

Colophon

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Preface

With great pleasure I present you this research proposal paper. The final year of the Master Real Estate & Housing at the faculty of Architecture and Building sciences of the Technical University Delft the is concentrated around one thing only: graduation. One semester has already passed since I started in September and although I had some difficulty in choosing one of the many topics I had in mind, it's my believe to have chosen the most interesting.

The topic is concentrated around an issue that touches multiple levels of the Real Estate market. It covers the aspects of incentives, vacancy, residual land values, effective rent, building value, non-transparency and cash flows. Which make it all the more hard to obtain the necessary information. On the other hand it is a hot topic. Anyone I have told so far about the subject was interested instantly.

With great joy I've read numerous books and theses about the (dis)functioning of the Dutch Real Estate Market, but there are many more to go and their number is growing with the day. Time on the other hand is working against me. Finishing this graduation within the time that is set out for it, is my primary goal. This has two underlying reasons. First off, although the current job market isn't what it used to be, my chance of getting the job I want involves me finishing graduation as soon as possible. Secondly the possibility of graduating cum laude is still within my grasp.

So far I have had numerous people already making available some of their precious time in order to help me. Hereby my gratitude goes out to you. I would like to thank especially the employees of my internship company, who have provided me with this research subject!

Delft, January 15th 2012

Bram T. Harding

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I Research Introduction

Part I of this report consists of five chapters describing the basic outlines of the research. First will be reflected on the subject in terms of personal relevance, scientific relevance and social relevance. Secondly the research problem will be identified, to propose research questions and hypothesis. A more detailed research analysis is done in Part II. Thirdly the targeted objectives and end products will be described. Fourthly the research design will be shown, including proposed research type, domain and methods. Finally a quick note will be given on the limited accessibility of data.

1. Research subject reflection

1.1 Motivation

What the exact impact is of the vacancy problem for real estate companies, became apparent to me during my last year's internship at a developing investor. The vacancy problem had impact on almost all aspects of the company. Not a day could pass without the problem being on the surface. Besides the symposia we participated in, talks with banks, municipalities, partners etc. all revolved around the vacancy issue.

One day, the company got a telephone call by a municipality stating that one of the company's tenants was offered to move to a new to be constructed office building by another developer. The municipality asked the company to lower its rent prices in order for the existing building to be competitive. After doing the financial calculations, the company came to the conclusion that the offered rent prices for the new to be constructed office building where so low, that it was impossible to make a competitive offer. The situation was send back to the municipality: the competing developer was able to offer lower rent prices for his new to be constructed office building, than the investor owning an existing building could. How is this possible?

This occurrence was the key for my motivation for choosing this research subject. It was the first time I suspected the construction of new office buildings will actually lead to cheaper rent levels for a tenant than their current, already constructed, office building could offer. What surprised even more was that during symposia all actors seemed to be aware of this practice. I on the other hand, had no knowledge on this subject. Telling about the theory to other students showed that I was not the only person not being aware of this apparent truth. Is it something good, or is it something bad? When does it work? When doesn't it? Why would a municipality allow it? All kinds of questions popped up in my head. Enough questions to start off with researching this phenomenon.

1.2 Scientific Relevance

The last two decades much has been written on how Real Estate markets function in general (DiPasquale & Wheaton, 1992) (Pyhrr, et al., 1999). This was then translated to the Dutch Real estate market (Hordijk, 2005). Ever since was noticed that vacancy levels were reaching high levels, much research has been done on vacancy (Zuidema, 2010) how these vacancy levels have arisen, how to cope with this market situation and how to resolve structural vacancy (Remøy, 2010). Striking enough market rent prices were not lowered. Koppels & Keeris (2006) pointed out incentives were partly to blame. Appraisers were advised to include incentive information (Hordijk, 2005). Swagerman (2010) and Muijsson (2010) elaborated further on the use of office incentives in the Dutch Real Estate market, stating it made the market non-transparent. Both recommended excluding incentives from being used, but also stated this would be very hard since incentives are so incorporated in the market. Hendrikx (2012) noticed that despite the (structural) vacancy, new office buildings are still being developed. He identified a mismatch between supply and demand, investigating further reasons for companies to move.

In his MRE thesis, Swagerman (2010) shortly mentioned a situation where a developer persuades a tenant to leave its current rented office premature (before the end of its contract) using substantial incentives, to then move to a yet to realize office building. Swagerman (2010) states this transaction can be financially interesting for the developer, since the development profit can be significantly

higher than the incentive that has to be given to the tenant. The incentive is then used to pay off the rental contract of the old building.

Although the subject is not elaborated on further, other ways to use the incentives can be thought of easily. This is the point where this research continues. Not much literature exists about the possibilities of the use of incentives for developers. Furthermore, not much literature has been written on the residual land value method. Found literature only elaborates on the positive outcomes of the residual method, not mentioning anything about possible shortcomings. This latter issue is highlighted in this research as well. There is also no research on the possibilities and shortcomings of the use of these two aspects combined. Finally, no literature has been written about the occurrence of new office buildings actually providing lower rent levels than existing similar quality office buildings.

From conversation with multiple actors in the field, opinions differ whether or not this is a hot topic to research. Some state that although the phenomenon indeed does happen, the underlying conditions simply do not exist anymore in the current market situation. The difficulty of acquiring capital, the lowered LTV ratio's and the fact that incentives are more and more mentioned in valuation reports are aspects stated. Literature and other sources already suggest otherwise (Jefferies, 1994; Dekker, 2011) -as will be described later on. Even excluding this last statement, still the topic is worthy of being researched. The possibility exists these conditions will return in the future.

For the TU Delft it is of the essence that graduation research adds to the existing knowledge base. "Vacancy and Transformation as a means to cope", is the theme this research would relate mostly to of the researches currently in execution at the department of Real Estate & Housing. Other related graduation topics are 'Blijven of verhuizen' (Hendrikx, 2012), in which Hendrikx researches the motivations for companies to stay in their current office building or to move to others. Although his research is not yet finished, based on the current findings the author states his final result will be the financial aspect to play the biggest role for companies in their housing decision. In his motivation Tim Hendrikx writes that he was intrigued by the fact that despite the high levels of (structural) vacancy, still new office buildings are being developed. He identified several companies which moved to new office location, which might also prove to be useful for this research.

As described earlier, in recent years many studies have been done on incentives. These researches have identified numerous types of incentives and analyzed what their impact is on the overall marketplace. Various reasons for actors to use incentives, have been described, but never were these aspects applied directly on the development process. Therefore the originality of this research can be valued to be quite high.

1.3 Societal Relevance

Vacancy in the current office market of the Netherlands is a hot topic. Every week media write about this apparent problem and during real estate symposia the topic is heavily discussed. Experts state the current vacancy rate in the Netherlands is too high, being 7 mln. m2 vacant of a total office stock of 50 mln. (Zuidema, 2010)). If we don't change the way our construction market now operates, the vacancy rate will only increase even more (Zuidema, 2010). Proposed negative effects of vacancy vary from as small as local social problems, to as big as a second economic meltdown (Financieel Dagblad, 2011). The demand for new office buildings is -and will remain- incredibly low. Even if the

economy will suddenly flourish again, there will remain vacancy: structural vacancy (DTZ Zadelhoff v.o.f., 2012). Clear is that all involved construction actors are to blame. Therefore all are rethinking their construction market strategies in order to adjust to the new economic tendency that will remain the same for the next 15-20 years.

Possible solutions of the vacancy problem are galore, but while many solutions are being thought off, one of the problems of the office vacancy is left out of the picture. The assumption that moving to a new to be developed office buildings is actually cheaper for a tenant than remaining in its current office building, would have a major impact on the (non-)functioning of the real estate market. Which tenant would not want to move to a newer building, on a better location, with better sustainable attributes, adapted to all tenant's specific wishes, for a rent that is actually cheaper than its current rent level? This would make them leave their old building, thus creating vacancy. All solutions stated above would be in vain if this assumption would really apply.

So why do all the involved parties leave this aspect out of the vacancy solution negotiations? Are they simply not aware of the problem? Or is there an underlying effect to it that makes it positive to the functioning of the real estate market e.g. qualitatively higher buildings? Whatever conclusions might be the result of this research, all would benefit the construction sector. It might lead to conclusions to resolve the strange situation of old buildings being more expensive than newer ones, or it might lead to a broader knowledge about the reasons for leaving this phenomenon intact.

1.4 Utilization potential

The economic valorization of this research is totally dependent of the outcomes. Recommendations will be given for developers how to streamline their operation in the negotiations with users, municipalities and investors. The other way around, users, municipalities and investors can learn from these outcomes too. If the phenomenon is not currently applicable, all actors can see when the situation will present itself in the future. Municipalities can, based on the outcomes, rethink their use of the residual land value method.

1.5 Personal ambitions

The real estate market is a market of highly technical projects, involving actors of a broad field of sectors. Therefore it is hard for any actor to keep track of all the changes that occur in the way the market works. Every actor is expert in their own field, but hardly any actor is expert in the field of other actors also active in the real estate market. This means that sometimes things might occur, because of a different economic setting or new legislation, which would be very beneficial for some of the actors, but wouldn't for others. Possibly this leads to the disturbance of the functioning of the whole market.

Personal targets include gaining more knowledge on financial construction methods used in practice where the construction market is subject to. Moreover doing the research will lead to better inside in the theory of research methods and this in itself is already a big personal study target. The current office vacancy is a problem for all construction sector actors, including municipalities, developers, portfolio managers and investors. Since after my studies I will also be part of this sector, having knowledge about possible reasons and solutions for the vacancy problem seems to be essential.

2. Research problem defined

2.1 Problem introduction

As described by Hendrikx (2012), despite the current level of structural vacancy in the Dutch office market, new office buildings are still being developed. In his research introduction Hendrikx (2012) describes tenants wanting new office buildings due to a mismatch between their wishes and the market's supply. Numerous articles concur with this statement, claiming that the Dutch Real Estate market has changed from an expansion market to a replacement market (ABN Amro, 2011; EIB, 2011).

Keeping up the quality of Dutch office stock is essential for being international competitive (Zuidema, 2010; NEPROM, 2011)). Though, something else is happening as well. There is reason to believe, confirmed by talks with numerous real estate actors, about these new office developments not only provide better quality, but also provide lower rent levels than the existing office building stock. Somehow the market's use of rent incentives seems to be of influence.

Hendrikx (2012) describes numerous motives for tenants to move including location, fitting, HVAC, architecture, sustainability and rent. If all of these factors remain of at least the same quality, while rent is lowered, wouldn't any company want to move?

2.2 Problem statement

Somehow developers are able to offer lower rent levels for new to be developed office buildings than the rent levels of existing office buildings of similar quality are. The market's use of (rent) incentives seems to be factors of influence.

2.3 Short problem analysis

To get a grasp on the problem statement, a theoretical way on how the developer can realize these low rent levels by using incentives is described in the next paragraphs. First off it is essential to know what incentives are.

Incentives

In his MRE thesis Muijsson (2010) gives a very concise summary on what incentives are to the real estate market shown below.

- An incentive is a factor (financial or non-financial*), which enables or stimulates a certain housing decision.
- Incentives are used by building owners as both a buffer for temporary fluctuations in the rent value of buildings, as a tool to optimize the building value.
- Incentives are not a recent invention, but have been used for decades already.
- The current (2010) height of given incentives is high, but not extraordinary.

(*Non-financial incentives will in practice always be calculated in terms of money (Gool, 2011))

Figure 1 Summary on incentives (Muijsson, 2010) (Translation: Harding, 2012)

Incentives are used in other markets as well, for example in the mobile contract market, where customers get a free mobile phone when entering a two-year contract. A typical incentive in the real

estate market is the rent free period. On a ten year rental contract, incentives can be as high as three years rent free (Muijsson, 2010).

Effectively the incentive has the same effect as lowering the rent value. Though, building owners prefer to give incentives since this doesn't affect the buildings value (Muijsson, 2010), which will be explained in Part II. For now knowing that information about given incentives is considered confidential, is enough to realize that the real estate market isn't very transparent. There is a significant difference between market rent and effective rent.

- Van Gool (2011) defines market rent (value), as: "the expected gross yearly rent excluding VAT and service costs for the specified real property space in the current marketplace assuming an optimal marketing, a willing market and rented out to the highest bidder."
- Van Gool (2011) defines the effective rent (in € per m2 LFA per year) to be "the contract rent yearly paid, corrected for incentives. In the calculation expected inflation is included." * **
- Van Gool (2011) defines contract rent (in € per m2 LFA per year) as: "the gross rent, which is contractually agreed on and paid yearly, without incentive correction."
- * Huizinga calls this the "corrected" effective rent (Huizinga, 2010).
- **Swagerman defines effective rent to be the market rent corrected for incentives (Swagerman, 2010). But van Gool states this to be incorrect since the market doesn't necessarily have to function optimally, leading to possibility of prices of the equilibrium price (Gool, 2011).

Figure 2 Definitions on market rent, effective rent and contract rent (Gool, 2011) (Translation: Harding, 2012)

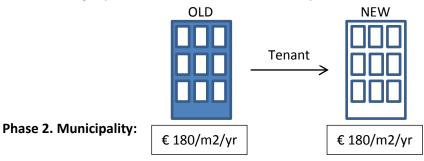
It is exactly this difference and non-transparency that actors now seem to use in their advantage (Gool, 2011). Although Muijsson (2010) states these incentives to be of bad influence to the market, he also acknowledges the incentives to be so interwoven that it's hard to facilitate a market without.

Example case

One of the theoretical ways a developer is able to use this incentive information is described in the following fictional case. Essential is to know this is one of the ways a developer could work, and that it's highly dependent on a number of conditions which will be worked out in more detail in Part II. For more information also see Appendix I.

Phase 1. Tenant:

A tenant is currently housed in an existing office building. The developer offers him to create a new office building for him of better quality than its current office building, for a lower rent level. The tenant is interested and together they plan to create a new building of 10 000 m2 Lettable Floor Area (LFA). Building aspects are: 10 floors; 1 000 m2 LFA per floor; 13 500 m2 Gross Floor Area (GFA).



The developer steps to a municipality to negotiate over land price (GIY: 6%). The municipality recognizes market rents on the location to be €300/m2/yr. (DTZ Zadelhoff, 2011). The developer on the other hand shows a tenant contract of €180/m2/yr., which is significantly lower than the market rent. The land value is residually calculated, based on the principle of the more the building is worth, the more it should pay for land. Since the future rental income of the building is significantly lower than the market rent, so is the building's value. Although the municipality finds this to be odd, the rental contract clearly states the low rent level. On top of that the municipality is keen on housing the company within its city limits. Therefore the municipality agrees to the lower land value, as shown below.

Asset value:	= First years' rent / GIY = €180/m2/yr. * 10 000 m2 / 6% = 30 mln.	
Building costs:	= € 1 862 * 13 500 = 25.1 mln.	
Residual land value:	= 4.9 mln.	

Phase 3. Investor:

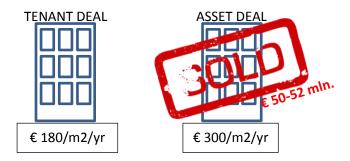
The developer goes to an investor and sells the building including tenant for the markets value of the building, being \le 50-52 mln. This value is based on the market rent level of the location, being \le 300/m2/yr. instead of the \le 180/m2/yr. agreed rent price.

Asset value =

- a. DCF(Total rental income over 10 yr.): value: 52 mln.
 - i. Income market rent: € 300/m2/yr.
 - ii. Required Internal Rate of return: 5%
 - iii. Exit Yield: 7%
- b. Building costs + Residual land value (=Investment) = 50 mln.
 - i. Building costs: € 1 862 * 13 500 = 25.1 mln
 - ii. Residual land value: (Investment 300 * 10.000 / 0.06 =)

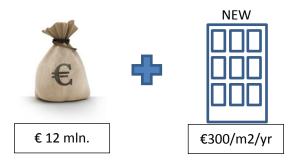
50 mln. – (Building costs =) 25.1 mln. = 24.9 mln.

For now it's enough to realize that there is a difference between the monthly rent income the investor aspects, and the monthly rent payment the tenant agreed on.



Phase 4. Tenant:

The developer goes back to the tenant. In the agreed contract is stated the effective rent to be €180/m2/yr. As described before effective rent refers to the rent being corrected for incentives. To correct the difference in rent level noticed above between tenant deal and asset deal, the developer supplies a one-time incentive. The form in which this is done can vary. For now the incentive is given as a one-time deposit, as shown below. The tenant needs to be compensated for €120/m2/yr. for a period of 10 years, which is roughly around € 12 mln. The concluding deal with the tenant is as shown below, giving an effective rent of €180/m2/yr.



Conclusion

This brings the deal to an end, from which the developer can start constructing the new development. The total cash balance of this development is €50-52 mln. - €25.1 mln. - €4.9 mln. - €12 mln. - €8-10 mln. This sum of €8-10 mln. can be used in different ways. It could provide a buffer when negotiations go worse than planned, after which the developer could just take it as profit: a 25-33% profit on a € 25 mln. construction. This money could perhaps also be spend on making the incentives bigger to thank the tenant, the rent lower, or the quality of the building higher.

To conclude what has happened:

- 1. The tenant got a new building with a lower rent level than its current building
- 2. The developer created work form himself, with a high chance of earning more than just his development fee due to left-over incentives
- 3. The municipality earned on the sale of land. But, much more could have been earned! Effectively the municipality has paid for the new housing of the company, plus the possible added profit of the developer. Even if the municipality realizes this fact, they are possibly still happy since they have managed to house the company within city limits.
- 4. The investor is happy to have gained a new low risk investment possibility during times of crisis. The investor gets a steady cash flow of €300/m2/yr. over a time period of 10 years. After this period there is a significant risk of the tenant not being able to pay the required €300/m2/yr. If the investor is aware of this problem, or has a way of solving this, will be analyzed further on.
- 5. The investor of the old building is unhappy. He saw one of his tenants move to a new office building, without anything he could do about it (?).

2.4 Main research question

Derived from both problem statements as described problem analysis, two main research questions have been formulated with corresponding sub questions. These questions will be answered on basis of theory and practice, the research being empirical.

- How can incentives affect effective rent levels of new to build office projects?
 (literature study + expert review)
 - o What process forms the basis for setting a to be developed building's rent level?
 - o In what ways can incentives be involved in this process?
 - o What conditions influence this involvement? And how?
 - Which actors could benefit and which actors could experience hindrance? Why?
 - O How do effective rent levels relate to the motives for companies to move?
- How does this enable offering lower effective rent levels than comparable existing office buildings can? (literature study + expert panel / case studies)
 - Which conditions have influence on the existing building's effective rent level?
 - o Does this phenomenon actually occur in practice?
 - Which buildings?
 - How were incentives applied?
 - Which actors could benefit and which actors could experience hindrance? Why?
 - Could this also enable incentives to be used to help enable higher quality, ease demolition or ease redevelopment?
 - o Is the phenomenon from a social point of view therefore acceptable?

2.5 Hypothesis

Expectations on the outcomes of the research are the following.

- Suspected is incentives to have a big influence on rent levels, which enables developers to
 easily acquire tenants as clients for new developments, even during times of economic
 downward trends.
 - This will generate higher quality buildings more quickly, leading to an upgrade of the Dutch building stock.
 - New ways of using the incentive to generate even more quality are very likely, and incentives might even be used for demolishing old buildings or for redevelopments.
 - o Conditions being of influence to the involvement of incentives are:
 - Market tendency
 - Real Estate (Leasing) Cycle
 - (Structural) vacancy
 - Loan To Value
 - Residual land value
 - Asset valuation
 - Effective rent

- Location of existing building
- Involved actors
- The problem of acquiring capital in order to develop those buildings, is limited when a tenant is already contracted to fill in the soon to be created office space.
- Clients will prosper most compared to other actors, getting better office space for less money.
- On the short run developments can continue to be made, effectively enabling (foreign) investors to safely invest their money while waiting for better times to arrive, then selling the building again.
- On the long run the effect has a negative impact on the Dutch Real Estate sector, due to the high knowledge investors need to have before becoming active in this nontransparent market.
- Possibly when the translocation market (described later) has been turned into a replacement market, the influence of building new developments will diminish.

3. Research products

3.1 Objectives

This research has the following objectives:

- To broaden the knowledge of real estate actors on how incentives could be applied in the development process.
- To explicate on what possible advantages and disadvantages could be for all involved actors.
- To prove whether or not incentives could be used to offer lower effective rent levels than existing office buildings of similar quality, and if this has happened in practice already.
- To argue whether or not this is socially acceptable and good for the market.
- To elaborate on the possible use of incentives in enabling higher building quality, easing demolition feasibility, or easing redevelopment feasibility.
- To see if the residual land value can be misused; if at all land value can be 'misused'.

3.2 End Products

- A table in which agreed land values/m2, construction costs/m2 LFA, (lease lengths), effective rent levels, given incentives, GIY agreements, (return rates and exit yields), of two case studies are compared to market values for these aspects of the specific locations.
- A list of incentives a developer could possibly use in the development process
- An inventory of conditions influencing the involvement of incentives on rent levels in the development process
- An overview of the possible disadvantages of the residual land value method
- An overview of the possible benefits and detriments actors can obtain from the use of incentives in the development process
- A figure on which is shown how incentives were involved to enable lower market rents in practice and the influence on building quality.
- An overview of possibilities on which incentives can be used to increase building quality, ease demolition, or ease redevelopment.
- A recommendation if, from a social point of view, government should interfere.

4. Research design

4.1 Research type

This research is set up being empirical. For this research this applies to the observation made in the motivation of new office buildings being cheaper than existing ones of similar quality. A theory on how this works is defined, on which it will further be tested in real life. An evaluation will be made, proving to what extent theory and real life correspond.

Empirical researches can both be qualitative as quantitative. In order for their research to be more valid, most researches try to combine both methods. "On a methodological level, the quantitative paradigm is seen as involving a deductive process of inquiry that seeks cause-and-effect explanations; whereas the qualitative paradigm necessitates an inductive process of inquiry that seeks clarification of multiple critical factors affecting the phenomenon." (Groat & Wang, 2002). Quantitative research methods are therefore used to analyze situations where a large dataset is available in order to apply statistics to come to the conclusion if theory and real life correspond. Qualitative research methods on the other hand, are typically used when such datasets aren't available, or when the research needs a higher level of detail. The qualitative research method also enables explaining behaviors and processes. This research design is now set up to be qualitative, since: 1. acquiring data is foreseen to be very difficult, the data being generally classified as being sensitive and 2. The research looks into the multiple critical factors that influence the described phenomenon.

Furthermore empirical researches can be both normative as positive. Normative studies in general are focused on problem solving, typical for architectural and engineering research (Groat & Wang, 2002). Although this research is done in the setting of an engineering graduation, it is defined as being objective. The research tries to analyze a given phenomenon, trying to discover the way it works and analyze the underlying conditions. For now, it is not the goal of this research to propose solutions to possible societal disadvantages.

Last but not least a distinction can be made in the research being exploratory or confirmatory. Exploratory mean there is no theory or hypothesis stated prior to the research (Baarda & Goede, 2001). This research is set up to be both. First a theory was developed including research questions (confirmatory), after which a literature study was set up (exploratory). From this study hypotheses were formed, which are tested on empirical data (confirmatory).

4.2 Scientific domain

The scientific domains this research applies to are the following:

- 1. Corporate Real Estate Development/Management
- 2. Real Estate Finance/Building economics

4.3 Research domain

Due to the limited amount of time for this research it is essential to define the limits of this research. First of all the research will be focused on the Dutch Real Estate market, and more specifically on the office segment. Secondly, as the research questions already define, the developer process will be analyzed, including involved markets. The phase of the developer process that will be looked at is the initiative phase, in which the developer undergoes several negotiations with diverse actors.

For the case studies is chosen to concentrate on the Randstad area and focusing more on the big four cities: Amsterdam, Den Haag, Rotterdam and Utrecht. Only large office buildings of 10 000 m2 LFA were picked. Since most land in the Netherlands is from municipalities, the selected office projects are built on land (previously) owned by the municipality. Only recently (2008 or later) constructed office buildings will be analyzed, since these office buildings are most likely to be owned by the investors involved during the development process.

4.4 Research concept

To get an overall view on the proposed subject, the research concept is shown below. The markets involved in negotiations with the developer prior to construction are shown below. The image shows six markets of which four of them are generally identified with the development process. The finance market is generally not mentioned by literature to be part of the development process, but in fact is of influence. Also the user market is typically combined with the space market. Both items will be elaborated on further in Part II of this paper.

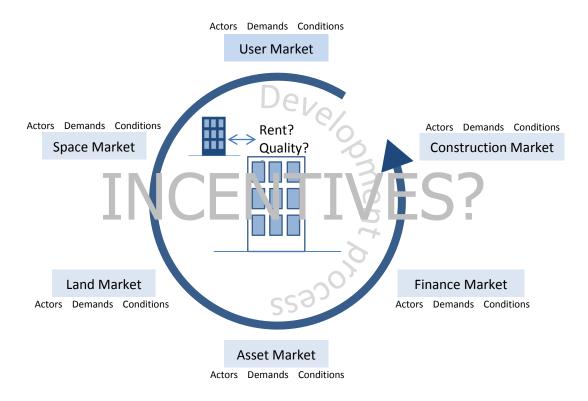


Figure 3 Research concept (Harding, 2012)

The involved markets are identified of having different actors, with different demands, and having different conditions influencing these demands. All will have to be identified. The development market is not stated to be a market *an sich*, since developers are active with other actors in other markets, but not with each other.

Although all accessed, the order in which the developers enter the different markets can differ both per project as per developer. Also, they tend to be interrelated in terms of negotiation demands. Both aspects are represented as by the arrow. The image shows the process to be cyclical, since developers will go from the one market to the other, identifying demands, then coming back to every market again to try to seal the deal. In general though, the order in which the developer negotiates will not be as cyclical as proposed, but for the clarity of the picture sake such is shown.

After having identified the development negotiation phase, the possible implementation of incentives will be shown. Therefore incentives will be elaborated on, showing various types including possible pros and cons these could have for the various actors from the various markets. The economic market trend's influence will have to be identified. A translation will then be done to see what impact the incentives have on the building's rent level. Also will be looked into the possible use of incentives to create higher building value, ease demolition feasibility or ease redevelopment feasibility. Finally will be discussed how the incentives can indeed offer lower effective rent levels than existing office buildings.

4.5 Research methods

The research methods that will be applied for acquiring proposed knowledge are the following: literature study, in-depth interviews and case-studies. The methods will be described below. In part III these methods will be elaborated on more.

A literature study will enable a grounded theory on the implementation of incentives in the development process. Gaps in literature will be filled by doing expert interviews. The formed theory from these two methods will then be presented and commented on by five experts, in order to test validity. Two case studies will be done to prove whether or not new developments can indeed offer lower rent levels than existing buildings, and to see how incentives were used. Interviews will also be held with involved actors, to analyze what their plans are with the building in the future. Due to the high chance of companies not wanting to collaborate, it might be necessary to drop the case studies. An expert panel will then be done instead, using the Delphi method to gain collective-intelligence and sharpen the theory on the possible use of incentives in the development process.

Literature study

The literature study is used for three reasons, being to broaden and connect existing studies, to adjust and further sharpen the stated theory with acquired knowledge from this literature study (exploratory), and to understand the background of the research questions thereby also forming the theoretical framework (Groat & Wang, 2002). From this study hypotheses were formed, which are later tested based on empirical research (confirmatory). The literature study will form the most substantial part of the research, thereby also taking the most time.

Acquiring literature.

Literature will be acquired from the TU Delft library as well as the ASRE library. Since the Real Estate & Housing domain is relatively new, many papers will be used from the ASRE, which are found on the web (Amsterdam School of Real Estate, 2012). Especially will be looked at literature used in these researches, which might be useful this research as well. Moreover Google Scholar is used for identifying further literature.

Use of literature

The literature study will show how the development process for a new development functions. As stated before it will focus on the initiative (and design) phase, in which negotiations take place. It will show on which different markets and actors the developer depends on. For every market will be identified on the basis of what aspects these negotiations take place, thereby touching subjects like the residual land value method, effective rent, and building value. For all these negotiations the possible implementation of incentives will be analyzed, elaborating further on underlying conditions. Therefore all involved markets are analyzed, touching subjects like the real estate cycle, Loan to

Value (LTV), (structural) vacancy and credit crunch consequences. In general incentives will be analyzed, showing possible incentive forms and reasons why actors would want to apply them. The different actors of the different markets will be identified. Thereby also elaborating on different types of developers, clients and investors. As a result a theoretical process is shown, how the developer can implement incentives in the forming of the rent level. The underlying conditions are shown as well.

Key sources

- Development process and involved markets: (DiPasquale & Wheaton, 1992) (Korteweg, 2002) (Dijk, 2006) (Kohsiek, 2006) (Neary, 2009) (Mierlo, 2010).
- Involved actor types and negotiation demands: asset market (Macke, 2006) (Gool, et al., 2007) (Rordenburg, et al., 2008), space market (ABN Amro, 2011) (DTZ Zadelhoff v.o.f., 2012), finance market (Kat, 2010) (Dekker, 2011), land market (Scheele-Goedhart, et al., 2009).
- Incentives types and uses: (Swagerman, 2010) (Muijsson, 2010) (Gool, 2011)
- Possible positive uses of incentives (Korteweg, 2002) (Remøy, 2010) (Swagerman, 2010) (Rodenhuis, 2011).
- Functioning and state of the Dutch Real Estate market; combined with future use of incentives: (Pyhrr, et al., 1999) (Zuidema, 2010) (DTZ Zadelhoff v.o.f., 2012) (Stellinga & Konig, 2011); (Hordijk, 2005) (Dijk, 2006) (Muijsson, 2010) (Gool, 2011).

Validity

To make sure the internal validity of the research is high, available literature will be examined thoroughly. On top of that the resulting theory on the implementation of incentives in the development process will be presented to market experts in the form of interviews as described below.

Interviews

In this research four kinds of interviews are used, with different corresponding methods. In general the use of interviews is chosen, because of the qualitative character of the research. All interviews are in-depth in order to figure out the details that influence the stated phenomenon of the use of incentives in the development process. Compared to the possibility of using a questionnaire: the amount of people having the knowledge about this subject is limited, so the advantage of the questionnaire in addressing many people is not useful; furthermore the questions require to be very open, therefore an interview is more suitable. Interviews also have the advantage of minimalizing chance of non-response. In-depth interviews are characterized by trying in a conversational setting, to let the interviewee talk as much as possible, to allow the expert to use the full potential of his knowledge to elaborate on aspects the interviewer might not have thought about (Baarda & Goede, 2001).

Confirming phenomenon: market expert

First off multiple conversations with market actors were held to ensure the phenomenon of new buildings offering lower effective rent levels than existing buildings indeed exists. An interview was done using a semi-structured methodology, in the sense that one the one side, the interviewer has to

make sure he will get answers to his proposed questions, while on the other side he likes the interviewee to elaborate on aspects he might not have considered asking about. These questions are defined prior to the interview, but are not stated as such: they are used to steer the conversation (Baarda & Goede, 2001).

Filling the gaps of the literature study: experts

In the situation information from the literature study is insufficient, an interview with a corresponding expert will be done. This way the expert can fill the information gap. This interview will be done using a semi-structured interview, exactly for the same reasons as mentioned in the last paragraph. For now it seems only essential to have an interview with an expert on the residual land value method, since there is no clear literature on this subject.

Reflect on found theory: key informant interview

The third type of interview will be held to test the outcomes of the literature study on key market experts. Using interviews five to ten key market experts are asked to respond on the stated theory that will be the result of the literature study. It is essential to know 1. if the interviewee knows this theory is indeed used in practice 2. if the interviewee thinks it could be used 3. Comment on the given theory. For this interview a key informant interview will be used. These decision makers have the theoretical and practical knowledge to comment on the theory supplied. It will consist of indepth interviews, without prior stated questions. In this sense it is qualitative, to dive deeper into stated details.

When the case studies prove to be impossible to do, these key informant interviews will be turned into an expert panel interview setting. Either the Delphi method will be used to analyze the interviews, which results will then be presented to the experts again, in order form them to react on the stated collective-intelligence. Or, a gaming setting will be used, to show the possibilities of incentives in a development negotiation process. Both methods will have to be elaborated on further.

Qualitative dive into the case studies: case study actors

The fourth type of interview will be held with actors involved with the case studies, being the user, investor and municipality. It is particularly interesting to gain knowledge on what future plans these actors have with this building. Does the user plan to stay in the building after the rent contract has finished? Does the investor plan to hold the building for a longer period than the rent contract length? But also: what were the reasons for the municipality to accommodate this new development? What are their views to the future of this building?

Case-studies

The case studies are used for three deductive reasons. First off it's to analyze what incentives have been used and of what height these were. Second is to show proof of the possibility to generate lower effective rent levels for the new development, than similar existing office buildings can offer. Third it's to analyze what influence the incentives have on the building's quality. Finally, the acquired data will be used to compare to the market levels of that location.

Since it's expected to be particularly difficult to acquire case studies where the owner, developer or tenant agrees to deliver required information, only two cases will be analyzed. Selection criteria have been set up to identify possible case-studies. From a long list, three particular interesting studies

stand out. From conversations from market actors, the three cases 'are known' for their low effective rent levels compared to their previous rent levels.

Data

To give answer to the questions stated above, 'hard' existing data mentioned in financial excel models or tenant contracts (including side letters) will need to be obtained. The information that is needed consists of the following:

- Agreed incentives development
- Contract rent development
- Contract rent existing office
- Effective rent development
- Effective rent old existing office
- Construction costs development

Question is how to acquire this information. The aspects with a high probability of acquiring are shown in green; the once with low probability in red. Chances are the investor of the existing building is willing to share his proposed -but declined- offer. Though, the developer wanting to share agreed incentives, linked effective rent, or construction costs is unlikely. The tenant is the actor which also has incentive information. If no developer can be found to do this research for, tenants are the main source of information. Perhaps tenants can be convinced to tell their side of the story, since they've been criticized so heavily. Another entrance could be the investor of the new development involved. The investor would perhaps want to know, if and what the tenant and developer agreed on in terms of incentives, thereby asking the tenant to cooperate.

If incentives information can't be obtained, it could be tried to calculate the given incentive based on other aspects that were agreed on. These aspects are:

- Agreed Lettable Floor Area
- Agreed contract rent
- Agreed land value / m2
- Agreed selling price
- Proposed building value
- Proposed construction costs
- Proposed Gross Initial Yield

This information is again depending on the willingness of actors like municipality and developing investor to share information. If these can't be obtained it could be suggested to use market values for that particular location, but this would be useless, since incentives are calculated within these market values. Another option is to leave out the information about exact incentives, and just ask in the form of an interview about the types of incentives given. Then can be focused on acquiring effective rent levels. A tenant might be more eager to share this type of information.

As mentioned before, if no actors can be found who want to share the information, an expert panel will be set up, either in the form of interviews using the Delphi method, or in a gaming environment.

Data analysis

Once acquired the data the information can be filled into a Discounted Cash Flow (DCF) model to give general conclusions on the questions asked.

Selection criteria

- Building criteria:
 - Office building
 - o Area of 10 000 m2 or bigger
 - o New development, no redevelopment
 - Not multi-tenant building
- Location criteria:
 - o In Randstad area
 - In one of the four big cities
- Involved actors criteria:
 - Developer: sells building after construction
 - o Developer: is developer pur sang
 - o Tenant: both listed as non-listed company
 - o Tenant: present at initiative: building was not developed at risk
 - Tenant: moved from previous building
- Time criteria:
 - o Tenant contract has been agreed on within the last 5 years: 2007-2012.

List of possible cases

Based on the criteria sketched above, the following list of optional transactions is generated. Till so far, there has been no contact with involved parties yet. More on this topic will be described in the next paragraph. Acquired information is from both PropertyNL (2012), as from the thesis of Hendrikx (2012).

4.6 Research model

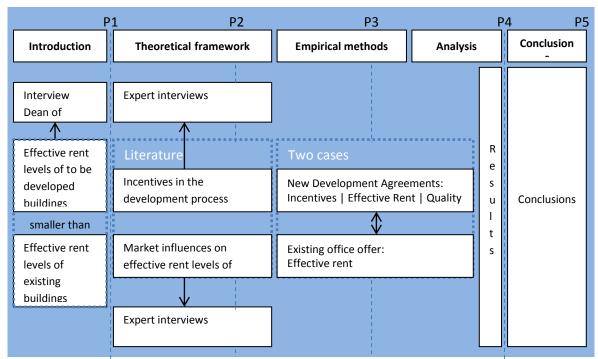


Figure 4 Research model

The research model shows the design of this research in different phases. Key in this is the word design, which refers to the fact that until the product is finished, it can be altered. Furthermore, the phases which are now shown to be strictly separate, could overlap due to the cyclical character of the research and the difficulty of identifying when one phase ends and the next begins.

In the first phase of this research till P1 a theory was defined quickly already. An exploration of the subject followed, identifying research problem and the most important underlying aspects. In the second phase till P2, the exploration continued. In the form of a literature study the research was analyzed deeply, forming the boundaries to the theoretical framework. Stated methodology had to be adapted, research problems redefined and end products altered. An interview was key to find out if the stated problem was indeed occurring in practice.

For the next phases till P3, reflection on stated theory and starting the empirical part of this research is on the agenda. In this phase literature findings will be reflected on by experts and two case studies are to be researched. The required data needed from these cases, is usually marked as sensitive information. Therefore it's expected that the acquiring of two good case studies will take a longer period of time than usual. With the information from literature and the interviews in the second phase, the case studies will be analyzed. Interviews with actors involved in the case will also be held.

In the fourth phase till P4, the results from the third phase will be analyzed, resulting in conclusions and recommendations. The final phase of the research till P5 will be used to sharpen the research some more and reflect on the path walked.

4.7 P5 Table of content

Described below is the proposed table of content for the P5 report (see also Appendix B). This table helps to show the aspects that the end report will supply and what steps have yet to be taken.

Preface Abstract Table of content Introduction

I Research Introduced

- 1. Research subject reflection
 - 1.1 Motivation
 - 1.2 Scientific Relevance
 - 1.3 Societal Relevance
 - 1.4 Utilization potential
 - 1.5 Personal ambitions
- 2. Research problem defined
 - 2.1 Problem introduction
 - 2.2 Problem statement
 - 2.3 Short problem analysis
 - 2.4 Main research question
 - 2.5 Hypothesis
- 3. Research products
 - 3.1 Objectives
 - 3.2 End Products
- 4. Research design
 - 4.1 Research type
 - 4.2 Scientific domain
 - 4.3 Research domain
 - 4.4 Research concept
 - 4.5 Research methods
 - 4.6 Research model
 - 4.7 P5 Table of content
 - 4.8 Supervisors
- 5. Limited accessibility of data

II Literature explored

- 6. Main aspects
 - 6.1 Rent levels
 - 6.2 Incentives
 - 6.3 Building value
 - 6.4 Gross Initial Yield 6.5 Real Estate Cycle
 - 6.6 (at a state Cycle
 - 6.6 (structural) Vacancy6.7 Residual land value method
 - 6.8 Leasehold
 - 6.9 Loan to value
 - 6.10 Quality
- 7. Dutch real estate market defined
 - 7.1 Real Estate market defined
 - 7.1.1 Normal functioning markets
 - 7.1.2 Real Estate market
 - 7.1.3 Four-quadrant diagram
 - 7.1.4 Real Estate Submarkets
 - 7.2 Dutch Real Estate market
 - 7.2.1 History
 - 7.2.2 Current market tendencies
 - 7.2.3 (Structural | Buffer) vacancy
 - 7.2.4 Loan To Value
 - 7.2.5 Market rent trend
 - 7.2.6 Incentives
 - 7.2.7 Institutional investors / pension funds
 - 7.2.8 Future

- 8. Development process defined
 - 8.1 Developer types
 - 8.2 Involved markets
 - 8.2.1 Asset market
 - 8.2.3 Space market
 - 8.2.4 User market
 - 8.2.5 Land market
 - 8.2.6 Construction market
 - 8.3 Stakeholders involved
 - 8.3.1 Asset market

...

- 8.4 Stakeholders defined
 - 8.4.1 Building owner
 - 8.4.2 Land owner
 - 8.4.3 Tenant
 - 8.4.4 Financier
 - 8.4.5 Broker
 - 8.4.6 Valuator
- 8.5. Negotiation aspects
 - 8.5.1 Asset market
- 8.6 Influence of current economic tendency

8.6.1 Asset market

- 8.7 Overall economic setting for developer
- 8.8 Effective rent dependency
- 8.9 Developer process overview
- 9. Incentives in the development process
 - 9.1 Types of incentives
 - 9.2 Influence of incentives on building value
 - 9.3 Influence of incentives on rent value
 - 9.4 Influence of incentives on land value
 - 9.5 Advantages/disadvantages per user per type per economic tendency
 - 9.6 Possible integration in negotiation process
 - 9.7 Conditions on integration per type/phase
 - 9.8 Possible use for quality, demolition or redevelopment

III Theory in practice

- 10. Theory according to the experts or Expert panel review
 - 10.1 Reflection on stated use of incentives
 - 10.2 Reflection on stated advantages/disadvantages
 - 10.3 Reflection on stated conditions
 - 10.4 Reflection on possible use for quality, demolition, or
- redevelopment

 - $10.6 \ \mathsf{Discussion} \ \mathsf{on} \ \mathsf{social} \ \mathsf{acceptance}$
 - 11. Case study results
 - 11.1 Case study introduction
 - 11.1.1 Involved actors
 - 11.1.2 Location
 - 11.1.3 Existing office
 - 11.2 Case study results
 - 11.2.1 Incentives used
 - 11.2.2 Effective rent comparison
 - 11.2.3 Construction costs
 - 11.2.4 Reference to confidential data appendix
 - 11.2.5 Planned future
 - 11.2.5.1 Tenant
 - 11.2.5.2 Investor
 - 11.2.5.3 Municipality
 - 11.3 Comparison with local market values
 - 11.4 Conclusions

- 12. Comparison of theory and practice
 - 12.1 Differences
 - 12.2 Consistencies
 - 12.3 Conclusions
- 13. Conclusions, reflection and recommendations
 - 13.1 Research findings
 - 13.2 Answers to the research questions
 - 13.3 Reflection on methodology
 - 13.4 Implications for practice
 - 13.5 Recommendations
 - 13.6 Further research

Acknowledgements Literature Appendices

- A. IRR model per case (confidential?)
- B. List of interviewees
- C. Interview designs
- D. Confidential data

4.8 Supervisors

First supervisor

Dr. Ir. Hilde Remøy is an expert on the subject of office vacancy

Second supervisor

Drs. Philip W. Koppels is an expert on the subject of real estate economics

5. Limited accessibility of data

Incentive information is very hard to acquire since this is considered to be very confidential information. In general information about cash flows and agreed development information, is quickly marked to be confidential as well. Every graduation project being open to the public, to be able to make use of this kind of sensible information for this research, the acquired data cannot be shown in this report. Though, general conclusions from this confidential data, can be acquired and are allowed to be shown. To make sure no false data is used, both mentors have access to this information as well. It is customary to include such data in an appendix that is open to the supervisors only, which will be done. This way I hope companies are more willing to share the required information with me. Though, the graduation rule of the appendix made public after 1 year after graduation, makes the chance of companies sharing the information smaller.

II Theoretical Framework

Part II of this research elaborates further on the research problem, thereby forming the theoretical framework. First involved aspects will be highlighted, explaining terms like incentives, rent levels, vacancy and many more. Secondly, the Dutch Real Estate market will be explicated, showing characteristics of real estate markets in general and current market conditions for the Dutch market specifically. Thirdly, the development process will be set out, focusing on the phase in which the developer negotiates with all (to be) involved actors. Fourthly, a translation will be made to how incentives can be involved in this process and how this might enable lower rent levels than existing buildings can offer. Note: this Part is far from finished.

6. Main aspects

In the following chapter, a number of definitions of different real estate aspects will be given. Besides from these definitions, the aspects will be described in some more detail, in order to understand the environment they're dependent on. The following aspects will be described:

- Incentives
- Rent levels
- Residual land value method
- Building quality
- Building value
- Vacancy (structural, friction (Gool, et al., 2007))

Incentives

Three key Dutch theses are used in order to describe the phenomenon incentive:

- Moet een belegger wel huurincentives geven (Gool, 2011)
- Incentives op de kantorenmarkt, kan het niet anders? (Muijsson, 2010)
- Incentives: een zichzelf in stand houdend systeem? (Swagerman, 2010)

Due to the lack of literature on incentives, this research is highly dependent on these articles. On top of that, these three articles are written within the same educational institution, and are supervised by one and the same person. Therefore chances are higher these researches being biased. Although looking at the quality of the scientific methodology used, everything seems to be in order, it's good to bare possible biases in mind.

Incentive defined

"An incentive is any factor (financial or non-financial) that enables or motivates a particular course of action, or counts as a reason for preferring one choice to the alternatives. It is an expectation that encourages people to behave in a certain way." (Sullivan, 2003)

Described above is the definition of incentive according to Sullivan (2003). Clear is, that an incentive is some sort of bonus or a trigger, that encourages people to do certain actions, or helps in preferring one choice from alternatives. Incentives are being used in all kinds of markets. An incentive most people encounter, is the incentive of getting a free mobile phone when applying for a new mobile telephone contract. Applied to the real estate market, incentives are best defined by Muijsson (2010) as shown below.

"An incentive is a factor (financial or non-financial*), which enables or stimulates a certain housing decision."

(*Non-financial incentives will in practice always be calculated in terms of money (Gool, 2011))

Figure 5 Summary of the history and background of incentives (Muijsson, 2010) (Translation: Harding, 2012)

An example of a financial incentive is the rent free period; non-financial incentives are i.e. tenant build-out allowances. In general, incentives in the office market are used in order to absorb

fluctuations in rental value of buildings (Muijsson, 2010), but other reasons exists as well, as will be described further on.

Furthermore, it is particularly difficult to mark the difference between incentives and normal adaptions to the rented space (Gool, 2011). Muijsson (2001) includes all factors which deviate from the standard contract clause (in the Netherlands defined by ROZ) and are to the benefit of the tenant, to be incentives. Van Gool (2011) remarks that physical adaptions can therefore also be considered an incentive, but that these would be particularly hard to identify, and that sometimes additional clauses are added to the rental contract, which are not intended to be incentives. Although this is correct, whether or not certain clauses are intended to be incentives or not, doesn't change the fact of them being incentives. The physical adaptions being hard to identify, is an aspect which this research considers to be not of importance, due to the focus on development. There is no physical building yet, there for physical adaptions cannot be made.

On the other hand this research is focused on developments where tenants have a significant influence on the design of the new office building, due to the current market (as explained later). The building will therefore be designed in conformity to the tenant's wishes, but on the other hand the building also needs certain flexibility to house future tenants, as demanded by the investor. The extent to which tenant wishes and investors wishes differ, and to which extent this influence the (effective) rent level is very hard, if not impossible, to determine. On way of checking this is by looking at the construction costs per m2, which will be done in this research. Though this doesn't necessarily relate to higher quality, nor can this identify changes in layout the client has demanded.

Decided is to use Muijsson's (2010) definition of incentives as the basis of this research, but to use only the type of incentives which are regularly used, as will be identified in the next paragraphs.

History

Although the average height of incentives has been growing over the last couple of years, history shows this is not out of the ordinary. Incentives have been used in the real estate market since the 1980s, where incentives' values could raise up to 30% of the yearly rent (Hordijk, 2005). Hordijk describes that back then, "a major project developer lured tenants away from their existing offices to brand-new offices at far lower rents than their contract rents, offering to pay the tenant improvements and even to take over part of the financial obligations of their existing rental contracts." This is exactly what this research tries to focus on. Since then the incentive has been incorporated in the market, and hasn't left ever since (Hordijk, 2005).

Incentives and the real estate market

Incentives are so commonly used, that it's no longer the question if an incentive will be given, but how high the incentive will be (Muijsson, 2010). Muijsson (2010), Swagerman (2010) and van Gool (2011), all presume the incentives to be so highly incorporated, that chances are very slim that incentives will ever leave the Dutch real estate market. Incentives' heights vary from year to year and from transaction to transaction (Swagerman, 2010). Swagerman states the height of the incentives to have a direct relation with supply and demand of the office market, and therefore has a connection with the vacancy levels. Though this remains unproven.

Hordijk (2005) states that "the effects of incentives in a depressed office market might be quite marked. [...] As in other countries, when the office market in the Netherlands becomes depressed,

incentives will be given to attract tenants." Brown (1995) states something similar about depressed markets and the use of incentives, adverting to the collapse of the property market in the UK in the early 1990s, when landlords offered incentives to potential tenants. In both cases incentives were used to "keep the contract rent at a high level but at the same time offering [...] incentives so that the effective rent paid by the tenant was much lower" (Brown, 1995). Reasons for doing so will be explained further on.

Real estate cycle

The notion that incentives will be given during times depressed market periods, needs further explication. The Real estate market is behaving cyclical. This means that the real estate market has a recurring pattern of being cyclical.

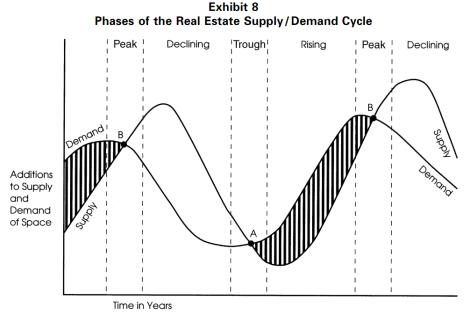


Figure 6 Supply and demand cycles (Pyhrr, et al., 1999)

Phyrr et al. (1999) distinguish between supply and demand cycles as shown in Figure 6. It shows clearly the lag between supply and demand, which is typical for the Real Estate market. The authors state the best indicator of the current market position of the cycle is the occupancy rate. Even so can be stated the level of vacancy to be a good indicator of cycle position.

Many studies have confirmed the cyclical identity of the real estate market. Hordijk (2005) concludes that "all researchers identify cyclical movements in real estate as well as in the economy but they vary in assessing the consequences and the relationship between the two". The office market is acknowledged of having the most pronounced cycle. Shown in Figure 7 is the cyclical movement of the Dutch office market.

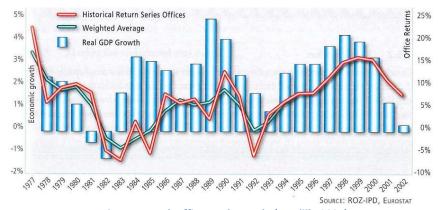


Figure 7 Dutch office market cycle (Hordijk, 2005)

Hordijk (2005) also compares the office market returns and demand/supply ratio, which turns out to have a cyclical pattern as well. Although office rent values are assumed to be also closely connected, the outcomes show the rent values have a two to three year lag and are smoothed, compared to the demand and supply ratio. As far as the smoothing is concerned, an explanation might be that incentives are not sufficiently reflected in the market rent.

Hakfoort (1994) states that concessions such as rent-free periods and tenant improvements may well be cyclical too. Bond (1994) continues on the principle of cyclical behavior and introduces the economic leasing cycle as shown in Figure 8. The leasing cycle runs through all the phases of the property cycle, identifying numerous aspects happening, including incentives.

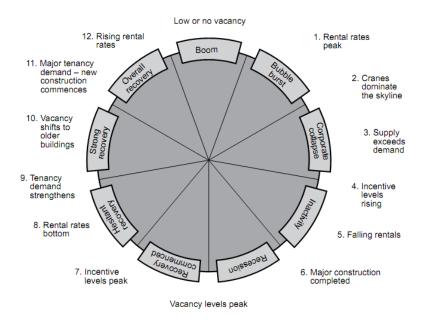


Figure 8 The economic leasing cycle (Bond, 1994)

Although incentives are active throughout the cycle, Bond (1994) states they tend to increase during the downfall of the office demand. After a period of high economic activity, companies have to take a step back. Therefore the demand for office space drops. Since supply is lagging, new constructions are continued to be build, after which a situation of oversupply will occur. In the meantime investors are reluctant to lower their rent prices and so tenants are being lured in using incentives. The incentives levels continue to rise, as investors compete with another. At some point the investors

cannot afford the incentives any longer, forcing them to lower their rent levels. As the economy and demand rise again, incentives are lowered, till the point that almost no incentives are needed anymore, since demand is at its peak.

The Dutch economy is currently in the area between recession and recovery commencing. According to the economic leasing cycle, incentive levels will therefore keep rising until finally, the rent levels have to be lowered, due to investors not being able to afford them any longer. This brings up several questions. Even though these relations have not been proven by the article, the implied relation between incentives, rent levels, supply and demand from a theoretical approach look to be true. Though, the implied economic tendencies linked to these situations, seem to be off. Although is proven supply & demand to be linked to the economic tendency, and rent levels to be linked lagged with supply & demand, the implied relation between incentives is yet to be proven.

Koppels and Keeris (2006) try to prove the supposed link between vacancy, incentives and effective rent. Their conclusions were 1. The correlation between vacancy and effective rent to be significantly higher, when the structural components of vacancy are left out of the equation and 2. Incentives to be used for buffering rent level fluctuation and having a non-lagging correlation with vacancy. To the last conclusion can be added the rent level fluctuations to last a longer period than expected. The hypothesis of the effective rent correlating stronger with changes in vacancy levels than nominal rent, could not be proven (Koppels & Keeris, 2006). Question remains to what extent the research could obtain incentive information. Incentives are generally classified as being highly sensitive information, sometimes being mentioned in so-called side letters, which are only available to both developer and tenant, and not their advisors.

Generally can be concluded incentives to be higher when vacancy rates are higher. Though it's not proven incentives to be correlated to economic tendencies, nor to supply and demand for that matter.

III	Em	pirical	In	nut
		pilicul		put

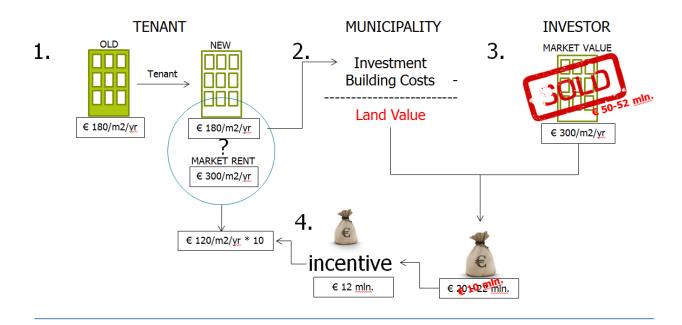
Part IV of this research now only describes the set-up of the interview held with the dean of the faculty of architecture. This Part will continue to grow as more empirical research is done, the upcoming period.

10. Interviews

Described below is the interview design.

As mentioned before, the interview was an in-depth interview being semi-

structured. Questions shown were used only to steer the conversation in a particular direction. The interview lasted 45 minutes, in which the dean confirmed that in practice the process described below takes place. The interview was recorded and has yet to be worked out in a transcript. The interview won't be shown until the dean has given permission for being used in this research. Safe to say is that all stated interview questions were answered. The interview set up is in Dutch. It will be translated later on.



Mijn vragen aan u hierover zijn:

- 1. Weet u of het inderdaad mogelijk was om nieuwbouw te realiseren met goedkopere huurniveaus dan oudbouw kon? Wellicht met oog op uw vroegere werkgevers? Effectieve huur?
- 2. In hoeverre heeft dit te maken met het concept dat hierboven geschetst wordt?
 - a. Waar ligt de focus? Bij de grondwaarde of juist bij de belegger?
 - b. Wat voor invloed heeft dit op de kwaliteit van een gebouw?
 - c. In hoeverre is locatie van invloed?
 - d. Bent u het met me eens dat de grondwaarde theoretisch gezien misbruikt zou kunnen worden?
 - e. Wat is de rol van de gemeente hierin? Concurrentie?
 - f. Wat is de rol van de huurder hierin? Type huurder? Beursgenoteerd? Aandeelhouders?
 - g. Wat is de rol van de belegger hierin? Type? Duits?
 - h. Wat is de rol van de ontwikkelaar hierin? Type?
- 3. In hoeverre heeft dit te maken met LTV? Incentives worden toch juist gebruikt om hier geen last van te hebben?
- 4. In hoeverre is dit ethisch / sociaal verantwoord? Vanuit alle betrokken partijen?
 - a. Uitbreidingsmarkt -> Vervangingsmarkt
 - b. Kwaliteit huidige voorraad?
- 5. Zou een dergelijk proces met de huidige markt kunnen?
 - a. Waarom wel/waarom niet?
 - i. Strengere financieringseisen?
- 6. Is dergelijk onderzoek relevant voor de markt?

IV Steps to be taken
The final part will consist of a planning on the described research aspects set out in time.

11. Planning

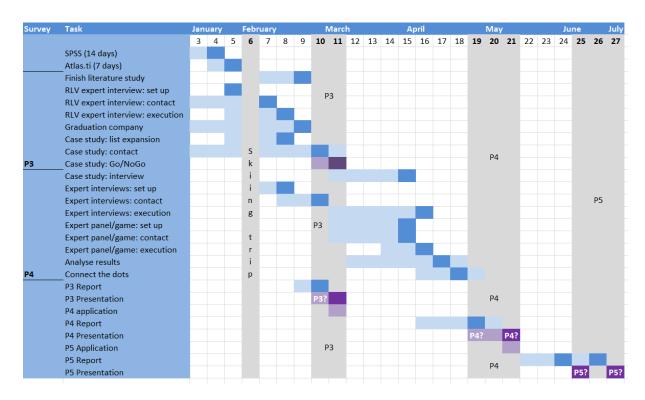


Figure 30 Research planning P2-P5 (Harding, 2012)

Sketched above is the research planning from the coming presentation on Wednesday till p5 (for a larger image see Appendix A). Difficulty in planning this research lies in a number of aspects. First off it's unknown when P3, P4 and P5 surveys will be held exactly. Stated TU Delft graduate agenda only shows a survey period which ranges from two to three weeks. Secondly, and perhaps more importantly is planning the case studies. The chance of acquiring good case studies is extremely difficult. Therefore much time is planned in trying to contact case study actors. A go/no-go point is set, after which either the case study actors will be interviewed, or an expert panel/game will be set up. The actual case studies will therefore be after P3, with the note that before P3 is made clear if and which case studies will be done. Elaborating on this further, the expert interviews are planned after P3 as well, but a number of experts will be contacted prior to P3, in order to show during P3 that at least some experts have been found who want to participate. Characteristics of both case studies and interviews lie in the fact that the researcher is depending on other peoples' agendas. This means that although it may take longer to make an appointment, in the meantime is room for doing other things. This is used especially in the period between P2 and P3, where the contacting of case studies, graduation company and Residual Land Value (RLV) expert, are planned simultaneously with finishing the literature study, SPSS report and Atlas.ti report. The order, in which the latter three items are positioned now, can be discussed: it could be stated that the literature study being finished, could help in acquiring both graduation company as acquiring case studies. Foremost this order was set out, in order to be sure of graduation: before applying for the P4 all ECTS need to be acquired. This is done when both SPSS and Atlas.ti reports have been handed in and examined. Do notice the length of the literature study being rather long. The literature study forms the largest time consuming aspect of this research, and forms the basis for the expert interviews that will be done.

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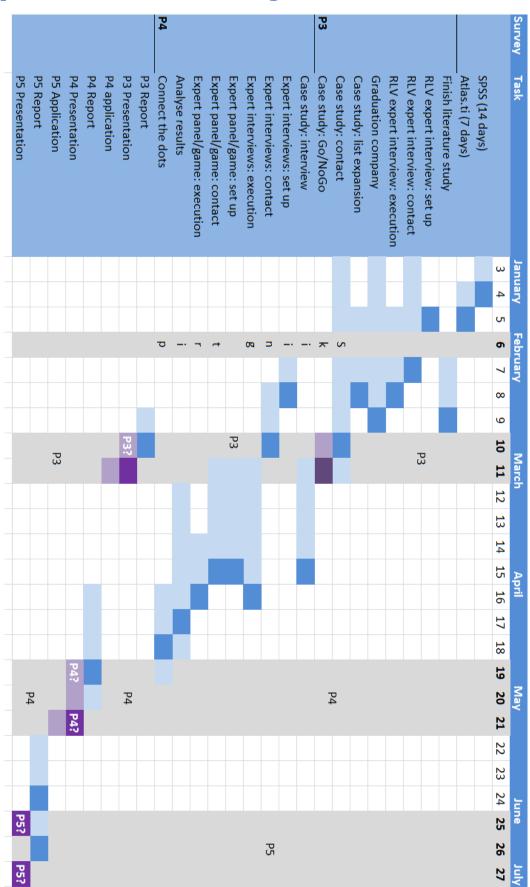
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Appendix A: Research Planning



Appendix B: P5 Table of content

Preface Abstract Table of content Introduction

I Research Introduced

- 1. Research subject reflection
 - 1.1 Motivation
 - 1.2 Scientific Relevance
 - 1.3 Societal Relevance
 - 1.4 Utilization potential
 - 1.5 Personal ambitions
- 2. Research problem defined
 - 2.1 Problem introduction
 - 2.2 Problem statement
 - 2.3 Short problem analysis
 - 2.4 Main research question
 - 2.5 Hypothesis
- 3. Research products
 - 3.1 Objectives
 - 3.2 End Products
- 4. Research design
 - 4.1 Research type
 - 4.2 Scientific domain
 - 4.3 Research domain
 - 4.4 Research concept
 - 4.5 Research methods
 - 4.6 Research model
 - 4.7 P5 Table of content
 - 4.8 Supervisors
- 5. Limited accessibility of data

II Literature explored

- 6. Main aspects
 - 6.1 Rent levels
 - 6.2 Incentives
 - 6.3 Building value
 - 6.4 Gross Initial Yield
 - 6.5 Real Estate Cycle
 - 6.6 (structural) Vacancy
 - 6.7 Residual land value method
 - 6.8 Leasehold
 - 6.9 Loan to value
 - 6.10 Quality

7. Dutch real estate market defined

- 7.1 Real Estate market defined
 - 7.1.1 Normal functioning markets
 - 7.1.2 Real Estate market
 - 7.1.3 Four-quadrant diagram
 - 7.1.4 Real Estate Submarkets
 - 7.2 Dutch Real Estate market
 - 7.2.1 History
 - 7.2.2 Current market tendencies
 - 7.2.3 (Structural | Buffer) vacancy
 - 7.2.4 Loan To Value
 - 7.2.5 Market rent trend
 - 7.2.6 Incentives
 - 7.2.7 Institutional investors / pension funds
 - 7.2.8 Future

8. Development process defined

- 8.1 Developer types
- 8.2 Involved markets
 - 8.2.1 Asset market
 - 8.2.2 Finance market
 - 8.2.3 Space market
 - 8.2.4 User market
 - 8.2.5 Land market
 - 8.2.6 Construction market
- 8.3 Stakeholders involved
 - 8.3.1 Asset market

...

- 8.4 Stakeholders defined
 - 8.4.1 Building owner
 - 8.4.2 Land owner
 - 8.4.3 Tenant
 - 8.4.4 Financier
 - 8.4.5 Broker
 - 8.4.6 Valuator
- 8.5. Negotiation aspects
 - 8.5.1 Asset market

...

- 8.6 Influence of current economic tendency
 - 8.6.1 Asset market

...

- 8.7 Overall economic setting for developer
- 8.8 Effective rent dependency
- 8.9 Developer process overview

9. Incentives in the development process

- 9.1 Types of incentives
- 9.2 Influence of incentives on building value
- 9.3 Influence of incentives on rent value
- 9.4 Influence of incentives on land value
- 9.5 Advantages/disadvantages per user per type per economic tendency
- 9.6 Possible integration in negotiation process

- 9.7 Conditions on integration per type/phase
- 9.8 Possible use for quality, demolition or redevelopment

III Theory in practice

- 10. Theory according to the experts or Expert panel review
 - 10.1 Reflection on stated use of incentives
 - 10.2 Reflection on stated advantages/disadvantages
 - 10.3 Reflection on stated conditions
 - 10.4 Reflection on possible use for quality, demolition, or redevelopment
 - 10.5 Reflection on future perspective of use of incentive
 - 10.6 Discussion on social acceptance
- 11. Case study results
 - 11.1 Case study introduction
 - 11.1.1 Involved actors
 - 11.1.2 Location
 - 11.1.3 Existing office
 - 11.2 Case study results
 - 11.2.1 Incentives used
 - 11.2.2 Effective rent comparison
 - 11.2.3 Construction costs
 - 11.2.4 Reference to confidential data appendix
 - 11.2.5 Planned future
 - 11.2.5.1 Tenant
 - 11.2.5.2 Investor
 - 11.2.5.3 Municipality
 - 11.3 Comparison with local market values
 - 11.4 Conclusions
 - 12. Comparison of theory and practice
 - 12.1 Differences
 - 12.2 Consistencies
 - 12.3 Conclusions
 - 13. Conclusions, reflection and recommendations
 - 13.1 Research findings
 - 13.2 Answers to the research questions
 - 13.3 Reflection on methodology
 - 13.4 Implications for practice
 - 13.5 Recommendations
 - 13.6 Further research

Acknowledgements

Literature

Appendices

- A. IRR model per case (confidential?)
- B. List of interviewees
- C. Interview designs
- D. Confidential data