all goes well, we should just finish as soon as possible. At least that's our philosophy and not of waiting for things to get better.'

Developer 4

Number of houses build: 750

Generally, developers report that they will build as much as possible immediately. However, if the financial viability of the project is uncertain, they may be forced to wait. The threshold for starting construction is somewhat ambiguous, with a commonly cited benchmark being the sale of 70% of the homes. This is considered a safe number for the developer to begin construction, and it is also a rule established by the housing organization "Woningborg" as a safeguard for home buyers.

'We are not waiting to build at the moment, in the sense that we are not shutting down projects now. Often that is not an option for the projects we have. We have property guarantee contracts with private buyers. It simply says that you have to start within six months of the permit.'

Developer 6.

Number of houses build: 670

'Once the permits have been issued, we will start building immediately'

Developer 6.

Number of houses build: 670

The opposite of defer is acceleration. One respondent stated that they are currently bringing supply to the market at a faster rate than previously, expressing the desire to "cash in" on their current positions due to the anticipated difficult financial times approaching in the real estate industry. This action took place in phase three.

'You actually want to be able to do as many projects as possible with as little money as possible. That's the idea of development. I can't start with all my positions at once because then you have to be a very rich developer.'

Developer 11

Number of houses build: 150

There appear to be few compelling reasons for developers to delay investment in a project. In fact, a counterargument can be made that the need to self-finance a significant portion of a project incentivizes developers to move forward with investments quickly in order to recoup their capital. Therefore, it is not beneficial for a development company to engage in the practice of deferring investment. This argument states that phase 3 is carried out more quickly because of the funding.

Other developers mentioned that they did delay the marketing of their offerings in the past for a short period of time during economic crisis due to the expectation of increasing house prices. The timing of sales is a key concern for developers, but they emphasized that development is a constant process and not a matter of waiting for price increases. However, one developer did acknowledge that permit applications have taken longer in the past and that the significant increase in house prices has benefited some developers, either intentionally or unintentionally.

I once observed that we thought 'well that permit will take a little longer and therefore we can get away with it better. '

Developer 9

Number of houses build: 420

'The long-term cycle of real estate is on average about 7 years, timing is difficult. When you go to the market to act, you are always behind the facts.

Developer 11

Number of houses build: 220

This indicator is called defer investment. If defer means actively delaying or frustrating the process, no developer that is spoken to is responsible of that. If defer means doing nothing about positions, a lot more developers do it.

According to the interviews, there are developers who engage in deferring investments. One common strategy is to acquire existing properties and generate rental income to cover the interest while making plans for the redevelopment of the area. As soon as redevelopment can commence, the existing intermediate tenants vacate the properties. This defer investment is not bounded to financial pressure. The start of the development is when there is a 'good' plan. This kind of plans contribute to the speed of the development process in a negative way.

A form of deferred investment is phasing. The concept of phasing was mentioned by all respondents in the study. Phasing refers to the practice of dividing a project into smaller units, with each unit referred to as a phase. There are two primary reasons for implementing a phasing strategy in real estate development. The first reason is related to construction logistics, as it is more efficient for contractors to work on smaller units of a project rather than attempting to tackle the entire project at once. The second reason is related to market dynamics, as the speed at which houses are sold can affect their price. To prevent oversupply and a corresponding drop in price, developers may choose to release units in a controlled manner, by dividing the project into smaller phases. In addition, developers may also use phasing to secure pre-financing by generating sales revenue while the project is still in progress. In recent years, the need for phasing has been minimal in certain regions with strong demand for housing, such as the Randstad area. However, phasing is still utilized in other areas and for other purposes, such as pre-financing. It is worth noting that the decision to defer investment, or delay the development process, may be driven by similar strategic considerations as those that motivate the use of a phasing strategy. Phasing is typically implemented during stage 3 of the development process, which is the period of time when the project has progressed beyond the planning and design phase and construction is underway. Phasings can be uses as a defered investment. But is also used in the balancing strategy of a building developer.

5.1.3. Scaling options

In terms of scaling, there are three options a developer can choose. That is either contract, expand or extend the plan. There are no results from the interviews that plan areas are enlarged. It may be an option that if plan is not feasible more land is bought to make it feasible. This does not occur among the developers spoken to. Also the contract (scale down) option isn't mentioned in the interviews. The plans that developers work with have small margins. Scaling down a plan quickly leads to an unfeasible plan according to the developers.

What does occur are adjustments to plans. Before a developer starts, there must be a feasible plan. These plans are made together with the municipality. If it turns out that a plan is not feasible, adjustments have to be made. This often comes down to compacting the program. This ensures a financially viable plan. Again, land speculation ensures that price for a piece of land is higher because money has been withdrawn from the construction column. So this can lead to densification of the program.

5.1.4. Flexibility option

'Flexibility options' are opportunities to match the content of supply to demand. In the case of area development, these are switch options, which allow the output of a project to be changed by changing the segmentation of the program. The old plan is abandoned and a new plan is realized. How do changes in housing program affect development speed?

No questions were asked about adjustments to the plan before the plan was approved by the municipality. However, questions were asked about adjustments to the program between approval and the start of construction. It can be concluded from the interviews that the developer makes adjustments to the housing program when demand is disappointing. If there are houses that do not sell, the developer tries to change them to houses that do sell. This does cause delays, as some of the plans have to be changed. This has to be approved with the municipality. The examples in modifications that were given were examples of free-sector houses. An adaptation in the plan is not a popular option, the developer rather prefers to change within the plan. This is because the cost of permits and changes is very high.

Suppose you are already very far along then and you see that a semi-detached house for a certain price segment is not selling, then you can fine-tune your design that you say of well, I'm going to make something cheaper anyway and make it affordable.

Developer 10

Number of houses build: 290

Some of the developers say they no longer make adjustments to plans. This is because the houses will sell anyway in this market. If this is then disappointing anyway, these houses will go into their own portfolio, and it will be decided at a later date what will be done with the house. Also, the developer no longer wants to adjust its STIKO. Adjustments in the plan cost money according to the developer. This comes at the cost of feasibility. It can be concluded that adjustments in housing schemes do help the pace of development. But if there is adjustment needed there is already a delay.

Matching supply and demand is possible. However, it is difficult because there are permits for a certain type of home. A semi-detached house in the free sector can become an affordable terraced house. But a social rental property cannot become semi-detached. There are options, only due to laws and regulations they are difficult to use.

It's hard to say that these 4 options represent speculation behavior. These are theoretical concepts that make it possible to label speculation behavior. It can be concluded that options give flexibility to the owner. This can have positive speed on development speed. Exiting a development can in some cases have positive impact on development speed but in most cases, an exit option is a delay in the process. The defer option is slowing down the process, the scaling option isn't observed and the flexibility option gives pace to the development after there are delays.

5.2 Monopoly position

The development market has the characteristics of an oligopoly. There are few firms in the market, there is an ability to control price, entry barriers are high and there is little differentiation by product. This chapter describes how these characteristics translate to the development market and how this affects the speed of development.

5.2.1 Number of companies in the market

The number of companies in the market corresponds to the characteristics of an oligopoly. There are several development parties, but these are not many. There is little competition because barriers to entry are very high. In this paragraph more information about how developers experience competition.

To see the impact of the number of companies in the market, we looked at competition. According to the developer, competition does not benefit the speed of development. An example put forward is tenders. In a tender, the client sets out an assignment for which the developer may make a plan. The developer with the best plan and the lowest price gets the contract. So the other developers who competed for the tender do not. By losing the tender, costs are incurred. These costs can be expressed in time and money. These costs cannot be spent on other projects. Also, margins in tenders are very small. This could affect financial viability in case of a setback.

'Now we are more cautious with tender. The alternative is much better'

Developer 12

Number of houses build: 150

Instead of tenders, one-on-one cooperation with the municipality is now being sought. Direct cooperation with the municipality is pleasant working together, according to developers. However, there has been anxiety since the Didam ruling. This ruling has meant that more has to take place through public tendering. This makes direct cooperation more difficult.

For a lot of companies, tendering is a business strategy. What is striking is that large organizations more often prefer tenders. The developing contractor prefers to seek direct cooperation with the municipality. The speed of development depends entirely on the speed of the permit procedure, according to the developer. The faster the plans are approved, the faster construction can take place. Extra work for the government in terms of studying plans does not help the speed of development. The capacity is not there according to the developer. A tender procedure also has advantages, according to the developer. One example is that the developer can get to work quickly on a development because there are already clear preconditions. This benefits the development speed. A tender ensures faster development.

Developers were also asked what would happen in case of an oversupply in the market and how it would affect the development speed. If there is an oversupply, the houses will not be sold at the right price. Then these houses will also not be built. In a project where phasing can be done, this is not a problem, as less will be built. But there are also projects that can only go ahead if everything is sold, such as residential towers. With oversupply on the market, the housing crisis is not solved; there are then too many houses on the market for sale at the same price. This leads to fewer sales of new projects. This causes less construction.

A consequence of competition in the market is the delayed marketing of new housing supply. Developers keep tabs on each other, there is no mutual coordination on who gets to bring offerings to the market. There is an assumption of own strength, but they are always looking at each other.

According to the theory it can be concluded that the competition description of an oligopoly is in line with the situation in the Netherlands. There is a match between observation and theory. Competition exists, but it is not that large.

5.2.2. Ability to control the price

There is a possibility to control the price for the developer. However, this possibility is limited. To get approval for the development plans, affordable housing agreements are made with the municipality. These agreements relate to the housing program. For example, there may have to be social rented homes or social owner-occupied homes in the housing program. With

those types of houses, it is impossible to vary with the price. Therefore, the compulsory houses in the program are often a point of discussion. The houses have a fixed price; this price is below the market price of the house. The financial feasibility of plans comes under pressure due to requirements from the municipality. This negatively affects speed of development.

Not all properties in the program have set sale or rental prices. However, for homes that fall in the free sector segment, the price may be set by the developer. The developer uses the broker's advice to determine the price.

A developer controls the price through phasing in its projects. To start construction, according to the NHG scheme, 70% of the homes in a project must be sold. Then there is a guarantee of completion if the developer or contractor goes bankrupt. Due to the set margin the developer wants to earn from his project, the selling price of a home is fixed. There is a minimum selling price of a property that is required to make a project feasible. To get this price, the selling price of the homes has to be controlled. The developer does this by phasing. A project of 500 homes is divided into 10 phases. These phases are always started when the required 70% of the homes are sold for the right price. The developer lets the market determine the pace of development. There is no perfect competition in a new-build project. The price of a property cannot be made by supply and demand. This comes at the cost of feasibility, which is the reason for the phasing of projects. Developers in large cities do not use phasing, there sales go very fast.

'Asa rule to us, if you have presold 70% of the houses, then you are going to build'

Developer 6

Number of houses build: 670

It can be concluded that setting fixed sales prices has a negative impact on the speed of development. The fixed prices jeopardies financial viability. To make a plan financially viable then, concessions have to be made in the housing program. These concessions in turn cause delays. The purpose of the rules is clear to the developer, only the ability to go along with

them requires creative solutions. These solutions are; smaller housing units and help in purchasing houses through buy-start schemes.

The municipality's high demands have made the feasibility of projects more difficult. There are heavy demands on housing programs. Therefore, the developer's influence on the selling price is also not high. This characteristic does not match the theory of an oligopoly. It is true that free sector houses can be priced themselves, but that does not apply to houses that have to meet the conditions set by the municipality.

Municipalities that are very good at stacking wishes and requirements that they have regarding a plan. But at a certain point there is often less attention for the financial feasibility of such wishes.

Developer 8 Number of houses build: 500

5.2.3. Entry barriers

The development market is characterized by high entry barriers. The largest barrier is capital. A lot of capital is needed to develop. This capital may have been obtained organically, which is often the case with developing contractors. These develop with their own capital. Pure developers develop with money from external parties. These parties influence the speed of development. The capital barrier can speed up the process but can also slow it down. Parties developing with their own money have little outside pressure. These parties determine the pace of development themselves. The parties with external capital benefit from completing a project quickly because then the company can move on to new projects.

'We do part of the external financing, for example at a bank. We develop fast because then you can free up a large part of your assets to start a new project again'

Developer 12 Number of houses build: 150

issue. Some developers are comfortable to work with other landowners, and some aren't. According to the developers depends in on the type of landowner. There are parties who find cooperation with other landowners very pleasant. Developers, for example, like to spread a piece of risk between two companies. It is also pleasant to cooperate with a company with a different expertise. For example, a developer likes to work with a developing contractor. Because a construction company is involved in the development, there is more flexibility in the project. There are also parties who do not find cooperation pleasant. In a development, landowners need to cooperate. There may be landowners who do not want to cooperate. This causes delays. The reason for not wanting to cooperate may be, for example, disappointing returns. A way to lower the barrier to enter is cooperation with other developers. The high barriers to joining the development market also cause high costs. These costs increase the pressure to the developer affect the speed of development in a positive way. But there are always parties who are richer and smarter. So it's hard to say that the high entry barriers, in form of the capital, affect the development speed.

Buitelaar and van Schie (2018) also describe opposing landowners as a delaying factor. The observation from interview is in line with the theory.

'The person who often waits just as long until someone pays the highest price for it and that is annoying because that stops the production of housing and a lot of other things'

Developer 12

Number of houses build: 150

The theory about the market structures can also be confirmed. The entry barriers are high in this market.

5.2.4. Product differentiation

To make product differentiation tangible, it has been operationalized in two terms, price and quality.

5.2.4.1. How does quality affect development speed?

In the Netherlands, there is a standard quality for housing construction. Developers say they all meet this quality. A few developers also do more than what is standard, this way they

distinguish themselves from other developers. Price, quality and speed now hang together. By making a house more sustainable, the quality of the houses increase, also the price can increase, this is because consumers have to spend less on energy costs. Due to the better quality of the house, it sells faster. Thus, quality affects the speed of sale and thus indirectly the speed of development. This mechanism works only for freehold properties. For houses that have to be built for a fixed amount, concessions are made in quality. The area per dwelling is reduced considerably. That is the only way to build the houses. It's interesting to see that the price on a house in not decrease by innovations.

'The surfaces of the house have become smaller, but the quality of the house itself has become better. Market conditions have had an impact on quality.'

Developer 2

Number of houses build: 2300

The quality of the houses must meet a couple of legal acts. These acts make it more expensive to build, but it increases the quality of the house. This higher cost can influence the development speed. There can no conclusion be drawn by these observations.

5.2.4.2. How does price affect development speed?

The developer's general principle is to not sell property at a loss. The price has a direct impact on the speed of development. After careful calculations, the developer has determined a fixed price for their property. On the other hand, the broker's compensation is based on a percentage of the sale price and their goal is to sell quickly at a lower price, requiring less effort to complete the sale. The developer's main focus is on maximizing profits; thus they engage in negotiations with the real estate agent regarding the selling price. The developer holds the final decision-making power, while the broker's influence is limited to offering advice. When the price is favorable for the developer, it leads to faster development. In conclusion, there is a clear minimum price for a property as it must generate revenue, but there is no upper limit. This minimum price has influence on the development speed. If there

5.3 Balancing strategies

Companies do not always use the maximum capacity that can produce. This can be theoretically explained by marginal cost theory and diseconomies of scale. A consequence of this is balance in production. A company would like to operate in a stable environment. This makes operations more efficient. The paragraphs below are elements of a development company's strategy. The elements say something about the time frame in which a company realizes its projects. The theory assumes that parties occasionally deliberately delay production to generate more profit on projects. In the paragraphs below, the topics provide more nuance to this discussion.

5.3. Strategy of the company

During the interviews it was asked whether there is a strategy for developing projects. It was asked how a company comes to a decision to develop. There are several factors that play a role in the decision. These types of factors are divided into three categories, company size, type of company and term of strategy.

Company size

The results show that there are several views of company size. The first view is that a company will grow organically. Three respondents indicated that they are a family business. According to them, a family business has a strong culture. This culture must be preserved. This is one of the reasons why companies do not want to grow or grow slowly.

As a family business, we decided at some point, We are not going to grow, but we think the ratio of the total turnover that we supply is actually sufficient.

Developer 8

Number of houses build: 500

We are a family business and we want it to go into an organic way, so that you can also preserve the people and the culture of your company.

Developer 10

Number of houses build: 290

Because developers often operate locally, expansion at the current location often does not make much sense. A logical step for expansion would be an additional office at another location in the country. Developers indicate no need for this. The step to open a second office is large. The developer develops to have fun and earn a living. The developer does indicate that he could start developing outside his own building production. However, he then fears that this would be at the expense of quality. A consequence of this is that developers are not active in other regions. Because there is no growth ambition, developers are also looking more critically at which positions will be developed. This affects the speed of development. Fewer positions are developed because the size of the company is also smaller.

'We are a bit more critical at the front end of which locations we do look at and which we do not develop. This is because I just have less capacity available.'

Developer 8 Number of houses build: 500

'Our development company might still be able to grow. You can also develop outside the construction company, but for the construction company it is also a very nice measure for just the quality and for the managers this is a very nice measure. A second location is the barrier.'

Developer 6 Number of houses build: 670

The observations about the company size are in line with the theory about diseconomies or scale (Anderton, 2006). There seems to be an ideal size of a company. The quality of the products is also a reason not to let the company grow further. The size of a company must remain manageable for the entrepreneur who runs it.

Developing contractors

These developers have a construction branch. Starting with construction in the past, development has been added over the years. These development branches are the engines of construction production. The size of the development company is linked to the size of the construction company. Most developers develop for their own construction production.

One reason for this development is the construction crisis in the previous decade. With the prices paid per project getting lower at that time, construction companies decided to develop their own. This was to control the price per project themselves. These development branches have now become an important part in the vertical integration of housing production.

'So if we want to keep building, we have to be the one who decides who is going to build. So then we start a development branch. Well, so said, so done.'

Developer 6

Number of houses build: 670

While some of the developers do not aspire to extreme growth, there are some that do. These developers do tend to have multiple branches. One reason why these companies want to grow is the number of positions they hold. These positions can now be 'cashed in'. The theory that developers keep their own construction company to work, can be confirmed.

Funding

To finance a project, capital is needed. This can be equity or debt capital. Equity is a reason for delay. Some of the developers say they work only with equity capital. To release capital, one project must be completed before the next project can be started. Having to choose between projects affects the speed of development.

You actually want to be able to do as many projects as possible with as little money as possible. That's the idea of development. I can't start with everything at once because then you have to be a very rich developer.

Developer 11

Number of houses build: 150

Duration of strategy

What is striking is the difference in the timing of strategy making among companies. Most developers create a strategy every 5 years. This strategy is constantly being updated. This is because the future is uncertain. An average development of a project takes 7 years, according to developers. It is therefore difficult to include projects in strategy planning. It is therefore difficult to estimate how many positions will be developed in the next five years. The companies explain that a lot about the duration of a project can be said through experience. For instance, there are distribution keys available that give an insight into how much work is coming up in the coming years. Through these sums, companies can see if they have enough work in the pipeline. This often applies to the developing builder, though. The pure developer often looks at projects a little differently. The developer has a much longer horizon. For instance, there is one developer who says it looks 20 years ahead. This is possible because of financial buffers.

5.3.3. Construction planning & Phasing

Balancing production has a significant impact on development speed. The developer sets its pace by the market adaptation rate. The adaptation speed is the speed of sale or rental of the homes. This adaptation speed has strong correlation with phasing. In principle, the developer phases every project. The speed of the project is determined by sales.

'But the most important consideration is the market. The market adaptation is really leading.'

Developer 6

Number of houses build: 670

The developer says the market determines the start of a project. This is because of the 70% "housing guarantee". However, this can be broken down per phase. If the phases in a project are smaller, then the 70% for that phase is also reached earlier. That is the influence the developer has together with the contractor.

You can have all permits arranged at the front, but your market ultimately determines the first step with building.

Developer 13

Number of houses build: 100

Usually it also works better to put 30 or 40 homes on the market instead of 300.

Developer 15

Number of houses build: 30

The market clearly determines the pace of development. The developer below from the Randstad gives an example.

We have a project in Amsterdam North in which we brought that to the market in phases. Only that went so fast in succession. So phasing was not necessary afterwards.

Developer 8

Number of houses build: 500

The investor is happy with the phasing of the developers and the builders. This is because the price of the houses does not fall due to an oversupply.

The investor is happy with this phasing because he is less likely to have to offer homes in the market at the same time

Developer 8

Number of houses build: 500

It can be concluded that the price is an important factor for the developer. The margin of a project is an key factor that determine the decision to start the building phase of a development.

5.3.4. Employees

There is a shortage on the labor market experienced by the developers. The developer notices this through busy consultants, higher costs, and reduced quality. The advisers are less available and may carry out their work with less precision. Also, the experience is that staff becomes more expensive. This is mainly seen in subcontractors. These demand a higher salary due to the shortage on the labor market. There is always staff available, only the prices become higher.

We need a contractor to realize the plans. He does have difficulty buying material and personnel for a good price. So as a result, you get a cost overrun so that a plan is no longer feasible.

Developer 11

Number of houses build: 150

The developer has not identified any staff shortages within his own company. Adequate personnel are available to fulfill the development projects. The developer attributes any delays in the housing projects to factors other than open vacancies. Specifically, the developer contends that the delays are primarily caused by limitations in capacity at the municipality level.

The developer engages in business with various parties and has encountered shortages among these parties. For example, there have been delays due to issues with the architect. The process of creating a drawing can take several months, and errors are often present in the final product, which requires additional time to correct. The scarcity of experienced professionals makes it more challenging for the developer to collaborate with other parties. When projects encounter setbacks, experts often redirect their attention to other priorities. This can result in further delays when the developer needs to bring these experts back on board for a project, as it may take several months for them to become available again. Furthermore, some companies prefer to work with established partners, leading to delays if these partners are fully booked. As a result, the developer may be forced to wait for an opening in order to move forward with the project.

You can say 'I want to start tomorrow with my design team' but if you don't have anyone because they are all very busy and too little. Then you notice that immediately in the plan preparation.

Developer 16

Number of houses build: 20

The developing contractor does not experience any issues related to staff shortages. The tightness of the labor market does not impede the speed of production for this contractor. This conclusion is consistent with the observations made in the previous paragraph, which indicate that the developing contractor primarily develops projects for its own production.

'We are a developing builder, there is no delay in construction production. If the project is licensed, we can just start. It is mainly in the preliminary phase. We are busy with prefabrication. So we need fewer and fewer hands to prefabricate you more and more. So that's not where the problem lies. In my opinion, it is not in the construction capacity but in the preparation process. '

Developer 9

Number of houses build: 420

Developers have reported significant advancements in the use of prefabrication techniques. This allows for greater efficiency on construction sites and reduces the need for a large workforce. According to the companies interviewed, the staff shortage has not had a significant impact on the development and construction speed of current projects. However, the shortage does affect the growth rate of the building developer. They have reported difficulties in finding technical staff, which hinders the company's ability to expand organically.

The developer dilates the government that there is a lot of delay. According to the developer, there is a large staff shortage in the government, and this affects the speed of development.

Constructing facilities takes a very long time to install. This obstructs the development process. This is reflected by no electricity on a construction site or too less electricity to start construction.

Developers themselves did not indicate that they face staff shortages. Occasionally there is a vacancy, but generally this works out well according to the developer.

5.3.5. Material

Developers indicate that rising prices of materials are affecting construction speed. In recent years, price increases in materials were linked to increases in the prices of houses. In current times, this is no longer the case. Material prices have risen faster than house prices. This results in projects not being brought into development or being halted. The developer's argument is that there is too little margin to start.

At some point you get a price increase of 20 to 30%, that can't just go on. On answering the question, that will certainly cause delays.

Developer 1

Number of houses build: 6600

The developer thinks prices will come down again if the collective becomes too expensive. If no more projects can't continue, prices will come down. This does have a delay of about 1 to 2 years.

It is expected that due to the rising costs, projects will come to a standstill. As a result of the shutdown, the prices of labour and material will fall.

Developer 2

Number of houses build: 2300

Another reason heard for stopping the project is expensive suppliers. The supplier can renegotiate the contract. If this happens, the developer has to go back to the client to renegotiate. Some of the developers say they are not involved by rising material prices.

At a redevelopment project less materials are needed. These projects can still go ahead in the future because you are less bothered by the cost increase in material.'

Developer 11

Number of houses build: 150

Conclusion of balancing elements in strategy

This chapter has made the assumption that developers and builders would balance their output to reduce costs. At the individual level, this has been established by the observation that developers do not want to grow. At the collective level, this can be established by the scarcity that exists in the market. The scarcity in human resources makes the cost of projects more expensive. This confirms the theory of diseconomies of scale. With stagnating house prices, these costs can no longer be offset by the increase in housing. Projects will stall. This in turn increases the supply of labour. This stabilizes the market and creates a natural balance.

6. Conclusion

This research has tried to identify strategies that developers use. The strategies examined relate to the speed of development. First the three sub-questions will be discussed, then the main question will be answered.

6.1 Research question

The research question is answered by an analysis of the interviews conducted. The research question that needs to be answered in this research is:

'What is the role of strategy in the decision-making process about whether to start developing at a project?'

The main question can be answered by answering the three subtopics.

Does speculation behavior influence the development speed?

The findings of this study indicate that speculation in real estate can have a substantial impact on the viability and pace of development projects. The primary perspective of developers is that they do not engage in speculation. However, developers often attribute speculation to investors and other types of companies that are not involved in the development industry. This claim is weak, as only a small number of developers reported experiencing such situations. Another viewpoint is that land prices have risen in recent years, which can make it difficult for developers to recoup their investment and potentially delay the development process. Therefore, high land prices can have an impact on the speed of development.

Do developers use monopoly powers in the decision-making's process to start building and how does this affects the development speed?

The study finds that developers take advantage of their position as oligopoly players in the real estate development market, characterized by a limited number of large providers and a lack of competition. The pace of development does not appear to be influenced by

competition and developers often avoid it, as evidenced by their infrequent participation in tenders. Additionally, the study shows that developers have a significant degree of control over pricing, with a clear lower limit but no upper limit. The pricing is determined by the supply of housing in the area and the floor price is a possible cause of delays in development. The financial viability of projects is largely dependent on the pricing, which can obstruct the development process.

There are high barriers to entry in the development market. One of these barriers is capital. External capital increases development speed for the developer. Borrowing money increases the risk, therefore construction is started earlier. Developers who have their own capital do not feel this pressure. In this situation, there is the possibility of strategically waiting to build on a piece of land.

The developer can reduce the development pressure by cooperating with another developer. Financial pressure can be shared. Mandatory cooperation with other parties lowers the development speed. This is because there are landowners who want the maximum price for land. This may be because too much money was paid for a piece of land in the past. This must then be compensated with an higher selling price.

It can be concluded is that the speed of development does not decrease in financially good times. But in bad times the speed decreases. This is due to feasibility problems. The developer has a clear profit margin in mind. If this margin is not met, development does not take place.

Do developers balance their housing production over time to be more cost-effective?

It can be concluded that balancing in the organization is part of the strategy. This can be concluded because several companies indicate maximum company size. Also, expansion is often not a desire because it makes the organization less flexibel. A maximum seems to be sought by developers. The developing contractor is also seeking its balance. This party has started to develop in order to secure its own construction production. The shortage of technical staff makes it difficult for a construction company to grow. Consequently, the development department lags behind. Another argument why balance exists in development

companies is financing. Development is capital intensive. Therefore, it is difficult to develop multiple projects simultaneously. The developers expect that the market will be balancing itself. Increasing costs are threatening the feasibility of projects. Some projects cannot go ahead. This gives the market some relief. A natural balance emerges.

Now that the sub-questions have been answered, the main question can be answered.

'What is the role of strategy in the decision-making process about whether to start developing at a project?'

There is a clear strategy that developers use. On average, the developer is looking five years ahead. Development of a project is started only if it is financially feasible.

Feasibility can be affected by speculation on land. Development speed is also influenced by market adaptation speed. In addition, the speed is influenced by a balance among the developer's external parties such as experts and builders.

The developers who participated in this study indicate that they are keen to develop. However, they do set condition on which to develop. These conditions are a reasonable margin and a reasonable requirement from the municipality.

These developers also indicate that they will not contribute to the implementation gap. After the permit is finalised, construction starts immediately. The speed made before this permit they issued is difficult to determine. There has been no discussion of unlicensed positions and why these positions are or are not being developed.

6.2.1. Theoretical reflection

This study has tried to fill the theoretical gap of why a developer would strategically wait to develop. The theory in this study is not specific enough for the developers role in the entire process . It has examined where and why there is delay in the entire development process. This process is too complex. Therefore, it is difficult to generalize. The implementation gap

would have been a good research unit, but now the whole process has been studied. As a result, focus has been lost.

6.2.2. Methodological reflection

There are several points that could have been better in this study. The first point is the participants. The group chosen was too broad. This was noticeable in the activities undertaken. There were parties who were clearly builders and parties who were developers. There were also developers of inner-city real estate among them. These are different types of companies, making it difficult to arrive at a general theory.

The second point that was not good were the length of the interviews. The interviews were combined with two other students. The list of questions was too long. The combination of questions lost focus. This made the study too general and unreliable.

The choice of a qualitative study was good, although in retrospect the study could have been better quantitative. By working with a questionnaire with response categories, comparisons could be made in a better way. Due to the time pressure and generality of this study, the data is poor to compare. This could have been done better with a quantitative study.

This study did open the door to look at this matter in a quantitative way now. Many motivations for delay have now been found. This can now be converted into a quantitative study.

6.2.3. Reflection on societal and scientific relevance

The study is societally relevant. There is a fierce debate about the housing crisis. This debate can still be very black and white. For instance, there have been several TV programs portraying the developer as a money-grubber. Through this study, there have been insights into the rationale behind why a developer acts the way they do. This study indicates that this problem is very complex, and the solution may be even more complex.

Scientifically, it is relevant because this study identified developer arguments on several categories. These arguments can explain the implementation gap. However, further research is needed to study which factors fall into the implementation phase.

6.3. Recommendations for future research

This study has only identified arguments. In further study, the exact limits of decisions can be done. For instance, it has now been stated that the developer will only develop if a project is feasible and profitable. I am curious to know the exact margins and the definition of feasible according to the developer. If these numbers are clear to several parties, there could be mutual understanding of each other's situation.

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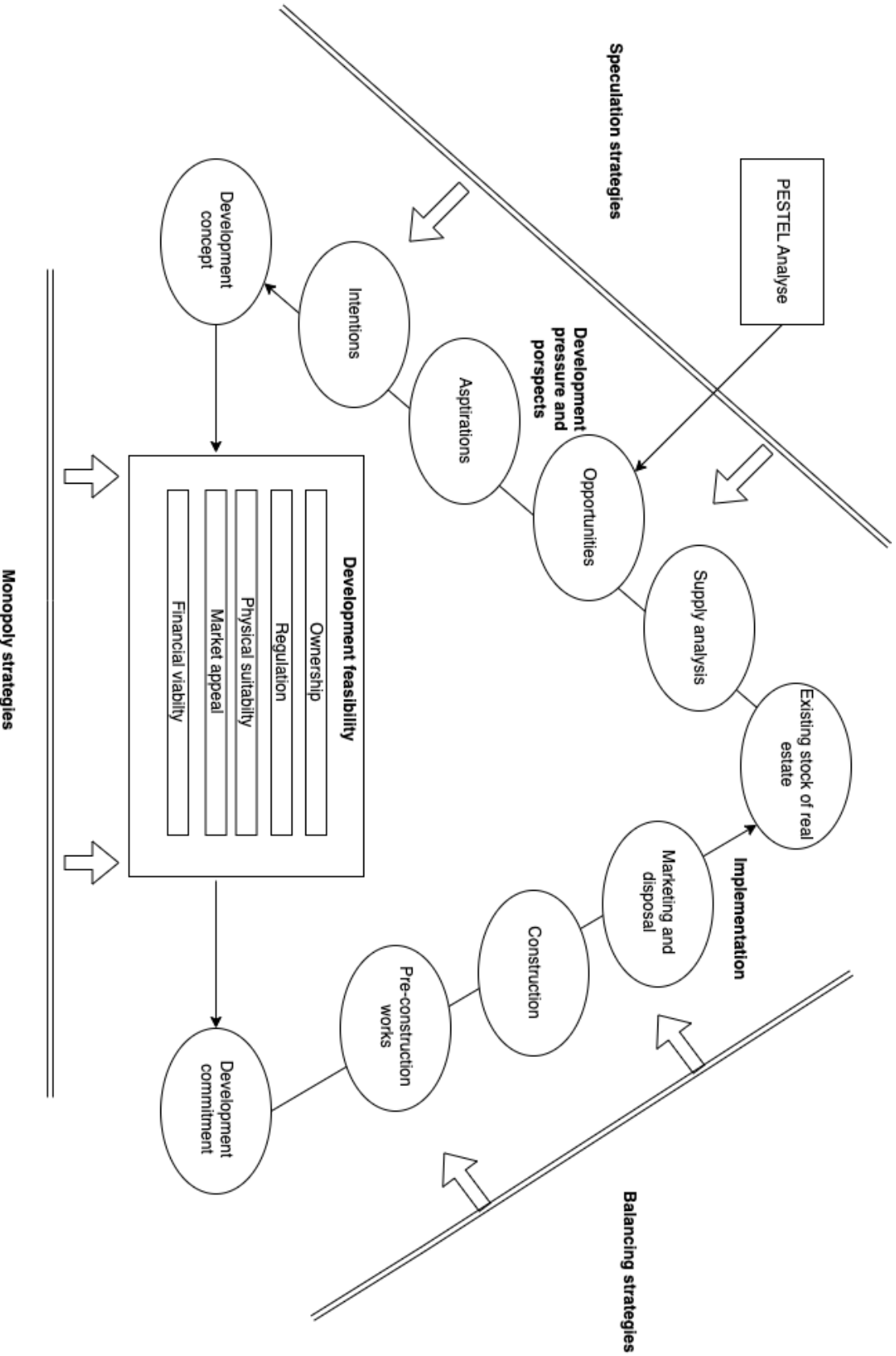


Figure 5 - Development model in combination with theories

PESTEL analyse

Political	Economical
Refugee crisis	Inflation Rising mortgage rates Rising energy costs
Social	Technological
Smaller average house holds Older population	Improving building techniques
Environmental	Legal
Natura 2000 Nitrogen ruling	Didam arrest Omgevingswet

Table 7 - Pestel analyse