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PROPERTY RESEARCH PRIORITIES IN AUSTRALIA

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INTRODUCTION

With property research taking on increased importance in Australian universities, the establishment of the Property Research Council of Australia (PRCA) is a major initiative between the Property Council of Australia (PCA) and PRRES to facilitate the interaction between university property researchers and the property industry. Part of the role of the PRCA is to identify property research priorities that would enhance this interaction.

While general property research areas have been identified for Australian academics (Jaffe, 1998; Lusht, 1993; Webb, 1997), the identification of equivalent property research topics that would benefit the Australian institutional property investment area has been limited. Only Harrington (1998), Parker (2001), and Steinert and Crowe (2001) have attempted to articulate these property research topics, which have included property performance analysis, international property investment, property forecasting and debt financing.

In the USA, the relationship between academic and property industry research has been more fully assessed (Souza, 2000), with future capital market research needs identified (Winograd, 1999). To more fully assess the property research directions and priorities for USA institutional investors, extensive industry surveys have been conducted in 1992 (Ziering and Worzala, 1997) and 1999-2000 (Worzala et al, 2000, 2001), with this USA research funded by the Pension Real Estate Association (PREA).

The fuller identification of institutional property research priorities in Australia has not been available. As such, the purpose of this paper is to present the results of a major property industry survey conducted in 2001 to examine the property research priorities amongst Australian institutional property investors. A comparison of equivalent property research priorities in the USA is also evaluated. Identification of these property research priorities will enable the more effective development of a property research agenda amongst property researchers in PRRES and the Australian institutional property industry.

METHODOLOGY

Survey

A questionnaire including:

- 12 general property research topics
- 28 specific property research topics

was developed, comparable to the Worzala et al (2001) survey. Participants were asked to assess how important each property research topic was to institutional investors in Australia. All questions were scored on a 5-point rating scale, ranging from 1 = not important to 5 = vitally important.

This survey was distributed in October 2001 to senior property industry participants. Contact details for survey participants were obtained from Property Investment

Research (2000), as well as the PCA membership list and PRRES membership list. 96 completed surveys were returned, giving a survey response rate of 64.9%. Survey respondents comprised:

- institutional property investors: 61.4% (n = 59)
- property consultants/analysts: 24.0% (n=23)
- property academics: 14.6% (n=14).

Statistical analysis

Average ratings for each of the 40 questions were assessed for the total sample, as well as for the three sub-groups. Rank correlations were used to assess the overall performance of these sub-groups, as well as comparisons made with the previous 1992 and 2000 USA results in Ziering and Worzala (1997) and Worzala et al (2001).

To assess the underlying property research "dimensions" in the twelve general property research topics and the twenty eight specific property research topics, factor analysis (Everitt and Dunn, 2001) was used. This was done for the overall group and for the three sub-groups.

GENERAL PROPERTY RESEARCH PRIORITIES

Analysis of general property research priorities

Table 1 presents the average scores and respective ranks for the twelve general property research topics for the overall respondents, as well as for the sub-groups of institutional property investors, property consultants/analysts and property academics.

Key aspects in the analysis are:

(i) "the role of property in a mixed-asset portfolio" was clearly the top priority, followed by " property and portfolio risk management", "performance measures in property" and "diversification within portfolios"

(ii) "the role of property in a mixed-asset portfolio" was also clearly seen as the top priority by institutions and consultants/analysts, with "performance measures in property" seen as the top priority by academics

(iii) each of the these sub-groups rated these four topics as their top four priorities, with only marginal differences in rank order

(iv) academics (average score of 3.95) rated these general property research topics more highly than consultants/analysts (3.74) and institutions (3.70)

(v) the general property research priorities were highly correlated for the three sub-groups, with rank correlations ranging from 0.89-0.93 (see Table 2: panel A)

(vi) "the role of international property in a portfolio" and "technological changes affecting property" were seen as the lowest priorities.

General property research priorities: Australia versus USA

The equivalent USA survey conducted in 2000 by Worzala et al (2001) obtained the following rank order for the general property research topics:

1. Performance measurement of property
2. Microeconomic factors affecting property
3. Role of property in mixed-asset portfolios
4. Demographic changes affecting property
5. Diversification within property portfolios
6. Technological factors affecting property
7. Property and portfolio risk management
8. Property investment strategies
9. Macroeconomic factors affecting property
10. Publicly traded property investments
11. International property in a portfolio
12. Regulatory changes affecting property,

with the major difference between the two surveys being the higher priority given to "microeconomic factors affecting property" and "demographic changes affecting property" in the USA 2000 survey.

As shown in Table 2: panel B, the Australian survey results were not highly correlated with the USA 2000 survey results (rank correlation = 0.31), but were more highly correlated (rank correlation = 0.77) with the equivalent USA survey results conducted in 1992 by Ziering and Worzala (1997). This time-delayed closer alignment of the Australian survey results with the USA 1992 survey results rather than with the USA 2000 survey results is an indication of the more significant stature, maturity and importance given to property research in the USA institutions.

Identifying underlying "dimensions" in general property research priorities

Table 3 indicates the factor analysis dimensions for the general property research priorities. From the twelve topics, four factors were identified, accounting for 61.2% of the total variation. These four main factors were:

- strategic property issues (26.2%)
- changing property environment (14.9%)
- economic environment (10.3%)
- role of property in portfolio (9.7%),

with equivalent factor analyses for institutions, consultants/analysts and academics accounting for 69.1%, 74.7% and 73.0% respectively of the total variation, as well as identifying similar property factors (see Table 3). These factors clearly reflect key property research aspects relating to general property research.

SPECIFIC PROPERTY RESEARCH PRIORITIES

Analysis of specific property research priorities

Table 4 presents the average scores and respective ranks for the 28 specific property research topics for the overall respondents, as well as for the sub-groups of institutions, consultants/analysts and academics.

Key aspects in the analysis are:

(i) the top five priorities were:

1. Impact of capital flows in and out of property markets
2. Role of indirect property in mixed-asset portfolios
3. LPTs as a proxy for direct property investment
4. Diversification within a mixed-asset portfolio
5. Forecasting methodologies

(ii) the top specific property research priority by institutions and consultants/analysts of "impact of capital flows in and out of property markets" was seen as a much lower priority (11/28) by academics

(iii) more variation in these priorities occurred amongst the three sub-groups than for the general property research priorities; however, rank correlations between the three sub-groups were still high; in the range of 0.69-0.78 (see Table 5)

(iv) academics (average score of 3.55) rated these specific property research topics more highly than consultants/analysts (3.51) and institutions (3.29)

(v) specific property research priorities (average score of 3.38) were lower than seen previously for the general property research priorities (average score of 3.75).

Specific property research priorities: Australia versus USA

The equivalent USA survey conducted in 2000 by Worzala et al (2001) obtained the following top 5 specific property research priorities:

1. Impact of capital flows in and out property markets
2. Property sales and exit strategies
3. Effect of asset management fees on portfolio performance
4. Existence and predictability of property market cycles
5. Diversification: economic Vs geographic Vs property type.

While both the Australian survey and USA 2000 survey saw "impact of capital flows in and out of the property markets" as the top priority specific property research topic, the remaining topics in either list did not correspond . The main difference between these two surveys was the higher priority given to LPT research (priority 2 and 3) in

Australia, compared to the lower priority given to REITs research in the USA (priority 22 and 23). This mismatch is more fully reflected in the low correlation between these two surveyed groups (rank correlation = 0.12). Equivalent results to compare with the USA 1992 survey are not available, as specific property research topics were not directly assessed in Ziering and Worzala (1997).

Identifying underlying "dimensions" in specific property research priorities

Table 6 indicates the factor analysis dimensions for the specific property research priorities. From the 28 topics, nine factors were identified, accounting for 69.9% of the total variation. The three main factors were:

- Changing property environment (26.2%)
- Diversification in portfolio (8.9%)
- Specific market dynamics (6.7%),

with the equivalent factor analysis for institutions identifying nine factors accounting for 72.3% of the total variation. These factors closely reflect key property research aspects relating to specific property research.

GENERAL COMMENTS

Table 7 presents a summary of the general comments by survey respondents relating to other property research issues and property research topics. Key aspects are:

(i) perceived lesser significance of property research relative to research in the other asset classes (eg: shares)

(ii) role of property research enhancing stature of property as an asset class

(iii) need for research into:
- size of property "universe"
- new property vehicles (eg: syndicates, debt instruments).

PROPERTY RESEARCH IMPLICATIONS

This survey has clearly identified the general and specific property research priorities for institutional investors in Australia. Many of these property research topics are also top priorities in the USA and UK, as reflected in equivalent surveys (USA) and trends in property research journals (USA and UK).

The clearer articulation of this property research agenda in Australia has identified the priority areas for future property research; particularly in developing the interaction between PRRES and the property industry via PRCA. The flow-on effects into applied property research publications (via PRPRJ etc) and expanded research funding (via ARC Linkage Projects) is expected to be significant.

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Table 1: Analysis of general property research priorities

General property research topic	Total		Institutions		Consultants/Analysts		Academics	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
The role of property in a mixed asset portfolio	4.22	1	4.14	1	4.30	1	4.43	2
Property and portfolio risk management	4.08	2	4.02	2	4.17	2	4.21	4
Performance measures in property	4.05	3	4.00	3	3.87	4	4.57	1
Diversification within property portfolios	3.95	4	3.83	4	4.04	3	4.29	3
Macroeconomic factors affecting property	3.87	5	3.80	6	3.83	5	4.21	4
Property investment strategies	3.85	6	3.83	4	3.83	5	4.00	6
Indirect property investment vehicles	3.72	7	3.69	7	3.72	8	3.86	7
Microeconomic factors affecting property	3.61	8	3.53	8	3.74	7	3.77	8
Regulatory changes affecting property	3.48	9	3.51	9	3.35	10	3.57	9
Demographic changes affecting property	3.43	10	3.46	10	3.26	12	3.57	9
Role of international property in a portfolio	3.42	11	3.36	11	3.48	9	3.57	9
Technological changes affecting property	3.29	12	3.25	12	3.35	10	3.36	12
Overall average score	**3.75**		**3.70**		**3.74**		**3.95**	

Table 2: Rank correlation analysis: general property research priorities

Panel A: Sub-group comparison

	Institutions	Consultants/ Analysts	Academics
Institutions	1.00		
Consultants/ Analysts	0.93	1.00	
Academics	0.92	0.89	1.00

Panel B: Australia/USA comparison

	Australia 2001	USA 1992	USA 2000
Australia 2001	1.00		
USA 1992	0.77	1.00	
USA 2000	0.31	0.58	1.00

Table 3: Factor analysis: general property research priorities

Total: 4 factors accounting for 61.2% of variation

Factor 1: Strategic property issues (26.2%)
Factor 2: Changing property environment (14.9%)
Factor 3: Economic environment (10.3%)
Factor 4: Role of property in portfolio (9.7%)

Institutions: 5 factors accounting for 69.1% of variation

Factor 1: Changing property environment (22.8%)
Factor 2: Role of indirect property in property portfolio (14.9%)
Factor 3: Role of property in portfolio (12.5%)
Factor 4: Property strategy in broader economy (10.3%)
Factor 5: Economic environment (8.6%)

Consultants/Analysts: 4 factors accounting for 74.7% of variation

Factor 1: Property strategy in broader economy (42.4%)
Factor 2: Role of indirect property in property portfolio (13.1%)
Factor 3: Risk management and property (10.8%)
Factor 4: Impact of technology on property in portfolio (8.4%)

Academics: 4 factors accounting for 73.0% of variation

Factor 1: Role of property in portfolio (26.1%)
Factor 2: Property strategy in broader economy (19.3%)
Factor 3: Changing property environment (14.9%)
Factor 4: Economic environment (12.7%)

Table 4: Analysis of specific property research priorities

Specific property research topic	Total		Institutions		Consultants/Analysts		Academics	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Impact of capital flows in and out of property markets	3.90	1	3.83	1	4.22	1	3.64	11
Role of indirect property in mixed-asset portfolio	3.82	2	3.83	2	3.65	11	4.07	1
LPTs as a proxy for direct property investment	3.80	3	3.75	4	3.87	5	3.86	3
Diversification within a mixed-asset portfolio	3.79	4	3.77	3	3.83	7	3.84	5
Forecasting methodologies for markets, rents, returns	3.72	5	3.59	6	4.00	2	3.79	6
Diversification within a property portfolio	3.71	6	3.64	5	3.72	9	4.00	2
Existence and predictability of property cycles	3.71	7	3.58	7	4.00	2	3.79	6
Taxation factors affecting property	3.61	8	3.56	8	3.65	11	3.71	10
Property liquidity compared to other assets classes	3.59	9	3.47	9	3.87	5	3.64	11
Passive versus active investment strategies	3.55	10	3.34	14	3.96	4	3.75	9
Property disposal and exit strategies	3.51	11	3.41	10	3.74	8	3.57	15
Effect of country/currency risk on international property investment	3.44	12	3.31	16	3.70	10	3.57	15
Economic versus geographic versus property-type diversification	3.42	13	3.25	18	3.57	14	3.86	3
Effect of management fees on portfolio performance	3.41	14	3.36	11	3.30	20	3.79	6

Specific property research topic	Total		Institutions		Consultants/Analysts		Academics	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Supply side constraints	3.41	14	3.36	13	3.48	17	3.50	18
Effect of aging population on property investment	3.41	14	3.34	14	3.57	14	3.43	20
Effect of valuation practices on individual property returns	3.33	17	3.25	18	3.35	18	3.64	11
Impact of valuation lags and biases on property indices	3.32	18	3.27	17	3.26	22	3.64	11
Effects of structural changes in employment demand on property investm't	3.31	19	3.14	20	3.61	13	3.57	15
Open-end versus close-end property funds	3.29	20	3.36	12	3.17	23	3.16	25
Individual property-type market studies	3.17	21	3.00	22	3.57	14	3.21	24
Property's market cap. compared to other asset classes	3.13	22	2.98	23	3.27	21	3.50	18
Property investment in primary versus secondary markets	3.08	23	3.02	21	3.09	25	3.36	21
Foreign investment restrictions	2.97	24	2.75	26	3.35	18	3.29	22
Effects of changing household structure on property investment	2.93	25	2.81	25	3.00	26	3.29	22
Effect of e-commerce on property demand	2.83	26	2.64	28	3.17	23	3.07	26
Environmental regulations for contaminated land	2.81	27	2.88	24	2.57	28	2.93	28
Effect of immigration patterns on property investment	2.77	28	2.66	27	2.87	27	3.07	26
Overall average score	**3.38**		**3.29**		**3.51**		**3.55**	

Table 5: Rank correlation analysis: specific property research priorities

	Institutions	Consultants/ Analysts	Academics
Institutions	1.00		
Consultants/ Analysts	0.78	1.00	
Academics	0.77	0.69	1.00

Table 6: Factor analysis: specific property research priorities*

Total: 9 factors accounting for 69.9% of variation

Factor 1: Changing property environment (26.2%)

Factor 2: Diversification in portfolio (8.9%)

Factor 3: Specific market dynamics (eg: supply, cycles, forecasts) (6.7%)

Factor 4: International property investment (6.0%)

Factor 5: Valuation reliability/accuracy (5.9%)

Factor 6: Capital flows/liquidity (4.3%)

Factor 7: Property disposal/exit strategy (4.1%)

Factors 8 and 9: Not readily interpretable (both 3.8%)

Institutions: 9 factors accounting for 72.3% of variation

*: separate factor analysis for consultants/analysts and academics is not possible as there were not enough responses for analysis of 28 questions via factor analysis

Table 7: General comments regarding property research from respondents

Property research issues

- Research should not replicate commercial research houses
- More research is needed to enhance stature of property as an asset class
- Property research has lesser profile and importance in institutions as it is "lesser" asset class, accounting for only 5% of portfolio
- Property research is tool to assist judgement, but good overall standard
- Research needs practical focus
- Need for better models re: supply/demand

Property research topics

- Assessment of structured finance vehicles; particularly debt instruments
- Better measures of property risk
- Size of property "universe"
- Property syndication
- Risk exposure to international property
- Property portfolio performance: individual asset to portfolio level
- Long-term property versus share expected returns
- Importance of mix of listed and direct property in diversified portfolio