ANALYSIS OF PROPERTY TRUST PERFORMANCE ISSUES

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INTRODUCTION

Listed property trusts have been the most successful indirect property vehicle in Australia over the last 10 years. This has seen property trusts having over $18 billion in assets in 1997, having increased significantly from only $2.6 billion in 1986. With over 50 property trusts including over 500 major commercial properties in their portfolios, the property trust sector accounts for over 4% of the total Australian stock market capitalisation. Projections are for the property trust sector to exceed $30 billion by 2000.

Property trusts have taken on increased significance in the last few years, currently accounting for approximately 50% of institutional property exposure compared to only 10% in 1985. Figure 1 gives details of this changing weighting to direct and indirect property by institutional investors over 1987-97 (Jones Lang Wootton, 1997). The current institutional strategy is to utilise property trusts to balance or fine-tune property portfolios, thus enabling responsive institutional portfolio adjustments for strategic asset allocation.

The equivalent investment vehicles in the USA are Real Estate Investment Trusts (REITs), with REITs having received considerable research interest in recent years (Corgel et al, 1995). This research has covered a wide range of areas including:

* **investment issues**
  - nature of REITs: property or shares
  - asset acquisition and disposition
  - corporate restructuring/management
  - information/predictability

* **financing issues**
  - dividend policy
  - capital structure
  - agency costs
  - IPOs
  - capital budgeting

* **performance issues**
    - returns/historic analysis
    - risk and diversification
    - inflation hedging,

with over 100 papers published on REITs.

The only substantive published empirical research on property trusts in Australia are Newell and MacFarlane (1996), and Wilson and Okunev (1996). As such, an excellent opportunity exists to build upon the available USA REIT research to examine key strategic investment issues concerning property trusts in Australia.

The objectives of this paper are:

(i) to examine the potential investment opportunities resulting from property trust trading anomalies over 1992-96; including size effects and specific month effects.

(ii) to examine the linkages between property trusts, direct property and sector-specific stock market performance over 1992-96 for the office and retail market sectors.

DATA SOURCES

Property and financial series

Individual property trusts (13) considered in this study were:

* **large property trusts** (4) (>$750M): Westfield, General Property Trust, Stockland, Schroders

* **medium property trusts** (5) (>$300M): Advance, National Mutual, BZW-Mirvac, Capital, Bankers Trust

* **small property trusts** (4) (<$300M): Armstrong Jones Retail, Centro, Colonial Retail, Capcount,

with Table 1 presenting the individual property trust market capitalisations at June 1996. These property trusts were selected as being available over full period of this study.

For comparative purposes, the following property and financial series were also considered:

*** Listed property trusts**

- ASX listed property trust index
- SBC-Warburg office property trust index
- SBC-Warburg retail property trust index
- SBC-Warburg diversified property trust index

*** Direct property (Property Council of Australia)**

- PCA office property index
- PCA retail property index
- PCA composite property index

*** Shares**

- ASX All Ordinaries index
- ASX retail index
- ASX bank and finance index
- ASX investment and financial services index
- ASX insurance index

In particular, the availability of the SBC-Warburg office, retail, diversified and property leaders property trust series (from 1992) have enabled more detailed property trust sub-sector analyses to now be performed. Subsequent SBC-Warburg property trust series are also available for industrial (from 1993), casino and gaming (from 1995), hotels and resorts (from 1995) and diversified leisure property trusts (from 1995).

Analyses were performed monthly over June 1992 - June 1996 using the above price series. Analyses involving direct property were performed six-monthly (Property Council of Australia, 1997).

RESULTS AND DISCUSSION

Property trust trading anomalies

Stockmarket trading anomalies such as the "January" effect and "small firm" effect are widely documented in the finance literature (eg Keim, 1983). A range of factors including trading activity, transaction costs, analyst's attention, differential information, tax-loss sell-off and seasonal information have been suggested as possible causes of these stockmarket trading anomalies.

For REITs, both size effects and January effects have been observed. Colwell and Park (1990) examined 61 REITs over 1964-86 and found average REIT returns higher in January than in other months, with these higher returns not evident for larger REITs. This size-related seasonality effect was confirmed by Liu and Mei (1992). McIntosh et al (1991) found that small REITs provided greater returns without greater risk over 1974-88.

Table 2 presents the risk-adjusted performance analysis for the 13 individual property trusts (categorised as small, medium and large property trusts) and the property trust sector/sub-sectors over 1992-96. Whilst the performance of property trusts was not strong over this period, the small and medium property trusts provided better risk-adjusted returns than the larger property trusts over this period. To assess the overall size effect, the average group risk-adjusted ranks were 9.0, 6.4 and 5.6 for large, medium and small property trusts respectively. This generally confirms the "small firm" effect, with small property trusts providing greater returns without greater risk over this period.

To assess for seasonality effects, average monthly returns (January to December) and risks were determined. Table 4 presents this monthly analysis for each of the 13 individual property trusts. In general, average property trust returns were higher in July than in other months, with this occurring for 5 of the 13 individual trusts, and July being second highest for a further 4 property trusts. No evidence of size-related seasonality was found. This is likely to be attributable to access to seasonal information, given the financial reporting system used in Australia. The reporting period of 1992-96 generally representing only one phase of the property cycle (i.e. depressed market) limits the overall conclusiveness of this result.

Linkages

Examining the linkages between direct property, indirect property and the respective stockmarket sector has generated considerable research interest in recent years. For example, linkages between indirect property and the stockmarket sector include:

* REITs and general stockmarket (Eicholtz and Hartzell, 1996; Gyourko and Keim, 1992; Wilson and Okunev, 1996)

* equity REITs and common stocks (Myer and Webb, 1993)

* retail REITs and retail stocks (Myer and Webb, 1994)

* healthcare REITs and healthcare stocks (Terris and Myer, 1995),

while linkages between direct and indirect property include Barkham and Geltner, 1995; Eicholtz and Hartzell, 1996; Gyourko and Keim, 1992; Liang et al, 1996; Myer and Webb, 1993, 1994; Newell and Chau, 1996; Newell and MacFarlane, 1996.

To examine the linkages between property trusts and the equivalent financial sector, Table 6 presents the various lead/lag correlations for office (3) and retail (1) property trusts. In each case, the relationship is contemporaneous, with correlations of .23 to .41. No lead/lag relationships were evident for either the office or retail sectors.

Table 6 presents the linkages between direct property (i.e. office, retail) and the respective property trust sector over 1992-96. In each case, the respective correlations were low; namely office (r = .17) and retail (r = -.15), with the respective property trust sectors more closely aligned to the stockmarket (r = .41 to .86). This further reinforces the view that property trusts are more reflective of stockmarket performance than direct property performance, with direct property returns "embedded" in property trust returns (Corgel et al, 1995).

CONCLUSION

This paper has examined a range of property trust performance issues over 1992-96. The short history of a breadth and depth of property trusts in Australia and the low frequency of reporting Australian direct property performance (i.e. 6-monthly) are limitations to the rigour and depth of analysis currently available. Continued development of the property trust sector will see expanded and more sophisticated research into property trust performance issues that are important to a clearer understanding of the dynamics of this property investment sector.

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Figure 1: Institutional investor weightings to direct and indirect property: 1987-97

Table 1: Property trust market capitalisation: June 1996

Property trust	Market capitalisation ($M)
Large property trusts (4)	
Westfield	2450
General Property Trust	1575
Stockland	925
Schroders	770
Medium property trusts (5)	
National Mutual	417
Advance	410
Capital	376
BZW-Mirvac	361
Bankers Trust	300
Small property trusts (4)	
Centro	243
Colonial Retail	215
Capcount	205
Armstrong Jones Retail	189

Table 2: Property trust performance analysis: 1992-96

Investment type	Average annual return (%)	Risk (%)	Sharpe index	Risk-adjusted rank
Large PTs				
Westfield	1.8	13.72	-0.33	7
GPT	0.2	12.49	-0.49	12
Stockland	2.3	12.06	-0.34	8
Schroders	1.0	15.47	-0.35	9
Medium PTs				
Advance	8.0	16.41	0.10	1
National Mutual	4.9	17.10	-0.09	3
BZW-Mirvac	0.8	18.72	-0.30	5
Capital	-2.6	11.39	-0.79	13
Bankers Trust	0.8	12.72	-0.44	10
Small PTs				
AJ Retail	4.4	16.47	-0.12	4
Centro	-1.1	16.77	-0.44	11
Colonial Retail	6.8	18.01	0.02	2
Capcount	2.3	12.43	-0.33	6
Listed PTs				
ASX LPT	1.8	9.36	-0.49	
SBC-W Office	2.1	7.90	-0.54	
SBC-W Retail	0.2	11.79	-0.52	
SBC-W Diversified	1.8	9.79	-0.47	
Shares				
All Ordinaries	8.2	14.15	0.13	

Table 3: Property trust correlation matrix: 1992-96

	WFT	GPT	SGP	SCH	APF	NMP	BZW	CPL	BTP	AJR	CEP	CMF	CPY	LPT	SBCO	SBCR	SBCD	ALLO
WFT	1.00																	
GPT	.58	1.00																
SGP	.60	.65	1.00															
SCH	.63	.55	.66	1.00														
APF	.41	.41	.47	.35	1.00													
NMP	.45	.27	.30	.41	.31	1.00												
BZW	.47	.32	.45	.45	.32	.46	1.00											
CPL	.68	.61	.44	.53	.30	.34	.53	1.00										
BTP	.53	.45	.36	.50	.43	.44	.41	.40	1.00									
AJR	.40	.33	.47	.45	.42	.37	.09	.22	.45	1.00								
CEP	.42	.50	.57	.48	.27	.50	.33	.46	.34	.50	1.00							
CMF	.50	.29	.32	.41	.11	.33	.33	.47	.34	.19	.37	1.00						
CPY	.31	.31	.47	.38	.25	.41	.50	.44	.18	.37	.42	.29	1.00					
LPT	.85	.79	.80	.77	.52	.56	.58	.74	.64	.53	.64	.54	.50	1.00				
SBCO	.33	.36	.43	.46	.32	.58	.52	.62	.27	.37	.54	.36	.73	.61	1.00			
SBCR	.97	.65	.70	.69	.46	.50	.51	.70	.61	.51	.52	.57	.41	.94	.45	1.00		
SBCD	.72	.87	.83	.79	.56	.51	.56	.67	.62	.48	.61	.43	.46	.95	.56	.82	1.00	
ALLO	.38	.54	.37	.32	.15	.30	.26	.29	.29	.13	.32	.30	.31	.53	.32	.45	.53	1.00

WFT = Westfield; GPT = General PT; SGP = Stockland; SCH = Schroders; APF = Advance; NMP = National Mutual; BZW = BZW-Mirvac; CPL = Capital; BTP = Bankers Trust; AJR = Armstrong Jones Retail; CEP = Centro; CMF = Colonial Mutual Retail; CPY = Capcount; LPT = ASX LPT index; SBCO = SBC-Warburg Office; SBCR = SBC- Warburg Retail; SBCD = SBC-Warburg Diversified; ALLO = ASX All Ordinaries index.

Table 4: Property trust performance analysis (monthly): 1992-96

Property trust	January		July		1992-96	
	Average monthly return (%)	Risk (%)	Average monthly return (%)	Risk (%)	Average monthly return (%)	Risk (%)
Individual PTs						
Westfield	1.71	0.74	3.41	4.23	0.15	3.96
GPT	0.36	3.17	1.24	3.38	0.02	3.61
Stockland	-0.08	3.11	3.42	4.56	0.19	3.48
Schroders	-1.50	2.59	3.65	7.06	0.09	4.47
Advance	-0.36	7.98	1.96	7.46	0.65	4.74
National Mutual	0.12	4.44	1.11	2.88	0.40	4.94
BZW-Mirvac	1.82	6.23	2.67	5.83	0.06	5.40
Capital	-0.97	4.11	1.66	2.88	-0.22	3.29
Bankers Trust	0.73	3.35	0.51	4.47	0.07	3.67
AJ Retail	-1.17	7.99	5.66	5.79	0.36	4.75
Centro	0.94	7.53	2.31	6.03	-0.09	4.84
Colonial Retail	3.54	2.13	3.79	3.36	0.55	5.20
Capcount	0.26	5.44	1.91	3.74	0.19	3.59
PT sectors						
ASX LPT	0.64	2.59	2.49	3.56	0.15	2.70
SBC-W Office	-0.40	4.63	1.31	2.56	0.18	2.28
SBC-W Retail	1.44	2.28	3.03	3.71	0.02	3.40
SBC-W Diversified	0.28	2.73	2.25	3.44	0.15	2.83
Shares						
ASX All Ordinaries	1.13	4.84	2.05	3.99	0.66	4.08

Table 5: Lead/lag relationship between financial sector and equivalent property trust sector: 1992-96

Sector	r_{-2M}	r_{-1M}	r_{0M}	r_{1M}	r_{2M}
ASX Retail/ SBC-W Retail	.03	-.05	**.23**	-.10	.22
ASX Financial Services/ SBC-W Office	-.07	.11	**.25**	.09	-.07
ASX Banks/ SBC-W Office	-.16	.08	**.41**	.12	.08
ASX Insurance/ SBC-W Office	-.16	.04	**.23**	.09	.09

Table 6: Direct property/property trust correlation matrix: 1992-96

	PCA Office	PCA Retail	PCA Composite	SBC-W Office	SBC-W Retail	SBC-W Diversified	ASX LPT	ASX All Ords
PCA Office	1.00							
PCA Retail	-.21	1.00						
PCA Composite	.99	-.11	1.00					
SBC-W Office	.17	.22	.15	1.00				
SBC-W Retail	-.64	-.15	-.68	.13	1.00			
SBC-W Diversified	-.58	.02	-.62	.40	.95	1.00		
ASX LPT	-.58	-.01	-.62	.40	.95	.99	1.00	
ASX All Ords.	-.32	-.17	-.35	.41	.76	.86	.85	1.00

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