

INVESTMENT STYLES AND PERFORMANCE IN THE AUSTRALIAN UNLISTED WHOLESALE PROPERTY FUND MARKET

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ABSTRACT

Unlisted wholesale property funds are an established property investment product which offers institutional investors an attractive approach for exposure to the Australian commercial property market. This research benchmarks the investment styles of the property funds covered by the Mercers unlisted property fund index with reference to IPD/PCA Property Investor Digest indices over the 2001-2009 period.

Based primarily on tracking error analysis, this research identified a range of structured and active investment styles in the selected property funds. This appears to be linked to debt levels and to be sector specific with the relatively highly geared office property funds being the most affected by changes in property market conditions.

Further research is recommended as to the impact of debt funding on investment performance measures. However, this research shows how investment evaluation techniques can be a valuable decision making tool for an astute investment into unlisted wholesale property funds.

Keywords: Unlisted property funds, tracking error, investment styles, commercial property markets

INTRODUCTION

As part of the investment process, portfolio construction is critical for a fund manager to meet the long-term goal of the fund and the defined benefits for the fund members. The selected investments that form part of the fund need to be carefully managed and should include examinations of past performance and the likely future performance to appropriate benchmarks. This relative return measurement is particularly attractive to fund managers, as it can define the investment style relative to return and risk profiles. There are various reported investment styles ranging from a buy and hold mandate to those that offer an active management strategy. In linking performance to a selected benchmark index, regular comparisons can be made between the actual fund performance and the index. By defining acceptable tracking parameters, fund

managers can invest in those that closely replicate the index or those that actively manage their portfolio in an attempt to outperform the index. This is especially beneficial for asset classes that are illiquid and operate in a relatively inefficient marketplace, ie commercial property.

The focus of this research is to marry recognised equity investment styles to the commercial property investment market used by Australian institutional investors to get exposure to Australian property. This is primarily by unlisted wholesale property funds as it offers institutional investors access to the private property equity market without requiring extensive time input and property management experience. Unlisted wholesale property funds offer the following benefits:

- i. Access to experienced property fund managers
 - ii. Diversification across diversified and sector specific property funds
 - iii. Performance aligned with the underlying property assets
 - iv. Investor representation on management steering committees
 - v. Debt funding opportunities
 - vi. Access to quality properties which are seldom available on the open market
 - vii. Alignment with the appointed fund manager for development opportunities
- etc

In detailing the extensive range and opportunities offered by unlisted wholesale property funds (property funds), there is still the fundamental investment principle that the funds should systemically and persistently deliver superior risk-adjusted returns. This research examines whether individual property funds over different property market conditions can provide superior risk-adjusted returns in relation to their corresponding property market benchmarks; namely Australian diversified, office, retail and industrial property markets.

As an initial comparison, the performance of the unlisted wholesale property fund index can be compared to the broader benchmark Australian property market diversified index. Figure 1 shows the quarterly total returns for the Mercer unlisted property fund index and the IPD/PCA Property Investors Digest Series (composite) index.

Figure 1: Unlisted wholesale property fund index vs property market index: quarterly performance: 2000 – 2009

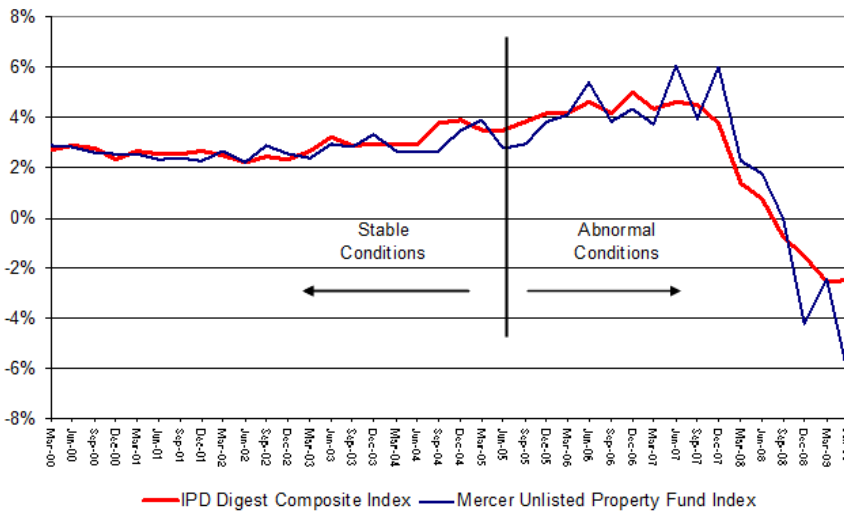


Figure 1 shows how the Australian property market changed from the stable performance environment for the first part of the decade to the high capital growth lead returns in 2006 and 2007. This was followed by the sharp decline in 2008 and 2009 caused by the global financial crisis. The unlisted property fund index and direct property market index performance showed similar performance during the benign market conditions of 2000–05 and the noticeable disparity between the indices during more volatile property market conditions thereafter.

As part of the research, the investment style of each fund is analysed over the changing property market conditions with reference to statistical investment performance tools, primary tracking error and information ratio analysis. The tabulated results were ranked to demonstrate property fund performance variance across different property market conditions.

It should be noted that the investment analysis presented here is not intended to endorse particular property funds, but rather to illustrate an approach for evaluating the investment style of the selected property funds and recognising past returns may not be a good indicator of future performance. However, knowing the investment style of a particular property fund could provide a good indication of the fund's relative future performance to that of associated peers and the selected benchmark.

Following this introduction, Section two provides a literature review on investment styles and the different measures of investment performances with reference to real estate. Section three details the selected property fund data and associated methodology. Section four contains the empirical findings and the implications for fund managers. The last section provides the concluding comments.

LITERATURE REVIEW

In financial markets, there have been major milestones in the theory of investing. Work by Markowitz (1952), Sharpe (1964) and Treynor and Black (1973) have introduced new concepts that have shaped investment strategies and improved the way of recording returns in relation to risk.

In acknowledging the impact of new investment techniques, Bernstein (2007) points out that diversification is essential to successful investment and that investment markets are hard to beat. Ambachtsheer (1994) provided evidence that the cost savings on passive investment strategies can be substantial and Sharpe (1991) suggested that, on average, passive funds perform better, net of transaction costs when compared with active funds.

To assist with how to allocate assets between active and passive strategies, Alford *et al* (2003) examined the performance of US equity fund managers and showed that investment styles of funds can be categorised as to their tracking error to a relevant benchmark. Table 1 details the investment styles and associated tracking error ranges under different market conditions.

Table 1: Investment styles based on tracking error

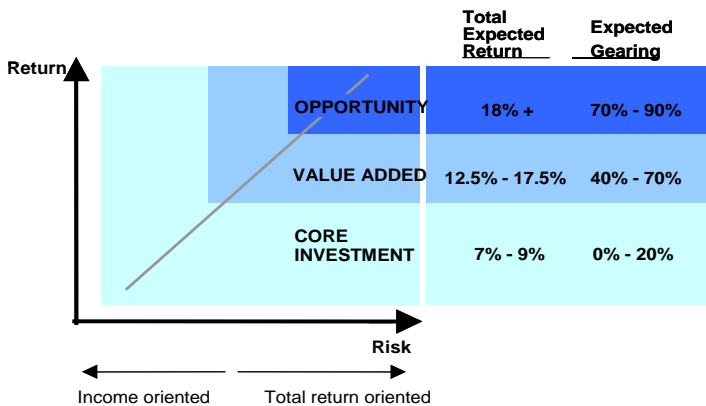
Investment style	Tracking error range	Comments
Passive	All data - less than 1.0% (0.5% or lower for normal data)	A passive strategy seeks to reproduce as closely as possible an index by minimising the tracking error of the replicated index. Focus is on risk management to minimise fund deviation to the defined index
Structured	All data - between 1.0% and 5.0%	A structured strategy seeks to be benchmark sensitive and tends to target relatively low levels of tracking error. Focus is on a relatively large number of small active deviations.
Active	All data - 5.0% to 15% (over 3.0% for normal data)	An active strategy seeks to outperform an index while staying within certain risk boundaries. Focus is on active decision-making in a small number of relatively large positions.

Adapted: Alford *et al* (2003)

In documenting the different investment styles, Alford *et al* (2003) contended that institutional investors can blend the different investment styles to improve the optimal allocation to a specific asset class. This is dependent on the institutional investor’s assumptions about the ability of active managers to outperform their benchmark index, and by how much the active manager’s information ratio exceeds those of passive managers.

When looking at commercial property, investment styles appear to be linked more to the underlying asset and the level of defined debt than to the overall performance of the fund. Figure 2 details an example of an investment classification commonly promoted by property fund managers.

Figure 2: Property investment framework



Source: O’Roarty (2005)

Figure 2 details the expected returns and level of risk for styles of property investment. These can be defined as follows with Australian examples:

Core: Investment in properties that deliver secure income returns. Favoured by institutional investors, they have straightforward characteristics with anchor tenants on long leases with strong covenants and complemented by good quality buildings offering low risk of depreciation and obsolescence; ie a shopping centre with a Woolworths or Coles as the anchor tenant, plus low gearing at less than 20%.

Value added: Investment returns are comprised of a base income return often with strong upside potential, with capital growth as well as an uplift from financial engineering. Development, redevelopment, re-leasing or realisation of market

mispricing generates incremental risk/return improvements associated with this investment style. Gearing is around 60%.

Opportunistic: Investment that is often characterised by low initial income return with high risk growth potential, strong capital growth and good capital returns from gearing structure. The investment seeks to capitalise on opportunities arising from market distress, significant market mispricing, corporate portfolio restructuring and financial engineering to offer higher expected returns. For example, Centro and Allco Finance. Gearing is typically at a high 80% plus.

The property investment framework in Figure 2 offers unique property opportunities which would be difficult to replicate in a portfolio with the long-term aims of an established fund.

Relatively new to property fund managers is the concept of index portfolio construction. Brown and Matysiak (2000) covered both the number of properties required in a property portfolio and the theoretical benefits of investment style analysis. On a practical application, Eichholtz *et al* (2009) provided a comprehensive study on the performance of global listed real estate mutual funds and noted that over the 1997-2007 period, global and European fund managers were able to add value, whereas Asian, Australian and North American did not.

For Australian securitised property funds, Higgins (2009) used tracking error analysis to illustrate evidence of different investment styles across 16 Australian securitised property funds. Interestingly, there appeared no obvious trends when comparing the ranking of the securitised property funds across the different investment performance measures.

Analysis specifically on unlisted property funds is limited due to sourcing available data. Bond and Mitchell (2009) draws on a unique IPD UK dataset covering 280 funds over the period 1981 to 2006. The widespread findings do include commentary that very few managers appear to be able to generate excess risk-adjusted returns.

DATA AND METHODOLOGY

Data

The Australian unlisted wholesale property market has grown rapidly, from less than AU\$20 billion in 2003 to AU\$78 billion in 2008. Like other financial asset classes, the global credit crisis has affected the Australian unlisted wholesale property market and it is now valued at approximately AU\$61 billion (Mirvac 2009, PIR 2009).

The rapid growth in the Australian unlisted property market has been accompanied by a commensurate increase in the number of Australian unlisted property funds, with

several new property funds containing relative high debt exposure. As at December 2008, there were 1,337 properties in 132 unlisted property funds which ranged from less than AU\$1 million to over AU\$5 billion. These property funds are focused at institutional investors with a high unit cost compared to the low unit cost of retail (syndicate) property funds (PIR 2009).

Since the early 1990's, Mercer, the financial investment consulting organisation, has collected data from the leading Australian unlisted property funds to produce their monthly *Mercer Unlisted Property Funds Index*. They produce an array of indices on the performance of leading unlisted property funds. To reflect the total returns from properties owned by the funds, a pre-tax and pre-fees index was selected. As with the growth in unlisted property funds, two sets of data were used, those property funds that have been in existence since 2002: nine property funds representing AU\$15.7 billion, and four recently established property funds valued at AU\$7.2 billion as at June 2009. The selected Australian unlisted property funds are shown in Table 2.

Table 2: Composition of selected Australian unlisted property funds: June 2009

	Property type	Period covered	Portfolio size (\$ million)	No. of buildings	Debt funding %
<u>Coverage 2001 to 2009</u>					
AMP I	Div	2002-09	849	40	12.0%
APPFC	Office	2001-09	1,030	8	23.8%
APPFR	Retail	2001-09	3,058	9	7.9%
APPFI	Industrial	2001-09	528	23	19.8%
DAM	Div	2002-09	2,857	14	20.7%
PPS	Div	2002-09	816	37	27.2%
ISPT	Div	2001-09	5,554	87	15.4%
Investa	Office	2002-09	1,036	11	22.3%
<u>Coverage 2005 to 2009</u>					
DPIFR	Retail	2005-09	1,227	10	35.7%
DPIFC	Office	2005-09	1,099	11	35.4%
DPIFI	Ind	2005-09	269	15	38.2%
GAIF	Ind	2006-09	4,638	79	42.5%

Source: Mercer 2009, PIR 2008

Table 2 illustrates the selected property funds with continuous return data from January 2001 and those that commenced after June 2005. These 12 unlisted property funds represent approximately 30% of the Australian unlisted wholesale property fund market as at June 2009. For more information on the selected property funds and their managers, see Appendix 1.

The IPD/PCA Property Investors Digest series was selected for the performance of the overall direct property market and the sector specific property markets. The composition of the IPD/PCA Property Investors Digest June 2009 series is detailed in Table 3.

Table 3: IPD property digest: June 2009

Type	Coverage (\$ billion)	No. of buildings
Diversified	66	906
Office	25	306
Retail	32	326
Industrial	6	237

Source: IPD (2009)

Table 3 details the extensive commercial property market coverage in the IPD/PCA Property Investors Digest. Those property funds detailed in Table 2 could provide performance details to be incorporated into the IPD/PCA Property Investors Digest, although individual property fund portfolios made up less than 10% of the corresponding IPD/PCA Property Investors index¹. Therefore the performance of the property funds would have nominal influence on the corresponding IPD/PCA Property Investors Digest.

Methodology

At the core of modern investment strategies is a framework of empirical analysis. Investment evaluation has evolved to provide in-depth performance and risk analysis, which is now being applied to real estate, specifically securitised property funds. The starting point for the research methodology is based on the equation Sharpe (1964) developed for the Capital Asset Pricing Model (CAPM) and is shown in equation one:

$$E_i = \alpha_i + R_f + (E_m - R_f) \beta_i \quad (1)$$

where:

E_i = Expected return on asset i

α_i = Alpha of asset i

R_f = Risk-free rate

E_m = Expected return on the market

β_i = Beta of asset i

¹ This calculation excludes the GAIF fund, as the fund includes industrial and business space assets that include an exposure to development sites.

The equation is relatively straightforward. The Alpha “ α ” is the asset return in excess of the returns of a benchmark, whilst the Beta “ β ” is how much the asset moves in sympathy with the market. In a more practical sense, CAPM is usually estimated by performing a regression of the asset historical returns to the market returns. Beta is the ratio of the individual asset returns to the market returns and Alpha is the residual of the regression calculation (Bernstein 2007 p92).

On knowing the Alpha, the information ratio can be calculated and shows the level of active returns from an asset to that of an appropriate benchmark. The information ratio can be either positive or negative. The formula is illustrated in equation two:

$$IR_i = \alpha_i / TR_i \quad (2)$$

where:

- IR_i = Information ratio of asset i
- α_i = Alpha of asset i
- TR_i = Standard deviation of the Alpha of asset i

The information ratio is a popular measure of risk-adjusted return performance for active investment styled funds. It defines the degree by which a fund consistently outperforms/underperforms the appropriate benchmark. When evaluating funds, this persistent performance measure can define the active skills of the fund manager. The information ratio is commonly recognised as a key investment analysis tool (Gupta *et al* 1999, Shein 2000).

Alongside the information ratio, tracking error can be defined as the degree of deviation from the appropriate index. There are various “*ex-post*” tracking error models, the most common is shown in equation three:

$$TE = \sqrt{\frac{\sum_{p=1}^N (R_P - R_B)^2}{N - 1}} \quad (3)$$

where:

- TE = Tracking Error
- R_P = Return of asset
- R_B = Return of index
- N = Number of return periods

Tracking error is a key measure used by investors to see how closely a fund follows an appropriate index. A tracking error of zero details a fund that exactly matches the performance of the selected index. The variation above zero can be used to determine

the investment style of a fund and provide an optimal allocation approach across a range of funds offering different investment styles. For a comparison, Higgins (2009) detailed tracking error for the majority of securitised property funds (2000-2007) of around 3%, which represented a structured investment style.

EMPIRICAL FINDINGS

The first step is to examine the annual performance of the Mercer unlisted property fund index and the selected property funds. This is shown in Table 4.

Table 4: Property funds investment performance

	1 Year	3 Years	5 Years	7 Years	Risk
Mercer (Index)	-12.36%	7.13%	10.39%	10.72%	10.56%
AMP I (Div)	-9.77%	7.72%	9.78%	10.90%	9.27%
APPFC (Office)	-21.65%	4.70%	7.26%	7.70%	13.62%
APPFR (Retail)	1.36%	12.28%	13.93%	14.66%	6.41%
APPFI (Industrial)	-8.26%	4.93%	7.83%	9.08%	7.66%
DAM (Div)	-13.31%	3.53%	9.47%	10.11%	11.25%
PPS (Div)	-17.84%	14.05%	16.02%	15.32%	16.51%
ISPT (Div)	-14.81%	4.27%	8.21%	9.20%	11.06%
Investa (Office)	-14.06%	11.18%	11.30%	10.50%	12.93%

Table 4 shows the performance of the Mercer unlisted property fund index and the individual property funds. There appears to be a trend with APPFR (Retail) and PPS (Diversified) providing the highest annualised returns over 3, 5 and 7 years. The 7 year risk (standard deviation) profile is over a wide range, 6.41% to 16.51%.

The performance profile can be examined further by looking at the quarterly investment performance of the Mercer unlisted property fund index and the associated property funds to the relevant IPD/PCA Property Investors Digest Index. Table 5 shows the property funds for the periods covered.

Table 5: Property funds quarterly investment performance: 2001-2009

	Property fund		Property market		Sharpe ratio	
	Return	Risk	Return	Risk	Fund	Market
Mercer (Index)	2.48%	2.48%	2.64%	1.92%	0.45	0.66
AMPI (Div)	2.56%	2.50%	2.66%	2.12%	0.47	0.60
APPFC (Office)	1.85%	3.81%	2.31%	2.26%	0.13	0.42
APPFR (Retail)	3.35%	1.97%	2.97%	1.79%	1.01	0.90
APPFI (Industrial)	2.30%	2.06%	2.55%	2.01%	0.46	0.60
DAM (Div)	2.33%	3.34%	2.64%	2.05%	0.29	0.62
PPS (Div)	3.44%	4.41%	2.64%	2.05%	0.47	0.62
ISPT (Div)	2.20%	2.62%	2.64%	1.92%	0.32	0.67
Investa (Office)	2.46%	4.47%	2.37%	2.49%	0.24	0.39

Table 5 presents the quarterly risk/return profile of the property funds with the average return range between 1.85% and 3.44%. This is compared to the narrower benchmark return range of 2.31% to 2.97%. Surprisingly, only two property funds (APPFR and PPS) outperformed their corresponding market index whilst all property funds had higher volatility than the matching market index. The outperformance of the two funds could relate to APPFR fund containing retail properties and that the PPS fund is relatively highly geared (27%) with an extensive number of properties (37 buildings) in a relatively small \$816 million diversified property fund.

Furthermore, Table 5 illustrated the property fund risk, with a range 1.97% to 4.47%. The retail property fund had the lowest risk profile and the office property funds having the highest. This is similar to the property market index although the range is narrower; 1.79% to 2.49%.

The Sharpe ratio performance for the property funds and corresponding property market index is illustrated in Table 5, as it provides a measure of reward per unit of risk. The results highlight the different performance profiles across the property markets with a retail Sharpe ratio around 0.90, diversified 0.62, industrial 0.60 and office 0.40. Only the retail property fund (APPFR) outperformed the corresponding property market Sharpe ratio, while the two office funds (APPFC and Investa) had the lowest Sharpe ratios at below 0.25.

The performance of the property funds to the matching property markets can be examined relative to the CAPM, and so provides Alpha and Beta values.

Table 6: Property funds alpha and beta values: 2001-2009

	Beta	Alpha
Mercer (Index)	1.19	-0.01
AMP I (Div)	0.96	0.00
APPFC (Office)	1.32	-0.01
APPFR (Retail)	0.65	0.01
APPFI (Industrial)	0.84	0.00
DAM (Div)	1.23	-0.01
PPS (Div)	1.74	-0.01
ISPT (Div)	1.25	-0.01
Investa (Office)	1.10	0.00

Table 6 illustrates a wide spread of Beta values across the property funds, to the market value of one. The range 0.65 to 1.74 shows that many funds exhibit volatility that is separate from the selected IPD/PCA Property digest index. In part, this could relate to the frequency of valuations. Alternatively, as the Alpha values are close to zero, it shows that there are limited continuous excess returns to the property market indices. This can be examined in more depth by looking at the fund's information ratio and tracking error. Table 7 shows the information ratio and tracking error for the complete 2001-2009 dataset.

Table 7: Property funds information ratios and tracking error: 2001-2009

	Tracking error	Rank	Information ratio	Rank
Mercer (Index)	2.07%	1	-0.67	7
AMP I (Div)	2.66%	4	0.01	3
APPFC (Office)	4.98%	7	-0.72	8
APPFR (Retail)	3.41%	5	1.04	1
APPFI (Industrial)	2.43%	3	0.14	2
DAM (Div)	4.52%	6	-0.42	5
PPS (Div)	6.05%	8	-0.50	6
ISPT (Div)	2.30%	2	-1.06	9
Investa (Office)	7.08%	9	-0.04	4

Table 7 analyses the annualised tracking error and information ratio performance of the property funds. Those funds with a low tracking error and high information ratio indicate a consistency to outperform the defined index; for example APPFI. Elsewhere, the link between property fund tracking error and information ratio appears limited and unrelated to property fund size or market sector. Information ratios and tracking error can be examined further by looking at the performance in

different property market conditions. Table 8 details the property fund information ratio and tracking error over stable property market conditions 2001-2005 dataset.

Table 8: Property funds information ratios and tracking error: 2001 - 2005

	Tracking error	Rank	Information ratio	Rank
Mercer (Index)	0.78%	1	3.21	4
AMP I (Div)	1.47%	5	1.95	7
APPFC (Office)	1.26%	3	2.54	6
APPFR (Retail)	3.10%	9	0.72	9
APPFI (Industrial)	1.74%	7	6.41	2
DAM (Div)	2.98%	8	0.80	8
PPS (Div)	1.57%	6	3.00	5
ISPT (Div)	1.31%	4	3.71	3
Investa (Office)	1.10%	2	7.83	1

Table 8 showed the property funds annualised tracking error and information ratio to the benchmark index in stable property market conditions. It is noticeable that the property fund tracking errors are much lower (0.78% to 3.10%) and all property funds delivered positive information ratios. In many instances, the property fund rankings for tracking error and information ratio appear similar, with an office property fund (Investa) providing the best performance.

The property funds performance in stable conditions needs to be compared with abnormal property market conditions as shown in Table 9.

Table 9: Property funds information ratios and tracking error: 2005 – 2009

	Tracking error	Rank	Information ratio	Rank
Mercer (Index)	2.95%	1	-0.49	7
AMP I (Div)	3.61%	4	-0.09	4
APPFC (Office)	7.00%	7	-0.65	8
APPFR (Retail)	3.69%	5	0.87	1
APPFI (Industrial)	3.11%	3	0.04	2
DAM (Div)	5.67%	6	-0.37	6
PPS (Div)	8.18%	8	-0.23	5
ISPT (Div)	2.98%	2	-1.10	9
Investa (Office)	9.45%	9	-0.04	3

Table 9 tracking error and information ratio are substantially different from Table 6, with overall higher tracking error readings in a range of 2.85% to 9.45%. The associated ranking has changed considerably with the office property funds (Investa and APPFC) and the small diversified property fund (PPS) all with relatively high debt levels having the highest tracking error and provided negative information ratios. Interestingly, in both sets of data, the information ratio and tracking error of APPFR, retail property fund, appeared similar. This would suggest they can better manage cyclical property market movement and with positive information ratio, the fund has consistently outperformed the Australian retail market index. In part, this may relate to the fund's low debt level (7.9%) and the strong covenants provided by their anchor retail tenants.

It would be bordering on subjective analysis to base property funds investment styles solely on the tracking error, although a matrix of determinants including tracking error, number of buildings in the portfolio and debt levels could provide the elements for an investment style template. This is shown in Table 10.

Table 10: Property funds investment style matrix

	Tracking Error						No. of Buildings			Debt %		
	Stable			Abnormal			<Active to Passive>			<Passive to Active>		
	<Passive to Active>			<Passive to Active>			<Active to Passive>			<Passive to Active>		
	0%-1%	1%-3%	3% >	<3%	3%-6%	6% >	0-10	11-20	21 >	0-10%	11%-20%	21% >
AMP I (Div)		√			√				√			√
APPFC (Office)		√				√	√					√
APPFR (Retail)			√		√		√			√		
APPFI (Industrial)		√			√				√			√
DAM (Div)		√			√			√				√
PPS (Div)		√				√			√			√
ISPT (Div)		√		√					√			√
Investa (Office)		√				√		√				√

Table 10 details a scorecard of the property funds relative to key considerations. There appears to be a link with property funds with large property portfolios and debt levels below 20 % providing the better tracking error performance. In providing an equal weighting to each determinant, a table of property fund investment styles can be produced as shown in Table 11.

Table 11: Property funds investment styles

Property fund investment styles (tracking error, no. of buildings and debt levels)

Passive - less than 1.0% standard conditions (3.0% or lower in abnormal conditions)

Structured - between 1.0% and 3.0% (3.0% to 6.0% in abnormal conditions)

ISPT (Div)

APPMI (Industrial)

AMP I (Div)

DAM (Div)

APPMR (Retail)

Active - over 3.0% (6.0% and above in abnormal conditions)

PPS (Div)

APPMO (Office)

Investa (Office)

Table 11 illustrates the investment style categories for the property funds, based on their tracking error to the IPD/PCA Property Investors Digest, number of buildings in the portfolio and debt levels. The analysis shows a grouping of property funds in the structured category, all with relatively low gearing. Generally, those close to the top had information ratios which were reasonable in abnormal conditions. These variations in property fund returns to an investment style may relate to property allocation, gearing, and the valuation cycle which could be exaggerated during highly volatile property market conditions.

There appears to be a nominal relationship of investment style to returns and risk rankings as shown in Table 5. This may dilute the Alford *et al* (2003) approach of blending the allocation between property funds to enhance an institutional investor's performance to a defined asset class.

As detailed earlier, there were several new property funds that commenced operation after 2005. The property funds measured by Mercers are shown in Table 12 alongside the established property funds.

Table 12: New and existing property funds: 2005 – 2009

	Tracking error	Rank	Information ratio	Rank
<u>Existing operation since 2001</u>				
Mercer (Index)	2.95%	1	-0.49	9
AMP I (Div)	3.61%	4	-0.09	5
APPFC (Office)	7.00%	9	-0.65	12
APPFR (Retail)	3.69%	5	0.87	1
APPFI (Industrial)	3.11%	3	0.04	2
DAM (Div)	5.67%	8	-0.37	7
PPS (Div)	8.18%	11	-0.23	6
ISPT (Div)	2.98%	2	-1.10	13
Investa (Office)	9.45%	12	-0.04	3
<u>Operational after 2005</u>				
DPIFR (Retail)	4.65%	7	-0.55	10
DPIFC (Office)	9.63%	13	-0.40	8
DPIFI (Industrial)	7.04%	10	-0.55	11
GAIF (industrial)	4.49%	6	-0.09	4

Table 12 showed new property funds annualised tracking errors were relatively high when compared to the corresponding existing sector specific property funds and so were less attractive on past performance. This may be due to the higher debt levels in the new property funds.

The disparity between property fund tracking errors and information ratios would suggest that the performance of different investment styles vary with diverse market conditions. This can relate to property markets, valuation frequency and financial engineering, including the management of debt and possibility of the use of property derivatives.

CONCLUSION

Investment styles are particularly important to portfolio fund managers, as tracking an index can measure relative performance. By defining acceptable tracking parameters, funds can either closely follow the index or actively manage their portfolio in an attempt to outperform the index and provide systemic and persistent delivery of superior risk-adjusted returns.

To evaluate investment styles of the leading property sector that forms the private equity market, this research looked at the AU\$61 billion unlisted wholesale property

fund market. The research examined the property funds which form the AU\$23 billion Mercers unlisted property fund index. The investment style of 12 Australian property funds were examined with reference to a range of investment analysis tools over stable, 2001-05, and abnormal, 2005-09, property market conditions.

Based primarily on tracking error analysis, a range of investment styles were evident in the eight selected unlisted wholesale property funds which covered the complete 2001-09 dataset. The property funds could be grouped into two of the three Alford *et al* (2003) categories; structured and active. Interestingly, apart from the retail property fund (APFR), the tracking error and information ratios of property funds changed considerably between the stable and abnormal property market conditions. This, in part, related to property market sector, with the office property market sector being the most affected by the change in property market conditions. In addition, stock selection, frequency of valuations and debt funding arrangements need to be considered.

The selected property funds that commenced after 2005 all had relatively high tracking errors and negative information ratios. When compared to the corresponding existing sector specific property funds, the new property funds were less attractive to investors based on their past performance. This may be due to the higher debt levels in the new property funds which have a negative impact in abnormal property market conditions. Further research is recommended on the impact of debt funding on investment performance measures during different property market conditions.

This research shows how tracking error can be a useful way to categorise a fund's investment style. Placed alongside the information ratio and other investment measures, funds can be identified which consistently outperform the benchmark index. Investment evaluation techniques can be a valuable decision making tool for an astute investment into unlisted wholesale property funds.

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APPENDIX 1

Selected Australian unlisted wholesale property funds

Unlisted property fund	Code	Managed by
<u>Existing operation since 2001</u>		
AMP Property Income Fund	AMPI	AMP
Aust. Prime Property Commercial Fund	APPFC	Lend Lease
Aust Prime Property Retail Fund	APPFR	Lend Lease
Aust. Prime Property Industrial Fund	APPFI	Lend Lease
DEXUS Wholesale Direct Property Fund	DAM	DEXUS Real Estate
Private Property Syndicate	PPS	Colonial First State Property
Industry Superannuation Property Trust Core Fund	ISPT	Industry Superannuation Property Trust
Investa Commercial Property Fund	Investa	Investa Property Group
<u>Operational after 2005</u>		
Colonial First State Direct Property Investment Fund	DPIFR	Colonial First State Property
Colonial First State Direct Property Investment Fund	DPIFC	Colonial First State Property
Colonial First State Direct Property Investment Fund	DPIF	Colonial First State Property
Goodman Australia Industrial Fund	GAIF	Goodman Group

Note: Industry Superannuation Property Trust Core Fund performance before 2005 represents the weighted average performance of ISPT No1 and ISPT No2.

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