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## VALUATION ACCURACY - AN AUSTRALIAN PERSPECTIVE

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### ABSTRACT

*Following a brief literature review, the traditional qualitative discussion of the general concept of valuation accuracy will be outlined and the more recent, predominantly UK based, quantitative analysis summarised.*

*The limitations and constraints of such quantitative studies will be considered and their relevance to the Australian property market analysed.*

*Further, Court precedents concerning valuers negligence, from an Australian perspective, will be reviewed and the attitudes of users of valuations considered with the objective of establishing a level of valuation accuracy which may be considered acceptable in the Australian marketplace.*

*The methodology and findings of an original small sample survey of valuations and corresponding sale prices for commercial, retail and industrial investment property in Australia is then outlined and that level of valuation accuracy exhibited considered in the context of the findings of UK quantitative analyses and the acceptable level of valuation accuracy proposed for the Australian marketplace.*

*Conclusions are then drawn concerning the relative level of valuation accuracy in Australia and the implications of this considered for valuers, users of valuation services and the local investment property market generally.*

## INTRODUCTION

Following the catalytic work of Hager and Lord (1985), the level of interest amongst the northern hemisphere academic community in valuation accuracy appears to have grown exponentially. However, until this Conference, academic interest in the subject, beyond the aspect of professional negligence, appears to have been remarkably limited in Australia.

At the time of writing, there appears to have been little analysis of the relativity of various aspects of valuation accuracy between Australia and those other countries for which studies have been undertaken.

Accordingly, this paper aims to briefly review both those qualitative commentaries and quantitative analyses of valuation accuracy found in overseas literature, prior to seeking to establish the acceptable level of valuation accuracy currently prevalent in Australia. Each such aspect will then be considered in the context of a small sample survey of actual valuations and corresponding sale prices. Finally, conclusions will be drawn concerning the possible implications for Australian valuation practitioners, users of valuations and the local investment property market generally.

Whilst the following consideration of valuation accuracy is undertaken from the viewpoint of a property investor, rather than a lender, developer, valuer or other interested party, it is contended that many of the principles and findings may be likely to be of relevance and interest to such groups.

The extensive nature of the shield affording protection to the valuer is succinctly described by Baum and Crosby (1988):

“Appraisals can rarely be proved inaccurate for many reasons. All valuations are hedged by a series of assumptions. Special purchasers are excluded from consideration; a full exposure to the market, which is not defined, is assumed; no price movements over the marketing period are contemplated, even though full exposure may require a lengthy marketing period in an era of changing prices; and so on. Predictions of the most likely selling price will only be shown to be wrong when prices achieved are revealed, and this is rarely the case.” (pages 4-5)

The significance of inaccurate valuations is, however, potentially considerable and may include:

- adversely influencing the relevance of the role of the valuer - if a valuation may only have a limited likelihood of accuracy, the client may question why a valuation is necessary at all (Waldy (1997));

- adversely influencing the credibility of the valuer - inaccuracy in valuations could mean that “professional advice would be meaningless” (Brown (1991) page 66) as “... the whole basis of professional property advice rests on the assumption that the valuations are a good proxy for prices.”
- damaging for confidence in the property market - “It is essential for parties who rely on valuations to be confident that the figure produced closely shadows the realistic sale price of an asset ...” Harvard (1995) (page 113);

In the UK, Herd and Lizieri (1994) note that “public and professional interest in valuation accuracy has been fuelled by well publicised cases where different firms of surveyors have arrived at substantially different valuations on the same property or portfolio (as in the Queens Moat and Scotts Restaurant cases) and by criticism of valuations made in the period immediately preceding the property crash” (page 129).

Australian parallels may be drawn with such events as the establishment and report of Professor Neville Normans Property Economic Task Force or the two valuations of Grosvenor Place in Sydney at the same point in time by two equally eminent practitioners. This was reported, in the “Australian Financial Review” on 3rd December, 1991, to have resulted in a difference of \$120 million or 16.6% and gained the adverse attention of the finance press and business community for an extended period thereafter with damaging effects on community confidence in both the valuation profession and the valuation process;

- damaging the operation of both the property market and property indices - Harvard (1995) notes that “one of valuations prime roles is to act as a price predictor or as a substitute for having to sell an asset. An investment market in property cannot operate unless reliable and accurate valuations are produced” (page 113). The authoritative IPD/DJ (1990) comments that “... valuations are central to all performance indices ...” with Brown (1991) adding that inaccuracy in valuation could mean “performance measurement would be a fruitless exercise” (page 66) and Matysiak and Wang (1995) observing “... performance measurement and league table rankings may need to be qualified ...” (page 181).

The implications of inaccuracy in valuation in Australia, should same be found to exist, may threaten to undermine not only the valuation profession but also both the property market and the property industry. Accordingly, the repercussions of valuation inaccuracy locally could be potentially significant and so are worthy of further investigation.

## **DEFINITIONAL ISSUES IN VALUATION ACCURACY**

Waldy (1997) succinctly defines valuation accuracy as “ ... restricted to the question of valuation versus market price, i.e. how close a valuation is to the market price ... “ (page 239).

Valuation accuracy should be distinguished from “valuation variation” (or “valuation variance”) which Waldy (1997) further defines as the difference between valuations arising from different valuers working with similar property interests and similar data.

Baum and Crosby (1988) define “valuation” as the estimate or prediction of the most likely selling price, distinguishable from “worth” which is specific to an individual given its subjective estimates of factors relevant to that individual. Baum et al (1996) define “market price” as the “recorded consideration paid for a property”.

Accordingly, for the purposes of this paper, valuation accuracy will be considered as the proximity of a valuation (or prediction of the most likely selling price, often being an expectational assessment) to market price (or the recorded consideration paid for a property, being a current time or actual assessment).

Further, inaccuracy should also be distinguished from inconsistency and from incompetence. Inconsistency, for example, may occur when two parties adopt differing information emphases but the resulting valuations are common or match the market price. Inaccuracy occurs when the parties do not achieve the same resulting valuations or where that resulting valuation does not match the market price. Incompetence occurs where the parties do not achieve the same resulting valuations or where that resulting valuation does not match the market price and the margin of difference is so great as to exhibit a failure to take due professional care.

Whilst inconsistency is not ideal, it is unlikely to trigger the problems identified above to the same extent as inaccuracy. Incompetence, conversely, may be likely to trigger not only the above problems but also potentially further problems such as claims of professional negligence, an increase in professional indemnity premia, withdrawal of certain participants from the market or industry and so forth.

At some point, however, prior to becoming incompetent, a valuation which is inaccurate will become unacceptable to the user. Little analysis appears to have been undertaken concerning that point at which valuation inaccuracy becomes unacceptable to the user and this important aspect of the valuation accuracy debate will be considered further below.

Having defined valuation accuracy for the purposes of this paper, the following section seeks to establish the existence and extent of valuation inaccuracy both overseas and in Australia.

## **EXISTENCE AND EXTENT OF VALUATION INACCURACY**

In order to provide a framework within which to consider the existence and extent of valuation inaccuracy, it is proposed to briefly consider that literature reviewed in two components followed by a summary of the findings of a small sample survey of users of investment property valuations in Australia:

### **Literature Review - Qualitative Commentaries**

The following brief review of literature considers some of the qualitative commentaries which address the potential for existence and anticipated extent of valuation inaccuracy. It is particularly notable within the qualitative commentaries that whilst valuation accuracy is an “aim” (Millington (1985)), it should neither be expected nor necessarily sought to be achieved, with a valuation which matches a market price being an anomaly.

Millington (1985) dwells on the improbability of accuracy, curiously citing such an expectation as “foolish” and akin to an aspiration to predict the winner of the Grand National which, if achieved, would remove risk and the prospect of gains and losses from property investment.

The fundamental characteristics of property as an asset class, the imperfect nature of the property market, the lack of a central register of sales, the individual character of buildings and confidentiality of information are all cited as precluding valuation accuracy (see, for example, Mainly For Students (1985) and Millington (1985)).

Millington (1985) further notes that the conditions of full information of prices, homogeneity of product, ease of mobility of participant and product and competition between numerous active participants should exist for a perfectly competitive market but are absent for the property market. Such imperfection is argued to be compounded by other factors which also influence supply/demand for investment property, including the cost and availability of credit, tax changes and changes in consumer preferences which create an investment framework within which the author contends “great” and “regular accuracy” are “impossible”.

Numerous defences of valuation inaccuracy have developed over the century, to the extent that some have been accepted in litigation within the higher Courts, led by the traditional contention that valuation is as much (if not more of) an art rather than a science (see, for example, Millington (1985) and Baum and Mackmin (1979)).

Such acceptability of inaccuracy has also evolved out of the “gut feel” or “intuition” defence (see, for example, McIntosh and Sykes (1985) and Mainly For Students (1985)) and is supported by the veil of mystique surrounding the property valuation process and the special skills allegedly needed to profess the discipline.

The various opportunities for rounding of numbers during the valuation process also diminish the prospects of valuation accuracy, with Millington (1979) noting:

“Where a series of figures are all “rounded off” there is always the possibility of cumulative errors being unacceptably large.” (page 107)

Perhaps, however, the most entrenched support for valuation inaccuracy comes from the reliance in the valuation process upon comparable evidence which is generally in limited supply. Baum and Crosby (1988) trace the evolution of valuation techniques during the twentieth century and the gradual drift away from methodologies based explicitly on underlying risk free interest rates and towards implicit, capitalisation rate based methodologies with a dependence upon comparable evidence and much more extensive information processing by the valuer.

An interesting UK aspect to the valuation accuracy debate concerns the roles of practitioners, with Baum and Crosby (1988) noting that properties may often be valued for sale by those practitioners who will be actively involved in their marketing as agents, which “results in the confluence of the valuation process and the market price mechanism” (page 5). Accordingly, the authors contend, “it is no justification of valuation accuracy that prices paid are close to valuation when negotiations are carried out by valuers” (page 5).

Herd and Lizieri (1994) take this UK phenomenon a stage further by claiming that “... valuers are in a quasi-monopolistic position as advisers to both buyers and sellers, using methodologies enshrined in professional practice and court and tribunal decisions ...” (page 129) to “... set a price framework within which negotiations take place ...” (page 141). Also, Harvard (1995) observes that “... price is quite often determined by the interaction of surveyors opinions of value rather than by competing purchasers in the open market” (page 113), further supporting the proposition of Baum and Crosby (1988), above.

Whilst valuation inaccuracy appears to be generally expected, there are considerable differences as to the acceptable extent of such inaccuracy. Hager and Lord (1985) anticipated a range of “about 5%”, Glover (1985) quotes Michael Mallinson (then Chief Surveyor at the Prudential) as commenting that 10% was the outer limit of an acceptable margin of difference (a view supported by Mainly For Students (1985)) whilst Baum and Crosby (1988) suggest that “it is even common to quote an acceptable margin of error of up to 15% in valuations” (page 5).

Interestingly, there appear to have been relatively few cases where the Courts have had to consider issues of alleged negligence in the valuation of conventional, income producing investment property. Norris and Joyce (1994) note that the Courts favour an approach known as the “acceptable margin of error” or “bracket” which was first stated in *Singer and Friedlander v. John D. Wood & Co* (1977) 243 EG 212 (a case concerning a rural property for residential development) in which the Judge held there to be a “permissible margin of error of 10% either side of the ‘correct figure’”, extended to 15% in “exceptional circumstances”.

The authors further note that in *Trade Credits Limited v. Baillieu Knight Frank (NSW) Limited* (1985) Aust. Torts Reports 80 - 757 [Court Decision No. 18] (a case concerning a rodeo property), expert evidence indicated a margin of “up to 15%” and that, in *Private Bank & Trust Co. Limited v. S (UK) Limited* [1983] EG 112 (a case concerning the redevelopment of an office property) Rice J accepted a broader concept of a “permissible margin of error of 15% either side of (a) bracket of value”.

One of the few cases to focus on the valuation of conventional investment property was that of *Banque Bruxelles Lambert SA v. Eagle Star Insurance Co Ltd and Others* [1994] 31 EG 68 and [1994] 32 EG 89, where the valuations of three substantial office properties differed from market prices by between 39% and 74%. Whilst Phillips J expressed an opinion that such differences were unacceptable, he did not express an opinion as to the extent of acceptable difference though he did note that *Banque Bruxelles Lambert* assumed “valuations would be within 10% of true market values” (page 92).

Discussions with the authors of Norris and Joyce (1994) indicate that they contend that 10% may be a minimum with their experience suggesting that, at the other end of the spectrum, for unique properties and valuations undertaken at a time of uncertainty, the margin could extend to beyond 15% (with their having known expert opinion to differ by “up to and in excess of 20%” (pages 67 and 68)).

Whilst some academics have suggested that a philosophical change is nascent in the attitude of the Courts that will manifest in a reducing reliance being placed upon the margin of error principle in valuation negligence cases, the authors were unaware, in discussion, of any support for such a suggestion, contending that the margin of error principle was still fundamental in valuation negligence cases currently before the Australian Courts.

The literature appears to accept that a lack of valuation accuracy is a fundamental feature of valuation principles and practice with 5% to 15% inaccuracy appearing to be generally accepted within the qualitative commentaries and 10% to 15% generally accepted within Court precedent. A more significant issue appears to be the extent to which a valuation can be inaccurate without being incompetent. Indeed, inaccuracy appears to now be so entrenched in valuation lore that it seems to be expected, almost without question.

Thus, whilst the literature indicates inaccuracy between 5% and 15% is generally anticipated and unlikely to be considered incompetent, it does not indicate whether it is acceptable to the user. Though a dissatisfied user may be unlikely to succeed in a claim of incompetence if the level of inaccuracy is 15% or less, this does not necessarily indicate that such a level of inaccuracy is acceptable to the user.

Whilst valuation accuracy has been the subject of extensive debate and the focus of two major UK and one major Australian study (see Trott (1980), Mallinson (1994) and

Norman (1992), respectively), it appears to be a spectre which the valuation profession has yet to exorcise.

Whilst a lack of valuation accuracy may be expected, it is only through rigorous quantitative analysis that it can be established whether such inaccuracy does, in fact, exist for conventional investment properties.

### **Literature Review - Quantitative Analyses**

The following brief review of literature considers some of those quantitative analyses which seek to ascertain the existence and identify the extent of valuation inaccuracy.

In the UK, the valuation accuracy debate was catalysed by Hager and Lord (1985) who conducted a small sample survey where ten surveyors were invited to value two properties and in one case the range of valuation was +/- 10.6% and in the other was +/- 18.5%, suggesting a relatively low level of valuation accuracy (Waldy (1997)). This survey was, however, criticised by Reid (1985) who questioned the information and instructions given to the valuers and the quality of their response given the absence of a fee.

A larger study was undertaken by Brown (1991), using a sample of 29 properties for which there was a transaction price and a recent, prior, independent valuation, during the period 1975-80. Both the valuations and the transactions were based on the RICS definition of open market value and so excluded special purchasers, forced sales, etc. The author found a very high correlation between valuation and transaction price, with prices explaining about 99% of their equivalent valuations, suggesting a high level of valuation accuracy.

IPD/DJ (1988) used a sample of 1442 properties, each of which was sold between January 1982 and March 1988 and had at least two open market valuations in the two consecutive years prior to the sale, with all valuations occurring between January 1980 and December 1987. This study also found a high correlation of 93.4% between valuations and transaction prices suggesting a high level of valuation accuracy (Brown (1991)).

(Whilst not directly relevant to this study, Brown (1991) also investigated the extent to which a valuation prepared by one valuer is a proxy for a valuation prepared by another valuer (“valuation variation” or “valuation variance”). Using a sample of 26 properties belonging to one fund and for which two independent valuations had been prepared by separate firms during the period 1981-84, the author also found a high level of correlation (about 98%) between the valuations suggesting a high level of valuation accuracy. Significantly, however, Brown (1991) notes that such a high correlation should not be misconstrued as implying that valuations for individual properties are identical, with reasonable differences still possible but diversified away at the portfolio level.)

In 1990, IPD and Drivers Jonas updated their analysis to consider 2,400 properties for which there were transactions and valuations and found the high correlation sustained, so

claiming further support for a high level of valuation accuracy (IPD/DJ (1990)). Waldy (1997) notes that this paper led to extensive debate concerning the statistical validity of the IPD/Drivers Jonas analysis (see, for example, Lizieri and Venmore-Rowland (1991), Brown (1992) and Lizieri and Venmore-Rowland (1993)) which served to question the integrity of the findings concerning high levels of valuation accuracy and suggested a potential role for behavioural research in the valuation accuracy debate.

Despite this debate, IPD and Drivers Jonas have updated their analysis in 1992, 1994 and 1996 with ever increasing sample sizes, analysis periods and range of statistical analyses employed but consistently maintaining the same basic finding concerning high levels of valuation accuracy (Waldy (1997)).

Matysiak and Wang (1995) addressed some of the criticisms of statistical deficiencies in their analysis of 317 sets of valuation and transaction data covering the period 1973 to 1991. Following extensive statistical discussion<sup>1</sup> and manipulation, the authors appear to have found that the probability of achieving a selling price within +/- 10% of the valuation was only 30%, rising to a probability of 55% within +/- 15% of the valuation and 70% within +/- 20% of the valuation.

Whilst such findings would appear to undermine those of other studies concerning high levels of valuation accuracy relative to transactions, the incredible complexity of the statistical analyses renders a full appreciation of the findings challenging.

Interestingly, the authors also addressed the propensity of valuers to overvalue in falling markets and undervalue in rising markets and broadly concluded this to be so, though note that “ ... given the indicative evidence for the significant impact of bull/bear market environments in conditioning valuation figures, more analysis is required in eliciting the relationship between valuer behaviour and changing market conditions” (page 194).

Hutchison et al (1995) surveyed five national valuers and five local valuers for each of 14 centres and sought valuations, at no fee, for a range of hypothetical retail, office and industrial buildings with particular characteristics in actual locations and with standard leases. Whilst there were significant differences in percentage variation from the mean for the various centres, the overall variation from the mean for the respective property sectors was remarkably similar. Interestingly, the authors found that over 80% of all the valuations produced a variation from the mean of less than 20% which suggests a weaker finding for valuation variation or variance than that suggested by Brown (1991).

Amongst the US research into valuation accuracy, Cole, Guilkey and Miles (1986) found a difference between sale price and appraisal of 9.5% which the authors considered did not indicate a high degree of reliability in individual commercial appraisals.

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<sup>1</sup> Including the following incredible statement: “If a suitable transformation of the data, for example a logarithmic transformation, yields homoscedastic errors then an unwarranted deflation of prices and appraised values by size, as has been the practice, may introduce a non-constant error structure.”

Given the relative roles of practitioners in the UK cited by Baum and Crosby (1988), Herd and Lizieri (1994) and Harvard (1995), above, it would appear logical to expect that quantitative analysis would identify a high level of valuation accuracy in the UK. Such a high level has been suggested by several of the studies referred to above, though an increasing number are now suggesting lower levels of valuation accuracy may prevail.

The quantitative studies are, however, marred by the emphasis on statistical analysis at the expense of a focus on the underlying flaws in approach. The use of hypothetical properties, non-contemporaneous valuations and transactions and large data sets which may mask potentially significant differences at the individual property level are each indicative of the basic flaws in the analyses upon which the interminable statistical quibbling merely builds.

Whilst a lack of valuation accuracy in principle and by around 5% to 15% in degree was contended to be expected following the review of qualitative commentaries, above, it was contended that only through rigorous quantitative analysis could it be established whether such inaccuracy does, in fact, exist for conventional investment property. It is, however, unfortunate that such quantitative analysis does not appear to reach an unanimous conclusion, being disappointingly mired in the semantics of statistical analysis and premised on conditions which distance the findings of the studies from typical property investment market situations.

### **Survey Of Australian Users Of Investment Property Valuations In Australia**

Whilst the qualitative commentaries suggest an expectation of valuation accuracy greater than 5% to 15% to be unrealistic and the quantitative analyses suggest either a very high level of valuation accuracy or a level of accuracy of only within 20% in approximately 70% to 80% of valuation cases, that level of accuracy expected by and acceptable to institutional property investors in Australia does not appear to have been addressed in the literature reviewed.

In the authors experience, as an institutional investment property operative, a valuation range of 10% around an acquisition or disposal market price generally appears to have been considered acceptable in Australia.

In order to more rigorously gauge the prevailing level of valuation accuracy acceptable to the institutional property investment industry, the author surveyed seven property trust managers, with a total of \$11.60 billion invested in property, to ascertain how close they expected a valuation to be to the proposed purchase price for an asset, assuming adoption of the AIVLE definition of open market value, provision of full information to the valuer and payment of a market rate fee, with the results given in Table 1.

	Expected Level Of Valuation Accuracy
Range	5%-10%
Mode	5%
Arithmetic Average	6.04%

**Survey Of Australian Investors Expectations For Valuation Accuracy**  
**Source: Author**

**Table 1**

Significantly, whilst the range for acceptable valuation inaccuracy was 5% to 15%, the modal level was 5%. It would appear, therefore, that a sample of Australia's largest institutional property investors are expecting a level of valuation accuracy greater than that suggested by not only the qualitative commentaries reviewed or the more recent quantitative analyses considered, but also the author's experience as an institutional investment property operative.

Clearly, if the level of accuracy of valuations currently prevailing in Australia is as suggested in that literature for overseas markets reviewed above, those Australian institutional property investors surveyed are likely to be very disappointed and find such valuations unacceptable.

Accordingly, with Australian users of valuations seeking accuracy within 5% and the overseas experience suggesting such a level of accuracy to be unlikely, a small case study of valuations provided contemporaneously with transactions was undertaken and is briefly summarised in the following section.

## AN AUSTRALIAN CASE STUDY

This case study arises from the offer, by an Australian institutional investor, of a portfolio of investment properties for sale by tender closing in November, 1995. Each of the properties was independently valued by one major, national firm of valuers as at the date of close of tenders. Offers to purchase were received for seven properties at close of tenders and the prices nominated by the seven potential purchasers (who were all different) remained unchanged to become the market price at which each property was sold, totalling \$105.20 million.

Accordingly, as a rare example of simultaneous open market valuation and transaction, this case study addresses many of the limitations and constraints identified in the qualitative commentaries and quantitative analyses reviewed above, including:

- the date of the valuation and the date of the transaction were exactly contemporaneous, with no vendor / valuer / purchaser interaction concerning the level of valuation nor the level of bids and no opportunity for changes in the market or other matters between the valuation date and the transaction date;
- the valuations were not used to set the selling prices for the respective properties during the tender campaign;
- all properties were conventional investment grade buildings with no unusual investment features. Each was freestanding, freehold, effectively fully leased, in good condition without the need for major capital expenditure and without additional vacant land or other unusual characteristics. The sample comprised only office, retail and industrial properties with no hotels, residential, redevelopment or other unusual properties;
- each property was valued on exactly the same instructions and using the then relevant standard definition of open market value (as detailed in Appendix I), so excluding forced sales, special purchasers and so forth;
- each valuer was provided with full information and the opportunity to inspect and seek such further information as may be required;
- a market rate fee was paid for the portfolio valuation, with two firms quoting for the work and each quote only differing by less than 1%. The valuation firm held professional indemnity insurance cover and was aware that this may be called upon;

- the valuations were undertaken by one national firm, such that the level of standardisation created by that firm's Quality Assurance programme could be enjoyed whilst still benefiting from the specialist sub-sector knowledge of the individual valuers operating in the respective sub-sectors;
- the portfolio was offered for sale through one agency firm and the valuation firm used was different to that agency firm;
- while cognisant of the potential for "firm bias" (noted in Brown (1991)), the requirement for individual personal registration of valuers in certain States was considered likely to address this issue;
- each property in the case study was sold on the open market with no inter-company transfers based on the opinions of two valuers;
- neither the vendor nor the purchaser was a valuer nor were either closely advised or represented by a valuer;
- the valuers undertaking the valuation were purely employed by the firm as valuers and undertook no agency activity. (Interestingly, from a small sample survey, Parker (1997) found that the UK phenomenon of valuer/agent confluence was also evident in New Zealand, Singapore and Hong Kong but conspicuous by its absence in Australia);
- the properties being valued and transacted physically existed with full, actual information and no assumed or hypothetical components;
- the valuation firm had not undertaken the most recent valuation of the respective properties and so the potential for smoothing was removed; and
- whilst the limitations of a small sample are acknowledged, its use does facilitate consideration of differences at the individual property level without the masking effect that occurs in larger sample analyses.

In order to maintain confidentiality, the respective properties are not specifically identified but key characteristics are summarised in Table 2 together with the respective levels of valuation accuracy observed. As noted above, valuation accuracy is considered to be the difference between the market price and the valuation (with a positive result if market price exceeds valuation and a negative result if valuation exceeds market price) quoted on the date of close of tenders.

<b>Prop No</b>	<b>Type</b>	<b>Loc'n</b>	<b>No Of Ten'ts</b>	<b>Val'n Acc'cy</b>
C1	Commercial	Vic - Sub'n CBD	1	(6.06%)
C2	Commercial	NSW - Sub'n CBD	24	14.29%
				Arithmetic Avg 4.11%
				\$ Wghtd Avg (1.15%)
R1	Retail	NSW - Country	27	(6.73%)
R2	Retail	NSW - W Sub'n	45	1.64%
				Arithmetic Avg(2.55%)
				\$ Wghtd Avg (0.49%)
I1	Industrial	NSW - W Sub'n	2	(8.33%)
I2	Industrial	NSW - N Sub'n	16	(8.20%)
I3	Industrial	NSW - N Sub'n	1	(8.82%)
				Arithmetic Avg(8.45%)
				\$ Wghtd Avg (8.32%)
<b>Total Portfolio</b>				
				Arithmetic Avg(3.17%)
				\$ Wghtd Avg (2.46%)

**Case Study - Investment Property Valuations And Contemporaneous Transactions**  
**Source: Author**

**Table 2**

An analysis of Table 2 indicates the following interesting findings:

- none of the valuations matched the market price exactly;
- for the portfolio overall, the average level of valuation accuracy appears very high with valuations exceeding market price by a dollar weighted average of 2.5%;
- at the sectoral level, there are distinct differences with apparently extremely high accuracy for retail property (valuations exceeding market price by only 0.5%) and commercial property (valuations exceeding market price by only 1.1%) but very substantially lower accuracy for industrial property (valuations exceeding market price by 8.3%);

- at the individual asset level, there is a range of levels of accuracy from valuation exceeding market price by 8.8% to market price exceeding valuation by 14.3%.

Accordingly, the findings in the review of qualitative commentaries that valuation accuracy should not be expected were supported by the findings of the case study. Further, the level of inaccuracy observed did not exceed the 15% parameter identified from the qualitative commentaries and precedent reviewed.

The correlation between valuations and market prices for the case study sample was 99.55% which is even in excess of the high levels of explanation identified in the quantitative analyses considered. However, given the small sample size for the case study, it would be inappropriate to have too much regard to this finding.

A comparison, however, to the findings of Matysiak and Wang (1995) proves to be particularly interesting and is given in Table 3.

	<b>Probability Per Matysiak &amp; Wang</b>	<b>Case Study Findings<sup>2</sup></b>
+/- 5%	N/S	15%
+/- 10%	30%	85%
+/- 15%	55%	100%
+/- 20%	70%	100%

**Comparative Findings For Valuation Accuracy**  
**Source: Author**

**Table 3**

As Table 3 indicates, the case study suggests a significantly greater level of accuracy than that found by Matysiak and Wang (1995) with 85% of valuations being within +/- 10% of market price. Though the small sample size is acknowledged, it is contended to be significant that such a high level of accuracy was observed in a case study comprising a rare example of simultaneous open market valuations and transactions which addressed many of the limitations and constraints of previous studies.

<sup>2</sup> By number of valuations with result rounded to nearest 5%.

Whilst a higher level of accuracy was observed than that found in other studies, only 15% of the valuations in the case study achieved the 5% threshold of acceptable valuation accuracy identified by the survey of Australian institutional property investors above.

Accordingly, 85% of valuations in the case study sample may be contended to exhibit a level of accuracy which is unacceptable to Australia's largest institutional property investors.

It is particularly interesting, therefore, that whilst the sample of Australian valuations reviewed exhibited a greater level of accuracy than those overseas valuations considered by other authors, such a level of accuracy was still unacceptable to a sample of prominent Australian users of valuation services.

## **SUMMARY AND IMPLICATIONS FOR THE LOCAL PROPERTY INDUSTRY**

A notable finding from the review of qualitative commentaries on valuation accuracy was the attitude of almost unquestioning acceptance that inaccuracy would exist, with a greater focus and debate on the extent of such inaccuracy and its acceptability from a professional negligence viewpoint rather than from that of the user of valuation services.

A significant body of quantitatively analytical literature suggests a high level of valuation accuracy, with only a relatively small body of recent literature questioning this view. Recent quantitative research overseas would suggest that not only might valuation inaccuracy be expected to exist but that it does exist and to a potentially significant degree.

Notably, however, the Australian case study found a higher level of valuation accuracy to be exhibited at the aggregate level than that found in recent overseas studies which lends support to the proposition that valuations are a good proxy for market prices. The findings further support the validity of the use of valuations as substitutes for sales and in property index construction, which provides further confidence in the operation of the property market and the future of the property industry.

Conversely, the Australian case study considered above suggests that, at the individual property level, the extent of valuation inaccuracy may be a far more serious issue than the composite portfolio statistics might suggest.

Further, even though the level of valuation accuracy found in the Australian case study sample exceeded that of recent overseas studies, it was still beyond the threshold of acceptable valuation accuracy identified from the survey of Australian institutional property investors.

It should be of particular concern to the valuation industry that users of valuation services are expecting a level of accuracy considerably above that currently being provided. Effectively, the current level of valuation inaccuracy would appear unsatisfactory to users and so provides academics, professional bodies and practitioners with a major challenge - how to improve the valuation process to produce valuations that are accurate to within 5% of market prices.

Such a challenge provides numerous areas for further research. Approaching valuation as an information processing activity, as suggested by Brown (1991), would appear likely to be a particularly worthwhile avenue for further research in itself as well as in association with other areas.

For example, as with other areas of commerce today, the combination of an information processing approach with behavioural analysis may result in existing approaches to valuation becoming irrelevant. Certain behavioural issues identified by Gallimore (1994) may be addressed by neural network applications, as advocated by James (1994), to replace existing approaches. Alternatively, the use of more explicit techniques and capital markets oriented methods (as advocated by Harvard (1995) and Baum and Crosby (1988)) may be effective contributors to an improvement in valuation accuracy.

To effectively analyse valuation inaccuracy, in an endeavour to assist practitioners and market participants to improve valuation accuracy, requires not only sustained further research but also an attitudinal change by valuers towards valuation accuracy. By refusing to accept the mediocrity of inaccuracy and seeking to mirror the market of the date of valuation, valuers could start to contribute to the gradual improvement in valuation accuracy.

The potential penalties for failing to address valuation inaccuracy are considerable such as diminution in the credibility of the valuer and the relevance of valuations together with damage to the operation of both the local property market and property indices.

The challenge of leading the charge towards an improvement in valuation accuracy for the benefit of all property market and property industry participants may, however, be contended to fall across academia, the professional bodies and practitioners. The identification of those changes necessary to effect an improvement in valuation accuracy, the creation of the professional infrastructure of education, training, guidance notes, practice standards and so forth necessary to give effect to such an improvement and a willingness to then adopt such changes in practice is a joint task for the respective parties that needs to be undertaken sooner rather than later.

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## **APPENDIX I**

### **Basis Of Valuation**

The assessment of value attributable to the property has been made pursuant to Regulation 7.12.15 (5) of the Corporations Law which requires that a valuation must be prepared on the basis of:

“The price at which the property might reasonably be expected to be sold as at the date of valuation assuming:

- (a) a willing, but not anxious, buyer and seller; and
- (b) a reasonable period within which to negotiate the sale, having regard to the nature and situation of the property and the state of the market for property of the same kind; and
- (c) that the property will be reasonably exposed to the market; and
- (d) that no account is taken of the value of or other advantages or benefit, additional to market value, to the buyer incidental to ownership of the property being valued; and
- (e) that the trust has sufficient resources to allow a reasonable period for the exposure of the property for sale; and
- (f) that the trust has sufficient resources to negotiate an agreement for the sale of the property.”

