

Exploring the Significance of Valuations in South Africa's Listed Property Sector

Peter CLARK and Manya M. MOOYA, South Africa

Key words: Valuation, net asset value, share price, listed property

SUMMARY

This paper investigates the significance and reliability of valuations of the underlying property assets of listed property companies in South Africa. The paper uses both quantitative and qualitative analysis to determine the reliability of property valuations and to establish the impact of these valuations on listed company share prices. The paper finds that property portfolio valuations are considered accurate and reliable from experts within the industry. The paper finds that valuations of the underlying property assets, which directly impact the changes in the net asset values, have little effect on the share price of the companies in question in the short term. The share price seems to be more responsive to other economic and market indicators. The picture is however different in the longer term where valuations of listed property portfolios appear to have a greater impact on share prices.

Exploring the Significance of Valuations in South Africa's Listed Property Sector

Peter CLARK and Manya M. MOOYA, South Africa

1. INTRODUCTION

This paper looks at the ongoing debate regarding valuation of the underlying physical property of listed property companies in South Africa. It is widely assumed that these valuations have a significant influence on determining the price of equity of listed companies, as reflected in share prices. The reliability of these valuations is therefore a matter of great interest to investors in these companies. This paper seeks to establish the reliability of valuations in the South African context and the influence of those valuations on the share prices of listed property companies.

The listed property sector in South Africa consists of two sections, Property Unit Trusts (PUTs) and Property Loan Stock (PLSs). Property Unit Trusts are investment vehicles listed on the Johannesburg Stock Exchange (JSE) which offer the investor a share of a portfolio of investment grade properties. PUTs generates value investors in two ways; through capital appreciation of the property portfolio value and through rental income from the properties. A PUT is limited to investments in property, but has a very similar structure to an ordinary share. PUTs are managed by management companies, who are responsible for the day-to-day management of the properties and their leases and strategic management (Association of PUTs, 2008). A PUT is attractive to investors as there is no tax charged in the companies' hands, and PUTs are exempt from capital gains tax. Any income derived from an investment in a PUT is taxable in the investors' hands only. Gearing is limited in PUTs to 30%. There are currently five listed property unit trusts on the Johannesburg Stock Exchange (JSE), namely; Capital Property Fund, Emira Property Fund, Fountainhead Property Trust, SA Corporate Real Estate Fund, and Sycom Property Fund, with a combined Market cap of over R21 billion at July 2008.

Property Loan Stock companies invest solely in property and are listed on the JSE. They are subject to the Companies Act and the JSE regulations like all other companies and are governed by their memorandum and articles of association. The difference between Property Loan Stocks and other companies is the method that they are financed. When an investor purchases a share in a PLS it is a linked unit comprising part share and part debenture. The debenture part of the linked unit earns interest at a variable rate. The company generates a constant income from the rental of its properties, which is used to pay the interest component. Property Loan Stock companies distribute most of their revenue profits. This is done through debenture interest payment with the balance paid through dividends of the share. This provides a steady cash stream and is tax transparent. Property Loan Stock companies pay very little tax as the debenture interest payments are paid out as an expense before tax, thus there is very

little taxable income for the company. This is also one of the reasons why distributions are so frequent, usually 2 to 4 times per year (PLSA, 2008).

Given reported disquiet about the reliability of valuations on one hand and the perceived influence of those valuations on share prices, this paper has two principle objectives. The first objective is to investigate if, and to what degree, correlation exists between the valuation of a listed property portfolio and the valuation of the equity of the listed property company. The second objective is to investigate the reliability and transparency of the valuation process with regard to listed property companies.

Four sections follow. Section 2 provides a brief background about the relationship between share prices and asset values, and touches on matters of valuation reliability. Section 3 discusses the methods employed to collect the data, followed by presentation and discussion of results in Section 4. The penultimate section follows thereafter.

2. BACKGROUND

2.1 Share Price Premium/Discounts to Net Asset Value

The relationship between the market valuation of underlying property assets of listed companies and their share prices is expressed as either premiums or discount to net asset value (NAV). The net asset value of a property share represents the underlying value of the portfolio of property assets the company holds. The net asset value is the direct value of the underlying portfolio of property less any liabilities. The premium or the discount that the property share trades at is the ratio of the current share price of the company and the net asset value of the company on a per share basis. A discount is when the net asset value is greater than the share price and a premium is when the net asset value is less than the share price. Using the net asset value approach implies that share prices and net asset values are linked, since at a fundamental level, property companies share prices should reflect their underlying property portfolio values (Liow & Li, 2006; Liow, 2003).

The market capitalization of listed property companies often deviates quite considerably from the net asset values. Evidence around the world seems to suggest that more often than not, property company shares tend to trade at a discount to net asset value (Liow, 2003). For example research on the UK property sector showed an average discount to net asset value of 22.4%, with the range varying from a maximum of 53% to a premium of 29% (Barkham & Ward, 1999).

There are several theories which seek to explain the existence of discounts (or premia) to net asset values in listed property companies. According to Barkham & Ward (1999) two main but opposing approaches have been employed in the analysis of close end funds, namely, the 'rational' approach and the 'noise trader' or 'sentiment' approach. The former approach attributes the discount to net asset value to company specific variables such as management quality, expense and reputation, tax liability and the type of stocks held by the fund. Alternatively the discount or premium may simply be an artefact of erroneous valuations of

the underlying property. This approach has, however, not provided an adequate explanation of this phenomenon, despite its apparent soundness (Barkham & Ward, 1999).

The second approach, generally known as the noise trader model, is conceptually complex and hypothesises the existence of two types of investors operating in the market, the rational trader and the noise trader. The operation of the noise trader in the market provides an additional risk that is reflected in the value and returns of the shares. The noise trader model predicts that share prices will diverge from fundamental values in the short run and that shares will be priced below fundamental values in equilibrium (Barkham & Ward, 1999). According to Morri (2005), rational market participants trade on the basis of unbiased estimates of future earnings derived from current information about fundamentals, and irrational investors, or noise traders trade not on information about fundamentals but on market sentiment. The sentiment that the noise trades base decisions on may come from a range of sources, such as popular investment commentators or simple trading rules or even emerge spontaneously. De Long et al (1990) argue that the presence of noise traders in financial markets results in a permanent deviation of price from fundamental value. This is the result of rational traders having to bear noise trader risk as well as fundamental risk.

The above explanations for the existence of premia or discount to net asset value are by not without challenge. Morri et al (2005) for instance argues that they limited explanatory power suggesting instead that deviations may occur because of the following reasons; the difference between the price formation process in securities markets and real estate markets, biased appraisal of real estate assets and the effects of gearing. The authors conclude that explanations for the deviations form NAV are likely to be inherently complex and multi dimensional (Morri et al, 2005).

2.2 Valuation Reliability

In previous academic studies on valuation error, there has been a distinction drawn between valuation error and bias. Valuation error is decomposed into two different types. The first is known as valuation variance, which is the difference between the population mean and other valuations of the same property. Valuation variance is essentially the difference between valuers final results. The second is valuation inaccuracy, which is the fixed difference between the valuations and the market price achieved on sale of the property. If the valuation errors of whatever type fluctuate randomly around the true value, in a portfolio of properties they may tend to cancel each other out over time. Bias is defined as the systematic difference, as opposed to random difference, between valuations and market prices achieved. Bias is associated with the tendency to over or undervalue a property. Bias can affect both the precision of valuation variation between different valuers and can also affect inaccuracy between valuations and prices achieved. (Bowels et al, 2001).

Bowels et al (2001) states that valuers do not seem to process information in identical ways, and argues that random valuation error is inevitable given the nature of the property valuation process. Evidence indicates that valuers will often produce different valuations of the same property when given the same information. Reasons for different valuations produced by

different valuers are the techniques and methodologies implemented. Globally there are many different valuation techniques used and subsequently produce different valuations. The property valuation industry operates in an information poor environment and evidence suggests that the available information is interpreted in different ways. This leads to a lack of precision in valuation estimates and probable inaccuracy in the comparison against realised transaction price (Bowels et al, 2001).

An accurate estimate of the market value of a property is needed in order for any valuation to have validity. The valuation techniques and methods used, as well as the input variables of the model need to be current and reflect the market at the time of the valuation. The model used should be a reflection of the underlying fundamentals of the market (Pagourtzi et al, 2003).

3. METHOD

The study employed a combination of qualitative and quantitative methodological approaches, corresponding to the two principle objectives. To recapitulate, the first objective was to investigate if, and to what degree, correlation exists between the valuation of a listed property portfolio and the valuation of the equity of the listed property company. Quantitative data with which to deal with this objective was obtained from eleven property companies listed under the Real Estate sector on the JSE. The eleven selected were; Growthpoint Properties, Pangbourne Properties, Hyprop Investments, Putprop, Premium Properties, Fountain Head Property Trust, SA Corporate Real Estate Fund, Sycom Property Fund, Capital Property, Sable Holdings, Merchant and Industrial Properties. A fictitious share portfolio consisting of 11 shares (1 share from each company) was constructed. The portfolio was constructed for a period of ten years (August 1998 to July 2008). Data on the closing shares prices and its returns and the net asset values and their returns were obtained on a monthly basis for the ten year period of study. The aim of constructing this portfolio was to create a generalisation for the listed property sector in South Africa, and determine the correlation between the share price of these companies and their corresponding net asset values.

The second objective was to investigate the reliability and transparency of the valuation process with regard to listed property companies. To deal with this objective qualitative data was obtained by way of structured in-depth interviews with 5 senior consumers of valuation services in the listed property sector.

4. RESULTS AND DISCUSSION

4.1 Net Asset Values (NAVS) and Share Prices

Simple correlation tests were done to determine the relationship between NAV and share prices. Table 1 shows the results.

Table 1: Correlation coefficient table for Portfolio Value and NAV Returns

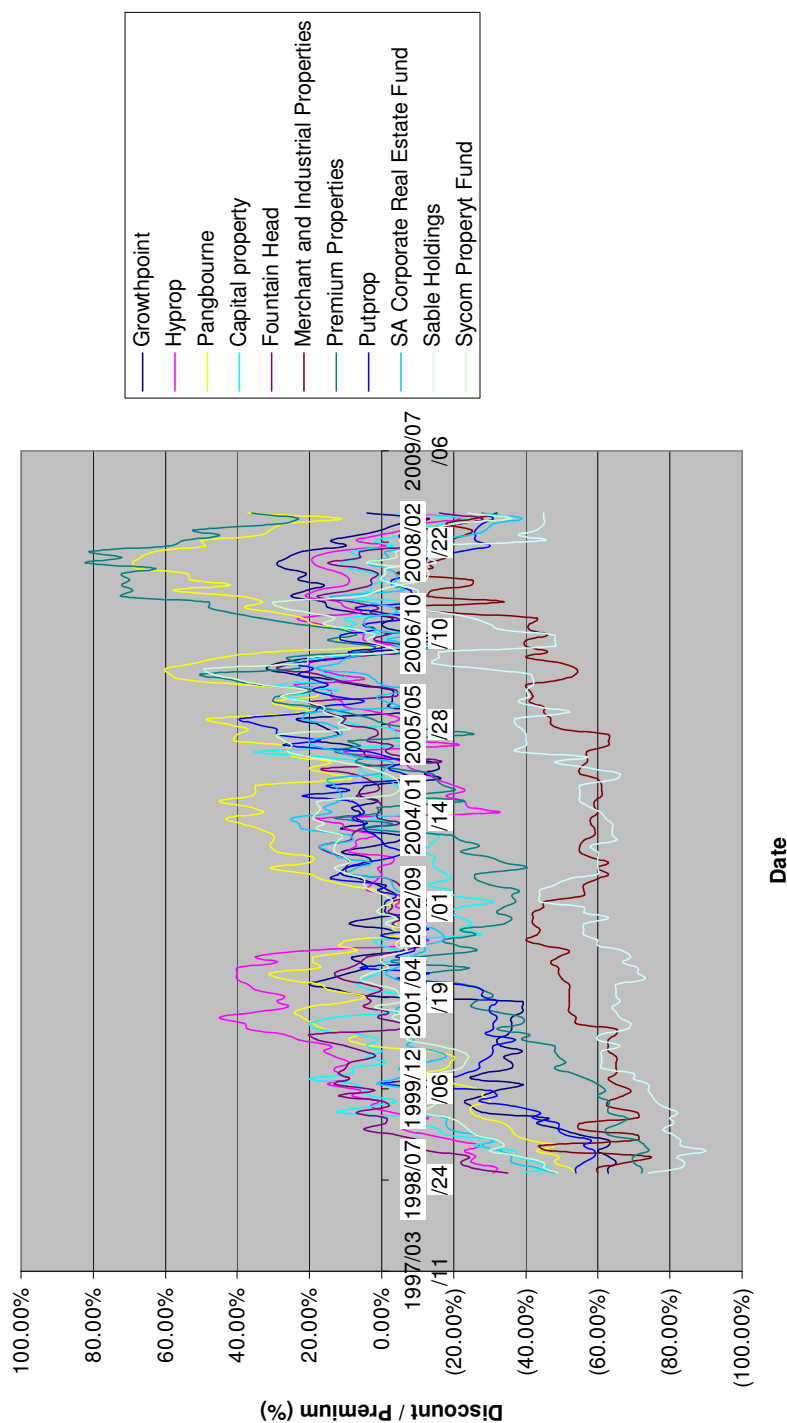
	<i>Portfolio Value Returns</i>	<i>Portfolio NAV Returns</i>
Portfolio Value Returns	1	
Portfolio NAV Returns	0.166	1

From the above table it can be seen that the correlation coefficient is 0.166 which is above zero but not very close to one. Returns are defined as the percentage increase in value. It can therefore be said that portfolio value returns and the NAV returns are positively correlated which illustrate the positive linear relationship and move in the same direction. The correlation coefficient is, however, not very high and thus the correlation is not very strong. The null hypothesis of 'no correlation' is accepted at a p value of 0.05 (t value of 0.505 compared to a critical value of 2.26, with 9 df). The correlation is therefore not statistically significant. A comparison of the correlation coefficients for PUTs to that of PLS does not change the picture. The respective coefficients are 0.127 and 0.224 respectively, with neither being statistically significant at the 95% level.

One would have expected correlations between share prices and NAV to be much stronger. One possible cause for the weak correlation is the time delay in the market. Changing economic factors have a far quicker impact on the share price of a company compared to the property market and changes in property values. This result further illustrates that there are a lot of factors that need to be considered when determining the share price of a property company.

The share portfolio create above was also used as a proxy in determining whether the listed real estate sector in South Africa traded at a premium or a discount to net asset value. The premium or discount for each individual company included in the portfolio was calculated and is represented in the graph in Figure 1.

Figure 1: Individual Share Premium or Discount to Net Asset Value



From Figure 1 it can be seen that listed property companies in South Africa have all followed that same general trend over the last ten-year period. Ten years ago all companies investigated were trading at a significant discount. There has been a general upward trend over the last ten years such that by 2008 most were all trading at smaller discount level, with three of them trading at a premium. The graph suggest that listed property companies are mean reverting in the long run as the discount / premium to net asset value tends to move around the zero percent value.

The discount or premium to net asset value was also worked out for the constructed portfolio (Figure 2)

Figure 2: Portfolio Premium or Discount to Net Asset Value

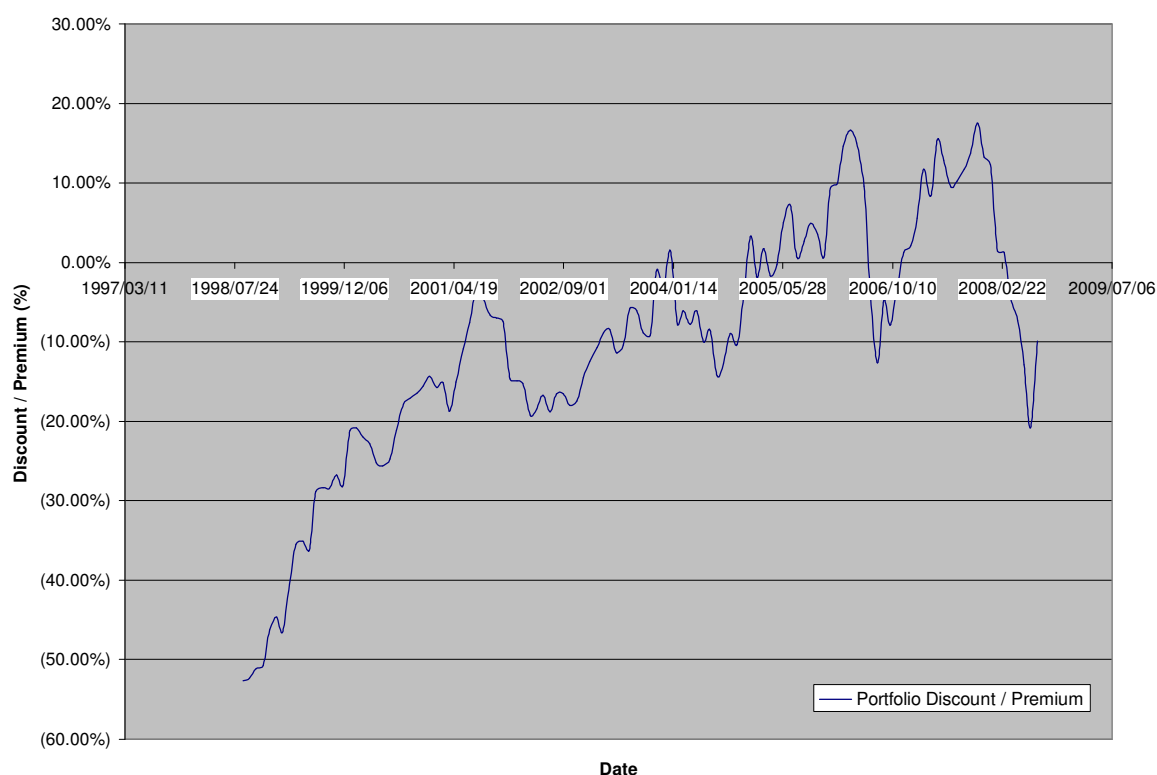
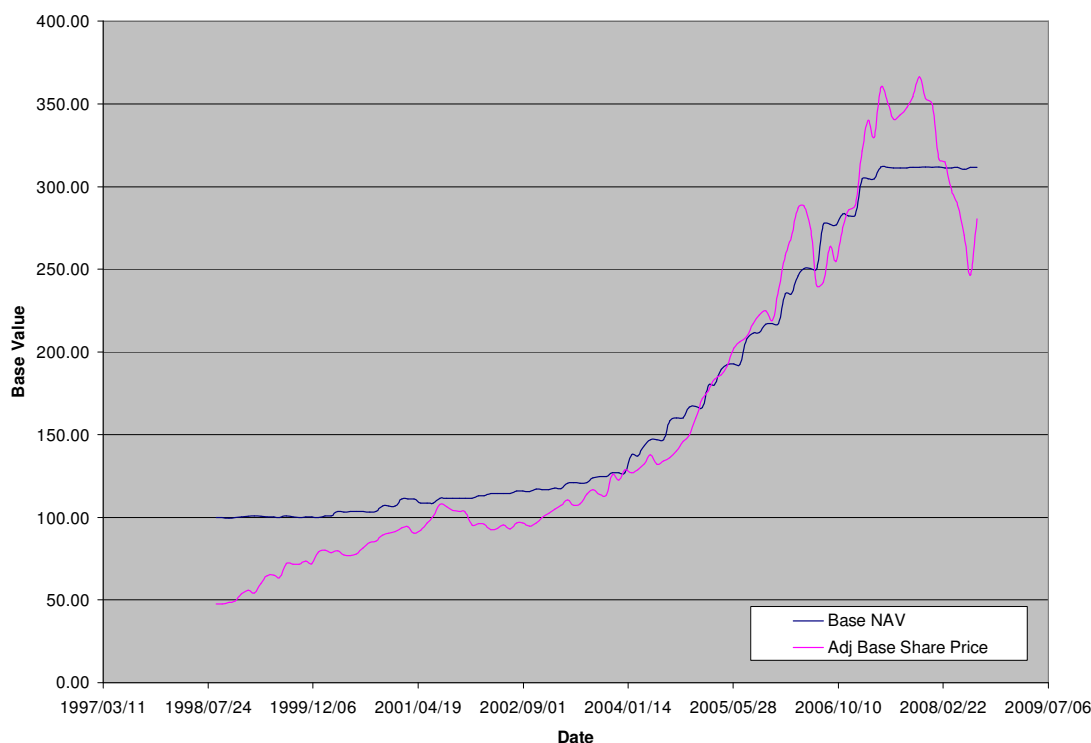


Figure 2 shows that in 1998 the listed property sector was trading at a heavy discount, implying listed property shares were relatively cheap compared to the underlying property asset values. From the year 2004 the graph looks mean reverting around the share trading at a par to net asset value. In 2008 the listed property sector has performed very poorly, this can be seen by the sharp downward slope of the graph in year 2008. The negative slope is caused by decreases in the share price of the listed property companies and stable to increasing net asset values. The share price of a listed property company is a lot faster to react and has more economic variables in play than the underlying property assets held by those companies. Property values take a longer time to react to economic conditions and thus property values have a lag period and minimised reactions.

Figure 3 shows what has happened to both share prices and NAV over the ten-year period. The changes are shown as an index with a base of 100 in 1998. Using the constructed portfolio, the portfolio net asset value was set to a base of 100 at the start of the ten year period under review. At this point the value of the portfolio was also set to an initial base value in comparison to the net asset value using the discount to net asset value at that point in time.

Figure 3: NAV Returns and Portfolio Returns off Base Value



The graph above represents, using the constructed portfolio as a proxy, the performance of the listed property sector compared to the performance of the underlying property assets of the listed property sector. Net asset values and share prices have both experienced positive returns over the ten year period studied. Over the last year share prices have decreased and net asset value has remained constant.

4.2 Reliability of Valuations

The following summarises the information obtained from the five respondents and their consensus views. According to the JSE listing requirements listed property companies are required to have their properties valued by external valuers every three years. All properties must be disclosed with their corresponding values in the financial statements of the listed property company. This must include specific assumptions made and variables used in the valuations process. It is common practice for listed property companies to have one third of the property portfolio valued externally per year, and the other two thirds valued internally. The portion valued externally will then rotate. The reason for the requirement of the external

valuation is to ensure independent and unprejudiced valuation of market value of underlying property assets of company. This is done for corporate reporting reasons to disclose information to the shareholders of the company.

Valuations of property for the listed sector use mainly the discounted cash flow approach, though income capitalisation approach can also be used in special circumstances. It is common for the external valuations to be more detailed and specific than internal valuation; more advanced software is used in external valuations. The income capitalisation approach is used by external valuers on very rare circumstances, where a property is vacant and therefore income and expenses of that property can not be accurately estimated, or where a property is let out at exact market rates.

The methods used for determining the market value of a property for the purposes of a listed property investment company are standard across the industry. The valuation techniques used by internal and external valuers are the same. The variables and assumptions made as the input data for the valuation method may differ. Most external valuers use the same valuation software which further increases the comparability and consistency of valuations across property companies.

There are no more than ten external valuation companies used in South Africa, this means that there is not high competition for listed property valuations. The field of valuers is however large enough to promote accuracy and fair practice in order to retain clients. The main companies that deal with external valuations of listed property companies include; Old Mutual Investment Group Property Investments, CB Richard Ellis, Rode and Associates, Appraisal Corporation and Alliance Group.

The accuracy and relevance of the input variables into a valuation model largely determine the precision and accuracy of the valuation. In the property industry in South Africa the Investment Property Databank, known as the IPD is used to obtain the variables. It is used as a benchmark service and variables used are adjusted for the different circumstances. The IPD Property Valuation Guide is a yearly published research and analysis report, it contains all economic variables need to be used as benchmarks for the valuation process. The IPD is used by all external and internal valuers, and therefore data inputs are similar. The variables from the IPD are used as a starting point and then adjusted for specific changes relating to the property being valued. These adjustments may vary slightly from company to company.

The data published in the IPD is generated by participants of the IPD process submitting property investment data. IPD in South Africa is partnered by the South African Property Owners Organisation (SAPOA). There are over 30 South Africa companies that submit data to the IPD. The makes the IPD accurately represent the economic variable in play in South Africa. The purpose of the IPD Valuation Guide is to improve the credibility, consistency and accuracy of valuations and valuation data submitted to the IPD. The IPD valuation guide-line tries to ensure a common set of constant valuation principles to be adopted by all its participants.

In the valuation process there are still assumptions that need to be made by individual valuers. The assumptions made are mostly for market related issues, such as; the vacancy rates, management fees, market rents, and take up period to name a few. In terms of the terminal values of the subject properties, there are also assumptions that are made for the discount rates and capitalisation rates; these are evident from the market.

According to the respondents, valuations are independent and free from any pressure of manipulation from the management of listed companies. The valuers working within the valuation industry are professionals, governed by a body which promotes good practice in the industry. External valuations of property for listed companies has to be done at least every three years, this is entirely independent of the management of the property companies.

The valuation process has become increasingly transparent as JSE financial reporting and disclosure requirements have become more stringent. Individual properties in a listed portfolio, with the valuation procedure and variables are disclosed to a certain extent. Full disclosure is available to large investors upon request with analysis and support of variables used. All valuations are audited by large valuation companies, further increasing there reliability and accuracy.

In a volatile market, the net asset value of a listed property company, being the underlying market value of the property assets, remains fairly constant. The net asset value does not see large variations or volatility in its returns, and has a lag period to react to market indicators. The share price can however be a lot more volatile, showing rapid gains and losses. This is as a result if there being lots more factors influencing the share price than the NAV of a listed property company. Valuations of property assets of listed property companies is thus one of the determinants of the share price of a property company, however there are many other factor which also come into play.

According to the respondents, valuations of the underlying property assets of listed property companies have little influence on the share price of property companies. They suggest that the share price of listed property companies is determined by the income generating capability as apposed to the underlying asset value. It is nevertheless the case that the income generating ability of a property and the property value usually move in the same direction.

5. CONCLUSIONS

The objective to investigate the degree of correlation between listed property share prices and net asset values provided an interesting result. The test statistic of 0.166 is greater than zero, and indicates that weak positive correlation exists. Share prices and net asset values share a positive linear relationship. However, given this weak correlation, it is safe to conclude that the movements in net asset value explain only a small portion of share price movements. Valuations of the underlying property assets, which directly impact the changes in the net asset values, therefore have little effect on the share price of the companies in question in the short term. This result is interesting as one would have expected a greater reliance on the underlying property assets value to determine the market value of the listed property

company. This results leads to the conclusion that there are many economic factors that determine the fluctuations and movement in returns of listed property companies share prices.

The paper has shown that net asset values and the share prices of listed property companies have had the same general pattern of returns over the long term (Figure 3). Net asset value returns are more stable and returned less than the share values over the ten-year holding period reviewed. Share price returns on the other hand are a lot more volatile. Over the last year net asset value returns have leveled off and share price returns have decreased (Figure3). Valuations of listed property portfolios can thus been seen as have a greater impact on share prices in the longer term, where share prices can be seen to be mean reverting (Figure 1). Over the short term share prices are a lot more volatile and valuations of the property portfolios seem to have a far less impact on determining the share price. The share price seems to be more responsive to other economic and market indicators.

With regard to valuation reliability, the paper has shown that most valuers use the Investment Property Databank (IPD) guidelines as a starting point to develop variables used in valuation models. This is a common information source and thus brings some sort of standardisation in the valuation process among different companies. While various assumptions are made during the valuation process, such as vacancy rates, management fees, market rents and the take up period, these are felt to fall within a relatively small bandwidth. The assumptions made thus have an effect on valuations but this effect is not perceived to be material. All in all the sentiment is that the valuations of listed company property are reliable and transparent. It was however not possible to independently and empirically verify the reliability of these valuations as there was no data on actual sales with which to compare them.

REFERENCES

Anderson, I. (2008) *Listed Property Funds*. Financial Mail Property Handbook.

Barnard, L. (2007) *Overview of the Listed Property Sector*. Presentation to UCT Honours Class.

Barkham, R. and Geltner, D. (1995) *Price discovery in American and British Property Markets*. Real Estate Economics, 23, 21-44.

Barkham, R. and Ward, C. (1999) *Investor sentiment and Noise Traders: Discount to Net Asset Value in Listed Property Companies in the U.K.* Journal of Real Estate Research, 18, 2.

Baum, A. et al. (2000) *The Influence of Valuers and Valuations on the workings of the Commercial Property Investment Market*. Royal Institute of Chartered Surveyors

Bowels, G. McAllister, P. Tarbery, H. (2001) *An assessment of the impact of valuation error on property investment performance measurement*. Journal of Property Investment and finance, 19, 2

Dietrich, J. & Harris, M. & Muller, K. (2001) *The reliability of investment property fair value estimates*. Journal of Accounting and Economics, 30,125-158.

De Long, J. & Shleifer, A. & Summer, L. & Waldmann, R. (1990) *Noise Trader Risk in Financial Markets*. Journal of Political Economy, 98, 709-38

Liow, K.H. (2003) *Property Company Stock Price and Net Asset Value: A Mean Reversion Perspective*. Journal of Real Estate Finance and Economics. 2, 235-255.

Liow, K. and Li, Y. (2006) *Net Asset Value Discounts for Asian-Pacific Real Estate Companies: Long-Run Relationship and Short-Term Dynamics*. Journal of Real Estate Finance and Economics, 33, 363-388.

Lins, M. et al. (2005) *Real Estate Appraisal: A Double Perspective Data Envelopment Analysis Approach*. Annals of Operations Research.

Mallinson, M. and French, N. (2000) *Uncertainty in Property Valuation; The nature and relevance of uncertainty and how it might be measured and reported*. Journal of Property Investment and Finance,18, 1.

Malkiel, B. (1995) *The Structure of Close End fund Discounts Revisited*. Journal of Portfolio Management, 32-8.

Morri, G. and McAllister, P. and Ward, C. (2005) *Explaining deviation from NAV in UK Property Companies: Rationality and Sentimentality*. Presented at the 12th ERES Annual Meeting, June 15 -18, 2005, Dublin

Property Loan Stock Association (PLSA), (2008). Property Loan Stock Association. [Online] http://www.propertyloanstock.co.za/index.php?option=com_frontpage&Itemid=1 (Accessed 31 July 2008)

Paglia, E. (2004) *Valuation transparency within Swedish Property Companies*, Royal Institute of Technology, KTH University.

Pagourtzi, E. et al. (2003). *Real Estate Appraisal: A Review of valuation Methods*. Journal of Property Investment and Finance, 21, 4, 383-40.

The Association of Property Unit Trusts, (2008). Welcome to the Association of Property Unit Trusts. [online] <http://www.put.co.za/index.asp> (accessed on 31/07/2008)

The South African Institute of Chartered Accountants. (2007/2008). International Financial Reporting Standards (IFRSs)

3PM Investments (Pty) Ltd, (2008). Overview of the South African Listed property sector [Online] <http://www.3pm.co.za/pg.aspx?id=9>

TS 9F - Real Estate Management

Peter Clark and Manya M. Mooya

Exploring the significance of valuations in South Africa's listed property sector

FIG Congress 2010

Facing the Challenges – Building the Capacity

Sydney, Australia, 11-16 April 2010

BIOGRAPHICAL NOTES

Peter Clark is a recent graduate from the Property Studies programme of the Department of Construction Economics and Management, University of Cape Town.

Dr. Manya M. Mooya is a Senior Lecturer in Property Studies in the Department of Construction Economics and Management at the University of Cape Town. His primary research interest is on the interface between property and capital accumulation. He has previously taught in the Department of Land Economy at the Copperbelt University in Zambia, as well as in the Department of Land Management at the Polytechnic of Namibia. Dr. Mooya holds a BSc degree in Land Economy from the Copperbelt University, an MPhil. degree in Land Economy from the University of Cambridge and a PhD in Real Estate from the University of Pretoria.

CONTACT

Dr. Manya M. Mooya
University of Cape Town
Department of Construction Economics and Management
Private Bag 7701 Rondebosch
Cape Town
SOUTH AFRICA
Tel. + 27 21 640 3443
Fax. + 27 21 6897564
Email: manya.Mooya@uct.ac.za
Website: <http://www.cons.uct.ac.za>