MASTER

Discrepancies in retail property valuation
a study into discrepancies of internal and external valuation input determination within
a real estate investment trust and how this affects the validity of valuations

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DISCREPANCIES IN RETAIL PROPERTY VALUATION

A study into discrepancies of internal and external valuation input determination within a real estate investment trust and how this affects the validity of valuations.

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Master of Science Thesis
Technical University of Eindhoven
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Discrepancy in retail property valuation

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"Doctors do not always cure the patient, lawyers do not always win the case, but they are all judged by the way in which the task was approached rather than any concept of result. The same should be true of valuers." (Crosby, 2000)
Preface

This thesis is the final product for my graduation at the MSc program Real Estate Management & Development at the Eindhoven University of Technology. For this final thesis I studied the profession of valuation. Throughout my MSc program, the real estate projects in conjunction with subjects in finance have always strongly appealed to me. As retail property valuation is not common in the curriculum, it was very interesting for me that I was able to study these subjects at Corio Nederland Retail, a real estate investment trust specialized in retail property. I became more familiar with the aspects of valuation techniques regarding shopping centers in Corio's portfolio.

It is the struggle with the valuation process as a strong subjective activity. Trying to quantify certainty within the valuation profession remains a major hurdle. How important are the intrinsic qualities of a shopping center really with respect to its functioning and value. Answering those questions remains a matter of personal assertion larded with blurry image of the 'fingerspitzengefühl'. Naturally it is of key importance for an investment trust to conduct reliable valuations, but also real estate indices rely on property valuations. The quality of these indices will enhance by means of more transparent valuations. I realized that researchers should work in very close relation with real estate indices in order to improve guidelines and set up bases for valuation improvements.

I would like to thank Gordon Brown and Robert Weisz for their helpful comments and continuous support as my supervisors from the Eindhoven University of Technology. I am also very grateful to my supervisors at Corio, Bas Buvelot en Jan-Willem Speetjens for their comments and intensive practical support. Furthermore, I would like to thank all the experts who participated in the interviews which provided input for this study. Finally, I would like to thank my family and my close friends for their support and faith in me during this study.

Annerieke Korthof

Utrecht, April 2008
Executive Summary

The uncertainty within valuations is an intangible and universal phenomenon. However, the valuation inputs and their determinants can be described in a practical manner. Two main input variables that affect value the most are rent and yield. Different types of rent are distinguished, namely; market rent, current rent and revised rent. Determinants of market rent rely directly on the quality of the retail unit and the quality of the tenant while they rely indirectly on tenants' sales possibilities at macro, meso and micro level. Macro level represents the national level, meso being the property level and micro being the retail unit level. Five qualities underlying the economic functioning of the shopping center at the meso level are distinguished, which are marketing, physical, functional, locational and geographical quality. Yield is usually determined by the appraiser's evaluation of current rents and procedures of reviewed rents, by which the appraiser is trying to identify the certainty pertaining to cash flows.

The aim of this research is to find discrepancies between appraiser and investor in the used determinants of valuation input. Hereby research information is used of Corio's portfolio, a real estate investment trust. Corio has a comprehensive retail portfolio and with 20 neighborhood-level shopping centers, this makes up a substantial part of the portfolio. Understandable, Corio requires a reliable, comparable and consistent valuation for these shopping centers. As a listed investment trust, Corio is obligated to conduct their yearly valuations by an external appraiser and also as a member of the ROZ/IPD index Corio must value its property by external appraisers. Property indices such as the ROZ/IPD Real Estate Index rely on property valuations from all its members. In 1994 Valuation Guidelines have been introduced by the ROZ/IPD. Within the guidelines, valuation data is described which should be provided by the investor. However, this provided valuation data will be complemented with different research information between appraiser and the investor. This will partly affect diverged interpretation of what is the 'right' valuation input. It is assumed that in reality there exists a discrepancy between the different parties involved in the valuation process, which has lead to the research hypothesis of this study:

There exists a main valuation difference between internal approach focused on the interpretation of economic functioning of their shopping centers and appraisers' approach focused on interpretation of the market value.

The task environment of appraisers

Different research information in relation with different valuation methods between appraisers and the investor results in diverged interpretation of valuation input. From the investor's perspective there is an increasing need for more insight into the determination of input variables as this will affect the valuation of their portfolio. The input determination will take place in the appraisers' dynamic external environment; the task environment. This environment includes market data such as comparable sales information, rental income and operation expense data, vacancy information, yields, transaction prices and other market information. The objective observation of such collective market information will affect the appraisal. Therefore, this information should become understandable for others as this is the framework of the
Discrepancy in retail property valuation

valuation. However, more often than not this objective observation is kept very implicit. Four major lacks of insight into the determination of input variables from investor's perspective are listed below:

A) Lack of insight into appraisers' knowledge of market evidence (comparables selection criteria)
B) Lack of insight into how appraisers' knowledge on the functioning of the property (step from comparables to the determination of market rent)
C) Lack of insight into how appraisers apply a yield correction (step from comparables to determination of yield)
D) Lack of insight into how appraisers verify the revised rent at the unit level.

Conversely, if the investor requests to report more detailed and substantiated steps in input determination, the investor should provide a free reign of appraisal format in which appraisers can express their thought process. At the same time it might be possible that the investor has to enhance their information flow, next to the provided valuation data as prescribed by the ROZ/IPD. Doing so will feed appraisers with complete information and support them in making their value judgment well based, as listed below:

A) Transparency within the format of the report
B) Enhance the information flow

Behaviour generics into appraisal

Besides the task environment in which the appraiser operates, the other major component of appraiser behaviour is the human information processing system, also called the cognitive system of appraisal. This is the intangible component of the valuation process and might also be labelled the 'black box'. Before valuation improvement can be engineered, this behaviour must be understood. If the underpinnings of such behaviour are more transparent, the result can be the establishment of behaviour generics into appraisal. The most important generics are described below and might have a significant impact on valuations.

Diaz III and Wolverton (1998) found that appraisers have the tendency to use their own previous value judgments as anchoring reference points. The earliest behavioural investigation of valuation was Diaz III (1990a) as he pointed out that appraisers are trying to invest less effort by find shortcuts in the valuation process. Predominantly, this relates to the selection of comparables. With this, it is noted that the content and credibility of a valuer's work will be improved if their process of identification and description of uncertainty is reported to the client. This would greatly assist many clients and enhance the transparency of appraisals. Appraisers should not put their company loyalty and client satisfaction above their professionalism, as this may inflict a risk to valuation as a profession.

The quality of appraisals

The relationship between the task environment and behavioural generics will verify the quality of appraisals. Towards the definition of what ought to be a high quality appraisal, appraisers and the investor have different perspectives. As the investor requests low fees with well founded and explicit valuations, the
appraisers require high fees with less time consuming appraisal assignments. Whether they could meet each others requirements remains a matter of valuation struggle but it should be taken into account that the quality of appraisal may also differ among different appraisers. Experts might guarantee a more reliable valuation in a shorter amount of time compared to novices. But also quality between consultancy companies in which appraisers operate might differ due to differences in business environment.

**Results from the experiment**

To find out whether the literature background of this research, i.e. the above schematized discrepancy issues related to behavioural generics, is confirmed by appraisers, nine professional valuers in several large consultancy companies were interviewed and were requested to take a judgment test. Results show a major strength and weakness of the current valuation practice. It appears that appraisers excelled at their market knowledge or at least they claimed to be capable of pointing out the differences between a property to be valued and its comparable framework. They tended to pass through the valuation process efficiently and even seemed to approve of the short cuts being made. This result particularly applies for confident appraisers, due to their developed market framework. The majority of respondents also indicated that they could rely on back up from internal capital market groups or investment departments offering market intelligence.

Besides this strength that appraisers claim to excel, a weakness showed in appraisers’ valuation practice. From responses it appeared that judgments of qualities for the individual property level are very subjectively. This relates to the difficulty appraisers have in linking the physical real estate to the performance of the property. *E.g.*, they could not reach an agreement on what was considered to be important when valuing shopping centers. Alongside this, appraisers brushed aside determinants that indirectly influence the level of market rent. Instead of placing the subject property in its geographical context they quickly move on to rent determinants more directly influencing the rent determination such as quality of the retail unit and quality of the tenant.

**Appraisers’ actual behaviour**

After appraisers’ responses were examined, these were further analysed by looking at their actual valuer problem solving; i.e. do they practice what they claim to be doing? Results will provide a solid basis for offering points of improvement. Appraisers’ responses were compared to actual appraisal reports which revealed the following points in valuation process where appraisers tend to step aside from what they ‘taught to do’.

**Account of market circumstances** – By the ROZ/IPD guidelines it is prescribed to give account of market circumstances however, appraisers’ knowledge of demand and supply at national and local level concerning the market sector of the property is not made explicit in the valuation reports.

**Questions to the reported list of market evidence** – Every so often appraisers cannot make their comparable knowledge explicit due to client confidentiality, which sets up restrictions to the presented list of comparables. Often the selected comparables are not conform criteria such as region, relevant and recent.
Lack of insight into appraisers' knowledge of property's functioning – Abovementioned are the determinants of market rent. Within appraisal reports it is not quite clear how the appraiser actually estimate the individual qualities of the property compared to selected comparables, to determine rent at the unit level. At this point, more insight into the step from reported rental transactions to the determination at the unit level is required.

Further behavioural research of appraisal behaviour in combination with continual refinement and strict observation of valuation guidelines could together form a strong basis for offering methods of improvement to the valuation profession. Researches should work in very close relation to these real estate indices in order to control the guidelines which will guarantee a real estate index based on reliable and transparent valuations instead of an index based on rough value estimations.
Index

Preface
Executive Summary
List of Figures and Tables .............................................................. - 12 -
Tale of two shopping centers ............................................................. - 14 -

1 Problem Statement ....................................................................... - 17 -
1.1 Introduction of Corio ................................................................. - 17 -
1.2 Problem Motivation .................................................................... - 18 -
1.3 Problem Definition ..................................................................... - 20 -
1.4 Research Questions ..................................................................... - 21 -
1.5 Research Objective ..................................................................... - 22 -
1.6 Research Outline ........................................................................ - 23 -
1.7 Delineation of the Research ....................................................... - 24 -

2 The tasks and task environment of appraisers .............................. - 25 -
2.1 Introduction ................................................................................. - 25 -
2.2 Definition of market value .......................................................... - 25 -
2.3 Valuation Process ....................................................................... - 26 -
2.4 Valuation Models ........................................................................ - 31 -
2.5 Determinants of Valuation Input ................................................ - 35 -
2.6 Different Valuation methods ....................................................... - 40 -
2.7 Conclusion .................................................................................. - 43 -

3 Cognitive system of appraisers ...................................................... - 46 -
3.1 Introduction ................................................................................ - 46 -
3.2 Heuristics and Biases .................................................................. - 46 -
3.3 Descriptive Valuation process ..................................................... - 47 -
3.4 Comparables selection ................................................................. - 48 -
3.5 Feedback and Client Influences ................................................... - 53 -
3.6 Conclusion .................................................................................. - 54 -

4 Relationship between task and cognitive system .......................... - 55 -
4.1 Introduction ................................................................................ - 55 -
4.2 Different perspectives to the quality of appraisals ....................... - 55 -
4.3 Guidelines to improve the quality of appraisals ......................... - 57 -
4.4 Conclusion .................................................................................. - 59 -
List of Figures and Tables

Figure 1: Illustration of the research hypothesis ................................................................. - 22 -
Figure 2: Research Outline .................................................................................................. - 23 -
Figure 3: Valuation process according Appraisal Institute reflected on ROZ/IPD guidelines........ - 27 -
Figure 4: Formula of Gross Initial Yield model ..................................................................... - 32 -
Figure 5: Formula of DCF model / Figure 6: Graphic visualisation of DCF model ..................... - 33 -
Figure 7: Corio’s rent determination schematized ................................................................... - 41 -
Figure 8: Determinants of valuation input ............................................................................. - 45 -
Figure 9: Pairwise comparison by the use of Expert Choice..................................................... - 61 -
Figure 10: Overview of diversity within appraisers’ qualities’ judgments ................................. - 66 -
Figure 11: Steps of appraisers’ rent determination .................................................................. - 79 -
Figure 12: Gross initial yield ranges; Q4 2006, Q2 2007 .......................................................... - 83 -
Figure 13: Internal and external valuation differences (%); based on latest full valuation ............ - 84 -
Figure 14: Subjective interpretations of diverged research information .................................... - 92 -
Figure 15: Comparison of appraisers’ and investor’s valuation method .................................... - 93 -
Figure 16: Comparison of appraisers’ and investor’s valuation method .................................... - 93 -
Figure 17: Shifted valuation framework of appraisers on meso level ....................................... - 95 -

Table 1: Diverged property judgments as consequences of diverged research information ......... - 20 -
Table 2: Differences in valuation (Smit, 2002) ......................................................................... - 24 -
Table 3: Definitions of market value ....................................................................................... - 25 -
Table 4: Different type of valuations (ROZ/IPD, 2007) ............................................................ - 28 -
Table 5: Data collection (ROZ/IPD, 2007) ................................................................................ - 29 -
Table 6: Data analysis ........................................................................................................... - 29 -
Table 7: Valuation approaches and matching valuation methods .............................................. - 30 -
Table 8: Primary elements of DCF calculation ........................................................................ - 34 -
Table 9: Rental types ............................................................................................................. - 36 -
Table 10: Five qualities underlying the economic functioning of a shopping center .................. - 38 -
Table 11: Lack of insight in input determination ...................................................................... - 44 -
Table 12: Choosing recent comparables .................................................................................. - 49 -
Table 13: Choosing relevant comparables ............................................................................... - 51 -
Table 14: Choosing accurate comparables .............................................................................. - 51 -
Table 15: Behavioural generics of appraisal ............................................................................ - 54 -
Table 16: Behavioural generics influencing appraised quality ................................................ - 59 -
Table 17: Overview of linking literature review with the experimental tool ............................... - 62 -
Table 18: Overview of preferences in searching rent and yield comparables ............................. - 63 -
Table 19: General preferences in selecting comparables .......................................................... - 64 -
Table 20: Overview of five shopping center’s qualities and their weighting factors .................... - 65 -
Table 26: Diverged property judgments as consequences of diverged research information .......... - 81 -
Table 27: Internal and external market rent differences in percentages; Q4 2006, Q2 2007 .......... - 82 -
Table 21: Overview of preferences in determinants of yield .................................................. - 67 -
Table 22: Appraisers' responses of important aspects underlying revised rent determination .......... - 69 -
Table 23: Appraisers' ideas of revised rent determination ...................................................... - 70 -
Table 24: Improvements to investor's information conveyance .............................................. - 72 -
Table 25: Behavioural generics summary ................................................................................ - 72 -
Table 28: Internal estimation of gross initial yields; Q4 2006, Q2 2007 respectively .................. - 83 -
Table 29: Merge of Literature background and Research Findings ....................................... - 83 -
Tale of two shopping centers

The human mind holds incredible mystery and little is known about how preferences are made and what influences the pattern of decisions. In the property valuation profession, this mystery is still very much shrouding the way valuations are conducted. From valuation data selection to the arrival of final value, decisions made are based on interpretations of the appraiser. The reliability of the values chosen is subjective and debatable by others. The most important question remains: Are these decisions made with the right importance in mind?

To demonstrate the influences of this mystery, let’s take a look at the consequences on two shopping centers as a result of appraisers’ influence.

Shopping center Groenhof

This is the Groenhof shopping center in Amstelveen, which spans 7,000 square meters of floor space. Groenhof is an enclosed neighborhood-level shopping center build in the seventies and since then renovated once. The shopping center is situated in the urban agglomeration of Western Holland. Although characterized by an obsolete exterior still the shopping center achieves high sales per square meter. The shopping center has a gross initial yield of 6.74%, a net initial yield of 6.23% and has an assessed value of €20,082,000 (at the end of 2006). Rents have reached their height; apart from rental indexation, prospect shows hardly any rental growth.
Discrepancy in retail property valuation

Shopping center Vinkhuizen

The same rental prospects goes for Vinkhuizen shopping center in Groningen. This neighborhood-level shopping center has a floor space of almost 9,000 square meters and is situated in Northern part of the Netherlands. Vinkhuizen can be characterized with an open exterior. It is typified by a relative high vacancy rate and low returns per square meter. However the visual appearance of the shopping center is upgraded to the modern standards. The shopping center was totally rebuilt a few years ago. The shopping center has a gross initial yield of 6.60%, a net initial yield of 5.99% and it is assessed at €16,204,000 (at the end of 2006).

To compare these shopping centers insight is needed in current net initial yields usually used for appraisal. Investors would gain knowledge of risks pertaining to future expenses underlying the property and thereby their net profits. Therefore, to make a fair comparison between a covered and an open shopping center, the net initial yield should be used.

Despite the fact that more assurance for high sales per square meter related with less risk will return in a relatively low net initial yield, Groenhof is assessed with a relatively high net initial yield which is the opposite in the case of Vinkhuizen. Vinkhuizen’s net initial yield gives the idea of a shopping center which is relatively running less risk. It might be possible that the appraiser put too much importance on the visual appearance when valuing the property. Is this just a suspicion or has the visual appearance affected the decision made by the appraiser? To present the facts, there is need for insight into judgmental decision making of appraisers when valuing properties.
Discrepancy in retail property valuation
1 Problem Statement

1.1 Introduction of Corio

Corio, a real estate investment trust with an institutional character, is owner and manager of the two introduced shopping centers. Corio has a comprehensive portfolio of retail which consists of over 65 shopping centers with a total of over 580,000 m² floor space and a value of approximately € 1.9 billion in The Netherlands. The properties range from neighborhood-level to super regional shopping centers and theme centers. With 20 neighborhood-level shopping centers, these centers make up a substantial part of the portfolio. Understandable, it is important to have a reliable, comparable and consistent valuation for these shopping centers. Also, the result of Corio’s properties valuation will contribute to the ROZ/IPD index. The index is a brainchild of the cooperation between the ‘Raad voor Onroerende Zaken’ of the Netherlands (ROZ) and the Investment Property Databank of the United Kingdom (IPD). Property indices such as the ROZ/IPD Real Estate Index rely on property valuations from all its members. Therefore, the credibility and robustness of the data used for valuation is very important. In 1994 Valuation Guidelines have been introduced by the ROZ/IPD to improve the consistency of valuation input but still integrity of the data remains debatable. The quality and reliability of a good real estate index is not only an industry wide-interest but also an interest for individual members to benchmark their own results to the index and enhance their overall situational awareness.

Every year, Corio publishes an annual report to show results on direct and indirect yield. The direct yield is based on realized assets, which is calculated using rental income of the properties minus operating costs. These costs are dependant on the management of the trust and are relatively simple to measure and less debatable compared to the indirect yield which is more debatable. The appreciation or devaluation of the property will be determined by yearly evaluation. It is fairly complicated to calculate the accurate indirect yield as there are discussable sets of valuation data and different valuation methods used by different parties.

As a listed investment trust Corio is obligated to conduct their yearly valuations by an external appraiser and as a member of the ROZ/IPD index Corio must also value their property by external appraisers. Agency services of real estate consultancy companies are given assignment to value their properties. By them Corio will be referred as ‘the client’. As a client, Corio will hand over basic valuation data¹ of the

¹ Data that needs to be provided according to ROZ/IPD valuation guidelines such as tenants’ agreement, operating costs, constructional information etc. This data will be expounded in chapter 2.3.3.
property to the appraisers. Although this data is provided, valuation input from the appraiser is not always comparable and consistent with internal interpretation. Appraisers could interpret and apply the same valuation data differently which leads to discrepancy in valuation input. This is caused by the fact that provided data will not always be used by appraisers to determine valuation input, but will be completed with research information and market sentiment to specify the product. Hence more often than not, there are bound to be discrepancies between valuations by appraiser and the client. To what extent does external appraisal reflect research information of the client? Ridder (2003) analyzed the standard deviation of internal and external valuation input used in ROZ/IPD property index in period of 1994-2002. When this input became more uniform standard deviation should have decreased. However research showed that this was not the case for any of the input variables. Delivered valuation input to ROZ/IPD is still far from uniform. Also between external appraisers inputs showed no improvements of consistency. This makes it increasingly important to identify valuation input inconsistencies as this will affect the credibility of the valuation of investors' portfolio.

1.2 Problem Motivation

Appraisers are working in an information rich environment and dealing with proper data is essential in the valuation profession where different parties have different ideas and opinions. Divergences can be defined as knowledge issues. Different forms of research information lead to knowledge discrepancy between appraisers and the client. Diverged research information is partly responsible for discrepancy in results of conducted analyses, properties' judgments and thereby interpretation of valuation input.

Before defining the problem definition it is important to find out to what extent Corio has practical experiences with these inconsistencies. To what extent is this really affecting the valuation of Corio's portfolio? Therefore main research information assumed to be known by appraisers and research information known by the investor will be set out.

1.2.1 Appraisers' approach

An appraiser will give account of market circumstances both at macro and micro level which influence value of the subject property. Macro level represents the market evidence on national level and micro being rental transactions on the unit level. Hereby, valuation input is mainly determined by the use of research information such as market transactions from comparable properties. This includes (ROZ/IPD, 2007):

- Recent economic developments and economic expectations;
- Relation of demand and supply at national and local level concerning the market sector of the property;
- Development of valuation input which should be included in the appraisal report by showing comparables.

---

2 Final input variables such as rent and yield going into calculation according to the valuation models obligatory in ROZ/IPD valuation guidelines. These valuation models are described in chapter 2.4.
Within comparable properties from market transactions a lot of variance occurs. It sets up the need for awareness by choosing comparables as it will strongly influence final assumptions of valuation input. It is the expertise of the valuer to judge and select comparables which is an essential part of the valuation. Valuation is highly influenced by the opinion of the appraiser concerned. It is all about being able to rationalize market condition in the best way possible. A personal feeling of the market can not be put into words. This is not a bad thing in cases where there is a clear insight into valuation input and where values are well substantiated.

1.2.2 Investor’s approach

Based on objective and quantitative data Corio judges their portfolio on performance. An independent research company, Strabo BV, conducts consumer market research in order to gain insight into the performance of the shopping centers. Among a lot of things, surveys are done for average spending of consumers related with estimations of sales figures for each individual shopping center. Flucon is a company that controls of systems for automatic pedestrian counts in Corio’s portfolio. Sales and pedestrian counts are important to create knowledge of the economic activity and the functioning of the shopping center. By using the results from Strabo BV an internal benchmark has been developed by the author. An example of a benchmark figure is attached in Appendix I. Besides insight into the individual performance of the shopping centers this also gains insight into the relative performance of shopping centers in the portfolio. Subsequently, a certain shopping center can be compared to an average shopping center in an ideal situation which will be used to conduct SWOT analyses. A SWOT analysis example is attached in Appendix II. Market research of Strabo BV and Flucon in relation with Corio’s internal management and leasing department assumes a well-based knowledge of the performance of Corio’s portfolio.

1.2.3 Comparison of approaches

Based on above assumed approach-difference of gathered research information a comparison is made. This comparison is based on appraisers’ and investor’s interpretation of their information. Details of this comparison and matching figures are explained in Appendix III. Comparison of both approaches shows diverged outcomes regarding neighborhood-level shopping centers in Corio’s portfolio. Results show that more often than not market yield is not linear with the internal interpretation of performance of the shopping centers. Investor’s and appraisers’ interpretation of best to worst performing shopping centers are presented in a top-down list in the figure below. Internal interpretation of what is considered to be the best and worst shopping center is compared with market evidence of the appraisers. Hereby it is demonstrated that the valuation misrepresentation of Groenhof versus Vinkhuizen happens more often than not within neighborhood-level shopping centers. This shows the increasing importance of insight into valuation discrepancies as it might affect Corio’s valuation significantly.

---

3 A SWOT analysis is a strategic planning tool used to evaluate the strengths, weaknesses, opportunities and threats involved in a project. It involves specifying the objective of the property and identifying the internal and external factors that are favorable and unfavorable to achieve that objective. (UAF, 2008) Application of SWOT analysis will be described in chapter 2.6.1.
In conclusion following hypothesis can be formulated: There exist a main valuation difference between internal approach focused on the interpretation of economic functioning of their shopping centers and appraisers’ approach focused on interpretation of the market value

1.3 Problem Definition

To test the above hypothesis, following problem definition is defined:

Where do discrepancies occur in the determination of internal and external valuation inputs related to market evidence of neighborhood-level shopping centers in portfolio of a real estate investment trust and how does this affect the validity of valuations?

The problem will be formulated as two tiers: Firstly, focussing on the differences in determination of valuation input of neighborhood level shopping centers. To find out where valuation input is diverging insight is needed into determinants of valuation input covered in appraisers’ task environment.

However, this becomes more complex as the second part will show that this is not easily understandable to others. Valuation assumptions will be done and to some extent every valuation is based on the sentiment of the appraiser which is more often than not difficult to substantiate. Therefore there is need for more insight into the cognitive system of appraisal. This is called appraisers’ ‘black box’ in which a lack of transparency exists in Dutch valuations. Eventually the consequences and validity on final values will be researched.

---

**Table 1: Diverged property judgments as consequences of diverged research information**

<table>
<thead>
<tr>
<th>Appraisers’ major research information</th>
<th>Investor’s major research information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market research:</td>
<td>Economic functioning of the shopping center:</td>
</tr>
<tr>
<td>- market developments</td>
<td>- sales per square meter</td>
</tr>
<tr>
<td>- market comparables</td>
<td>- pedestrian counting’s</td>
</tr>
</tbody>
</table>

Note1: when shopping centers are valued the same, they end at the same place subsequently followed shopping center will resume numbering.

Note2: market research is based on figures of Q4 2006;

Note3: excessive diverged judgments will be described in chapter 6.
1.4 Research Questions

To be able to solve formulated problem definition following research questions are categorized and need to be resolved:

Valuation guidelines, methods and definitions
- How is market value defined?
- What is prescribed by international valuation standards and how is this organized in the Netherlands?
- What are main input variables according to valuation models in ROZ/IPD valuation guidelines?
- What are determinants of input variables?
- What is Corio’s valuation method to determine valuation input and where is appraisers’ method not transparent?

Processing valuation information
- What are critical decision moments in processing information?
- Herein, a major part will be covered by the selection of comparables:
  o What are comparable selection criteria?
  o How to choose comparable alternatives? Less comparable transaction means less evidence which again will decline the quality of the comparable. Waiting for more data will lead to more lagging.

Appraised quality
- How will the interrelation between appraisers’ tasks and the way they are dealing with their tasks affect the quality of appraised values?
- How could appraised quality be improved according to ROZ/IPD valuation guidelines?

Questioning the appraisers
- Where do appraisers meet investor’s requests; where do inadequacies appear? And vice versa?
- Where do appraisers’ behavioral reach consensus and where do appraisers diverge?
- What are the differences as consequences of company types?
- What is the difference in responses between expert appraisers and novices?

Appraisers in practice
- To what extent do appraisers practice what they preached?

Applied research science
- What can be concluded from confronting research science with research findings?
- Can systematic differences be discovered?
- How does this affect the valuation of Corio’s portfolio?
- What solutions will be brought up by all of above findings?

Master of Science Thesis A. Korthof
The hypothesis test

Can it be demonstrated that internal interpretation of value is focused on identifying the functioning of a shopping center at property level and appraisers’ interpretation of value is focused on the perception of property’s positioning in the market?

![Diagram of valuation process with personal research information](image)

*Figure 1: Illustration of the research hypothesis*

1.5 Research Objective

The objective of the research is to provide recommendations to the valuation of Corio’s portfolio with a focus on neighborhood-level shopping centers from an internal and external point of view for promoting comparable, consistent, reliable and above all understandable valuation which will lead to a more uniform value. Hereby it is important that it is not the valuation input divergence which makes a value unreliable, it is the way variables are substantiated and well-founded. Research objective is to present facts on neutral ground and identify preferences of appraisal behaviour. To find out what is considered to be important by an appraiser and the investor respectively without being biased. With this, the research will try to achieve transparency in appraisal behaviour.
1.6 Research Outline

To be able to give recommendations to the valuation method of Corio's property from appraisers' and investor's point of view the following parts are explored:

Received point of view – The first chapter describes the received point of view and motivation of the problem: where do discrepancies occur in determination of valuation input between appraisers and Corio?

Research science – A major cause of valuation discrepancy is diverging tasks environments. Different valuation methods between appraisers and investor will be described in this literature review. Main input variables and their determinants will be explored. Besides the task system of appraisers there is need for more insight into appraisal behavioral and how information is processed in the cognitive system of appraisers. Interrelationship between task and cognitive system will be made to verify the quality of appraisals. Within this, literature review will identify behavioral generics.

Experiment – In addition to the set up of appraisers' questionnaire, they are exposed to a judgmental test. This will reveal factors considered important and identifies appraisers' preferences. Responses to the questions will be reflected on behavioral generics founded in the literature review.

Practice – Experimental findings will be applied to the analysis of appraisal reports that will demonstrate whether appraisers actually practice what they claim.

Merge – A merge is set up to give a quick overview of systematic similarities and differences discovered between appraisers and the investor. Consequences on the validity of final values will become clear.

Conclusions & Recommendations – Findings will be concluded and recommendations will be brought up for the valuation of Corio's portfolio.
1.7 Delineation of the Research

To delineate the research an overview is given of valuation inconsistencies, dissected in different levels in which discrepancy could occur when valuing property. Differences in valuation will be originated at following levels (Smit, 2002):

<table>
<thead>
<tr>
<th>Differences in valuation input</th>
<th>Meanwhile it became clear that appraisers have different interpretations of valuation data and consequently use different input variables. These variables can be divided into:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Market data: yields, market rents, comparables, specific information of the client etc.</td>
<td></td>
</tr>
<tr>
<td>- Technical data: macro economical numbers such as inflation, increasing of costs etc.</td>
<td></td>
</tr>
</tbody>
</table>

| Differences in valuation model | This is a difference in technique within the same valuation method. ROZ/IPD valuation guidelines prescribe two models. The Gross Initial Yield (GIY) model leads to results other than calculations on the basis of the Discounted Cash Flow (DCF) model. Theoretically the valuation results should be more or less identical and not dependant on the model chosen, however the possibility that different calculation models will lead to non identical valuation results can not be ruled out completely. Research of Smit (2002) demonstrated that even by the use of identical valuation input, valuation results can show large differences due to the differences in valuation models. |

| Arithmetical differences | Differences in the arithmetical approach of a specific item by the appraiser him or herself or by the arithmetical model used. The way a specific arithmetical problem eventually is applied in the calculation model (for instance cash flows of maintenance costs calculated yearly, half yearly or quarterly and rental incomes paid in advance or in arrear etc.). |

Table 2: Differences in valuation (Smit, 2002)

Primarily, the research will focus on the first level; inconsistency of valuation input in terms of market technical data and how this input reflects market evidence. Although theoretically, identical valuation input should lead to identical results, this was not the case in the research of Smit (2002). Apparently, valuation models and arithmetical differences could also lead to non identical results. To obtain this research it is important that these levels; differences in valuation models and arithmetical differences, are assumed stable to prevent confusing the problem and to focus only on determination of market technical valuation input. When these levels are assumed to be stable, the only divergence in valuations is differences in market technical input variables. Hereby it is important to mention that these differences are certainly not a bad thing, in cases when used variables are understandable and well substantiated. This will bring the research to the point of seeking transparency in determination of market technical input variables.

Kroon (2002) showed the influence of most important input variables going into valuation models as prescribed by ROZ/IPD valuation guidelines, by using sensitivity analysis. These variables will be expounded in chapter 2.6. Kroon’s research concluded that market data, yearly rents and yields, has a major influence on final values. This defines that these variables are fundamental parameters of valuation calculation. That is why this research will just focus on revenues going into final calculation; the determination of rental income and determination of yield. These input variables appear to be most sensitive in the valuation model and thereby will affect final values the most.
The tasks and task environment of appraisers

2.1 Introduction

The main task of an appraiser is to estimate the value of the property. This chapter starts with an exploration of the definition of value. 'Market value' is the foundation of appraisal for client reporting. The theoretical background of the valuation process, valuation standards and valuation models will be described. Of the available valuation standards, the ROZ/IPD is applicable to Corio. The chapter will focus on these valuation guidelines including the permitted valuation models. The content of these guidelines should be familiar to the appraisers, in order to fulfill their tasks properly. The determination of input variables takes place in the dynamic external task environment. Paragraph 2.5 sets out determinants of input variables derived from market data. The appraisers' task environment includes market data such as comparable sales information, rental income and operation expense data, vacancy information, yields, transaction prices and other market information. Finally, paragraph 2.6 describes the valuation methods of used by investors and appraisers to determine input variables.

2.2 Definition of market value

The purpose of appraisal is to find a well based market value of the appraised property. There are different opinions of this definition which have been developed and refined over time. Continual refinement is essential to the appraisal profession. The International Valuation Standard Committee (IVSC) has set a 'standard' to provide a common definition of market value. This seems to be close to the definition of Ball et al. (1998). Also in the Netherlands, the ROZ/IPD is working to be on par of the IVSC definition. For now, the definition of value, according ROZ/IPD is formulated as 'market value as if let'.

Table 3: Definitions of market value

<table>
<thead>
<tr>
<th>Source</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. Ball et al. (1998)</td>
<td>'The price in which a property would sell in a competitive market where buyers and sellers where using all the available information.'</td>
</tr>
<tr>
<td>IVSC (2005)</td>
<td>'Market value is the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion.'</td>
</tr>
<tr>
<td>ROZ/IPD (2007)</td>
<td>'The estimated amount in case of an underhand sale after the vendor has put the object on the market after adequate preparation whereby the buyer accepts all conditions of the current rental contracts including all privileges and duties.'</td>
</tr>
</tbody>
</table>

* A non-governmental organization member of the United Nations which established the International Valuation Standards (IVS in 1984)
The definition of M. Ball et al. (1998) does not explain the meaning of the phrase ‘using all the available information’. The IVSC (2005) defines this as ‘knowledgeably, prudently and without compulsion’. ROZ/IPD (2004) defines this as ‘after adequate preparation’. All definitions clearly assume that proper research information is available. However, it might also be possible that there were other actors in the market which had other information or interpreted the available information differently which may lead to other market value opinions. Characteristics of real estate lead to a non-transparent pricing. With that, the real estate market is not efficient and it is impossible that valuation could cover all available information. This emphasizes the importance of the information used in valuation as the market value will be determined under limited informational conditions and personal interpretations.

ROZ/IPD (2004) indicates valuation of the property in its current situation, IVSC (2005) also shows that value reflect a particular point in time; ‘the date of valuation’. This means that any concept of long-term interpretations of the market cannot be recognized as assessments of market value. D. Mackmin and R. Emary (1999) expressed a view that given its purpose, if a market is mispriced, valuation should reflect this mispricing.

These statements raise the question of who is able to determine a property’s market value: “Market value is an opinion where different players and advisers in the market may have different opinions.” (Crosby, 1994 in: Mackmin and Emary, 1999) However, it is generally agreed that market value results from the collective value judgments of market participants. An opinion of market value must be based on objective observation of the collective actions of the market. According Bouman (2007) market rental value can be defined as ‘the average from a cluster of recent transactions.’ This emphasizes that every opinion of market value must be well-founded by presenting objective information.

2.3 Valuation Process

The market value definition of the IVSC is growing in use internationally. The Appraisal Institute was a founding member of the IVSC, which now comprises of more than 50 member nations. The Appraisal Institute has set a definition for the valuation process; ‘a systematic set of procedures an appraiser has to follow to provide answers to a client’s questions about real property value.’ The appraiser has to accomplish this in the easiest and most convincing manner. US appraisers are trained to value property using a step-by-step method which is seen as the normative valuation process. The influence of this process is clear in the hierarchy of Dutch valuation procedure. Below steps of the valuation process reflected on ROZ/IPD valuation guidelines are schematized and will be described accordingly.
2.3.1 Definition of the appraisal problem

Above definitions of market value state that market changes over time, therefore an appraisal reflects value only at a particular point in time. Appraisers’ task is to estimate market value of the property, which will be used to determine the book value of the entire portfolio and to inform shareholders. Individual characteristics of the property which include its location, property rights, other features and extraordinary assumptions needs to be included in the definition of the appraisal problem. Together this should eliminate any ambiguity about the nature of the assignment.

2.3.2 Scope of work

The process of defining the appraisal problem leads directly into the appraiser’s decision about the scope of work necessary to fulfil the assignment. The scope of work involves the identification of the amount and type of information and the analysis of the collected information to be applied in the appraisal assignment. The scope of work must be clearly disclosed which means that it is even more important to indicate what was omitted in the appraisal. Therefore it is important to set out the different type of appraisal products and the ways of applying these products. There are five different types of valuation, as explained in the figure below (ROZ/IPD, 2007). Logically, differences in valuation types will set up differences in scopes of work. Full valuations are much more time consuming (and therefore cost consuming for the investor) than an update. According The Global Investment Performance Standards (GIPS) every property has to be valued by an external appraiser once every three years; in-between a revaluation or a market technical update is sufficient. The investor itself could also calculate the book value of their portfolio in between; every quarter or half-yearly period. The Dutch ROZ/IPD guidelines are compliant with the GIPS concerning the frequency of appraisals. Frequent appraisal could partly enhance accuracy of appraisals and eliminate questionable assumptions.
Discrepancy in retail property valuation

**Full valuation** – This is a complete valuation where by the use of a checklist, a report is conducted for the client. This valuation concerns an opinion of the market value, whereby all valuation factors and market circumstances are taken into account on a specific date of valuation. Valuation factors include market information, juridical and construction information. The report should be in line with the applicable valuation guidelines. Assumptions need to be well substantiated and the client needs to be informed about the basis of the appraisal.

**Revaluation** – This form of valuation conduct the market value based on a previous valuation. The same procedure is done as the full valuation however not in detail. Market information will be revised, juridical information will be checked and the constructional information will be adjusted only in case of changes, then the financial statements will be updated accordingly.

**Market technical update** – In fact, this type of valuation is a recalculation from the previous full valuation. Market technical information will be revised monthly, quarterly, half-yearly or yearly. Market information includes gross initial yield, discount rate, exit yield, market rent, rental contract conditions, vacancy expectations and incentives for reletting. These are variables going into the valuation model and will be described in chapter 2.6. Only adjustments in valuation data is done which states the main difference compared to a revaluation; this can be done remotely, whereas a revaluation has to be done on site.

**Internal valuation** – Internal valuations have the same requirements as external full valuations; however internal valuations are rarely done. Most of the time, it is simply an internal update from a full valuation, revaluation or market technical update conducted by an external appraiser.

**External check of internal valuation** – This is a validation of the internal value and valuation input data by the external appraiser. The GIPS even recommend a frequency of this external check once per year.

*Table 4: Different type of valuations (ROZ/IPD, 2007)*

### 2.3.3 Data collection

In order to achieve the determination of market value, an amount and type of information need to be collected. The data will be grouped in two classes:

- **General data;** the influencing data that is not part of the property. This data include environmental factors that affect property value in the defined market area, social, economic trends, yield developments, trends in occupancy and rentals.
- **Specific data relating to the property.** These are the physical characteristics; legal, physical, locational, design, profit and loss information and the details of comparable sales.

General data will be collected by the appraiser to verify an objective market perception of market value. This will be complemented with specific data of the property which will be provided by the investor. The Dutch ROZ/IPD valuation guidelines state that the basic valuation data of the investor ought to be similar to the data as known by the appraiser. Guidelines require the basic valuation data that an investor at least needs to provide to appraisers (ROZ/IPD, 2007) as described in the table below.
Facts of the property – This is the information an appraiser need to locate the property, visit the property and valuate the property: address, name and numbers of contacts and managers.

Overview of the rental data – Of key importance is to provide a list of rental agreements such as rental periods, rental amounts and other conditions. Important is a description of the rental units, including square meters and number of parking places. Also information about the term of the tenancy agreement, extension and termination of the tenancy agreement is of major importance when undertaking a property valuation. This can be completed with information of rent reduction, rent free periods, incentives and if the tenant is taxable or non-taxable. Also promised rent reviews, future contract changes, new tenancy agreements, partial terminations or extensions and special conditions whereof rental contracts have been set up.

Information of the property – This information includes a map, specifications of surface areas and square meters on unit level and pictures of the property. Although this information is provided when an appraiser unfamiliar with the property is expected to visit the property and create an objective perception of the property. Also when appraisers are more familiar with the property, it is important to check all delivered data on square meters, use of the retail unit and realistic service charges per unit.

Operating estimate – Appraisers need to revise management operating estimation and make their own judgment about the market prices and operating costs. This means that these costs are dependant on the management of the property, but still appraisers have to estimate whether the management is using realistic estimations of their operating costs.

Constructional information – This concerns information about the physical state of the property. Not only the recent cost of major maintenance operations but also preparations of renovation and investments that need to be factored in.

Juridical information – Among this is private-law information (ownership situation) and public-law information (zoning plan).

Other factors that affect the value – All issues that will have substantial influence on the results of valuation need to be handed over.

Table 5: Data collection (ROZ/IPD, 2007)

2.3.4 Data analysis

Once the data has been collected and reviewed for accuracy, according the Appraisal Institute (2001) the valuation process continues with a highest and best use analysis and market analysis. This step is of key importance as the results from analyses will be applied in valuation approaches.

Market analysis – the market analysis is defined as a study of market conditions for a specific type of property. A decent description of assumptions made of the market conditions will help the reader of the appraisal report to understand the thought process of the valuer. Local developments will be considered and knowledge of changes that affect market conditions give the appraiser an indication of how value change over time.

Highest and best use analysis – Through highest and best use analysis the appraiser interprets the market forces that affect the subject property and identifies the use on which the final opinion of value is based. On this level highest and best use analysis are rarely done in Dutch shopping centers appraisal. In these cases, forces that possibly affect the subject shopping center are related to the functional use of the property. The optimal functional use will be achieved when there is a balance between the interests of three parties: investors, tenants and consumers: Typically, investor's interests would be high rental potential and low operational expenses, whereas consumer interests would be the variety of shops and public space and tenants' interests would be high sales possibilities in relation with low effective rents and rental incentives.

Table 6: Data analysis
2.3.5 Application of Approaches

Analyzed data is related to the applied valuation approach. Three main approaches could be distinguished: sales comparison approach, cost approach and income capitalization approach. (Appraisal Institute, 2001) ROZ/IPD prescribes the sales comparison and income capitalization approach; these approaches are most relevant considered the scope of research. Usually the use of a combination of approaches is appropriate and will have greater significance in a given assignment. The comparable approach is applicable to all investment property with reference to market transaction evidence. (Sayce, 2006) Although this approach can be applied to appraisal problems, it is appropriate to combine this approach with income capitalization approach. Within these approaches also diverging valuation methods could be used. Both valuation approaches and related valuation methods are described in the table below. Hereby it is hard to make a clear distinction of the valuation methods as some of the methods are methods-combinations. For instance the comparable analyses will be considered as basis for the capitalization method which is GIY model. The different way appraisers and the investor are dealing with valuation approaches and matching valuation methods will be explored in chapter 2.6.

### Sales comparison approach

This approach involves the assembling of all data concerning the sales, holding prices and other information upon properties more or less similar with the property under appraisal. The approach might not be applicable to specialized properties because comparable data may not be available; logically, this approach is most useful when a number of similar properties have recently been sold or are currently for sale in the subject property’s market. The results from market analysis are used in the comparison approach to delineate the market and thereby identify comparable properties. An appraiser then estimates the degree of similarity between the subject property and the comparable by taking various elements into consideration, because comparable data needs to be corrected for differences in elemental characteristics of the subject property and corrections due to the historical data. Details of comparable selection criteria will be further expounded in chapter 3.3. Also yields may be extracted through analysis of comparables, though these factors are usually applied in the income capitalization approach.

### Main valuation methods (ten Have, 2002):

- Method of comparison; appraiser compares subject property with similar properties of which transaction characteristics are known.
- Method of rental value; this method is based on comparison method however the property in comparison will be divided into units; square meters.
- Capitalization method; regarding let properties this method makes use of market capitalization: GIY model.

### Income capitalization approach

In short this approach deals with the future operation of the property; all the necessary income, expense and rate data is evaluated in the light of market forces. The present value of the future benefits of property ownership is measured.

### Main capitalization models (ten Have, 2002):

- market capitalization: GIY model
- income capitalization: DCF model

<table>
<thead>
<tr>
<th>Table 7: Valuation approaches and matching valuation methods</th>
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2.3.6 Final opinion of value
The purpose of the valuation process is to arrive at a single figure or a range which the value will most likely fall into. The appraiser examines separate indications on their applicability to come to the final opinion of the defined value.

2.3.7 Reported or defined value
It is important to report final valuation examinations in a systematic and helpful way that makes the valuation report understandable for their readers. The assignment cannot be completed without reporting the conclusion in a report and presented to the client. The reported value is the appraiser's opinion and reflects the experience and judgment that has been applied to the study of the assembled data. The conclusions of an appraisal have to be communicated to the client and this needs to be done in a systematic and comprehensive manner. ROZ/IPD valuation guidelines specified the requirements for different types of appraisal reports and the methods under which they are prepared and submitted. Main recommendation is to distinguish a descriptive part and a calculation part in the appraisal report.

As it is increasingly important for investors to gain more insight into their portfolio valuation, formulating better requirements concerning the report of uncertainties in appraisals need to be engineered. Guidance Note 5, 2003 of the RICS Appraisal Standards\(^5\) considered the ways in which uncertainty can be reported to the client. In their valuation guidelines it is remarkable that a lot of attention goes to the way of reporting, explanation of operated definitions and the way in which there should be dealt with organizational interests and procedures. Report could be done using the verbal approach; in words within the report, the ranking approach; a 'rank' is allocated to the valuation on a prescribed agreed basis, or statistical approach in which the uncertainty pertaining to the valuations is calculated using standard deviation. The current RICS guidance suggests that verbal reporting is the preferred mechanism of alerting the client to the uncertainty within the valuation.

2.4 Valuation Models
The use and observation of described valuation guidelines are needed to contribute to a reliable and comparable real estate index. To prevent incomparable measurements it is necessary to prescribe valuation models to be used by investor as well as by the appraiser. The model used for valuation should reflect the market culture and conditions at the time of the valuation. It can be seen as a representation of the market's underlying fundamentals. Once again, the importance of market technical input variables is highlighted. Research focus is not the practical use of the model but ingoing variables will be described below. In reality it seems to be very tempting to use one of the models and estimate the variables of the other model with the outcome in mind.

\(^5\) Appraisal Standards of UK Royal Institute of Chartered Surveyors (RICS)
2.4.1 Gross Initial Yield (GIY) model

With the GIY model, the property’s gross operating income (first year’s rent) is divided by the gross initial yield to arrive at an estimate of the market value of the property. The GIY is also called the capitalization rate or income multiplier when inverted. The latter is also expressed as investors paying ‘x’ times the rent for a particular type of property. The higher the multiplier the higher the market value and this in turn reflects the greater attractiveness of the property.

\[
\text{GOI} = \frac{\text{MV}}{\text{GIY}}
\]

Where:
- \( \text{MV} \) = Market Value
- \( \text{GOI} \) = Gross Operating Income
- \( \text{GIY} \) = Gross Initial Yield

Calculation of the GIY is relatively simple to model; it uses initial yields from similar properties. However, as set out in previous paragraph this model is part of the sales comparison approach; the determination of yields and seeking matching properties is a complex task. Yields from recent transactions should not be utilized as comparable evidence. More often than not, comparables are not directly applicable and need to be corrected for various property specifics. Selection criteria of comparables will be expounded in chapter 3.3.

Figure 4: Formula of Gross Initial Yield model

The model could also be filled in with the Net Initial Yield (NIY) usually used for appraisal. In some cases it is better to use NIY than GIY because then cost of maintenance, obsolescence and vacancy are not taken into account. The gross-net path indicates these costs, determined by the difference between gross and net operating incomes. The NIY model has the same construction of the formula, however is usually considered as improved compared to GIY model, because in this way operating cost play a part in valuation. For the determination of the value, NIY method is using net market rent in stead of the gross market rent. Logically, the net market rent is calculated by diminish the gross market rent with operating costs. In the market context men usually prefer to use the GIY to present a good comparable measurement as this is normally used for new investments.

Besides determination of initial yields the formula shows an assumption that net rental income being valued is constant and the rent is received annually. Therefore it is understandable when undertaking a property valuation that estimation of rent is of key importance. Determinants of rent are explored in chapter 2.5.1.

Major drawback of this model is that it is not suitable for properties with less transaction evidence. This is why members of the ROZ/IPD index that conduct their valuations in accordance with this model have to give a detailed explanation of their used valuation assumptions. Thereby, the model is not suitable when future cash flows are uncertain and volatile, because the techniques used are not capable of forecasting. Concealed assumptions can easily occur in this model, particular because the formula assumes that rents are never-ending at the time of valuation. Assumptions are done of an unlimited cash flow with no difference between rent growths and retrievable value. Geltner in, Witvoet (2006) summarize the GIY approach as only useful under the following conditions:
- The property is rented out or rentable;
- The property is easily marketable;
- Market evidence is present;
- The property has stable and long-term leases.

### 2.4.2 Discounted Cash flow model

In contrary with the GIY model, the DCF model is a very insightful method to illustrate a very close picture of the actual cash flows of the project. It is calculated by estimating the cash you will have to pay out and the forecasted cash returns. Major difference with GIY model is that a time frame must be estimated of which it is expected to receive the payments. Each transaction must then be discounted by the opportunity cost of capital over the time between now and when you will pay or receive the cash to arrive at the net present value. In formula this is given below. Also a graphic tool to give insight into the cash flows over the time period is given below. All financial questions can be simplified to such a figure.

\[
\text{NPV} = \sum_{t=1}^{n} \frac{\text{CF}}{(1 + \delta)^t} + \frac{\text{EV}}{(1 + \delta)^n}
\]

Where:
- \(\text{NPV}\) = Net Present Value
- \(\text{CF}\) = Cash Flows
- \(\text{EV}\) = Exit Value
- \(\delta\) = discount rate
- \(t\) = year

**Figure 5: Formula of DCF model**

As shown in the figure, the method sets expected cash flows in a spreadsheet over a determined time horizon plus the estimated value at the end of the holding period and calculate the present value. In this way the method gives insight into the period of rental contracts and when cost of maintenance or renovations are calculated. Therefore, valuation guidelines of the ROZ/IPD prefer to use the discounted cash flow model in cases when adjustments to the cash flows of the property have to be done within five years. Internationally there seem to be no disagreement that DCF is the preferred model to calculate the value of the property. However, the issue facing the valuer involved is about the process and application of the model. As identified by Investment Property Forum and Royal Institution of Chartered Surveyors, IPF/RICS (1997), the issues to be considered by the valuer relate to the three primary elements of a DCF calculation:

- Time horizon
- Cash Flows (rental values and rental growth; operating costs; exit value)
- Discount rate
**Time horizon** – Inputs that consider the time horizon need to be based on detailed researches of the market. Forecasts over a relatively short period of time (≤ five years) have a considerable reliability. However, if the time horizon increases, probably the forecasting will be less reliable because of growing uncertainties.

**Cash Flows** – Cash flows are assessed by the view of the valuer, the client and often a combination of the two. Cash flows are derived from the view of future benefits and costs and cover following variables:

- Rental values and rental growth; besides yearly rental indexation, forecast of rental values will be based on econometric modeling of supply and demand. Also figures for rental growth at the local level need to be estimated to further adjust at the individual property level and account for locational attributes. Determinants of rental value will be expounded in paragraph 2.5.1. Forecasts of rent will be based on estimating fluctuations and uncertainties in cash flows which is related to the length of current rental contracts. Projection of rental values over the holding period could reflect estimation of market rent, revised rent or till contract expires, current rents*.

- Operating costs (systematic maintenance and renovation): Operating costs are defined as the costs resulting from the ownership of real estate. Investments during operating of the property will be inevitable. Although some investors find it hard to take extra investments when these are not directly awarded with higher profits. At this moment, an increase of building costs and costs of maintenance is perceptible. Usually a gross-net path of 10% persists in cases of valuing neighborhood-level shopping centers but these costs are more or less dependent on the management of a trust. Nevertheless, by improving the quality of the property more cash flow assurance will be eventually realized. (Kroon, 2002) Vacancy and rent losses will not be considered as costs, since these aspects are taken into negative profit account.

- Exit Value; this value is determined according two estimates, the yield as for a ‘new’ building and a yield adjusted for depreciation of the subject building. Development of the initial yield with expected market fundamentals and net cash flow at the end of the holding period, rental value minus operating costs, need to be estimated. Usually appraisers' add 1%-1.5% to the initial yield. However, when expectations shows some extent of uncertainty at the end and begin of the period, theoretically initial and exit yield could be equal. (Kroon, 2002)

**Discount rate** – The determination of the discount rate has to do with complexity of risks. Ideally, this rate is based on comparables. (ROZ/IPD, 2007) However, if there are no useful comparables available the discount rate needs to be estimated based on two things; the nominal risk-free rate of return and a risk premium. The nominal risk-free rate of return means that an amount at this moment is more worthy than the same net value at a later point in time. The amount can be invested whereby directly a return is generated. A risk premium reflects the extra return investors demand because they want to be compensated for the risk that the cash flow might not be materialized after all. Hereby market sector of the property and specifics of the property are compensated. Particular the specific risks of the property are hard to quantify and this will be done subjectively. The more risks stick to a property, the higher the yield related to a relatively low market value. (Kroon, 2002) The Internal Rate of Return (IRR) is the discount rate that results in a net present value of zero for a series of future cash flows. ROZ/IPD valuation guidelines prescribe to give a detailed and clear explanation of the structure of the used discount rate. It is important to explicitly report capitalization of the cash flows for at least a period of ten years. Discount rate is seen as valuation input, in contrary to IRR which is seen as a result on calculation. (ROZ/IPD, 2007)

* Definition of these rental types will be expounded in chapter 2.5.1.

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Table 8: Primary elements of DCF calculation
The following drawbacks can be mentioned related to the DCF model. First of all, the present value is calculated by implicit assumptions concerning an expected scenario of cash flows. All assumptions are based on subjectivity of the appraiser or the client, which consequently will lead to inaccuracy that increases if the holding period gets longer. To keep this inaccuracy down it is important to have well substantiated yearly cash flows. Secondly, decisions based on the net present value deal only with expected cash flows discounted at a constant discount rate, because risk, is assumed to be unchanging during the life of the project. But the rate of interest and present value of the cash flows is very arbitrary. Also the value at the end of the holding period can be estimated too optimistically. The main problem with this approach is the accuracy of the estimates. Any errors in the estimations tend to aggravate the error in the calculation, especially when longer time horizons are used.

Conditions under which the discounted model is particularly useful, is as follows (ROZ/IPD, 2007):

- The model presents a clear overview in the cash flows over the holding period;
- Insightful model with comprehensible results;
- Concealed assumptions are not possible within the model.

Noteworthy, cash flows can be accounted for risks and besides that, a risk adjusted discount rate is used. In that case, risk will be taken into account twice which will give a distorted view of value. In terms of GIY model, the discount rate could represent the GIY based on a never-ending cash flow. Both variables could be determined based on comparables.

2.5 Determinants of Valuation Input

Once the ingoing variables of valuation models are set out, the most important valuation input is identified according to the DCF model (Kroon, 2002):

- Rent determination
- Operating costs
- Initial Yield
- Exit Yield

These variables require much more input than initially would be inferred. Determinants of these variables such as figures of sales, analysis of rental growth, vacancy expectations, depreciation rates etc. need to be identified before variables can be determined. These aspects will be described according to the related input variable. In line with delineation of the research, determination of operating costs will be out of the scope of the research.
2.5.1 Determinants of Rent

Before determinants of rent can be described, different types of rent need to be set out. The appropriate rental type is essential for the final use in the calculation model. Three rental types on which to base the calculation are distinguished in the table below.

<table>
<thead>
<tr>
<th>Rental Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market rent</strong></td>
<td>The rent determination of commercial property is an estimation of the market rent of a let unit as part of an investment valuation, which is the value to the particular investment manager. The level of market rent is determined by the supply of, and demand for, that type of property in the market at that time, as a return or interest on the money invested in the property by the owner.</td>
</tr>
<tr>
<td><strong>Current rent</strong></td>
<td>According to ROZ/IPD the current rent is defined as, 'rent at the date of the annual valuation for the whole property'. Investors would pay up for properties when current rents are at high levels relative to history, but decrease their expectations for future rent growth quickly when current rents decline. Therefore, current rent is needed to verify a property’s potential as it shows what rent an owner can get on the marginal square rented related to the overall viability of supply and demand in the retail market.</td>
</tr>
<tr>
<td><strong>Revised rent</strong></td>
<td>ROZ/IPD additional guidelines of November 2002 for retail property remark the following. It is unrealistic to use the market rent when this market rent is not obtainable. As consequences of article 7:303 of the Civil Code, in these cases the valuer can determine once in five years an achievable rent review rental value justified by the market rent. This reviewed rent is defined in 'a percentage between the current rent and the market rent'. Research done by Mols (2007) demonstrated that this guideline is attached with too large margins for determining an unequivocal revised rent. To determine an achievable rent review rental value the valuer can deviate above or below market in a downward or up going market accordingly. Often the market rent value goes up faster than the periodic rent raises, which creates the situation that tenants pay relatively less rent than would be attainable, according to the market. In that case investor would prefer to determine the rental review closest to hundred percent between the difference of actual rent and market rent, tenant of course would prefer to remain their actual rent and determine rent review close to zero percent. A percentage of fifty percent would be fair, but this is dependant on tenants’ individual possibilities for rental growth and expectations of tenancy changes. (Straatsburg, 2008) The determination of the reviewed rent depends on the expertise of the valuer. The valuer must justify the used achievable rent review rental value. Hereby current rental situation is an important determinant.</td>
</tr>
</tbody>
</table>

Table 9: Rental types

This said, determinants of rent will be mentioned below regarding determination of the market rent. Thereby the only correct rental price is established by cause of demand and supply of the retail market. Once this rent is fixed within the first five years no adjustments can be done, except from agreed indexation. More insight is needed in what characteristics verify this market rent. In The Netherlands market rental price is indirectly determined from tenant’s sales possibilities and directly determined from the quality of the retail location. (Speetjens and Steen, 1998)

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Research done by Mols (2007) showed that for 86 percent of the judgments regarding retail units below 200 sqm., a revised rent is determined between a range of 60-90 percent of market rent.
First indirect determinants are all factors likely to influence tenant's sales possibilities, such as macroeconomic influences and scarcity of the retail market. Also, property's qualities at meso level could have a major effect on tenants' possibilities for sales. Research (Buvelot, 2007) identifies four different levels that will determine tenants sales possibilities and thereby the determination of rent, these levels are summed up below:

**Macro economic level** – Rental forecast can be undertaken at national, regional and local level and are normally based on econometric modeling of supply and demand. For example consumers' spending power is a measure for demand. For supply, the availability of space for letting may be used. Macro economy is an influencing factor due to market fluctuation, inflation, political changes, employment rate, disposable income and affordability. These developments influence actual expenditure in the retail industry. A flourishing economy will stimulate the growth in retail business as consumers are more confident in spending as their income grows from the increasing GDP and vice versa.

**Qualities of the property** – However, the retail property market is considered a local market because the economic functioning of a shopping center depends on the catchment area and demographic development of surrounding areas. Local level forecasts are more difficult to produce than national and regional forecasts. Where forecasts at the local level are difficult, attempts may be made to derive them indirectly from regional level forecasts. Once the figures for rental growth at the local level need to be estimated, they have to be further adjusted at the individual property level to account for locational attributes. Hereby, five qualities underlying the economic functioning of the property can be distinguished based on consumer’s perspective. (Speetjens and Steen, 1998) The way in which these qualities are interrelated determines the economic functioning of the shopping center. Qualities are translated according International Standards of ICSC, given in table below.
Discrepancy in retail property valuation

Functional quality – There has been discussion between various Dutch major players in the market regarding common definitions of ‘functional levels’. There exists an informal understanding of different functional types taken up by HBD, a retail trade association, and Locatus in particular. This is formalised in terms of the number of units that each type comprises, which classification is known as ‘referentieset’. However, the NRW Research and Education committee recognizes the importance of more formalized standard definitions, amongst others for its members who work internationally. Definition of a district center/neighborhood center according to the ‘referentieset’ is summarized as follows, between 1,500 and 12,000 m2 GLA, between 5 and 50 shops and always anchored by a supermarket. Also ICSC (2001) definition describes this shopping center as designed to provide convenience shopping for the day-to-day needs of consumers in the immediate neighborhood.

Whether the subject shopping center meets this functional retail mix will determine its functional quality. In the Netherlands it is hard to implement changes in the retail mix of a shopping center due to legislation of strict protection of current tenants. Therefore retail mix is less influenced by the management as it is hard to process changes in the current retail mix on the short period.

Geographical quality – Shopping center definitions in the Netherlands are largely governed by town planning laws, which define where shopping centers should be located and what type of ‘functional level’ they should be (e.g., neighborhood-level shopping centers). (IVSC, 2005) This regulation is related to the catchment area of the shopping center and defines its competitive position and institutional environment. The environment is of major influence on current and future economic functioning of the shopping center. The surrounding quality will affect sales possibilities. Developments within the surrounding quality will determine if there is going to be an upward or downward potential for the shopping center. The possibility of an extension of the shopping center in terms of square meters and sales, is dependant on competitors, the bearing surface and the governmental regulation.

Locational quality – This includes the location of the shopping within the catchment area. Also the accessibility and parking facilities are important predictors for the locational quality. After realization of the shopping center these aspects are hard to change. A shopping center within easy reach and a sufficient amount of parking places will draw more consumers than a shopping center with bad accessibility and lousy parking facilities.

Marketing quality – The marketing quality is defined according to IVSC (2001) by targeting a specific type of customer the center is trying to attract. This quality is related to the push and pulls factors of customers including all of the aspects that are related to the promotion and attraction of consumers. By giving an impulse to the attraction of the shopping center the management could target to influence the consumer to spend their money. By utilizing visual developments the shopping center’s image will be reinforced.

Physical quality – Physical quality relates to the visual appearance of the shopping center. Hereby it is of key importance where shops are actual positioned within the shopping center. This will affect the image created by anchor tenants and influence the routing of the pedestrian flow. At this point total exterior is taken into consideration; by setting up a redevelopment by the management this physical quality could be improved.

Table 10: Five qualities underlying the economic functioning of a shopping center according ICSC definitions

Once determinants, indirectly influencing height of rent, are discussed, subsequently determinants which have a more direct impact on rent determination will be described. These factors relate to the quality of a retail unit and the quality of the tenant involved. In turn, also this will determine in an important way achieved sales.
Quality of the retail unit – This is dependent on requirements and wishes of the tenant, the quality of a retail unit could be defined by: location within the shopping center and the functionality of the retail unit.

- Location within the shopping center
The rent of a separate unit is strongly determined by its location rating: A1, A2 or B. This rating is judged on aspects such as, division of anchors within the shopping center and relative location of the retail unit, visibility and the density of pedestrian flows. For each sub area within the shopping center a rent sub-range will be presented. Location of the unit within the shopping center is highly related to the pedestrian flow. Part of the shopping center where the pedestrian flow is at its highest and shops are willing to establish are retail units at A1 locations. Parts of the shopping center where the pedestrian flow is relatively lower are rated at A2 and B locations. Shops with lower rent abilities and sales will be forced to locate their shops at these places.

- Functionality of the retail unit
The functionality of the retail unit is dependent on the requirements of the tenants, which can included size, lay-out, shape and other physical state of the retail unit. It is defined as the extent in which the retail unit satisfies the requirements of the tenant. For every sub area of the shopping center location, size of the shop and quality of the shop (storey, visibility, cornered shop etc.) has to be accounted.

Quality of the tenant – Qualities of the tenant will affect rental income on the short period. Tenant’s qualities will determine to what extent the consumer is willing to buy. This is dependent on the skills of the tenant, tenant’s spirit of enterprise and taking risks in doing investments. All factors that will push or pull the consumer to the shop such as advertisements, publicity and reputation will affect sales possibilities.

2.5.2 Determinants of Yield
Initial yield can be defined as the annualised net rents of the property expressed as a percentage of the property value. It is determined and usually explicated by the appraiser’s point of view of current rents and procedures of reviewed rents. To be able to create a well-based opinion of yield determination following principles should be taken into consideration based on division of Van Gooi et al. (2001):

Market sector of the property – First of all, real estate can be seen as a protector for inflation which shows a comparative advantage in relation to other assets. This can produce an increasing demand for real estate and rising values associated with decreasing initial yields. The law of demand and supply of retail industry is of interest. When supply of retail units increases buyers will require relatively high initial yields and vice versa. However, retail market is characterized as a relatively stable market. At this moment gradually a downwards yield-shift is noticeable in the current retail market. Although economy is not doing very well, yields for new property on good locations remain at a low level associated with relatively high property values; i.e. when property value increases, yield will decrease. An appreciation of the property will give an extra return apart from returns on letting. This will make investors more willing to lower their required yield. (Langens, 2002)
Quality of the property and its location – This is related to estimating future risks and opportunities of the property and its location. When the quality of the property is at a low level and high cost of maintenance is expected this will result in a higher initial yield. Contrary, when there are positive expectations about location of the property a relatively low initial yield will be demanded. Also governmental policy and residential developments will influence these future expectations.

Possible rent and value growth – when an upwards reversionary potential and increase of value are expected, a lower initial yield will be determined. Rental growth is dependant on the extent of rental indexation and increase in value is dependant on supply and demand of the market. A higher potential for growth or appreciation could lead to a lower required initial yield.

Length of contract and strength of tenants – These aspects are of major importance for the determination of revised rental value as it states whether a tenant guarantees paying its rental income. This will give certainty to investor’s cash flows. The quality of tenants concerns their creditworthy what will bring less risk for an investor. Length of leases is of interest in relation to the difference of market rental growth and actual rental growth. If the actual rent increases at a higher level compared to the market rent, this could lead to a lower rent at the end of the leasing contract accompanied by a higher initial yield and vice versa. Also vacancy expectations will play a part in this.

Vacancy and tenancy changes – when contracts are expiring relatively soon it is questioned if these are extended or not. In economic recessions this will become more difficult and less rental income will be obtained.

2.6 Different Valuation methods

This paragraph will reflect on assumed approach difference between investor and appraiser as set out in the outline of the research problem. By using described theoretical background, this approach difference will be discussed in details. Valuation approaches and used valuation methods will be explained. This will clarify the difference in selection of research information by both parties and consequently both valuation frameworks in which the determination of valuation input is placed.

2.6.1 Investor’s method

Managements perspectives of rent determination often are based on a combination of market transactions, overall viability of supply and demand in the retail market, and tenant’s individual possibilities to make profit. By the use of the comparison method the market rents are estimated using a step-by-step procedure. As much as possible this method is accounted for specific qualities of a shopping center situated in a dynamic external environment. Corio’s method is based on the following:

- Quality of the shopping center related to its environment
- Location of the retail unit within the shopping center
Discrepancy in retail property valuation

- Functionality of the retail unit
- Retail sector of the unit

Consequently, five steps regarding Corio rent’s determination will follow. This procedure starts roughly at property level to subsequently zoom in to the unit level. Steps are schematized in figure below.

![Property level diagram](image)

Figure 7: Corio’s market rent determination schematized

1. **Comparison with similar properties** – Based on similar catchment areas a comparable set of shopping centers will be composed. The subject property will be compared to this set of rental data. Starting point of finding comparables is that the shopping centers which the property is compared to are matched on a number of essential criteria which will be expounded in chapter 3.4.1. On the base of this set of rental data a rental range of realized rents is defined for A1, A2 and B locations (and super markets).

2. **Judgment of the property by using SWOT analysis** – Corio gathers knowledge of their property by conducting various analyses. Research companies and the set up of an internal benchmark to conduct SWOT analysis have been mentioned. Both analyses could be undertaken as a key component of the driver of rental growth and also as the driver of current yield structures and the ability to get in and out the market at realistic prices. The SWOT analysis considers the investment in a more focused context, a comparative approach which identifies the drivers of performance. Hereby surrounding, locational, functional, physical and commercial qualities are examined. These qualities are expounded in chapter 2.4.

Noteworthy, for the investment manager a main distinction can be made between qualities inextricably bound up with the property such as environmental factors versus more changeable characteristics. Particular, first mentioned, the surrounding quality and locational quality are important determinants for sales possibilities as they are fixed and relatively unchangeable characteristics of the property. These factors indicate the economic activity and thereby partly the level of market rent. These factors will determine in an important way whether the shopping center will control of steady performance. Also other mentioned qualities are important aspects for the economic functioning of a shopping center, although the
owner is more able to control these qualities in a certain way by redevelopments, visual impulses or adjustments within the variety of shops. Research done by Speetjens and Steen (1998) showed that unchangeable aspects as surrounding, locational are heavily weighted by the investor than relatively more controllable aspects. Zimmer (1995) demonstrated within his research among corporate investors, of which factors are considered to be most important pertaining to a retail location. Below their preferences are revealed:

- locational quality (not manageable); 60% weighted
- geographical quality (limited manageable); 30% weighted
- functional, physical and marketing quality (relatively manageable); 10% weighted

3. Classification within defined range – To find out if the market rent of the subject property should be determined on the top or the bottom of the range the shopping center needs to be judged based on above analyses. This means, if the examination shows good result on SWOT analysis, value will come out on top of the range. And vice versa, when bad results are presented on analysis values should lie on the bottom of the range. It is indicated where exactly the value should fall within the range with the conclusion from the SWOT analysis. Of course this is a complex step because comparables need to be corrected by specific conditions where to the transaction is established and some of the property qualities deserve to get more weight than others. With this, property’s average market rent at unit level can be determined. Subsequently, following levels will fine-tune rental values at locational level within the shopping center.

4. Determination of location rating and rental range per sub area – The rent of a separate unit is strongly determined by its location rating: A1, A2 or B. This rating is judged on aspects such as, division of anchors within the shopping center, location of the retail unit, visibility and the density of pedestrian flows. For each sub area within the shopping center a rent sub-range will be presented.

5. Determination of market rent at unit level – To make the final step of rent determination, for every sub area of the shopping center location, size of the shop and quality of the shop (storey, visibility, cornered shop etc.) is taken into consideration. Adjustments within the rental sub-range will be done for the retail unit which results in a market rent at unit level. In some cases, sector of the retail unit is also taken into account especially when the unit has restricted rentability. To accomplish a complete mix of shops it is not the priority to choose the highest bidder of a vacant unit, but choose the highest bidder within the missing sector. (Buvelot, 2007)

2.6.2 Appraisers’ method

Appraisers usually base their valuations on the sales comparison approach at the macro level. As this approach is described in chapter 2.3.5, this approach put the subject property in its market context. Although comparables properties are typically published relating to the gross initial yields, as used for new investment, appraisal preferences the net initial yield in case of value judgment of neighborhood-level
shopping centers. These shopping centers fluctuate relatively less and present a more stable market compared to for instance, high pedestrian flow shopping street as the Kalverstraat in Amsterdam.

Subsequently, the set of comparables will represent the range in which value will most likely fall into. Because the heterogeneity of the shopping center a perfect match of comparison does not exist. Appraiser need to adjust found comparables to the property being valued. Specific conditions should be eliminated by using a yield correction which represents the risks and opportunities of a shopping center.

This is a very important skill of the appraiser; with a single point of valuation there is no understanding of the validity pertaining to the determination of the input variables. This makes the explicitness of input variables of key importance. With regard to the gross initial yield method comparables, neighborhood-level shopping centers have a relatively good comparability. In contrary, the discount rate on the base of the discounted cash flow model shows more argue as this rate has a low comparability. That is why the gross initial yield model is usually used by the appraiser; this reflects found market transaction evidence the best.

The sales comparison approach is commonly combined with rental value method in which retail units are classified by its quality. This means the unit's location within the shopping center and its functionality in terms of size and square meters. To be able to determine the market rent of a let unit, latest comparable rental transactions should be analyzed. This shows the market rent attainability and consequently revised rent in relation with current rents could be determined.

Most common valuation method used for determining rent of retail units is ITZA. The optimum floor size of a retail unit is called ITZA (In Terms of Zone A) in Anglo-Saxon literature. This method is based on a zoning plan of each individual shop in which some zones are related. Rental value is expressed in an average rental value of optimum square meters or zone A-square meters which are fixed at 100%. Subsequently, to the units outside Zone A, as well on floors and basements, a lower percentage is pertained. Although the ITZA is a very common used term in the retail profession, in practice a lot related methods are used.

2.7 Conclusion
The normative valuation process is prescribed by the Appraisal Institute (2001). The influence of this process is also clear in the Dutch valuation guidelines. Although appraisers and the investor use similar valuation models according to ROZ/IPD guidelines, different valuation methods are distinguished. These methods are used to determine the valuation input underlying the calculation models. Within these methods discrepancies occur between appraisers and the investor which causes that the valuation input is diverging. The investor requires more insight into the input determination of the appraiser as this affect the valuation of investor’s portfolio. The objective observation of collective market information is what makes the appraisal understandable and credible for others. However from this point onwards three major issues are outlined in the table below.
A) Comparable selection
Both methods commence the valuation by selecting comparables. Appraisers need to judge whether the comparable transactions found need to be corrected for the property to be valued. There is need for insight into how appraisers make their comparables selection and what criteria are considered important.

B) Taking the step from comparable-range to determination of market rent
The investor uses SWOT analyses to develop a perception of the property and to classify the property on the market. Good SWOT results lead to a classification of the property at the top-end of the comparable-range, and conversely. However, there is need for more insight into how the appraiser takes this step. Investors deal with this uncertainty by substantiating this step in terms of five qualities of the property: surroundings, locational, physical, functional and commercial quality. A well-informed judgment of these qualities will indicate whether the property's value should be listed at the top or bottom end of the defined rental range and determine the market rent. The investor attaches much weight to surroundings and locational quality, as these are relatively stable characteristics of the property.

C) Comparable correction
This is an essential issue to address, as it affects the way comparables are corrected with a view to property characteristics and future expectations of location for the property to be valued. This step is related to the correction of yield.

D) Determination of revised rent at the unit level
Appraiser and investor use different valuation methods to determine the revised rent at the unit level however this is not explicit described. More insight is required into estimations by correcting each individual rent to the revised rent of the unit. As revised rents are based on the length of the tenant's contract and strength, it is important to achieve transparency regarding the factors considered important by the appraiser when making estimations at unit level.

Table 11: Lack insight in input determination

Considering the current valuation guidelines of ROZ/IPD, the prescribed format requirements should be made stricter. At this moment, format requirements are not anticipating the increasing call for insight into appraisals. The RICS guidance Note prefers to verbally report the uncertainty pertaining to valuation input determination. Although valuations are always covered by uncertainties the main input variables and their determinants can be described in a practical manner. The input variables that most strongly affect final value are the determination of rent and yield. Different types of rent are distinguished, namely market rent, current rent and revised rent. Determinants of market rent rely directly on the quality of the retail unit and the quality of the tenant while they rely indirectly on tenants' sales possibilities at macro, meso and micro level. Macro level represents the national level, meso being the property level and micro being the retail unit level. As yield is usually determined by appraiser's evaluation of current rents and revised rent procedures, the appraiser attempts to establish certainty pertaining to the cash flows. An overview of determinants of valuation input is schematized below in key words:
Discrepancy in retail property valuation

Determinants of valuation input

Objective valuation data

Current rent

- Verify reversionary potential
- Length of lease
- Ability to pay
- Vacancy & Tenancy changes
- Secure cash flows

Combination of valuation data and market analysis

Revised rent

- Possible rental growth
- Quality of the tenant
- Strength of tenant
- Length of lease

Market analysis

Market rent

- Recent rental transactions
- Tenant's sales possibilities
- Macro-economic forecasts
- Qualities of the property
- Quality of the retail unit
- Quality of the tenant

Current rent

Revised rent

Market rent

Figure 8: Determinants of valuation input

Usually YIELD will be explicited by appraiser's point of view of current rents and procedures of reviewed rents.
3 Cognitive system of appraisers

3.1 Introduction

Literature states that behaviour is a function of two major components, the task environment and the human information processing system. (Diaz and Hansz; in Wang and Wolverton, 2001) The previous chapter showed that the appraisers’ valuation method is divergent from the investor’s method. At this point, insight into the appraisers’ decision-making process is required, that is, into the cognitive system of appraisers. What is the extent and depth of their study and what kind of information might they omit? This is a step directly into the ‘black box’ of appraisal. Before valuation improvement can be engineered, this behaviour must be understood. This chapter will provide transparency regarding appraisers’ behaviour, leading to behaviour generics affecting appraisal. This will be done by categorizing the following themes according to Diaz (2002):

- Heuristics and Biases
- Descriptive Valuation process
- Comparable selection
- Feedback and Client influences

Within these themes, it is expected that behavioural generics could significantly impact final values. Natural human bias, appraisers’ behaviour within the valuation process, behavioural choices regarding comparable selection and how appraisers are influenced by client feedback will be described, in this order.

3.2 Heuristics and Biases

Many decisions are based on beliefs concerning the likelihood of uncertain events. This can be expressed in ‘I think that…’, ‘chances are…’, ‘it is unlikely that…’ and so forth. But how do people assess the probability of uncertainties? Therefore people rely on heuristic principles. These principles reduce the tasks of predicting values to simple judgmental operations. In general these heuristics are useful, but sometimes they lead to systematic errors in subjective probabilities. (Kahneman et al., 1982)

Identifying conditions under which appraisers may be susceptible to judgmental bias is an important step towards more appraisal understanding. Biases can be defined as illusions of validity. (Petit, 2007) Pertaining to the valuation assignment this is mainly related to anchoring behaviour. Anchoring behaviour refers to people anchoring on the first value they hear. (Petit, 2007) The seminal work of Tversky and Kahneman (1974) on heuristic problem solving has inspired a stream of valuation literature much of which
is focused on anchoring and adjustment. Diaz and Wolverton (1998) found that appraisers have the tendency to use their own previous value judgments as anchoring reference points. In addition, they describe that appraisers insufficiently update their previous value judgments, that they anchor to their previous valuations and that they tend to make adjustments to these previous valuations, which are insufficient in light of the available market evidence. Baum et al. confirm this by finding that valuations are based upon the previous valuation plus or minus a perception of change. In addition, they state that the perceived changes, unless a subject of very reliable transaction evidence, will be conservative.

Evidence of a confirmation bias was uncovered in Gallimore (1996). In this study, expert valuers indicated that they make early, preliminary value judgments and then seek or over-weight evidence supporting these early opinions. This can also be applied to valuation models. Valuers have the tendency to calculate identical results out of different calculation models. Often value judgments of the DCF calculation are adjusted to match with earlier results of the GIY model. (Ridder, 2003)

### 3.3 Descriptive Valuation process

The previous chapter described the normative valuation process which covers defined valuation methods for appraisal. Because of these normative methods, it is known what valuers are taught to do and therefore 'ought' to do. But do valuers what they 'ought' to do? The existence of these normative methods provides a convenient platform for observing valuers at their work. The earliest behavioural investigation of valuation was Diaz III (1990a). Expert valuers from the USA participating in his study did not follow the normative process when performing routine valuation tasks. They did not invest the cognitive effort needed to perform the demanding normative appraisal process. Rather they found short cuts between the steps of the valuation process.

This states that not the normative process but actual or descriptive process is followed by appraisers. Normative focuses on 'what ought to be done' as opposed to the descriptive 'what actually is done'. (Diaz III, 1990a) Where appraisers following the normative process, are taught to start at the broadest possible class of influences and work through to the narrowest, whereas the descriptive process ignores and usually eliminates the gathering of the most general information. While the appraisal process is essentially deductive, beginning with the most general data and narrowing gradually to the specifics of the subject, the actual processes are more inductive. Appraisers tend to quickly move on to the specifics of the subject property and only broaden their focus when questions call for a more general investigation. General data is often completely skipped.

This tendency is underlined by research of Diaz III (2002). Following results are concluded from his research. Among US experts for residential appraisal participating in the experiment, it became clear that they generally start the valuation process by collecting comparable data. Usually they gathered all the data necessary to conduct the valuation analysis before proceeding into the analysis. For the routine valuations
experts employed the sales comparison technique. Also UK experts seemed to seek preliminary problem
definition and then immediately start comparable data gathering.

Besides, this process could differ in geographic familiar and unfamiliar areas. Familiarity points out that
people have the feeling that they run less risk and are able to produce better results. For instance
geographical familiarity of appraisers leads to a relatively confident market sentiment in the area and an
efficient process of appraisal assignment. However, it appeared that moving from familiar settings to
unfamiliar ones in fact did not change expert behaviour. Diaz III (1990a) showed this by setting up the
following research hypothesis: behaviour of expert residential real estate appraisers solving routine
appraisal problems set in familiar geographic areas will deviate from the prescribed appraisal process. By
using statistical tests the hypothesis was supported and states that the behaviour of experts performing
appraisal tasks set in familiar geographic areas is not normative. Thereby, statistical results showed the
conclusion that expert behaviour is the same for tasks in familiar and unfamiliar settings; both following the
descriptive valuation process. Diaz III (1997) discovered no evidence that expert valuers operating in
markets familiar to them anchor on the opinions of other experts. However a subsequent study of Diaz and
Hansz (1997) found that experts operating in geographically unfamiliar markets were influenced by expert
opinions. Diaz and Hansz concluded that market ambiguity appears to be a critical factor triggering
anchoring behaviour.

On top of these studies, most of the time appraisers are working on several appraisal assignments in
various phases of completion, although the normative valuation process may imply that an appraiser
focuses on a single assignment.

3.4 Comparables selection

Comparables are properties with similar characteristics recently been sold or are currently for sale in the
subject property’s market. Similar characteristics are location, physical characteristics, economic,
characteristics, zoning and layout, market conditions, conditions of sale financing terms and real property
rights conveyed. (Appraisal Institute, 2001) The properties that are judged to be most comparable tend to
indicate a range in which the value indication for the property will fall.

However, the motivation of research done by Mols (2007) demonstrated article 7:303 of the Civil Code
which states that rental expiration will be adjusted in case when it is not in line anymore with comparable
business accommodations. The word ‘comparable’ can also bring up a lot of discussion. There is much
diversity of opinions concerning comparability. This is a crucial part in the valuation process. The selection
process of comparables and the way comparables are analyzed lead to a number of essential decision
moments. Therefore, criteria will give appraisers structure of how they should deal with their comparables.
Below four comparable criteria are described, which gives guidance to the search for comparables.
Comparables guidance notes are a very powerfull influence on valuers by the search for comparables, as
this is the cornerstone of market valuation. The comparable criteria and disclosure of comparables subsequent will be described in this paragraph accordingly.

3.4.1 Comparables criteria

Baum and Crosby (1995) made the statement, that although a market is very active, still the perfect comparable will never be realized due to heterogeneity of property. Therefore, properties need to be classified by common characteristics. First, requirements in cases when sufficient transactions are at hand will be given. Second, comparable alternatives will be given. Before doing so it is important to distinguish rental comparable procedure and seeking yield comparables. There exists a major difference between seeking rent and yield comparables. To judge whether the current rent in a given assignment has potential for growth, the appraiser will seek to compare characteristics of the property and the terms under which a retail unit is let with details of other rental transactions that have taken place. Yield comparables are more directly comparable with characteristics of the property. Being aware of that, following criteria are used to subsequently assess the limits of comparability requirements. The comparable evidence must be (Sayce, 2006):

- recent;
- relevant;
- accurate;
- capable to be analyzed.

Recent comparables – This is a comparable within the recent past. However, when less evidence is presented alternatives are used. Hereby, market conditions are of key importance. In times of stability of the market it is more accepted to use comparables from the past than in times of market instability. It should be noted that rental transactions will be relatively less influenced by market fluctuations compared to yield comparables which are very dependant on the market situation. Therefore, in cases of seeking rent comparables it is ‘more acceptable’ to present past transactions. However, this is unacceptable when seeking yield comparables. When solely transactions older than three year are at hand, using other alternatives gets preference.

<table>
<thead>
<tr>
<th>Rent comparables</th>
<th>relatively less influenced by market fluctuations which makes it ‘more acceptable’ to use past transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield comparables</td>
<td>highly influenced by market circumstances which make transactions older than three year unacceptable</td>
</tr>
</tbody>
</table>

Table 12: Choosing recent comparables

Relevant comparables – As earlier stated the starting point of finding comparables is by comparing the subject property to a number of shopping centers with similar characteristics. Below characteristics are mentioned of which comparables are required to match. The similar characteristics are partly matching with qualities of the property affecting the level of market rent as mentioned in chapter 2.4. For instance
shopping centers with same function and catchments area are in principle also qua rent comparable. This is what makes the comparable a relevant comparable (Speetjens and Steen, 1998)

- **Catchments area and function**

Function of a shopping center is defined as the size of the catchments area according to the retail planning. For example, definition of a neighborhood center is as follows, between 1,500 and 12,000 m² GLA, between 5 and 50 shops and always anchored by a supermarket ICSC (2001). The shopping center as designed to provide convenience shopping for the day-to-day needs of consumers in the immediate neighborhood. A neighborhood center is usually configured as a straight-line strip with no enclosed walkway or mall area and parking in the front.

Bolt (2003) has developed a division of principal shopping centers and additional shopping centers. The principal shopping centers are arranged in first, second, third and fourth urban-level. Additional shopping centers are arranged within a certain urban district: urban district shopping center, district shopping center and a community or neighborhood-level shopping center. The relation between this functional division is that if shopping center level increases, also the rent will raise. (research WPM, in: Kroon, 2002)

In chapter 2.4 it is indicated that the quality of the catchments area of a shopping center is a major determinant for the economic functioning of a shopping center which makes this aspect relatively heavily weighted by potential investors. This states that it is of key importance to compare neighborhood-level shopping centers with transactions of similar catchments area and function.

- **Ownership**

A distinction is made between historically growing shopping streets and dedicated shopping centers. The latter, are usually possessed by one owner, who will determine what will happen to the shopping center according to his interests such as stable rental income and appreciation of the property. A tenant of a dedicated shopping center will have less risk than tenants in historical shopping streets, due to a planned ideal mix of shops and more awareness of possible competitors. A dedicated shopping center is also roofed, has uniformity and an image, managed maintenance and a well designed shopping lay-out. Therefore, the risks are relatively lower compared to historical shopping streets, which are managed by multiple owners and thereby it is fair to demand higher rents.

- **Age of the shopping center**

Usually newly developed shopping centers are characterized by a relatively high rental level. Tenants are willing to pay the price because their shops are located in a modern, good looking shopping center. Also tenants in renovated shopping centers are paying a relatively higher rent caused by charges for this renovation. (Research of WPM in: Speetjens and Steen, 1998)

Upon these criteria a comparable is highly required to match. Noteworthy, in case of seeking rent comparables it is beneficial to also take into consideration rental transactions of the property itself. This is
the only case where comparables can be applied directly and are therefore perfectly matching with characteristics of the property. At this point, it is again 'more allowed' to use a past rental transaction. Relating to yield comparables this is unacceptable as earlier mentioned that these comparables are very dependant on market fluctuations. Only in cases of market stability, this could be an optional alternative. Still, it is preferred to diverge in property relevance above property recency regarding the selection of yield comparables.

**Rent comparables** — perfectly matching comparables are transactions within the property itself, in absence, when alternatives have to be used, the same requirements as yield comparables apply

**Yield comparables** — comparables require to be matched on property's characteristics such as catchments area and function, ownership and age of the shopping center.

*Table 13: Choosing relevant comparables*

**Accurate comparables** — Concerning location of shopping centers it appears that rental prices are higher in the suburban agglomeration of the Netherlands than outside this area. This has to do with disposable income in the area and demographic densities; both much higher than outside the suburban agglomeration. And also between urban districts substantial differences could occur. Therefore, it is preferred to make comparisons with shopping centers in the same region. When these comparables are not on hand, comparables from outside the region could be taken into consideration with the necessary caution. It is certainly not recommended to compare properties within the suburban agglomeration with properties outside this area. As well as yield as rent comparables it is important to select your comparables within subject area.

**Rent comparables** — Required is the use of comparables within same region, alternatives can be done with necessary caution

**Yield comparables** — Required is the use of comparables within same region, alternatives can be done with necessary caution

*Table 14: Choosing accurate comparables*

**Capable to be analyzed** — The way appraisers' are able to analyze their selected comparable is related with the quality of the comparable. In the Netherlands there is no central registry of property rental transactions in which the appraiser can obtain details of comparable transactions; the search for evidence seems like detective work which base the opinion of value. ROZ/IPD (2004) accepts references to market reports as well references from the company's own portfolio. The most reliable source of evidence will be transactions in which the valuer has been personally involved. In that case, the appraiser has knowledge of all circumstances under which the transaction has been completed. Perhaps also information about the tenants' list is familiar for the appraiser concerned. Given that the appraiser does not have direct personal knowledge, most large consultancy companies hold database of transactions in which they have been involved, which can be referred to. Some large consultancy companies even maintain the tenants' list
belonging to property transactions. A better knowledge management system is needed so that appraisers
have knowledge of all the ins and outs of the underlying property’s transaction. In case of rental
transactions, circumstances under which a rent negotiation has taken place could be beneficial for an
appraiser, to create a well based point of view to deal with the transaction. Presenting information of
transactions is sometimes difficult by Dutch law of transparency restrictions. There is an issue of whether
the client confidentiality will prevent this information from going public. Although this information cannot be
published then, it will help to inform the view of the appraiser.

3.4.2 Disclosure of comparables
Besides the statement that perfect comparability does not exist as mentioned in the previous paragraph,
Baum and Crosby (1995) also made the case that the quantity and quality of comparables is the key to all
comparable valuation and that when comparables cannot be applied directly, all adaptations are intuitive.
This states the importance of the appraiser’s skill in making justifiable adjustments which reflect the quality
of the evidence and the characteristics of the property. Hereby an appraiser should be able to substantiate
a minimum of three reference transactions according to ROZ/IPD (2004). This is the minimum of
transactions which should be included for market rents (per sqm.) as well as yields. In case of a small
market or minimal investment activity, transactions in comparable towns or past transactions (max. three
years in the past with explanation) may be used. As long as comparability of market scenario and the
property being valued are kept in mind. (ROZ/IPD, in: Speetjens and Steen, 1998)

As Baum and Crosby states that adjustments of comparables are done on an intuitive basis, uncertainties
are inevitable. It is generally agreed that uncertainty is due to the lack of knowledge and poor or imperfect
information used in analyses. In the context of valuation this refers to the research information underlying
the valuation input going into the valuation models. If it is unable to confirm the veracity of the inputs then
the resulting outcomes are partially uncertain. This is why one of the paramount concerns of the valuation
profession is the need to ensure that information presented to a client is clear and unambiguous.
Uncertainties need to be reported in a manner that the client will understand how the appraiser has done
his/ her job. In below quotation, Crosby (2000) states that the approach of valuation is more important than
the result: a wise client would better accept the fact of uncertainty in the appraiser’s valuation:

"Doctors do not always cure the patient, lawyers do not always win the case, but they are all judged by the
way in which the task was approached rather than any concept of result. The same should be true of
valuers.” (Crosby, 2000)

This statement of Crosby (2000) shows how uncertainty as a universal and unsurprising fact of property
valuation, should be open acknowledged and by transparent management of its implications enhance the
credibility and reputation of appraisers. The principal judgment of valuations must be of their utility by
clients. This said, the importance of comparable disclosure has become clear. The way comparables are
presented to outsiders is essential in making appraisers’ decisions explicit. Sometimes human valuation
decisions are not quite clear to others; this is what gives valuation the idea of a ‘black box’. If assumptions
Discrepancy in retail property valuation

made in the black box are beneficial to the client, a wise client would prefer to have those assumptions reported in a systematic and helpful way. Although should be reported to the client, simply reporting does not solve the problem of which value should be agreed.

In research of Diaz et al. (2002b) it is demonstrated that the way in which appraisers are forced to report will affect the number of comparable sales that valuers will develop and use in their valuations. Valuers from cultures requiring disclosure tend to use more comparable sales in their valuation analysis than valuers from the UK where disclosure is uncommon. The research did not find evidence that assignments in unfamiliar markets increase comparable sales compared to familiar markets.

Apparently, appraisers are influenced by the way they have to report. Clients may have an initial ideal of a valuation report, where the result will be a set of figures presented with complete accuracy and without uncertainty. However, once it is recognized that uncertainty exists and could be beneficial when handled properly, the client would accept the fact. A long valuation report with a single figure at the end is just as misleading and unhelpful to the client as a short report showing a set of figures without considering uncertainties. Openness about uncertainty, in a professionally organized way will be beneficial for both client and appraiser. However, often appraisers are careful about including details of their thought processes into the report as they are worried to be open for criticism in the event the valuation being challenged which relates with the following generic that appraisers even might be motivated to meet the expectations of their client.

3.5 Feedback and Client Influences

One main and actual topic is the way appraisers are dealing with the requirements of their client. On the one hand the valuation is dependent on the wishes of the client which request the appraiser to give a value according to all the rules and codes pertaining in the valuation profession. On the other hand appraisers are willing to meet the requirements of the client to a certain extent, as satisfied customers set up their work. This states that they have to fulfill the requirements of the client but also maintain their professionalism. Appraisers need to strike a balance between the clients' interest and their personal interest. This is of higher importance in cases where the valuation fee is a percentage of the final appraised value which might pose a risk for the valuation.

Client feedback and more particular client pressure is a topic currently attracting the attention of several behavioural researchers. However the results of these studies diverge. Kinnard et al. (1997) uncovered some evidence that US appraisers may be willing to change valuation conclusions in response to client pressure. In this research a behavioural experimental design was utilized to test whether client size or value adjustment size affects the likelihood that commercial appraisers agree to client-requested valuation adjustments. Overall, 41 per cent of the commercial appraisers revised their valuation estimates, without having supportive documentation, when requested to do so by the client. However, Wolverton and Gallimore (1999) have demonstrated that among US valuers, the perceived valuation goal is strongly
related to the degree and nature of client feedback. Results from research done by Levy and Schuck (1999) gives an overview of the primary factors affecting the degree to which clients influence valuations, as listed below:

- Type of the client;
- Characteristics of valuers and consultancy companies;
- The purpose of a valuation;
- The information flow between clients and valuers.

3.6 Conclusion

As pointed out in the previous chapter, with a single point of valuation there is no understanding of the validity pertaining to the input variables. Insight is required into how appraisers behave during their decision-making process to arrive at a valuation. Conclusions are reached with respect to the four identified themes, leading to a number of behavioural generics presented in the table below.

<table>
<thead>
<tr>
<th>A) Biases</th>
<th>It is important for appraisers to guard against elaborating on previous results, as this could misrepresent actual market value. A fresh view on the valuation will optimize the objectiveness of the appraisal.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appraisers have the tendency to use their own previous value judgments as anchoring reference.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B) Descriptive Valuation Process</th>
<th>As mentioned in the description of the descriptive valuation process, appraisers are trying to find shortcuts in the normative process. Diaz III describes this as 'what ought to be done' versus 'what actually is done'. Appraisers might not invest the effort needed to perform the appraisal process, instead taking shortcuts in the steps of the valuation process.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>While appraisers are taught to start at the broadest possible class of influences and to work up through to the narrowest, they actually ignore and usually eliminate the most general information.</td>
</tr>
<tr>
<td></td>
<td>Appraisers start the valuation process by collecting comparable data.</td>
</tr>
<tr>
<td></td>
<td>Valuations in geographically familiar or unfamiliar areas will both lead to behaviour that deviates from the normative appraisal process.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C) Comparable selection</th>
<th>By now, it has become clear that choosing comparables is a highly subjective task. It should be noted that this does not mean the appraiser is not doing the best possible job in estimating value, but the content and credibility of valuers' work will improve to the extent that they report their process of identification and description of uncertainty to the client.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disclosure may influence the number of comparable sales that valuers will develop and use in their valuations. It seemed that appraisers with disclosure restrictions use more comparable sales in their valuation than when no disclosure is required.</td>
</tr>
<tr>
<td></td>
<td>It has not been established that the number of comparable sales differs between geographically unfamiliar and familiar areas.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D) Client Feedback</th>
<th>Professional loyalty versus company loyalty.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Appraisers might be motivated to meet the expectations of their clients.</td>
</tr>
</tbody>
</table>

Table 15: Behavioural generics of appraisal
4 Relationship between task and cognitive system

4.1 Introduction

Due to different forms of research information and processing methods, the determination of valuation input will vary. Judgments made by appraiser and investor are based on their own interpretation of value judgment. This is quite acceptable in cases where the assumptions are made explicit and are well-founded. Where this is not the case, guessing behaviour towards appraised values occurs. What has influenced appraisers’ thought processes and what factors were heavily weighted? This reveals the relationship between the systems which will identify the quality of appraisals. Investor and appraiser may have different perspectives on the quality of appraisals. But also the quality will differ between appraisers. The quality between experts and novices and also between real estate consultancy companies is distinguished. This chapter concludes with a description of latest refinements to ROZ/IPD guidelines. Continual refinement of the guidelines is necessary to enhance the quality of appraisals.

4.2 Different perspectives to the quality of appraisals

Appraisers’ assignments show the differences in appraisal type as mentioned in chapter 2.3.2; full valuation, revaluation or an update. According the assignment appraisers will perform their tasks in order to complete the assignment. This assumes that both parties accept the description of the assignment and know what tasks are included and more important which tasks are omitted. Actual engagement of the task assignment between parties is understood. However, appraisers and investors have different interests of conducting this assignment and even more important parties have different ideas of the delivered quality.

Investors probably link every appraisal assignment in relation to the assignment’s fees. They strive to get a high quality appraisal report in relation with low fees. When they make decisions for their appraisal assignments, they might try to find a balance between the quality and the cost the appraisal consumes. Although investment managers report a value for individual property every quarter, that does not mean that appraisers need to spend the time and money to conduct a full-valuation. More often than not an update from an earlier valuation can suffice, except when managers or appraisers believe there has been a significant change in value. However, the longer the period of not performing full valuations and analysis, the more assumptions will linger around and the more risk for inconsistent outcomes, which again may put a risk to the quality of the appraisal. (Strijker and Muisson, 2007)

Contrary, appraisers prefer to perform their tasks as fast and efficient as possible; to deliver a well based value with less time consuming. Also appraisers are trying to find a balance between their valuation task
and the time they spend on it. This behaviour was studied experimentally by Diaz et al. (2002b). Appraisers from the UK and US were observed during their residential valuation task. It appears that the UK processes resulted in significantly less time on the same task compared to US valuers. This was caused by the way they followed the steps of the valuation process. Shortcuts were made and significantly less normative behaviour was observed by UK valuers. The way in which appraisers follow the steps of the valuation process will affect the time of the valuation task. However, the question rises, to what extent this behaviour have consequences for the quality of the appraisal. With that, experts and novices behaviour can be distinguished.

4.2.1 Experts versus novices
The quality of appraisal could be described by whether an appraiser uses proper data in relation to understandable decisions and is aware of all influencing factors. From this, it may be obvious that the appraiser must possess the necessary qualifications and experience for the particular work involved. Hereby, it could be possible that students, with less experience, deliver relatively lower quality appraisals or are forced to spend more time on their appraisal tasks compared to experts.

In a behavioural study of Diaz, 1990b two distinct approaches between expert appraisers and students were uncovered. The expert approach was more efficient, less cognitive demanding. Novices tend to look at many sales, taking written notes on all the sales examined and postponing any judgments about comparability. Only after they had all the information on all the sales examined did the students begin to select the most comparable sales. Some students never made decisions about comparability used all available sales in the valuation analysis and others used selection strategies that focused on two or three key characteristics such as location and physical conditions.

Compared to students, experts considered fewer candidate comparable sales. Typically an expert proceeded by carefully examining the first few candidate comparable sales on the basis of about two characteristics, usually location and an important physical characteristic. If a candidate sale compared favourably to the ‘best’ standard, it was kept otherwise if it was rejected and the next candidate was screened. If a more comparable sale was discovered, it became the new standard. Once a certain number of sales had been accepted as comparable, the expert terminated the search and started the valuation analysis. The number of comparable sales required to terminate the search varied among individual experts but ranged between three and six.

The strategy of experts is efficient, but because experts may terminate search before all sales are considered, important data may be overlooked suggesting the potential for sub-optimal or even biased results.

4.2.2 Among appraisers
Herd behaviour indicates that people tend to imitate the behaviour of others, even when their own information or private signals are contradictory. (Petit, 2007) Business culture that change from country to
country will be adopted by employees. Overconfidence implies that people think their knowledge and their ability to do well on tasks is better than that of others which makes it hard to renew business habitats.

This said, also in the valuation professional this phenomenon could occur, because the quality is related to the way a valuation is approached. Appraisal quality may differ as consequences of diverging manners in the way companies are dealing with performing their valuation tasks. In order to identify the 'best' price the appraiser will have to consider all potential buyers and their behaviour. This task of identification is always a lot more complicated than it sounds as there will be uncertainty about the availability of potential buyers, there attitude towards price and their personal feeling about that certain property. To conduct the valuation, the appraiser must consider all the variables, using his or her scale and experience and then make a conclusion. The variables will vary from property to property, from situation to situation and from market to market. It is impossible to pinpoint the exact market value that is why a certain margin of error is allowed. The margin of error differs from one valuation to another and it is an institutionally acceptable valuation inaccuracy. "Experts may differ without forfeiting their claim to professional competence". (Crosby, 2000)

To formulate the margin of error the valuer must reflect the accepted variance from a consensus without being negligent. Among experts the principle itself is unanimously accepted. However there is no recorded instance of an expert seeking to deny that the margin of error is a valid indicator for or against negligence on the part of a valuer. In a seminar (UK) valuation general practitioners were asked how close a valuer could be expected to get the 'correct' value of a 'normal' commercial property. Out of 18 responses, 7 per cent said they should get within +/- 5 per cent, a further 57 per cent said within +/- 10 per cent and a further 29 per cent within +/- 15 %. Only 7 per cent said within +/- 20 per cent. (Crosby, 2000) No expert has ever sought to justify that all competent valuations will fall within an identifiable range, by reference to any empirical evidence. It remains a matter of pure assertion.

4.3 Guidelines to improve the quality of appraisals

The IVSC is committed to improve communication and understanding of financial reporting standards through international collaboration. From this the International Financial Reporting Standards (IFRS) are also developed, which European listed property investment trust are obligated to use. (Berkhout, 2005) It has always been the view of the IVSC that the ultimate objective to improve consistency of valuation for IFRS purposes is the adoption of one single set of uniform global valuation standards. Now the IVS has been in existence for a little more than two decades, it is remarkable how much uniformity has been achieved. The UK Royal Institution of Chartered Surveyors (RICS) is willing to scrap their Appraisal and Valuation Manual, called the Red Book, and replace it with the IVS supplemented by national guidance. In effect, all chartered surveyors would be obligated to follow IVS. (Milgrim, 2001) The ROZ/IPD also works towards implementing the International Valuation Standards. IVSC Valuation Manual the White Book serves as a great example for Dutch valuation guidelines as will be pointed out subsequent.
International guidelines are used as example for choosing comparables. In U.S valuation reports a lot of attention is paid to choosing the right comparables. U.S appraisers even give a weight to their references according to their reliability. This will lead to higher conditions on substantiating the use of right comparables. In The Netherlands this is still not the case. Ridder (2003) concluded that in valuation reports of the ROZ/IPD there are often less comparable transactions used and besides this, they are not clearly corrected for the subject property. That’s why there is need for higher requirements and motivations on the analysis of comparables in valuation reports. This is discussed in a meeting of the current appraisal study group of the ROZ/IPD and it was suggested that improvements upon this are necessary to be included in the guidelines. The following planned improvements are construed from the White Book. (ROZ/IPD, 2007):

- Geographic familiarity must be on hand;
- Retain large consultancy companies with professional knowledge of used transactions;
- The steps from choosing comparables to determination of final value must be explicit and well founded.

Apart from adopting the White Book, the actual major improvements of the ROZ/IPD valuation guidelines were published in the autumn of 2003 as follows:

Inflation rates – One of the improvements was that common inflation rates will be presented by the ROZ/IPD. Thereby, a flexible scenario of inflation should be created.

Explicitness of input variables – In a research done by Ridder (2003) it is proved that appraisers seldom give an insightful explanation of their valued yield. This contributes to another major improvement of the guidelines which obligates that all input variables such as gross yield, net yield, exit yield and discount rate need to be precisely founded.

Operating period – Another improvement was that when the DCF model is being used, there should be an operating period of 10 years. This model is chapter 2.4.2.

Certification of valuation models – The most important improvement is certifying the DCF and GIY model. Not only the valuation models will be more uniform and consistent also the quality will higher.

However, the sharpness of ROZ/IPD valuation guidelines remains, also motivated by recent fraud practice of Rabo building fund, Philips pension fund and Fortis. In the fraud cases, appraisers sometimes valued too low and the other time too high, whether it was a matter of buying or selling. Market value of the property was totally misrepresented in these cases. ROZ/IPD needs to eliminate the possibilities for these dark practices by their guidelines. Hordijk in Boon and Marel (2007) believes that the following improvements should be added to the current guidelines:

Frequency of appraisals – increase the frequency of appraisals to once a year, which should be implemented in 2010 at latest in accordance with international standards.

Change of appraiser – Besides increasing appraisal frequency, clients should change their appraisers now and then to guarantee the reliability of the appraisal. By a forced exchange of appraiser, chances for
influences by the client will decrease, according Hordijk in Boon and Marel (2007). Also the risk that an appraiser is anchoring on previous value judgments will be reduced.

Geographical familiarity – Appraisers should not operate in unfamiliar geographical territory unless accompanied by an expert in that area. This is unusual for the Dutch valuation guidelines; however international standards do prescribe it.

In addition, also Boissevain (2008) presents his opinion towards the fraud practice. From his point of view there should be open and public transparency of transacted data. It should be acknowledged that all data pertaining to completed transactions get publicity. This will set a standard in which the market is over seen and a well framework is created and unlawfulness towards valuation would be diagnosed.

4.4 Conclusion

The main relationship between task and cognitive system identifies the quality of appraisals. This quality can be formulated as, the appraiser using proper data in relation to understandable decisions which are made explicit, and appraiser is aware of all influencing factors. It is only logical that the appraiser and the investor have a different perspective on this quality. The investor’s interest is to get a high qualify appraisal report in return for low costs. On the other hand, the appraiser’s aim is to present a well-founded value opinion that warrants their valuation professionalism, yet spending the least possible amount of time on each task. Appraisers generally strive to strike a balance between the quality of their valuation task and the time they spend on it. This of course prompts the question to what extent this behaviour has consequences for the quality. It could be that novices, with less experience, deliver lower quality to their appraisals or are forced to spend more time on their appraisal tasks, compared to experts. Also between companies, the quality might differ. Behavioral generics affecting the quality of appraisals are presented in the table below.

<table>
<thead>
<tr>
<th>A) Experts versus novices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraisal behavior will differ as more convenience is created: experts guarantee a more reliable valuation with less time consumption, compared to novices.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B) Among appraisers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herd behavior means that people are inclined to imitate the behavior of others: between external appraisers, the quality will differ as a consequence of different company types.</td>
</tr>
</tbody>
</table>

Table 16: Behavioral generics influencing the quality of appraisals

Dutch valuation guidelines are subject to continuous refinement aimed at improving the quality of appraisals. Recently uncovered fraudulent practices by the Philips corporate pension fund revealed the darker sides of the valuation profession. To prevent these practices from occurring as much as possible and to optimize the quality, ROZ/IPD guidelines need to be made more strict. Hordijk (2007) believes that the frequency of appraisals, a change of appraisers once in a period and mandatory geographic familiarity are impending improvements to Dutch valuation guidelines. With a view to the international guidelines (White Book), also the step from comparable selection to final value must be made more explicit.
5 Experimental Tool

5.1 Introduction

This experiment is based on interviews with nine professional appraisers. Their experience varied between two and more than ten years of employment in the appraisal profession. The examined appraisers are involved in the valuation of Corio’s portfolio and employ for the following real estate consultancy companies:

- Cushman & Wakefield
- Weatherall
- DTZ Zadelhoff
- Jones Lang LaSalle
- Price Waterhouse Coopers

The experimental tool consists of a questionnaire and a judgmental test. First, the setup of the experimental tool is described, questionnaire and judgmental test respectively, and then appraisers’ responses will be presented anonymously, so as to maintain integrity and objectivity.

5.2 Questionnaire

The research questionnaire contains open questions aimed at appraisers, intended to gain insight into the black box of appraisal. The open questions allow respondents to say what they think in a broad perspective, thus minimizing demand effects. The question flow follows the most important steps of the valuation process, in effect tracing the thought process of the valuer. Starting at the broadest level of the valuation process, the questions gradually zoom in to finally arrive at the determination of rent and yield.

The questionnaire is seen as a very flexible scenario, open to the responses of the interviewees. Whenever possible, appraisers’ answers are confronted with their own appraisal reports. This gives an idea of where diversification occurs between what appraisers preach and what they actually do, which will be explored further in Chapter 6.

The literature review creates certain expectations as to typical appraisers’ responses. In some instances, appraisers will meet these expectations, while it is also possible that appraisers do not meet these expectations. At this point, after they have responded to the question, the appraisers are confronted with the literature findings. The appraisers are subsequently asked for their response to the presented literature, which is weighted using preference lists covered in the questionnaire, included in Appendix V.
5.3 Judgmental Test

In addition to preference lists, a judgmental test is set up to gain insight into the determination of market rent. Rent determinants as listed in paragraph 2.5.1 are presented to the interviewees; these are the five qualities underlying the economic functioning of a shopping center, namely, marketing, physical, functional, locational and geographical quality. By using the Expert Choice random pairwise comparison test in which these qualities are represented, appraisers will indicate their preferences in order of importance when valuing neighborhood-level shopping centers. One of the major strengths of Expert Choice is the capacity to derive accurate ratio scale priorities, as opposed to using traditional approaches of 'assigning weights' which can be difficult to justify. A pairwise comparison is the process of comparing the relative importance of two elements with respect to another element. Verbal judgments are used to compare elements using the words equal, moderate, strong, very strong, extreme. The five elements are paired up in all possible combinations and compared among each other, and are scored according to the respondents' ratings. The program then calculates the weighting factor from 0 to 1, and the result is presented in a horizontal bar graph illustrating the importance of every element per respondent. The graphs are presented in paragraph 5.4.1. An example of the pairwise comparison test using Expert Choice is visualized below.

![Figure 9: Pairwise comparison using Expert Choice](image)

5.4 Experimental Results

Results of the complete experimental tool are described and tested according to literature review conclusions, schematized in the table below. Each question of the questionnaire leads to a possible or partial confirmation of a literature conclusion. The paragraph in which appraisers' responses are revealed is indicated in brackets after the questions in Appendix V.
5.4.1 Actual engagement from investor's perspective

A comparison between appraisers' and investors' valuation methods revealed four major discrepancy issues from the investor's point of view, as concluded in Chapter 2:

A) Lack of insight into appraisers' comparable selection criteria;
B) Lack of insight into how appraisers implement property's functioning in relation to market rent determination
C) Lack of insight into how appraisers implement characteristics of the property that relate to risks and opportunities for yield correction
D) Lack of insight into how appraisers verify the revised rent at the unit level.

These discrepancy issues will be described, followed by the responses to these issues obtained through the experiment.

A) Lack of insight into appraisers' comparable selection criteria

The literature review distinguished rental comparables and yield comparables seeking procedures. Rental transactions focus on retail unit level and the terms under which the unit is let, whereas yield comparables are compared at the local level of the property. In general, appraisers indicated that rental transactions are more easily acquired compared to yield comparables, which are even scarcer when the market is thin. As rental transactions are completed at the unit level, this information is more readily at hand and subject to less publicity restrictions than yield comparables, which are not always directly obtainable. Although the same selection mechanism ought to be used, there are other aspects that influence the final determination of rent and yield.

Three major selection criteria for rent and yield comparables are found in literature as mentioned in paragraph 3.4.2. In short, the comparable evidence must be recent, relevant and accurate. Recent means that there is a limitation on the age of the transactions. Relevancy means that the comparable has similar
characteristics with the subject property. Accuracy means that comparables must be in the same geographical area as the subject property. With reference to these criteria, appraisers were requested to list their preferences in order of importance and subsequently their alternatives. The results are presented in the table below.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Preferences</th>
<th>Rent comparable</th>
<th>Yield comparable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recent comparable</td>
<td>most important</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>missing response</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Relevant comparable</td>
<td>most important</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>missing response</td>
<td></td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Accurate comparable</td>
<td>most important</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>response</td>
<td></td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>missing response</td>
<td></td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 18: Overview of preferences in selecting rent and yield comparables

To accurately interpret this table, a few points must be noted. Not all appraisers were able to indicate preferences because they considered all of the criteria as equally important. In those cases, they just selected the most important criteria when selecting rent and yield comparables, skipping the response to 'second important' and 'less important'. In total, 12 missing responses were observed. Therefore, not all scores total at 9 and the only reliable approach to this table is to interpret the rankings.

The majority agreed that when selecting yield comparables, the most important criterion is that the comparable is recent. As the market could be very volatile, appraisers prefer to use the most recent transactions rather than the most relevant or accurate comparables. This is in line with a zero percentage of appraisers that considered recent yield comparables as 'less important'. In selecting rent comparables, the majority of appraisers agreed that relevancy is most important. The majority of respondents pointed out that they weighted these rental transactions more heavily, since the perfect comparability is reached within the property itself. Background literature states that it is beneficial to take rental transactions within the property into consideration.

Matching yield comparables based on geographic similarity is least preferred. For the rent comparables, being recent is considered least important. Selection within the region follows as 'second important'.
Respondents pointed out that, particularly in cases of revised rent determination, older transactions can be used. By contrast, older transactions cannot be used for market rent determination.

Aside from a few exceptional responses, respondents ‘passed’ on the comparable criteria and their alternatives as they confirmed background literature. The following is a summary of the preference list composed from the responses:

<table>
<thead>
<tr>
<th>Rent comparable</th>
<th>Yield comparable</th>
</tr>
</thead>
<tbody>
<tr>
<td>relevant</td>
<td>recent</td>
</tr>
<tr>
<td>accurate</td>
<td>relevant</td>
</tr>
<tr>
<td>recent</td>
<td>accurate</td>
</tr>
</tbody>
</table>

Table 19: General preferences in selecting comparables

Literature indicates that a fourth criterion can be added to this list, namely the comparable’s suitability for analysis. After all, the most reliable source of evidence is the comparable in which the appraiser has personally been involved. Appraisers confirmed this, as all the ins and outs relating to the comparables are known, including rent incentives or other information under which the transaction was completed. The main real estate consultancy companies maintain databases of their completed transactions. Naturally, other transactions are of equal importance in creating a well-founded market perspective. However, not all underlying knowledge is available from these public resources. Conversely, appraisers may be restricted in revealing their knowledge of transactions in which they were personally involved due to the confidentiality of data, as described further in paragraph 5.4.3.

B) Lack of insight into how appraisers implement property's functioning in relation to market rent determination

Based on the consumers' perspective, paragraph 2.5.1 of the literature review distinguished five qualities underlying the economic functioning of a shopping center. The functional, geographical, locational, marketing and physical qualities will indirectly indicate the height of rent. The way these qualities are interrelated will affect the performance of the shopping center and thereby the rental possibilities. At the moment, there is a lack of knowledge as to which qualities are weighted heavily by appraisers. A judgmental test was used to find out and the results are presented in the table below.
### Five qualities underlying economic functioning of shopping center weighted by appraisers

<table>
<thead>
<tr>
<th>Appraiser</th>
<th>Marketing Quality</th>
<th>Functional Quality</th>
<th>Physical Quality</th>
<th>Locational Quality</th>
<th>Geographical Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appraiser 1</td>
<td>0.051</td>
<td>0.266</td>
<td>0.082</td>
<td>0.128</td>
<td>0.473</td>
</tr>
<tr>
<td>Appraiser 2</td>
<td>0.298</td>
<td>0.214</td>
<td>0.253</td>
<td>0.182</td>
<td>0.053</td>
</tr>
<tr>
<td>Appraiser 3</td>
<td>0.279</td>
<td>0.183</td>
<td>0.265</td>
<td>0.193</td>
<td>0.081</td>
</tr>
<tr>
<td>Appraiser 4</td>
<td>0.107</td>
<td>0.258</td>
<td>0.166</td>
<td>0.4</td>
<td>0.069</td>
</tr>
<tr>
<td>Appraiser 5</td>
<td>0.051</td>
<td>0.178</td>
<td>0.09</td>
<td>0.16</td>
<td>0.522</td>
</tr>
<tr>
<td>Appraiser 6</td>
<td>0.058</td>
<td>0.178</td>
<td>0.094</td>
<td>0.172</td>
<td>0.497</td>
</tr>
<tr>
<td>Appraiser 7</td>
<td>0.051</td>
<td>0.105</td>
<td>0.242</td>
<td>0.439</td>
<td>0.164</td>
</tr>
<tr>
<td>Appraiser 8</td>
<td>0.162</td>
<td>0.32</td>
<td>0.089</td>
<td>0.338</td>
<td>0.09</td>
</tr>
<tr>
<td>Appraiser 9</td>
<td>0.114</td>
<td>0.376</td>
<td>0.158</td>
<td>0.07</td>
<td>0.282</td>
</tr>
</tbody>
</table>

Table 20: Overview of five shopping center’s qualities and their weighting factors
To rule out misinterpretation on the definitions of the qualities, interviewees were presented with a list of tangible aspects underlying the formulation of the five qualities, as covered in the questionnaire in Appendix V. Formulated definitions and related tangible aspects are set up according to the International Council of Shopping Centers (ICSC).

From the results, it is obvious that the manner in which appraisers weighted these qualities is far from uniform. Every respondent considered different qualities to be important, thus restricting consensus. This is very remarkable considering the fact that all appraisers value the same type of properties: neighborhood-level shopping centers. To measure the exact diversity among appraisers within this quality judgment, a box plot is presented in Figure 10. The line-width indicates the variety of responses.

The figure above shows that the largest deviation pertains to geographical quality. Apparently, this quality could be weighted anywhere from least important to most important by appraisers; its importance is hard to rate. This is remarkable because this quality is only passively controllable by an investor and difficult to influence, which should be regarded of high importance. By contrast, marketing and functional qualities are weighted more uniformly among appraisers. Marketing quality has the lowest weighting as this is highly manageable by an investor. Functional quality is considered to be more important and is also rated more consistently among the examined appraisers. It should be noted that this judgmental test was performed on just nine professional appraisers. Even so, it demonstrates that judgments are subjective by nature as the weighting of these qualities is very arbitrary and will vary among every appraisal assignment.

This explains appraisers' initial response to the open question, whether they could present their ideas on correcting the rental range for the subject property; in general they responded that this step is strongly related to appraisers' individual judgment. This is corroborated by the diversity above. Appraisers also mentioned aspects underlying the functioning of the retail unit at micro level, instead of the functioning of...
the shopping center at meso level. This behaviour will be analyzed further in paragraph 5.4.3 as part of the behavioural generic of the valuation process.

C) Lack of insight into how appraisers implement the characteristics of the property relating to risks and opportunities for yield correction

Important aspects for yield correction found in literature were presented to the appraisers. This list is included in the questionnaire in Appendix V and covers 'qualities of the shopping center and expectations of the location', 'existence of a rental potential', 'tenants list' and 'vacancy and tenancy turnovers'. From this list, appraisers are requested to compose their preferences in order of importance when correcting yield for the subject property. Optionally, appraisers can give additions to this list.

That request was only responded to by one appraiser. This appraiser added 'short and long term investments' to the list. However, investments could also be covered within 'qualities of the shopping center and expectation of the location'. This information is supposed to be provided by the investor, as discussed further in the next paragraph. The rest of the appraisers' responses agree that the presented list covered the main aspects underlying yield correction.

<table>
<thead>
<tr>
<th>Property's risks and opportunities</th>
<th>Preferences</th>
<th>Yield correction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualities of the shopping center and expectation of location</td>
<td>most important</td>
<td>1</td>
</tr>
<tr>
<td>- Governmental policy and possible residential developments</td>
<td>second important</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>third important</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>response</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>missing response</td>
<td>1</td>
</tr>
<tr>
<td>Rental potential</td>
<td>most important</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>third important</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>response</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>missing response</td>
<td>4</td>
</tr>
<tr>
<td>List of tenants: length of tenancy agreements and quality of tenants</td>
<td>most important</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>third important</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>response</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>missing response</td>
<td>2</td>
</tr>
<tr>
<td>Vacancy and tenancy changes</td>
<td>most important</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>second important</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>third important</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>less important</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>response</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>missing response</td>
<td>6</td>
</tr>
</tbody>
</table>

*Table 21: Overview of preferences in determinants of yield*
The table should be interpreted with some caution, and the following remarks need to be taken into consideration regarding appraisers' subjectivity, before drawing any conclusions.

With regards to 'rental potential' and 'vacancy and tenancy changes': four appraisers indicated the importance of not taking these aspects into account for yield correction. These aspects underlie actual cash flows and do not affect yields. When taking these aspects into consideration for correcting yield, it can happen that a shopping center is judged twice on this, as the determination of rent can also be corrected for this. Background literature, points out that care must be taken not to take aspects into consideration twice. However, only half of the respondents tend to be cautious here.

One of the examined appraisers indicated that a preference list of these aspects is not practical, as all of the formulated aspects are derivations of expectations of the location and related risks and opportunities of the property. That is why the 'qualities of the shopping center and expectation of location' aspect is considered most important, and all of the others follow from this. Another examined appraiser indicated that it was impossible to assign preferences to the presented list. All of the aspects are of equal importance without giving preference to one or another. However, the majority of the respondents indicated that the list of tenants is the most important when correcting yield. At first sight, they look at the duration of tenancy agreements and the quality of the tenants, which is information provided by the investor. This is related to an earlier statement of appraisers basing their yield correction on the situation of current rents and revised rents as illustrated in Figure 8, paragraph 2.7. None of the appraisers considered vacancy and tenancy changes as the most important aspect underlying the yield correction. This aspect has the lowest response rate with only three responses. Vacancy can just be a temporary issue, not significantly influencing the property's yield.

As evidenced by the literature review, 'property's qualities and expectations of the location' should be treated as most important, because if this aspect is judged reasonably, this will in turn affect the assurance of risks pertaining to the tenants list. It is remarkable that appraisers look at the tenants lists first and approach this aspect as the chief certainty underlying the cash flows. The majority of appraisers judged 'qualities of the property and expectations of location' as second-most important. This implies that the longer the rental duration of the tenants list held by an investor, the more assurance can be obtained. This could give a misleading view of the property performance. In summary, although background literature is confirmed and appraisers base their yield on the situation of current rents and revised rents, respondents lack the literature background by not indicating the importance of 'property's qualities and locational expectations'. This covers aspects that an investor cannot manage directly, which means that the investor gives much account t these aspects in their interpretation of value.

D) Lack of insight into how appraisers verify the revised rent at the unit level

Article 7:303 of the Civil Code states that rent revision is permitted once every five years and should be justified by the market rent. If the market rent is not obtainable, a percentage between the current rent and the market rent is estimated. However, background literature indicated that this guideline comes with too
large a margin for to unequivocally determine the revised rent. To gain insight into this thought process, experimental results are presented in the table below.

<table>
<thead>
<tr>
<th>Most important aspects</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality of the retail unit</strong></td>
<td></td>
</tr>
<tr>
<td>Location within shopping center and pedestrian flow</td>
<td>3</td>
</tr>
<tr>
<td>Functionality of the retail unit</td>
<td>4</td>
</tr>
<tr>
<td>Scarcity of the retail unit location (high demand will lead</td>
<td>2</td>
</tr>
<tr>
<td>to rent close to market rent; vacancy will lead to rent</td>
<td></td>
</tr>
<tr>
<td>close to current rent)</td>
<td></td>
</tr>
<tr>
<td>Comparison with similar retail locations and rental</td>
<td>1</td>
</tr>
<tr>
<td>situations</td>
<td></td>
</tr>
<tr>
<td><strong>Quality of the tenant</strong></td>
<td></td>
</tr>
<tr>
<td>Tenants' activity within rent negotiation</td>
<td>1</td>
</tr>
<tr>
<td>Tenants' individual possibilities for rental growth</td>
<td>1</td>
</tr>
<tr>
<td>Tenants' individual possibilities in relation with specific</td>
<td>1</td>
</tr>
<tr>
<td>sector</td>
<td></td>
</tr>
<tr>
<td><strong>Rental contract</strong></td>
<td></td>
</tr>
<tr>
<td>Duration of current rental contracts</td>
<td>1</td>
</tr>
<tr>
<td>Indication of newly concluded contracts</td>
<td>2</td>
</tr>
<tr>
<td><strong>Tenancy change</strong></td>
<td></td>
</tr>
<tr>
<td>Expectations of a tenancy change; chance that individual</td>
<td>3</td>
</tr>
<tr>
<td>tenant will leave or investor's interest in keeping the</td>
<td></td>
</tr>
<tr>
<td>tenant</td>
<td></td>
</tr>
<tr>
<td><strong>Legislation</strong></td>
<td></td>
</tr>
<tr>
<td>Tenants' protection; juridical sentence</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 22: Appraisers' responses to important aspects underlying revised rent determination

The table above shows individual appraisers' responses to the determination of revised rents. The number of appraisers that gave the same response is presented in the weighting column. It appeared that quality of the retail unit, its location within the shopping center and functionality of the retail unit were mentioned most by the examined appraisers. These aspects were mentioned in paragraph 2.5.1 in conjunction with the determination of market rent. The fact that appraisers came up with aspects in relation to the market rents might point to their difficulty in expressing aspects underlying the rent revision. This is simply because it very much depends on individual situations, although appraisers did mention 'expectations of a tenancy change' several times, which might indicate its significance. Appraisers also mentioned taking legislation and juridical sentence into consideration when determining revised rents because new contracts give a good indication of the range for rent revisions.

It is worth noting how some of the aspects mentioned above are in line with each other or cover other aspects. This is due to different approaches and individual expressions of the respondents regarding revised rent determination. One interviewee indicated to not only look at the individual tenant but to make
comparisons with other similar locations and rental circumstances, to observe how rents were determined there. Paragraph 5.4.5 describes how approaches to rent revision may differ between companies.

Subsequently, appraisers were requested to indicate a commonly used percentage which verifies their revised rent determination. Naturally, this strongly depends on each individual situation, and quite understandably, not all appraisers could pinpoint exact percentages for this. Five appraisers gave their ideas of a rent indication as presented in the table below.

<table>
<thead>
<tr>
<th>% between current rent and market rent</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; in common: 10% below market rent</td>
<td>1</td>
</tr>
<tr>
<td>&gt; in general below market rent</td>
<td>1</td>
</tr>
<tr>
<td>&gt; in case of an anchor store; 10% above current rent</td>
<td>1</td>
</tr>
<tr>
<td>&gt; in case of a tenancy change: assumption for the new tenant is 100% market rent</td>
<td>1</td>
</tr>
<tr>
<td>&gt; estimation of this percentage could be provided by the investor</td>
<td>1</td>
</tr>
</tbody>
</table>

*Table 23: Appraisers' ideas of revised rent indication*

5.4.2 Actual engagement from appraisers' perspective

Once discrepancies from the investor's perspective are described, it is fair to look at appraisal from the reverse perspective. Chapter 2 concluded with the question whether the appraiser should actually meet the requirements as listed in previous paragraph 5.4.1, as this is basically not included in the appraisal assignment. While investors may request more insight into the derivation of variables, this will create a more time-consuming appraisal assignment. Naturally, the appraiser would like to meet the investor's requests, but this would mean increasing the fees of the assignment as extra notes and explanations need to be drafted to enhance the investor's comprehension. There are two major discrepancy issues found from the literature review as concluded in Chapter 2, namely:

A) Transparency within format of report
B) Lack of the information flow

A) Transparency within format of report

The following view was given by the respondents in general. They indicated that most work appears when assumptions need to be made explicit. Description of corrections and the formulation of explanations are very time-consuming. In the United Kingdom, it is already common to ask appraisers for their verbal thoughts and explicit reports. The RICS guidance note even gives preferred instructions for how the uncertainty pertaining to the valuation should be reported. According the RICS, the approach that verbally reports is the preferred technique. However, in these cases also a higher price is paid for the appraisal assignment. This phenomenon is emerging in the Netherlands too. In the United States, this is already a standard. It indicates the importance of valuation management: when more attention is paid to appraisals by the investor, they should compensate the appraiser in fee.
With a first-class valuation management, value will be affected positively as this gives more transparency and increases shareholders’ trust. This in turn encourages a high-quality appraisal administration system. Smart investments in appraisal management are crucial to optimizing asset management, which is the core business of the trust. If an investor strives for high quality appraisals, naturally higher payments need to be made. This investment could benefit from using the appraisal results to gain internal intelligence in value developments, and to understand how these are affected by rental incomes and rental values. Regional analyses of appraisal results can now be performed, delivering valuable information and insight into investors’ rental developments and strategic choices. In this way appraisal has become a part of the internal asset and portfolio management.

B) Lack of the information flow

When the investor requests more insight and justification of comparables, then appraisers need to be fed with the best and most useful information by the investor as well. As evidenced by the research, knowledge is of key importance in valuation. It is important that information provided by the investor can fulfill the expectations of both parties, so that the results can do likewise. To what extent can an investor enhance information provision? On this question, interviewed appraisers were in consensus regarding the provision of additional factual information about the subject property, whereas subjective information should not be fed to the appraisers as this could interfere with their perspectives. Appraisers responded that, for instance, SWOT analyses should not be provided as it might influence the objective thoughts of an external appraiser. Rather, these analyses are based on investors’ interpretation of their research information and therefore judged subjectively. It would be more interesting for an investor to gain knowledge of what appraisers view as threats and as opportunities. In particular, appraisers’ market vision is interesting information for an investor, and for that reason they should definitely not disclose their own market prospects.

In general, appraisers did not express dissatisfaction regarding current information exchange. Professional real estate investment trusts provide sufficient property information. However, continual refinement of the quality of information is necessary to guarantee a clear and good conveyance of tenants lists and property maps. This could prevent appraisers from spending too much time on checking tenants lists and eliminates errors in the calculation model. Here, one appraiser specifically mentioned Corio’s update request. This is a request for appraisers to give an indication of the value increment for the upcoming quarter. Presented information consists of current total rental income, current total market rent and the property’s value compared to the previous quarter. However, this appraiser remarked that it is not the market rent that valuation is based on but the revised rent, and that revised rent is not determined internally. Also, yields are not determined which makes it hard for an appraiser to update a property’s value increment based on investor’s information, as there is no insight into the key input variables. Improvements to Corio’s update request in terms of better and more complete information should be implemented. Appraisers also appreciate updates conducted using calculation models. The update is then focused on the changes in rental income and the changes in current yield.
To enrich information provision, all factual information underlying the property is of importance and should be taken into account. Pedestrian counts and well-substantiated estimations of sales per sqm. are considered valuable information when conducting a value judgment. Mapped pedestrian flows are also helpful information. Besides expansion-schemes or governmental zoning plans, it is also good to know what the investor has in mind for future developments; otherwise appraisers are forced to retrieve this information from the regional government. The table below lists all the facts mentioned by interviewed appraisers that they would like to see provided by the investor.

<table>
<thead>
<tr>
<th>Valuable information</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement of clear and unequivocal information</td>
<td></td>
</tr>
<tr>
<td>Tenants lists</td>
<td>4</td>
</tr>
<tr>
<td>Format of tenants lists</td>
<td>1</td>
</tr>
<tr>
<td>Property maps</td>
<td>2</td>
</tr>
<tr>
<td>Potential additional information</td>
<td></td>
</tr>
<tr>
<td>Pedestrian counts</td>
<td>3</td>
</tr>
<tr>
<td>Pedestrian flows</td>
<td>2</td>
</tr>
<tr>
<td>Estimations of sales per sqm.</td>
<td>3</td>
</tr>
<tr>
<td>Planned developments and investments</td>
<td>2</td>
</tr>
<tr>
<td>Sales information</td>
<td></td>
</tr>
<tr>
<td>Overview of sold properties</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 24: Improvements to Investor's information conveyance

5.4.3 Behavioural generics among appraisers

Based on the literature review, behavioural generics within appraisal were formulated. Once again, main generics as concluded in Chapter 3 are summarized below. These generics will be described consecutively in relation to analyzed appraisers' responses. This will reveal where appraisers behave consistently and where appraisers' behaviour diverges among the nine interviewed appraisers.

A) Biases
   - Appraisers tend to use their own previous value judgments as anchoring reference points
B) Descriptive Valuation Process
   - Appraisers may not invest the effort needed to perform the appraisal process but take shortcuts in the steps of the valuation process
   - Set in geographically familiar or unfamiliar areas will both lead to behaviour that deviates from the prescribed appraisal process
C) Comparable selection
   - Disclosure may influence the number of comparable sales that valuers will develop and use in their valuations
   - The number of comparable sales will not differ in geographically unfamiliar and familiar areas
D) Client Feedback
   - Appraisers could be motivated to meet the expectations of their clients (agent related bias)

Table 25: Behavioral generics summary
A) Biases
Interviewed appraisers revealed divergent views on confirmation behaviour and on using their previous value judgments as anchoring reference points. On the one hand, the majority indicated that they were not afraid of the risk of repeating previous values. More often than not, these appraisers held strong relationships with their internal research department which ensures excellent market intelligence. On the other hand, appraisers were also in favour of the idea of changing appraiser once every three to five years to guarantee an objective perspective. This is also prescribed by the RICS. A new and fresh perspective should be introduced every five years, which is in line with the valuation system as described in paragraph 2.2.

Also, appraisers' opinions towards quarterly appraisals showed some divergence. On one hand, it could be beneficial from a commercial perspective to value the portfolio every quarter, ensuring an optimum market benchmark. A market credit crunch can cause strong fluctuations of the market and volatile changes. Quarterly appraisals provide shareholders recent information and up-to-date insights of the portfolio.

On the other hand, a neighborhood-level shopping center is a relatively stable real estate object. Once tenants are contracted and the shopping center is in considerable operation, these centers guarantee a relatively stable income flow and significant changes will be minimal, particularly within a quarter. Therefore, in this case quarterly appraisals might not significantly add to the previous value, and appraisers indicate that an appraisal twice a year should suffice.

B) Descriptive Valuation Process
To confirm if appraisers indeed take shortcuts in the steps of the valuation process, interviewees' responses were analyzed to reveal the following. Appraisers concurred on the initial steps of the valuation process, mentioning the following tasks:

- Engagement with the client
- Valuation purpose
- Definition of value
- Time and price of the valuation assignment
- Information provision such as tenants lists and property maps
- Property visit
- Planned maintenance
- Etc.

This is in line with the valuation process prescribed by the Appraisal Institute, which starts with data collection and data analysis, assuming that the appraiser is aware of the valuation purpose and scope of work. This indicates that appraisers are adequately aware of the normative valuation process. One respondent estimated the time spent on market analysis as 40% of the appraisal assignment, with 25% of the time spent on processing information in the calculation model and 35% spent on the interpretation of
Discrepancy in retail property valuation

the actual valuation. By contrast, a few confident appraisers actually did indicate that they start the valuation process by looking at more detailed aspects such as parking places, vacancies in the shopping center, retail mix and its locational quality. Through experience, a personally developed framework enables the appraisers to directly put the subject property in the market context. In that case, skipping the initial steps can decrease the 40% estimated time spent on market analysis as analyzed from other respondents. This remarks that the steps in the valuation process where appraisers tend to take shortcuts are generally related to the comparable collection and verification. None of the appraisers actually said that they start the process of collecting comparables in an early phase; however, appraisers tend to deal with the comparables in an efficient manner, as described in the paragraph below.

With regard to a valuation update, the valuation steps will differ. The literature review already described the content of the update assignment which is more of an administrative task than an actual valuation. Appraisers pointed out that the update is principally a matter of identifying the changes in the past quarter. Tenants lists are updated and close relationships with the internal research department are used to stay in touch with the latest yield developments. Within the assignment, appraisers will not search for new comparable transactions but will predominantly use their market sentiment.

In general, appraisers did not think they would behave differently within the valuation steps for geographically unfamiliar areas as they can still obtain a good market sentiment in the unfamiliar area. They indicated that after data has been collected, the process is continued as usual by searching for comparables to create a good framework. A few appraisers pointed out that it would be very time-consuming to collect all market data in unfamiliar areas, but that unfamiliarity rarely occurs within this country. The research departments of the leading real estate consultancy companies possess country-wide familiarity.

C) Comparable Selection

The quality of comparables depends on the appraiser’s skill in making justifiable adjustments reflecting the characteristics of the property. Upcoming improvements adopted from the United Kingdom show that well-presented comparables with a clear application for the subject property will enhance the appraised quality. In the United States, the time spent on the comparables analyses is almost equal to the complete property analysis itself. This means that, although it is said to be very time-consuming, a client can ensure the appraisal quality by requesting appraisers to substantiate their comparable choices and the corrections performed. Vice versa, an adequate appraiser should be capable of showing the differences between the comparables and the property to be valued. In contrast to the increasing need to make the comparable corrections explicit, the substantiation of aspects underlying the economic functioning of a shopping center are not at all presented in the reports. A property’s performance could be made explicit within the discount rate structure, however, so far this is seldom done.

While it would be very helpful for this to be articulated, the literature review also pointed out that appraisers often cannot make their comparable knowledge public due to client confidentiality. Sometimes appraisers
use the term ‘among others’ when presenting their comparables to make the reader aware that the reported list of comparables is just a small reflection of appraiser’s actual knowledge. More often than not, appraisers are restricted from going public with their information, which restricts the list of relevant comparables to be reported. In such cases, the appraisers might have to report a less relevant list of comparables, which affects the transparency of the valuation process.

Aside from this, requesting appraisers to provide insight into their comparables means more detailed analyses of comparables. Comparables then need to be judged in specific, and notes of their function compared to the subject property should be made. All positive and negative scores must be analyzed to ensure a well-founded disclosure. Literature stated that this could even affect the number of comparables that valuers use in their valuations. An appraiser should be able to substantiate a minimum of three, according to ROZ/IPD guidelines. However, respondents unanimously admitted that they weighted more comparables in valuations than they reported. Respondents also unanimously suggested that substantiating five to ten comparables, rather than three, would paint a clearer picture of the valuation process. This is only achievable when relevant and recent transactions are available. Thereby, appraisers indicated that the number of comparables will not differ in familiar or unfamiliar areas.

In addition to the questionnaire, respondents were asked whether it would be worthwhile investing in a more extensive and explicit valuation report by both parties. Some respondents indicated that it is their task to deliver the correct appraised value and that, more often than not, they know this value before they start their search for comparables. It would be a waste of time to start searching comparables that support their initial value estimation. This response certainly confirms the biased behavior described earlier, as well as appraisers’ tendency to take shortcuts in the valuation process. In these cases, the value judgment of the subject property is done before processing comparables.

D) Client Feedback
Concerning the risk of agent-related bias, appraisers gave two perspectives. On the one hand they were willing to meet their agent by adjusting their values on factual information not known at the date of valuation. This is information such as tenancy changes or revised rental contracts that could be reconsidered and included in the valuation. On the other hand, they made a strict point of not adjusting their market opinion and related future prospects. The appraiser is an objective outsider who estimates what a third party would possibly pay for the subject property, whereby the opinion of the investor is not useful. The investor may have a different perspective on upcoming market fluctuations, however this perspective cannot be taken into consideration by the appraiser, unless this opinion is based on objective data such as completed transactions. In cases where new comparable transactions took place during the valuation process, appraisers stated their willingness to adjust their values, pointing out that this is explicitly not opinion-based.
5.4.4 Differences and similarities between experts and novices

The literature review revealed two distinct approaches used by expert appraisers and novices respectively. The first approach showed that the expert approach is less cognitively demanding versus the novices who tend to postpone their judgments about comparability and first take written notes on all the sales examined. As far as behaviour towards the normative valuation process is concerned, expert appraisers are more confident in putting the subject property in its market context. They tend to place the property in the market in an early phase of the valuation process as they are equipped with a complete valuation framework. One interviewed appraiser honestly admitted that there exists an initial idea of value and that it is just a matter of finding the right candidate comparables to substantiate this initial idea. This reflects appraisers’ confirmation behaviour as described in paragraph 3.2, whereby valuers make early, preliminary judgments and then seek to over-weight these early opinions. The same appraisers also remarked that it is a very roundabout way to analyze all the differences of the found comparables with the subject property, as this is just probing to find confirmation of your initial value judgment. This means that expert appraisers indeed put the subject property in its market context in an early phase of valuation by referring to their developed market framework. In consequence, this reduces the time spent on market analysis by the expert appraiser.

This brings us to the second distinct approach from the literature review, which stated that experts consider fewer candidate comparable sales compared to novices. In large consultancy companies, novices are accompanied by an expert to work together on the appraisal assignment. The novice conducts significantly different tasks here. Novices start by filling in the value calculation model and then check the model with regard to tenancy leases. Novices’ tasks are predominantly on the administrative level within the valuation, and they do not verify actual values. Novices’ activities could be summed up as following:

- data collection
- importation of rental leases in the calculation model
- search for candidate comparables (with limited interpretation of the comparables)
- other administrative tasks.

One interviewed novice appraiser indicated that sometimes even a whole week is spent solely on data importation. These activities help the novice appraiser to develop a well-founded valuation framework. After three years of experience, they are sufficiently trained to conduct assignments on their own.

By implementing this approach, differences between experts and novices’ behaviour are minimized. As the novices are assigned significantly different tasks within the valuation, the behavioural generic that ‘experts guarantee a more reliable valuation with less time-consumption compared to novices’ cannot be substantiated.
5.4.5 Differences and similarities between company types

The literature review stated ‘that experts may differ without forfeiting their claim to professional competence.’ Here, the valuer is expected to reflect an accepted variance from a consensus to not be negligent. That a valuer might differ from the ‘correct’ value is unanimously accepted. However, a valid indicator cannot be defined, as not all valuations will fall within an identifiable range. Naturally, consultancy companies have different habits and different business cultures which make it impossible to pinpoint identical values. It would be more interesting to describe similarities and differences in the task of value approaching, rather than defining an acceptable margin of error. For the five large consultancy companies covered in the experiment, the following results emerged.

It is common practice across the five consultancy companies to approach the appraisal assignment in couples, consisting of an expert and a novice. One company also pointed out that appraisers have their own dedicated region in which their skills are developed. Continual feedback between the appraisers is crucial in case of assignments outside their geographic familiarity, but this enlarges their geographical competence and efficiency within their region.

Apparently, companies are in agreement that novices should not approach the appraisal assignment on their own. Aside from this, more often than not companies distinguish themselves from others through their business habits. The following differences were analyzed from appraisers’ responses.

Commonly accepted definitions and terms – Regarding business habits, a high diversity in the definitions used is commonly accepted. Rental worth is usually accepted as market rent and current rent, actual rent or running rent is used to indicate the contract rent without creating much confusion. ROZ/IPD also works to continually refine their published list of common definitions. From respondents, it appeared that there is a lot disorder regarding the interpretation of the judgment for the relative performance. What defines a well-functioning real estate object? In formulating these opinions, wide-ranging interpretations of a property’s qualities occurred as seen in paragraph 5.4.1. Within the respondents judgment on these qualities diverges. Even between respondents from the same company, there is no consensus reach on what is considered to be important when judging the property on its functioning.

Risk of repeating on previous values – It appeared that appraisers were predominantly not afraid of repeating previous values as mentioned earlier. This attitude is understandable as most large consultancy companies maintain strong relationships with their research departments. One company indicated that meetings with employees of the capital market groups are held quarterly. This helps the appraisers keep a close eye on market fluctuations. These companies also maintain large databases of transactions and have national data coverage. Given these solid resources, smaller consultancy companies may find it difficult to compete with these strong parties, due to their lack of geographical data coverage.

Variables explicitness – The upcoming practice from the United States and United Kingdom motivates several respondents to make their appraisal reports more explicit. The combination of client requests and a
company which encourages this upcoming practice, has led a few companies to start offering detailed substantiations of their discount rates in addition to their reports. Additional remarks and well-informed assumptions are progressively reported to make their thoughts understandable to others. Also, the first formats for matrices in which comparables are compared and clarified are starting to gain attention. Still, the majority of appraisers believed that there is no need to support this upcoming trend. As valuation remains a matter of pure assertion, the most important thing is to deliver correct value. One appraiser supported this by stating the view that it is not even in investors' interest to gain more transparency regarding valuations, as they are well versed with their own properties. According to the same appraiser, presenting thought process in appraisal reports is time-consuming and not part of the valuation profession.

Revised rent – With regard to the rent revision approach, one company stood out in approaching this in a more detailed manner, compared to others. Their approach consists of comparing the subject retail unit with transactions over the past five years of other units in similar locations and rental circumstances. In their opinion, the estimation of 'a percentage between market and contract rent', as prescribed in article 7:303 of the Civil Code, is old fashioned and leaves too large a margin, and therefore this guideline needs to be refined urgently. It may be that other companies approach rental transactions in such specifics as well, but they did not mention this explicitly.

Company habits – Due to differences in company strategies, companies have a different valuation focus. The quality between appraisers might differ due to different company strategies. Where one company typically concentrates on extraordinary types of real estate and valuations, the other company may be specialized in more heterogeneous properties such as neighborhood-level shopping centers. Naturally, it would be best to approach those companies that specialize in the subject property type.

5.5 Conclusion

In conclusion, the experiment revealed a major strength and a major weakness of the current valuation practice. The appraisers excelled at their market knowledge. They claimed to be capable of pointing out the differences between comparables and the subject property. They start the valuation process by collecting and analyzing general and specific market data of the property according to the normative valuation. A few confident appraisers claimed that they could skip these steps as they are equipped with a sufficient framework in which to put the subject property during the early phase of valuation. Besides, internal departments of capital markets can also facilitate them with market intelligence. During the selection of rent and yield comparables the same selection mechanism is used although in 'thin' markets other alternative-comparables will be selected for rent and yield respectively. Responses of interviewees to some extent accorded with the background literature on comparable criteria. However, appraisers had more difficulty to prioritize different aspects underlying the market rent determination. The appraisers need to improve their property performance knowledge. From the responses, appraisers are well versed with the valuation process and market intelligence, but are weak on subject property's performance. By examining the appraisers in terms of their preferences, it emerged that the judgment of the individual property's qualities is
Discrepancy in retail property valuation

performed very subjectively. Linking the physical real estate to the functioning of the property appeared to be extremely difficult as appraisers could not reach agreement on what is considered important when valuing neighborhood-level shopping centers. Here appraisers tended to brush aside determinants that indirectly influence the height of rent, such as a property's qualities, which affect tenants' sales possibilities. Instead of placing the subject property in the context of its functioning, appraisers quickly move on to rent determinants which have a more direct impact on rent determination, such as the quality of the retail unit and the quality of the tenant, which also affect achievable sales. This is schematized in the figure below.

![Figure 11: Steps in appraisers’ rent determination](image)

Appraisers’ lack of knowledge of property’s performance might indicate the need for a better flow of management information. Information such as estimations of sales and pedestrian counts could enhance appraisers’ perspective on the functioning of the property.
6 Appraisers in Practice

6.1 Introduction

The aim of behavioural studies into valuation is to understand actual valuers’ problem solving. Besides, normative valuation methods, there is need for descriptive research which will provide a solid basis for offering methods of improvement. This chapter will highlight most remarkable judgments for neighborhood-level shopping centers caused by different research information. Subsequently, appraised values will be compared with value estimations according to the internal interpretation. This will bring to light the impact of subjective behaviour on the final valuation. Finally, an appraisal report will be checked by comparing the actual behaviour of the appraiser concerned to what valuers’ have preached in the previous chapter. The first step towards understanding this diversification can be achieved by referring back to the discrepancy in judgments between internal and external party as presented in table 1.

6.2 Remarkable appraisals

The problem motivation of the research demonstrated that diverged research information of appraiser and investor is of key importance to understand valuation discrepancy. The research information sets up an explicit valuation framework which is relatively understandable to others. However, the subjective interpretation of this framework will lead to the intangible component of valuation which might be more ambiguous. That is where the valuation framework starts to be based on subjective judgments. Table 1 in Chapter 1 presented results of diverged judgments between appraisers and investor which is described in detail in Appendix III.

Table 1 showed six outstanding shopping center judgments. Sterrenburg in Dordrecht is pertinent with relatively high sales and also located in a high quality geographical area. Even with a low number of visitors as indicated in the internal benchmark of neighborhood-level shopping centers, this shopping center has a relatively high gross initial yield. This is similar to Groenhof shopping center in Amstelveen as described in the research introduction. The same goes for Vinkhuizen in Groningen which is more optimistically judged by the appraiser compared to the internal party. It could be possible that this is because the shopping center is related with more risks as it is situated in the northern part of the country. Getsewoud in Nieuw-Vennep showed significant judgment as well. According to the appraiser, this shopping center is attained the lowest gross initial yield at the end of 2006 among all neighborhood-level shopping centers in Corio’s portfolio. In contrary, Corio viewed Getsewoud as an ordinary performing neighborhood-level shopping center. The same goes for Schelfhorst in Almelo which is also judged higher by the appraiser compared to the Corio judgment. The opposite is the case for Maaswijk in Spijkenisse. While Corio judged this as one of
their best performing neighborhood-level shopping centers, the appraiser concerned apparently disagreed and valued the shopping center with a high gross initial yield.

To analyze whether there is a structural difference between the results in Q4 2006 (table 1, Chapter 1) and Q2 2007 (the following full valuation), Table 26 shows Q2 2007 results as judged by appraisers. For comparison also the interpretation of the investor is visualized in the table.

<table>
<thead>
<tr>
<th>Appraisers’ major research information</th>
<th>Investor’s major research information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market research:</td>
<td>Economic functioning of the shopping center:</td>
</tr>
<tr>
<td>- market developments</td>
<td>- sales per square meter</td>
</tr>
<tr>
<td>- market comparables</td>
<td>- pedestrian counting’s</td>
</tr>
<tr>
<td>1. Groenhof in Amstelveen</td>
<td>1. Langevoort in Oegstgeest</td>
</tr>
<tr>
<td>2. Vliethof in Wateringen</td>
<td>2. Maaswijk in Spijkenisse</td>
</tr>
<tr>
<td>4. Weidevenne in Purnierend</td>
<td>4. Sterrenburg in Dordrecht</td>
</tr>
<tr>
<td>5. Langevoort in Oegstgeest</td>
<td>5. Velerbroek in Velsen</td>
</tr>
<tr>
<td>5. Maaswijk in Spijkenisse</td>
<td>5. Vliethof in Wateringen</td>
</tr>
<tr>
<td>7. Schelphorst in Almelo</td>
<td>7. Getsewoud in Nieuw-Vennep</td>
</tr>
<tr>
<td>12. Sterrenburg in Dordrecht</td>
<td>12. Reigersbos in Amsterdam</td>
</tr>
<tr>
<td>13. Liekeblom in Leek</td>
<td>13. Vinkhuizen in Groningen</td>
</tr>
<tr>
<td>14. Reigersbos in Amsterdam</td>
<td>14. Liekeblom in Leek</td>
</tr>
</tbody>
</table>

Table 26: Diverged property judgments as consequences of diverged research information

Note 1: when shopping centers are valued the same, they end at the same place subsequently followed shopping center will resume numbering.
Note 2: market research is based on figures of Q2 2007.

From this comparison, it appeared that appraisers indeed met the internal judgments closer but two significant observations are noted. First, it is remarkable that Groenhof was valued as the best performer in Q2 2007, whereas it was ranked last only one appraisal before. Client feedback might have led to new insights by the appraisers. Second, out of all the shopping centers, Sterrenburg in Dordrecht still has the largest gap in judgment. This comparison only shows the difference of judgment in rankings but how much does the ranking difference translate into actual value?

6.3 Internal versus external values

By now, the importance of the two major input variables, initial yield and rental income, within the valuation has become clear. Up till now, research based on the comparison of actual appraisal figures is still relatively scarce. There is a reduced amount of studies that measure actual value difference between internal and external appraisal. Most of the studies are focused on valuation accuracy, appraised value in
Discrepancy in retail property valuation

relation to selling prices. Probably, this is because the internal party is obligated to conduct their yearly valuations by an external appraiser, why there is no need to produce those values themselves. However, it would be very interesting to find out what could have been the result if investors were to value their own properties, based on consumer research. Assumptions done to achieve this are summed up subsequent.

Simulation method – Only the consequences for the valuation caused by differences in internal and external initial yield and rental income will be measured. All the other variables such as gross-net path, average duration of the rental contracts and the discount rate will be kept constant; i.e. identical to the latest full valuation. Also, the discounted rent increase will be worked out according to assumptions done in latest appraisal. This is represented in the appraisal example in Appendix V. With regard to the neighborhood-level shopping centers in Corio’s portfolio, latest full valuations are done in the fourth quarter of 2006 or in the second quarter of 2007.

Determination of rental income – Unequivocally, the contract rent will be provided by the investor. However, to conduct a valuation, the appraiser needs to use the market rent and the revised rent. The market rent is indicated by the investor as the internal leasing department keeps record of this. Market rents differences between internal and external party are given in the table below, the actual figures are represented in Appendix VI. The internal revised rent is estimated according assumptions listed below and the actual figures are also included in Appendix VI:

- If the internal market rent exceeds the contract rent, the internal revised rent will be assumed at 50% of the difference.
- If the internal market rent minors the contract rent, the internal revised rent will be assumed at 25% of the difference below contract rent.

<table>
<thead>
<tr>
<th>Neighborhood-level shopping centers</th>
<th>Date of full valuation</th>
<th>Market rent differences (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijum in Groningen</td>
<td>Q4 2006</td>
<td>5.54%</td>
</tr>
<tr>
<td>Getsewoud in Nieuw-Vennep</td>
<td>Q4 2006</td>
<td>0.71%</td>
</tr>
<tr>
<td>Groenhof in Amstelveen</td>
<td>Q2 2007</td>
<td>-9.99%</td>
</tr>
<tr>
<td>Het Paradijs in Hoofddorp</td>
<td>Q2 2007</td>
<td>-1.08%</td>
</tr>
<tr>
<td>LangeVoort in Oegstgeest</td>
<td>Q4 2006</td>
<td>7.13%</td>
</tr>
<tr>
<td>Liekeblom in Leek</td>
<td>Q2 2007</td>
<td>7.17%</td>
</tr>
<tr>
<td>Maaswijk in Spijkenisse</td>
<td>Q2 2007</td>
<td>-5.03%</td>
</tr>
<tr>
<td>Reigersbos in Amsterdam</td>
<td>Q4 2006</td>
<td>-8.02%</td>
</tr>
<tr>
<td>Schellhorst in Amelo</td>
<td>Q2 2007</td>
<td>1.37%</td>
</tr>
<tr>
<td>Sterrenburg in Dordrecht</td>
<td>Q2 2007</td>
<td>4.34%</td>
</tr>
<tr>
<td>Velsenbroek in Velsen</td>
<td>Q2 2007</td>
<td>-0.27%</td>
</tr>
<tr>
<td>Vinkhuizen in Groningen</td>
<td>Q4 2006</td>
<td>-0.91%</td>
</tr>
<tr>
<td>Vliethof in Wateringen</td>
<td>Q2 2007</td>
<td>-4.80%</td>
</tr>
<tr>
<td>Weidevenne in Purmerend</td>
<td>Q2 2007</td>
<td>-2.58%</td>
</tr>
</tbody>
</table>

Table 27: Internal and external market rent differences in percentages; Q4 2006, Q2 2007 respectively
**Determination of initial yield** – The determination of an internal initial yield requires the following estimation. The yield range determined by the appraiser will be rearranged according to the internal interpretation. The gross initial yield varies from 6.14% till 7.41% in Q4 2006. By using a normal distribution graph, this range will be reordered from best to worst performing shopping centers. The two best and worst performing shopping centers will be left out as there might something unusual with the valuation of these shopping centers. For instance the Reigersbos shopping center in Amsterdam has an unusually large gross net path and this shopping center will not be part of the average flow of yields. The yield of the majority of shopping centers falls then between 6.48% – 6.95%. Now four groups are distinguished and schematized in the figure below. There is also a normal distribution set up pertaining to figures of Q2 2007 with a yield range of 5.91% till 7.65%, presented in the figure.

![Figure 12: Gross initial yield ranges; Q4 2006, Q2 2007 respectively](image)

By using this range, the distribution of gross initial yields will be rearranged according to the internal judgment as listed in table 26. These yields will be used in the value calculation and are presented in the table below.

<table>
<thead>
<tr>
<th>Neighborhood-level shopping centers</th>
<th>GIY Q4 2006 - appraisal</th>
<th>GIY Q4 2006 - internal estimation</th>
<th>GIY Q2 2007 - appraisal</th>
<th>GIY Q2 2007 - internal estimation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijum in Groningen</td>
<td>6.50%</td>
<td>6.72%</td>
<td>6.50%</td>
<td>6.38%</td>
</tr>
<tr>
<td>Getsewoud in Nieuw-Vennep</td>
<td>6.14%</td>
<td>6.72%</td>
<td>6.12%</td>
<td>6.38%</td>
</tr>
<tr>
<td>Groenhof in Amstelveen</td>
<td>6.74%</td>
<td>6.96%</td>
<td>5.90%</td>
<td>6.00%</td>
</tr>
<tr>
<td>Het Paradijs in Hoofddorp</td>
<td>6.68%</td>
<td>&lt; 6.48%</td>
<td>6.27%</td>
<td>6.75%</td>
</tr>
<tr>
<td>LangeVoort in Oegstgeest</td>
<td>6.25%</td>
<td>6.95%</td>
<td>6.02%</td>
<td>&lt; 6.00%</td>
</tr>
<tr>
<td>Liekeblom in Leek</td>
<td>7.25%</td>
<td>&gt; 6.95%</td>
<td>7.00%</td>
<td>&gt; 6.75%</td>
</tr>
<tr>
<td>Maaswijk in Spijkenisse</td>
<td>6.72%</td>
<td>&lt; 6.48%</td>
<td>6.02%</td>
<td>&lt; 6.00%</td>
</tr>
<tr>
<td>Reigersbos in Amsterdam</td>
<td>7.41%</td>
<td>&gt; 6.95%</td>
<td>7.65%</td>
<td>&gt; 6.75%</td>
</tr>
<tr>
<td>Schaefhorst in Almelo</td>
<td>6.48%</td>
<td>6.95%</td>
<td>6.10%</td>
<td>6.75%</td>
</tr>
<tr>
<td>Sterrenburg in Dordrecht</td>
<td>6.95%</td>
<td>6.48%</td>
<td>6.85%</td>
<td>6.75%</td>
</tr>
<tr>
<td>Velserbroek in Velsen</td>
<td>6.62%</td>
<td>6.48%</td>
<td>5.91%</td>
<td>6.00%</td>
</tr>
<tr>
<td>Vinkhuizen in Groningen</td>
<td>6.60%</td>
<td>&gt; 6.95%</td>
<td>6.60%</td>
<td>&gt; 6.75%</td>
</tr>
<tr>
<td>Vlothof in Wateringen</td>
<td>6.68%</td>
<td>6.48%</td>
<td>5.91%</td>
<td>6.00%</td>
</tr>
<tr>
<td>Weidevenne in Purmerend</td>
<td>6.50%</td>
<td>6.95%</td>
<td>6.00%</td>
<td>6.75%</td>
</tr>
</tbody>
</table>

*Table 28: Internal estimation of gross initial yields; Q4 2006, Q2 2007 respectively*
Based on the above described differences in rent and yield, internal values are calculated in which all other variables are kept identical as the latest full valuation report. An example of this value calculation and a total list of results are attached in Appendix V and Appendix VI respectively.

Differences between internal and external values are revealed in the table below. In cases when the internal value simulation is above the value judgment of appraisers, the value difference is colored red. This can be labelled as an undervaluation of appraisers compared to the internal judgment. In cases when the opposite occurs, the value judgment is colored orange. Here the appraisers' valuation is above the internal value simulation. It remains a matter if the appraiser has valued objectively or if the investor influenced the appraiser for high valuations. The value differences with a spread of +/- 5% are colored green. The figure shows that it is not always a case of undervaluation. Appraisers are certainly not too pessimistic compared to the internal judgment. Only in the case of Sterrenburg which shows a drastic difference between the valuation of both parties which is a value difference of 11.11%. This would have increased Corio's portfolio by five million Euros, not an issue to be taken lightly. Which is the very reason that the Sterrenburg appraisal report and the behaviour of the appraiser concerned is screened in the following paragraph.

![Figure 13: Internal and external valuation differences (%); based on latest full valuation](image)

6.4 How appraisers actually behave

After experimental results revealed what appraisers preach, the above case of Sterrenburg in Dordrecht showed a significant discrepancy in actual judgment. This makes the Q2 2007 appraisal of this shopping center questionable. To find out whether appraisers actually do what they claimed to do, the behaviour of appraisers and in particular the case of Sterrenburg is analyzed to identify steps in the valuation process.
where appraisers step out of ‘what they are taught to do’. The analysis of appraisal reports on descriptive behaviour is listed below.

**Market circumstances** – In general, appraisers do not give explicit account of market circumstances at macro and micro level in their reports that influence value of the subject property. By the ROZ/IPD guidelines, it is prescribed that appraisers should include recent economic developments and economic expectations in their reports, which in reality is so far not the case.

**Comparable selection** – With respect to the selection of comparables, the three criteria which are, region, relevant product and recent transaction, are screened against the rent and yield comparables presented in the report. In the appraisal report of Sterrenburg it appeared that concerning the rental comparables, the appraiser could not find rent comparables of relevant products, although the appraiser did find transactions within the region. Also, no age is specified for the comparables obtained from the report. The situation is further aggravated by the presentation of yield comparables without dates. Besides, only one of the six presented comparables shows similarities on the function of the shopping center; in other words, only one relevant comparable was presented. Two comparables are within the geographical area but majority was chosen outside this area. With respect to the report of selected comparables, it is necessary to give complete and clear information of the objective observations of the market. The report also did not reveal whether other comparables have played a major part in the valuation that could not be presented due to client confidentiality. Non-matching comparables were included in the report but the appraiser did not indicate if they had been weighted in the value judgment. This might bring suspicions to the reported list of comparables; question rises whether they are actually used in the value judgment or just presented as a formality.

**Variables explicitness** – In general, appraisal reports hardly show insight into the derivation of the final value from the presented research information. The discount rate gets a minimal substantiation, only within a few appraisal reports. However, the judgment on property’s qualities is not verbally expressed and also the adaptations on comparables are not reported. This might point that an initial idea of value was conceived before the selection of comparables even started.

**Revised rent verification** – With respect to the presented rental list in the appraisal report of Sterrenburg, three things should be mentioned related to the behaviour of the appraiser. First of all, errors in the list are found, although appraisers mentioned in the experiment to check the provided tenants’ list before using it in their value calculation. Secondly, a conservative manner of determining the revised rent is used; the appraiser adjusted rental values in a manner as described below:

- When contract rents exceed the market rent, the appraiser assumes that revised rent will be determined at 100% of the gap below market rent;
- When contract rents minors the market rent, the appraiser did not assume the contrary which supposed that revised rent would be determined at 100% of the gap above market rent.
Thereby, for almost all retail units it appears that similar rents are used in the calculation. Literature showed that there are different valuation methods to determine market rents. These methods are focused on rent determination at the retail unit. However, from the appraisal reports it is not quite clear whether the appraiser actually distinguishes rent determination at the unit level. At this point some appraisers might deviate from the normative valuation method in which detailed steps to determine rents at the unit level are prescribed.

6.5 Conclusion

The comparison of shopping center rankings between Q4 2006 and Q2 2007 demonstrated the extent of diverged judgments between appraisers and investors. This might have problematic consequences on the actual portfolio value. The hypothesis as schematized in Table 1, Chapter 1, is now proved, that value indeed varies between parties. As seen from the simulation, the subjective interpretation of research information carries a very high price tag if misimplemented. In the case of Sterrenburg shopping center, the value would be increased with almost € 5,000,000 according to the investor's judgment. However, it also appeared that most of the time appraisers are not too pessimistic compared to the internal judgment. In conclusion, the gross initial yield will have its major impact on these values, which highlights the importance of a well based, explicit derivation of it. However, the judgment on the determination of this variable varies a lot between both parties and even the slightest difference has a relatively high impact on the value.

The differences in value judgment were further analyzed by screening appraisers' behaviour. According to the experimental results of Chapter 5, it became clear what appraisers claim to do when valuing property. However, practice identified steps where appraisers might behave differently than what they said. Most important is that appraisers are excellent in their market intelligence, however this knowledge is not presented to the client and this should be made more explicit. It is also very important that the reported list of selected comparables is the actual objective framework of the appraiser. This should form the basis of the valuation and not just presented as a formality to the valuation. The appraiser must rely their valuations on objective information of the market and in cases when this cannot be made explicit due to client confidentiality, it should be noted.
7 Merging literature background with research findings

7.1 Valuation-Judgment Merge

Table 29 shows a concise research overview. The task system presents lacks of insight from investor's and appraisers' perspective. Subsequently, appraisers' behaviour generics are listed as found in the cognitive system of appraisal. The relation between these systems shows the effects of the differences in behaviour of experts and novices and differences among consultancy companies. Together, this covers the literature background. Experimental results reveal whether appraisers actually confirm the literature in what they preach. To finish, this is compared to appraisers' actual behaviour in practice.

Merging all these findings will pinpoint where the weak spots are in the valuation process. The possibility of it posing a risk to the validity of the valuations is marked in red. This is a judgment model to highlight possible risk areas in the valuation process.

7.2 Validity of Valuations

The possible risk areas that might influence the validity of the valuations are highlighted in table 29. This behaviour can be simply explicated by a lack of insight into the knowledge of the subject appraiser; rooted from the task system. Due to this lack of transparency, it is hard to pinpoint whether the appraiser has appropriate knowledge of the property but it was not made explicit or the appraiser does not possess appropriate knowledge to begin with. In either case, the real reason will not be known to an outsider. The effects of the before mentioned two possible causes are described below.

Knowledge of market evidence – The experiment revealed that appraisers are aware of the criteria for the comparables selection, although the analyses of the appraisal reports did not support the application of this awareness because non-compliant comparables were presented. This can be due to the data confidentiality. In that case, appraisers have much more knowledge on market evidence than presented in the report. The other explanation is that appraisers indeed base their valuation on non-compliant objective market observations. This might be happening in 'thin' markets when there is not enough relevant evidence on hand. Of course, this scenario might pose a risk to the valuation.

Knowledge of the functioning of the shopping centre – The experiment also revealed that appraisers have difficulty in reaching consensus on what is important when judging the functioning of the property. This contains a large subjective component and thereby these judgments are not made explicit. There are two scenarios pertaining to this risk area; appraiser has made the correct weighting on what is considered
to be important for the functioning of the property or appraiser has used discursive knowledge when judging the property on its performance. Latter may pose a risk to the valuation.

**Yield correction** – The experiment revealed that appraisers start to adjust their selected comparables by estimating the risk pertaining to the current situation of rents. Although the qualities of the property and the expectations of the location are also considered important, these aspects are subordinated compared to the tenants’ list. However, in both cases the yield correction should be made explicit within the appraisal report.

It is very important to have a well based determination of yield as the slightest deviation can have a large impact on the value. The determination of yield could also be based on an already developed personal valuation framework. In that case an appraiser should make note of this knowledge and verbally express what comparables adaptations are done. By doing so, the so called ‘fingerspitzengefühl’ will be minimized and comparables adaptations are verbally reported in the report.

**Verification of revised rent** – The determination of the revised rent varies depending on each individual situation as it is necessary that an appraiser gives note of the choices made. The valuation guideline of ROZ/IPD is attached with too large a margin to give structure to the determination of the revised rent as this could vary within every particular situation. This could become a problem when the appraiser under substantiate rent revision as it will increase the chance of systematic errors in the determination. An appraiser could for instance structurally determine revised rent in the middle of the difference between market and contract rent or an appraiser might determine an average rent and generalizes all individual retail units. To prevent these systematic errors, the determination of revised rent should be clearly reported.
## Discrepancy in retail property valuation

### Merge of literature background and research findings

<table>
<thead>
<tr>
<th>Task System</th>
<th>Cognitive System</th>
<th>Relation between systems</th>
<th>Experimental results</th>
<th>Appraisers in Practice</th>
<th>Validity of Valuations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventor's perspective</td>
<td>A) Biased behaviour</td>
<td>A) Experts versus novices</td>
<td>+ appraisers might repeat on their previous values</td>
<td>+ experts guarantee a more reliable valuation with less time consuming compared to novices</td>
<td>Questions to presented list of comparables within reports</td>
</tr>
<tr>
<td>A) Lack of insight into knowledge of market evidence</td>
<td>B) Descriptive Valuation Process</td>
<td>B) Among appraisers</td>
<td>+ recent comparable</td>
<td>+ quality between appraisers will differ as consequences of different company types</td>
<td>+ contains a large subjective component which judgments are often not made explicit</td>
</tr>
<tr>
<td>Difference rent yield comparables</td>
<td>Comparison</td>
<td>C) Risks pertaining to current situation of rents</td>
<td></td>
<td>+ quality between appraisers</td>
<td>+ yield correction is often not explicit within appraisal report</td>
</tr>
<tr>
<td>Comparables criteria selection</td>
<td>+ recent comparable</td>
<td>+ quality and quantity of comparables is the key to all comparable valuation; all adaptations are intuitive</td>
<td>+ disclosure restrictions might affect the quality of reporting comparables</td>
<td>+ disclosure restrictions might influence the quality of comparables</td>
<td>+ explicit determination at the unit level but with errors in calculation</td>
</tr>
<tr>
<td>+ relevant comparable</td>
<td>+ comparable disclosure</td>
<td>+5) Among appraisers</td>
<td>+ marketing quality</td>
<td>+ disclosure restrictions might affect the quantity of comparables</td>
<td>1) Lack of insight in the determination</td>
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<tr>
<td>+ Accurate comparable</td>
<td>+ Client feedback</td>
<td>+ marketing quality</td>
<td>+ functional quality</td>
<td>+ disclosure restrictions might influence the quality of comparables</td>
<td>2) Increase chances for systematic errors</td>
</tr>
<tr>
<td>+ Capable to be analyzed</td>
<td>+ geographical quality</td>
<td></td>
<td>+ locational quality</td>
<td></td>
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<tr>
<td>+ (personal involvement)</td>
<td>+4) Lacking of insight into yield comparables</td>
<td>+ property's qualities and locational expectations</td>
<td>+ rental potential</td>
<td>+ property's qualities and locational expectations</td>
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<td>+4) Lacking of insight into yield comparables</td>
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<td>+ rental potential</td>
<td>+ tenants list</td>
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<tr>
<td>C) Lack of insight into yield correction</td>
<td></td>
<td>+ tenants list</td>
<td>+ vacancy and tenancy changes</td>
<td>+ tenants list</td>
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<tr>
<td>+ property's qualities and locational expectations</td>
<td>+5) Lacking of insight into yield comparables</td>
<td>+ determination of % between contract and market rent is attached with a too large margin</td>
<td>+ tenant's list</td>
<td>+ determination of % between contract and market rent is attached with a too large margin</td>
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<td>+ determination of % between contract and market rent is attached with a too large margin</td>
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<td>+ client feedback</td>
<td>+ Appraisers' perspective</td>
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<td>+ tenant's list</td>
<td>+ subjectivity of comparables</td>
<td>+ Appraisers' perspective</td>
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<td>+ vacancy and tenancy changes</td>
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<tr>
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<td>+5) Lack of information flow</td>
<td>+ time consuming request</td>
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<td>+ improvement of information's unequivocality</td>
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**Figure 29: Merge of literature background and research findings**
Discrepancy in retail property valuation
8

Conclusions and Recommendations

8.1 Conclusions

In conclusion, the research findings will be revealed. This will be done according to the flow of the research problem. The problem starts when valuation data is provided and the appraiser and investor complement this with their personal research information. This sets up the diverged valuation framework from where lots of subjective judgments arise. The discrepancies in input determination are strongly related to these value judgments. Ultimately, this will result in value discrepancy between parties. Although the investor does not conduct valuations themselves, their different valuation method for the determination of input will indicate the existence of discrepancy. The consequences of discrepancies are based on the valuation of neighborhood-level shopping centers in portfolio of Corio.

8.1.1 Valuation framework: subjective interpretation and its effect

Throughout this research, it has been demonstrated and proved that diverged research information is the main cause of valuation discrepancy. However, it has yet to describe the precise starting point of this discrepancy. Divergence begins as soon as raw data is provided. This is when the data begins to be subjected to human interpretation. Both appraisers and investor started with a set of data provided by the investor. Right after the handover, the data was processed differently to become useful information for both parties respectively.

As hypothesized, appraisers will use this data and complement it with their market intelligence to form valuation input whereas investor use this data and complement it with their knowledge of the functioning of the shopping center to form their internal performance benchmark.

The used research information partly affects the knowledge between parties, which causes discrepancy when determining the valuation input such as rent and yield. The research information by itself sets up an explicit valuation framework. This framework is relatively comprehensible to others as it is (supposed to be) based on objective observations. However, the inevitable subjective interpretation of this framework will lead to an intangible component of valuation which might not be so clear to others. That is where the valuation profession is shifted underneath its framework, based on subjective judgments. The cause and effect of these judgments can be visualized as the diagram below and the three phases will be described according to the corresponding paragraph numbers.
8.1.1 Valuation framework

8.1.2 Valuation input determination

8.1.3 Value discrepancy

Figure 14: Subjective interpretations of different research information

Appraisers base their valuation input mainly on research information such as comparable properties from similar market transactions. According to the guidelines, they are expected to analyze demand and supply at a national and local level, relevant to the market sector of the property. Conversely, the investor will focus more on the consumer market research to determine valuation input. All data underlying the economic functioning of the shopping center e.g. sales per sqm and pedestrian counts, is obtained via independent research companies in order to create a substantiated perspective of the portfolio performance.

8.1.2 Valuation input determination: rent and yield valuation methods

The research information difference is not the end of the divergence; in fact, it will take off from this point onwards. Gathered research information is selected and processed to become valuation input; rent and yield, by investor and appraisers separately.

Rent and yield ultimately are the final values but the arrival to these values is done differently by both parties. As concluded from chapter 2 and 5, investor’s and appraisers’ valuation methods are identified and a comparison between the different valuation methods for market rent determination is visualized in figure 15. Within the methods, three levels are distinguished which are not necessarily contingent: the macro level, meso level and micro level. Macro level represents the national level, meso being the property level and micro being the unit level. Results pertaining to the three levels are revealed in relation to yield and rent determination respectively.
Macro level – From experimental results, it appeared that appraisers have excellent market intelligence. Continual feedback with internal departments of market research and capital markets, access to internal database of nationwide transactions, on top of personal experience will guarantee appraisers to keep a keen eye on the market. Investor does not conduct valuations in the same context as appraisers. On macro level, investor is not equipped with the same extent of transacted market information.

Meso level – Appraisers obtain yield at this level by adjusting comparable market transactions that reflect the characteristics of the subject property and also by analyzing current rents and the outlook for rent revision to determine cash flow certainty. From the experimental results it was apparent that appraisers focus on cash flows rather than property’s qualities and location’s expectations, however latter should take a central point in the valuation as this results in whether the certainty of cash flows is assured. There exists an increasing need of transparency in the determination of yield and into how appraisers adjust comparables for the subject property as all adaptations are intuitive.

An investor obtains valuation input by using SWOT analysis based on their interpretation of the research information provided by independent research companies. The risks and threats of the property’s qualities and expectations of the location concluded from the analysis will provide an indication of yield. The investor considers geographical and locational quality as most important; which are aspects that should be taken into account by the search for relevant comparables.
Macre level – For the determination of market rent, the macro level is of inferior importance compared to yield determination. Although the guidelines prescribe appraisers to give account of demand and supply at a national and local level, the determination of market rent will be strongly related to its location at the micro level.

Meso level – The literature described the five qualities underlying the economic functioning of a property, namely marketing, physical, functional, locational and geographical quality. Analysis of the five underlying qualities of the property is crucial to have a well-based indication of market rent, which is done by the investor. As opposed to the comparables analyses for yield determination, appraisers tend to skip analyses on this level and directly obtain rents and rent revision from cash flow information provided by the investor. As proven by the experiment, the appraisers could not prioritize the five qualities according to its impact on rents determination, which is a strong indication that they weight these qualities very subjectively and without much substantiation when valuing rents. Investor judges the locational and geographical quality very heavily in the valuation as these qualities are inextricable bound up with the real estate.

As the research applies to neighborhood-level shopping centers, it is even more problematic to visualize that there exists such diversity in judgment between appraisers, because these centers are still relatively stable and comparable real estate. Appraisers may fail here completely on their judgments, upsetting the link of the real estate to its functioning on the meso level.

This appraisal behaviour might be due to a lack of objective research information. The investor has created a well based framework of its portfolio based on independent consumer research information, which appraisers do not have access. Due to the lack of this information, appraisers tend to trust their intuition to form their own framework, which results in desultory knowledge when judging the property on its
Discrepancy in retail property valuation

performance. At this point, their objective valuation framework fails and subjective judgments shifted in as visualized in the figure below.

![Shifted valuation framework of appraisers at the meso level](image)

**Figure 17: Shifted valuation framework of appraisers at the meso level**

**Micro level** – with regard to the micro level, it appeared that appraisers and investors are both adequately aware of the aspects pertaining to the retail unit and the quality of the tenant. Although different methods to determine the optimum floor size of a retail unit are used in practice, they all relate to tangible aspects of valuation, in which it is most important that a clear and particular unequivocal information exchange is engaged.

After describing appraisal behaviour at three levels the strength and a weakness to the current valuation practice as concluded in chapter 5 can be highlighted. Appraisers give account of market circumstances at macro and micro level which influences value of the subject property. Using their excellent market intelligence they are expected to be aware of recent yields transacted in the market. Logically, as yield will affect property’s valuation, this should be done with necessary caution. The investor appeared to be more focused and specialized on the proceeds of the rent. Rents may differ considerably depending mainly on the kind of center whereas yields vary more depending of the category of the real estate. This underlines the assumed research hypothesis and with that, the diverging focal points of appraisers and the investor is demonstrated. Both approaches set up the basis for a well founded valuation framework but with a shifted research information focus.
To verify this conclusion, it is important to identify whether appraisers are actually practising what they claim to do and at which points in the valuation process they step aside from what they 'taught to do'. Appraisal reports are analyzed from which following descriptive behaviour is revealed:

1) Appraisers lack to give account of market circumstances
In general, appraisers give not account to market circumstances at macro and micro level which influence value of the subject property. By the ROZ/IPD guidelines it is prescribed that appraisers should include recent economic developments and economic expectations in their report, which is in reality not the case. Appraisers' knowledge of demand and supply at national and local level concerning the market sector of the property is not made explicit in the valuation reports.

2) Questions to the reported list of market evidence
Prescribed by the guidelines appraisers should include comparables in the appraisal report. Appraisers present their comparables as requested, however lots of difficulties occurs. Every so often they cannot make their comparable knowledge explicit due to client confidentiality, which sets up restrictions to the presented list of comparables. From the experiment it also is apparent that appraisers know the value even before they start their search for comparables. This puts questions to the reported list of comparables; question rises whether they are actually used in the value judgment or just presented as a formal activity pertaining to the valuation.

3) Lack of insight into appraisers' knowledge of property's functioning
Judgment on the determinants underlying the market rent are not quite clear within the appraisal reports; how the appraiser actually estimate the individual qualities of the property compared to selected comparables, to determine rent at the unit level. At this point, more insight into the step from reported rental transactions to the determination at the unit level is required.

8.1.3 Practical consequences and the effect on the validity of valuations
Consequently, above described discrepancies of input determination will affect the valuation of Corio's portfolio to a certain extent. The discrepancies in results towards the valuation of neighborhood-level shopping centers in Corio's portfolio, is explored by calculating internal values. As the investor does not conduct internal valuations, a valuation simulation was demonstrated in chapter 6. Hereby, the internal interpretation of yield was done in line with their qualitative judgments on the shopping centers. Results of this simulation revealed significant value differences. To indicate the extent of the value discrepancy within neighborhood-level shopping centers, the Sterrenburg shopping center in Dordrecht showed a gap in value of almost € 5.000.000.

Because this value will be reflected in the valuation of the investor's portfolio, also presented to their shareholders, the importance of insight into valuation variables is highlighted. There is need for transparency and well substantiated input variables, which are made explicit and understandable for others. In the UK this fact is more and more acknowledged; that well presented comparables with a clear
application for the subject property will strongly enhance the intrinsic quality of appraisals; comparables are the key information underlying the determination of yield. Appraisers claim to have excellent market intelligence, but in practice they are not presenting insight to their knowledge. As yield will strongly affect value, the determination of it must be well substantiated. A lack of insight into appraisers’ thought process could indicate that it is just “plucked from the air” based on appraisers’ “sentiment”. This might misrepresent the market value and may pose a risk to the valuation profession. Because valuations also serve as input data for real estate indices, such as ROZ/IPD, it is questioned whether these indices are just are rough estimation of a value benchmark instead of a precise founded and transparent index.

8.2 Recommendations to the valuation of Corio’s portfolio

By now it is clear that the investor request more insight and understanding in valuation input determination. As a matter of fact when appraiser and investor reach engagement, it is expected that the appraiser is able to declare a correct market value. If the appraiser has followed the normative valuation process, the appraiser could easily fulfill investor’s request, as they have conducted a well substantiated market value. Then, without much extra effort, this process can be made transparent to the investor; the demand for an extra fee pertained to the time consumption of making variables explicit, is not needed.

However a finely tuned judgment is more appropriate to achieve the balance within the valuation profession. From that perspective the investor can hold two distinguished positions with respect to her valuation management.

1) Active appraisal management

First option is that as manager and owner of the properties it is investor’s responsibility to invest in appraisal management. In the UK the increasing request to report more insight into the determination of input variables goes hand in hand with the increment of appraisal fees; the investor takes the position of doing smart investments. These are called smart investments for the reason that requesting more insight into valuation input variables, might benefit the investor. At this point, the input as used in the appraisal is well founded and understandable for the investor. Subsequently, interesting developments of value increments can now also be analyzed internally.

E.g. Corio asks the appraisers to indicate a percentage of expected value increment for the next quarter. However they only provide a list of total contract rents, total market rents and property’s value compared with the last quarter, then appraisers cannot do much with it. Usually, appraisers value with revised rents; which they are expected to determine on the basis of the provided information of Corio. This means that appraisers are requested to indicate the value increment for the next quarter, however the data to do so is not provided completely.

By doing the above mentioned extra investment, Corio can create an own view with respect to value increase. This makes an investor actively involved in appraisal assignments and give possibilities to
actually do something with the appraised values. With a first-class valuation management, value will be affected positively because this gives more transparency. Apart from that, it will evoke shareholders trust by offering them optimal transparency in the trust.

If the investor is willing to take this actively position with respect to the appraisal management, the right conditions should be created to realize this which, are described as follow:

**Transparency within appraisal format** – In order to keep the internal paperwork efficient and functional, the appraisers are presented with a format. This means more or less automatically that the resulting insights in the appraisals are limited because the appraisers will focus on that specified format. They probably will not present their own models and formats but primarily stick to the client’s ideas and wishes. But then if an appraiser is requested to report in more or less detailed and substantiated steps, the investor should provide a freer format here for the appraiser and remove any restrictions.

The quality of comparables is verified by appraisers’ skill in making justifiable adjustments reflecting the characteristics of the property. The same amount of attention should be paid to the analysis of comparables as to the property itself. Then there should be ample space in any format in order to procure this detailed analysis.

From the ROZ/IPD there is no clear recommendation with respect to the format of the appraisals. Some uniformity and streamlining in the reports would not be a bad idea. A platform as ROZ/IPD could probably play a decisive role here. Uniformity simplifies and facilitates the internal paperwork and thus enhances efficiency.

**Information flow** – When Corio requires more insight in the fundamentals of the input variables, then the appraisers should be fed with all the relevant information. Meaning in practice that on top of the required information as stated in ROZ/IPD, also all objective information, internally used to measure the performance of the shopping mall, should be supplied to the appraisers. Sales per sqm, pedestrian counts and maps indicating pedestrian intensity is considered to be golden information for and by appraisers in order to gain insight in the basic functioning of the shopping mall. Once this is provided, appraisers can easily make SWOT analyses; which will stimulate discussion and interaction between the parties pertaining to an active role of the investor into appraisal management.

2) **Reserved appraisal management**

The other side of the medal is the question whether these so called smart investments are actually worthwhile. To provide a solid basis for offering methods of improvement, appraisers’ behavioral generics were analyzed. This attempts to understand actual valuer problem solving. When more insight into the input variables is requested, appraisers still might present comparables that supports their preliminary judgment of value. In many cases the value judgment of the subject property is done before processing the comparables, which underlines the recommendation below:
The investors could show faith in their appraisers and shift parts of the valuation management to the responsibility of the valuer. In that case Corio cannot use the outcome of appraisals thoughtlessly. Sometimes appraisal variables are used to serve as input for the internal discounted cash flow model. When Corio takes this reserved position with respect to appraisers, it is absolutely out of the question to use their input directly in internal valuation models. Also calculations based on rent revisions determined by the appraiser are impossible because there is far too less insight in the determination of these input variables.

In addition to this a stronger internal attitude should be created in order to be able to judge the external gross initial yields. That this input should be controlled by an internal vision might be obvious because there should be more verification of appraisals which leads to the following recommendations related to the information flow.

**Information flow** – When Corio assumes to control an active and strong internal position, then it is even possible to discuss the internal variables with the appraiser. As more internal excellence is created, appraisers can expect well founded feedback on their appraisals.

### 3) Current practice

Finally, there is a third option in between. The one where the investor strives to take the best of two worlds; a combined position. Where Corio produces a rock solid assessment of her rent, the supply of management information will be a step in the good direction in order to improve the quality of the appraisal, however the yield remains a specialism of the appraiser. In that case the investor is left in the cold with respect to knowledge of the market and it will be the appraiser who will pronounce the final judgment.

### 8.3 Reflection

Looking back on my research, there is something which springs to mind. It is the struggle with the valuation process as a strong subjective activity. Trying to quantify certainty within the valuation profession remains a major hurdle. How important are the intrinsic qualities of a shopping center really with respect to its functioning and value. Answering those questions remains a matter of personal assertion larded with the inevitable subjectivity. Nevertheless my research tried to pinpoint some harder assets, sometimes even a form of unanimity between the appraisers. On the whole however it is a ventured challenge to get these specialists in line as valuation remains a blurry image of the ‘fingerspitzengefühl’. Further behavioural research of appraisal in combination with continual refinement and strict observation of valuation guidelines could together form a strong basis for offering methods of improvement. Researches should work in very close relation to real estate indices in order to control the guidelines which will guarantee a real estate index based on reliable and transparent valuations instead of an index based on rough value estimations.
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