Constructing an unlisted property portfolio

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Property has long been an integral component of investment portfolios for its diversification and return characteristics. Portfolio managers and constructors of model portfolios are now allocating between listed and unlisted property as well as domestic and international, property sectors, geography and the spectrum of commercial risk. This paper examines the multiplicity of allocation issues within the property sector. Additionally, the total return objectives for property are examined providing a useful benchmark which reflects the attributes of property. A benchmark property asset allocation has been developed which will have a significant probability of achieving quantified objectives.

A multi-manager structure which can access high quality property opportunities from the full spectrum of the universe available has a potential competitive advantage in delivery the objectives of a portfolio because the range of parameters is so diverse.

Parameters included in the property asset allocation are:

- Australian and overseas
- Unlisted/direct and listed
- State in Australia/region overseas
- Retail, office, industrial, residential property types
- Core, value add, opportunistic risks

There are an extensive range of property opportunities offered in the market for investment across all the parameters. Each of these opportunities has distinctive attributes which may be suitable within an investment portfolio. Assessment in a portfolio context requires a property asset allocation strategy[1].

Australia represents less than 2% of the world real estate market which is estimated at $US17.3trillion in value. Overseas property is increasingly being considered for inclusion in portfolios.

Listed property which shares many attributes of unlisted property has a very high level of liquidity and a significantly higher volatility of returns. Inclusion of a significant listed property weighting in a property allocation will have the impact of diminishing the low volatility attribute of unlisted property.

On a national basis, allocation by states requires consideration. On an international basis allocation by country and/or region requires management. Performance of property by state and by country reflects the varying business cycles in each location.

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[1] UBS Global Real Estate Investment – May 2002
DB Real Estate: A framework for International Real Estate Investment – November 2002

Each property type will respond differently in varying economic circumstances. Major sectors in Australia do not include residential despite it being the largest asset class. The Commercial office sector includes CBD office buildings and office parks and is linked with employment. The Retail sector includes CBD shopping centres, regional and sub – regional shopping centres, and local or neighbourhood centres and is driven by retail sales. Industrial property can include warehouses, manufacturing facilities, distribution centres, business parks and telecommunications facilities.

The definition of core property is that it is fully leased property with minimal gearing. Value added property may have material vacancies, high gearing and require significant refurbishment. Opportunistic property may include redevelopment.

Constructing an asset allocation strategy for a property portfolio requires a disciplined and business like approach in analysing and setting the investment strategy and implementation[2]. A methodology for establishing appropriate benchmark asset allocation for what is predominantly an unlisted or direct property portfolio is developed in this paper. This methodology is based on diversification, the liquidity needs and the time frame of investors, and the need to reflect the investors' risk/return objectives. The approach uses historical and forecast returns and volatility (standard deviations) of returns.

Unlisted property has demonstrated excellent risk adjusted returns over the past 20 years and is considered a core part of a balanced portfolio[3]. The authors illustrate, on the basis of historical returns and risk, the effect of changing the weights given to a variety of parameters in a property portfolio and generating a benchmark property asset allocation.

[2] David Lee/Super Funds – Modelling for Returns – May 2006
[3] Property and Portfolio Research: Why Real Estate? – January 2003
Russell: Property Investment options and successful implementation - 2004

Setting Appropriate Investment Objectives

The first step in developing an approach to unlisted property investment is identification and specification of investment objectives. Developing objectives that are specific, measurable and tailored to the circumstances of the investor is a necessary component.

These can be stated as the standard risk/return trade-off and the time horizon of the investor(s).

In considering the various parameters in an unlisted property portfolio and the weight in the portfolio, setting investment objectives and developing an appropriate strategy form an iterative process. Neither can be set in isolation from the other.

Developing an Appropriate Investment Strategy

Setting investment objectives relies on the investors' attitude to risk or more particularly their risk/return trade-off. Alternatives in this framework requires employing a number of assumptions about the possible risk/return outcomes. In the first instance, these assumptions employ three different perspectives:

- Historical data for both Australian and overseas assets
- Current market expectations of property investment returns
- An analysis of relationships expected to arise between property asset classes and between nominal interest rates and inflation and asset classes

Each of these perspectives should be considered in setting out the alternative return/risks for different property portfolios. Historical returns and volatility of returns are provided in Table 1 below.

Table 1: Returns and Volatility of Returns 15 years to 31 December 2006

	Returns % p.a.	**Volatility of Returns % p.a.**
Australian Shares	12.9	11.8
Overseas Shares	8.3	12.5
Australian Direct property	9.2	2.8
Office property	6.8	3.9
Retail property	12.2	2.1
Industrial property	12.3	2.3
Australian Listed property	14.4	9.6
Overseas Direct property	5.9	2.4
Overseas Listed property	11.8	15.1
Australian Fixed Interest	7.7	4.1
Overseas Fixed Interest	8.6	3.0
Cash	5.8	0.3

Source: PCA/IPD, S&P/ASX, UBS, MSCI

Volatility is measured by the standard deviation of return.

The purpose of the asset allocation analysis is the identification of the long-term strategy, defined in terms of a benchmark asset allocation by property classes and other factors, which is most likely to achieve the investment objectives.

A range of modelling techniques can be applied to evaluate different potential asset allocation models across the range of potential parameter weights. The modelling enables an assessment of the likelihood of different risk/return outcomes that different strategies might be expected to give.

Liquidity is an important consideration in a property portfolio as many unlisted investment trusts are relatively illiquid. With many investors seeking the ability to transfer funds between asset classes as market views change an efficient process is required. Therefore the inclusion of listed property in the asset allocation mix should be considered as should the inclusion of liquidity provisions of the underlying investments including the provision of balance sheet commitments as well as other manager underwriting mechanisms, including derivatives.

An assessment of return and risk of the alternative asset allocation strategies against the stated investment objectives is a key final step in determining the appropriate asset allocation mix between the full range of parameters.

Determination of Risk/Return Objective

In the determination of a risk/return objective for an individual property portfolio, four alternatives could form the basis of setting an objective:

- absolute return;
- composite income return;
- direct/unlisted property index return; and
- government bond yield plus a margin.

In the analysis below, a number of property portfolios with varying property type or asset allocations are considered. In this context, income and capital returns, and total nominal and real returns are differentiated.

1. Nominal Total Returns

Table 2 shows the total portfolio returns for various portfolios measured over periods to 31 December 2006. Based on the probability of achieving income, capital and total return over 3-5 years, the portfolio which approximates a benchmark asset allocation is represented by portfolio P5 as it has the highest probability of meeting the assumed objectives of investors.

Table 2: Alternative Property Portfolio Returns (Periods to 31 December, 2006)

Property type	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Retail	30.0%	34.0%	36.0%	40.0%	42.75%	45.0%	50.0%	52.5%	55.0%	60.0%
Office	50.0%	46.0%	42.0%	38.0%	33.25%	30.0%	27.0%	22.5%	20.0%	20.0%
Industrial	20.0%	18.0%	17.0%	15.0%	14.25%	12.0%	7.0%	6.0%	5.0%	5.0%
Opportunistic	0.0%	0.0%	2.0%	3.0%	4.75%	5.0%	6.0%	7.0%	7.0%	7.0%
Listed	0.0%	2.0%	3.0%	4.0%	5.00%	8.0%	10.0%	12.0%	13.0%	8.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Portfolio Total Returns (p.a.)										
5 yrs	12.4%	12.7%	13.0%	13.3%	13.6%	13.9%	14.2%	14.6%	14.7%	14.5%
10 yrs	11.6%	11.8%	12.0%	12.1%	12.3%	12.4%	12.6%	12.7%	12.8%	12.7%
15 yrs	9.5%	9.8%	10.0%	10.2%	10.4%	10.7%	10.9%	11.1%	11.3%	11.2%
20 yrs	10.3%	10.6%	10.8%	11.1%	11.4%	11.6%	11.9%	12.1%	12.3%	12.3%

Portfolio Total Volatility (p.a.)										
5 yrs	2.2%	2.4%	2.6%	2.7%	2.9%	3.1%	3.3%	3.5%	3.6%	3.3%
10 yrs	1.8%	2.0%	2.2%	2.4%	2.6%	2.9%	3.2%	3.4%	3.5%	3.2%
15 yrs	3.0%	3.1%	3.5%	3.7%	4.0%	4.2%	4.4%	4.7%	4.7%	4.3%
20 yrs	4.4%	4.4%	4.8%	5.0%	5.3%	5.5%	5.7%	5.9%	5.9%	5.6%

Source: Atchison Consultants

Volatility is measured by the standard deviation of returns.

Table 3 shows the total returns and volatility (risk) for various 5 year independent periods for the same range of property portfolios as table 2.

Table 3: Property Portfolio Returns (5-year Historical Returns)

Portfolio Total Returns (p.a.)										
1986 - 1991	12.9%	13.1%	13.5%	13.9%	14.3%	14.5%	15.0%	15.3%	15.4%	15.8%
1991 - 1996	5.4%	5.8%	6.1%	6.5%	6.9%	7.3%	7.6%	8.0%	8.3%	8.3%
1996 - 2001	10.9%	10.9%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	10.9%
2001 - 2006	12.4%	12.7%	13.0%	13.3%	13.6%	13.9%	14.3%	14.6%	14.8%	14.6%

Portfolio Total Volatility (p.a.)										
1986 - 1991	6.9%	6.8%	6.7%	6.6%	6.4%	6.4%	6.3%	6.2%	6.1%	5.8%
1991 - 1996	3.6%	3.6%	3.6%	3.5%	3.5%	3.6%	3.6%	3.6%	3.6%	3.2%
1996 - 2001	0.9%	1.1%	1.4%	1.6%	1.8%	2.1%	2.4%	2.7%	2.8%	2.3%
2001 - 2006	2.2%	2.4%	2.6%	2.7%	2.9%	3.2%	3.4%	3.6%	3.7%	3.4%

Source: Atchison Consultants

Volatility is measured by the standard deviation of returns.

Table 3 shows that total returns were high during the late 1980's, with total returns around 13%. This peak was followed by negative capital returns during the early 1990's. In the more recent periods total returns have been relatively stable at around 12%-14% p.a. with growth above the inflation rate.

On the basis of tables 2 and 3 total returns of 9% - 10% pa would have been achievable over the past 20 years albeit with a sustained period when returns were lower.

2. Nominal Income Returns

An income return of 6.5% - 7.5% pa would have been achievable on a sustained basis. The capital returns can be estimated by subtracting the income returns form the total returns.

An essential attribute of property investment is a relatively stable income return. Historical data in Table 4 indicates the level of stability of income provided by various investment markets over the 20 years to 31 December 2006[4].

Table 4: 20 Year Average Income Returns and Volatilities to December 2006

	Return pa	**Volatility pa**
Composite Property	7.6%	0.2%
Retail Property	8.2%	0.4%
Commercial office Property	7.2%	0.3%
Industrial Property	9.6%	0.5%
Listed Property	8.0%	2.6%
Government 10 year Bond Yield	8.2%	2.9%
Australian shares	4.2%	1.3%
Overseas shares	1.6%	0.1%

Source: Atchison Consultants, PCA/IPD, S&P/ASX, RBA, MSCI

Volatility is measured by the standard deviation of returns.

Property sectors have provided high and stable income returns.

3. The 10 year Government Bond Yield

Table 5 shows the total returns and volatility of returns over 5, 10, 15 and 20 year periods to 31 December 2006 for the prospective benchmark asset allocation and the 10 year Government bond yield.

[4] ADPIA Investment Report 20 year analysis

Table 5: Benchmark Asset Allocation Returns and 10 year Government bond yield

		Benchmark Asset Allocation	10 year government bond yield	Variation
5 years	Return (p.a.)	13.6%	5.5%	8.1%
	Volatility (p.a.)	2.9%	0.3%	
10 years	Return (p.a.)	12.3%	5.8%	6.5%
	Volatility (p.a.)	2.6%	0.6%	
15 years	Return (p.a.)	10.4%	6.7%	3.7%
	Volatility (p.a.)	4.0%	1.5%	
20 years	Return (p.a.)	11.4%	8.2%	3.2%
	Volatility (p.a.)	5.3%	2.9%	

Source: Atchison Consultants, RBA

Volatility is measured by the standard deviation of returns.

Returns of Portfolio 5, the prospective benchmark asset allocation, are significantly greater than those of 10 year bond yields particularly over 5 and 10 year periods to 31 December 2006. This is the measure of the property risk premium. Volatility of returns is also higher than those of 10 year Government bond yields.

During the early 1990's margins was negative reflecting the poor performance of property investment in that period.

Analysis shows that on a historical basis a return above the 10 year Government bond yield by 2.5%-3% has been achievable with the exception of the early 1990's. This represents the measure of the property risk premium.

Returns and volatility of returns of the prospective neutral asset allocation property portfolio are higher than 10 year government bond yields.

Benchmark Asset Allocation

Based on the return and risk characteristics of the various property sub sectors a benchmark asset allocation for an unlisted property portfolio has been developed.

Table 6: Benchmark Asset Allocation

Asset Allocation	Range	Benchmark
Retail property	30 – 60%	42.75%
Office property	20 – 50%	33.25%
Industrial property	5 – 25%	14.25%
Special Opportunity/ Development/value add	0 – 10%	4.75%
Listed property securities	0 – 30%	5.0%
Total		100.00%
Overseas property	0 – 40%	30%

The portfolio above is designed to achieve a diversified exposure across the retail, office and industrial sectors in both Australia and overseas with a small allocation to the special opportunity/development/value add sectors for diversification and return enhancement.

The benchmark asset allocation would have a significant probability of meeting investment objectives of:

- An income return of 6.5% p.a.
- A total return of 3% above the 10 year Government bond yield

Portfolio Management

With the benchmark asset allocation in place, other issues to be addressed in developing a strategy implementation plan for an unlisted property portfolio are investment management, including asset allocation management between sectors within the ranges established, the allocation to offshore assets and the need for liquidity.

Investment Management Structure

Implementation proposes the use of the "best available" sector specialists through managed funds as the way to achieve the portfolio characteristics. It is considered more appropriate because a single property manager is unlikely to have the skills for achievement of excellence in all classes of property. Factors which influence the returns from each property sector very materially and require specialist knowledge.

Allocation management involves assessment of sector outlook, allocation ranges and allocation time frame.

Selecting and Appointing Investment Managers

Extensive research and analysis of the property investment management industry is the key to successful combination of managers which complement each other. Managers should be rigorously evaluated with assessment criteria and ratings strictly adhered to.

Key features of each assessment are a well researched and defined set of criteria for the evaluation of managers. Property investment managers offer an extensive range of individual products. They may specialise by geography, property sector, risk, liquidity.

As a result an extensive database and related profiles on investment managers should be maintained.

On-going Maintenance of the Investment Process

Performance measurement and analysis is a fundamental part of the investment process. All aspects of the investment process should be carefully monitored, including whether the investment arrangements are meeting overall objectives, whether each manager is performing within expectations, and the impact of changes within investment management organisations.

Conclusion

An asset allocation benchmark for a Property portfolio, when properly constructed will reflect all the parameters in the property portfolio which is under consideration and the objectives set for the portfolio.

Taking into account historical numbers but modifying them for expectations about future returns supports a belief that a well diversified property portfolio that is made-up predominantly of direct or unlisted property can be expected to give stable returns at a premium to long term government securities – a benchmark total return of at least the 10 year government bond rate plus 3% or current total return of about 10.5% p.a. This should allow an income return of above 6% pa. Gearing can be expected to raise these returns but with increased risk.

Separate investment propositions which involve the full range of parameters, being Australian and overseas, unlisted, listed, property sectors, geography and the spectrum of commercial risks are available from a multitude of quality investment managers. A benchmark asset allocation which acknowledges all parameters provides a framework within which each of the propositions can be assessed by a multimanager investment team.

About the Authors

Professor Robert Officer

Chairman of the Pentacle Group and Chairman of the Pentacle Investment Committee

Professor Officer is Emeritus Professor University of Melbourne; Former Chairman of Victorian Funds Management Corporation (retired on 28 May 2006); Chairman of Acorn Capital Limited; Deputy Chairman of Tactical Global Management Ltd; Director of Over Fifty Ltd; Director of Babcock and Brown Direct Investment Fund Limited, Director of Colonial Foundation Limited; Trustee of Buckland Foundation.

Mr. Ken Atchison

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Mr. Ken Atchison is a property asset consulting specialist and principal of Atchison Consultants, a firm which provides advice and analysis across all aspects of property investment portfolios by recognising the constantly evolving issues related to property investments. Ken joined the Investment Committee of Pentacle to assist with investment strategy, manager selection, manager monitoring and client servicing. Ken has over 30 years' experience in the management of investment portfolios. In the past decade, he has focused on providing investment advice to funds, with special emphasis on property investment arrangements. For the six years prior to establishing Atchison Consultants, Ken was with Towers Perrin.

About Pentacle Property Funds Management Limited

Pentacle Property Funds Management Limited is a direct property funds management group. It has launched the Pentacle Diversified Property Funds as the first diversified unlisted direct property fund of funds to invest in the retail, industrial, international, special opportunity / development funds and office sectors by blending leading sector specialists.

Investors can choose between two funds, differentiated only by their liquidity and redemption features:

- Pentacle Diversified Property Fund- is an open-ended investment fund offering redemption within 6 months of receipt of a redemption notice (although the Trustee expects to meet redemptions within 30 days for amounts of less than $1 million and 60 days for larger amounts)
- Pentacle Diversified Property Fund - Enhanced – same structure as the standard portfolio with a redemption policy that promises redemption within 3 days of receipt of a redemption notice.

For more information, please visit www.pentaclefunds.com