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ACQUISITION OF REAL ESTATE AS INVESTMENT PROPERTY ACCORDING TO NATIONAL AND INTERNATIONAL ACCOUNTING STANDARDS – CASE OF CROATIA

Abstract

The accounting treatment of real estate varies depending on the intended purpose of the acquired property. This paper discusses the theoretical and practical aspects of the accounting standards for treatment of the item investment property according to the International Financial Reporting Standards (IFRS), the Croatian Financial Reporting Standards (CFRS) and the International Financial Reporting Standards for Small and Medium Sized Enterprises (IFRS for SMEs). The theoretical part of the paper analyzes different models for measuring and accounting for investments in real estate according to different accounting standards. Particular attention is paid to the notes to the financial statements. The empirical part of the paper is an extension of the research conducted in 2013 on a sample of quoted companies in Croatia. The analysis of the financial statements of quoted companies shows that they did not disclose all relevant information on investments in real estate in the notes to the financial statements. To determine whether there were any improvements in financial reporting on investments in real estate, we have compared the results for 2017 with the results for 2013.

Keywords: Investment property, notes to financial statements, quoted companies, national accounting standards, IFRS, IFRS for SMEs

1. Introduction

IFRS are internationally recognized and accepted standards for financial reporting used by more than 140 jurisdictions (countries) as a basis for preparing and publishing financial statements. Considering that they were too extensive and complex to apply for small and medium-sized entities, in 2009, the International Accounting Standards Board issued a "shortened" version tailored to the needs of SMEs. Croatian Financial Reporting Standards (CFRS) are national accounting standards based on full International Accounting Standards (IAS).

In this paper, the focus of attention is on one financial statement item – investment property (real estate). More specifically, the criteria for classification of a property as investment are analyzed, as well as the relevant IAS/IFRS for the accounting treatment of such investments. The aim of the paper is to present the methods for initial recognition and subsequent measurement of investment in real estate. Information on a particular item should be presented in more detail in the notes to the financial statements. This paper analyzes disclosure requirements for investments in real estate according to national and international accounting standards. The empirical part of the paper explores the extent to which the quoted companies in Croatia comply with the disclosure requirements regarding investments in real estate. The analysis is based on research conducted in 2013 by the present authors. The main goal of this paper is to explore if quoted companies in Croatia satisfy IAS 40 disclosure requirements.

2. Valuation of investment in real estate as investment property

2.1 Features of accounting standards

The International Financial Reporting Standards (IFRS) are the most widely used set of standards that originated in 1970s. The EU Regulation 1606/2002 has significantly contributed to the number of jurisdictions that use these standards. According to the Regulation, the consolidated financial statements of the companies whose securities are admitted to trading on a regulated market of any European Union Member State should be prepared under the IFRS[1]. Mamić Sačer (2015) indicates that in some Member States the application of the IFRS is required by the law. However, there are some countries in which the use of the IFRS is permitted but not required.

The IASB is a standard setter for the International Financial Reporting Standard for Small and Medium-sized Entities (the IFRS for SMEs) as well. This "small" Standard takes into consideration *"the costs to SMEs and the capabilities of SMEs to prepare financial information"*.[2] This Standard is based on full IFRS and is tailored to the needs of small and medium-sized entities (SMEs), private entities and non-publicly accountable entities. For some time in the past, the application of the IFRS was mandatory for all entities in Croatia. However, many practitioners, especially those who worked in SMEs, objected that the IFRS were too complex and broad for them. This pointed to the need for national accounting standards. In 2007, the Croatian Financial Reporting Standards were issued and became effective on January 1, 2008.[3] According to the Croatian Accounting Act[4], micro, small and medium-sized companies are the target users of the CFRS.[5]

The following three groups of standards deal with the investment property:

- IAS 40 *Investment property,*
- IFRS for SMEs 16 *Investment property,* and
- CFRS 7 *Investment Property* (in Croatian: *Ulaganja u nekretnine).*

Since the IFRS for SMEs and the CFRS are based on full IFRS, one could expect the same accounting treatment and classification of investment property. However, given that there are some differences in the abovementioned standards, the accounting principles for investment property differ as well.

2.2 The history of accounting standards for real estate

Today, the IAS 40 applies to accounting for investment property. However, the history of accounting shows that the principles of accounting for this type of assets have evolved from another standard - the IAS 25. Alexander and Archer (2008) argue that "*until the 1970s, property held as an investment was generally treated for accounting purposes as any other property, with or without the possibility of revaluation and with or without the possibility of non-depreciation, depending on the jurisdiction".* As a result of the diversity in accounting practice based on the IAS 25, new pronouncements were set by the issuance of IAS 40 in 2000. The IAS 40 became effective for financial periods beginning on or after January 1, 2001.[6] The first main difference between the IAS 25 and 40 is in the content of the standards where the IAS 25 deals with tangible and financial assets and the IAS 40 gives direction on the accounting treatment of one type of tangible assets. The second main difference between these two standards is in the subsequent measurement of investment property.

2.3 Classification of investment in real estate

The accounting treatment of real estate varies depending on the intended purpose of the acquired property. Thus, it is important to classify real estate according to its intended use (Table 1). The English accounting term used in the International Financial Reporting Standards for real estate is "investment property" and according to the IAS 40 includes *"property (land or a building —or part of a building — or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both, rather than for: (a) use in the production or supply of goods or services or for administrative purposes; or (b) sale in the ordinary course of business".*[7]

Table 1 Classification of property according to the IFRS

Category	Description	Authorised standard
Investment property	property (land or a building—or part of a building—or both) held (by the owner or by the lessee as a right-of-use asset) to earn rentals or for capital appreciation or both, rather than for: (a) use in the production or supply of goods or services or for administrative purposes; or (b) sale in the ordinary course of business.	IAS 40 *Investment property*
Owner-occupied property	property held (by the owner or by the lessee under a finance lease) for use in the production or supply of goods or services or for administrative purposes.	IAS 16 *Property, plant and equipment*
Property held for sale	Property held for sale in the ordinary course of business	IAS 2 *Inventory*
Property as non-current assets held for sale	Property treated as investment property under the IAS 40 or owner-occupied property under the IAS 16 whose intended use has been changed and which meet the criteria to be classified as non-current asset held for sale, or which are included in a disposal group that is classified as held for sale	IFRS 5 *Non-current assets held for sale and discontinued operations*
Property under construction or development	Property that is under construction and property under redevelopment for continued future use as investment property	IAS 16 *Property, plant and equipment* until construction or development is complete; afterwards the IAS 40 *Investment property*
Investment property under lease	Property that is acquired under finance lease	IFRS 16 *Leases*
	Property held to be leased out under an operating lease	IAS 40 *Investment property*
Property from business combinations	Property acquired from business combinations	IFRS 3 *Business combinations*
Property with undetermined use	Property for which the management has not yet determined how to use it (as an investment property, inventory or as owner-occupied property)	IAS 40 *Investment property*
Property with dual use	Property partially held for rental income or capital appreciation and partially for use in the production or supply of goods or services or for administrative purposes; which can be sold separately	IAS 40 *Investment property* or IAS 16 *Property, plant and equipment*

Source: Adapted from: the International Financial Reporting Standards as published in Eur-Lex, and PWC (2018)[8]

2.4 Initial recognition and subsequent measurement

Accounting standards are a set of rules that determine the initial recognition and subsequent measurement of each financial statement item. Rules for initial recognition of an asset, equity or liability specify requirements for measuring a financial statement item for the first time in financial statements. Subsequent measurement of the financial statement item means the valuation of this item after initial recognition. Similarities and differences in recognition and subsequent measurement of investment property according to the three sets of accounting standards are presented in Table 2.

Table 2 Initial recognition and measurement of Investment Property According to IFRS 40, IFRS for SMEs 16 and CFRS 7

Standard	Recognition	Subsequent measurement
IAS 40	*An investment property shall be **measured initially at its cost**. Transaction costs shall be included in the initial measurement. The cost of a purchased investment property comprises its purchase price and any directly attributable expenditure. Directly attributable expenditure includes, for example, professional fees for legal services, property transfer taxes and other transaction costs. Cost of a property interest held under a lease and classified as an investment shall be recognized at **the lower of the fair value** of the property and **the present value of the minimum lease payments**.*	*An entity shall choose as its accounting policy **either the fair value** model or the **cost model** and shall apply that policy to all of its investment property. This Standard **requires all entities to measure the fair value** of investment property, for the purpose of either measurement (if the entity uses the fair value model) or disclosure (if it uses the cost model).*
IFRS for SMEs 16	*An entity **shall measure investment property at its cost** at initial recognition. The cost of a purchased investment property comprises its purchase price and any directly attributable expenditure such as legal and brokerage fees, property transfer taxes and other transaction costs.* The initial cost of a property interest held under a lease and classified as an investment property shall be recognized **at the lower of the fair value** of the property and **the present value of the minimum lease payments.**	*Investment property whose fair value can be measured reliably without undue cost or effort shall be measured **at fair value** at each reporting date with changes in fair value recognized in profit or loss. If a property interest held under a lease is classified as investment property, the item accounted for at fair value is that interest and not the underlying property. An entity shall account for all other investment property using **the cost model**.*
CFRS 7	An investment property shall be measured initially **at its cost.** Transaction costs shall be included in the initial measurement. Cost of a property interest held under a finance lease and classified as an investment shall be recognized **at the lower of the fair value of the property and the present value of the minimum lease payments.**	According to accounting policy, **an entity should choose either a fair value model or costs model** and apply this policy to all of their real estate investments. The Standard **requires from entity** to **determine the fair value** of an investment in real estate for the purpose either measurement (if an entity applies a fair value model) or disclosure (if an entity applies a cost model).

Source: Systematized by the authors according to relevant standards

There are no significant differences in the rules for initial recognition and subsequent measurement between national and international standards. Minor differences are only found in the description of these rules. Companies should measure investment property initially at its cost (purchase cost + transaction costs). All standards permit two models for subsequent measurement: a cost model and fair value model. The value of investment property in the financial statements may differ depending on the model selected.

3. Notes to the financial statements explaining investment property

3.1 Notes as a source of information for financial statement users

Descriptions and clarifications of financial statement items should be presented in the notes to give the users of financial statements a complete picture of the companies' financial position and business performance. Each accounting standard defines disclosure requirements for particular financial statement item. These requirements are extensive, particularly if we consider the IFRS. Each company individually decides which information it will disclose in the notes to the financial statements and in which form. This approach in preparing the notes usually results with a large volume of irrelevant information presented in the notes. "*One study of Annual Reports in the United Kingdom (U.K.) noted that they grew on average from 26 pages in 1965 to 75 pages in 2004, reflecting increases in both voluntary and mandated disclosures. Further, a recent Deloitte U.K. publication indicated that in 1996 the average length of a U.K. Annual Report was 44 pages, whereas in 2010 it grew to 101 pages. This* *increasing length and complexity of disclosures has drawn the attention of many parties in the financial reporting supply chain"* (Beattie and Dhanani 2008). *"It has been suggested that part of the reason for the increasing length and complexity of financial statements may be that accounting standard setters have increasingly emphasized the fundamental qualitative characteristic of relevance over reliability".*[9] The preparers of financial statements should be aware that they do not need to disclose all information mentioned in disclosure requirement in accounting standards but only those which are *materially significant* to the users of financial statements. Problems in disclosures in the notes have been recognized by numerous accounting and non-accounting organizations.

The International Accounting Standards Board (IASB) as the body responsible for developing the IFRS and the IFRS for SMEs[10] recognized this problem and launched a project "principles of Disclosure" in 2014 to improve guidance on notes to the financial statement preparation. The key disclosure problems according to the IASB are; (*1) note enough relevant information, irrelevant information and (3) ineffective communication.*[11] Based on a survey conducted in 2012, Chartered Financial Analyst Institute (CFA)suggested: *(1) development of a disclosure framework that allows management to decide what disclosures are relevant and necessary and (2) removal of disclosures to reduce the volume of financial statements.*[12] A discussion paper issued jointly by the European Financial Reporting Advisory Group (EFRAG), the UK Financial Reporting Council (FRC) and the French Accounting Standards Authority (ANC) in 2013 suggests that improvements should be made in two areas: *(1) ensuring that all and only relevant information is provided in the notes and (2) enhancing the way information is communicated.*[13] In 2011, the FRC issued a discussion paper titled "Cutting Clutter - Combating clutter in annual reports" which identified two problem areas*: (1) immaterial disclosures that inhibit the ability to identify and understand relevant information and (2) explanatory information that remains unchanged from year to year.*[14] According to the Institute of Chartered Accountants in England and Wales (ICAEW), the main issue concerning disclosures is "*a trade-off between increasing regulation and reducing the scope for professional judgement".*[15] The ICAEW makes recommendations to improve the notes to the financial statements such as. "(1) *disclosure requirements should allow firms to report separate information sets to different types of users, (2) standard-setters should regularly review their disclosure requirements to weed out unnecessary disclosures…*"[16] In 2011, the Institute of Chartered Accountants of Scotland (ICAS) and the New Zealand Institute of Chartered Accountants (NZICA) issued a document "*Losing the Excess Baggage – reducing disclosures in financial statements to what's important".*[17] The ICAS and the NZICA had been asked in October 2010 by the International Accounting Standards Board to undertake a project to review the levels of disclosure requirements in existing International Financial Reporting Standards and to recommend deletions and changes to disclosure requirements. The key recommendations were (*1) deleting specific requirements in IFRS and (2) enhancing the use of materiality in financial reporting disclosures.*

3.2 Disclosure requirements according to accounting standards

The IAS 40 sets out extensive disclosure requirements for investment property. Disclosure requirements are divided into three parts; (1) general requirements with regard to the applied model for subsequent measurement, (2) disclosure requirements for companies that apply the fair value model, and (3) disclosure requirements for companies that apply the cost model. General disclosure requirements include companies' obligation to disclose in the notes information on (1) the selected model for subsequent measurement of investment property (real estate) – fair value model or cost model, (2) if it applies the fair value model, whether, and in what circumstances, property interests held under operating leases are classified and accounted for as investment property, (3) the criteria a company uses to distinguish investment property from owner-occupied property and from property held for sale in the ordinary course of business, (4) the fair value valuation of investment property and professional experience of an independent valuer, (5) the explanation for the amounts presented in the profit and loss account, etc.

Table 3 Major disclosure requirements from IFRS for SMEs 16 and CFRS 7

IFRS for SMEs 16 (defines requirements only for the fair value model)	CFRS 7 (major parts taken literally from IAS 40)
"An entity shall disclose the following for all investment property accounted for at fair value through profit or loss: *(a) the methods and significant assumptions applied in determining the fair value of investment property.* *(b) the extent to which the fair value of investment property (as measured or disclosed in the financial statements) is based on a valuation by an independent assessor who holds a recognized and relevant professional qualification and has recent experience in the location and class of the investment property being valued. If there has been no such valuation, that fact shall be disclosed.* *(c) the existence and amounts of restrictions on the realizability of investment property or the remittance of income and proceeds of disposal.* *(d) contractual obligations to purchase, construct or develop investment property or for repairs, maintenance or enhancements.* *(e) a reconciliation between the carrying amounts of investment property at the beginning and end of the period, showing separately some information* (the standard specifies these disclosure requirements in more detail): *This reconciliation need not be presented for prior periods.* *An entity that holds an investment property under a finance lease or operating lease provides lessees' disclosures for finance leases and lessors' disclosures for any operating leases into which it has entered."*	A company should disclose: a) whether it applies a fair value model or a cost model, b) if it applies the fair value model, whether and in what circumstances, a property interest held under an operating lease is classified and accounted for as investment property c) the extent to which the fair value of investment property (as measured or disclosed in the financial statements) is based on a valuation by an independent assessor who holds a recognized and relevant professional qualification and has recent experience in the location and class of the investment property being valued, d) the amounts recognized in profit or loss for: i. rental income from investment property, ii. direct operating expenses (including repairs and maintenance) arising from investment property, and iii. the cumulative change in fair value recognized in profit or loss on a sale of investment property from a pool of assets in which the cost model is used into a pool in which the fair value model is used, **e) all disclosure requirements specified in CFRS 6 – Long term tangible assets, regardless whether a company applies the fair value model or the cost model.**

Source: Systematized by the authors according to relevant standards

Table 3 presents disclosure requirements for investment property according to the IFRS for SMEs and the CFRS. Disclosure requirements specified in national and international accounting standards are very similar. IAS 40 has the most extensive disclosure requirements for investment property which is understandable because the IAS and IFRS are primarily intended for the financial reporting by large companies.

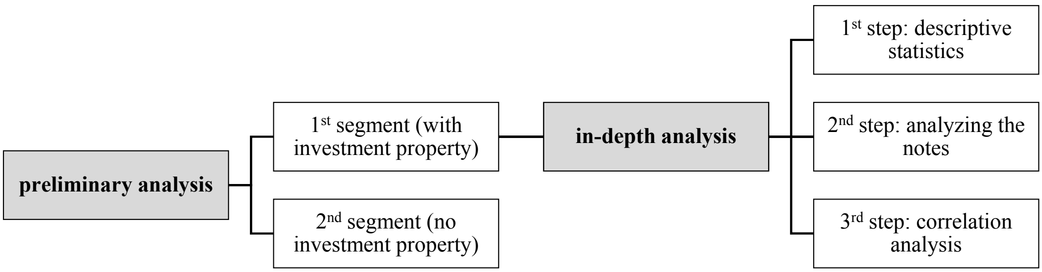
4. Empirical research

The purpose of this paper was to explore the extent to which the quoted companies in Croatia comply with the disclosure requirements for investment property and related accounting estimates. A study was initially conducted on a population of non-financial companies that were quoted on the Zagreb Stock Exchange in 2013 (Pavić et al., 2016), which included 132 companies. To investigate if there were visible improvements in the disclosure practice of the same population of companies, another research was conducted for 2017, which included 131 companies (one company that was quoted on the stock exchange in 2013 went bankrupt in the meantime).

4.1 Description of the research

Since the main research goal was to explore if quoted companies in Croatia satisfy the IAS 40 *Investment property* disclosure requirements, the first step in the research was the preliminary analysis of all the quoted companies' assets structure, in order to identify the companies that have the item *investment property* in their balance sheets as a part of the long-term tangible assets. This resulted in dividing the population into two segments. Further analysis was conducted on a segment of quoted companies that have recorded the investment property as a type of asset. This in-depth analysis included three steps: 1) descriptive analysis of the significance of this type of asset, 2) analysis of the notes to the financial statements to explore if companies published the information on accounting estimates required by the IAS 40, and 3) correlation analysis between the significance of the item investment property and companies' disclosure transparency regarding investment property (Figure 1).

Figure 1 Steps in the research process



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4.2 Research results

The preliminary analysis of the quoted companies' asset structure shows that one third of them have the item investment property on their balance sheet for 2013 (44 out of 132; 33%), with a slight increase in 2017 (54 out of 131; 41%). However, the mean absolute value has decreased from 38 to 35 million HRK. This trend is obviously a direct consequence of the decrease in total assets of analyzed companies, which is why the relative value of investment property, both as a percentage of long-term and total assets, has increased. From the information that the item investment property on average accounts for around 10% of the companies' total assets, it could be concluded that it is a significant item on the balance sheet. However, it should be taken into account that the dispersion among the observed companies is very high, which is evident from the coefficient of variation that is higher than 100% for all variables and years. Therefore, conclusions cannot be based on mean values - median is a much better measure of central tendency. According to the median, 50% of analyzed companies in each year have the relative value of investment property, as a percentage of total assets, higher than approximately 2%, indicating that the item is not as significant as initially concluded.

Since the mean values are statistically heavily influenced by outliers, extremely high absolute and relative values of investment property were identified and excluded when calculating measures of descriptive statistics. The total number of observations that deviated from the mean for three or more standard deviations in 2013 was five, compared to only one observation in 2017. Measures of descriptive statistics without outliers are presented in Table 4. As expected, median values did not change a lot, while mean values and measures of dispersion are significantly lower.

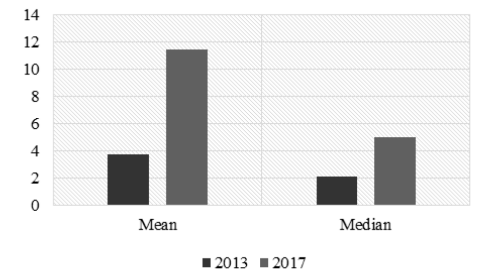
Table 4 Measures of descriptive statistics for the item Investment property – outliers excluded from the calculation

	Absolute value of investment property		Relative value of investment property as a % of long-term assets		Relative value of investment property as a % of total assets	
	2013	***2017***	***2013***	***2017***	***2013***	***2017***
Mean	18,692,489	30,949,572	3.73	11.45	2.56	8.13
Median	8,210,333	15,948,667	2.10	5.00	1.20	2.23
Standard Deviation	25,395,866	39,471,581	4.13	17.03	3.10	14.04
Range	91,916,538	151,248,606	14.18	79.32	10.97	67.29
Minimum	7,000	45,518	0.00	0.01	0.00	0.00
Maximum	91,923,538	151,294,124	14.19	79.33	10.97	67.30
Sum	729,007,056	1,640,327,316	134.24	584.12	97.32	414.51
Count	39	53	36	51	38	51
Coefficient of Variation	135.86	127.54	110.75	148.69	121.19	172.80

Source: Calculated by the authors

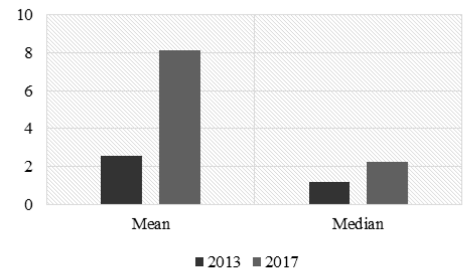
When observing calculated measures of descriptive statistics when the outliers are excluded, it can be concluded that the item investment property has a relatively low significance in the structure of total assets of quoted companies in Croatia. However, both mean and median values show that the relative significance on average is higher for 2017 compared to 2013 (Figure 2 and Figure 3). Therefore, their related disclosures were also expected to improve in the analyzed period.

Figure 2 Mean and median of relative value of investment property as a % of long-term assets (outliers excluded)



Source: Created by the authors

Figure 3 Mean and median of relative value of investment property as a % of total assets (outliers excluded)



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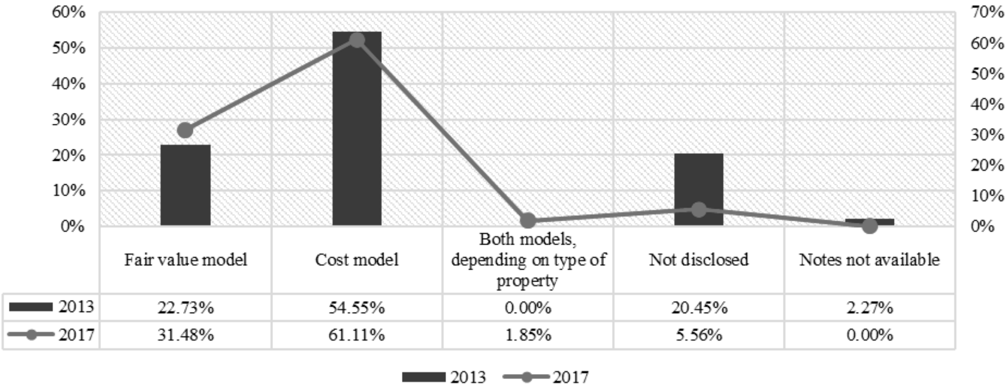
When analyzing the notes to financial statements of quoted companies that have the item investment property, it was investigated whether the notes contained the following elements: 1) method of subsequent measurement of investment property, 2) position of disclosed method within the notes, and 3) frequency of disclosing additional accounting estimates for companies that use the cost model. As for the method of subsequent measurement (Figure 4), there are noticeable improvements in the analyzed period in terms of the number of companies that disclosed the method in the notes. Out of the total number of companies, 94% of them disclosed the method in 2017, which is a significant increase compared to 80% in 2013.

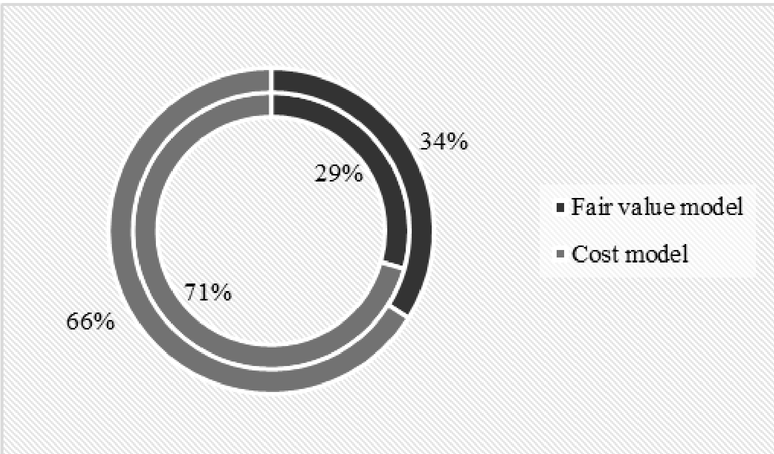
Figure 4 Methods of subsequent measurement of investment property



Source: Created by the authors

The cost model is the most widely used method for subsequent measurement of investment property, although there is an increase in the percentage of companies that apply the fair value model. Out of 34 companies that disclosed the method in 2013, only 29% of them used the fair value model (Figure 5), while 34% of the 50 companies with disclosed method in 2017 measured investment property at fair value. It can be concluded that there is a trend towards the fair value model.

Figure 5 Frequency of applied method of subsequent measurement – cost model vs. fair value model (inner circle = 2013; outer circle = 2017)



Source: Created by the authors

The method of subsequent measurement of a certain type of asset can be directly disclosed in the notes or it can be inferred from the content of the notes. In 2013, all companies that applied the fair value model for investment property presented that information directly in the first part of the notes that refers to significant accounting policies. However, companies that used the cost method were not as transparent, since only 75% of companies disclosed the method directly. These numbers improved in 2017 (Table 5), when the same indicator increased to 88%, which indicates increased compliance with the provisions of IAS 40 as a relevant standard for investment property.

Table 5 Position of the disclosure method for subsequent measurement of investment property in the notes for companies that use the cost model

	2013		2017	
	Absolute value	**Relative value**	**Absolute value**	**Relative value**
directly in accounting policies	16	66.67%	29	85.29%
directly within the notes to the balance sheet	2	8.33%	1	2.94%
indirectly in accounting policies	0	0.00%	1	2.94%
indirectly within the notes to the balance sheet	6	25.00%	3	8.82%
TOTAL	**24**	**100.00%**	**34**	**100.00%**

Source: Calculated by the authors

For companies that use the cost model for subsequent measurement of investment property, the standard requires certain additional accounting estimates to be disclosed in the notes to the financial statements. The frequency of analyzed quoted companies that disclosed this information in 2013 and 2017 is shown in Table 6. When observing the frequencies in 2013, the results indicate that a relatively small percentage of companies disclosed all three accounting estimates related to investment property. More specifically, approximately 38% of them disclosed the estimated useful lives of assets classified as investment property, while 29% of them also provided the information on the estimated fair value or the explanation why the fair value could not be assessed. Such low numbers can be attributed to the fact that the majority of companies probably concluded that this information was not significant enough to be provided in the notes, due to a relatively small share of investment property in the structure of total assets.

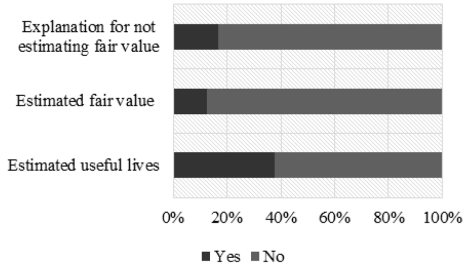
Table 6 The frequency of disclosing additional accounting estimates for companies that use the cost model for subsequent measurement

	2013		2017	
	Absolute value (out of 24)	**Relative value**	**Absolute value (out of 34)**	**Relative value**
Estimated useful lives	9	37.50%	24	70.59%
Estimated fair value	3	12.50%	7	20.59%
Explanation for not estimating fair value	4	16.67%	6	17.65%

Source: Calculated by the authors

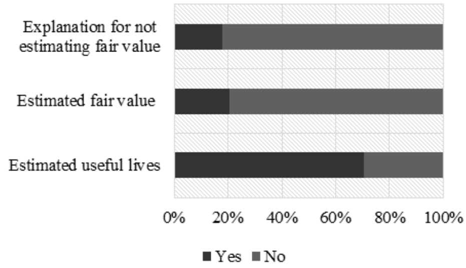
Significant improvements are noticeable in 2017, especially regarding the disclosed estimated useful lives (Figure 6 and Figure 7), since the percentage of companies disclosing such information almost doubled – from 38% to 71%. The increase in the frequency of disclosing fair value or an appropriate explanation is less pronounced. However, an increase of 9% in 2017 when compared to 2013 is still a positive trend.

Figure 6 The frequency of disclosing additional accounting estimates for companies that use the cost model – 2013



Source: Created by the authors

Figure 7 The frequency of disclosing additional accounting estimates for companies that use the cost model – 2017



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Companies use their judgment when deciding which information to provide in their notes to the financial statements, based on the materiality principle. On the one hand, the results of the descriptive analysis indicate that, on average, the item investment property has relatively low share in long-term or total assets of quoted companies in Croatia. On the other hand, the in-depth analysis of disclosures provided in the notes shows that a small number of analyzed companies fully comply with the provisions of the IAS 40 regarding the disclosure of appropriate accounting estimates related to investment property. Logically, it can be assumed that these two variables are positively correlated. In order to quantify the companies' level of transparency when it comes to investment property, companies were awarded points for each category of the required disclosures under the IAS 40 (Table 7). The maximum number of points was five - four points were given if the company published all the information required by the IAS 40 and one point was given for additional disclosures in the form of analytical structure of investment property.

Table 7 Criteria for awarding points to companies for their transparency regarding investment property

<table>
<tr><th colspan="2">For companies applying the cost model</th><th colspan="2">For companies applying the fair value model</th></tr>
<tr><th>Category</th><th>Points</th><th>Category</th><th>Points</th></tr>
<tr><td>Method of subsequent measurement</td><td>2 if directly stated; 1 if indirectly stated</td><td rowspan="3">Method of subsequent measurement</td><td rowspan="3">4</td></tr>
<tr><td>Estimated useful lives</td><td>1</td></tr>
<tr><td>Estimated fair value or provided explanation</td><td>1</td></tr>
<tr><td>Additional disclosures on investment property</td><td>1</td><td>Additional disclosures on investment property</td><td>1</td></tr>
<tr><td>Maximum number of points</td><td>5</td><td>Maximum number of points</td><td>5</td></tr>
</table>

Source: Created by the authors

Once the level of transparency was quantified, the Pearson and Spearman correlation coefficients were calculated. The first variable was the assessed level of transparency and the second variable was the share of investment property in long-term/total assets (Table 8). For both observed years, the correlation coefficients indicate a positive relationship between the variables.

Table 8 Correlation coefficients between the share of investment property in the balance sheet and the level of disclosures on accounting estimates in the notes

Correlation between the share of investment property in long-term assets and the estimated level of disclosures related to accounting estimates in the notes								
	2013				***2017***			
	R	**p (two-tailed)**	**n**	**df**	**R**	**p (two-tailed)**	**n**	**df**
Pearson Correlation	0.3974	0.0083	43	41	0.3353	0.0132	54	52
Spearman Correlation	0.5120	0.0004	43	41	0.3708	0.0058	54	52
Correlation between the share of investment property in total assets and the estimated level of disclosures related to accounting estimates in the notes								
	2013				***2017***			
	R	**p (two-tailed)**	**n**	**df**	**R**	**p (two-tailed)**	**n**	**df**
Pearson Correlation	0.4127	0.0060	43	41	0.3015	0.0267	54	52
Spearman Correlation	0.4939	0.0008	43	41	0.3339	0.0136	54	52

Source: Calculated by the authors

According to the Pearson coefficient, which evaluates the linear relationship between the variables, the relationship is weak. However, the Spearman coefficient is higher for 2013, suggesting that the variables tend to change together, but not necessarily at the constant rate. The same coefficient is much lower for 2017. The final conclusion is that the correlation can be considered as statistically significant and positive by normal standards.

5. Conclusion

A property which is held to earn rentals or for capital appreciation is accounted for under IAS 40 *Investment property*. IAS 40 allows investment property to be measured subsequently at cost or fair value. It also requires the disclosure of a variety of information in the notes to the financial statements by specifying which information should be disclosed when applying the cost model and which in the case of fair value model. The purpose of this research was to analyze the notes of quoted companies in Croatia so as to determine which information on accounting estimates related to investment property they disclose.

The preliminary analysis of the quoted companies' asset structure showed that approximately one third of them have the item investment property in their balance sheet for 2013, with a slight increase in 2017. When observing measures of descriptive statistics that were calculated when the outliers were excluded, it is evident that the investment property has a relatively low significance when compared to total assets of analyzed companies. The notes to the financial statements are composed based on the materiality principle, which explains why the analyzed companies did not fully comply with the required disclosures set in IAS 40. It is important to note that there are certain improvements in 2017 in comparison to 2013, primarily in terms of the percentage of companies that disclosed the method of subsequent measurement of investment property. Although there is a trend towards using the fair value model, the cost model is still mainly used for subsequent measurement. Moreover, there are also improvements regarding the disclosed estimated useful lives of investment property for companies that apply the cost model, while the percentage of companies that disclose the estimated fair value or an appropriate explanation remains very low. The general impression gained through the analysis of the notes is that there are positive improvements in providing more transparent information for investors and other interested financial statement users. As expected, companies with a bigger share of investment property have shown greater level of transparency, providing additional information which is not required by the standards.

The research was limited to companies quoted on the Zagreb Stock Exchange. Further research could include a wider population of companies that are required to apply IAS 40. Moreover, there is a possibility of conducting a survey of accountants to explore their experience of and opinions about the application of IAS 40, as well as potential areas of improvement in the accounting treatment of investment property.

References

1. Alexander, D., Archer, S. (2008). International Accounting/ Financial Reporting Standards Guide. Chicago, IL: CCH Inc.
2. Beattie, V., Dhanani, A. (2008), "Investigating Presentation Change in U.K. Annual Reports", Journal of Business Communication, Vol. 45, No. 2, pp. 181-222.
3. Mamić Sačer, I. (2015), "The regulatory framework of accounting and accounting standard-setting bodies in the European Union member states", Financial Theory and Practice, Vol. 39, No. 4, pp. 393-410.
4. Pavić, I., Mamić Sačer, I., Brozović, M. (2016), "Do Croatian quoted companies satisfy IFRS disclosure requirements of accounting estimates for investment property?", Procedia Economics and Finance, Special issue - 3rd Global Conference On Business, Economics, Management And Tourism, Vol. 39, pp. 389-398.

Endnotes

1 Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002R1606&from=EN (Accessed on: March 15, 2019)

2 IFRS (2019), "The IFRS for SMEs Standard", available at: https://www.ifrs.org/issued-standards/ifrs-for-smes/ (Accessed on: March 15, 2019)

3 Odbor za standarde financijskog izvještavanja – OSFI [Financial Reporting Standards Committee] (2008), "Izvješće o radu Odbora za standarde financijskog izvještavanja za 2007. godinu" [Report on the work of the Financial Reporting Standards Committee for 2007], available at: http://www.osfi.hr/Default.aspx?sid=97 (Accessed on: March 15, 2019).

4 Accounting Act, Official Gazette No. 78/15, 134/15, 120/16, 116/18, available at: https://www.zakon.hr/z/118/Zakon-o-ra%C4%8Dunovodstvu (Accessed on: March 15, 2019)

5 Odbor za standarde financijskog izvještavanja – OSFI [Financial Reporting Standards Committee] (2015), "Hrvatski standardi financijskog izvještavanja" [Croatian Financial Reporting Standards], available at: http://www.osfi.hr/Uploads/1/2/136/137/Hrvatski_standardi_financijskog_izvjestavanja.pdf (Accessed on: March 15, 2019)

6 IASC (2000), "IAS 25 Accounting for Investments (Reformatted 1994)".

7 Commission Regulation (EC) 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008R1126&from=EN (Accessed on: March 15, 2019)

8 PWC (2018), "Applying IFRS for the real estate industry", available at: https://www.pwc.com/gx/en/audit-services/ifrs/applying-ifrs-for-the-real-estate%20industry-2018.pdf (Accessed on: March 15, 2019)

9 IAASB (2011), "The Evolving Nature of Financial Reporting: Disclosure and Its Audit Implication", available at: http://www.ifac.org/system/files/publications/exposure-drafts/IAASB-Disclosures_Discussion_Paper.pdf (Accessed on: March 15, 2019)

10 IASB (2015), "IFRS for SMEs", IFRS Foundation.

11 IASB (2017), "Snapshot: Disclosure Initiative—Principles of Disclosure", available at: http://www.ifrs.org/Current-Projects/IASB-Projects/Disclosure-Initiative/Principles-of-Disclosure/Documents/Principles-of-Disclosure-Snapshot-2017.pdf (Accessed on: March 15, 2019)

12 CFA Institute (2013), "Financial Reporting Disclosures - Investor Perspectives on Transparency, Trust, and Volume", available at: http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2013.n12.1 (Accessed on: March 15, 2019)

13 EFRAG (2013), "Towards a Disclosure Framework for the Notes - Feedback statement on discussion paper", available at: https://www.efrag.org/Assets/Download?assetUrl=%2Fsites%2Fwebpublishing%2FProject%20Documents%2F169%2F130423_Disclosure_Framework_-_feedback_stmt.pdf (Accessed on: March 15, 2019)

14 FRC (2011), "Cutting Clutter - Combating clutter in annual reports", available at: https://www.frc.org.uk/Our-Work/Publications/FRC-Board/Cutting-Clutter-Combating-clutter-in-annual-report.aspx (Accessed on: March 15, 2019)

15 ICAEW (2013), "Financial Reporting Disclosures: Market and Regulatory Failures", available at: http://www.icaew.com/-/media/corporate/files/technical/financial-reporting/information-for-better-markets/frd-final.ashx (Accessed on: March 15, 2019)

16 ICAEW (2013), "Financial Reporting Disclosures: Market and Regulatory Failures", available at: http://www.icaew.com/-/media/corporate/files/technical/financial-reporting/information-for-better-markets/frd-final.ashx (Accessed on: March 15, 2019)

17 ICAS (2011), "Losing the Excess Baggage – reducing disclosures in financial statements to what's important", available at: https://www.icas.com/__data/assets/pdf_file/0017/2285/Losing-the-Excess-Baggage-ICAS.pdf (Accessed on: March 15, 2019)

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Kupovanje nekretnina u funkciji ulaganja u nekretnine prema nacionalnim i međunarodnim računovodstvenim standardima – slučaj Hrvatske

Sažetak

Računovodstveni tretman nekretnina varira ovisno o namjeri s kojom poduzeće kupuje nekretninu. U ovom se radu na teorijski i praktični način obrazlažu računovodstveni standardi za postupanje s ulaganjima u nekretnine, s naglaskom na Međunarodnim standardima financijskoga izvještavanja, Hrvatskim standardima financijskoga izvještavanja (HSFI) i Međunarodnim standardima financijskoga izvještavanja za mala i srednja poduzeća (MSFI za MSP). Teorijski dio rada bavi se analizom različitih modela mjerenja i računovodstvenog tretmana ulaganja u nekretnine prema različitim računovodstvenim standardima. Posebna pozornost posvećena je bilješkama uz financijske izvještaje. Empirijski dio rada predstavlja proširenje istraživanja provedenog 2013. godine na uzorku kotirajućih poduzeća u Republici Hrvatskoj. Analizirani su financijski izvještaji kotirajućih poduzeća te je istraživanje pokazalo da kotirajuća poduzeća u bilješkama uz financijske izvještaje ne objavljuju sve relevantne informacije o ulaganjima u nekretnine. S ciljem ispitivanja jesu li postignuta određena poboljšanja u financijskom izvještavanju o ulaganjima u nekretnine, usporedili smo rezultate iz 2017. godine s rezultatima iz 2013. godine.

Ključne riječi: ulaganja u nekretnine, bilješke uz financijske izvještaje, kotirajuća poduzeća, nacionalni računovodstveni standardi, MSFI, MSFI za mala i srednja poduzeća