VALUATION AND PERFORMANCE REPORTING IN PROPERTY COMPANIES ACCORDING TO IFRS

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ABSTRACT

Applying a historical cost accounting (HCA) concept in property companies led on many occasions to a situation where everyone knew that the figures in balance sheets and income statements were wrong from a market perspective, but the analysts knew how the figures had arisen. Applying a fair value accounting (FVA) concept has led to a situation, on many occasions, where almost everyone believes that the figures in balance sheets and income statements accurately and fairly reflect reality, whereas few have sufficient knowledge how these figures have arisen.

Appraisal of property is a complex issue. One of the most important conclusions from the research reported in this thesis is that disclosure regarding applied methods, significant assumptions in property valuations and statements about the connections between appraised values and market evidence needs refinement in financial reports, according to International Financial Reporting Standards (IFRS). As the uncertainty in property valuations cannot be removed, it has to be managed. Providing explicit disclosure about valuations is one important way to manage this issue by reducing the gap of information asymmetry between those who perform valuations and those who are users of financial statements.

Other findings reported are connected to issues of consistent application of IFRS other than disclosures about valuations. Such an issue is the border between maintenance expenses and capitalised costs regarding component replacements. On many occasions companies seem to interpret IFRS accounting rules differently in this respect. This could lead to distorted reporting of net operating income (NOI) levels.

Another conclusion reported is that NOI for financial reporting purposes are not equivalent to NOI used for real-estate appraisal purposes. In this thesis it has been shown that differences may turn up regarding rental income and maintenance costs in this respect.

Fair value adjustments in income statements are another issue handled in this thesis. Empirical studies showed that a majority of the property companies studied reported such adjustments above financial items in the income statement, which seems to be in line with the intentions of the IFRS rules.

PREFACE

What follows after this preface is my doctoral thesis concerning various issues connected to valuation and performance reporting in property companies. The work with this research project has been both interesting and instructive.

With some short words I would like to say many thanks to my supervisor professor Hans Lind and assisting supervisor professor Stellan Lundström. In an earlier stage of my research I also wrote a licentiate thesis. Research results from that stage also have contributed to this doctoral thesis. When writing my licentiate thesis I also had very important supervision from professor Erik Persson to whom I also want to say thank you. My supervisors really have the ability to give comments that helps you to focus on different aspects of the issues covered by the project, and in that way step by step helped me to increase my knowledge of the area.

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1. Introduction

1.1 Background

Historically, external accounting has been largely characterised by its country-specific features. Accordingly, in the accounting context reference is made to the Anglo-Saxon and Continental traditions. In turn, within the Anglo-Saxon tradition, there are differences between, for example, American and British accounting practices. On the other hand, within the Continental tradition, specific features differentiate the German and French traditions, for example. A common feature among Anglo-Saxon countries is the lengthy tradition of equity market financing of companies, whereas Continental countries have relied more on bank financing. In addition, conservatism, the link between accounting and taxation, and regulation by detailed legislation has distinguished the Continental tradition. In contrast, in the Anglo-Saxon accounting tradition, self-regulation by standard setting, transparency and a less conservative approach have had greater significance.[1]

Meanwhile, capital markets have become internationalised and players have become increasingly global in their operations. As a result, the need for the coordination of certain issues affecting valuation and accounting has increased rapidly. Accounting is now moving swiftly towards international harmonisation, a development that is Anglo-Saxon in many respects. In addition, a market-oriented approach is having a greater impact on accounting.

The London-based International Accounting Standards Board (IASB) is at the core of developments in the accounting area. The IASB succeeded the International Accounting Standards Committee (IASC) in this role. The IASB commenced operations in 2001, while the IASC started its activities as far back as 1973. The IASB has "taken over" the accounting standards drawn up by the IASC, which are referred to as IAS (International Accounting Standards). The standards developed by the IASB are referred to as International Financial Reporting Standards (IFRS). The whole set of international accounting standards, both IAS and IFRS, now goes under the name IFRS. The IASC was established by accounting organisations from a number of industrialised countries. The IASB also works to a certain extent with national standardisation organisations in its current development efforts. The driving force underlying these efforts is the objective of achieving harmonisation to meet the demands of the international capital market and to reduce corporate capital procurement costs.

According to European Union (EU) legislation (Regulation No 1606/2002, dated July 19, 2002), companies listed on a Stock Exchange within the EU are required to apply international accounting standards in their consolidated financial statements. This requirement has been in force since 2005 for companies with listed shares and from 2007 for companies with listed debt instruments. The international accounting

[1] Radebaugh & Gray, 1997; Bengtsson, 2000

standards to be applied are IFRS, as they have been enacted under EU law: after initial development by the IASB, these standards have to be endorsed by the EU to have legal enforcement power. The idea behind applying a single set of accounting standards originates from the so-called Lisbon strategy – dated 2000 – that, among other things, required application of international accounting standards as a part of the strategy. The overall aim of this strategy was that the EU should become the most successful knowledge-based economy in the world by 2010. The Lisbon strategy was formulated by the heads of governments of countries then in the EU. The connection with the EU, among other things, has made the IASB one of the most powerful standard setters in the world alongside the US standard setter, the Financial Accounting Standards Board (FASB). In recent years, co-operation has commenced in a bid to attain convergence between IASB and FASB regulations[2]. Eliminating the risk of problems understanding financial reports should, ceteribus paribus, lead to lower capital costs for involved companies. According to theories of efficient capital markets, lower risk would also lead to lower capital cost.

For property (real-estate) companies there are some accounting standards and issues of certain interest. In the set of IFRS accounting standards, there is a standard specially designed for investment properties[3], *IAS 40 – Investment Property*, and this standard is in the centre of interest in this PhD thesis.

IAS 40 requires companies to make assessments of the fair value of investment properties, if any, held by the company. Fair value is defined as: "Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction."[4] Issues connected to property valuation are of core interest in this research project and this thesis. However, there are also a number of other accounting issues of interest in IAS 40 and in other standards as well. Other kinds of properties should be accounted for applying *IAS 16*[5] *– Property, Plant & Equipment* or *IAS 2*[6] *– Inventories*. However, in this thesis the issues discussed will mainly be related to properties that fall within the scope of IAS 40. Nevertheless, issues discussed in this thesis are certainly relevant for other kinds of properties as well in the context of property valuation and also, to some extent, regarding financial reporting issues such as performance reporting and the need for disclosure in financial statements. Among the listed companies on the Stockholm Stock Exchange, the property industry was the industrial sector showing the most significant effects on amounts of equity and periodical results moving from national accounting rules to IFRS in 2005[7].

Property valuations are uncertain. "Uncertainty is a normal market feature deriving from the nature of property, which should be openly acknowledged. It is variable from property to property and from market condition to market condition. It is something to

[2] See www.iasb.org and www.fasb.org , 18.01.2008

[3] Properties held for the purpose of generating rental income or/and capital appreciation, see IAS 40 p 5

[4] IAS 40 p 5, value concepts will be further described in chapter 4

[5] Owner-occupied properties

[6] Properties held for the purpose of sale in the ordinary course of business

[7] Interview with analyst Peter Malmqvist, 28.4.2008

be managed as it cannot be removed."[8] There is a risk that third party users of valuations may be mislead by the apparent certainty of a single figure valuation[9]. However, the need from a financial reporting point of view is to get a single figure, not a range of possible values as stated in a draft white paper by INREV[10] – *INREV Principles and Guidelines For Property Valuations*: "If valuation ranges are provided by an external property valuer, a single number should be used for reporting purposes"[11].

In many contexts, uncertainty in property valuations has been measured on the basis of the normal spread that can be obtained if one uses different valuers (valuation variation) as well as on the basis of the precision in valuations in a comparison of actual selling prices (valuation accuracy). Studies in Sweden and abroad indicate a variance/uncertainty of the order of +/- 10% in the assessment of market values[12]. In normal cases this is regarded as the expected variance/uncertainty in value assessments of a single property. However, for a specific property the uncertainty in an appraisal can be both wider and narrower.[13]

According to the IASB Framework for financial reporting, creating hidden reserves is not allowed and prudence is dealt with by the disclosure of the nature and extent of uncertainty in financial reports[14]. The switch from using certain amounts, e.g. a realised transaction price, as the base for the carrying amount, to use of uncertain amounts, e.g. an assessment of a hypothetical transaction price, is an interesting issue from the perspective of financial reporting. In this development of financial reporting it seems that reporting has moved from *reliability* to *relevance* characteristics for accounting purposes. In chapter 3 there will be a short introduction regarding the qualitative characteristics of financial reporting.

In this context it is also of great importance to be aware of the nature of information asymmetry, according to the agency theory, between different participants in the market. In essence, the situation could occur when, for instance, the management and other preparers of financial statements know more about the qualities of the valuation of properties held by the company than the users of the financial reports. To a great extent, the decision usefulness of financial reports and their contribution to an efficient market may depend on the amount of disclosure.[15]

[8] RICS, 2002, p 28

[9] RICS, 2002

[10] European Association for Investors in Non-listed Real Estate Vehicles

[11] INREV, 2007

[12] The concept of market value in real-estate valuation standards is essentially the same as fair value as defined in IAS 40, which will be further described in chapter 4 regarding value concepts.

[13] RICS, 2005; Lundström & Gustafsson, 2006b; Bretten & Wyatt, 2001; Mokrane, 2002

[14] IASB Framework p 37

[15] See for instance an overview description of information asymmetry and decision usefulness regarding financial reports in Scott, 2003

Furthermore, several examples of accounting fraud, for instance the Enron and WorldCom scandals in the USA, have put the focus on the need for common definitions and increased disclosure in financial reports.[16]

In this context it is important to note that performance reporting from property companies will be affected by the switch from national standards, for instance Swedish Generally Accepted Accounting Principles (GAAP), to international standards: IFRS. Some key issues regarding this will be discussed further below, under the heading of important issues and formulation of purpose and further on in the chapter on theory and accounting rules issues.

Performance measurements at different levels, for instance income return or total return, are very important key measurements in the property industry and in assessments/analysis made by different kinds of investors connected to this industry, e.g. risk capital providers and banks.

Investment properties are properties held to earn rental income or capital appreciation or a combination of these two purposes. This implies that relevant financial reporting issues connected to these properties is, to a large extent, connected to the reporting of relevant capital values of the properties and of relevant measures of net operating income (NOI).

1.2 Important issues

Investment properties accounted for in accordance with IFRS can be reported either by applying the *fair value model* or the *cost model* in IAS 40. Differences between these two models will be further described in chapter 3 but, in short, the fair value model requires companies to carry investment properties at fair value in the balance sheet while the cost model requires companies to carry these properties at a value based on historical acquisition cost. One important research issue is to find out if either of these two models is the preferred method used in practice by companies when they report investment properties.

If the fair value model is chosen, another interesting research issue will follow: How can movements in fair values affect reported figures of income and equity levels? Movements in fair values can, among other things, show up as an effect caused by movements in the business cycle.

Since it is difficult to measure fair values of investment properties with precision and common uncertainty intervals in valuations could have severe impact on the level of reported equity, the requirements to disclose applied methods, significant assumptions and to what extent fair value is supported by market evidence are judged to be important key requirements in IAS 40[17]. These requirements in IAS 40 are judged to be a core issue for financial reporting, along with the prudence aspect in the IASB

[16] Healy-Palepu, 2001; Verrecchia, 2001

[17] See IAS 40 p 75 d and, for instance, outcomes in a study like Andersson & Stojanovic, 2007

Framework[18]. This prudence aspect requires companies to disclose the nature and extent of uncertainty, as mentioned in the background above. Therefore disclosure issues connected to the valuations of investment properties is judged to be another very important research issue. In this context it is important to find out what kinds of disclosure property companies give in their financial reports. Based on knowledge of how property appraisals are conducted in practice and what level of certainty one can expect from an assessment of fair value, it is also important to evaluate what kinds of disclosure would be needed connected to the valuation of investment properties for financial reporting purposes.

A further issue is where in the income statements fair value adjustments are reported – above or below financial items?

However, movements in fair values are just one important issue when reporting and evaluating performance of a property company. Another very important issue is the reported NOI, which is calculated as rental income less operating and maintenance costs. A description of how NOI is produced as an accounting figure as a result of relevant accounting rules is also an important research issue. Accounting rules regarding rental income and the border between maintenance expenses and capitalised costs (investments) are important issues here. In this context it is of interest to describe the accounting rules that form the reported rental income and how companies describe their application of the accounting rules connected to the boundary between maintenance and investments in their financial reports. In short, are NOIs reported by different companies comparable with each other?

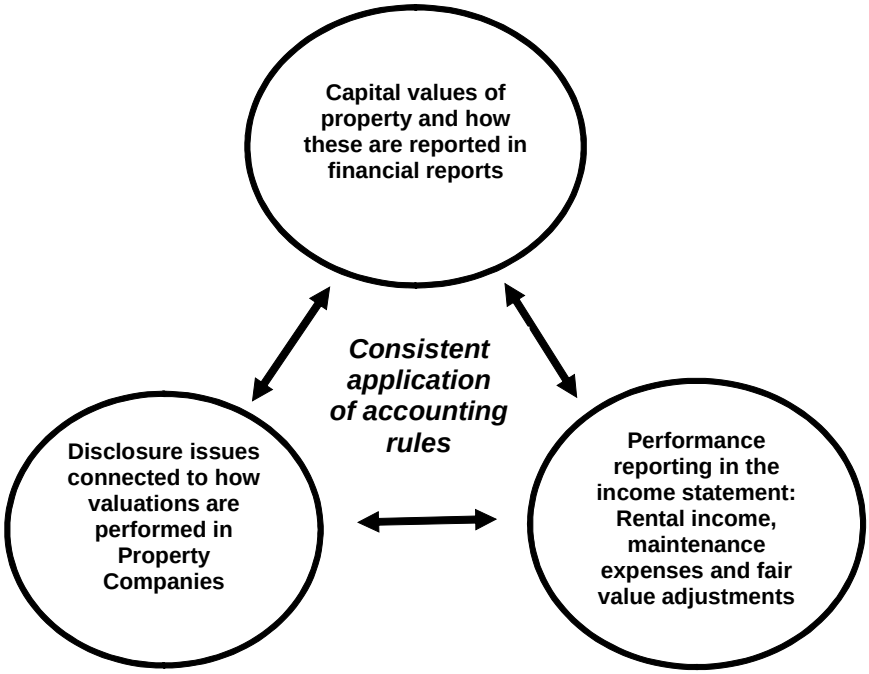
Part of the motivation for applying IFRS is to create a more effective capital market, as mentioned in the background above. Therefore it should be very important to reach a consistent application of the accounting rules.[19]

The foregoing discussion is summarised in figure 1.1 below:

[18] IASB Framework p 37

[19] See for instance discussions in *Economist*, 2007a; Also note in a speech Chairman Cox of Securities and Exchange Commission (SEC) also expressed his concerns about the risk that application of IFRS will turn out to devolve into different "dialects" as applied in different countries. In other words there is a concern that different national interpretations will distort financial reporting in such a way that the reporting cannot be truly used and understood by actors in different countries. The information must be comparable and reliable, Cox said. http://www.aicpa.org/, 18.1.2008

Figure 1.1 Relation between central issues



1.3 Purpose and research questions and structure of this thesis

The purpose of the research reported in this thesis is to study, evaluate and discuss accounting applications according to IFRS that have connections to valuation of property and performance reporting issues in property companies.

To fulfil this purpose the more specific research questions are:

- To find out which is the preferred accounting method in practice? Is it the fair value model or the cost model?
- It is also important to show what impact uncertainties in value assessments and cyclical movements in values can have on reported income and equity levels in property companies.
- To describe the NOI in a property company from an accounting perspective and discuss this performance measurement base in terms of evaluation of NOI and analyse difficulties when comparing reported NOIs in financial reports from different companies. How does e.g. NOI, according to accounting rules, correspond to NOI used for property valuation purposes? Another performance-reporting issue to be investigated is fair value adjustments in income statements – are these reported above or below financial items?

- To describe how companies disclose information connected to the valuation of their investment properties in the financial reports and also to present a proposal for what kinds of disclosure would be needed regarding property valuation in financial reports in order to fulfil demands for transparency.

The structure of the thesis is as follows:

In chapter 2 there will be a description of methodology and methods applied in this research.

Chapter 3 contains a presentation about relevant issues of accounting theory and accounting rules.

In chapter 4 there will be a description of value concepts and valuation methods applied in property valuation and connections to value concepts and valuation methods according to the relevant accounting rules.

Chapter 5 contains discussions and analyses of valuation problems and valuation practice connected to property valuation.

In chapter 6 there is a presentation of outcomes from empirical studies of some key issues in financial reports according to IFRS in property companies.

Chapter 7 primarily shows the impact on selected key measurement figures in financial reports due to uncertainty in property valuations and the effects of cyclical movements in property fair values.

Chapter 8 presents outcomes of empirical studies showing differences between net proceeds from property sales in relation to carrying amounts (fair values).

In chapter 9 there is a discussion related to how real options connected to property assets should be handled in valuations in an accounting context.

In chapter 10 there is a description of and discussion about entry and/or exit price approach connected to valuation and financial reporting issues of property assets.

Chapter 11 contains a normative discussion of what should be the preferred amount of disclosure in financial reports about applied methods, significant assumptions and connections between presented values and market evidence.

Finally, in chapter 12 there are conclusions from the outcomes from the research presented in this thesis.

In appendices three essays from my licentiate thesis are enclosed. These three essays goes deeper into some of the aspects handled in this thesis.

1.4 Contributions of this research

The research reported in this thesis is designed to contribute to the understanding and further development of financial reports in property companies. The research will show problems with applying the new IFRS rules, but also ways that these problems can be handled. As the IFRS rules have only been practised for a few years within the EU it is very important to evaluate how they have been applied, problems that have arisen and different roads forward.

Various actors could benefit from the outcomes of this research project:

– *Accountants* could benefit when considering how to prepare financial reports and auditors could get inputs valuable when examining financial reports and assessing whether important issues are fulfilled in line with the purpose of financial statements.

– *Analysts* could increase their awareness of issues critical for the evaluation of performance from a financial reporting perspective. This is also relevant from the standpoint of investors and creditors.

– *Property companies* could get more information about what other companies have done and how they can make their financial statements more transparent.

– *Accounting standard organisations* may find this research interesting from the point of view of whether accounting standards connected to issues discussed in this thesis need clarification and/or refinement.

2. Methodology and methods

2.1 Introduction and methodology issues

To fulfil the purpose of this research I have searched for relevant literature, studied it and other documents and performed empirical studies of different kinds. The design of this research project is also based on my own lengthy practical experience regarding the issues handled in this thesis: as a property analyst in a bank, an authorised public accountant (auditor) and also, more recently, as an accounting specialist in property and valuation issues at a large audit and accounting firm. The latter experience has also involved a great deal of work on implementation projects connected with the switch from national accounting applications to IFRS applications in listed property companies and other kinds of companies applying IFRS.

In scientific research one should aim at "intersubjective" knowledge, which is objective. However, science is a human activity and as such it is subject to human limitations of perception. To reach a higher degree of wisdom one has to question the state of things we already believe in and hold to be the truth.[20]

As a researcher one has to be aware of human limitations and also try one's best to avoid a subjective search for observations which may only confirm what was believed to be the truth before the research began.

As an initial remark, one has to be aware that there are differences between methodologies and methods. The distinction between these two is that research methods concern the technical issues associated with the conduct of research – the tools one uses to gather data, such as questionnaires or interviews, whereas research methodology concerns the philosophies associated with the choice of research method[21].

Concerning the worth of observations, there are fundamental differences between the approaches of *empiricism* and *rationalism*. In the history of philosophy, the usual interpretation of empiricism is the view that empirical observations are very important and that there are limitations connected to how far logical reasoning can take us on the way to inferences[22]. A slightly different, but just as common, formulation is that knowledge of empirical reality must be founded on observations[23].

Rationalism, which originates from ancient Greek philosophy, especially that of Plato, emphasises the power of logic and mathematics when determining the truth. According to this view, real truth cannot be determined solely by observation.[24]

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[20] Hansson, 2003

[21] See Dawson, 2007 and Smith, 2003

[22] Ibid

[23] Molander, 1988

[24] Ryan et.al., 1992

The research reported in this thesis has been conducted according to a methodology in line with *Grounded theory* and includes both empirical studies and more deductive analysis, as will be clarified below. In the way this research project has been conducted there are also connections to a methodology such as *Action Research*.[25] A description of the methodology of grounded theory follows.

Grounded theory

The emphasis in this methodology is on the generation of theory which is grounded in the data – this means that it has emerged from the data. This is different from other types of research which might seek to test a hypothesis that has been formulated by the researcher. It is argued that Grounded theory is flexible and enables new issues to emerge that the researcher may not have thought about previously.[26]

The basic idea of the grounded theory approach is to read (and re-read) a textual database and "discover" or label variables (called categories, concepts and properties) and their interrelationship.[27]

The generation and development of concepts, categories and propositions is an iterative process. Grounded theory is not generated a priori and then subsequently tested. Rather it is inductively derived from the study of the phenomenon it represents. Data collection analysis and theory should stand in a reciprocal relationship to each other. One does not begin with a theory and then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge.[28]

According to grounded theory, the research process begins with an idea. The idea is either a given proposal or created by the researcher. The source might be previous literature or some kind of personal or professional experience. The problem is defined quite broadly and it sharpens during the research process. It is preferable to concentrate on themes rather than on exact questions. Professional experience is a background factor as well as possible personal experience. The important thing is the ability to extract the essential parts from the material and interpret data. The process continues and the data gains more significance. An understanding gradually develops.[29]

Smith (2003) underlines that "Grounded theory has been increasingly adopted as the preferred qualitative approach in accounting field study environments."[30]

There is however, one distinction between the Grounded theory approach and the work presented here that also links the work to Action research. The aim is not to

[25] An overview description of the two methodologies can be found in Dawson, 2007

[26] Dawson, 2007

[27] Glaser & Strauss, 1967

[28] Strauss & Corbin, 1990

[29] Strauss & Corbin, 1994

[30] Smith, 2003 p 139

generate general theoretical propositions, but instead to derive well-founded conclusions and recommendations about how the accounting framework and accounting practice for property companies can be improved.

2.2 Methods in chapters 3 and 4

Chapters 3 and 4 in this thesis are principally based on the outcomes from literature studies. The aim of the literature search has been to find and study

- relevant texts regarding accounting theories and accounting rules
- books, articles and other written sources related to fair value, especially with a connection to property valuations
- accounting rules with a connection to fair value and performance reporting in property companies

Chapter 3 includes a presentation from the outcomes of literature studies regarding accounting theories and accounting rules. Chapter 4 handles the outcomes regarding valuation of property – value concepts and valuation methods. In this chapter there is a report on, and discussion of, relevant literature on property appraisal. The relevant literature in this area consists of valuations standards, books and articles connected to value concepts and valuation methods. Furthermore, there is a description of value concepts and valuation methods as described in relevant accounting rules.

2.3 Methods in chapter 5

Chapter 5 handles issues connected to conceivable problems in the appraisal of property from different points of view. In this chapter the literature consists of property valuation, accounting rules and empirical studies performed by others relevant for the issues discussed in this thesis. Also, issues in different literature studies are connected to each other and discussed.

Interview study regarding property valuation in practice

An interview study was conducted involving professional property valuers in Sweden aimed at explaining how property valuations are performed in practice. The results from this study in turn constitute the basis for discussions connected to proposals for the appropriate level of disclosure regarding applied valuation methods and significant assumptions made in property valuations. This study was performed in 2003.

The choice of respondents in this interview study was discussed informally with leading individuals in the property appraisal business in Sweden. The respondents interviewed were eight leading property appraisers in Sweden, chosen according to the following criteria:

- Different geographical regions should be represented
- The appraisers should be leading actors in their respective geographical areas
- The appraisers should represent different appraisal companies

The interview questions were sent to the appraisers before the interviews; four of the respondents were interviewed by phone while four were interviewed in person. After the interviews had been performed, the answers were transcribed and sent to the respondents. They were given the opportunity to confirm whether their opinions and answers had been interpreted correctly. The result presented is based on a qualitative analysis of the collected answers. There are good reasons to believe that the survey gives a representative picture of property appraisals as conducted in practice in Sweden. This statement is based on the choice of respondents and on informal discussions with leading individuals in the property appraisal business in Sweden. The extent to which there may be systematic differences between the answers given and practice could be due to the fact that the interviewed appraisers may idealise the valuation process to some degree in their given answers. In other words, in some situations they may have answered what they are supposed to perform in the valuation process and not necessarily what they actually do. However, this has been judged to be a minor problem for the purpose of this research since the most interesting issue here is "best practice".

An alternative way to conduct such a study could have been to investigate valuation reports. However, the justification for undertaking an in-depth, interview-based study instead of this alternative is that the issues the research for this thesis are aimed at frequently penetrate deeper into relevant questions than what it is possible to extract from a valuation report. Examples of such issues are the justification for chosen levels of cap rates/discount rates or the reasoning applied by valuers to different parameters included in NOI used for valuation purposes.

2.4 Method in chapter 6

Empirical studies of key figures in IFRS financial reports

Studies of key issues in annual reports of listed property companies according to IFRS focused on:

- the chosen method to account for investment property: fair value or cost model
- disclosure regarding valuation methods, significant assumptions in property valuations and connections between valuations and market evidence
- description of accounting principles regarding borderlines between maintenance expenses and investments which in turn affects outcomes regarding reported NOI levels
- where in the income statement the fair value adjustments are reported – above or below financial items

The empirical studies of financial reports produced by the companies included in the study were carried out in 2006 and 2007 and included the first and second financial reports according to IFRS.

How the study was conducted

The choice of property companies was made using the report FTSE EPRA/NAREIT Global Real Estate Index – Monthly Bulletin, dated February 2006: the 20 largest European property companies in terms of market capitalisation (market caps) were selected as the base for which annual reports to study. Among these 20 companies were 3 Swedish property companies. Since the submarket Sweden is of certain interest from a Swedish point of view, annual reports of every listed Swedish property company in February of 2006 were also studied. Hence, the study was split into two subgroups: Swedish property companies and property companies from the rest of Europe (if they were among the top 20 market caps at February 2006, as stated previously).

A follow-up study was performed using the same companies that were included in the first study. In that study the annual report for the following year was examined for the purpose of finding out if something essential had changed regarding the application of the IFRS rules, compared with the first study.

Another possible way to conduct such a study could have been to take a randomised sample of listed property companies. However, choosing the largest market caps among listed companies is justified from the point of view that these companies probably get more attention regarding their financial reporting. Therefore there are reasons to believe that these companies would represent best practice, which is my focus of interest in this study.

2.5 Method in chapter 7

In this empirical section of the study, I elected to look at a number of companies listed on the Stockholm Stock Exchange that held investment properties. The potential choice of companies was limited because they needed to have reported fair values on their property portfolios in the form of supplementary disclosures in their financial statements stretching back a number of years. In this context, it should also be noted that only a small number of companies were listed whose operations were almost exclusively focused on owning and managing investment properties, which also limited the potential selection.

This study is an ex ante analysis of the effects when moving from national GAAP to IFRS, applying the fair value model in IAS 40. The main issues to investigate in this study were the effects of uncertainty in property valuations on some key financial figures and also the effect on these same key figures of cyclical movements in property values over time. Recalculations were done in this empirical study to show the effects on reported income levels and equity levels due to uncertainty in property valuations and the effects due to cyclical movements in property values. This study was performed in 2002, before the IFRS rules were mandatory.

Another aim of this study was to show whether we could expect significant differences between key measurement figures such as reported income and equity

levels, when switching from national accounting standards to international ones. It has been judged that the ex ante analysis fulfils the purposes described above. The foreseen effects in this ex ante analysis, switching from national GAAP to IFRS, regarding the impact on income statements and balance sheets from fair value changes have also been confirmed to a large extent by other more recent studies[31]. Therefore it has been decided that undertaking further analysis of such effects in financial reports from later years, after the implementation of IFRS, will not add to this thesis. Furthermore, at the time of writing we have not yet had financial reports showing the effects of a downturn in the business cycle with conceivable effects resulting in fair value downgrades.

Companies included in this study were selected on the basis of the following criteria:

- Property companies listed on the Stockholm Stock Exchange
- Companies whose operations almost exclusively involve the ownership and management of property
- Companies which, at least during the three years preceding the study, had reported market values in disclosures of their property holdings somewhere in their annual reports/ financial statements

I also elected to limit the study to the following key financial ratios:

1. Net income after tax as a percentage of net turnover
2. Total equity in millions of Swedish kronor (MSEK)
3. Cash flow in the ordinary course of business as a percentage of net turnover

These financial ratios are basic, but at the same time they highlight some crucial ingredients in various measurements of profitability/performance and financial position in a company. Net result after tax provides the basis for gauging the return on equity. Total equity capital provides the platform for the equity/assets ratio (solidity). Cash flow in the ordinary course of business provides the basis for assessments of the potential to generate funds for reinvestment in production resources and for the payment of dividends to shareholders.

Cash flow in the ordinary course of business in point 3 refers to: Net payments, excluding amortisation or, expressed in another way, cash flow, excluding the effects of changes in working capital, borrowing, amortisation, contributions from shareholders, dividends to shareholders and net investments.

The recalculation of earnings from current Swedish accounting rules to IAS 40 – fair value model – was done summarily on the basis of data available in financial statements. In this context it should be noted that the basic material used in the analysis was not totally adapted to IAS 40 and thus very broad generalisations were necessary for some of the calculations. Consequently, the calculations do not claim to fully reflect the effects of accounting in accordance with IFRS in each case.

[31] See for instance Andersson & Stojanovic, 2007. Also, an interview with analyst Peter Malmqvist, 28.04.2008, confirms the size of effects as shown in the ex ante analysis performed and presented in this thesis.

2.6 Method in chapter 8

A study was carried out regarding realised gains/losses in financial reports where companies applied the fair value model in IAS 40. This was done to find indications whether reported income from sales of properties showed any pattern of discrepancies between fair values reported and realised sale prices in transactions. This study was performed late in 2007.

Financial reports included in this study were chosen using the following criteria:

- The company applies the fair value model in IAS 40
- The company is a Swedish property company listed on the Stockholm Stock Exchange, autumn 2007
- The company is another European property company among the top 20 market cap, as described under the heading of "Empirical studies of key figures in IFRS financial reports"
- The company had shown a realised gain or loss in the income statement as a result of a property transaction. If companies apply the fair value model in IAS 40 they carry investment property at fair value in the balance sheet. If there is a gain when the property is sold there is an indication that the valuation is too low and vice versa. The gain (or loss) from a property sale is calculated as: net proceeds (sales costs deducted) less the carrying amount (fair value) of sold property

One problem with this way of choosing financial reports to study is that, in theory, one or more companies could have sold properties during the period and the outcomes could be that net proceeds from the sales were exactly the same figure as the carrying fair value. If so, this, or these, companies should be omitted when summarising the results, which in turn could give a wrong picture of the exact deviation between net sale proceeds and carrying fair value. However, this study is more of a complement to studies performed by others of that kind regarding valuation accuracy, only this time the results are taken from accounting reports. The interesting thing is whether the indications point in either direction – towards under- or overvalued properties in the financial reports during the time studied, not the absolutely precise levels of deviation. One could also reflect that if very few companies were represented in the outcomes there could be a significant number of realised results from different companies missing from the survey. However, the outcomes show observations to such an extent that there are reasons to believe that only a few, if any, are missing.

2.7 Method in chapters 9-11

The method in these three chapters can primarily be described as deductive, focusing on consistency between rules and practice.

In chapter 9 there is a discussion regarding real options inherent in property and how these options should be handled in a financial reporting context. In this chapter there is a report connected to literature regarding enhancement possibilities of properties/real options and accounting rules connected with this issue. There is also a

discussion on whether specific interpretations and recommendations are consistent with the basic rules in IFRS.

In chapter 10 there is a discussion of entry and exit price approaches in a Fair Value Accounting (FVA) context. Entry and exit price approaches have been discussed in an accounting context related to initial recognition of assets. The literature reported in this chapter is related to a discussion paper by accounting standard setters and current accounting rules connected to initial recognition of assets, theoretical issues connected to property with a connection to acquisition of properties, or replaced parts of properties, and how property assets are priced in the market.

Chapter 11 on disclosure of applied methods and assumptions in valuations is also deductive in the sense that the general goal of transparency is combined with the specific characteristics of different valuation methods. From this a list of recommended disclosures is "derived": these disclosures are judged to be necessary to fulfil the goal of transparency and relevance from an investor's perspective. This list can, however, also be seen as a "conjecture" about relevant disclosure, that hopefully will be the starting point for a more general discussion about more detailed disclosures on this issue.

3. Accounting theory and accounting rules

3.1 Purpose of Financial Statements/ Accounting point of view

According to the IASB Framework for the Preparation and Presentation of Financial Statements, the primary purpose of these reports is to give the user the basis for decisions in financial issues. Furthermore, the reports should reflect the ability of executive management to manage and assume responsibility for operations and should constitute a basis for deciding whether or not to extend the management assignment: "The users for whom the documents are primarily designed are current and potential investors"[32]. In turn, the formulations regarding the supply of risk capital suggest they are designed primarily for providers of risk capital[33]. In 2006 the IASB released a discussion paper (DP) regarding a current project aimed at reformulations of the Conceptual Framework. In this DP it seems that the development of the framework will be adjusted in such a way that the primary focus will be on investors (providers of risk capital) and creditors in the future. The management view of financial reports is also discussed but seems to be subordinated in comparison with the needs of financial information from investors and creditors[34].

In this context it could be of some interest to notice that there are different theories established aimed at explaining different accounting points of view. These are:[35]

- Commander theory
- Investor theory
- Enterprise theory
- Proprietary theory
- Entity theory
- Fund theory

Some of the theories listed above are of special interest in connection with issues that will be dealt with in this thesis and are therefore briefly explained below:

Commander theory

The balance sheet is prepared by and on behalf of the commander of the company and this report is seen as a statement of stewardship rather than of ownership. It is a report showing the resources entrusted to the commander that he or she controls, but does not necessarily own. The income statement is an explanation of the result of the activities in a given period initiated by the commander and his team.

Commander theory has a management view of accounting. In this context it is easy to make connections with information asymmetry as described in Agency theory and

[32] Jönsson-Lundmark, 1999, p 35

[33] IASB Framework pp 9-10

[34] IASB, 2006a

[35] Kam, 1990

connections to the empirically grounded Positive Accounting Theory (PAT) are also obvious. PAT is concerned with predicting such actions as the choices of accounting policies by firm managers and how managers will respond to proposed new accounting standards[36].

Investor theory

According to Investor theory[37] the purpose of accounting is to give those who supply capital the information they require. Investors are creditors and shareholders. Investors want information in order to be able to foresee future cash flows resulting from their relations with the company. The theory emphasises the needs of external assessors/users, especially shareholders. Shareholders are viewed as investors with little power to determine what happens in the company and thus must rely on information from official accounting. The owners have claims on the residual equity in the company.

Enterprise theory

The Investor theory viewpoint is not the only way to describe how financial reports can be useful, however. One example of this is the Stakeholder model. The point of departure in this model is that financial statements are for several stakeholders. Among others the model mentions owners, creditors, society, customers, suppliers, employees, etc. According to this approach the company is viewed as a social institution in which decisions are made that affect many different interests. The most important feature of the company is that it should create added value, which is then distributed among the stakeholders. Added value is distributed as wages/salaries, interest payments to creditors, tax to the public sector and dividends to shareholders.

Holthausen & Watts[38] discuss whether the purpose of valuation of equity is the most important role of accounting. They perform their evaluation from a perspective of FASB standards and the purpose of accounting according to FASB rules. They conclude that there are many other important purposes which accounting should fulfil that are not directly associated with the valuation of equity. In this context it would have been interesting if there had been an evaluation from the perspective of the current IASB Framework for standard-setting as well. In the current IASB Framework it is clear that there is a preference for information in the financial reports that supports the providers of risk capital with information needed for investment decisions (IASB Framework p 10).

Regarding the purpose of financial reporting, there is a clear connection between the current IASB Framework and the thinking in Investor theory. There are also interesting connections between the evaluation of the ability of executive management and Commander theory but this purpose seems to be subordinated in comparison with the investors' needs for information when analysing financial reports. The DP

[36] Scott, 2003

[37] Kam, 1990

[38] Holthausen & Watts, 2001

regarding improvements to the IASB Conceptual Framework, referred to above, seem to widen the scope of preferred user groups to include creditors, but the management view still seems to be subordinated.

3.2 Qualitative characteristics and cost/benefit thoughts in financial reporting

Accounting and financial reports are supposed to meet different kinds of qualitative requirements. Those requirements can vary from one conceptual framework to another and between different standard setters in various countries.

In a study comparing different frameworks for financial reporting, the four most common qualitative characteristics included in those frameworks were[39]:

- Relevance (e.g. feedback or predictive value)
- Reliability (e.g. free from material error and bias)
- Comparability/consistency (e.g. evaluation of information at one time and over time)
- Timeliness (e.g. information must be timely to be of use to readers)

The conceptual frameworks of the IASB and FASB include all four of the characteristics mentioned above, among other qualitative requirements.

Two major informative characteristics of financial reporting are relevance and reliability. Relevant information is information that has the capacity to affect investors' beliefs about future returns and it should be released in a timely manner. It could be argued that the relevance criterion is very much connected to the information that can help investors form their own payoff estimates. Reliable information faithfully represents what it purports to measure. It should be precise and free from bias.[40]

According to the IASB Framework for financial reporting the benefits derived from information should exceed the cost of providing it. The evaluation of benefits and costs is substantially a judgemental process.[41]

3.3 Historical cost accounting (HCA) and fair value accounting (FVA) concepts

The issue of whether Historical Cost Accounting (HCA) or Fair Value Accounting (FVA) is the most relevant as a measurement base has been classically controversial. On many occasions these issues have been discussed from the point of view of relevance and/or reliability. From a perspective of relevance the issue of HCA versus FVA is probably very different depending on the circumstances connected to different

[39] Mathews & Perera, 1996 p 107

[40] Scott, 2003 pp78-80

[41] IASB Framework p 44

kinds of businesses. For instance, in the property industry, a property acquired in the 1960s could have an acquisition cost of 1,000 SEK/sqm[42] lettable area and today the same property may represent a fair value of 20,000 SEK/sqm. From a perspective of relevance, it could be argued that the historical acquisition cost has become obsolete in this case and no longer serves as a useful base for different kinds of analysis. However, from a perspective of reliability it could also be argued that it is hard to assess the fair value of the property objectively with precision as a result of there being few transactions in the market, the uniqueness of each property, etc, as pointed out in the introduction.

HCA remains the generally accepted principle for many types of fixed assets, notably in US accounting[43]. In accounting theory, such arguments as acquisition value objectivity and the going concern principle are presented as a defence for this type of accounting. Also, there is less scope for manipulating value and, in addition, the question arises as to whether there is an interest in reporting a value increase in assets that the company does not intend to sell.[44]

Acquisition value is, however, based on costs that may be out of date due to the specific assessment date and thus other concepts, such as individual investment value/market value, etc, are proposed as alternatives.[45]

Among other things, as mentioned previously, inflation presents a problem as regards the relevance of using historical cost accounting as a base. This becomes particularly clear in respect of property and its long service life. Accordingly, there can be substantial hidden values in companies holding property if reported in financial statements on an HCA basis.[46]

Over the years, a number of theories have been formulated regarding the handling of accounting problems presented by inflation. In this context, the theory of current cost accounting is particularly interesting, especially the interpretation of Edwards & Bells. According to their normative theory, the idea is that price changes should affect both the balance sheet and the income statement. Also, they reject the realisation and prudence concepts.[47] The IASB's Framework for the Preparation and Presentation of Financial Statements notes that the definition of income also includes unrealised gains, such as upward adjustments of fixed assets.[48]

[42] Wigren, 2000

[43] KPMG, 2000; this viewpoint also applies largely in Sweden with its current accounting rules

[44] Kam, 1990

[45] Kam, 1990

[46] Bejrum & Lundström, 1986

[47] Bengtsson, 2000

[48] IASB Framework p 76

Fundamental principles - Accounting for income/revenue and expenses connected to the HCA concept

The Realisation concept. In this context, realisation implies that accounting is based on historical acquisition costs until a new acquisition value is determined by an actual transaction.[49]

The Prudence concept in turn essentially means that one should value assets as low as possible and liabilities as high as possible. This also means that the principle indirectly affects the determination of the company's revenues and expenses and that the principle has a direct link with the previously mentioned realisation concept. [50]

In IASB's Framework for the Preparation and Presentation of Financial Statements the prudence aspect is also present as part of the framework. According to what is stated there, those drawing up financial statements have to contend with the uncertainties that inevitably surround many events and circumstances. Uncertainty may be of such a nature that it may be necessary to disclose its nature and extent.[51]

3.4 Selection of accounting model investment property – Cost model or fair value model

As mentioned in the introduction, the accounting standard regarding investment property, IAS 40, requires property companies to assess the fair value of investment properties held.

IAS 40 allows those who prepare financial statements in accordance with IFRSs to choose a cost model or a fair value model for the properties. In brief, the cost model means that the properties are accounted for at historical cost less accumulated depreciation (and less impairment losses if relevant). The fair value of the properties should be disclosed in the notes to the financial reports if the cost model is applied.

The fair value model requires the companies to carry the investment property at fair value in the balance sheet. Fair value adjustments of the investment properties should be reported directly in the income statement and no depreciation will be charged on the properties. There are some exemptions to these requirements but we disregard this fact in what follows here.

Companies are encouraged, but not required, to determine the fair value of investment property on the basis of the valuation by an independent valuer who holds a recognised and relevant professional qualification and has recent experience in the location and the category of investment property being valued.[52]

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[49] Thorell, 1999

[50] Bengtsson, 2000

[51] IASB Framework p 37

[52] IAS 40 p 32; Interesting in this context are the findings in Dietrich, Harris & Muller, 2001, where they have found evidence that appraisals conducted by external appraisers result in relatively more reliable FVA estimates;

The fair value model seems to be the method preferred by IAS 40, since it is permitted to change from cost model to fair value model but not vice versa[53]. The large international property organisation European Public Real Estate Association (EPRA) has also recommended the fair value model as best practice among property companies[54]. In this context it is also of some interest that the exposure draft of IAS 40, *E 64 – Investment Property*, only included one method of accounting for investment property, the fair value model. However, the cost model was included in the final standard after submitting E 64 to interested parties for comments.

It is interesting to note some of the received comments on E64, discussed at an IASC meeting in December 1999. Of the 120 comments received on E64, the proposal to use fair value in financial reports was supported by 60%. However, only one third of the comments supported the proposal that fair value movements should be reported in the income statement. The majority favoured the view that fair value movements should be recognised directly in equity in the balance sheet instead. There was also some disagreement within the board of the IASC on whether it was possible to assess the fair value of investment property with enough reliability to justify the switch to a new valuation principle.[55] Despite those critical views, the IASC decided to proceed with the standard and allow the preferred fair value model to be applied in the way described above.

In connection with convergence project activities between the IASB and FASB, as mentioned in the introduction, it is important to be aware of the difference between currently formulated FASB and IASB standards regarding investment properties. According to the current US GAAP, it is not permissible to make revaluations above historical cost except in connection with business combinations accounted for using the purchase method[56]. However, in such a case it could be argued that although the properties held by the purchased company have not been directly sold they have been indirectly sold. Hence, here is a link to the realisation concept briefly presented above. The purchase amount for the equity in the acquired company will be allocated to the properties, if relevant, in the purchase price allocation.

FASB has an ongoing current project – Fair Value Option (FVO)[57] – that is of great interest in this context. The objective of the FVO project is to achieve further convergence with the IASB, which has incorporated an FVO for financial instruments in *IAS 39 – Financial Instruments: Recognition and Measurement*, and for investment properties in *IAS 40 – Investment Properties.* In phase two of this project, planned to start at the beginning of 2008, they will deal with the issue of investment properties. In this phase of the project they will consider permitting FVO for non-financial assets.

Findings by Muller & Riedl, 2002, support the view that the use of external appraisers can affect perceived information asymmetry and thus reduce firms' cost of capital in comparison with firms employing internal appraisers.

[53] IAS 40 p 31

[54] EPRA, 2004

[55] Rundfelt, 2000

[56] KPMG, 2000

[57] http://www.fasb.org/project/fv_option.shtml, 18.01.2008

3.5 Other performance reporting issues – Net operating Income (NOI) and fair value adjustments

As described in the problem formulation above there are other interesting issues alongside the selection of which accounting model – cost or fair value – connected to performance reporting in property companies. A number of such issues will be discussed below.

3.5.1 NOI – Rental income and the borderline between maintenance expenses and investments

Rental income

Rental income for accounting purposes is regulated in *IAS 18 – Revenue* and in *IAS 17 – Leases*. IAS 17 paragraph 50 and *SIC 15 – Operating Leases Incentives* require that lease income shall normally be recognised in income on a straight-line basis over the lease term, unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished. The consequences of this requirement can be principally illustrated by the following example:

Assume the following conditions in a lease agreement:
The lease agreement is for five years.
The first year the tenant is not required to pay any lease to the landlord.
In years 2–5 the tenant will have to pay 1,250 each year to the landlord.
The sum of the lease payments during the lease term is four times 1,250 = 5,000.

As described, the accounting rules of IAS 17 and SIC 15 normally require the landlord to recognise the lease income on a straight-line basis. That means that the landlord will recognise 1,000 (5,000 divided by five years) as lease income each year in the Income Statement during the lease term. The first year the landlord will not receive any cash flows from the tenant; hence he will have to account for an accrued lease income of 1,000 as a future claim in the balance sheet. Note that this example excludes the effects that may occur if cash flows are required to be discounted to Net Present Value (NPV). Next year the landlord will receive 1,250 and he will go on recognising 1,000 in the income statement as lease income while 250 will reduce the accrued lease income in the balance sheet, and so on, as illustrated below:

Table 3.1 Difference between rental income and accrued lease income

Year	1	2	3	4	5
Cash flow	**0**	**1 250**	**1 250**	**1 250**	**1 250**
Income statement					
Rental income	**1 000**	**1 000**	**1 000**	**1 000**	**1 000**
Balance sheet					
Accrued lease income	**1 000**	**750**	**500**	**250**	**0**

Furthermore, *IAS 17 – Leases* requires lessors to make disclosure regarding operating lease income (e.g. rental income from property in normal cases). Among other things a company shall disclose the future minimum lease payments under non-cancellable operating leases in the aggregate and for each of the following periods:

(i) not later than one year
(ii) later than one year and not later than five years
(iii) later than five years.

However, there is no requirement in accounting standards to disclose if there are any differences between the contracted rental income levels and the assessed market rent levels, which is a crucial issue when performing valuations of properties. This issue is of great relevance when making assessments of future cash flows in valuations and will be further discussed in chapter 5 – see especially 5.2.2 and 5.3.2.1. The significance of this issue in the property industry can be exemplified with a disclosure proposal in EPRA (2006), Best *practices – Policy Recommendations* on this matter.

Another issue often discussed in the context of accounting for rental income in property companies is the situation when the landlord has collected a cancellation penalty from the tenant. The tenant may have interrupted the rental agreement before the contract expires and therefore has to pay a sum negotiated between the landlord and the tenant to leave the premises before the scheduled time, as agreed upon in the rental contract. According to *IAS 18 - Revenue* p 20, the landlord has to recognise the whole sum of the agreed cancellation penalty immediately. On many occasions landlords have asked if it is possible to account for the rental income for a longer period. On many occasions the landlord has wanted to split the sum of the cancellation penalty over the time left in the original contract with the tenant. However, IAS 18 p 20 states: "When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction shall be recognised by reference to the stage of completion of the transaction at the balance sheet date." In such a situation as that described here, the landlord has received the income and has no more duties to the tenant. The landlord has to account for the revenue immediately, as a lump sum, which in turn could give "strange" rental income levels for the accounting period when the cancellation penalty is accounted for as revenue. The "strange" effect may be due to the wish of analysts to have long-term lease income/revenue in their analysis models while the accounting

shows figures, which may include lump sums that are not sustainable from an analytical point of view.

Another issue of interest in the context of rental income is the situation where rental income guarantees are present. Sometimes sellers agree to give a rental guarantee to the buyers of properties. This will be described and further discussed in chapter 5 (5.2.2). In short, there frequently seems to be a desire on the part of actors who have purchased a property, to account for such guarantee flows as if these flows were rental income in the buyer's accounts. However, accounting for rental income guarantee inflows in the buyer's accounts should not be regarded as rental income in the income statements of the buyer. This inflow in the buyer's accounts should be regarded as an amortization, and a component of interest if relevant, of a guaranteed claim on the seller, recorded as a claim at initial recognition of properties in some situations (further discussed in chapter 5).[58]

Borderline between maintenance expenses and investments

With respect to accounting, the rules on borderlines regarding the balance between costs to be expensed and costs to be capitalised are equivalent in IAS 16 and IAS 40. Both IAS 16 and as IAS 40 were revised in 2003. After the standards were improved, there was only one recognition principle left regarding what kind of costs would qualify as an asset or part of an asset. In earlier versions of IAS 16 and IAS 40 there were two separate recognition principles: one for initial recognition of an asset, e.g. investment property, and another for subsequent expenditure related to that asset.

IAS 16 after improvements in 2003

According to IAS 16:
"The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:
(a) it is probable that future economic benefits associated with the item will flow to the entity; and
(b) the cost of the item can be measured reliably."[59]

In further guidance regarding recognition as an asset, IAS 16 states that major spare parts and stand-by equipment qualify as property, plant and equipment when an entity expects to use them during more than one period. However, the costs of the day-to-day servicing of the item shall be expensed in the income statement as incurred. The costs of day-to-day servicing may include the cost of small parts. Although the standard makes it clear that it does not prescribe the unit of measure for recognition as an item of property, plant and equipment and that judgement is required to apply the recognition criteria to an entity's specific circumstances; the standard uses the replacement of interior walls of a building as an example of replacement of a component.[60]

[58] See also discussions in Nordlund, 2006b

[59] IAS 16 p 7

[60] IAS 16 pp 8-14

IAS 16 also states that if, under the recognition principle, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacement for part of the item, then it derecognises the carrying amount of the replaced part regardless of whether it has been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired or constructed.[61]

The Basis for Conclusions to IAS 16 states that the use of a single recognition principle fits the Framework, is a straightforward approach and fosters consistency. The existence of two recognition principles could result in confusion because some might characterise a particular cost as the initial cost of a new item of property, plant and equipment and others might regard it as a subsequent cost of an existing item of property, plant and equipment.[62] The result of there being two approaches could be that the same kind of costs could be capitalised by one company and expensed by another company. The classification of expenditure as described in the previous sentence may distort the accounting figures for the purpose of analysis from an external user's point of view.

IAS 40 after improvements in 2003

IAS 40 has a similar description of initial recognition of assets as IAS 16 p 7, with an equivalent signification. Also, in IAS 40 the term "day-to-day servicing" is used to distinguish costs to be expensed in the income statement from costs that should be capitalised. In both IAS 40 and IAS 16 the replacement of interior walls exemplifies a replacement of a component. IAS 40 also states that an investment property shall be measured initially at its cost.[63]

The Basis for Conclusions on IAS 40 states that the recognition principle in IAS 40 was amended as a consequence of the change to IAS 16[64].

Regarding investment property issues, KPMG's *Insights Into IFRS* exemplifies maintenance activities, which should be expensed as incurred, with the repair of a leaking roof[65].

Expenditures that would not qualify as an asset should be expensed in the income statement in the same period that the expenditure was incurred. The current accounting rules regarding initial and subsequent expenditure will primarily be found in IAS 16 p 7, further described in IAS 16 pp 8-14, and in IAS 40 p 16, further described in IAS 40 pp 17-19. In brief, the new approach could be described as the way that the acquisition cost of replacement of components should be capitalised in

[61] IAS 16 p 70

[62] IAS 16 BC 10

[63] IAS 40 pp 16-20

[64] IAS 40 B 42

[65] KPMG Insights Into IFRS, 2007, para 3.4.190.10

the balance sheet as a part of the asset's capital value. Earlier practice in Sweden was very much connected to tax rules and what kind of costs have been immediately deductible for tax purposes[66]. If immediately deductible for tax purposes, it has hitherto been common for the cost to have been expensed in the income statement, even if the expenditure has constituted a replaced part of, for instance, the building. According to the new formulations of the accounting rules, expenditure related to replacing parts (components) should normally be capitalised.

It has also been common that an evaluation of whether the market value has increased or not has affected the decision to capitalise or expense the cost. For instance, if the waste pipes of a building have been replaced and the acquisition costs for the replacement are 2,000 but the market value only increases by 1,000, it has been common for only 1,000 to be capitalised and 1,000 expensed in the income statement as maintenance expenses[67]. As a consequence of the new rules in IAS 16 and IAS 40 the amount to capitalise should be 2,000, because this is the acquisition cost of the replaced part. If the fair value is not affected by an amount equal to the capital expenditure, this fact should normally be taken care of by re-assessment of the fair value after capitalising the cost[68]. The effect of this application will lead to a negative fair value adjustment of 1,000 in the example, not a capitalisation of 1,000 and a maintenance expense of 1,000.

3.5.2 Fair value adjustments of property

The fair value adjustments reported in income statements when applying the IAS 40 fair value model basically result from the following:

Initial fair value of the period
+ Capitalised costs regarding acquisition of properties and/or creation of new components or replacement of components on an existing investment property
= Carrying amount before valuation of the property

Fair value of property according to valuation
- - - - - - - -

If the valuation shows a larger figure than the carrying amount before valuation described above, there will be a gain reported in the income statement; if the valuation shows a smaller figure than this carrying amount, there will be a loss instead.

The paragraphs of accounting standard IAS 1 are silent on the issue regarding where in the income statement the adjustments of fair values should be reported. In Sweden different companies have interpreted the requirements on this issue differently. The wording in the Basis for Conclusions to IAS 1[69] has been interpreted by some actors as the way that fair value changes should be included in the reported operating result

[66] See for instance discussions in Nordlund, 2004

[67] See for instance discussions in Nätverket för Hyresgästernas Boendetrygghet, 2006

[68] IAS 40 p 68

[69] See IAS 1 BC 12-BC 13

(above financial items) in the income statement, others have interpreted the rules differently. In this context it is also interesting to note that IAS 40 states that an investment property is a property held with the purpose of earning rental income and/or value appreciation. There is no distinction at all in the standard between realised and unrealised figures. Both rental income and value appreciations are connected to "core business". It seems to be less important whether the income is generated by rental income cash flows or appraised value appreciations.

An issue that will be further discussed in chapter 7 (7.2) is cyclical movements in fair values of properties due to movements in the business cycle. In other words, the fair value movements/adjustments may depend on circumstances out of management's control to a great extent.

The interesting question to examine here is whether a certain custom has been established in practice regarding how to account for the fair value adjustments. A further issue of interest in this context is connected to the Commander, Positive Accounting and Agency Theories introduced above. That issue is how the commander/s will choose to present outcomes in financial reporting regarding fair value adjustments in the accounts. If the commander will be evaluated by reported results and parts of this results are determined by factors that the commander cannot effectively control, e.g. fair value movements/adjustments, this fact indicates that the commander may choose to report these impacts by "putting them down" in the income statement and thereby reducing their importance as a contributor to the result of the period[70].

3.6 Disclosure issues – Description of valuation methods and significant assumptions regarding valuation of investment property

According to IAS 40 p 75 d, a company shall disclose what methods have been chosen in the valuation of their investment property. The company should also disclose significant assumptions in making assessments of the fair values of the properties. The standards also state that the disclosure of applied methods and significant assumptions shall include a statement on whether the determination of fair value was supported by market evidence or was more heavily based on other factors (which the entity shall disclose) because of the nature of the property and lack of comparable market data.[71] The standard is silent on details of what is supposed to be disclosed, however. A further discussion regarding the meaning of "market evidence" will follow in chapter 4 (4.4.2).

In this context it should be mentioned that *IAS* 16 – *Property, Plant & Equipment* includes an option to carry assets at fair value as regulated by that standard – the *revaluation model*. This model will not be further discussed in this thesis, but if that model is applied IAS 16 requires the company to disclose information regarding methods and significant assumptions in the valuations. IAS 16 also states that the

[70] See also discussions in Andersson & Stojanovic, 2007 and outcomes of their study

[71] IAS 40 p 75 d

company has to disclose whether an independent valuer was involved and if there was a reference to observable prices in the market when performing valuations.[72]

3.7 Important example of problems connected to the FVA concept – Dual Accounting and the Enron Control Crisis73

In the FVA context, an interesting article has been written by Barlev & Haddad containing a qualitative study and discussion of HCA and FVA related to the Enron crisis. The authors reject the criticism that argued that it is too early to apply FVA and discuss the basic conditions that facilitated the abuse of FVA in the Enron case. They also identify problems connected to the fact that HCA and FVA are used simultaneously and argue that the dual accounting system distorts the coherence of the reporting system and furthermore increases potential income management and "window dressing". The authors also argue that the lack of well-designed and effective adequate control systems produced opportunities for the abuse and manipulation of FVA.

Under the HCA concept the scope of manipulation is quite limited, while on the other hand reported fair value figures, whether quoted market prices or model-based values, are more problematic. However, it is interesting to note that in some circumstances the management may be able to choose whether they want to apply the HCA concept or the FVA concept, such as in a situation where marketable debt securities available for sale (AFS) are being accounted for. In such cases the authors argue that sophisticated managers will probably keep most of their investment securities as AFS since this strategy offers the most freedom for income management.

They also discuss abuses connected to FVA from "mark-to-market" and "mark-to-model" perspectives.

The "mark-to-market" abuse is exemplified by transactions between Enron and a special purpose entity (SPE). Enron took the position that it was not required to consolidate the SPE, realising a "mark-to-market" income of $65 million in transactions, as if the entity transacted with was a "normal" market participant. However, the authors argue that Enron in fact had the power to control the SPE they were doing business with and hence should have consolidated it. Subsequent analysis shows that it is evident that the SPE was founded with the intention of managing accounting figures and the authors argue that the problems are not to be related to either the "mark-to-market" procedure or the fair value concept. The problems were due instead to the lack of adequate external and internal controls.

Enron applied a "mark-to-model" approach to make assessments of the fair value of energy contracts applying a discounted cash flow (DCF) valuation technique. Enron calculated the value of those contracts, which could last for as long as ten years, and recorded the profit immediately. In the situation of "mark-to-model" abuse authors

[72] IAS 16 p 77

[73] Barlev & Haddad, 2004

argue that problems were connected to well-thought-out manipulation of income figures. The real problem, they argue, should therefore not be due to the difficulties and complications of applying such valuation techniques as DCF, which in turn requires a great number of assumptions.

In the article the authors claim that the process of introducing the FVA paradigm is inappropriate. In particular, a process of designing and implementing adequate control systems and matching auditing standards and procedures does not accompany it. They argue that this unbalanced process creates opportunities for income management and window dressing. For instance, control systems designed in an HCA context fail to provide adequate controls for the "mark-to-market" and "mark-to-model" numbers.

3.8 Current state and a historical perspective of the FVA concept

In the current development of rules and accounting practice it seems that confidence is growing in FVA and periodical appraisals as the basis of performance and equity reporting in financial reports. The north American standard setter FASB has so far been more prudent in this respect than the IASB, since accounting in line with the fair value model in IAS 40 is not allowed, applying US GAAP in its current state. The FASB is now looking into convergence with the IASB on many issues, however. One of them is to evaluate whether an FVO will be allowed in the future for investment properties applying US GAAP. The FASB has taken up FVA for non-financial assets on their agenda, as presented in 3.4, although they are yet to decide on this issue. Near the end of 2007, the IASB released a discussion paper (DP) regarding improvements of existing standards[74]. An extract from the Basis for Conclusions to IAS 40 from this DP is inserted below to show the IASB's view regarding a proposed change in IAS 40. The change discussed in the extract is connected to property being constructed or developed for future use as investment property. This kind of property is not included in the scope of IAS 40 in its current condition[75]. Excluding this kind of property from the scope of IAS 40 was based on concerns about the difficulties of reliably estimating their fair values. As shown below, confidence is growing in the FVA concept for investment properties within the IASB and, among other things, there is a reference to the use in practice of more robust valuation techniques.

[74] IASB DP, 2007

[75] IAS 40 as of 2007

Property being constructed or developed for future use as an investment property

BC1 The Board noted that its predecessor body, the former International Accounting Standards Committee (IASC), had originally proposed to include property being constructed or developed for future use as an investment property in the scope of IAS 40 *Investment Property*. However, as a result of comments received on its exposure draft, IASC decided to include it within the scope of IAS 16 *Property, Plant and Equipment*. This was because of concerns about the difficulties of reliably estimating fair values of such property. However, since IAS 40 was issued in 2000, these concerns have lessened significantly as the use of fair values has become more widespread and valuation techniques have become more robust.

BC2 In addition, the Board was concerned about the inconsistency of the accounting for the redevelopment of an existing investment property and the construction or development of a future investment property. For these reasons, the Board proposes to include both properties within the scope of IAS 40.

Some remarks connected to historical experience applying FVA concepts.

Periodic appraisals of asset values are not a new phenomenon in an accounting context, however. They have been applied before and the outcomes have led to both positive and negative effects.

Some statements from earlier attempts to apply FVA concepts follow.

During the nineteenth century, income from a business firm was determined on the basis of an increase in net worth and this was done either through a policy of replacement accounting or by way of periodic appraisals. The now familiar recognition (realisation) principle was not always a part of standard accounting practice. In 1913, leading authorities in England and America seemed to agree on the "increase in net worth" concept of income. However, the abuses of appraisal valuations in the 1920s contributed in part to the disastrous economic events leading to the Great Depression of the 1930s. Some saw the accounting profession as being partly responsible for the calamitous events, because it had permitted companies to value assets over-optimistically.[76]

After World War I there was a substantial growth in financial markets. Accounting played a significant part on behalf of investors and creditors. At this point accounting was not as regulated as it is today and valuations were based on a "fair value concept". The Swedish group Kreuger & Toll was the largest group in the world before their bankruptcy in 1932. Ivar Krueger, the founder of the group, had as a motto: Year-end procedures and annual accounts will be produced as a result of my own, late-night efforts and the book-keeping has to be adjusted according to the outcome of these procedures (Flescher & Flescher 1986). The Kreuger crash in 1932

[76] Kam, 1990 pp 240-242

was a strong signal to the accounting systems in both America and Sweden that there was a great need for regulation regarding financial reporting.[77]

The historical events referred to above can also be connected in an interesting way to the critique of the efficient market hypothesis presented in chapter 4 (4.1.3).

[77] Fagerström et. al, 2006 p 10

4. Valuation of property - value concepts and valuation methods

4.1 Value concepts in general

There are different possible value concepts when trying to evaluate the "economic value" of an asset. An overview of different value concepts follows, starting with market value.

4.1.1 Market value

Market value is by far the most frequently utilised value concept and is generally applied worldwide. The English definition according to the International Valuation Standard (IVS) is given below, as well as the definition according to the International Valuation Standard Committee (IVSC) and European Valuation Standard 2000 (EVS 2000), adopted by The European Group of Valuers' Associations (TEGoVA):

Market Value is defined as:
The estimated amount for which a property 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.[78]

This definition complies fully with, and is essentially the same as, the IASB's definition of *fair value* (see 4.2), although the choice of words in the latter is not exactly identical with the IVS formulation.

The definition of market value presented by the EU in a directive on annual reports in the insurance sector (Directive 91/674 article 49) can, despite the choice of wording, also be regarded as synonymous with the above definition, according to TEGoVA. The EU Directive's definition is as follows:

> *Market value shall mean the price at which land and buildings could be sold under private contract between a willing seller and an arm's length buyer on the date of valuation, it being assumed that the property is publicly exposed to the market, that market conditions permit orderly disposal and that a normal period, having regard to the nature of property, is available for the negotiation of the sale.*

Lind emphasises the importance of how the concept of market value is normally defined. Among other things he questions the chosen words in the definition regarding actors acting prudently. He argues that this, on many occasions, could be hard to

[78] IVSC, 2003

prove when taking transaction prices in the market into consideration.[79] It can be noted that this part of the definition is not included in the EU directive definition.

4.1.2 Market value in relation to other value concepts

On several occasions in the past there have been calls for value concepts other than market value. Some of the arguments have been that market value is not long-term oriented, or that the market value does not express the "correct/justified" value of the asset[80].

A brief presentation and discussion of some of the alternative value concepts that have been discussed in the literature follow.

Individual investment value[81]
The concept of individual investment value may be briefly defined as follows:
Individual investment value refers to the present value of future returns from the valuation object from the perspective of a specific individual/firm.

By its very nature, individual investment value is individual, that is, it is related to a certain investor's conditions. It is based on individual utility functions. The determination of a series of value parameters' future magnitude and their development is required in order to assess an *individual investment value.* The individual investment value is found primarily in the relationship of user and object, that is, in an *internal relationship,* and finds its major application area in connection with investment and profitability analyses.

Mortgage Lending Value[82]
The EC Directive (98/32/EC) is dealing with solvency ratios for commercial property lending and financial leases. The Directive refers to the following bases of valuation, Market Value (MV) and Mortgage Lending Value (MLV).

Mortgage Lending Value is defined in the Directive as follows:
The mortgage lending value shall mean the value of the property as determined by a valuer making a prudent assessment of the future marketability of the property by taking into account long-term sustainable aspects of the property, the normal and local market conditions, the current use and alternative appropriate uses of the property. Speculative elements may not be taken into account in the assessment of the mortgage lending value. The mortgage lending value shall be documented in a transparent and clear manner.

[79] Lind, 1998

[80] See for example Lind & Persson, 1998

[81] See for instance Persson, 2005

[82] Crosby, French & Oughton, 2000; Champness, 1999

According to the European Mortgage Federation's definition of MLV, it should be a value derived from long-term market trends, and indicate the realisable value of the property at a future point in time with a high degree of certainty.[83]

MLV introduces a notion that could be described as "smoothing" of market trends.[84]

Crosby, French & Oughton (2000) are critical of the MLV concept. Some of the key words used in the definition of MLV are fraught with ambiguity. Despite the conceptual questions surrounding Market Value, both the concept and the details of definition enable a specific target to be identified; the estimated exchange price in the market at a particular point in time. The same level of objectivity cannot be identified for MLV. The ambiguity and lack of clarification of the words used in definitions and principles of MLV, primarily "long run sustainable" and "speculative", are also an open invitation for banks to sue valuers where their lending decisions have failed.[85]

Bienert & Brunauer (2007) defends the concept of MLV to some extent. They argue that the methods and concept of MLV in principle are valuable and contribute to a stabilisation of the whole financial system. However, they question the need and sense of calculating an MLV independent of MV, which they refer to as "original MLV" in their study. Their results indicate that the best way is probably to derive MLV from an estimated MV. They argue that MLV, developed in Germany, is an "export hit", which however, needs to be repacked in the context of changing conditions to secure a widespread use of the concept. The authors developed three methodical concepts based on value-at-risk ideas that they argue refine mortgage-lending valuation.[86]

Market Worth

Market Worth (MW) is defined as the price at which an investment would trade on a market where buyers and sellers were using all available information in an efficient manner. Market price and market worth need not be equal and the same holds for valuations and market worth. MW calculations should be based on consensus views on the situation in the market and proper forecasts of the future. There are different possible explanations as to why market value and market worth are not equal, but the explanations relate to problems connected to the ability of property markets to act perfectly rationally and efficiently, due to lack of information.[87]

Lind (2003) is critical of the concepts of both MLV and MW. Lind argues that the concept of MW will also be very subjective, as the appraiser should speculate about what the price would have been if everybody were using information in an efficient manner. One of the conclusions in his paper is that both the concepts MLV and MW should be put aside, as there is no way for a valuer to estimate them in any objective way. He also argues that one can only be an expert on the past and considers that

[83] Champness, 1999

[84] Champness, 1999

[85] Crosby, French & Oughton, 2000

[86] Bienert & Brunauer, 2007

[87] Baum, Crosby & MacGregor, 1996; Hutchinson & Nanthakumaran, 2000

proper forecasts of the future are impossible, given a dynamic view of an economy and a market. Predictions beyond, say, six months are highly uncertain and no single consensus view of the future of the property market exists. Different kinds of actors are likely to identify different opportunities in similar/identical situations.[88]

Lind (2003) concludes: "One important aspect of acting rationally is acting from knowledge of the past, and perhaps we should make that easier by including historical information in valuation reports."[89]

Other value concepts

A long-run market value[90]: It has been argued that there is a "normal" or "natural" value of a commodity that economic forces tend to bring about in the long run. This value should be the value, which economic forces would bring about if the general conditions of life were stationary for a run of time long enough to enable them all to work out their full effect. The idea is furthermore that this long-run value, for reproducible commodities, equals productions costs, including a normal rate of return on equity capital[91]. But land is not a reproducible resource, which means that it cannot be argued that long-run value is equal to production cost. Lind & Persson (1998) also argue that it seems a rather hopeless enterprise to interpret such formulations as "if the general conditions of life were stationary for a run of time long enough…", because we would then have to make estimations of, e.g., the long-run urban structure. The authors also discuss problems connected to gaps between price and cost in the property market compared to other goods. From a supply and demand perspective, it takes a much longer time to close the gap between price and cost in the property market compared to markets for most other goods. It could also be argued that some declining areas probably never close the gap between values and production costs. The authors conclude, as many others before them, that the concept of long-run value, as defined above, is not useful as an alternative to current market value for property.[92] Paul F. Wendt also argued that there is no support for the view that cost and market prices will be equal at any point in time when discussing the property market[93].

Lind & Persson (1998) also discuss the usefulness and need for some value concepts for property other than market value and long-run market value: *a hypothetical market value related to a "normal" situation and a future market value*[94], but argue that these value concepts are unsuitable because they are vague and in practice they cannot be assessed in a properly objective way.

All of those alternative value concepts (excluding market value) presented briefly above have one thing in common: they are "normative" and claim to represent the

[88] Lind, 2003

[89] Lind, 2003 p 10

[90] See discussions in Lind & Persson, 1998

[91] See also discussions by James C. Bonbright who supports this view, in Burton, 1982 pp 80-81

[92] Lind & Persson, 1998

[93] Burton, 1982, p 117

[94] Lind & Persson, 1998

"correct/justified" value from a specific point of view. The market value is assumed to be wrong or improper in some situations.

There is also another value concept, however, not yet introduced, which could be of some interest in this context – *reference value*. This value concept does not claim to be a true or correct value, so from this point of view this value concept is fundamentally different from the above alternative concepts.

Reference value[95]

As the presentation of some of the value concepts above implies, there are some doubts concerning how efficient the property market is in reality. If the market sometimes acts irrationally, it could be of some help to develop tools to evaluate whether this irrational phenomenon has occurred or not in a specific situation. The idea presented here is that a reference value benchmark could be useful when evaluating whether, for instance, bubble tendencies have affected the current market value of a property. In 4.1.3 there will be a description of some critiques of the *Efficient Market Hypothesis*.

The question is then what is inherent in the reference value concept, on what fundamentals does the concept rely?

What reference value is
Reference value is defined as the value that a rational investor should arrive at if he/she assumed that the future would look like the past:

- Future cash flows (rental income, operating and maintenance expenses, etc) would be like those of the past.
- Cap rates and discount rates would be like average cap rates and/or discount rates in the past.

When calculating the reference value it is possible that the assessed market value is higher than the reference value (or vice versa). The idea behind the concept of reference value is that such a situation would need an explicit discussion and an explanation and/or interpretation of why the situation looks like this. Why are the two values not equal?

The usefulness of the concept of reference value is based on the idea that it would need stronger arguments to believe that the future will be different from the past, than it would take to believe that the future would look very much like the past. If presentations make differences between market value and reference value explicit, this could lead to clearer arguments about probable causes of the differences and to more rational prices. These discussions would increase the transparency of, for instance, valuations and/or financial reports.

Historical performance can be expected to have some relevance when making assessments of future outcomes. For instance, to some extent auditors seem have

[95] Nordlund, 2004, reprinted in the appendix – Reference value of commercial real estate

based their opinion on whether there is need for impairment of property in financial reports on historical cash flows.[96]

What reference value is not

The reference value does not claim to be the "true" or "correct" value. It is just a point of reference when making comparisons with something else, for instance a market value. Lind (2003) argues that one should not try to find out what is "sustainable value" or what is the "efficient price" – instead we should look at historical averages and patterns of different parameters such as, for instance, asset values, rents and discount rates.

It could be perfectly rational to believe that the market value should be a different figure from the reference value. For instance, the fundamental facts of the market may have changed: population size, affecting the demand for dwellings, or the number of companies demanding offices, may differ from the situation in the past. In other cases the historical development of rents may diverge from what could be expected in the future depending on some rational, well-grounded facts, e.g. institutional changes.

4.1.3 Value concepts and the efficient market hypothesis[97]

Some value concepts rely on the functionality of the efficient market hypothesis, e.g. market value and fair value. Other value concepts are based on the presumption that it cannot be taken for granted that this hypothesis works well in reality. Such value concepts are, for instance, MLV, long-run market value and reference value.

"The efficient market hypothesis basically says that the current price of an asset will reflect all available information. Prices change when there is new information, e.g. about the future stream of net incomes."[98] However, some authors argue that the efficient market hypothesis, consensus views of the future of a market and assumptions of perfectly rational actors on the market can be questioned.

Lind (2003) argues, for instance, that in reality there are no consensus views of the development of a market and that valuations based on forecasts of the future are very uncertain. When looking at a complex system like an economy as a whole, or even a specific property market, predictions beyond, say, six months are highly uncertain. This can be seen in evaluations of business cycle forecasts. It may be possible to identify two different views among economists on this point. Using very general and simplified labels Lind calls them the "mainstream view" and the "Austrian view". According to the "mainstream view" we should all come to have roughly the same (rational) expectations about the future when we look at all available information,

[96] Nordlund, 2004, reprinted in the appendix – Assessment of need for impairment – property in financial reports (Bedömning av nedskrivningsbehov – fastigheter i redovisningen)

[97] See also discussions in Nordlund, 2004

[98] Lind & Persson, 1998, p 5

whereas the "Austrian view" pictures the actors on the market as individuals that see different opportunities in the same situation.[99]

It is interesting in this context to note the views of Shiller (2001): "No one person can be at once a historian, political scientist, economist, and psychologist rolled into one. It has been shown in a number of psychological studies that people suffer a wishful thinking bias, that is they overestimate the probability of success of entities that they feel associated with. Wishful thinking bias appears to play a role in the propagation of a speculative bubble. After a bubble has continued for a while, there are many people who have committed themselves to the investments, emotionally as well as financially."[100] Julius Caesar once said, "Men willingly believe what they wish". Experiments that have been carried out reveal that investors have been affected by past price increases and that people in general tend to pay attention to what others are paying attention to. Not surprisingly, speculative assets whose price has gone up a lot recently get a great deal of attention. People are more likely to buy assets that have come to their attention just because they are thinking about them more. Major speculative bubbles are always supported by some superficially plausible popular theory that justifies them – a theory that is widely viewed as sanctioned by some authoritative figures. These theories may be called new-era theories. This discussion is related to Shiller's argument that there was a speculative bubble on the stock market around the year 2000.[101]

However, speculative bubbles in asset markets are not a new phenomenon. More spectacular bubbles have occurred in history: the Wall Street stock market crash in 1929 for instance and property markets in 1989-90, both related to worldwide economic crisis and depressions. In the 1920s, before the stock market crash on Wall Street, it seems that people acted irrationally. There were beliefs in a "new era" where recessions or depressions would no longer occur.[102]

This short overview has shown that the efficient market hypothesis seems to have certain limitations. In discussions concerning the efficient market theory and behavioural finance Shiller (2002) concludes: "Indeed, we have to distance ourselves from the presumption that financial markets always work well, and that price changes always reflect genuine information."[103] This also means that there could be room for value concepts other than MV, like reference value discussed above.

4.2 Value concepts in accounting

The rules and methods for the valuation of property are closely linked to accounting regulations for fair value. Accordingly, the Basis for Conclusions to IAS 40 states that in drawing up IAS 40, comparisons were made with International Valuation Standards

[99] Lind, 2003; see also discussions about the Austrian school of economics in, for instance, Bon, 1989

[100] Shiller, 2001 pp 6-7

[101] Shiller, 2001

[102] Dillard, 1984; see also discussions on this topic in Galbraith, 2002

[103] Shiller, 2002 p 32

(IVS) issued by the International Valuation Standards Committee (IVSC) and, at the same time, it was stated that the valuation profession would play a highly significant role in the implementation of the standard.[104] In IAS 40, however, there is no reference to property valuation standards. IAS 40 itself is considered to be a property valuation standard.

In the accounting context, several different value concepts are used that have been created or redefined. In *accounting-related value concepts*, this primarily applies to the concept of fair value. The definition of fair value in IAS 40 is "the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction". In its application to property, the content of the concept can be regarded as being identical with market value, even though in terms of the choice of words it is somewhat different. The definition and further guidance regarding fair value in IAS 40 are summarised below:

> *Fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.*[105]
>
> *Fair value specifically excludes an estimated price inflated or deflated by special terms or circumstances such as atypical financing, sale-lease-back arrangements, special considerations or concessions granted by anyone associated with the sale.*[106]
>
> *An entity determines fair value without any deduction for transaction costs it may incur on sale or other disposal.*[107]
>
> *The definition of fair value refers to 'knowledgeable, willing parties'. In this context 'knowledgeable' means that both the willing buyer and the willing seller are reasonably informed about the nature and characteristics of the investment property, its actual and potential uses, and market conditions at the balance sheet date.*[108]

In addition, accounting also includes such concepts as *fair value less cost to sell, value in use, recoverable amount* and *carrying amount*. Fair value less cost to sell is fair value, that is, the likely price, less sales and phase-out costs (see *IAS 36 – Impairment of Assets*).

Value in use is defined as the present value of future payment surpluses and the present value of a calculated residual value at the end of useful life. It may be categorised as an individual investment value since the assessment of future cash flows should normally be based on the company's budgets/forecasts for the next five-year period, but with the distinction that the discounting factor should be market-based. The definition indicates that value in use, according to IAS 36, is very much a

[104] IAS 40 Basis for Conclusions – B52
[105] IAS 40 p 5
[106] IAS 40 p 36
[107] IAS 40 p 37
[108] IAS 40 p 42

hybrid of the individual investment value and market value. Cash flow is based on the particular company's budget (as in assessments of individual investment valuation) while the yield/cap rate/discount rate derives from the market (as in market value assessment). However, in this context it is important to point out that the value in use does not include future enhancement possibilities[109] of the property, which could be a difference in relation to how market participants are reasoning on this issue. The value in use should be assessed for the asset in its current condition and does not include future cash inflows or cash outflows that are expected to arise from improving or enhancing the asset's performance among other restrictions. In the accounting context there have been situations where market value has been judged not to express a "correct/justified" value of fixed assets for financial reporting purposes. If the market value, at some point in time, were lower than the carrying amount, there was an attempt by accountants to evaluate whether the market value was temporarily low. If the market value was judged to be temporarily low, normally no impairment was recorded in the financial reports but[110] this practice has changed in recent years, at least in listed companies applying IFRS for financial reporting purposes[111].

In this thesis, however, the primary focus is on applications of the fair value model in IAS 40. Therefore value concepts such as *recoverable amount, fair value less cost to sell* and *value in use* in IAS 36 will not be within the central scope of interest in what follows. Those value concepts in IAS 36 are relevant if applying the cost model in IAS 40 when testing the need for impairment of properties accounted for in an HCA concept.

4.3 Valuation methods in general

4.3.1 Overview of basic methods

The most common methods applied in property valuations are listed and briefly explained below.

Comparable sales approaches

Comparable sales method is based on a market approach. "The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities (including business). For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables."[112] Multiples could be 20 times the Net Operating Income (NOI)[113] or ten times rental income, for example.

[109] IAS 36 p 44

[110] Nordlund, 2004

[111] In a property context, see the requirements when applying IAS 40 – Investment Property and IAS 36 – Impairment of Assets

[112] SFAS 157, 2006

[113] Sometimes also called net rental income

Different forms of the comparable sales approach are:
- Area method – Transaction prices divided by area are used as the base.
- Gross Income Multiplier (GIM)[114] – Transaction prices in relation to rental income are used as the base
- Method based on Net Capitalisation factor – Transaction prices in relation to NOI are used as the base

Income approaches

"The income approach uses valuation techniques to convert future amounts (for example, cash flows or earnings) to a single present amount (discounted). The measurement is based on the value indicated by current market expectations about those future amounts."[115]

Different forms of the income approach are:
- Direct capitalisation method – NOI divided by yield demand is used for the valuation
- Discounted Cash Flow method (short term, e.g. five years, or longer term, e.g. ten years or longer) – The market value is calculated from the present value of future assessed cash flows

Cost approach

"The cost approach is based on the amount that would currently be required to replace the service capacity of an asset (often referred to as current replacement cost). From the perspective of a market participant (seller), the price that would be received for the asset is determined based on the cost to a market participant (buyer) to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence. Obsolescence encompasses physical deterioration, functional (technological) obsolescence, and economic (external) obsolescence and is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (based on specified service lives)."[116]

Transaction prices could be analysed in relation to a cost parameter, for instance production cost, building cost, replacement cost or depreciated replacement cost.

4.3.2 Income approaches in property valuation

Two income approaches of property valuation have been introduced and there now follows a somewhat more detailed description of these two valuation techniques – the Direct Capitalisation Method and the Discounted Cash Flow (DCF) Method.

[114] See for instance Ratcliff, 1971
[115] SFAS 157, 2006
[116] SFAS 157, 2006

4.3.2.1 Direct Capitalisation Method

The Direct Capitalisation Method is principally based on an "eternity capitalization" of a normalised NOI for the first year. The NOI is calculated so that operating and maintenance costs (including property tax and ground lease) are deducted from market rent expectations less a normalised vacancy level. Payments like investment efforts and other acquisition costs shall not be reflected when NOI is assessed/calculated.[117]

The Direct Capitalisation Method is applied in property valuations mainly for the purpose of making assessments of market value. From a formula perspective the model applied is the same as when applying a comparable sales approach with normalisation to net capitalisation factor, which is assessments of market value based on the ratio between normalised NOI and price levels regarding property in market transactions.[118]

The yield or required cap rate

In an income approach simulation aimed at appraising the market value, which is based on one year's NOI, a cap rate or yield is applied. As discussed previously, if the purpose is to make an assessment of *market value/fair value* the cap rate should be extracted from transactions in the market in some way, maybe by relating an NOI that is normalised to market participants' expectations to price observations in the market. The alternative is that the yield is assessed by starting from a discount rate that is adjusted with an expected annual change in NOI or change in values (see below)[119]:

MV= Market value
p = discount rate
g = annual change in value or NOI, %

From the parameter NOI – normalised NOI year 1 – one is able to calculate the value of the investment object with the formulas described below. The formula described here is also known as *Gordon's formula*:

$$MV = \frac{NOI}{Yield}$$

$$MV = \frac{NOI}{p-g}$$

[117] Persson, 2005
[118] Ibid
[119] Ibid

The formulas are quite simple but they are connected to several other problems, for instance:

- How is normalised NOI defined and how are different figures decided when assessing this NOI? Issues to decide are rental income, vacancy rates, operating and maintenance cost levels.
- How are the market demands for yields assessed?

Calculation of normalised NOI will be further discussed elsewhere in this thesis, however, since there are several connected problems.

4.3.2.2 Discounted Cash Flow method

The Discounted Cash Flow Method (DCF) is an income approach where the Net Present Value (NPV) is calculated from expected future payments.

The DCF method is based on assessments of future payments, cash inflows less cash outflows. Applied in a proper way, there is a potential to show more realistic liquidity figures in assessed future outcomes. Since cash flow models are more flexible it is easier to comprehend changes in economic circumstances during the period when cash flows are stated explicitly. Cash flow models can be used for different purposes, for instance[120]:

A. Assessment of a market value (market simulation)
B. Analysis of consequences of an assessed market value (is it profitable to pay a certain price?)
C. Assessment of an individual investment value

To be interpreted in the right way by a user of the cash flow valuation, it is very important that it is clear which of the purposes exemplified above the calculation has been performed for. There could be differences in parameters like rental income, operating and maintenance costs, discount rate, etc for each purpose.

Applications will be presented below where the purpose is to make assessments of market values. Here the cash flow calculation is assumed to be based on the actual circumstances regarding the valuation object at the starting point. To the extent that these circumstances diverge from market expectations for different kinds of parameters used in the calculation, there should be a gradual realistic adaptation to market expectation levels during the calculation period (see the illustration below). In the cash flow prediction one makes a projection regarding future cash in- and outflows during the calculation period. At the end of this period a residual value is assessed. Just as in other calculations regarding investment analysis an NPV is calculated based on the net payment outcomes, applying the formula described below.[121] The net payments here do not include cash outflows of interest and amortisation of loans.

[120] Persson, 2005

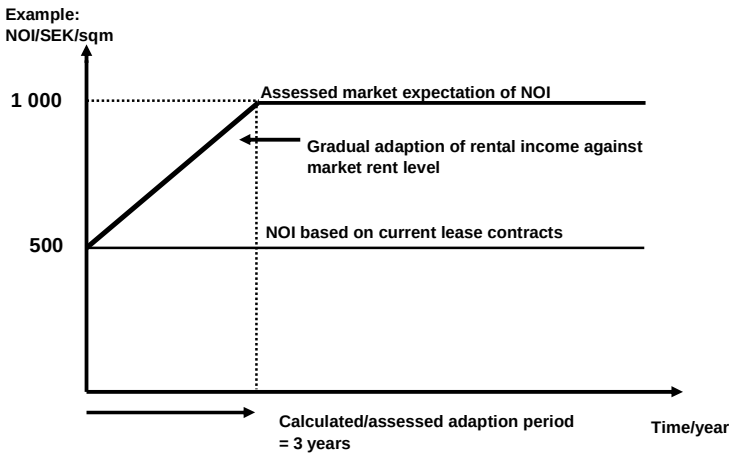
[121] ibid

$$NPV = \sum_{t=1}^{n} \frac{(H - D - U - F - T - I)_t}{(1 + p)^t} + \frac{R_n}{(1 + p)^n}$$

Where: V = NPV

H = Rental income	I = Investments in the property
D = Operating costs	R = Residual value
U = Maintenance costs	n = Calculation period
F = Property tax	t = Time variable l
T = Ground lease	p = Discount rate for total capital

Figure 4.1 Normalised (market participants' view) and actual NOI (at time point 0) per sqm



Source: Persson, 2005, p 378

However, cyclical movements in the economy (business cycles), which will be discussed in 7.2, are a complication when trying to make a prediction of future outcomes of cash flows. These cyclical movements affect, among other things, gross rental income and vacancy rates and hence NOI. Those cyclical movements should therefore affect future projections of NOI if the calculation is to reflect the most probable development.

In this context it should be mentioned that there are advocates who emphasise the view that assessments of future outcomes regarding cash flows must include possible outcomes from different scenarios. This is due to the fact that no one knows anything for sure about what will happen in the future. In other words it seems almost impossible to make just one prediction and state with a very high probability that the

outcome will be a description of future outcomes. The uncertainty probably also increases as a consequence of the distance in time from point zero until the point in time when the prognosis ends. NPV calculations based on forecasts of future cash flow projections could, for instance, show optimistic, probable *and* pessimistic scenarios. [122]

4.4 Valuation methods in IFRS

4.4.1 Which methods are referred to in IFRS regarding property valuation?

IAS 40 p 45 states: "The best evidence of fair value is given by current prices in an active market for similar property in the same location and condition and subject to similar lease and other contracts. An entity takes care to identify any differences in the nature, location or condition of the property, or in the contractual terms of the leases and other contracts relating to the property." In other words, this is a statement that asserts that the best valuation approach of investment property is the comparable sales method. Also IAS 40 p 46 (a & b) refers to the comparable sales method.

According to IAS 40 p 46 c, an approach based on discounted cash flow projections could be applied making assessments of fair value, which is an income approach.

Although not explicitly stated in IAS 40, methods based on a cost approach could in some circumstances be applied when making assessments of fair value regarding property. For instance, IAS 16 p 33 states: "If there is no market-based evidence of fair value because of the specialised nature of the item of property, plant and equipment and the item is rarely sold, except as part of continuing business, an entity may need to estimate fair value using an income or depreciated replacement cost approach." The statement in IAS 40 p 75 d "…or was more heavily based on other factors (which the entity shall disclose) because of the nature of the property and lack of comparable market data" implies that there could be situations when there is a lack of comparable market data. Maybe, in some circumstances, a method based on depreciated replacement cost, for instance, could be one way to handle such a situation.

4.4.2 Could "market evidence" referred to in IFRS be something other than price observations?

In chapter 3 (3.6) it was mentioned that IAS 40 p 75 d requires companies to make a statement as to whether the determination of fair value was supported by market evidence or was more heavily based on other factors. In this context it could be of some interest to discuss, for instance, whether extracted yields from market transactions could be market evidence. Is there any market evidence connected to, for instance, levels of NOI for different kinds of properties in different locations?

[122] Johansson, 1997, see also discussions in Lind, 2003

Several studies have been performed regarding input parameters in valuations of properties. “An interesting observation is that the average assumptions about operations and maintenance cost in Swedish valuations are about 20% lower than the actual outcome from property management measured by the Swedish Property Index. From all the years of feedback analyses in the Swedish Property Index it is also concluded that valuers systematically underestimate the long-run vacancies in the assumptions made in valuations. Under the assumption that the estimated market values are correct, the overestimated NOI will imply that the reported market-based discount rates and exit yields are about one percentage unit too high.”[123]

One conclusion from the previous paragraph could be that although calculated fair value levels might be correct inputs in calculations aimed at fair value assessments do not necessarily conform to outcomes in reality, e.g. levels of NOI, yields and discount rates. Hence natural questions would be: Are there any consensus views regarding parameters ending up in market expectations of NOI, yields and discount rates? Do the valuers apply market expectations in their income approach (e.g. DCF) valuations, which in turn differ from outcomes in reality, or are the market expectations in fact something else, not applied by valuers?

The findings in a study by Lundström & Gustafsson referred to above[124], could be given three possible interpretations:

- There are consensus views in the market regarding levels of NOI and those are reflected in performed property valuations, however, these consensus views constantly underestimate, for instance, operating and maintenance cost levels and vacancy rates and hence overestimate the income return levels from properties
- There are consensus views about NOI levels and required returns in deals closed in the market, however, these consensus views are not reflected in the valuations presented
- There are no consensus views from the market regarding NOI levels and required returns

If the assessed fair values are about right, however, there should at least be some consensus views regarding the price levels in deals closed in the market. One conclusion from the foregoing discussion may be that only price observations could be regarded as market evidence in this context. If, for instance, cap rates are to be regarded as market evidence then it could be argued that there must be consistency in cap rates used for valuation purposes and reported income returns.

[123] Lundström & Gustafsson, 2006a & 2006b p 11, see also SFI/IPD, 2006

[124] Lundström & Gustafsson, 2006a & 2006b

4.5 Summing up – Value concepts and valuation methods

Value concepts

The concepts of market value and fair value are market-based value concepts that have to be extracted empirically. Normative statements regarding values of properties with no clear connection to transaction price levels in the market are not suitable for the purpose of statements regarding market value and/or fair value. However, among certain actors, there are some concerns regarding the efficiency of the market and this have in turn caused search, by some actors, for other values/value concepts more stable than market value and/or fair value. However, those other value concepts are not relevant in an FVA concept. Examples of such other value concepts are MLV, reference value and long-run market value, etc discussed above. Individual investment value is another value concept that does not fit into the FVA concept as it differs between different actors. There are also other accounting-related value concepts that have no role applying the fair value model in IAS 40, e.g. value in use, briefly introduced above.

Valuation methods

In this chapter there has been a basic presentation of different valuation methods. According to IAS 40, the traditional valuation methods in property appraisal such as comparable sales method, direct capitalisation method and discounted cash flow method also fit into the requirements regarding valuation methods.

IAS 40 also states that there should be a statement in the financial reports concerning whether the determination of fair value was supported by market evidence. The discussion in 4.4.2 implies that it may be doubtful whether anything other than price level observations could be regarded as market evidence.

5. Valuation problems and valuation practice

5.1 Introduction

The movement in accounting towards the concept of FVA includes estimates of hypothetical transaction prices in the current state of the market. Different kinds of valuation techniques could be applied to assess fair value/market value. Different kinds of problems are connected to the application of these valuation techniques. Therefore it is important for auditors, accountants, creditors, analysts, etc to be aware of a number of issues connected to the valuation process of property. These issues are, for instance, chosen levels of cap rates/discount rates, normalised NOI for valuation purposes and how valuations are conducted in practice. In turn this could be important when deciding the proper amount of disclosure concerning the valuation of property in financial reports. Furthermore, these issues could be of importance when trying to evaluate, for instance, the uncertainty level in a fair value assessment included in those reports.

5.2 Some problems extracting comparable sales

Applying a comparable sales approach in making property appraisals implies different kinds of problems. Among other things there is always a need to make adjustments if there are differences between the valuation object and comparable sales as observed in market transactions. Those differences can be due to physical factors such as building age, location or material qualities. Or differences can be due to economic factors such as gross rental income or vacancy levels.[125] These issues about the need for adjustments due to divergence will be further described and discussed in chapter 11 (11.4.1.4).

However, before those factors can be analysed in a property valuation, the appraiser must have access to the relevant transactions in the market. Two such problems will be discussed below in terms of indirect acquisitions of property assets and how contractual terms could affect price levels in deals closed in the market. Before those issues are discussed, though, one should also be aware that both problems discussed start from a point where there are transactions in the market, but they could be difficult to observe or analyse.

An interesting phenomenon in an FVA context is discussed in *The Economist* (2007b). A fair value regime can itself distort the very prices that are supposed to reflect the true worth of assets when the prospect of lower prices can encourage selling which drives prices down further. There could also be a situation where transactions are held back when possible sellers apprehend that negotiated prices in forthcoming transactions will set “nasty benchmarks” for the next assessments of fair

[125] See for instance Persson, 2005

values for assets still in the hands of those possible sellers. In other words, in illiquid markets where there happens to be one, or only a few, dominant holders of certain kinds of assets, there is less chance of sales into a falling market. Left on the books and marked to market, an asset will be valued at the price at which others have managed to sell. This means that in a market downturn there may be very few, if any, transactions when actors holding fair-valued assets find that it is no longer possible to sell these assets at the fair-value levels assessed and earlier reported.[126]

5.2.1 Indirect acquisitions of property – acquisition of corporate property vehicles

When studying the price observations in the market one has to be aware of the differences in nature of direct[127] and indirect acquisitions of properties. Both types of acquisitions create price observations on the market, but indirect acquisitions require extended analysis that differs from the analysis of directly acquired properties. Indirect property acquisitions mean that properties are acquired by the transfer of equity instruments, e.g. shares, in a corporate vehicle. In the next step the acquisitions, direct or indirect, have to be classified either as asset deals or business combinations for accounting purposes. Depending on the classification of the acquisition, the fair value of the properties will be reported in different ways in the acquirer's financial statements.[128]

Analysing both direct and indirect acquisitions of property, the company needs judgement to decide on parameters that differentiate between property which is held and appraised by the company and related transactions in the market. Even indirect deals require analysis, as discussed in 5.2, of divergence between the property for which fair value is assessed and price observations from the market.

Properties that are acquired in corporate vehicles create extended problems when analysing the price levels of properties in the market. For instance:

- How were the price levels of the assets (properties) extracted from the price of equity in the corporate vehicle traded?
- In the next step, how was the extracted total asset value apportioned to different properties if the traded corporate vehicle consisted of more than one property?

To extract the property asset prices from deals regarding corporate property vehicles, it would be necessary to explain how the equity, as well as the liabilities, was priced in the acquisition. Furthermore, it would be necessary to explain whether any other assets were acquired in the same deal, e.g. tax receivables due to deficit deductions, goodwill, plant and equipment, etc. After that it would also be necessary to explain how the extracted property value was apportioned between different properties in the

[126] See also discussion and results in Plantin, Haresh & Shin, 2008

[127] Buying the property itself, not the equity instruments in the corporate property vehicle holding the property (properties)

[128] See discussions in Nordlund, 2006a; IFRS 3; IAS 12

acquired vehicle, if relevant. An illustration of the general principle of the problem is given in the example below.

Assume the following:	
Price level of equity at acquisition	100
Carrying amount of liabilities in the corporate vehicle at the time of acquisition	100
However, the liabilities' fair value was	200
Other assets' fair value in the deal was	50
which leads to	
Extracted property value based on the following	250

Reconciliation of fair values in the deal:	
Equity	100
Liabilities	200
	300
Other assets	50
Property	250
	300

If an indirect deal includes different kinds of properties, in different locations and varying technical conditions, etc, this situation causes problems trying to extract the price level of each property. Nevertheless, a company appraising its own properties has to draw some conclusions from the indirect deals.

The kind of analysis described above is very simplified. In practice, however, these analyses will be much more problematic. For instance, transactions of equity instruments are seldom recorded in a register that easily could be checked as soon as a valuation has to be performed. If the valuer has knowledge of the indirect property transaction, it cannot be presumed that the valuer always has knowledge of which price level the equity instruments were traded at. If the valuer knows the price level of the equity instruments, then the valuer probably has to undertake an analysis of the book value versus the fair value of the liabilities in the property vehicle, the vehicle's tax position, etc, to extract the price level of the properties in the last step of the analysis.

5.2.2 Contractual terms – e.g. rental guarantees and special terms of financing

There are also problems other than those discussed in 5.2.1 connected to property deals that make analysis of price observations from the market difficult. Examples of these kinds of problems are rental income guarantees from seller to buyer that are part

of the negotiation in a deal to reach a certain price level for a property[129], or when certain terms of financing have affected the price levels paid for the assets. The financing could, for instance, be guaranteed by the seller at terms that diverge from normal conditions in the market, e.g. low or no interest rate.

Property is sometimes sold with a rental guarantee by the seller. The guarantee is often limited to a certain period of time, such as 2–3 years. It may only cover part of the property's leasable area. Depending on its scope, the guarantee does not necessarily prevent the seller from recognising the revenue. But the guarantee should be taken into consideration when determining the actual sales proceeds. In accordance with *IAS 37 – Provisions, Contingent Liabilities and Contingent Assets*, a contract that is likely to result in an outflow of economic resources should be taken into consideration in order to settle an obligation arising from the contract. Thus, the impact should be a provision by the seller corresponding to his best assessment of the outflow that the guarantee will give rise to while it remains in effect. In an ideal situation, it is conceivable that the purchaser and the seller make the same best assessment of the outflow that the guarantee will generate. Assume that the market value of a property is appraised at 100, but the prospective purchaser informs the seller that the transaction can be concluded at 100 only if the seller provides a certain limited rental guarantee. Assume further that both the purchaser and the seller make a best assessment that the present value of the outflow generated by the guarantee is 10.

The impact of these assessments should be that the seller reports the sales price of 100 as follows (simplified): [130]
Sales proceeds = 90
Debt to the purchaser = 10

Meanwhile, the purchaser reports his acquisition of the property as follows:
Acquisition cost of the property = 90
Claim on the seller = 10

One problem connected to this example, involving a rental guarantee, is that the transaction may be recorded in the official statistics (Lagfartsregistret) as a transaction at a price level of 100, since 100 is the sales price as shown in the contract between seller and buyer. Hence this may create a comparable sale note of 100. However, the economic substance is a price level of 90, as shown above. This may in turn cause problems when evaluating transaction price levels from comparable sales, if the analyst does not know the contractual terms between seller and buyer.

As described in chapter 4 (4.2), the definition of and further guidance on fair value for investment property clearly excludes the effects of such special contractual agreements, as detailed here.

[129] See for instance discussions in Nordlund, 2006b

[130] Nordlund, 2006b

5.3 Some problems applying income approaches

Net Operating Income (NOI), sometimes also called Net Rental Income (NRI), is a key measurement figure in financial reports from property companies and in property valuations as well. However, in this context it is important to be aware of the fact that NOI for financial reporting purposes is not equivalent to NOI for property valuation purposes. To begin with, we have to be aware of the fact that NOI for financial reporting purposes is an income figure based on the logic of accrual accounting while NOI for property valuation purposes is (primarily) a cash flow figure. As an example, we will, in many cases, find differences regarding rental income figures and maintenance expenses on this issue.

In this chapter I will describe and discuss different parameters included in the calculation of NOI, such as rental income, operating and maintenance costs. The description and discussion will be from the point of view of how NOI from financial reports can be useful in property market valuations and what kinds of problems we may find when transforming accounting figures to cash flow figures for this purpose. First of all, this chapter will discuss income approaches in property valuations and the relevant cap rates and discount rates to apply in valuations performed with this kind of valuation technique.

5.3.1 Income approaches – relevant cap rates and discount rates

Since two of the methods introduced in 4.3 use cap rates or discount rates, a discussion of some issues regarding cap rates (yields) and discount rates will follow. The discussion about cap rates and discount rates will start from a theoretical point of view. This discussion is important because the two types of rates are related to each other in a complex way, as will be further described below. In 5.4 there will also be a presentation from an empirical study which, among other things, describes how Swedish property appraisers work with the connections between extracted yields from market transactions and discount rates. Therefore there will be a theoretical discussion and description here about cap rates/yields and discount rates.

From a theoretical standpoint, property valuations could be performed by clean-cut income approaches or clean-cut market approaches like comparable sales method. In a clean-cut income approach the cap rate/discount rate should be extracted from the financial markets and methods based on financial theories should be applied to find out what the levels of required rate of returns should be. In a clean-cut market approach the required rate of returns should be extracted from property market transactions. In the market approach the price levels in the market are related to different value influencing factors either physical, e.g. lettable area, or economical such as NOI, gross rental income or the income return (yield).

Below there are two examples of the different ways to determine the required returns in the market:

The Financial view:
The required rate of return = Risk free interest rate + risk factor related to property in general + risk factor connected to the specific property
The Market approach view:
The required rate of return = The quota between an NOI normalised from market participants' point of view in relation to price levels in market transactions (comparable sales)

Furthermore, from a theoretical standpoint, the market demand for cap rate/yield, is built up by risk free real interest rate + risk factor + compensation for real depreciation connected to the specific object. However, the real depreciation compensating factor could be both a positive figure and a negative figure. A negative figure arises in a situation when market participants have expectations of increasing future NOI in real terms. A positive figure could be connected to the situation when market participants have expectations of decreasing future NOI in real terms. In the case of expectations of decreasing future NOI in real terms this situation could also be described as expectations of future depreciation in real terms if all other parts of the yield demand are constant (real interest rate + risk factor).

It should be emphasised that cap rates or discount rates that are supposed to be applied for the purpose of making assessments of *market value/fair value*, should be extracted empirically from transactions in the property market or in a equivalent way extracted applying the financial view introduced above. Below there will be an example from a theoretical point of view based on a situation where we are supposed to know how the market requirement for return is built up from different components in a specific situation. However, determination of relevant cap rates/discount rates for the purpose of calculations of *individual investment value* could be normatively described from a specific company's point of view.

Assume that the following conditions hold:

Real rate, no risk	3% (Swedish Government Bonds No 3001 maturity year 2014, 27/6-2003; listed at 2.3% in 25/8-2004)
"Normal" risk premium	
Property	2% (See for example Hutchinson & Nanthakumaran, 2000)
Real change in value	2% (See for example Baum & McElhinney, 1997; Bejrum, 1995)
Inflation rate	2%

From the assumptions above the relation between cap rates (yields) and discount rates may be described as in Table 5.1[131]:

[131] Persson, 2005; Nordlund, 2004

Table 5.1 Discount rates and cap-rates

Nominal cash flow calculation

Nominal discount rate:	**Percent**
Realrate, no risk	**3**
Risk-premium	**2**
Compensation of inflation	**2**
Discount rate, nominal	**7**

Discount rate used to discount future cash-flows does not include any compensation for real change in value. Real change in value is supposed to be expressed in growth or decline in future cash-flows.

Cap-rate/ Yield		**Percent**
(including components of inflation)		
Realrate, no risk	**p=7**	**3**
Risk-premium		**2**
Compensation of inflation		**2**
Real change in value	**g=0**	**-2**
Inflation		**2**
Cap-rate/Yield (p-g)		**7**

Cap-rate (yield) also have to include the future expected change in value and cash-flow since there is only a cash-flow from a single year in the calculation.

p-g = 7-0 = 7 %

If components of inflation excluded: 5-(-2) = 7

Real cash-flow calculation

Real discount rate	**Percent**
Realrate, no risk	**3**
Risk	**2**
Compensation of inflation	**0**
Discount rate, real	**5**

Includes no compensation of inflation because cash-flows are calculated in real terms. Expressed as cap-rate, see below/above: p-g = 5-(-2) = 7

The relationships described in table 5.1 above are simplified, but they are acceptable when applied to figures of the size in the table. The correct way to make the calculations is to apply Fischer's formula, further described in Persson (2005).

In relation to the discussions about real depreciation, one would first have to make it clear that if an investor believes that the real net operating income (NOI) will be at the same level in perpetuity without capital expenditure efforts that goes beyond normal levels of maintenance costs, the required compensation of real depreciation in the cap rate would of course be nil. However, if the investor believes that the future real NOIs will depreciate or that capital expenditure would be required in the future to keep the real NOIs, the rational investor would most likely require a compensation for this fact in the cap rate.

The expected real change in value is the same as the expected real depreciation and in an ideal case where market demand for yields/discount rates is constant over time this should follow the pattern of real NOI development. Depreciation can roughly be divided into three subgroups: physical deterioration, functional obsolescence and external obsolescence. Physical deterioration and functional obsolescence can be curable or incurable in nature. Simply put, these two subgroups of depreciation are possible to counterbalance if it is economically feasible to cure them. External obsolescence is related to factors outside of the subject property. This can be an economic factor, such as oversupplied market or a location factor such as poor siting or proximity to a negative environmental influence.[132]

[132] Appraisal Institute, 1996

5.3.2 Normalised NOI as an assessment made by market participants

To reach a figure that is an assessed market value/fair value, or the yield demanded by the market observed in transactions, one has to assess a normalised NOI. The assessment of the normalised NOI consists of different kinds of problems that have to be solved. Below I will give a few examples of problems connected to this issue.

Assumptions needed to make assessments of the market demand for yield returns in a certain relevant market, e.g. office properties in Stockholm CBD, are rental income, operating and maintenance costs, property tax and ground rent, which all are inputs in a calculation that leads to NOI. This NOI shall reflect the market participants' view of NOI, a normalised NOI. This NOI is then related to prices paid in transactions on the market and hence indicates the market demand for yield regarding investments in similar properties.

5.3.2.1 Normalised rental (lease) income

As described in chapter 3, the accounting rules regarding rental/lease income say that these income streams should normally be reported on a straight-line basis over the lease term. In some situations rental income in financial reports could diverge materially from rental income cash flows, as exemplified and discussed in chapter 3, where theory and accounting rules issues were described.

The assessment of market expectations regarding rental income includes different kinds of problems. One is to decide what the market expectation is for gross rental income – the rental income that would be received if 100% of the lettable area was rented out. Another problem to solve is the market expectation of vacancy losses: empty parts of the lettable area. In turn these two problems lead to difficulties when deciding on market participants' view of NOI and hence the precision in estimating the yield when trying to extract this key demand for return from transactions in the market.

Since market rent levels in newly agreed lease contracts show movements over time with a connection to the business cycle as well as vacancy levels, it should not be taken for granted that the market participants' expectations regarding gross rental income are automatically linked to the current market rent level for all contracts. Those contracts normally expire at different points in time. In an effective market with rational actors it could be argued that the actors are aware of these movements and take them into account when making price bids on different properties with different lease contract structures.

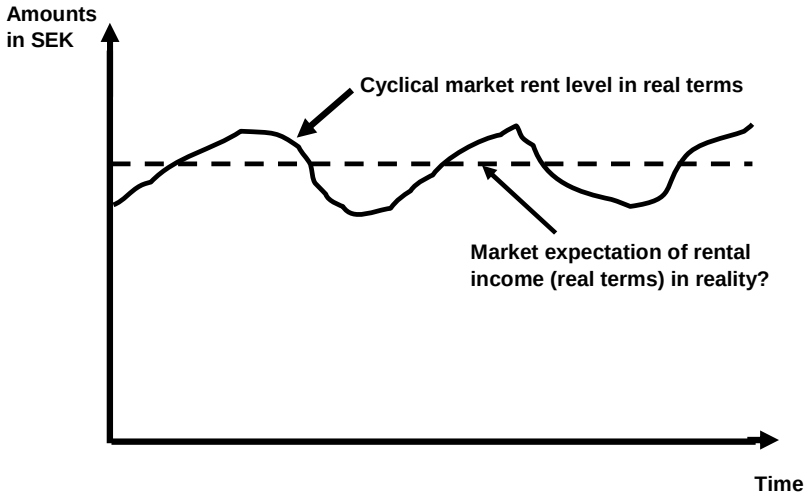
One could argue that the market expectation regarding rental income should be assessed as the normal rental income level expected for a certain kind of property in a certain kind of geographical market. This kind of property and location may include both newly agreed rents (current market rent level) and rental income levels contracted in a market situation where the levels were higher or lower. From this perspective the market expectations of rental income level may not be automatically

equivalent to the current market rent level. What has just been discussed is illustrated in the example below. It may very well be the case that market participants are rational to the extent that, in reality, they do not expect rental income to be equivalent to the current market rent level at any point in time in markets where the market rent levels are volatile. If this is the case, the correct way to analyse a market view of required yields in transactions is not based on the current market rent level but from the expected amount of rental income that will be collected in the future. [133]

Studies of, for example, property prices and/or real office rents have also shown that if the price or the rent is above trend, then this leads to expectations that it will fall, and vice versa if it is below trend. Thus property prices and/or real rents tend to return towards a stable real value trend, a long run average (mean reversion). [134]

In a study carried out by Hendershott & MacGregor (2003) they link property capitalisation rates to those in the bond and stock markets. Hendershott & MacGregor argue that cap rates demanded in the United Kingdom (UK) property market indicate that there are rational expectations and that cap rates continually tend to their long-run equilibrium value. Using rents as a long-term explanatory variable they conclude that, in periods when rents were above their long-term real mean, UK investors expected them to fall and when rents were below their long-term real mean, they were expected to rise. The authors argue that mean reversion concepts could be useful when evaluating current rent levels. Figure 5.2 below illustrates this.

Figure 5.2 Actual and expected market rent levels



What has been discussed and described above is illustrated in the example that follows. In this example the current market rent level is 3,000 SEK/sqm (assume a high position in the business cycle) while the rational expectation of rental income

[133] Interview with professor Erik Persson, 28.11.2003

[134] See for instance Cho, 1996; Hendershott & MacGregor, 2003

that will be collected through ups and downs in the business cycle is not more than 2,500 SEK/sqm. Assume that market expectation regarding operating and maintenance costs, including property tax and ground lease, is 500 SEK/sqm. Furthermore, assume that the price level in transactions regarding comparable sales is 30,000 SEK/sqm.

The extracted yield based on current market rent level will be:
3,000 – 500 = 2,500; 2,500/30,000 = yield 8.3%

The extracted yield based on the lower expectations described above as an assessed market view of long-term market rent level:

2.500 – 500 = 2,000; 2,000/30,000 = yield 6.7%

If we were then to make an assessment of market value/fair value for a valuation object where the market expectation of NOI is 1,900 SEK/sqm we could end up in two different assessments of this value as described below, applying the two different yields:
1,900/ 8.3% = approx 22,900 SEK/sqm
or
1,900/ 6.7% = approx 28,400 SEK/sqm
depending on which of the extracted yields is used.

From the lowest value to the highest there is a difference of 24% and from the highest to the lowest a difference of 19%. This shows the importance of knowing how the yield is derived and that NOI is estimated in a way that is consistent with the assumptions behind the yield.

In this context it should also be emphasised that, in valuations reviewed by Svenskt Fastighetsindex/IPD[135], vacancy levels, when compared to initial vacancy levels, have been underestimated for many years. Hence gross rental income less vacancy losses may be overestimated in valuations. However, vacancy loss risks could also be reflected in the risk factor in the yield/cap rate or the discount rate, but this issue will not be further discussed here.

5.3.2.2 Normalised operating and maintenance costs

If a Direct Capitalisation Method is applied to assess a fair-value figure, it is very important to be aware of the difference between accounting and property valuation in respect of boundaries between maintenance expenses and investments (capitalised costs). In property valuations my impression is that this boundary is drawn between efforts that will appreciate the fair value of the property and efforts that will not appreciate fair value. These judgments are founded in economic theory and can be different from situation to situation regardless of whether the same types of improvements are made in the properties.

[135] Svenskt Fastighetsindex, 2003 a

In an accounting context, however, these boundaries are regulated in IAS 40 and IAS 16, as described in chapter 3. The acquisition cost, cost-based value concept, of a replaced component[136] must be handled as an investment in the accounts and therefore will be initially accounted for as a balance sheet item, increasing the carrying amount of the asset. Costs of "day-to-day servicing"[137] will be accounted for as a maintenance expense in the income statement[138]. This treatment for accounting purposes holds even if the acquisition cost is less than the appreciation of the fair value as a result of the effort, or the other way around. The difference between the acquisition cost for the replaced part and the appreciation in fair value will be handled in the accounts as a negative or positive fair-value adjustment[139].

What has been discussed above can be illustrated by the following example:
Assume that a company replaces the roof of a building. The acquisition cost of the roof is 2,000. The valuer's assessment is that the roof replacement will appreciate the fair value of the building by 1,500. The treatment in the accounting context will be capitalisation in the first place of the 2,000 and then there will follow a negative fair-value adjustment of 500. In the valuer's calculation of NOI, he will include the 500 as a maintenance cost that will decrease NOI for valuation purposes. Hence, for accounting purposes, NOI will be 500 higher than NOI for valuation purposes.

If the valuer applies a DCF method in the fair-value assessment, and the roof replacement is planned to take place sometime in the future, the valuer will probably include the 500 in maintenance costs decreasing NOI and the 1,500 will be reflected as an investment cash outflow. The connected fair-value appreciation of 1,500 will be the result of the Net Present Value (NPV) calculation of, for instance, the lower maintenance cash outflows, those which not appreciate the fair value, required in the future as a direct effect of the roof replacement. In other words, the fair value of the roof replacement depends on how much higher future NOIs will be as a direct effect of the roof replacement, compared to future NOIs if the replacement had not been done. The possible effects on future cash flows and values from an investment are shown in Figure 5.3.

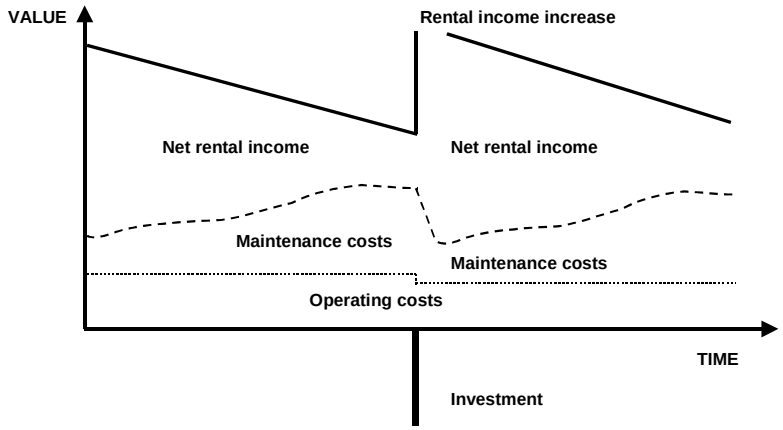
[136] For instance, according to IAS 16 p 13 and IAS 40 p 19, replacement of interior walls is component replacement that should be added to the carrying amount of the property.

[137] According to KPMG's *Insights into IFRS*, 4th Edition 2007/8, repair of a leaking roof is an example of a "day-to-day service" effort

[138] IAS 16 also includes further guidance on the issue regarding boundaries between capitalizing or expensing a cost; IAS 16 p 8 states, for instance, that major spare parts qualify as a cost to be capitalised if an entity expects to use them during more than one period.

[139] IAS 40 p 68

Figure 5.3 Cash flow and investment



Source: Lundström, 1997 p 48.

The NPV of the differences in future cash flows from the property, before and after the roof replacement, is not just a product of differences in cash flows of different alternatives, it is also a product of the market demand for returns in terms of required discount rates. As described above, the discount rate that the market demands is theoretically built up of a risk-free rate and a risk premium and the latter component varies from one market to another. Note that, for the purpose of fair-value assessments, the logic of these boundaries, maintenance expense or investment, is estimated on the basis of the experience of to what degree certain efforts affect fair value.

These boundaries are not automatically equivalent to how accounting rules prescribe that the split between expense and capitalisation should be done for accounting purposes regarding the roof replacement. As previously described, the latter issue is solved by the way that the acquisition cost of the roof is capitalised in an accounting context. If the consensus view of the market is that, in this particular case, the fair value appreciation is something other than the acquisition cost, this fact will show up as a fair value adjustment in the financial reports after, or at the same time as, initial recognition of the component in the accounts. In other words, in the accounting context the boundaries between maintenance expenses and capitalised costs are based on normative accounting standard statements. In a property valuation context, these boundaries can vary over time and between relevant markets. Hence, for property valuation purposes these boundaries have to be proved empirically, not taken from what is normatively required in accounting rules such as IAS 40 and IAS 16.

Operating costs seem on many occasions to be assessed in a stereotyped manner based on national standards, both in situations where valuations are performed and also in

other types of analysis[140]. These simplified assumptions are unsatisfactory in many cases since the variations in reality could be significant. For example, the difference between the highest and lowest municipal charges in Sweden could be as much as approx 150 SEK/sqm[141].

There are also problems in valuations concerning the assessment of the proper level of costs for administration and other organisation-related costs, such as property attendance.

5.4 Valuation in practice – a summary of results from an empirical study

As a part of the research project underpinning this thesis, an empirical study was carried out on how valuations of commercial property are conducted in practice. In this study some leading property appraisers in Sweden were interviewed regarding which information from the market they used in their appraisals of commercial property and how the valuations were conducted.

The purpose of this study was to clarify, understand and critically analyse how different kinds of market information are related to the assessments of market values for office property. The study was arranged in two parts: one a description of theoretical issues and the other an empirical study of how different kinds of problems regarding valuation of this kind of property were handled in practice. The whole essay is attached as an appendix to this thesis[142].

According to the respondents' answers, the most common valuation method applied is a comparable sales method. In practice, however, they usually apply the so-called DCF method, an income approach, which means that they discount assessed future cash flows to an NPV using market participants' view of NOI and applying a discount rate that reflects market participants' demand for returns for a certain property, the valuation object.

The conclusions of the study are that there are significant problems in practice in trying to evaluate the required yields in the market precisely, and furthermore that there is a need for refinement concerning how different kind of parameters are assessed in a normalised (market adapted) NOI, such as rental income level, operating and maintenance cost levels. It is hoped that these kinds of refinements may contribute to a reduction in uncertainty intervals in market value assessments of

[140] See for instance Leimdörfer, 2003 where operating and maintenance costs regarding residential properties are assumed to be 350SEK/sqm for older buildings and 275 SEK/sqm for newly built or recently renovated properties, regardless of where in Sweden they are located. Regarding office buildings, these costs are assumed to be 300 SEK/sqm in the city of Stockholm and 250-275 SEK/sqm in the rest of Sweden.

[141] Avgiftsgruppen, 2002

[142] Nordlund, 2004, reprinted in the appendix – What kind of information from the market is employed as basis for appraisals of commercial real estate? (Vilken information från marknaden används som underlag vi värdering av kommeriella fastigheter?)

commercial property. Furthermore, it seems to be the case on many occasions that appraisals, which are claimed to have been performed by DCF methods are, in reality, just somewhat complicated versions of “eternity capitalization” applied in a Direct Capitalisation Method with strong relationships to a comparable sales method. The parameters in the applied “cash flow methods” are very frequently applied in such a way that the valuation could just as well have been described as a method based on “eternity capitalization” of NOI and the outcome regarding the assessed market value would have been essentially the same in many cases.

Furthermore there is a risk that cash flow illustrations performed and presented in many market valuations of commercial property could give misleading information to investors regarding future cash flows.

Illustration 5.4 shows an interpretation of the consensus obtained from analysis of the study responses.

When making cash flow predictions applying a DCF method, most respondents answered that:

- Market rent level is normally assumed to follow the level of inflation development
- Operating and maintenance cost levels are normally also assumed to follow the level of inflation

Hence their assessments of the real (no inflation effects) cash flow development will be as described in Figure 5.4 below. The cash flow pattern described could also be compared with findings presented by e.g. Bejrum et al (1992) and Bejrum (1995), showing long-term decreasing NOI in normal cases over the life cycle for built property.

Figure 5.4 Assumed cash flow in real terms

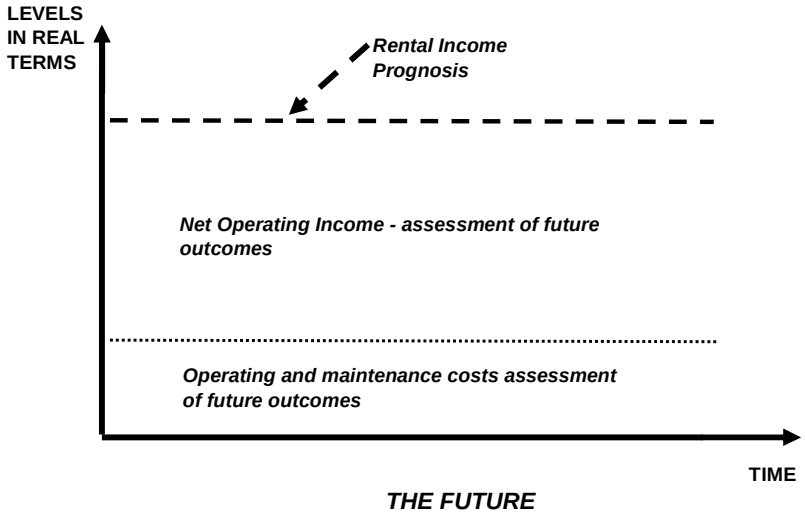
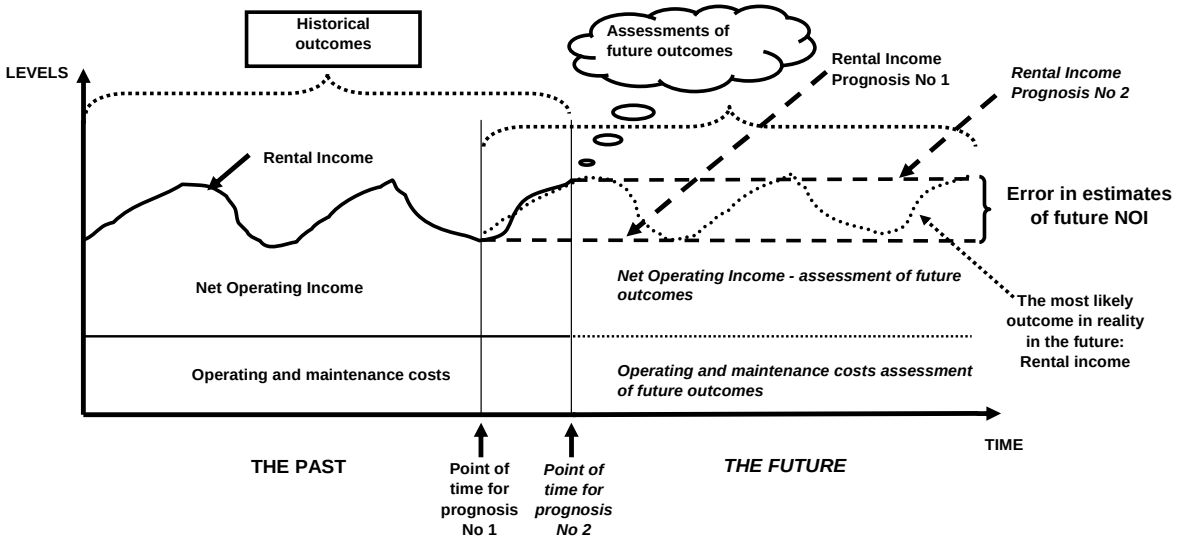


Figure 5.4, showing the findings from the empirical study of interviews with property appraisers, implies that there is a high probability that errors in estimates of future cash flows will occur in valuations performed using the DCF method the way this method is normally applied. This conclusion is illustrated in figure 5.5, which shows that, depending on at what point in the business cycle the valuation is performed, extrapolation of the current rent level will probably lead to over- or underestimation of future rental income, and hence NOI, if business cycles and cyclical movements in rent levels occur in the future.

Figure 5.5 Cash flow over the business cycle



However, some respondents answered that operating and maintenance costs were projected to increase just a little more than the inflation rate but, to reiterate, the most common answer was that a development was projected in line with the assumed inflation rate. Regarding the market rent level, however, almost all the respondents answered that they assume the market rent level, relevant for the valuation object, will follow the assumed inflation rate. This means that there are no adjustments in real terms as a result of the valuation object growing older during the time shown in a cash flow forecast for market valuation purposes. Furthermore, no consideration is paid to the fact that market rent levels show cyclical patterns over time, with a strong connection to the development of the business cycle.

The respondents claim, however, that applied discount rates are adjusted to reflect the assumed inflation rate by adding the inflation rate to the assessed market demand for yield that is relevant for the valuation object. Most of the respondents answered that they also normally apply the initial market demand for yield (at the value date) to assess the residual value that is a part of cash flows that are discounted to NPV.

The effect of such a calculation will be approximately the same as if a Direct Capitalisation Method had been applied in the first place, taking account of

adjustments as a result of divergences between actual circumstances and market-expected circumstances such as, for instance, rental income levels that diverge from market expectations. When applying a Direct Capitalisation Method such divergences are normally reflected by an NPV calculation between the actually contracted rental income level and the market expectation of rental income level. In other words, the appraisers could just as well apply a Direct Capitalisation Method with corrections for divergences as described above. From my point of view, DCF methods applied the way described in the findings could, in some circumstances, contribute to wrong decisions made by investors if they rely on the outcomes from those calculations, since there seems to be no ambition to try to show realistic future cash flow patterns in the projections. In short, although it is not initially apparent, applications of the DCF method and the way cash flow projections seem to be made are, in many cases, merely a somewhat unnecessary and complicated way to utilise a Direct Capitalisation Method.

There are problems connected to predicting future movements in business cycles and hence future income and total return from property assets, which will be discussed in chapter 7. Therefore the most useful fields of applications for DCF methods may be in calculations of, for instance, individual investment values. In this context it could also be easier to explain – as discussed previously – why there are different scenarios, also showing sensitivity analysis, regarding possible future outcomes.

The findings in this study imply that discount rates and cap rates/yield, used in market valuations, seem in most cases to be extracted more or less directly from transactions in the market.

Another conclusion from the study is that the valuers try not to act “normatively” in making cash flow projections. If the market consensus is that there will be a real depreciation of NOI in the future this fact should be included in the yields extracted from transactions in the market. Hence there is no need to show those patterns in the cash flow projections as long as the applied market demand for yield is at the right level. When it comes to movements in future NOI due to movements in business cycles, this fact should also be reflected in the market demand for yield on a market that works effectively with rational investors. Besides that, if nobody else can predict an upturn or downturn in the business cycle with precision, why should the valuers try to do this in their cash flow forecasts for valuation purposes? These arguments are not hard to accept, but the question still remains, why apply a DCF method in such cases?

As discussed in 5.3, there are a number of difficulties to overcome when trying to assess the market expectations regarding NOI from a certain valuation object. The interview study referred to in this chapter also confirms that valuers face problems in practice when trying to assess this figure. In some situations valuers use stereotyped inputs regarding market rent levels, vacancy rates, operating and maintenance costs, etc. By extension this also leads to problems determining the correct yield levels when trying to extract them from transactions in the market.

6. Empirical studies of financial reports

6.1 Introduction

The idea behind international accounting rules and a single set of standards is of course to reach a common language, which in turn requires consistent application of IFRS rules in all essential terms. Instead of different sets of rules varying from country to country, hopefully a single set of standards will provide better information, thus making analysis of companies more efficient. One should also bear in mind that the current IASB Framework emphasises the needs for adequate and transparent financial reporting for investors who are providers of risk capital to the entity[143].

As accounting practice according to the new international rules is in a start-up phase, application of the rules will be expected to vary to some extent between different companies and maybe also between companies from different countries. There are cultural differences between countries that also influence financial reporting to a degree. In this context two dominant traditions of accounting are often referred to: the Continental and the Anglo-Saxon (briefly discussed in the introduction).

The purpose of the empirical study presented in this chapter is to investigate some selected key issues concerning how the accounting rules have been applied so far as we are able to find out from studying annual reports/financial statements.

As stated in the Methodology chapter the key issues chosen were:
- the chosen method to account for investment property: fair value model or cost model
- the description of accounting principles regarding the borderlines between maintenance costs to be expensed in the income statement and capitalised costs (investments)
- whether fair value adjustments are reported above or below financial items in income statements
- disclosure regarding applied methods, significant assumptions in valuations and the connection between valuations and market evidence

The companies investigated were divided into two subgroups: property companies from Sweden and property companies from the rest of Europe (if they were among the top 20 market caps in Europe of listed property companies).

[143] IASB Framework p 10

6.2 Selection of accounting model investment property – Cost model or fair value model

The results concerning the chosen model are presented below, first for the companies from the rest of Europe and then for the Swedish companies.

The companies from the rest of Europe

Results from the study of property companies from the rest of Europe are presented in table 6.1.

Table 6.1 Choice of model: rest of Europe 2005

Cost model or fair value model

Company	*Country*	Cost model	Fair value model
Land Securities	Great Britain		X
British Land	Great Britain		X
Metrovacesa	Spain	X	
Rodamco	Netherlands		X
Unibail	France		X
Liberty Int.	Great Britain		X
Hammerson	Great Britain		X
Klepierre	France	X	
Slough Estates	Great Britain		X
Corio	Netherlands		X
Immofinanz	Austria	X	
IVG	Germany	X	
Brixton	Great Britain		X
Wereldhave	Netherlands		X
PSP	Switzerland		X
Colonial	Spain	X	
Derwent Valley	Great Britain		X

In interim financial reports during 2006 it can be seen that Metrovacesa and Immofinanz elected the fair value model in the second year of applying IFRS.

In a follow-up study, the annual reports for the same companies were studied for the following year, 2006, applying IFRS. The outcomes of this study are shown in table 6.2.

Table 6.2 Choice of model: rest of Europe 2006

Cost model or fair value model

Company	*Country*	Cost model	Fair value model
Land Securities	Great Britain		X
British Land	Great Britain		X
Metrovacesa	Spain		X
Rodamco	Netherlands		X
Unibail	France		X
Liberty Int.	Great Britain		X
Hammerson	Great Britain		X
Klepierre	France	X	
Slough Estates	Great Britain		X
Corio	Netherlands		X
Immofinanz	Austria		X
IVG	Germany	X	
Brixton	Great Britain		X
Wereldhave	Netherlands		X
PSP	Switzerland		X
Colonial	Spain		X

In this table it is shown that a majority of the property companies from the rest of Europe elected the fair value model. Initially, five of those companies elected the cost model but during the following year three companies (Colonial, Metrovaceza and Immofinanz) had given up the cost model in favour of the fair value model. There is a clear movement towards the fair value model: only Klepierre and IVG hold on to the cost model, but IVG will switch to the fair value model the following year because, as they write in the 2006 annual report, this model is now accepted as best practice and Klepierre shows its income statement and balance sheet in accordance with the fair value model in notes to the accounts.

The Swedish companies

All the listed Swedish property companies have elected the fair value model in financial reports for 2005 and all of the Swedish property companies studied in the sample hold on to the fair value model in the annual reports of 2006. The Swedish property companies investigated are listed in table 6.4 below.

Other studies

The International Valuation Standards Committee (IVSC) carried out research regarding the first annual reports in accordance with IFRS, looking into the financial reports of 59 European property companies, applying IFRS. The outcome of their study confirms the findings above as they conclude: “Unsurprisingly, given the sector’s focus on asset values, the overwhelming majority of the companies in the sample used the fair value model in IAS 40 for their investment property.”[144]

[144] IVSC, 2007

Ernst & Young (2007) also studied the application of IFRS in property companies, examining the annual reports of 25 companies for the financial years ending in 2006 and 2007. In their study they found that only two companies had chosen the cost model in IAS 40: Klepierre and IVG.[145] The companies studied by Ernst & Young are described as major listed property companies and are from Australia, Belgium, France, Germany, Hong Kong, Italy, the Netherlands, Singapore, Spain, Sweden, Switzerland and the UK.

6.3 Subsequent expenditure: Boundaries between maintenance expenses and investments – How accounting principles are described

The companies from the rest of Europe

The recognition principles are identical in IAS 16 and IAS 40. Therefore it has been judged that if there is a description of this principle in the annual reports this principle has been added to the reflections below regardless of whether the principle description is under the heading of Property, Plant & Equipment or Investment Property.

Nine companies in the sample from the rest of Europe have no explicit description of the principle that defines the boundaries between maintenance expenses and investments. Those companies are:

- Unibail
- British Land
- Corio
- Liberty
- Hammerson
- Klepierre
- Immofinanz
- IVG
- Derwent Valley.

Three companies describe their principle in terms of capitalising costs as additions to property if the costs are of a "capital nature". However, there is no further definition of what is meant by "capital nature"[146]. Those companies are:

- Land Securities
- Slough Estates
- Brixton

One company states that subsequent value-appreciating capital expenditure qualifies as acquisition costs and is capitalised. That company is the Swiss company PSP.[147] In the annual report for the 2006 PSP states that subsequent expenditure is capitalised at various rates and the maximum is 70%. However, in specific cases a capitalisation rate of 90% is used.

[145] Ernst & Young, 2007

[146] Year 2005 and 2006

[147] Year 2005

The other companies included in the study have recognition principles that they describe as follows:

Metrovaceza: "The costs of extensions, modernisations or improvements that have led to an increase in productivity, capacity or efficiency, or have extended the useful lives of assets are recorded as an increased cost of the relevant assets." The other Spanish company, Colonial, has a similar description.[148] In the 2006 annual report, Colonial has added that subsequent additions are measured at cost. However, this is written under the heading of *Other items of property, plant and equipment*, not in the context of investment property.

Rodamco: "Subsequent expenditures are charged to the asset's carrying amount only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of an item can be measured reliably." That was for investment property. For property, plant & equipment the description is as follows: "The group recognises in the carrying amount of an item of other property, plant & equipment the cost of replacing part of such an item when the cost is incurred if it is probable that the future economic benefits embodied with the item will flow to the Group and the cost of the item can be measured reliably."

Wereldhave: "After acquisition subsequent expenditure is added to the asset's carrying amount when it is probable that future economic benefits will flow to the entity."

The Swedish companies

The sample of fourteen listed Swedish property companies also includes different kinds of descriptions regarding the boundaries between maintenance expenses and investments.

Three of the companies have no description at all: FastPartner, Wihlborgs and Sagax.[149] However, in the 2006 annual report, FastPartner has added a description of the borderline between maintenance expenses and capitalised costs that is identical to the description that applies to Balder, Brinova, etc (see below). Sagax has included a statement that maintenance expenses that lead to future benefits are capitalised.

Five companies have a description like the one cited here: "Subsequent expenditure is added to the carrying amount if it is probable that the future economic benefits associated with the item will flow to the entity and the cost of the item can be measured reliably. The decision whether the cost will be capitalised is settled from the view if the cost fits with the definition of replacement of identified components, or part of such components or if a new component had been developed when the expenditure was incurred."[150] The companies with such descriptions are:

- Balder

[148] Year 2005

[149] Year 2005

[150] Annual reports 2005 and 2006

- Brinova
- Hufvudstaden
- Klövern
- Lundbergs

Heba's description states: "Subsequent repair expenses related to other than running maintenance and replacement of minor parts are capitalised" (annual reports for both 2005 and 2006).

Ljungberggruppen's description reads: "Expenditure regarding redevelopment and maintenance that will result in economic benefits has, according to IFRS, been capitalised" (no significant change between 2005 and 2006).

Two companies (Castellum and Fabege) have descriptions that conclude that subsequent expenditure is only capitalised to the extent that the costs will appreciate the fair value of the properties. Other costs will be expensed in the income statement – these are interpreted as repair and maintenance expenses. This holds in both companies for both 2005 and 2006.

Wallenstam seems to capitalise expenditure related to "redevelopment" and "improvements" as described in the 2005 annual report. However, in the 2006 annual report Wallenstam seems to have included a description that is very much like that of Castellum and Fabege.

Kungsleden capitalises costs that lead to "future economic benefits" in the annual reports for both 2005 and 2006.

Other studies and concluding comment

Empirical studies by Palm (2008) and Gustafsson (2005) confirm that different principles are used within different companies regarding the borderline between maintenance expenses and capitalised costs. The outcomes of the empirical studies presented above show that companies disclose different principles regarding the issue of borderlines discussed here. Palm's study also confirms that these different descriptions of principles are also based on different applications in practice to some extent. Concerning the measures discussed here, Palm and Gustafsson have conducted studies that show results leading to the inference that there is no consensus view on many occasions in practice, regarding which specific measures are expensed in the income statement and which are capitalised.

For instance, one company may replace the waste pipes and expense the whole cost immediately, or parts of it, and in the meantime another company performs the same kind of replacement and capitalises the whole amount. The empirical studies referred to shows that there are, first, differences between those who apply Swedish GAAP and those who apply IFRS. However, this finding is not surprising since there are differences between the written rules. But, second, Palm also shows that there are differences within the groups. In other words, applying IFRS has not yet led to a consistent application of this boundary issue. The fact that there are differences in

application among the users of Swedish GAAP is not surprising since there are two recognition principles in Swedish GAAP: one for initial recognition and one for subsequent expenditure.

It should also be underlined that there are a number of empirical problems when applying some of the general economic formulations – how does one, e.g., evaluate to what extent an effort leads to higher future benefits?

6.4 Fair value movements/adjustments reported above or below financial items in income statements

IAS 1 is silent on the issue of where in the income statement fair value adjustments should be reported – above or below financial items. Management may find arguments for reporting these adjustments below financial items to reduce their importance as discussed in chapter 3 (3.5.2). The property companies in the sample were investigated on this issue.

The companies from the rest of Europe

Table 6.3 How reported: rest of Europe

Company	*Country*	Above financial items	Below financial items
Land Securities	Great Britain	**X**	
British Land	Great Britain	**X**	
Metrovacesa	Spain	**(X)**	
Rodamco	Netherlands	**X**	
Unibail	France	**X**	
Liberty Int.	Great Britain	**X**	
Hammerson	Great Britain	**X**	
Klepierre	France	**Cost model**	**-**
Slough Estates	Great Britain	**X**	
Corio	Netherlands	**X**	
Immofinanz	Austria	**(X)**	
IVG	Germany	**Cost model**	**-**
Brixton	Great Britain	**X**	
Wereldhave	Netherlands	**X**	
PSP	Switzerland	**X**	
Colonial	Spain	**Cost model**	**-**
Derwent Valley	Great Britain	**X**	

In table 6.3 it is shown that as far as it was possible to investigate the reported fair value adjustments reported in the first IFRS reports, none of the companies from the rest of Europe reported these below financial items in income statements. However, note that two of the companies had earlier reported according to the cost model and changed to the fair value model in interim reports the following year. The outcomes of these companies are marked (X) in table 6.3 above.

As we can observe in table 6.3, none of the property companies from the rest of Europe report the changes/adjustments of fair value below the financial items on the face of the income statement for the first year of applying IFRS.

The follow-up study of the following year's financial reports shows that Metrovaceza reports fair value adjustments below financial items (2006 annual report) while all other companies referred to here report this figure above financial items.

The Swedish companies

A majority of the Swedish property companies report the fair value changes/adjustments the same way as the companies from the rest of Europe, with some exceptions. Three of the listed Swedish companies report fair value adjustments below the financial items.

Table 6.4 How reported: Sweden

Company	*Country*	Above financial items	Below financial items
Fabege	Sweden	X	
Castellum	Sweden		X
Kungsleden	Sweden		X
Balder	Sweden	X	
Brinova	Sweden	X	
FastPartner	Sweden	X	
Heba	Sweden	X	
Hufvudstaden	Sweden	X	
Klövern	Sweden	X	
Ljungberggruppen	Sweden	X	
Lundbergs	Sweden	X	
Wallenstam	Sweden	X	
Wihlborgs	Sweden	X	
Sagax	Sweden		X

The follow-up study of financial reports for 2006 shows that the companies in the sample adhere to their chosen pattern of reporting fair value adjustments.

6.5 Disclosure issues – Description of valuation methods and significant assumptions regarding valuation of investment property

The IVSC has reviewed the annual reports of a number of leading European property investment companies applying IFRS for the first time. The purpose of this research was to examine the level of consistency in the valuation standards applied and the value definitions used for the valuation of property assets; the valuation methodology used was not examined, however.

The IVSC found out that the majority (65%) of companies surveyed disclosed that the valuation was carried out in accordance with named valuation standards/guidance. Ten different sets of valuation standards and guidance were referred to in the

companies studied, the most common being the International Valuation Standards (IVS) and the RICS Red Book. The IVSC concludes that the references to ten different set of standards/guidance creates potential for confusion and inconsistent application of valuation practices.

It is also interesting to note from the IVSC study that different value concepts were referred to in the annual reports. For instance, the value concept "Market value for existing use" was used on one occasion, although this concept has been discontinued by IVSC as a basis of value under IFRS. Five reports claimed that valuations conforming to IVS had been performed, but they used a value concept "Open market value", which is not recognised in the IVS. They also found out that there were definitions of the value concept referred to used in the financial reports that were not equivalent to the IVS definition of market value and the IFRS definition of fair value.[151]

The companies from the rest of Europe

The following companies give no explicit description of valuation methods and significant assumptions used for property valuation within their financial reports. They merely disclose that valuations were performed by different valuation companies in accordance with RICS Red Book and/or International Valuation Standards:

- British Land
- Liberty
- Hammerson
- Slough Estates
- Brixton
- Derwent Valley

The companies listed above have one thing in common: they are all from the UK.

Metrovaceza has no description of valuation methods and significant assumptions within its financial reports.

Unibail disclose that they have applied a method based on discounted cash flows and that valuations were performed by external valuation consultants.

Colonial discloses that they have applied a discounted cash flow method.

Immofinanz and *IVG* disclose that valuations were performed by "reputable neutral appraisers" or "court-certified experts" and that those have applied a discounted cash flow method in the valuation of properties.

Corio discloses that fair values were determined having regard to recent market transactions for similar properties in the same location as the Group's investment property. They also disclose ranges of yields (for the estimated net rental income) for the greater part of the properties for determining the external valuation. The yield

[151] IVSC, 2007

ranges are disclosed for different countries (Netherlands, France, Spain and Italy) and different kinds of properties (retail, office, industrial).

Klepierre discloses a verbal description of how they handle differences between rent passing and market level rents in the valuations. They also disclose that they have applied both the comparable sales method and a direct capitalisation method for offices. For shopping centres it seems that they have applied a direct capitalisation method when performing property valuations. In both cases they discount the difference between market rent level and rent passing. After that, they make an adjustment to the final market value figure using present values from those calculations. Wereldhave discloses a similar, but shorter, description of the valuation method applied.

Only the Swiss company *PSP* has a more detailed description of applied methods and significant assumption for the valuation of the properties. PSP disclose that they have applied the discounted cash flow method and that the value concept is fair value as defined in IAS 40. They also disclose significant assumptions regarding:

- Minimum, maximum and mean discount rates for different geographical areas (cities)
- Long-term market rent assumptions in valuations for different kinds of properties (e.g. retail, office, housing) in different geographical areas (cities)
- Range of discount rates and property values for different geographical areas.
- Inflation rate applied in the valuations
- Descriptions of how they have reasoned regarding rental income development and maintenance (repair and upkeep) costs based on estimates of the remaining life spans of different building components during the calculation period

The findings of disclosure issues discussed above, in the companies from the rest of Europe, are summarised in table 6.5.

Table 6.5 Valuation method: rest of Europe

Company	External valuation	Combined internal/ external	Comparable sales method	DCF method	Direct capitalization method	Method not disclosed
Land Securities	X			X		
British Land	X					X
Unibail	X			X		
Liberty International	X					X
Rodamco Europé	X?	X?		X		
Metrovaceza	X		X		X?	
Hammerson	X					X
Slough Estates	X					X
Corio	X		X		X	
Immofinanz	X			X		
Immob Colonial	X			X		
Klepierre	X		X		X	
IVG Immobilien		X		X		
PSP Swiss Property		X		X		
Wereldhave		X			X	
Brixton	X					X
Derwent Valley	X					X

In some instances there seems to be a lack in disclosure of which methods applied in the valuation, at least within financial reports. Furthermore, on some occasions the descriptions are vague, which can lead to interpretation problems.
A follow-up study including financial reports for the second year with IFRS (most commonly 2006) shows the same pattern as described above: general descriptions of assumptions made in valuations, if any descriptions at all and sometimes no disclosure within financial reports regarding methods applied.

The Swedish companies

In table 6.6 findings for the Swedish companies regarding disclosure of applied methods and internal/external valuers are summarised. All the Swedish companies disclose which methods they have applied in the valuation. The descriptions are vague, however, which leads to interpretation problems in some situations, as will be discussed further in chapter 11.

Table 6.6 Valuation method: Sweden

Company	Internal valuation	External valuation	Combined internal/ external	Combined comparable sales and DCF method	DCF method	Direct capitalization method
Fabege		X			X	
Castellum	X				X	
Kungsleden			X			
Balder		X		X		
Brinova		X		X *)		
FastPartner			X		X	
Heba		X		X *)		
Hufvudstaden			X			X
Klövern			X	X *)		
Ljungberggruppen	X				X	
Lundbergs			X	X		
Wallenstam	X					X
Wihlborgs		X			X	
Sagax		X		X *)		

***) No explicit reference to comparable sales method but a statement that yields and discount rates are extracted from transactions on the market.**

The practice among the Swedish companies varies regarding disclosure of significant assumptions made in valuation of properties.

Klövern discloses rental income, vacancy rates, rentable area, interval of discount rates, yields for residual values and fair values for different cities where they hold properties.

Hufvudstaden discloses total rental income and total net operating income and a mean yield for the whole property portfolio. They also disclose intervals of yields for the two different cities where they hold properties: Gothenburg and Stockholm.

Balder discloses intervals of discount rates and yields for calculations of residual value for different kind of cities.

Brinova discloses intervals of yields for different kinds of properties although they have applied a discounted cash flow (DCF) method.

Castellum discloses how they have calculated the discount rates from required returns on equity, debts and assumptions on equity ratios. Castellum also shows input parameters of other kinds and a sample illustration of how the fair values have been calculated applying a DCF model.

The companies listed below disclose various levels of detail in their assumptions. Some disclose the assumed level of inflation, rental income development, ranges of discount rates applied in calculations and vacancy levels. However, none of the companies disclose all of the information mentioned here.

- Kungsleden
- Heba
- Fabege
- FastPartner
- Lundbergs
- Ljungberggruppen
- Wallenstam
- Wihlborgs
- Sagax

What has been described regarding the Swedish property companies' disclosure of applied methods and assumptions in the first financial reports according to IFRS also holds for the following year applying IFRS in these companies.

The empirical study by Ernst & Young (2007) previously referred to concludes that there are few examples of disclosure of numerical assumptions underlying valuations in the companies studied. Other studies have found that it is questionable whether the disclosure requirement in IAS 40 p 75 d is fulfilled in many Swedish property companies[152]. Clausén et al (2008) have interviewed analysts of property companies and found that those analysts need disclosure information in financial reports which cannot be found on many occasions. The Clausén study also shows a lack of numerical assumptions to a large extent in the study of financial statements by Swedish property companies. Aronsson & Sjöström (2007) also found shortages regarding disclosure of variables used in valuation models in financial statements by property companies.

6.6 Summary and conclusions from this study

Selection of accounting model for investment property: Cost model or fair value model

A clear majority of the studied companies has elected the fair value model in accounting for their investment properties. This is in line with EPRA's best practices policy recommendations for property companies and in line with what seems to be the preferred method in IAS 40.

Subsequent expenditure: Boundaries between maintenance expenses and investments – How the accounting principles are described

The net operating, or net rental, income is very important as a measurement basis in property companies. With this fact in mind it is a little surprising that there seem to be different kinds of boundaries in practice between what is expensed as maintenance and repairs in the income statement and what is capitalised in the balance sheet. Some companies disclose that value-appreciating costs are capitalised while others disclose that they capitalise the cost of replaced identified components or parts of those. Some

[152] Clausén et al, 2008; Aronsson & Sjöström, 2007

companies have unclear descriptions that may be hard to understand or could be interpreted in different ways from an analyst's perspective. For instance, if companies disclose that they capitalise costs that lead to future benefits, one might need to ask how this was evaluated.

It is probably in the best interests of the whole property industry to have clear definitions on this issue and also a clear distinction in accounting practice. In other cases the analysts will have to continue analysing companies with an uncertainty that could be unhealthy from the point of view of efficiency. If the boundaries are not clearly applied in practice this fact necessitates using one's own judgment and making more or less qualified guesses of where these boundaries should have been applied in the financial statements to satisfy users' needs when undertaking analysis of those reports.

This issue therefore seems to need improvement in practice in order to satisfy the needs of efficient financial reporting and analysis of these reports.

Fair value movements/adjustments reported above or below financial items in income statements

A clear majority of the companies has elected to report the movements/adjustments of fair value before financial items, often within a reported operating result.

Description of valuation methods and significant assumptions regarding valuation of investment property

Some companies seem to disregard the fact that IAS 40 requires them to disclose valuation methods and significant assumptions in the valuation of their investment properties. Other companies have disclosed different kinds of very general descriptions of methods and assumptions. Very few, however, seem to disclose what appears to be needed by financial analysts, according to the findings of Clausén et al (2008), or what is asked for in Sveriges Finansanalytikers Förening, 2005, for example. This appears to be a part of financial reporting regarding investment property that needs improvement among property companies. Improvements on this issue should be in line with the purpose of financial reporting according to the IASB Framework and made with the investors who provide risk capital to the entity in mind. Hopefully these users will be provided with information such that they could make their own judgments of the fair values of the investment properties by making adjustments, if needed, to different kinds of parameters, at least in situations where the properties are appraised with a method based on an income approach.

Furthermore, in the studied companies statements concerning whether the valuations were supported by market evidence are missing or vague.

Final word

A final conclusion from this study is that very many of the indicators tell us that the "common language" of financial reporting still has quite a way to go before we

achieve a “dialect” that is easily understood in an efficient way by those who analyse financial reports. It should be clear in this context that it is a prerequisite for analysts to have extensive and detailed knowledge of the often quite complicated accounting rules that have been the result of the development of IFRS.

In chapter 11 there will be a more normative discussion regarding the need for disclosure regarding chosen valuation methods and significant assumptions in property valuations. This discussion will conclude in a checklist as a proposal for disclosure requirements on this issue and as an interpretation of what IAS 40 p 75 d could aim at.

7. Impacts of uncertainty in valuations and cyclical movements in property values

7.1 Introduction

Before the requirement of applying IFRS in consolidated financial statements for listed companies came into force, there was a discussion about whether the cost or fair value model would be the choice of the property companies applying it. At that time some important indicators pointed towards the fair value model: it seemed to be the method preferred by IAS 40, but also the large property organisation EPRA pushed for it to be the best practice choice. Hence it was decided, in this research project, to make an ex ante analysis to find out the probable effects of a switch from an HCA concept applied in the national Swedish GAAP to an FVA concept allowed under IFRS. This study was conducted at an earlier stage, before companies applied the IFRS rules.

In current valuation to determine fair value, and when fair value adjustments make up part of earnings for the year, there is an emphasis on efforts to attain what is regarded as a true and fair view of company income and financial position. In this context it should be noted that upward adjustments of the value, that is, unrealised gains, should be reported as part of earnings for the period.

Certain problems could be expected in accounting according to the fair value model. One significant problem is that there is a certain variance/uncertainty in fair value assessments of property[153]. Also, special note should be made of the fact that market values for property show cyclical movements over time, which in turn track such factors as inflation and underlying economic growth[154].

Another interesting issue is to show the effects in income statements and balance sheets that arise as a result of the fair value model in relation to the previous national GAAP. In addition, there is a need to discuss consistency in these reports in view of the uncertainty in value appraisals and the effects of cyclical movements in fair values.

The purpose of this study is to highlight the differences in IAS 40 – the fair value model, compared with Swedish accounting practice before IFRS was in force, as regards accounting for investment properties. In this context, a general analysis was made of what effects the fair value model would have had if it had been applied to a number of key data relating to profitability and financial position in companies owning investment properties. However, the aim was not to make exact calculations of the effects in each company. In addition, conceivable problems that could arise as a

[153] Lundström, 2001; Mokrane, 2002; Bretten & Wyatt, 2001

[154] Bejrum & Söderberg, 1998

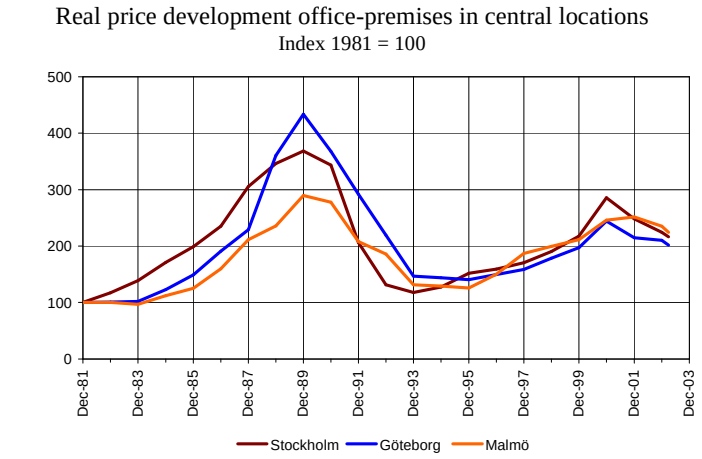
result of variance/uncertainty in fair value assessments and cyclical movements in fair values for property were highlighted from an accounting perspective.

7.2 Cyclical movements in property values over time

Market values/fair values of property show cyclical patterns over time. This is very important to be aware of since the fair value model in IAS 40 requires investment property to be reported at fair value in the balance sheet and fair value adjustments to be reported in the income statement.

One example of cyclical movements on the property market in Sweden is given in figure 7.1, which shows real price development for office premises in central locations in the three biggest cities in Sweden: Stockholm, Gothenburg and Malmö from 1981 to 2003.

Figure 7.1 Price cycles: office properties



Source: www.riksbank.se, 2003

Another example of strong cyclical movements in the property market in Sweden is shown in figure 7.2, which shows the real price of residential property in the same geographical markets in Sweden from 1987 to 2003.

Figure 7.2 Price cycles: Residential properties

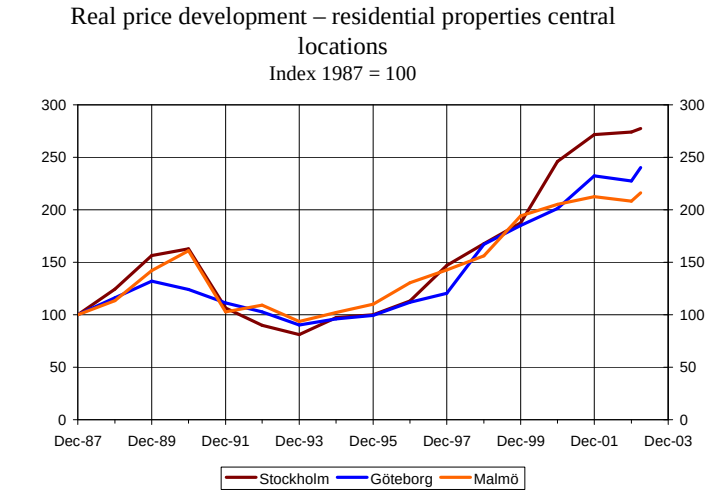


Diagram 2:14

Source: www.riksbank.se, 2003

Cyclical movements in the property market in Sweden are also shown by Turner (2000)[155], for instance, who presents a real price index showing the price development concerning residential and/or other commercial property from 1970 to 1998. During this period, in real terms, prices had been as low as approximately 40% below the start year index and as high as approximately 10% higher than the start year index. In other words, if the index started at 100, it moved down to 60 at its lowest and up to 110 at its highest.

It has been shown that total returns[156] from property investments have a strong connection to the business cycle[157]. From a macroeconomic point of view (national level) there have been, at least according to some economists, cycles of 2-4 years (due to changes in inventories/stocks), 7-11 years (due to changes in investments), and crises with intervals of 20 and 40 years and long waves of 40-60 years (e.g. Kondratiev).[158] From a local economy perspective, firms are affected differently by cyclical movements in the local economy, for instance in vacancies in a certain sub-market. From a general point of view, a business cycle is defined in relation to the starting point of differences between the potential gross domestic product (GDP) and actual GDP, the so-called "output gap". One business cycle could thus be defined as the period between two closed "output gaps", or as the period between two "highs" or "lows" in the output gap. A common view in practice is that a "normal" business cycle extends over a period of 4-6 years[159].

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[155] Lindh, red, 2000

[156] Income return (Net Operating Income) and capital growth in relation to the capital value (market value) of real estate.

[157] Bejrum & Söderberg, 1998

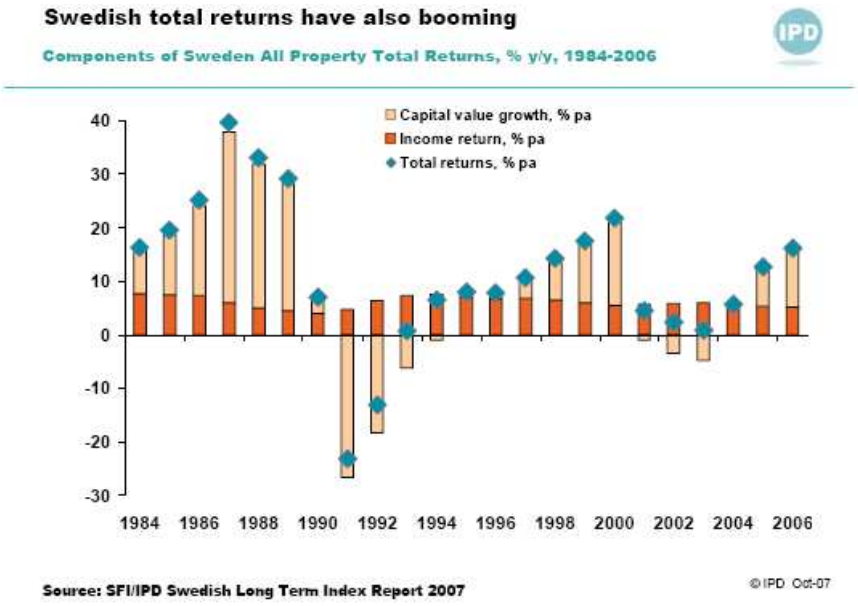
[158] See for example discussions in Johansson, 1997 and Nordlund, 2004

[159] See for instance Jonnerhag, 2004

Regarding the longer waves in the economy as a whole, it is important to bear in mind that the effects of these movements can have a severe impact on parameters like rental income and market value movements in the property market. Many experts emphasise their existence but unfortunately there seems to be no consensus view about what causes these movements and how different factors influences the economy as a whole[160]. There also seems to be a lack of regularity in the time intervals between these long waves in the economy. In other words, experts are aware of their existence but cannot make an exact prediction about when in time they will occur.

In figure 7.3 below it is shown how the cyclical movements in market values of properties affect the total return from property investments. The illustration shows total returns as measured by Swedish Property Index/Investment Property Databank (SFI/IPD) 1984-2006.

Figure 7.3 Cycles in property returns



[160] See for instance Lind, 2003; Söderberg, 2002; Shiller, 2001; Lindh & Malmberg, 2000; Schön, 1993

7.3 Values and results over time using different accounting rules

7.3.1 Outcomes according to old GAAP rules

The following is a tabular presentation of key financial data in the companies studied – Swedish accounting rules before IFRS was in force. In the tables the names of the companies included in the study have been anonymised, but they are given in a footnote[161].

Table 7.4 Net income after tax according to old GAAP

According to earlier accounting rules in Sweden (before IFRS)
Net income after tax in percent (%) of net turnover

Percent %

Year: / Company:	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	26	14	18	32
Company B	22	24	25	22	27	25	32
Company C	2	3	8	4	25	8	7
Company D	----	----	----	14	25	20	17
Company E	----	----	----	----	42	28	22

Table 7.5 The development of cash flows

According to earlier accounting rules in Sweden (before IFRS):
Cash flows as percent (%) of net turnover
(not including impact of changes in working capital, debt/amortization, investments, owner transfers)

Percent %

Year: / Company	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	21	27	24	27
Company B	26	26	27	28	28	29	25
Company C	-1	7	6	2	13	12	13
Company D	----	----	----	23	16	16	19
Company E	----	----	----	----	33	30	30

Table 7.6 Equity capital in MSEK according to old GAAP

According to earlier accounting rules in Sweden (before IFRS)
Equity capital, MSEK

MSEK

Year: / Company	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	3,958	4,107	3,918	4,051
Company B	106	123	142	157	172	166	188
Company C	654	670	718	736	904	680	628
Company D	----	----	----	1,262	1,414	1,275	1,343
Company E	----	----	----	----	9,995	10,321	10,145

[161] Company A = Tornet; Company B = Heba; Company C = Wallenstam; Company D = Mandamus; Company E = Drott

7.3.2 Analysis of the effects on income and equity from accounting according to the IAS 40 fair value model

A general recalculation in line with the conditions stated above and the rules of the fair value model results in the following key financial ratios for income and equity: (Note the figures shown below include fair value adjustments of the companies' property holdings.)

Table 7.7 Net income after tax according to IAS 40 fair value model

According to IAS 40 the fair value model
Net income after tax in percent (%) of net turnover

Percent %

Year: / Company:	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	52	18	29	43
Company B	62	68	66	73	45	190	40
Company C	33	20	52	12	36	59	54
Company D	----	----	----	81	14	35	25
Company E	----	----	----	----	80	130	-4

Table 7.8 Ratio between net income after tax according to IAS 40 fair value model and net income after tax according to old GAAP

According to IAS 40 the fair value model compared to earlier accounting rules in Sweden
Net income after tax in percent (%) of net turnover
The outcome is described below as a ratio where net income according to Fair value model is related to net income according to earlier accounting rules in Sweden.

Ratios

Year: / Company	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	2.0	1.3	1.6	1.3
Company B	2.8	2.8	2.6	3.3	1.7	7.6	1.3
Company C	16.5	6.7	6.5	3.0	1.4	7.4	7.7
Company D	----	----	----	5.8	0.6	1.8	1.5
Company E	----	----	----	----	1.9	4.6	-0.2

In this context, it should be noted that the positive results that are included due to fair value adjustments in the above figures are unrealised/ potential results at a certain value date.

Table 7.9 Equity capital in MSEK according to IAS 40 fair value model

According to IAS 40 the fair value model
Equity capital, MSEK

MSEK

Year: / Company:	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	5,062	5,481	5,596	5,695
Company B	431	501	573	661	703	991	1,033
Company C	1,219	1,325	1,677	1,765	1,769	2,073	2,473
Company D	----	----	----	1,438	1,688	1,756	1,905
Company E	----	----	----	----	8,793	13,714	13,240

Table 7.10 Ratio between equity capital according to IAS 40 fair value model and equity capital according to old GAAP

According to IAS 40 the fair value model compared to earlier accounting rules in Sweden
Equity capital, MSEK
The outcome is described below as a ratio where equity according to Fair value model is related to equity according to earlier accounting rules in Sweden.

Ratios

Year: / Company	1995	1996	1997	1998	1999	2000	2001
Company A	----	----	----	1.3	1.3	1.4	1.4
Company B	4.1	4.1	4.0	4.2	4.1	6.0	5.5
Company C	1.9	2.0	2.3	2.4	2.0	3.0	3.9
Company D	----	----	----	1.1	1.2	1.4	1.4
Company E	----	----	----	----	0.9	1.3	1.3

As shown, a significant change occurs in the level of net income and the amount of equity – note Companies B and C in particular.

The compilation above shows that, in almost all cases, the companies report higher earnings as well as higher equity during the period studied, using the fair value model in accordance with IAS 40 compared with the old GAAP rules. All other things being equal, normally an increase in both earnings and equity lead to higher measured profitability and higher ratios of financial strength. During the period studied the effects of the changes in value peaked during 2000, as shown.

It is also important to observe here that value changes do not affect the underlying cash flow from current operations. There is far better conformity between cash flows from operations and net income according to the Swedish accounting rules in force before the requirement to apply IFRS. Also, it should be noted that consideration should be given in accounting to income tax effects due to fair value adjustments (Refer to *IAS 12 – Income Taxes* for the rules in this respect).

7.4 Analytical effects of uncertainty in fair value assessments and cyclical movements in values

7.4.1 Analysis of the effects of uncertainty in fair value assessments

The compilation below shows the relationship between uncertainty in value assessments and income after financial items derived from rental income (IDRI)[162]. The uncertainty is shown in the form of an interval of +/- 5% for indicated market values, which are shown as a total span of 10% of market value. Expressed in other terms, an interval of +/- 5% means that the value can be both 5% higher and 5% lower than the indicated value. The uncertainty interval for an individual valuation is probably larger than this, but the figure can be viewed as being reasonable when applied to an entire portfolio.

[162] In Swedish property companies, often referred to as “förvaltningsresultat”

Table 7.11: Uncertainty interval in relation to the income statement

According to earlier accounting rules in Sweden (before IFRS):
Comparing income derived from rental income (IDRI) and sensitivity analysis of market value
(Income after financial items derived from rental income (IDRI) = Profit/ loss after financial items not including outcome of property disposals and other items affecting comparability)

Amounts in MSEK						Sensitivity analysis:
	Average		IDRI	Rental income	Market value	+/- 5 % on (span 10 %)
Company	IDRI		2001	2001	2001	market value
Company A	4 years 1998-2001	331	377	1,933	16,304	1,630
Company B	7 years 1995-2001	42	50	171	1,846	185
Company C	7 years 1995-2001	29	62	834	9,383	938
Company D	4 years 1998-2001	128	150	867	6,500	650
Company E	3 years 1999-2001	831	886	3,788	39,300	3,930

From table 7.11 one can see that the sensitivity analysis shows an uncertainty interval that can widely exceed annual income after financial items derived from rental income (IDRI) as continuously reported in each company. In illustration 7.11 this uncertainty varies among the companies. The uncertainty in the value corresponds to amounts in the order of about four to 16 times larger than reported income after financial items derived from rental income (IDRI) in 2001. The above compilation also shows that the calculated uncertainty in the value for each year's value assessment largely corresponds to a full year's rental income.

In this context it should be pointed out that this is a level of uncertainty that will be present in the income statement each year.

Table 7.12: Uncertainty interval in relation to the balance sheet

According to earlier accounting rules in Sweden and IAS 40 the fair value model:
Comparing equity year 2001 and sensivity analysis -- market value

Amounts in MSEK	Sensivity analysis: +/- 5 % on (span 10 %)	1) Equity according to earlier	2) Equity according to Fair value	Uncertainty interval compared to equity According to:	
Company	market value	rules	model	1)	2)
Company A	1,630	4,051	5,695	40%	29%
Company B	185	188	1,033	98%	18%
Company C	938	628	2,473	149%	38%
Company D	650	1,343	1,905	48%	34%
Company E	3,930	10,145	13,240	39%	30%

As regards the balance sheet, the uncertainty interval above is applied in relation to total equity in 2001. Table 7.12 shows that the variations in this case are significant in terms of their size and that the situation varies among the companies.

7.4.2 Analysis of the effects of cyclical movements in market values

The table below shows the result of calculations in which market value for two consecutive years is assumed to be 10% lower than the previous year's market value and accounting is conducted using the fair value model. These calculations apply to 2002 and 2003. Apart from the fact that market value is assumed to decline in these years, everything is else is assumed to remain the same as in 2001 in terms of the values in the balance sheet and revenues and expenses.

Table 7.13 Net income after tax in a scenario where the market values of held properties fell by 10% for two consecutive years, according to IAS 40 fair value model.

According to IAS 40 the fair value model 1998-2003 where 2002-2003 constitute a projection in a scenario where an assumption is made that market value is 10% below last year's market value.
Net income after tax in percent (%) of net turnover

Percent %

Year: / Company:	1998	1999	2000	2001	*2002*	*2003*
Company A	52	18	29	43	*-41*	*-35*
Company B	73	45	190	40	*-53*	*-45*
Company C	12	36	59	54	*-72*	*-64*
Company D	81	14	35	25	*-37*	*-32*
Company E	----	80	130	-4	*-51*	*-44*

A negative change in value of the order shown above has substantial implications for net income in relation to net turnover. See also comments below about the treatment in the calculations as regards deferred income taxes.

Table 7.14 How the equity capital would develop if market values fell by 10% for two consecutive years

According to IAS 40 the fair value model 1998-2003 where 2002-2003 constitute a projection in a scenario where an assumtion is made that market value is 10 % below market value last year.
Equity, MSEK

Year: / Company:	1998	1999	2000	2001	*2002*	*2003*	Ratios: Equity 2003 compared to equity 2001 Equity according to the fair value model
Company A	5,062	5,481	5,596	5,695	*4,899*	*4,221*	0.7
Company B	661	703	991	1,033	*942*	*864*	0.8
Company C	1,765	1,769	2,073	2,473	*1,869*	*1,333*	0.5
Company D	1,438	1,688	1,756	1,905	*1,582*	*1,306*	0.7
Company E	----	8,793	13,714	13,240	*11,293*	*9,629*	0.7

In the figures shown in table 7.14, it should be noted that income tax effects on the negative value change have a positive effect regarding the effects of value changes on equity. As regards the effects on reported earnings and reported equity, it should be noted that the conditions include a possible deferred tax receivable representing a real asset, which may be questioned in certain cases (see the rules for this in *IAS 12 – Income Taxes*).

According to the fair value model, equity in 2003 was reduced compared with 2001 by between 20% and 50% – depending on the company.

7.5 Conclusions

7.5.1 Discussion of accounting rules and accounting theory

The following conclusions can be drawn in relation to accounting theory and accounting rules:

- IASB's Framework includes references to the prudence aspect. However, this aspect appears to gain new meaning compared with the traditional prudence concept in terms of the reporting of investment properties because of the fair value model. Previous linkage to the realisation concept fades.
- The fair value model appears to focus on nominal accounting and "true and fair" snapshots in balance sheets. There is definite linkage to theory formation regarding price variation accounting and Edwards & Bell's theory of current cost accounting.
- The fair value model appears to emphasise the viewpoint that changes in nominal wealth from one point in time to another offer a good starting point in measuring corporate performance.

7.5.2 Effects of differences among accounting rules

During the period studied, in almost all cases the companies report higher earning levels as well as higher equity using the fair value model, compared with application according to Swedish GAAP, used before IFRS. In a number of companies, the magnitude for earnings – including fair value adjustments – in relation to net turnover is remarkably high in certain years, since earnings in certain cases exceed net turnover (rental income). Accounting rules in Swedish GAAP better reflect the underlying cash flow from operations than the rules of the fair value model. The data above also shows that dramatic effects can emerge in the event of falling values.

7.5.3 Uncertainty in value assessments and cyclical sequences

The following conclusions can be drawn from the study:

- Uncertainty in fair value assessments is probably of such a magnitude that consistency in both income statements and balance sheets can be questioned in accounting according to the fair value model.
- A number of years with falling values (in this study 10% per annum over two years) quickly has considerable implications in terms of reported profit and

reported equity. In one of the cases studied, this means that reported equity is halved over a period of two years (2002-2003) in relation to equity in 2001, given the same regulations.

As I see it, the uncertainty interval in fair value assessments and the possible effects on market values of cyclical movements in values is of such a degree and nature that it is necessary to provide disclosure of its nature and extent in financial statements.

Furthermore, in order to reduce uncertainty in the capital market, I also feel that it is of the greatest importance that a consensus is attained regarding the application of value concepts and valuation methods. Also, financial statements should show which valuation standard[163] is applied in the value assessments conducted and the type of information discussed in further detail in chapter 11.

Since the fair value model appears to focus on nominal values and "true and fair" snapshots of investment properties in the balance sheet, there is an absence of a long-term approach with links to real patterns over time. From a longer perspective, there are obvious risks of various types of sub-optimisation. As an example of sub-optimisation risks, one may mention bonus and incentive systems that are based on annual measurements of market values/ fair values and any dividend potential for shareholders that is based on the same values.

[163] See, for example, International Valuation Standard (IVS) and European Valuation Standard (EVS)

8. Indications of valuation smoothing in financial reports - results from empirical studies

8.1 Introduction

As a part of this research project an empirical study was conducted aimed at finding out if there were indications in the financial statements concerning valuation accuracy. If companies apply the fair value model in IAS 40 they carry investment property at fair value in the balance sheet. If there is a gain when the property is sold it indicates that the valuation is too low and vice versa. The gain (or loss) from a property sale is calculated as: net proceeds (sales costs deducted) less the carrying amount (fair value) of sold property.

It should be noted that the figures regarding realised results reported below could be just one property sold in some companies, while the reported figure in other companies could be a net figure consisting of both gains and losses from several property sales. The realised result figures are, in most cases, collected from the face of the income statement.

8.2 Realised results in Swedish property companies

The following tables show the realised results reported in different Swedish property companies at different reporting periods, beginning with the first IFRS reports for 2005.

Table 8.1 Realised gains reported in financial reports for 2005

Accumulated figures 2005 - Swedish listed Real Estate Companies

Company	Realised gain sold property	(Fair value model) Carrying amount sold property	Realised gain in % of carrying amount
AB Sagax			
Balder			
Brinova	26.2	230.8	11.4%
Castellum	71.0	397.0	17.9%
Catena			
Din Bostad			
Diös	0.0	4.5	0.0%
Fabege	859.0	12,373.0	6.9%
FastPartner	187.2	921.3	20.3%
Heba	1.4	32.2	4.3%
Home Properties	646.0	2,397.0	27.0%
Hufvudstaden			
Klövern	25.2	532.0	4.7%
Kungsleden	318.0	2,599.2	12.2%
Ljungberggruppen	13.4	469.0	2.9%
Wallenstam	158.4	1,076.7	14.7%
Wihlborgs	9.0	328.0	2.7%
	2,314.8	21,360.7	
Weighted average realised gains %			**10.8%**

Table 8.2 Realised gains reported in financial reports for 2006

Accumulated figures 2006 - Swedish listed Real Estate Companies

Company	Realised gain sold property	(Fair value model) Carrying amount sold property	Realised gain in % of carrying amount
AB Sagax	5.9	56.0	10.5%
Balder			
Brinova	51.0	293.5	17.4%
Castellum	83.0	377.0	22.0%
Catena			
Din Bostad	0.7	0.9	77.8%
Diös			
Fabege	61.0	12,553.0	0.5%
FastPartner	-0.6	672.2	-0.1%
Heba	41.5	241.5	17.2%
Home Properties	0.0	55.7	0.0%
Hufvudstaden	900.0	1,700.0	52.9%
Klövern	45.0	302.6	14.9%
Kungsleden	852.8	11,404.7	7.5%
Ljungberggruppen			
Wallenstam	189.0	1,704.0	11.1%
Wihlborgs	10.0	1,550.0	0.6%
	2,239.3	30,911.1	
Weighted average realised gains %			**7.2%**

Table 8.3 Realised gains reported in financial reports for the first two quarters of 2007

Accumulated figures Q2 2007 - Swedish listed Real Estate Companies

Company	Realised gain sold property	(Fair value model) Carrying amount sold property	Realised gain in % of carrying amount
AB Sagax	14.6	68.9	21.2%
Balder	70.0	400.6	17.5%
Brinova	19.0	417.1	4.6%
Castellum	2.0	4.0	50.0%
Catena			
Din Bostad			
Diös			
Fabege	174.0	1,876.0	9.3%
FastPartner			
Heba			
Home Properties			
Hufvudstaden			
Klövern	126.1	605.9	20.8%
Kungsleden	87.0	1,765.0	4.9%
Ljungberggruppen	-17.9	280.0	-6.4%
Wallenstam	121.3	1,044.0	11.6%
Wihlborgs			
	596.1	6,461.5	
Weighted average realised gains %			**9.2%**

As shown in these tables, the net results for the Swedish property companies[164] from property sales vary between seven and 11 percent on average during the periods investigated. It is also interesting to note that realised gains are sometimes remarkable in size for some companies: see for instance Hufvudstaden's and Din Bostad's gains of approximately 50 and 80 percent respectively in 2006.

8.3 Realised results in property companies from the rest of Europe

The tables below show realised results reported in different property companies from the rest of Europe at different reporting periods, beginning with the first IFRS reports for 2005.

Table 8.4 Realised gains reported in financial reports for 2005

Accumulated figures 2005 - Real Estate companies from other Europe (top 20 caps)
(Applying fair value model - companies that has showed realised results in financial reports)

		(Fair value model)	
Company	**Realised gain sold property**	**Carrying amount sold property**	**Realised gain in % of carrying amount**
British Land	165.0	1,722.0	9.6%
Brixton	12.5	489.2	2.6%
Gecina	23.4	476.9	4.9%
Hammerson	32.1	193.3	16.6%
Land Securities (06)	74.5	653.2	11.4%
Liberty	2.6	40.4	6.4%
PSP Swiss Property	-0.6	187.4	-0.3%
Rodamco	10.0	281.0	3.6%
Slough Estates	14.4	115.1	12.5%
Unibail	137.7	448.6	30.7%
Wereldhave	7.8	75.0	10.4%
	479.4	4,682.1	
Weighted average realised gains %			**10.2%**

[164] See also outcomes from a study performed by Karlström & Lövgren, 2008. Their study confirms the size of realised gains for Swedish property companies for 2005-2006, as shown above. They have also studied outcomes regarding realised gains for the whole of 2007, not just the first two quarters of 2007 as in this study. According to Karlström & Lövgren realised gains for the whole of 2007 showed a weighted average of approximately 12% above carrying amounts.

Table 8.5 Realised gains reported in financial reports for 2006

Accumulated figures 2006 - Real Estate companies from other Europe (top 20 caps)
(Applying fair value model - companies that has showed realised results in financial reports)

		(Fair value model)	
Company	**Realised gain sold property**	**Carrying amount sold property**	**Realised gain in % of carrying amount**
British Land	115.0	667.0	17.2%
Brixton	-6.3	524.9	-1.2%
Gecina	148.0	579.9	25.5%
Hammerson	95.8	525.2	18.2%
Land Securities (07)	118.2	672.3	17.6%
Liberty	28.0	116.9	24.0%
PSP Swiss Property	6.9	53.7	12.8%
Rodamco	27.0	239.0	11.3%
Slough Estates	4.8	159.2	3.0%
Unibail	99.4	428.0	23.2%
Wereldhave	39.9	131.1	30.4%
	676.7	4,097.2	
Weighted average realised gains %			**16.5%**

As shown in the tables above, for the property companies from the rest of Europe the net results from property sales vary between ten and 16 percent on average during the periods investigated. There are some remarkably high gains reported in those companies also.

8.4 Concluding analysis

From the studies reported above, it is possible to extract some interesting points:

- The outcomes, on average, are sales prices higher than assessed fair values
- There are some extreme observations: Hufvudstaden's gain in 2006 and Castellum's gain in Q3 2007 of approximately 50% in relation to the carrying fair value. Unibail and Wereldhave report gains of approximately 30% in both 2005 and 2006. There are also a number of observations of gains reported at levels of 20% or more above the carrying fair value.

Possible explanations of the phenomenon of price levels above assessed fair values may be found to some extent in the uncertainty connected to property appraisal as discussed in the introductory chapter. Another issue of importance is the fact that information regarding transactions in the market, on many occasions, is time lagged such that valuers – to a large extent – have been aware of what has happened in past transactions. If negotiations regarding price levels in the current state of the market have developed in a way that will change the direction of the trend in price development, this fact will often only become known to valuers afterwards, when the deals have been closed and information about them is released.

Infrequent transactions leave appraisers with little information to work with in determining market value at specific times. This leads appraisers to combine indications of value from the most recent comparable sale with past appraised values in order to arrive at the value that is actually reported for a given building each

period.[165] During a period with increasing market values, this kind of smoothing leads to reported gains.

Another possible explanation could be that companies are only interested in selling their properties in situations where they get a very good bid from a potential buyer. If this explanation is relevant, and the observed prices are used in later valuations, there could be a risk that other properties are overvalued in the accounts. Hence, these properties may in turn be less easy to sell at a price level in line with the fair value assessment. In other words, price levels above assessed fair values in deals closed give interesting information about the objects sold, but one should probably be careful about making inferences as to whether this phenomenon indicates that the whole portfolio is undervalued in the accounts.

In an article written by Dietrich, Harris & Muller (2001), the authors conclude that reported property appraisal estimates tend to understate selling prices and they infer that this bias reflects managers' incentives to undervalue property expected to be sold in order to increase reported earnings. In this study the authors found evidence that fair value estimates understate actual selling prices by a median value of six percent However, in their study, the investigated companies accounted for investment property according to the UK GAAP, where upward adjustments following revaluations (unrealised gains) of investment properties are not reported in the income statement. Those upward adjustments should be reported directly as an increase in equity and not as income in the income statement, according to the UK GAAP.[166]

Another interesting question in this context is what will happen in a market downturn. If valuations are a bit too low in a rising market, there are reasons to believe that they may be a bit too high in a falling market, where current negotiations result in lower price levels than earlier transactions. This would mean reported losses or very few transactions.

The outcome from the studies presented above indicates that there is a time lag in valuations and that there is some element of valuation smoothing as well, in valuation of properties for financial reporting purposes. The smoothing issue relates to, for instance, a time lag in a market where prices are on their way up. Smoothing essentially means that the underlying volatility in property values is understated in presented valuations. [167]

The above findings could also be due to the application of prudence when preparing financial reports: deciding fair value figures at a lower value in the range of different possible outcomes. The study above merely indicates that reported fair value figures have normally been lower than sales prices so far, applying IFRS, and – to reiterate – there could be different possible explanations for this phenomenon, as previously discussed, that could be interesting to investigate further.

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[165] Hoesli & MacGregor, 2000 p 59

[166] Dietrich, Harris & Muller, 2001; KPMG 2000

[167] Valuation smoothing: see, for instance, discussions in Hoesli & MacGregor, 2000

9. Valuation of properties with enhancement possibilities - real options - in an accounting context

9.1 Introduction

There seems to be some disagreement among accountants concerning how properties with enhancement possibilities (real options) should be appraised for the purpose of financial reporting according to IAS 40. Some formulations from the annual report of the Swiss company PSP Swiss Property illustrate this:

Definition of fair value

Fair value is defined as the amount for which a property would most probably be exchanged on the open market at the valuation date between two independent and knowledgeable parties, willing to buy and sell respectively, with due allowance made for a reasonable marketing period.

In compliance with IAS 40 Paragraph 51, no allowance is made in the determination of fair value for value-enhancing investments (improvements) nor for any associated additional income. Likewise excluded are property transfer, real property gains and value-added taxes plus any other costs incurred

or commissions paid during the process of selling real estate. Nor is any account taken of PSP Swiss Property's liabilities in respect of taxation (apart from ordinary property taxes) and financing costs.

Source: PSP Swiss Property Ltd, Annual Report 2006

If the fair value concept is equivalent to the value concept of market value, which is claimed in this thesis on the basis presented in chapters 3 and 4, some issues immediately arise in connection to the above interpretation of fair value.

Should the fair value of investment property, reported in accordance with IAS 40, reflect the value of possible future enhancements, or alternative ways to use the property (real options[168]) that the market includes in prices paid? If not, what kinds of re-investments, or new investments, should or should not be allowed to be considered when making assessments of fair value of investment properties? Also related to this issue is the practical question of which boundaries between efforts should be reflected in fair value assessments and which should not. In cash flow projections[169], should this boundary be drawn between day-to-day servicing and replacement of components in the building[170]?

[168] Regarding real options connected to property, see for instance Gunnelin, 1996 and Gunnelin, 2001

[169] For instance, fair-value assessment performed with a DCF method

[170] IAS 40 pp 16-19 and IAS 16 pp 7-14

9.2 Relevant accounting rules, interpretations of these rules and valuation standards

The definition of and further guidance regarding fair value presented in chapter 4 (4.2) implies that fair value should include what market participants include when pricing assets in deals closed in the market. The definition of market value in chapter 4 (4.1.1) gives the same information. Furthermore the valuer will normally estimate market value by considering the highest and best use of the property as improved[171]. The "highest and best use" is defined as: "The most probable use of a property which is physically possible, appropriately justified, legally permissible, financially feasible, and which results in the highest value of the property being valued."[172]

Although different words are chosen to describe the concept of market value in IVS and the concept of fair value in IAS 40, the concepts so far are inherently equivalent. The chosen words in the cited paragraph 42 of IAS 40 ("actual and potential uses") should be interpreted to mean the way that the willing and knowledgeable buyer is aware of the "highest and best use" of the property when making bids on the property.

However, IAS 40 p 51 states that: "The fair value of investment property does not reflect future capital expenditure that will improve or enhance the property and does not reflect the related future benefits from this future expenditure." This could be interpreted the same way as PSP Swiss Property (see 9.1): fair value for investment property should exclude possible values connected to enhancement possibilities in the future.

IAS 40 p 51 could be viewed as conforming to the description of a restriction in *IAS 36 – Impairment of assets*, with another value concept defined in that standard, v*alue in use*[173]. One should bear in mind that *value in use* is another value concept, which is not equivalent to *fair value*.

Analogies with other parts of the IFRS rules could also be of some interest in this context. According to IFRS 3 p 36 "the acquirer shall, at the acquisition date, allocate the cost of a business combination by recognising the aquiree's identifiable assets, liabilities and contingent liabilities that satisfy the recognition criteria in paragraph 37 (IFRS 3) at their fair values at that date…". In IFRS 3 B 16 (e) it is stated that the acquirer shall use market values for land and buildings in the purchase price allocation. According to KPMG's *Insights Into IFRS*, 3rd Edition 2006/7, part 2.6.380.20, the interpretation of this is as follows: "In our view, market value is the price that could be obtained for the land and buildings, without regard to their existing use. For example, an acquiree owns offices situated in a prime residential location. The value of the property as residential real estate exceeds its value as an office

[171] IVS 6.2

[172] IVS 6.3

[173] See IAS 36 p 6 and pp 44-45

building. Accordingly, market value generally should be determined based on its value as residential real estate…"

A few examples of properties and situations where possible future enhancements/improvement could have effects on price levels in the market

In cases 1 and 2 below we assume that the market conditions are such that they make possible enhancements of the properties feasible. This would be the case when the construction cost/enhancement cost[174] is lower than the expected market value/added market value of the property when the investment is completed.

Case 1

Let us assume that we only have undeveloped land, but that it is physically possible and legally permissible to erect a building on the land at some point in the future. In current conditions the only cash flow that is possible without development is to sell the piece of land to a developer. The developer will of course assess the different alternatives available. The next step is that the developer will make a price bid on the land, based on development opportunities and bargaining power.

Case

Let us assume that we have an existing building of 10,000 sqm rentable area. However, there is a physically possible and legally permissible improvement that would enhance the return from the property by increasing the lettable area from 10,000 sqm to 15,000 sqm. Assume that the construction cost of the improvement is 5,000 units while the fair value is expected to rise by 7,500 units as a result of the investment. In other words, the exercise price for the real option is 5,000 units while the value appreciation connected to exercising this option is 7,500 units, hence there is a profit opportunity connected to the option of 2,500. The most probable outcome of a negotiation between a seller and a buyer (e.g. a property developer) is that the buyer will take possible enhancement into account when calculating a price bid for this property and the seller will of course also be aware of the potential profit from the opportunity available for further development.

In both the preceding cases, the seller has the opportunity to choose whether he/she will sell the profit opportunity to the buyer or take advantage of the opportunity by undertaking the development him/herself. If actors in the market are presumed to be knowledgeable, the most probable outcome is that the opportunity will be represented by a value in the market.

9.3 Analysis

If the possibilities of enhancing the property are feasible, the most likely outcome from cases 1 and 2 above is that both the seller and the buyer are aware of the

[174] The exercise price in this example

potential inherent in the property. Therefore the potential will most likely affect the negotiated price between the parties. Since negotiated prices, as the next step, will result in price observations from the market using the preferred comparable sales method[175], the real options (possible future enhancements) will affect the determination of fair values applying that preferred method. This is just to illustrate a well-known fact from the market, that the occurrence of values in real options inherent in properties is sometimes reflected in deals closed in the market. On the other hand, on some occasions occurrences of real options are probably not reflected in the price in deals closed in the market, or only to a very low extent, due to the fact that it is unlikely that the developments will be feasible because of the (expected) market conditions in those markets[176]. As a result of the situations described here, the valuer needs knowledge and recent experience of the locations and categories of investment properties being valued[177]. In other words, if the option is important it will influence the value and if the actors in the market do not reflect the option it is not important. The valuers make inferences from transactions in the market when appraising property and from their point of view real options are sometimes reflected in deals closed and in other cases not.

The normative statement in IAS 40 p 51 is problematic in this context, if interpreted as a restriction to the effect that the market value of real options cannot be included in fair value under IAS 40. IAS 40 p 5 implies that we have to understand how real options are priced in the market, rather than take a normative standpoint where the accounting rules, or interpretation of these rules, should impose limitations that are not reflections of the market behaviour.

There seem to be some problems, however, in finding out how these real options are affecting prices closed in the market. For the moment, there are, as far as I am aware, no established models or techniques to calculate the values of real options, which are commonly applied in those situations, such as the Black–Scholes model for financial options. Gunnelin (2001) also raises an interesting problem in this context, connected with property redevelopment, arguing that there is a complex timing problem in exercising the conversion option since its cost consists of two parts: the construction cost and the surrendered value of the property in the current use, both of which may evolve differently over time.

One could also argue that it is very hard to exclude the “real option part” of price levels observed in the market when applying the comparable sales method. On the other hand, if there are no established methods to calculate the value of the real option, it could be hard to make reliable calculations of the value of real options applying the discounted cash flow method in IAS 40 p 46 (c). However, one has to bear in mind that the value concept is fair value and the fair value cannot differ conceptually according to what methods are chosen to assess this value.

[175] IAS 40 p 45

[176] This situation could on some occasions be presumed if Tobin’s Q is lower than 1.0 and is expected to stay that way during the foreseeable future. Tobin’s Q = Market value divided by production cost.

[177] IAS 40 p 32

The interpretation in KPMG's *Insights Into IFRS* referred to previously, exemplified by an office property, the highest and best use of which is as residential property, implies that we have to take into account that the property will almost certainly go through some redevelopment from its current use as office property. Hence, according to the interpretation in *Insights Into IFRS* we have to take into account the possibilities of enhancing the property, if relevant, from its current use to reach the fair value aimed at in IFRS 3.

Initially there was the question of at what level boundaries should be drawn between investments that should or not should be accounted for when making assessments of fair value. Should this boundary be drawn at a line between day-to-day servicing and replacement of components? According to IAS 36 p 49, when a single asset consists of components with different estimated useful lives, replacement of components with shorter lives is considered to be part of the day-to-day servicing of the asset when estimating the future cash flows generated by the asset. This is written in the context of calculating the defined *Value in Use* and clearly implies that there is a difference between what day-to-day servicing is to be reported in the income statement and what day-to-day servicing is to be included in a cash flow projection for valuation purposes. In other words, boundaries appropriate for the purpose of reporting figures in the income statement will not be relevant for purposes of making valuations based on cash flow predictions. This analysis also shows the importance of analogous interpretations between different accounting standards if it is not possible to find the solution to a problem related to e.g. property issues in accounting standard IAS 40. Similar issues may be handled in other accounting standards, e.g. IAS 36, and to find the solution to one problem one may have to find the principles from the written text in another accounting standard.

9.4 Conclusion

When applying IAS 40, the value of real options should be included in the fair value of investment property if, and only if, the participants in the market take them into account in deals closed in the market. If so, the value of real options to be taken into account in fair values of investment property should be decided from the point of view of how market participants include these values in negotiating price levels in the market. What kinds of cash out-flows to take into consideration, when making assessments of the fair value of investment properties, can only be discovered by examining how the participants in the market reflect these cash out-flows when preparing price bids in the market. The need to include real options that participants in the market take into account perhaps also indicates that more direct market evidence used in sales comparison methods is preferable, compared to DCF methods.

If taken into account by market participants, but not allowed to be included in the fair value of investment property, an alternative way to exclude the value of real options from property value is to define a new value concept, such as the *Value In Use* defined in IAS 36. This would probably create confusion, however, and does not seem to be the right way to handle the issue. Since fair value is extracted empirically from the decisions made by market participants it would not be logical to exclude the value

of real options from fair value assessments. Excluding the real option value from the fair value of property for accounting purposes would probably also create an unmanageable situation in practice.

The chosen words in IAS 40 paragraph 51 are somewhat confusing when trying to interpret them in the context of the conclusions outlined on this issue above.

Further research is probably necessary to find out more about how the participants in the market take real options into consideration. The aim of such research should be to reduce the uncertainty level in valuations, by studying methods for assessments of real option values. Until then, the only way to handle this uncertainty is to disclose how the company has calculated the value of real options, if any, and what assumptions were made in these calculations according to the requirements in IAS 40 p 75 (d).

10. Entry or exit price approach - issues of initial recognition and subsequent expenditure

10.1 Introduction

In property performance reporting and/or evaluation of performance it could be of significant importance if companies apply an entry or exit price approach in the accounts at initial recognition of acquired property, or for replaced parts of property.

In this chapter the entry–exit price issue will be considered in respect to Fair Value Measurements (FVMs) of property and also in the context of how subsequent expenditure, after initial recognition, will be classified and accounted for from the FVM point of view. The issues discussed here will therefore refer to situations regulated in standards IAS 16 and IAS 40, which are the relevant standards for accounting issues regarding property, depending on what kind of property is dealt with: owner-occupied property or investment property.

10.2 The concepts of entry price and exit price in a property context

Near the end of 2006 the International Accounting Standards Board (IASB) released a discussion paper (DP) regarding *Fair Value Measurements* (FVMs). The DP is based on the US standard setting organisation, the Financial Accounting Standards Board (FASB), standard *SFAS 157 – Fair Value Measurements* and is part of a joint project between the IASB and the FASB. Furthermore, the DP consists of two parts: *Part 1 – Invitation to comment* and *Part 2 – SFAS 157*. The aim of the FVM project, according to the IASB, is to lead up to a single standard that regulates all FVMs within the rules of IFRSs.

One of the key issues in the DP is whether to adopt an entry or exit price approach at initial recognition in FVMs. In the short term, the entry price is the acquisition cost for an asset for one entity and the exit price is the amount that would be received selling the same asset. In SFAS 157 an exit price approach for the purpose of FVMs has already been decided on [178]. The IASB is yet to decide on this issue.

Benston (2008) is critical of the choice of exit price as the relevant value concept in SFAS 157 for financial reporting purposes. One of the issues discussed in the article is whether there should be a need to collect binding agreements from potential buyers for certain kinds of assets to be able to show what figure an exit price may represent. The author also argues that determining fair values expressed as exit values will probably be costly for shareholders and useful primarily (perhaps only) to some creditors and shareholders of companies that face probable liquidation. Furthermore, he claims that for stockholders and potential investors in going concerns, the relevant

[178] SFAS 157 p 7

asset values for investment decisions are values in use, the NPV of the net cash flows that the assets are expected to generate within the firm. [179] However, in my conclusions to chapter 4 (4.5), I found that the value in use concept was not relevant when appraising the fair value of investment properties.

In the context of the valuation of assets it is of great importance to be aware of the nature of information asymmetry between different participants in the market, which in the short term could occur in situations where, for instance, the seller of an asset knows more about the qualities of the asset than a potential buyer of the asset. This issue will be further discussed below.[180]

From the DP *Part 1 – Invitation to comment*, it is obvious that at least some members of the IASB argue that an entry price and an exit price would be identical in the same market, assuming that transaction costs are excluded. However, the discussion in the DP implies the existence of a presumption that entry price could differ from exit price in a case where an entity buys an asset in one market and sells the same asset in another market.

In this context it is important to clarify what is meant by different markets. One possible interpretation could be that building/construction companies form one market, where construction services are delivered to e.g. property companies, whereas transactions involving completed and used property form another market.

In this context it also important to be aware of the nature of market value/fair value regarding assets like property, where there are normally few transactions in the market and the standard deviations around the observed price level can sometimes be significant. In such situations it is very important to be aware of the fact that the market value/fair value should normally be assessed as the expected value of different possible outcomes.[181]

10.3 The borderline between maintenance expenses and investments

From the perspective of performance reporting, borderlines between maintenance expenses and capitalised costs are of great importance. In theory this is a classical issue, which is partly connected to differences between cost-based and market-based value concepts. As early as the first years of the twentieth century, Irving Fischer underlined the difference between cost and value. Paul F. Wendt advocated the view that there was very little in reality proving that costs and market prices would be equivalent at any point in time for a certain item.[182] Hence, from the perspective of performance evaluation it is important to be aware of the normative standpoint in the accounting rules[183] that, in current conditions, require an entry price approach at

[179] Benston, 2008

[180] See e.g. an overview description of information asymmetry in a financial reporting context in Scott, 2003

[181] Geltner & Miller, 2007

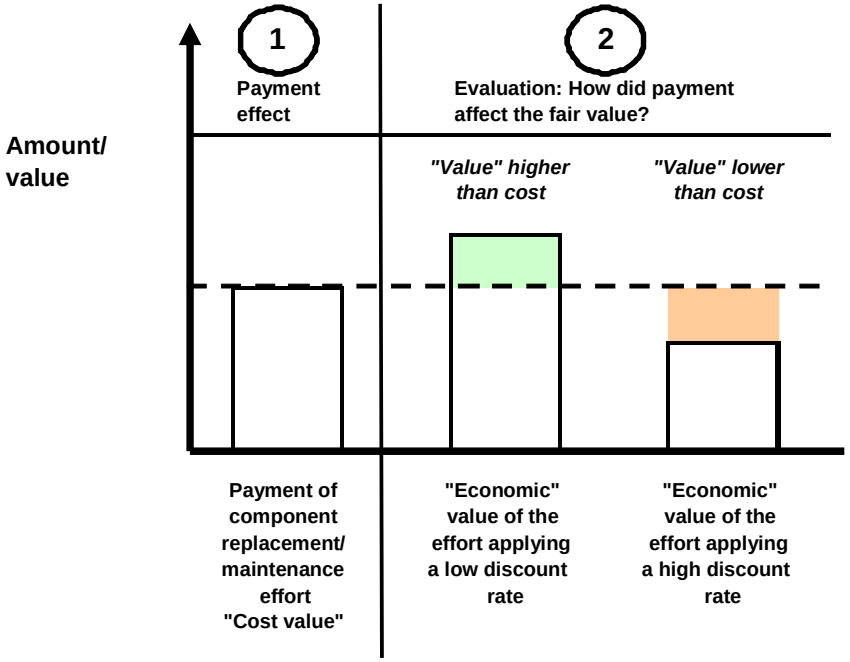
[182] Burton, 1982

[183] IAS 40 & IAS 16

initial recognition. This means that the acquisition cost shall be capitalised if, for instance, components in a building are replaced. The borderline between maintenance expenses and capitalised costs is based on a cost concept if, as in this case, the replaced part constitutes a component in the building.

From a traditional economic point of view, the definition of an investment is met if the situation is such that there is a difference in time between the effort and the benefits derived from it[184]. The economic value of the benefits is measured as the effect of two components in an investment calculation – the net payment and the discount rate. Hence, if the discount rate varies from one situation to another the economic value also differs from one situation to another although the net payment effect may be the same. This is shown in very simplified terms in figure 10.1, where a low discount rate gives a value higher than the cost, while a high discount rate leads to a lower value:

Figure 10.1 Illustration of the effect of the discount rate on the relationship between value and cost



A very essential issue when it comes to evaluation of performance in different situations is how the differences shown in figure 10.1 are handled in financial reporting. In 5.3.2.2, which of the three cases is relevant for property valuation purposes when assessing value with an income approach was discussed. The conclusion from that discussion was that, from a theoretical point of view, the amount not appreciating the fair value (market value) should be classified as maintenance cash outflow in a valuation calculation. Figure 10.1 shows one situation where

[184] Darmer & Freytag, 1995

economic value is lower than cost. In such a situation it is my impression that the difference between cost and value appreciation will be handled as a cash outflow in a valuation calculation. A situation where economic value exceeds cost could, for instance, occur in situations where Tobin's Q[185] is larger than 1.0. Making investments in such markets creates an economic surplus[186].

In their current condition both IAS 16 and IAS 40 require an entry price approach at initial recognition. That follows from the requirements in IAS 16 pp 7-11 and IAS 40 pp 20-21. Owner-occupied properties and investment properties, or acquired items of such properties[187], should initially be recognised at their cost, including transaction costs. If the *revaluation model* in IAS 16 (owner-occupied properties) and/or IAS 40 (investment properties) are applied, the standards require preparers of financial statements to assess the fair values after initial recognition. In my opinion, fair value, which is defined as "*the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction*" is, after initial recognition, an exit price approach. The conclusion that the definition of fair value for investment property is an exit price after initial recognition relies on the methods and other further guidance in IAS 40, which requires the appraiser to find evidence of fair value in market transactions. Hence, after initial recognition what amount was paid for the investment property at acquisition is no longer relevant . The evidence will be searched for among transactions in the market in order to find the amount for which it would be possible to sell the investment property, e.g. by applying a comparable sales method.

In this context it is interesting to note, however, that in the property industry there seems to be some disagreement about how to account for subsequent expenditure. Some companies state in their accounting principles that they only capitalise the value-adding part of a cost of a replaced part (component) in a property. This kind of reasoning seems to be founded on an evaluation process like the one described in illustration 10.1. Examples of such companies are the Swedish property companies Fabege and Castellum and also the Swiss company PSP. These companies state that subsequent value-appreciating capital expenditure qualifies as acquisition costs and is capitalised[188]: See also findings from empirical studies presented in 6.3 and 6.6.

However, from the wording in standards IAS 16 and IAS 40 it is quite clear that it is the total acquisition cost, not only the value-adding part of that expenditure, that should be capitalised when using the cost-based value concept for the replacement of an identified part (component) of a property (see 3.5.1).

There is nothing in the FVM DP, referred to previously, which indicates that there should be any freedom in classifying expenses in the way discussed in the previous

[185] Tobin's Q = Market value divided by production cost

[186] Such situations exist on some occasions. See for instance Berger, 2000, where Tobin's Q was found to exceed 1.0 in some geographical markets in Sweden regarding residential houses.

[187] For instance, different parts of buildings acquired at different points in time after initial recognition – subsequent expenditure: replacements of interior walls, roofs, waste pipes, facades, heating systems, etc

[188] Annual reports from Fabege, Castellum and PSP Swiss Property 2005 and 2006

paragraph – splitting acquisition costs of components between income statement (maintenance expenses) and balance sheet (capitalised part of expenditure). The possible application of exit price as the basis for determining fair value may, however, lead to recognising day 1 gains or losses. This could in turn have implications regarding reported performance levels in property companies in respect of levels of net operating income (NOI), which is a key measurement figure in property companies, since maintenance expense level affect NOI and fair value adjustments do not.

As mentioned, where the boundaries are drawn is important from the perspective of evaluating the performance of a property company, especially the net operating income level.

10.4 Measurement problems connected to entry–exit price discussion

Following from the DP there seems to be disagreement to some extent within the IASB on whether there really are any differences between entry price and exit price approaches. If companies are to be required to measure acquired properties, or items of properties, initially at exit price, will this requirement result in a different amount from the current requirement to recognise such acquisitions initially at their cost (entry price)? Note that the example presented in 3.5.1 (replacement of waste pipes) is based on the reasoning that there could be a difference between entry and exit price. And if differences showed up in reality, how should the difference between acquisition cost and fair value be handled in the accounts?

10.5 Literature review – Relevant literature regarding property pricing

At first sight, one could very well conclude that, in an efficient market consisting of rational market participants, there should be no difference between an entry price and/or an exit price. However, as the literature review will show, there could also be rational explanations why in reality there could be differences.

10.5.1 The general process of pricing assets in the market

Let us assume a “bid and ask” situation regarding a property that is going to be sold in the property market. There is a seller who has a reservation price below which he is not prepared to sell. There are a number of potential buyers prepared to give price bids on the property that is going to be sold. All the buyers are rational and have prepared a highest acceptable bid which is individually assessed by the buyers and founded on their individual investment values of the properties. The market value is the expected value (price) of different possible outcomes, as discussed above.

The individual investment value is an entity-specific measurement: “An entity-specific measurement objective looks to the expectations of the reporting entity,

which may differ significantly from those implicit in market price[189]". Furthermore, it is explained on the IASB website as: "A transaction price paid to acquire an asset or received to assume a liability whereas fair value is tentatively defined as an exit price. Conceptually these are different. While the transaction price will represent fair value in many circumstances on initial recognition, the reporting entity cannot assume that the transaction price represents fair value without considering the nature and characteristics of the transaction[190]". The acquirer of an asset could, for instance, have a demand of return (e.g. discount rate) other than what goes for market participants in general.

According to established theory[191] the buyer who is prepared to pay the highest price for an asset will normally be the one who gets the opportunity to acquire it. From previous discussions we can agree on the fact that the bid from the one who bought the asset is an entry price and that this bid is founded in the bidder's individual investment value. Now, let us assume that the market participant, who won the price bid contest, now has to assess at what amount it is possible to sell the acquired property (the exit price) immediately after acquisition. The conclusion in such a situation could very well be the second-highest bid, which is the amount for which some other market participant would be prepared to buy the property. That is the price bid from the next player (or players) who lost the "bidding contest". From this discussion the conclusion could be that the exit price would normally be lower than the acquisition cost of the buyer who won the "bidding contest", simply because the second highest bid is what we can show that someone else was prepared to pay. Can the buyer use his own acquisition cost as an indication of what it could be possible to sell the asset for immediately after acquisition? In the first place we have to agree on the fact that the paid price is the acquirer's entry price and the fact that this entry price is founded on the buyer's individual investment value – this is what the property is worth for the buyer. He was prepared to pay the highest price, but would anyone else on the market be prepared to pay the same price? According to the previous discussion, this may be hard to prove in some situations.

10.5.2 Cost of replacing components in a building and the effect of these improvements on fair value (market value)

According to an article written by Lind[192] there seem to be rather puzzling observations in the market regarding the cost of improvements and change in market values. The article discusses the fact that there seems to be some kind of common knowledge among appraisers that improvements to properties do not affect the market value by an amount equal to the cost of the improvement. The situation can be illustrated by this very simplified example:

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[189] IASB, 2005 p 8

[190] IASB, 2006 c; See also SFAS 157 p 17

[191] Lind & Persson, 2005; Azasu, 2006; see also Kreps, 1990 for discussions on pricing mechanisms in bilateral bargaining connected to, for instance, bargaining ability and game theory in situations when few actors participate in pricing an asset.

[192] Lind, 1995

Assume that:
- The fair value, or price bid, of the property immediately before a roof replacement is equal to 10,000
- The cost of replacement of the building component, in this case a roof, is equal to 2,000
- The carrying amount immediately after replacement of the roof is equal to 12,000 (assuming an entry price approach at initial recognition)
- The assessed fair value, or price bid, of property immediately after replacement is equal to 11,000

Lind remarks that, as far as he is aware, there are no scientific studies aimed directly at proving or disproving the appraiser's belief of the relationship between the cost of improvement and the change in market value in cases such as discussed in the article. He continues the discussion, given that the assumption in the article, however, is that the appraiser's beliefs about relationships between the cost of improvement and change in market value, in the situations discussed, are well founded. Lind then discusses three possible explanations as to why market values rise less than costs even though an investment is assumed to be rational. The three possible explanations he discusses are:

- Asymmetric information concerning improvements
- Heterogeneous tastes and thin markets
- Differing costs of improvements

Asymmetric information concerning improvements

Sellers of complex objects usually know more about objects than the buyer and this can be important for how the market works[193]. The buyer in such a market will basically pay a price that is determined by what he believes is the average quality of the objects in the market, which – in extreme cases – will drive the owners of high-quality objects out of the market. The buyer of a property where an improvement has recently been made does not have the same opportunity of checking the quality of the job done as does the seller. The buyer runs a higher risk of, after a while, finding out that the improvement was not built to last. The article by Akerlof, referred to in the footnote above, has also shown that owners who have reason to believe that there are hidden faults in their properties have strong reasons to try to sell them. A buyer that is aware of these risks will not be prepared to raise his willingness to pay for the property by the full cost of the improvement.

Heterogeneous tastes and thin markets

Most improvements that have to be made in different stages of the life cycle of a built property can be made in different ways. Different prospective owners can have different views about what is the optimal design of improvements of, for instance, a commercial property. These differences can be related to different views about the market, e.g. what will future tenants appreciate most? Differences can also be due to

[193] See discussions in Akerlof, 1970

different views about the quality of certain techniques or material quality (heating techniques, roof materials, etc). In other words, if the prospective buyer had made the improvement himself, he might have made some changes in design. Therefore, the potential buyer is not willing to pay the full cost of the improvement, even though he has the same information as the seller about the improvement. There may exist a significant number of potential buyers who believe that the timing of the improvement is imperfect: they may themselves have delayed expenditure on the improvement, hence the present value of an improvement made sometime in the future will be lower than making that expenditure today. In such cases one could argue that the difference in market value (fair value) between an improved property and an equivalent – but unimproved – property should be less than the cost of the improvement.

Differing costs of improvements

One further factor that can affect willingness to pay for an unimproved property is the cost to the potential buyer of making the improvement. A potential buyer who can achieve the improvement at cheaper than market cost would be willing to pay relatively more for the unimproved property. Even at a higher price they can buy the unimproved property, make the improvement and still pay less than if they had bought the improved property.

As discussed in 10.2 it is interesting in this context to examine what is meant by different markets. If the construction services market is meant to be one market and the market of transactions including completed/used property is another, then the foregoing discussion regarding value effects when making improvements to existing property assets may not be of interest from the point of view of what is meant by entry and exit price in the FVM project. It may be judged that the construction company delivers services, component replacements, from the construction market to the property market. Nevertheless, from a general point of view, this issue is still interesting for the topic discussed in this thesis: valuation and performance measurement connected to property companies.

10.6 Conclusions about entry price and exit price

From the previous literature review one should infer that there may very well be situations in reality where differences could show up between entry price and exit price. Furthermore, the fact that this situation may be expected does not mean that we can be sure that the market works inefficiently and that participants in the market are irrational. There are reasons to believe that market participants may behave rationally and still end up in a situation where differences could show up between entry and exit price.

From the general theory of asset pricing in a market we can infer that, by definition, a buyer of an asset acquires that asset for a price that is founded in the individual investment values of those with the highest willingness to pay. Furthermore, in thin markets with relatively few market participants, there could be reasons to believe that the exit price could differ from the entry price just because of the fact that the next

player in the bidding process, the one who did not win the bidding contest, gave a lower bid than the winner of the contest and would have put forward a lower bid if the highest bidder were not active on the market. So, if the acquirer has to estimate what he could sell the bought asset for immediately after acquisition he may very well end up with a lower amount than the price paid.

There has also been discussion about situations where improvements of properties may not affect the fair/market value by the same amount as the cost of the improvement, even if the actors are rational.

In other words, those who presume that there are no differences between entry prices and exit prices seem to need to develop their arguments in order to be convincing, e.g. pointing out situations where the preceding arguments are not relevant. In situations with few actors on the market (thin markets), non-homogenous assets[194] and information asymmetry between buyer and seller, it looks quite probable that entry price could differ from exit price. However, note the discussion in 10.2 and 10.5.2 (component replacements) concerning the distinction between what is meant by the same market or/and different markets in the entry/exit price context.

10.7 How to account for subsequent expenditure

The concept of exit price at initial recognition does not seem to give freedom in classifying costs the way some property companies seem to wish – splitting acquisition costs of replaced parts (components) of a property between maintenance expense accounted for in the income statement and capitalising only the value-appreciating part of the expenditure. If a property's carrying amount immediately before a component replacement is fair value and the exit-price-based fair value of the acquired item is lower than the cost to acquire that item, the difference should most certainly be accounted for as a fair value adjustment, not partly a maintenance expense. This could have important implications on the reported performance in respect of NOI levels in property companies since maintenance costs will affect NOI, whereas fair value adjustments will not.

[194] As real estate/properties normally are

11. Disclosure issues in financial reports concerning valuation of property

11.1 Introduction

The study presented in chapter 6 showed that disclosure requirement regarding applied methods and significant assumptions had been very differently interpreted by property companies in their "start up" financial reporting according to IFRS. Some of the studied companies made no disclosure at all within the formally defined financial reports[195] and some made very general disclosures that did not give the kind of information that would meet analysts' needs.

In the context of FVA regarding property, plant & equipment, Barlev & Haddad (2003) assert that estimation of the NPV of an asset is a cumbersome task. It requires projections of earnings, the cash flows they produce and an assessment of an appropriate discount rate. This process is subject to management judgement and to manipulation – the authors argue that appraisals are notoriously difficult to verify and can be easily manipulated. However, they also argue that, in comparison with the HCA concept, the FVA concept increases the efficiency of management and decreases the principal–agent conflict.[196]

There is a need among analysts to be provided with information about certain issues regarding the valuation of properties, e.g.[197]:

- What discount rates have been applied (split into risk-free real rate, inflation and risk compensation)?
- Are there differences between the net operating income reported in the income statement and the net operating income applied in the valuation calculations? In the case of differences – differences need to be disclosed for rental income, vacancies, operating costs. Are there differences between normalised costs and costs in reality?
- What assumptions have been made regarding the economic life of the properties and need for reinvestments?
- What yields would the valuations result in?

The silence in IAS 40 regarding how detailed the disclosures should be, seems to be based on the idea that the property industry itself should know what to disclose and at what level. The difference in practice among the companies that gave disclosure information shows that the issue needs some discussion in order to find a proper level of information to reach the goal of more consistent application of IFRS, regarding this key issue in property companies holding investment properties. An interview study carried out by Clausén et al (2008), involving Swedish property company analysts,

[195] Income statement, balance sheet, statement of changes in equity, cash flow statement, notes; see IAS 1 p 8

[196] Barlev & Haddad, 2003

[197] Sveriges Finansanalytikers Förening, 2005

implies that they find fair values in financial reports regarding investment properties useful. However, they commonly use the reported fair values as benchmarks when comparing their own assessments of fair values, which in turn puts the focus on disclosures like applied methods and significant assumptions used in valuations of property for financial reporting purposes.

Since financial reporting according to IFRS primarily has the needs of providers of risk capital in mind[198], it is important that the needs of this kind of investors are satisfied. In this context it is of great importance that there is information that the investors cannot find out from reading financial reports like income statements, cash flow reports and balance sheets that have most certainly affected the valuations of the properties.

This part of the thesis takes a normative standpoint concerning what could be appropriate disclosures in financial reports regarding applied methods and significant assumptions made in property valuations for the purpose of financial reports. The normative statements are based on how valuations of properties are made in practice (see also outcomes from empirical studies of valuation in practice in chapter 5 (5.4) and what is judged to be of interest for analysts and investors.

The purpose of the following sections is to discuss a proper level of disclosure information regarding applied methods and significant assumptions made in the valuation of investment properties.

11.2 Limitations

Valuations of property are complex. Therefore the description of applied methods and significant assumptions connected to different methods will start from the point of view of valuation of a single property. After that the discussion will be extended to the situation where valuations are performed for a whole portfolio consisting of many properties and also of different kinds of properties, e.g. offices, retail, residential, etc.

In this chapter I will furthermore assume that there is access in the market to relevant information needed in property valuations. Such information could be prices of properties in transactions, rental income, vacancy rates, operating and maintenance costs, income return, etc. The assumption of access to relevant information also includes transaction prices for properties acquired indirectly through the acquisition of corporate property vehicles, as discussed in chapter 5 (5.2).

11.3 Method

Empirical research regarding property valuations performed earlier has provided knowledge of how valuations are conducted in practice. In this chapter there will be a discussion, based on that knowledge, of what kinds of significant assumptions have to

[198] IASB Framework p 10

be made applying different kinds of methods appraising property. Furthermore, using the knowledge gained from these earlier studies, one can make inferences concerning which significant assumptions it is important for an outside investor analysing property companies to have knowledge of. Such analyses may in turn influence investment decisions regarding the companies analysed.

11.4 Discussion of significant assumptions about valuation methods and market evidence

Market evidence, referred to in IAS 40, should most certainly be interpreted as, at least, price levels in transactions of comparable sales; this conclusion can be made from the wordings in IAS 40 p 45, referred to in 4.4.1. The requirement in IAS 40 p 75 d earlier referred to, to give a statement on whether the assessment of fair value was supported by market evidence[199], should – in this context at least – be interpreted as how the assessed fair value is related to price levels observed in the market. In this situation the company has a requirement to make disclosure, giving a statement. Such a statement should in turn be connected to:
- The number of comparable sales observed in the market
- The range in price observations from the market for different kinds of properties.

From my point of view, as a direct interpretation of IAS 40 p 75 d, the disclosures required and detailed above should be made regardless of which method, or methods, are chosen in the next step to undertake the appraisal of fair value.

Three different valuation methods will be discussed below:
- Comparable sales approaches
- Income approaches
- Cost approaches

11.4.1 Comparable sales approaches

The comparable sales approaches have certain things in common. The different methods are all mainly based on price levels observed from transactions in the market.

Different forms of the comparable sales approach that will be discussed are[200]:
- Area method – Transaction prices divided by area are used as the base
- Gross Income Multiplier (GIM)[201] – Transaction prices in relation to rental income are used as the base
- Method based on Net Capitalisation factor – Transaction prices in relation to NOI are used as the base

[199] For discussion of what could be regarded as ”market evidence”, see 4.4.2

[200] See for instance discussions in Persson, 2005; descriptions are also found in 4.3.1

[201] See for instance Ratcliff, 1971

11.4.1.1 Area method

When applying the area method it is important how the area has been defined, for instance total building area or lettable area. This needs to be disclosed.

11.4.1.2 Gross Income Multiplier (GIM) method

If a GIM method has been applied it is important how the income/revenue has been defined. For instance, the income could be a potential income based on market rent levels or an effective income based on the actual income flow given the current lease contracts. There is also a need to clarify how vacancy rates have been applied in the income definition. For example, vacancy rates applied in income figures could be based on current vacancy level or some kind of normalised market long-term vacancy rate.

Furthermore, there is usually income other than the contracted rental income connected to properties, for instance there could be income from ancillary services. Therefore there is sometimes need for clarification in the disclosures concerning whether the income is defined as contracted rental income only, or as market rent levels and/or if other types of income are included in the figures. Furthermore it should sometimes be appropriate to disclose how the levels of vacancy rates are defined – e.g. a current vacancy rate in the property or a normal long-term vacancy rate.

11.4.1.3 Method based on Net Capitalisation Factor – adjusting prices in relation to NOI

Applying a method based on the Net Capitalisation Factor needs clear definitions of how NOI has been defined. All the issues mentioned in 11.4.1.2 regarding definition of income need of course to be straightened out in this case also. Furthermore, other items affecting NOI – such as operating and maintenance costs, property tax and ground lease – need definition. Have the company applied figures based on actual outcomes in the specific company or some kind of market consensus views about what these costs are? The definitions discussed in this paragraph need to be disclosed. (Problems connected to market views/expectations regarding levels of NOI are further discussed in 4.4.2, 5.3 and 11.4.2.1.)

Assessment of market demand for yield from transactions – yield derived from market transactions

If a method based on the Net Capitalisation Factor is applied there is a need to extract the market demand for yield from market transactions[202]. The capitalised NOI shall be an NOI that reflects assumptions made by market participants, not the assumptions made in a specific company that reflects knowledge and special conditions related only to the specific company[203].

[202] See for instance Persson, 2005 or Nordlund, 2004

[203] IAS 40 p 49

If the specific company has knowledge of something that other market participants are not aware of, these "specific knowledge issues" should not be reflected in the assessments of fair values of the properties. For instance, market participants may believe that the property operating cost level is 350 SEK/sqm, while company X, that holds the property, knows that the operating cost level is 450 SEK/sqm – or the other way around.

The contracted rental income level could, for the moment, be above or below the expected market rent level. This issue was particularly discussed in 5.3. However, in the long term it could probably be expected that when the current contracts expire, there will be an adjustment to expected market rent level in the next negotiation between the landlord and the tenant. The valuer must have an opinion of what the market rent level will be at the time of future re-negotiation. However, due to cyclical movements in the business cycle this can be problematic since market rent levels and vacancy rates could be expected to be connected to the business cycle.

On many occasions valuers use stereotypical forecasts of future market rent levels based on the current level, adding adjustments based on forecasts of inflation rates.[204] In other words, the assumption on many occasions is that the market rent level in real terms will be at same level in the future as the current market rent level. This may, in some situations, be a questionable assumption, as discussed in 5.3.

From a very simplified point of view the market demand for yield is extracted from transactions in the market, as illustrated below:

Let us assume following market expectations for a certain property:

Market expectation rent level	2,000
Economic vacancy rate, 5%	-100
Operating and maintenance costs	-500
Market expectation of NOI	1,400

Price level extracted from sales in the market of this type of property is 14,000

Assessed market demand for yield= 1,400 divided by 14,000 = 10%

If the specific property for which fair value is assessed diverges from market expectations to some extent one should have to make corrections for that fact, e.g. current lease contracts could be above or below the expected market rent level, or its technical condition could be better or worse than comparable sales.

11.4.1.4 Need for adjustments because of divergence between appraised properties and observed transactions in the market

Properties sold in the market are seldom homogenous hence extracting price levels of comparable sales from market transactions is not an easy task. Finding the proper/suitable comparable sales, for the purpose of valuation, from information

[204] See 5.4

regarding transactions in the market requires recent experience in the location and category of the properties being valued. The question the appraiser usually has to ask himself is – How does my property differ from those sold in the market? Therefore there is normally a need to make corrections for divergences between the property valued and properties sold in the market. The divergences can, for instance, be related to:

- Site/location
- Technical condition and age of the building
- Building structure of the sold properties and the premises in the properties
- Contractual terms of leases – rent passing and detailed information about current lease contracts such as the boundaries of responsibilities between the landlord and the tenant regarding what operating and maintenance costs are included in the rental agreements, if property tax will be charged separately, the length of lease contracts, etc
- Exact levels of market rent levels if the premises in the sold properties are re-negotiated at current terms on the market
- Other contractual terms
- The relative shares of different types of use properties, e.g. residential, offices, retail, etc

On many occasions detailed characteristics about sold properties are not available in accessible registers. Normally the appraiser does not have perfect information regarding all the exemplified differences listed above. Therefore the appraiser needs to apply judgement in making corrections for divergences between the appraised property and the properties sold in the market. Some of these judgements may be of such a nature that they qualify as significant assumptions made in the property valuations and hence should be disclosed.

The adjustments/corrections discussed above are usually done after a preliminary assessment of the value is performed. For instance, if applying the Net Capitalisation Factor the valuation is done in three steps. First there is a "normalisation" of NOI for the property being valued. After that the net capitalisation factor extracted from the comparable sales is applied to get a value level. As a last step there is an adjustment added to, or deducted from, the preliminary value level, depending on what kinds of divergences are identified between the property being valued and comparable sales.

11.4.2 Income approaches

Examples of income approaches in property valuations are the "Direct capitalisation method" and the "Discounted cash flow method" (DCF).[205] If there is a claim that an income approach has been applied, one crucial issue is how the yield demand (direct capitalisation method) or the discount rate demand (DCF method) has been derived for the purpose of calculating the fair value. If the yield and/or discount rate are derived directly from comparable sales, as discussed in 11.4.1.3, it could be argued that some kind of comparable sales method has been applied. If the claim is that an income approach has been applied, one could argue that the yield and/or discount rate

[205] Persson, 2005

should have been derived from some other sources. One possible way could be to derive those parameters from the financial market, for instance, by applying a risk-free rate adjusted by a general risk premium and an object-specific risk premium[206]. However, it could be argued that it is very hard to be sure about the exact levels of risk premium demanded by market participants if yields/discount rates are not derived from transactions in the market as described above in connection with the comparable sales approaches.

11.4.2.1 Direct Capitalisation Method

Direct capitalisation, as presented here, is an income approach for assessment of the fair value of investment property. However, it could also be argued that the formula applied in the direct capitalisation method is identical to the one utilised for fair value assessments based on market-based ratios between NOI, discussed in 11.4.1.3, and prices actually paid on the market, the so-called net capitalisation factor, income return or yield. In such situations the application of net capitalisation factors is referred to as a comparable sales method. [207] Applying a Direct Capitalisation Method creates the need for the same disclosures as discussed in 11.4.1.3 regarding how NOI has been defined. Furthermore, different significant parameters probably require justification.

Let us assume that Company X has reported their investment properties, held at the end of 2006, at fair value. Furthermore, it is claimed by the company that a direct capitalisation method has been applied, appraising their properties. The reported fair value could be in the balance sheet (fair value model in IAS 40) or in the notes to the accounts (cost model in IAS 40). The company has disclosed applied yields in an interval for different kinds of properties in different locations and claims that this disclosure comprises the significant assumptions made in the valuation of the properties. The user of the financial reports knows that there are uncertainty intervals in property valuations and would like to make a judgement of their own. The reported NOI level that the user of the financial statement is able to find out from the financial reports could be in the income statement or in the segment reporting (selected items from the income statement and the balance sheet allocated to different kinds of business or geographical segments)[208].

However, let us further assume that the company has bought and sold properties during the year so the income statement does not correspond to the balance sheet at the end of the year. This fact would probably require some kind of proforma income statement[209]. Finally, the contracted rental income level diverges from expected market rent level. Reported NOI in the income statement, as shown in illustration 11.1 below, is 1,725, while the assessed market expectation of NOI for the kinds of properties held by the company is 2,295. The valuation calculation is based on the

[206] See e.g. discussions in 5.3.1

[207] Persson, 2005

[208] IAS 14; IFRS 8 to be applied from 2009

[209] Proforma income statement: reported performance as if properties held at the end of the year had been included in the income statement for the whole year and properties sold during the year were excluded from the figures.

market expectation of NOI, not the figures reported in the income statement. In this case the company claims that an income approach has been applied in the valuation. Hence, the company has made significant assumptions in the valuations that are invisible to the user of the financial statements if not disclosed in the notes to the accounts. One also has to bear in mind that the outcomes from the year that has passed are historical figures. The valuation should be based on the market expectations of future normalised cash flows (next year's cash flow, if the direct capitalisation method is applied).

To make reported figures useful for the purpose of disclosure of significant assumptions regarding property valuation, the company should probably have to disclose the differences between assumptions made in valuations and what is reported elsewhere in the financial reports. In the following illustration there is an example of how information could be provided to satisfy the need of investors to be aware of significant assumptions made in valuations with an income approach. If NOI figures have been used in valuations other than what is showed in the income statement for the specific company this is a significant assumption that needs to be disclosed. On many occasions there are reasons to believe that there are such differences – see the discussion in chapters 4 and 5, especially in 4.4.2 where Lundström & Gustafsson (2006a) reported their findings about NOI levels in valuations that were higher than NOI levels presented in financial reports.

Table 11.1 An example showing how information to investors could be provided for a relevant market, to satisfy the need of investors to be aware of significant assumptions in valuations performed with an income approach

Property valuation

Offices Stockholm CBD

Lettable area: X XXX sqm

	Reported in income statement	Proforma income statement	Assessed market expectations for next year	SEK /sqm lettable area
Rental income	**2,500**	**2,700**	**3,000**	**X XXX**
Vacancy	**-250**	**-270**	**-150**	**XX**
Operating cost	**-275**	**-297**	**-250**	**XXX**
Maintenance cost	**-50**	**-55**	**-85**	**XX**
Property tax	**-100**	**-110**	**-110**	**XXX**
Ground lease	**-100**	**-110**	**-110**	**XXX**
Net operating income	**1,725**	**1,858**	**2,295**	**X XXX**
Yield demand extracted from transactions in the market			**6%**	
Calculated value before corrections			**38,200**	**XX XXX**
Corrections for divergences:				
Actual rental income is below assessed market rent level				
Present value of difference between contracted rent level and market rent			**-1,000**	
Expected time to reach a normal vacancy level from the current level is assessed to 2 years				
Present value of vacancy above market expectation			**-100**	
Assessed fair value			**37,100**	**XX XXX**

The average expiry of current lease contracts is 5 years and the applied discount rate is 8 %

If relevant, the yield demand extracted from market transactions could be presented as an interval, for instance 5-7%, and the same goes for the discount rates, for instance 7-9%. Of course a presentation of intervals could also be relevant regarding market rent levels and operating costs, etc.

Some kind of description related to what has been assumed regarding different kinds of investments/re-investments in the valuation would probably be needed (see discussions about connections between cap rates/yields and discount rates in 5.3.1 and the borderlines between maintenance expenses and investments, discussed in 3.5.1, 5.3.2.2 and 10.3).

The statement in table 11.1, that the yield demand has been extracted from transactions in the market, may exemplify the requirement in IAS 40 to state whether the determination of fair values was supported by market evidence. However, note the discussion in chapter 5 (5.3.1) that, if the yield has been extracted from market transactions, as described in 11.4.1.3, it could be argued that a comparable sales method has been applied, not an income approach. The extraction of the yield from transactions in the market is problematic to some extent (discussed in chapter 5 (5.3); see also 4.4.2). However, if the applied yield is claimed to be extracted from market evidence the calculated fair value still can be a distorted figure if other inputs in the calculation are not based on market expectations, e.g. rental income levels, vacancy-rates, operating cost levels, etc.

11.4.2.2 Discounted Cash Flow (DCF) method

The DCF method is another valuation technique that is also based on an income approach. However, it is very important to emphasise that the result from application of a DCF method approach in all material respects should be the same as if the direct capitalisation method was chosen, as long as the value concept aimed at is fair value[210]. The DCF method is just another way to present the calculation but is fundamentally based on the same inputs as the direct capitalisation method. In other words, conceptually both the DCF and direct capitalisation methods are income approaches based on discounting the future cash flows from the property. From a theoretical point of view they are both methods based on discounted future cash flows, but are just applied differently[211].

Regarding application of the DCF method one should also bear in mind that appraisers state on many occasions that the DCF method is just another way of applying the comparable sales method.[212] If a DCF method is applied and the claim is that the DCF is in fact a comparable sales method, the property valuation also calls for need to consider divergences between the property valued and the observed transactions in the market and make corrections for those divergences in the valuation process. These corrections could be done by adjusting parameters related to income or operating and maintenance costs in the calculations or as a final adjustment to the calculated value figure before the fair value assessment is stated.

Applying a DCF method creates need for the same disclosures as discussed in 11.4.1.3, regarding how NOI has been defined.

If the company claims to have applied a DCF method in the property valuation, the company would also have to disclose some basic assumptions in the cash flow predictions like:

- Inflation rates

[210] As long as the value concept aimed at is fair value the methods chosen to reach this goal should not end up in different value figures – this also goes of course for situations where methods based on a comparable sales approach are applied

[211] For further discussions on this issue see e.g. Persson, 2005

[212] See findings presented in chapter 5 (5.4)

- Rental income development – current lease contracts
- Market rent level development
- Operating and maintenance cost development
- Property tax and ground lease development
- Length of the cash flow predictions, e.g. 5 years or 10 years
- Yields for calculating the residual value in the calculation
- If there are any differences between the yield applied to calculate the residual value and the assessed yield demand at the value date
- Applied discount rates[213]
- What has been assumed regarding different kinds of investments/re-investments in the valuation

Furthermore, these assumptions might need to be justified.

Of course these kinds of disclosures are needed for each kind of property, e.g. offices, residential, retail, etc, and for different kinds of locations as well. If the company does not disclose the parameters specified above, on which the cash flow prognosis is based , it is difficult for the user of financial statements to evaluate whether the parameters applied are consistent.[214]

11.4.3 Cost approaches

In a context of property valuation the cost approach could, on some occasions, be applied e.g. when depreciated replacement cost is applied. Furthermore, cost information could be useful as a basis when making corrections for divergences in qualities between different price observations among comparable sales data.[215] A limited discussion related to fair value assessments performed with a depreciated replacement cost approach follows. Other cost approaches could of course be relevant but are not handled in this thesis. The reason why a depreciated replacement cost approach is discussed is because this approach is mentioned in IAS 16 as a possible approach when assessing fair value in some situations.

In these circumstances it is very important to make a distinction between methods chosen and which value concept is aimed at. In IAS 16 p 33, as well as in IAS 40, there is no doubt that the value concept aimed at is fair value. The decision on which method to apply, in the next step, could in some circumstances require a cost approach, exemplified in the cited paragraph from IAS 16 by a depreciated replacement cost approach.

The relevant value concept, fair value, is a market-based approach that means that we should need to combine the depreciated replacement cost approach with some kind of market data to reach the goal. Before we proceed it is important to clarify what is meant by depreciated replacement cost. Depreciation as a phenomenon can be applied to a cost base from different perspectives. The depreciation could be a change in price

[213] The connection between yields and discount rates is discussed in Persson, 2005 and in 5.3.1

[214] Consistency regarding input parameters in valuations are investigated in SFI/IPD, 2006

[215] Persson, 2005

decided in transactions on the market. From an accountant's point of view, calculation of depreciation could also be based on an allocation of a cost base over the useful life of a property, or items of a property, for instance by applying a straight-line depreciation/allocation. This situation could be described by the following example:

Assume acquisition cost of a building 20,000
Useful life 20 years
Building age 10 years
Depreciated replacement cost-based on straight-line allocation 10,000

If we have calculated a depreciated replacement cost, based on an allocation technique as just described, of say 10,000, this does not mean that in the next step we can use this 10,000 as an approximation of fair value without further analysis.

First we have to investigate the local market conditions for the relevant type of properties. As a very simplified illustration we may have two similar properties, A and B, located in two very different markets. In one of the markets where property A is located, Tobin's Q[216] is 1.0, which may include a few transactions of other kinds of properties than the property being assessed, while the other market, where property B is located, shows indications that Tobin's Q is 0.5, with the same problems that the few transactions in the market are other kinds of properties.

This analysis indicate that the fair value for property A is probably 10,000 times 1.0 = 10,000 and for property B probably 10,000 times 0.5 = 5,000. This example is of course very simplified and does not tell the whole story, but it illustrates the difference between methods and value concepts. If, on the other hand, the relevant value concept aimed at should have been depreciated replacement cost, the relevant value should of course end up as 10,000 for both A and B if the depreciated replacement cost is defined from an allocation depreciation point of view. However, if the depreciated replacement cost is defined from a theoretical approach based on price changes, the value for A would end up as 10,000 and for B as 5,000.[217]

If a cost approach is applied the company should probably have to disclose how they have calculated the depreciated replacement cost and how the result from this analysis has been transformed into a market-based value concept like fair value.

11.5 Extensions

11.5.1 Information regarding property portfolios – aggregated information

If a company's property portfolio consists of different kinds of properties in different locations, the table in 11.4.2.1 would be needed for both different kinds of locations and properties. If the company is involved in development and/or redevelopment

[216] Tobin's Q = market value divided by production cost

[217] See also descriptions in IVS Sixth Edition (2003): International Valuation Guidance Note No 8 – Depreciated Replacement Cost

activities which will change the future rental income and/or NOI for the specification above, this fact will require certain disclosures[218].

11.5.2 Other issues of importance

As discussed in chapter 6 regarding outcomes of the empirical study of financial reports, some property companies merely disclosed that a named well-known valuation firm had performed the valuation of the investment properties held by the company and that the valuation was done in accordance with, for instance, International Valuation Standards or the RICS[219] Red Book. Behind these kinds of disclosure there seems to be some kind of presumption that this is all that has to be known by the user of the financial reports. Such disclosures leave the user with no information concerning how the valuations were actually performed and do not seem to be in accordance with the requirements in IAS 40 p 75 d.

11.6 Summary – Disclosure checklist

What has been discussed in this chapter regarding chosen methods and significant assumptions in property valuations is summarised below in a disclosure checklist that should be considered by companies holding investment properties and preparing financial reports:

First of all there is probably a need to show illustrations including figures structured in a way as exemplified in 11.4.2.1, showing key figures of e.g. NOI and cap rates used in the valuation of the properties in a way that allows the user of the financial report to make their own critical adjustments to some of the inputs if they want to. The purpose of such information is then to make it possible for the users of financial reports to change values on critical parameters to make their own judgement regarding the value figure if they find this appropriate. This also implies that the information should be structured in way that is useful for analysts. In other words the information should be structured showing, for instance, NOI for valuation purposes, for different kinds of relevant markets. Relevant markets could, for instance, be offices in Stockholm CBD, residential properties in city locations in Gothenburg and so on.

[218] See for instance EPRA 2006

[219] Royal Institute of Chartered Surveyors

Table 11.2 Disclosure about statements connected to whether the valuation was supported by market evidence

Disclosure checklist according to IAS 40 p 75 d – proposal

Statement connected to "market evidence"
Relevant to the fair value assessment of the properties held by the company is a need to disclose: **- The number of comparable sales observed in the market** **- The range in price observations from the market for different kinds of properties**

The range in price observations from the market for different kinds of properties could for instance be presented thus:

	Location A	Location B	Location C
City X:			
Offices	25,000-30,000	15,000-17,000	7,000-10,000
Retail	30,000-35,000	20,000-25,000	10,000-12,000
Residential	18,000-20,000	10,000-15,000	5,000-7,000

Table 11.3 Disclosure of reasoning connected to divergences between appraised properties and comparable sales

General need of disclosure connected to comparable sales approaches in fair value assessment – Significant assumptions
Judgements made when comparing the property (-ies) being valued with the comparable sales in the market, connected to divergences in parameters like: **- Site/location** **- Technical condition and age of building** **- Building structures** **- Contractual terms of leases** **- Market rent levels** **- Other contractual terms** **- Types of properties, eg residential, offices, etc**

Table 11.4 Disclosures connected to different approaches of the comparable sales method

Comparable sales approaches - Significant assumptions
Area method:
- Definition of area
Gross Income Multiplier Method:
- Definition of income including how vacancy levels are handled
Method based on Net Capitalisation Factor:
- Definition of Net Operating Income (NOI)

If the company states in the financial reports that a comparable sales method has been applied, some kind of description would be necessary to describe how the company has been reasoning about differences discussed above and what significant judgements have been made in the appraisal of its own properties. For instance, a text like the following could be presented:

Analysis of the transactions in the market regarding similar properties shows that comparable sales in the market are located in an A location in city X while our own properties appraised are located in a B location in the same city. On the other hand our properties are in a better technical condition, although the buildings were erected at the same time. Our properties also have a better building structure than comparable sales. Rental income levels are slightly higher in comparable sales and vacancy rates are equal to our properties. The conclusion is that if our properties were to be sold in the market today, the price level per sqm lettable area would probably be X% less/higher than for comparable sales.

Note that comparable sales could be both direct and indirect deals, as discussed in 5.2.1.

In situations when indirect deals, discussed in 5.2.1, are among the comparable sales, a description would probably be needed in the financial statements regarding how liabilities and assets other than properties were assessed in the indirect deal. For instance:

Deals closed in the market regarding indirectly acquired properties are also comparable sales that need to be taken into account when evaluating price levels in the market. We have knowledge of the significant deals that could have an impact on our own valuations regarding properties held by this company. From these deals we extract the property values from price levels of equity in the traded corporate vehicles. In the extraction we analyse the traded vehicles' liability situation and make a separate assessment of the fair values of liabilities traded in the transactions as well as assets traded other than property, e.g. tax receivables and goodwill.

Table 11.5 Disclosures connected to different kinds of income approaches

Income approaches - Significant assumptions:
Direct Capitalization Method:
- Definition of NOI
- How need for investments/re-investments have been reflected in the calculation
- Motivation to the choice of different parameters
Discounted Cash Flow Method:
- Inflation rates applied in the prognosis
- Rental income development
- Market rent development
- Operating and maintenance cost development
- Property tax and ground lease development
- Length of the cash flow prognosis, eg 5 years or 10 years
- Yields for calculating the residual value in the calculation
- Comments to if yield applied to calculate residual value differs from initially assessed yield demand in the market
- Applied discount rates
- Assumptions regarding investments/re-investments in the valuation
- Motivation to the choice of different parameters

As briefly mentioned in 3.5.1, accounting standard *IAS 17 – Leases* does not require disclosure of differences between rent passing (according to current contracts) and market rent levels. However, this issue is important when appraising property with income approaches and therefore such differences may have to be disclosed if significant, in accordance with IAS 40 p 75 d. See also proposal for disclosure in EPRA (2006).

In some cases another issue of importance could also be how the company has assessed the expected market rental income level. This issue was introduced and discussed in chapter 5 (5.3.2.1). Has the company assessed that the current market rent level is equal to the expected long-term market rental income level or is the reasoning based on e.g. some mean reversion thoughts connected to the current state in the business cycle? This reasoning could, for instance, look like the following:

The current market rent level is 3,500 SEK/sqm but from our point of view we are at a top point in the business cycle and the lease contracts connected to the property expires on average in 3 years. At that point in time our assessment is that the top point in the business cycle would have passed and be on its way down, therefore we assess that a proper level of rental income at that point in time will be 3,000 SEK/sqm in real terms.

Note that the outcomes of the interview study with Swedish valuers, presented in chapter 5 (5.4) implies that valuers would normally use 3,500 SEK/sqm in this case, adjusted for inflation, in their market value assessments using an income approach.

Another issue discussed in chapter 5 (5.3), and also in chapter 10, is the levels of maintenance outflows in income approach calculations. Is the assessment that the level of maintenance outflows is equal to the maintenance expenses as shown in the financial reports, or is the assessment that the maintenance outflow levels relevant for income approach valuations are based on some other reasoning which justifies the differences in this respect between figures showed in financial reporting and figures used in the valuation calculations? Such justification could, for instance, look like this:

The accounting rules normatively state that day-to-day servicing should be expensed in the income statement while costs of component replacements should be capitalised as incurred. In the income statement expenses of repairs and maintenance show a level of 40 SEK/sqm. For the purpose of valuation based on an income approach we have assessed that the cash outflows regarding repair and maintenance, which will not appreciate fair value, should be at a level of 80 SEK/sqm.

Table 11.6 Disclosures connected to cost approaches

Cost approach - Significant assumptions
Method based on depreciated replacement cost
- How the calculated cost base has been transformed into a market-based assessment of a fair value figure

Another important issue is also how enhancement possibilities, e.g. real options, have been handled in the valuation of properties. This issue has been discussed in chapter 9 in connection with the interpretation of paragraph 51 in IAS 40. This issue is probably also something that creates a need for disclosure. Are enhancement possibilities in the properties included in the fair value? If so, is it possible to extract that part of the fair value connected to these enhancement possibilities? What valuation method has been applied in the valuation of these enhancement possibilities – a method described in IAS 40 pp 45-46, or another method, e.g. an option valuation method of some kind?

Since valuers usually claim that property valuation is essentially an application of a comparable sales method[220], there would probably also be a need for disclosure of a statement like:

After the calculations were performed, there was a reconciliation between the calculated fair value figures and price levels per sqm for comparable sales in the market for the relevant kinds of properties in relevant kinds of locations in different geographical markets. The aim of the reconciliation is to check that the calculated fair values are reasonable in relation to comparable sales.

[220] See findings presented in chapter 5 (5.4)

11.7 Conclusion

IAS 40 states that applied methods, exemplified above, and significant assumptions, discussed above, regarding valuation of investment properties shall be disclosed in financial reports.

Applying a comparable sales method in the property appraisal may cause problems in finding the relevant price observations in the market. The fact that many properties are transferred embedded in corporate property vehicles creates problems related to having access to all relevant transactions and, as the next step, to extracting property values from those transactions in some circumstances. Special conditions connected to deals closed in the market, e.g. rental income guarantees or special financing conditions, also create problems analysing prices in the market (see 5.2.1–5.2.2).

Finding adequate evidence to make exact claims concerning what the consensus views are in the market regarding NOI levels and required levels of return (yields and discount rates) seems to be problematic. Therefore it should be very important that companies disclose how they have been reasoning about these input variables if an income approach is applied in the property valuation. For instance, one of the proposals in this thesis is that disclosures of forecast figures regarding assessed market expectations of NOI would be needed within financial reports if the company claims that an income approach has been applied appraising investment properties.

As discussed briefly in 11.4.4.1, properties involved in different kinds of development or re-development activities may require specific disclosures.

At first glance the requirement to disclose methods and significant assumptions described in this chapter does not seem too complicated. However, one has to bear in mind that the illustrations are very general and simplified. On many occasions the companies have in reality applied more than one of the described methods or a combination of different methods. If so, this fact should be disclosed. Very often assets in property companies consist of many different kinds of properties that are located in many different geographical areas. For property companies holding say 500 properties of different kinds located in many different geographical areas, it will probably not be an alternative to disclose methods and significant assumptions for each and every property. One of the problems in practice will probably be to find the appropriate level to aggregate data regarding yields, discount rates, market rent levels, vacancy rates and so on. This aggregated level could, for instance, be office properties in Stockholm CBD or residential properties in the city of Gothenburg. However, to be useful, the levels of aggregation should not, in my opinion, be general. For instance, the category ‘offices in Sweden’ will provide very little of use to analysts as aggregated information in the case where a company holding properties owns them in, say, 20 cities in Sweden which have very little in common regarding risk factors, rental income levels, vacancies and so on.

When the appropriate levels are found, the next problem may be to get the right kind of information out of the administrative systems and the valuation models in the

company. Examples of aggregated information needed are the average expiry of lease contracts, current rental incomes and assessed market rent levels.

A special issue is the situation when properties are priced in the market influenced by real options inherent in the properties (see chapter 9). If the properties have significant real options, this fact requires disclosure regarding what kinds of options have been dealt with, how the existence of real options has affected the valuations and reported fair values of the properties.

12. Conclusions

12.1 Summary of results

In the current development of financial reporting there seems to be a switch in emphasis, from reliability to relevance criteria regarding the qualitative characteristics of financial reporting. The characteristics in the current financial reporting development are to a great extent based on the thinking described in the Investor theory, briefly discussed in chapter 3. Financial reporting should be useful for different kinds of investors and uncertainties should be communicated in a transparent manner.

In chapter 4 there was a description of value concepts and valuation methods. There was also a discussion regarding which value concepts and valuation methods fit into the requirements in financial reporting standards and a connection, in this context, with how current financial reporting relies on the functionality of the efficient market hypothesis on many occasions. The concept of fair value, used by the accounting profession, was judged to be equivalent to the concept of market value used by the property valuation profession. There was also a discussion regarding what could be regarded as market evidence, referred to in IAS 40. In this context there was a reference to other studies carried out, showing that it could be doubtful to claim that there are consensus views in the market regarding levels of NOI connected to the valuation objects and hence what cap rates/discount rates to extract from comparable sales, and that this could have implications when performing valuations of property assets. It was also argued that IAS 40 states that there should be a declaration in the financial reports concerning whether the determination of fair value was supported by market evidence. The conclusion is that it may be doubtful if anything other than price level observations could be regarded as market evidence.

In chapter 5 there was a description and discussion regarding valuation problems and valuation practice. In this chapter problems were discussed connected to extracting comparable sales, definitions of NOI used for property appraisals and extracting cap rates/discount rates for valuation purposes applying income approaches. Furthermore, there was a presentation of results from an empirical interview study involving Swedish property appraisers. Among other things, this interview study showed that valuers on many occasions use stereotyped input variables in valuation calculations and that valuations claimed to have been performed applying a DCF method are, in reality, on many occasions, just a somewhat complicated application of a direct capitalisation method or a comparable sales method.

In chapter 6 outcomes from empirical studies of financial reports according to IFRS were presented. Some key issues were studied and in short it was found that almost all companies studied had chosen the fair value model in IAS 40, it was common that the accounting principle regarding the border between maintenance expenses and capitalised costs was poorly described and most companies reported fair value adjustments above financial items in income statements. Furthermore, it was found

that the requirement in IAS 40 to describe the methods applied and significant assumptions in property valuations were often made in a manner that did not seem to fulfil the requirements in the IASB Framework and the IAS 40 standard on these issues. For instance, adequate disclosures of numerical assumptions in valuations were rare.

In chapter 7 it was shown that common uncertainty intervals and cyclical movements in property fair values could have a severe impact on reported income and equity levels in property companies applying the fair value model in IAS 40.

In chapter 8 there was a presentation from an empirical study regarding realised results in transactions. The sales prices of sold properties were compared to the carrying amount before selling (fair value). It was concluded that in most cases the average net selling prices were above assessed fair values. Possible explanations are time lags between transactions and valuations. Hence, in a market where prices move upwards, for instance, valuations could be expected to be below selling prices – valuation smoothing. The outcomes from this study could also be explained by the impact of uncertainty in valuations. It was also noted that average selling prices above assessed fair values could imply that the whole portfolio was valued "too low" but there could also be explanations like sellers only being interested in selling when they get a really good price offer in relation to their own expectations. If so, the transactions may not give very good information regarding the value level of the whole portfolio. There was also an observation that some realised results were extremely high in relation to the carrying amounts (fair values), which may lead to questions when it comes to both the reliability and relevance issues of reported fair values.

In chapter 9 there was a discussion about the valuation of properties with enhancement possibilities (real options) in an accounting context. Some accountants seem to have interpreted the wording of paragraph 51 in IAS 40 in such a way that values of real options connected to investment properties should not be reflected when assessing fair values. However, the normative conclusion in this chapter was that such interpretations must be a misinterpretation of the accounting standard. The definition of fair value implies that everything that is reflected in market participants' pricing of an asset must be reflected in the fair value, even if this pricing is based on enhancement possibilities (real options) to some extent.

In chapter 10 the concepts of entry and exit price approach were discussed. This issue could be of significant importance when accounting for property assets, especially when trying to evaluate performance reporting extracted from the income statement such as NOI. The current standards of IAS 40 and IAS 16 require an entry price approach at initial recognition of an asset. The asset initially recognised could be a whole investment property or replaced parts of such a property (component replacements). If companies were to be required to apply an exit price approach it was suggested that such practice could lead to day 1 gains and losses resulting in immediate fair value adjustments. This inference was made on the basis that the acquisition cost of an item in the property business could, on many occasions, be expected to diverge from what it is possible to sell the same asset for immediately in

the acquisition situation. In the entry and exit price context it was also explicitly discussed how to account for component replacements. It had been observed in empirical studies that some companies seem to capitalise only part of the costs of component replacements while others seem to capitalise the whole such acquisition cost. Companies that capitalise only part of the acquisition costs frequently expense the part which does not appreciate fair value and the expense may be classified as maintenance in the income statement. The difference in practice could lead to distorted reporting of NOI. According to the reasoning in this chapter, capitalising only value-appreciating parts of acquisition costs of component replacements is due to a misinterpretation of the accounting standards.

In chapter 11 there was a discussion of what could be appropriate levels of disclosure regarding methods and significant assumptions in property valuations presented in financial reports. There was also a discussion concerning what could be appropriate levels of disclosure connected to statements on whether the determination of fair values was supported by market evidence in property valuations. The normative discussions in this chapter were based on knowledge of how property valuations are performed in practice and resulted in a detailed proposal for what should be disclosed, given that a specific valuation method was chosen.

12.2 Implications and future development

Applying the FVA concept increases the risk of manipulation in financial reports since it is very hard to assess fair values of investment properties with precision. The problems connected to valuation smoothing issues and uncertainty in property valuations could raise question marks concerning whether application of the FVA concept is appropriate in property companies. However, if the intention of standard setters is to proceed in the use and development of FVA for property companies, some remarks regarding refinement in financial reporting are very important. In my opinion, performing assessments of, and presenting fair value figures of, property assets in financial statements is connected to a responsibility to solve the problem of information asymmetry connected to property appraisal, as explained by Agency theory. This responsibility is due to the situation where presented fair values cannot be assessed solely with reference to observations of transaction price levels in the market. This will be further discussed below.

Regarding performance measurement issues in general it could be argued that movements in fair values should be reported above financial items in the income statement. This argument is based on the fact that movements in fair values are “core business”, just as important as rental income/revenue, according to IAS 40. Hence, from a rules-based perspective these movements should be reported in a way that carries about the same weight as rental income/revenue. A majority of the property companies studied in this research project also seem to have interpreted the IFRS rules this way since they have reported fair value adjustments above financial items in income statements. However, fair value adjustments are openly reported on the face of the income statement and it could be argued that it is easy for skilled analysts to see them and put them where they deem appropriate, depending on the purpose

underlying their performance of the analysis. On the other hand it could be argued that investors and users of financial statements could just as well belong to the category that does not comprise professional analysts and hence cannot be presumed to be skilled analysts in every case. From this point of view it could be argued that companies should report the fair value adjustments in the income statements in a similar way, to make analysis less complex for those users.

In this context it is also important to emphasise that analysts must be observant if they use presented key ratios in financial statements e.g. *interest coverage ratios*. If they use such key ratios without further analysis of how these are defined in different companies, they may end up with confusing conclusions. A study carried out by Andersson & Stojanovic (2007) shows that some companies include fair value movements/adjustments in calculating this key ratio while other companies exclude this effect. Hence, reported key ratios may have the same names although they do not show equivalent information, purely as a result of being defined differently in different companies.

Things are worse when it comes to the border between maintenance expenses and capitalised cost of improvements (component replacements/investments) from an accounting and analysis point of view. These boundaries are frequently hard to evaluate from the descriptions of accounting principles offered in the financial statements. In turn, this boundary issue probably creates uncertainty when trying to evaluate financial performance as reported by property companies. To improve the consistent application and effective analysis of financial statements, many companies need to improve the description of how this border is drawn in financial reports. However, it is important that this description and the preparation of the underlying figures do not conflict with the rules and intentions in the accounting standards, as previously discussed.

I claim that it has been shown in different parts of this thesis that NOI figures are not equivalent when trying to compare different companies and this situation is due to inconsistent application of IFRS. I also claim that NOI for financial reporting purposes is not equivalent to NOI that is used for property valuation purposes. Differences could, for instance, be due to how rental income is required to be reported in income statements in comparison with what the cash flows look like and, furthermore, that there is a difference in variables such as vacancy levels and the border between maintenance expenses and capitalised costs in this respect. NOI, in turn, is an essential figure when performing valuations of property with income approaches. NOI is also important from another performance measurement perspective, namely evaluation of income return.

What has been said above leads to a need for explicit disclosure in financial reports regarding applied methods and significant assumptions in property valuations for financial reporting purposes. The disclosures that have been found in financial reports according to IFRS so far have a long way to go before they can meet the requirements as they are interpreted in this thesis. Many companies disclose cap rates/discount rates applied in valuations of their properties. However, if an income approach has been applied in the valuations, the calculated fair values are a result of more than one

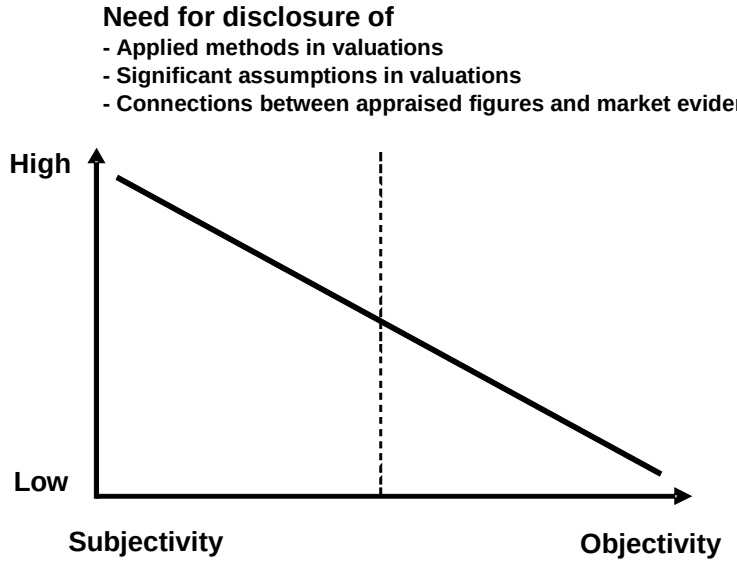
parameter. The cap rate/discount rate applied is one of the parameters. Other parameters used alongside the required cap rates/discount rates could, for instance, be normalised NOI which, it has been shown above, could diverge from reported NOI for financial reporting purposes. Therefore, the level of cash flows discounted, e.g. NOI, should normally also have to be disclosed, otherwise the user of the financial statements will have problems making their own judgements regarding the calculated and reported fair values. In this context it is important to emphasise that historical outcomes regarding NOI are not appropriate in this required disclosure, since income approaches aiming at fair value are based on market participants' assessments of future outcomes. In short, this means that if income approaches have been applied in valuations, this would normally require disclosure within the financial reports of future-based assessments regarding cash flows, e.g. NOI figures alongside applied cap rates/discount rates in valuations.

The uncertainty in property valuations is a normal market feature deriving from the nature of property and this should be openly acknowledged: it is variable from property to property and from market condition to market condition and is something to be managed as it cannot be removed, as was stated in the introductory chapter. Explicit disclosure of methods, assumptions and statements regarding connections to market evidence is one important way to manage this uncertainty.

Figure 12.1 below shows my view of the need for disclosure applying an FVA concept. The more subjective influence there is in valuation assessment, the greater the need for companies to tell users of financial statements explicitly how valuations have been conducted. Property valuations can be found on the left side in the figure in most cases. On the right side, a share listed on a stock exchange and with a high liquidity can be found.

Figure 12.1

Principle illustration – Applying the FVA concept for different kinds of assets



The valuation of property is complex and different outcomes are possible in respect of value figures. Explicit information regarding valuation methods, significant assumptions in the valuations and explicit connections to market evidence would make analysis and the application of individual judgement by users of financial reports far easier. Other studies referred to in this thesis also show that analysts need better information from financial reports on this matter.

One important issue in this context is the balance between the costs of providing financial information and the benefits derived from such information, discussed in chapter 3. In my opinion, it is important to emphasise that costs and benefits should be interpreted from the standpoint that the purpose of financial reporting is to provide useful information to investors, and not from the point of view of the needs of the company providing such information.

The issue of costs and benefits has to be tested empirically, giving the primary users of financial statements their opportunity to explain what kinds of information they need. The types of possible information analysed in this thesis could be the starting point for such a study. The complexity of property valuation, discussed in different chapters in this thesis, and the analyst's call for more information implies that many companies have not so far found the right balance between cost and benefits regarding what amount of disclosure would be appropriate on this issue in financial reports.

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Appendices