ASPECTS OF THE DETERMINANTS OF THE CAPITALISATION RATE

- SOME CURRENT RESEARCH

DAVID RR PARKER

UNIVERSITY OF TECHNOLOGY
SYDNEY, AUSTRALIA

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DAVID RR PARKER
UNIVERSITY OF TECHNOLOGY, SYDNEY, AUSTRALIA

Abstract
The identification and assessment of the relative importance of the determinants of the capitalisation rate for prime CBD office investment property has received little direct attention by real estate researchers internationally to date. This paper builds on previous research by the author into the identification of determinants of the capitalisation rate through a comparison of the results of a practitioner survey taken in late 1991 to those of a survey taken in late 1992, with consideration given to the changes in the Australian economy and property market in the intervening period. It is found that a significant change in the relative importance of the identified determinants occurred during the course of the year, with the quality of the tenant replacing location as the most important determinant of the capitalisation rate for prime CBD office investment property in Sydney. A hierarchy of groupings of determinants is proposed with the conclusion that further research will be necessary for such a hierarchy to be confirmed, clarified and developed.

INTRODUCTION
The commercial property market in Australia shares much in common with those of other western economies. It exhibits such common features as high levels of oversupply manifest in double-digit vacancy rates, a prevalent use of incentives, declining effective rentals and tenants exerting pressure for change on traditional landlord-friendly lease clauses (Parker 1993). Such features are particularly evident in the prime CBD office sector of the major Australian cities.

Currently, the CBDs of Australias capital cities present a pessimistic picture for the property investor with the following vacancy rates prevailing:

Sydney	22.2%
Melbourne	26.5%
Brisbane	14.1%
Adelaide	18.0%
Canberra	3.9%
Perth	31.7%

Vacancy Rates - Prime CBD Office Accommodation - January, 1993
Source: BOMA

Table 1

Whilst leasing transactions are taking place, the level of effective rental achieved is regularly reported to be declining[1]. Coupled with this is an apparent decline in the capitalisation rate applied to prime CBD office investments when valued for the major Australian Listed Property Trusts over the last 27 months. Using Sydney and the prime CBD office assets of General Property Trust (GPT) and Schroders Property Fund (SPF) as examples, revaluations have shown the following trend in capitalisation rates:

PROPERTY	TRUST	VALUATION DATE	CAPITALISATION RATE ADOPTED
MLC Centre	GPT	12/90	5.50%
Australia Square	GPT	12/90	5.50%
State Bank Centre	SPF	3/91	5.75%
MLC Centre	GPT	6/91	5.75%
Australia Square	GPT	6/91	6.00%
State Bank Centre	SPF	3/92	6.50%

Sydney CBD Valuations

Table 2

The decline is apparent, rather than certain, as there have been no sales of prime office buildings in the Sydney CBD since March, 1990 when the sale of a half-share in the State Bank Centre could be devalued to show a capitalisation rate of 4.8%. Accordingly, there has been no sales evidence to support the use of progressively deteriorating capitalisation rates and the factors taken into account by valuers in determining such consecutively declining levels comprises the subject of this paper.

Significantly, GPT have now ceased to quote the valuers adopted capitalisation rate. For the December and June 1992 revaluations of Australia Square and MLC Centre, respectively, the GPT Annual Report explained the valuers approach as "15 year DCF at 12.5% using a terminal capitalisation rate of 7.5%"(Australia Square) and 6.5% (MLC Centre). It is interesting to conject whether this approach does, in fact, offer a greater or lesser degree of clarity to the analyst and investor as, arguably, to the valuer the statement is more contentious than a simple, single digit expression of the capitalisation rate. It remains to be seen how SPF reports the March 1993 revaluation for State Bank Centre.

As there is no evidence to support the use of 6.5% (though equally and conversely there is no evidence to refute it), how do valuers know that this is the correct rate? - rather than 6.25% or 6.75% or perhaps 6.4% or 6.6% ?. The authors PhD seeks to investigate, amongst other matters, the determinants of the capitalisation rate for prime CBD office buildings in Sydney and the methods adopted by valuers in their selection of the appropriate rate.

Following a preliminary literature review (Parker 1992) a list of the most commonly identified determinants of the capitalisation rate was collated. An initial practitioner survey was then undertaken in late 1991 with the results detailed in the same paper. An extended version of this practitioner survey was repeated in late 1992 with the results of this survey and a comparative analysis with the 1991 findings forming the subject of this paper.

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[1] Specific examples include the "Australian Financial Review" 14th July 1992 and 15th January 1993

CAPITAL MARKETS CHANGES - 1991/92

Whilst there was considerable activity in the retail investment sector of the Australian property market from late 1991 to late 1992, there was only limited activity in the commercial investment sector. Total non-residential sales for calendar 1992 were anecdotally estimated by Jones Lang Wootton to be approximately $3 billion with retail sales representing approximately $2 billion/66% and commercial $1 billion/33% by value. There were no sales of prime CBD office investments such that the property market data below are valuation based estimates only.

	9/90	9/91	9/92
Economic Data:			
(Source: ABS)			
Consumer Price Index	103.3	106.6	107.4
Inflation Rate	5.8%	3.2%	0.8%
Unemployment Rate	7.4%	10.2%	10.8%
Building Approvals (Nat'l Total)	10,548	12,071	13,220
Total Private New Cap Ex -			
Buildings & Structures Per Qtr	$2978m	$2235m	$2014m
Financial Markets Data:			
(Source: ABS)			
All Ords Index - Nominal	1327	1683	1417
10 Year Government Bond Rate	13.65%	10.30%	10.03%
90 Day Treasury Bill Rate	13.36%	9.46%	5.62%
Property Market Data - Sydney:			
(Source: JLW)			
Prime CBD Office Yield	5.5%	6.5%	7.5%
Range	6.25%	7.75%	8.75%
Prime CBD Office Rent			
Gross Face Rent - psm pa	$720	$715	$617
Effective Rent - psm pa	$589	$539	$446
Incentive - mths rent free	27	36	38
Prime CBD Vacancy Rate			
At December	9.5%	15.6%	22.2%
Capital Value Index			
Series 2	8422	6399	4225
Total Return Index			
Series 2	7259	5816	4052
Index Of Investor Sentiment - Nov	N/A	2.53	2.79
Bankruptcy Data:			
(Source: Attorney-Generals Dept)			
New South Wales - year to	2344	3482	4204

Capital Markets Comparative Data

Table 3

The trend in economic data is somewhat mixed for the economy as a whole, with little good news for commercial property. Inflation is coming under control and interest rates have fallen significantly though high unemployment is becoming a result of such changes. Whilst the national total of building approvals has been increasing, the positive aspects of this have been offset by a gradual decline in total private capital expenditure on buildings and structures.

Considerable volatility in the All Ords Index exemplifies the state of the equity market and the trends in long and short term interest rates show a change in the structure of the yield curve, which could have significant repercussions for the property market.

The property market data shows an average 1% per annum deterioration in capitalisation rates coupled with a significant fall in effective rents receivable by landlords as gross rents fall and the length of rent free periods rises. It is interesting that the composition of the effective rent moved between 1990-91 and 1991-2 from relatively static gross rent/increasing incentive to static incentive/decreasing gross rent. The combination of capitalisation rate and rental changes have been manifest in the Capital Value Index and Total Return Index which fell 24%/20% in 1990-91 and accelerated to falls of 34%/30% in 1991-92 respectively.

The JLW Index Of Investor Sentiment considers the views of a panel of investors on a variety of issues including the position of the national property market upon the property market cycle. The property market cycle comprises a peak of 6 and a trough of 3, with 1,2,4 and 5 being the descendant and ascendant curves of the cycle respectively. Accordingly, investors generally consider the market to have moved marginally nearer the bottom of the cycle over the year to November, 1992. Whilst this is consistent with other property market indicators, it is the only measure of the relative position of the declining market to its nadir.

Finally, there is a positive prospect from the New South Wales bankruptcy statistics as the rate of increase in bankruptcies is slowing from +49% in 1990-91 to only +21% in 1991-92. Subject to movements in the level of corporate insolvency, this would suggest a potentially greater likelihood of security and regularity of income for some property investors.

In summary, the property market would appear to have moved further towards the bottom of the cycle during 1991-92 with some indicators suggesting that an improvement in the economy may be manifest in the near future. There are, however, continuing problems such as unemployment levels which may dampen valuers views on the likely speed and strength of recovery. Given their concentration on the property market, volatility in the equities market, structural change occurring to the financial markets yield curve and conflicting economic indicators, it may be anticipated that valuers would remain very cautious or, maybe, even become more pessimistic about the capitalisation rate for prime CBD office property in Sydney. Whether or not the above cause a change in the order of importance to valuers of the determinants of the capitalisation rate will be a particularly interesting result of the practitioner survey.

THE DEFINITION OF VALUE

During 1991/92, the investment community and valuation profession in Australia were embroiled in a protracted debate over the definition of open market value. The standard, Australian text book definition came from the case of *Spencer*[2] and assumes a willing buyer and a willing seller. With the exception of one party not being specified as willing, this resembles the definition of the RICS Asset Valuation Standards Committee.

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[2] Spencer v The Commonwealth 5 CLR 418

Considerable debate has taken place within Australian professional journals culminating in a comprehensive article by the AIVLEs Federal President, Ray Westwood, in February 1993 (Westwood, 1993) which supported the principles of *Spencer* and promoted the TIAVSC definition of market value being:

> " ... the estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arms length transaction after proper marketing wherein the parties had each acted knowledgably, prudently and without compulsion." (Westwood, 1993)

This debate has run parallel to controversy over the findings contained within the Report Of The Property Economic Task Force which examined the role of valuers and the valuation process in the collapse of the Australian property market, concluding:

> "The valuer should be obliged to report both a market value, based on a sale close to the date of valuation and an investment value, which is a more clinical longer-looking assessment of future cash flows from the investment." (Woodhouse 1992)

The 'two value' findings of the Report were contrary to current thinking in Australia though not dissimilar to the contemporary thought in the UK that the intrinsic value of certain properties to certain investors may be greater than other participants in the market may be prepared to pay at a given time. Accordingly, a subsequent report by the Property Valuation Implementation Working Group (combining The Property Economic Task Force and the Australian Institute Of Valuers And Land Economists) ensued which concluded that open market value was the only relevant measure of value, with discounted cash flow approaches one method of determining open market value[3].

It is significant that a debate of this nature should attract so much attention, from both within and without the valuation profession. It is contended that this reflects two principle issues. Firstly, from without, the difficulty which the business community, as a whole, has with understanding the rationale of valuers and the concept of open market value when differentiated from a forced sale value. Secondly, from within, is a problem of valuers valuing CBD office property in a market characterised by no sales evidence and where the market becomes, effectively, the opinions of a group of valuers practising within that particular city. Given the quantum of funds invested in CBD office buildings and the effect on banks, other lenders, property trust unitholders and other investors of slight changes by valuers in the capitalisation rate (which can wipe millions off the value of a major office tower but for which there may be no sales evidence), it can be appreciated why the debate was so heated and protracted.

This debate concentrated attention on the methods adopted by valuers but did not focus on the vulnerability of the capitalisation rate. Given that the results of both the traditional capitalisation of income method of valuation and discounted cash flows (which require an assessment of value at the end of the cash flow, usually based on a capitalisation of then prevailing income levels) are significantly affected by changes in the capitalisation rate, the methods adopted in determining the appropriate capitalisation rate become critical issues.

Accordingly, whilst the debate was an interesting discourse on methodology, it unfortunately failed to address the whole issue of potential shortcomings and subjectivity arising from the assessment of the capitalisation rate.

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[3] "Australian Financial Review", 17th November 1992

DETERMINANTS OF THE CAPITALISATION RATE

The determinants of the capitalisation rate for prime CBD office investment property were ascertained through a literature review (referred to above) tempered by the authors experience as an institutional property investment operative and supplemented by original research through questionnaire responses. Such determinants may be briefly summarised as follows:

Special Characteristics Of Property As An Asset Class
: Such aspects of the property asset class as heterogeneity, indivisibility, decentralised market, etc as well as relative liquidity and marketability.

Economic Situation
: Macro and micro economic influences at international, Federal, State and local levels affecting investment property.

Alternative Investments
: The relative risk and return of alternative investment classes competing for investors funds.

State Of The Property Market
: The relative health of the market for all classes of property and for a specific sub-sector such as CBD offices.

Risk
: The relative risk of property compared to other asset classes.

Legal Environment
: Title, easements, environmental law problems, health and safety issues, etc.

Planning
: Town and country planning codes, zoning, plot ratios, etc.

Location
: Location, situation and position within the CBD.

Building
: Adequacy of services, finishes, reputation, etc.

Tenant
: Quality and strength of the tenant covenant and of the lease document, security and regularity of income, etc.

Growth
: Prospects of rental, capital and total return growth.

Sentiment
: General investment market sentiment, investor/valuer sentiment to property as an asset class, sentiment to sub-sectors of property, etc.

It is significant to note that such a comprehensive list of the determinants of the capitalisation rate as the above does not appear in the literature reviewed to date. Accordingly, this list of determinants is considered to be original research per se and the following a development of such research.

Such determinants have, however, been previously noted to be varied and numerous rather than similar and limited (Shepherd (1935) and Dubois (1953)). As may be anticipated, the distinction between particular determinants is not always clear. For example, Risk and Growth are particularly problematical to define and can be argued to overlap with other determinants such as Tenant and Location. Accordingly, whilst the determinants are capable of identification individually, their relative importance may be affected by inter-relationships with other determinants.

PRACTITIONER QUESTIONNAIRE

In order to ascertain the relative importance of the identified determinants to a valuer, in the assessment of the appropriate capitalisation rate for a prime CBD office property, a simple questionnaire was devised and a small survey conducted. The first survey was undertaken in late 1991 with a second survey of the same sample carried out in late 1992 for comparative purposes.

A sample of valuers was adopted on the premis that the approach adopted by valuers mirrors that adopted by investors and in recognition of the following:

- that there are relatively few major portfolio investors in the Australian property market and, of these, even fewer who specialise in commercial property;
- of those investors, their objectives and investment philosophies vary widely between groups. This may be likely to impact upon their respective approaches to the valuation of commercial investment properties which would serve to detract from a focus on the capitalisation rate;
- there are numerous valuers in Sydney who specialise in the valuation of CBD commercial investment property;
- valuers are experienced in valuing to a common concept of open market value which facilitates a closer focus on the determinants of the capitalisation rate rather than upon any other extraneous issues.

The survey sample comprised the heads of the seven largest valuation practises in Sydney on the basis that each practise would be likely to have a house style and, as such, to survey each head of department would achieve a similar response profile to that of surveying a larger number of subordinate valuers. Each head of valuation was anticipated to be an experienced valuer with high professional qualifications, extensive experience of valuing CBD office properties and responsibility for a sizeable staff of other valuers undertaking similar work.

The practitioner survey first sought to qualify the quality of the sample. The respondents surveyed represented a total staff of 65 registered valuers carrying out approximately 4,740 valuations of income producing property per annum. Between them, the respondents had valued the twelve largest office buildings in the Sydney CBD within the last year and with one such property having being valued four times and two others having being valued twice by different respondents. The experience of the respondents was deep with an average (by 1992) of 28 years each spent as a practising valuer and including three Fellows of the RICS, six Fellows of the Australian Institute Of Valuers And Land Economists and numerous past Presidents of the latter.

The results of the questionnaire therefore suggest that the use of a small sample of eminent valuers is a valid proxy for the use of a much larger sample of less experienced and qualified valuers. Given the depth of experience, the high level of qualification and the large number of CBD office investment properties regularly being valued by the respondents, their views and comments on the determinants of the capitalisation rate should be indicative of those of many of the practising valuers of office investment property in Sydney today. It is also arguable that the respondents views should be consistent with those of valuers practising in other similar markets internationally.

THE RELATIVE IMPORTANCE OF THE IDENTIFIED DETERMINANTS OF THE CAPITALISATION RATE FOR PRIME CBD OFFICE INVESTMENT PROPERTY

In the 1991 survey, each respondent was presented with the list of determinants given above and asked to rank them and add others considered relevant. The ranking adopted was Very Important, Important and Less Important to overcome the common view that all determinants were important with the acknowledgment that some were marginally more important than others. The 1992 survey adopted a ranking of 1 to 5 to reflect a scale from Least Important to Most Important respectively which provided a clearer insight into the respondents relative assessments, as will be discussed below.

The responses to each survey were scored in a similar manner with a simple 3,2,1 and 5,4,3,2,1 weighting from highest importance to lowest importance in the 1991 and 1992 surveys respectively. The following rankings emerged:

1991		**1992**	
1. Location		1. Tenant	
2. Tenant	]	2. State of the property	
Growth	] equal	market	
4. Building		3. Growth	
5. Risk	]	4. Risk	
State of the property	]	5. Location	
market	]	6. Building	
Economic situation	] equal	7. Legal	]
8. Legal		Alternative investment	]
9. Characteristics of	]	Economic situation	]
property as an asset	]	Sentiment	] equal
class	]	11. Characteristics of	
Sentiment	] equal	property as an asset	
11. Alternative investments		class	
12. Planning		12. Planning	

Comparative Order Of Importance Of Determinants 1991/92

Table 4

The number of significant changes in ranking between 1991 and 1992 was highly surprising. Perhaps the most unexpected change was that Location should have ceased to be the most important determinant, having fallen to fifth in terms of importance. Equally, the rise of Tenants from second equal most important determinant in 1991 to top in 1992 is a particularly poignant comment upon the current state of the prime commercial investment market in Sydney.

In the 1991 survey, the maximum score that could be attained was 21 and the minimum 7. It was notable that all determinants scored between 13 and 21 and over half of the determinants scored between 18 and 21. This reflected the difficulty respondents found in ranking the determinants, suggesting that the selection of the appropriate capitalisation rate is a process of mentally juggling a series of variables of almost identical importance. However, there was a clear order of ranking and some consistency between respondents such that the results of the survey were considered reliable.

In the 1992 survey, the maximum and minimum scores were 35 and 7 respectively such that a much wider spread of scores than occurred in 1991 may have been anticipated. All scores fell between 24 and 35 which is, in fact, a relatively narrower range than in 1991. This may reflect the wider choice of higher scores available or a change in respondents views of the level of relevance of the various determinants collectively, or a mixture of both. Interestingly, only four determinants (or one-third of the total sample) fell in the range of 30-35 (broadly equating to the 1991 range of 18-21) suggesting that if all determinants had become more important, a select few had become considerably more important than the others. The issue of grouping the determinants by emerging levels of importance is considered below. It is also interesting that, despite the greater range of available scores and the relatively large number of determinants scoring between 24 and 30, four determinants still achieved an equal score - albeit as seventh on the list. There was, however, considerable consistency between the rankings from the various respondents and so the results of the survey are again considered reliable.

The dramatic fall of Location from its traditionally expected role of most important determinant to that of fifth most important determinant was most surprising. Internationally adopted adages such as "Location, Location and Location" and the fundamental importance attached in valuation teaching to Location appear to have been overtaken by other issues in the current Sydney market. It may be possible that Location is of less significance in Sydney than in other cities due to the relative size of the CBD but this was not apparent in the 1991 survey. Accordingly, it would appear probable that the protracted economic downturn has focussed valuers attention more on the quality of the cash flow and the overall state of the market, its risk and growth prospects, than on Location, in assessing the appropriate capitalisation rate.

The security and regularity of the income stream (Tenant) was an important issue for valuers in 1991 and is even more so in 1992 - in fact, it is now the most important determinant of the capitalisation rate. With the increasing level of bankruptcy (referred to above), the greater attention being given by both investors and valuers to the ability of the tenant to pay occupancy costs is not surprising. That it has become the most important issue in the course of the last twelve months is both surprising and significant.

Growth prospects continue to be an important issue although the potential overlap of Growth and certain other determinants may give this factor an inflated level of importance. The rise in relative importance of the State Of The Market and Risk as determinants (to second and fourth respectively in 1992 from fifth equal in 1991) is interesting as valuers would appear to be increasingly concerned with the protracted economic downturn and security of the income stream. The paucity of leasing activity, absence of sales and concern over security of cash flow, the rate at which rents may fall and the amount of diminution in capital values still to be potentially experienced by the market would appear to be particularly concerning valuers who have now been deprived of the objective yardstick of comparable evidence for an extended period.

All of the remaining determinants, except one, scored between 25 and 29 and exhibit ideally the difficulty valuers appeared to experience in ranking such factors as Building, Legal Environment, Alternative Investments, Economic Situation, Sentiment and Characteristics of Property As An Asset Class. It is suggested that each of these factors are important to a valuer in distilling a capitalisation rate for a prime CBD office property but none are significantly more important than the others. It is interesting that the Characteristics of Property As An Asset Class fell in importance from ninth equal to next to last suggesting that, perhaps, this is something of a "given" determinant for property investments. The slight fall of one place in importance of Economic Situation may be of reduced significance if valuers are reflecting the length of the economic downturn in other determinants such as State Of The Property Market, Risk and Growth. The rise in importance of Alternative Investments from eleventh place in 1991 to seventh equal in 1992 is a promising indication that valuers may be having greater regard to property relative to the other capital markets - rather than valuing in splendid isolation of the relative level of activity in the equities, bonds and money markets.

Planning has now succeeded in being the least important of the listed determinants for two years running, suggesting that valuers consider it to be something of a "given" to be checked but otherwise of little significance. This is not particularly surprising as there are relatively few potential planning changes that could adversely affect existing CBD commercial property compared to the planning related problems that could affect development sites, suburban retail or other classes of property investment. Furthermore, the fact that all respondents practise in the CBD and the subject properties are CBD offices would mean that respondents would have an intimate knowledge of the existing planning ordinances and of any proposed or imminent changes which may reduce the level of importance they consciously attribute to planning in their deliberations.

AN ALTERNATIVE APPROACH TO RANKING THE IDENTIFIED DETERMINANTS

Given that the 1992 survey adopted a range of 5 categories of importance compared to the range of 3 adopted in 1991, direct comparability of results is prevented. Accordingly, the scores of the respective determinants were recalculated on the assumption that there were only 3 categories in 1992 and that responses in each of the in between categories of the range of 5 were upgraded to the next highest level of importance. The comparative results were as follows:

1992 - Scored Out Of 5	**1992 - Scored Out Of 3**
1. Tenant	1. Tenant]
2. State of the property market	State of the property market]
3. Growth	Risk] equal
4. Risk	4. Growth]
5. Location	Economic situation] equal
6. Building	6. Legal]
7. Legal]	Location]
Alternative investment]	Sentiment] equal
Economic situation]	9. Building]
Sentiment] equal	Alternative investment] equal
11. Characteristics of property as an asset class	11. Characteristics of property as an asset class]
12. Planning	Planning] equal

Reassessed Comparative Order Of Importance Of Determinants 1991/92

Table 5

It is particularly notable that the four determinants which rose clearly to the highest level of importance in 1992 continue to do so under both approaches to scoring, with only Growth and Risk changing places. Similarly, the relative positions of Planning and Characteristics Of Property As An Asset Class as last and penultimate determinants in terms of importance are unchanged under both systems of scoring.

Whilst the factors sandwiched between fifth and tenth on the list are the same for both systems of scoring, the order of importance of the six factors does vary. Of particular interest is the further fall in importance of Location and the Building itself as determinants (a move which is the opposite of traditional thinking for both determinants) and the rise in importance of Legal Environment and Sentiment. The regrettable return of Alternative Investments to a position of low importance as a determinant does not support the suggestion, above, that valuers were perhaps having greater regard to other aspects of the capital markets in their assessment of capitalisation rates.

A reassessment on a 3,2,1 score significantly diminishes the clarity of the levels of relative importance, with all determinants falling into "equal" groups rather than being isolated. It is, however, worthy of note that on both scoring systems for the 1992 survey there is a broad consistency in the ranking of the determinants across the spectrum, the relativity of which offers an interesting comparison with the results of the 1991 survey.

CONCLUSIONS

The results of the 1992 survey suggest a significant shift in the relative importance to valuers of the determinants of the capitalisation rate for prime CBD office investment property in Sydney. The increasing attention given to the State Of The Property Market and the position of Tenant, as the most important determinant, indicates the direction and extent of change in valuers views. Security and regularity of income are currently of paramount importance to valuers given an economic recession of unknown longevity and a property market where the distance to go before reaching the bottom is still not clear.

The rise in importance of Growth and Risk indicate two principal issues. Firstly, valuers (and therefore, probably investors) are increasingly concerned with the likelihood of capital and rental growth from CBD office investments and with the security of both the income stream and the current capital value of the property. A diminution in the income stream or further fall in the market will be manifest in an increase in Risk, decrease in Growth, greater attention still to the Tenant and concern over the State Of The Property Market. In this respect, the four determinants can be argued to be closely inter-related.

Secondly, Growth and Risk are both terms to which it is difficult to attribute universally acceptable definitions. As such, it is possible that some respondents interpreted both terms widely and so incorporated in their assessment of relative importance certain issues which may otherwise have been included in alternative determinants. This would have the effect of increasing the importance of Growth and Risk and decreasing the relative importance of the other determinants. It is arguable that certain of the other determinants may be considered as sub-determinants of Growth or Risk and this aspect is worthy of further attention in future research.

The proximity of the scores attributed to the various determinants reinforces the concept of 'mental juggling' which was concluded from the 1991 survey. It would appear that valuers do not consciously attribute specific weightings to each determinant in the valuation process but collectively consider all simultaneously and then distil a single digit capitalisation rate after juggling all the issues in their minds. This raises interesting issues concerning the respective levels of art and science in the valuation process.

Having now completed the survey twice, there is an interesting pattern emerging in the relative importance of the determinants. Three groups of determinants appear to be forming which may be described as follows:

Primary Determinants
Those determinants which comprised the top five in the 1992 survey and placed within the top six in the 1991 survey. These determinants had scores which were clearly distinguishable from the remaining determinants, maintaining an apparently consistent level of importance to valuers above that of other determinants:

Tenant
Growth
Risk
State Of The Property Market
Location

Secondary Determinants
Those which have fallen between the Primary Determinants and the Tertiary Determinants in both years, but for which the order of importance within the group can vary:

Building
Economic Situation
Legal
Characteristics Of Property As An Asset Class
Sentiment
Alternative Investments

It is arguable that Building and Economic Situation should be classified as Primary Determinants and that Alternative Investments should be classified as a Tertiary Determinant. Further surveys in future years may help to clarify this issue.

Tertiary Determinants
That determinant which has consistently been ranked of the least importance:

Planning

It is arguable that such determinants are effectively taken "as read" and, as such, could probably be deleted from the list of determinants without adversely affecting the validity of the research exercise.

It is particularly interesting to see such a pattern emerging amongst the identified determinants and without any respondents adding further determinants to the list. Whilst both the 1991 and 1992 surveys were undertaken in a recessionary property market and are relevant only for the given market at that point in time, the changes in the relative importance of the determinants are significant. Further research will serve to ascertain if the relative importance changes during a prolonged recession and in what way the relative importance varies as the market moves back into an expansionary phase. Such a longer time series of data will also be useful for investigating the links between movements in economic indicators and sentiment and the changes made by valuers to the capitalisation rate adopted through markets characterised by both a lack of and plentiful sales evidence.

The collation of such data for different sectors of the property market over time could form the basis for the construction of highly useful predictive models. Whilst such research is presently underway for commercial property, it will be a considerable period before any meaningful results are available for publication. However, the gradual identification and quantification of the relative importance of those factors influencing the capitalisation rate will be a worthwhile addition to the body of knowledge in valuation and land economy in the interim.

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