DETERMINING THE CURRENT OPTIMAL ALLOCATION TO PROPERTY: A SURVEY OF AUSTRALIAN FUND MANAGERS

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ABSTRACT

This research paper examines the property asset allocation strategies for the A$1.7 trillion Australian managed funds industry and identifies the important steps and considerations that influence their optimal property allocation view and decision making process. It investigates the use and relevance of strategic and tactical asset allocation strategies for property asset allocation decisions. The results indicate that the allocation of resources to property assets is a complex system of interdependent decisions given its distinctive investment characteristics when compared to alternative asset classes. Apart from definitive/ quantitative inputs in property asset allocation models, Australian fund managers are influenced by many other non-financial considerations. In addition, there are notable differences in techniques for direct property, unlisted property and securitised property asset allocation. The results also demonstrate that there has been a shift in Australian fund manager's property asset allocation views and strategies driven mainly by the fund's need to adapt to the continued uncertain global financial market conditions.

Keywords: property investment, asset allocation strategies, fund management, diversification, portfolio construction and management.

INTRODUCTION

Property has traditionally been a major part of institutional investment portfolios in Australia. According to Higgins (2007, p15), institutional investment represents 40% of the Australian core property market. This extensive coverage compares to recent asset allocation studies which invariably have concluded that property is significantly underrepresented in the typical investment portfolio. Most institutional allocation to property in Australia is generally restricted to around 10% or lower, having peaked at 12% in the late 1980s (Armytage 2002, p85, Newell 2008, Rowland 2010).

According to PCA (2009, p13, p16), due to the declining stock market values following the 2007 global financial crisis, the allocation to property assets is expected to increase to 10-15% for some superannuation funds. With Australia's aging population and the increased focus on self-funding of individuals retirement, property is expected to continue to be a significant asset class in superannuation fund portfolios.

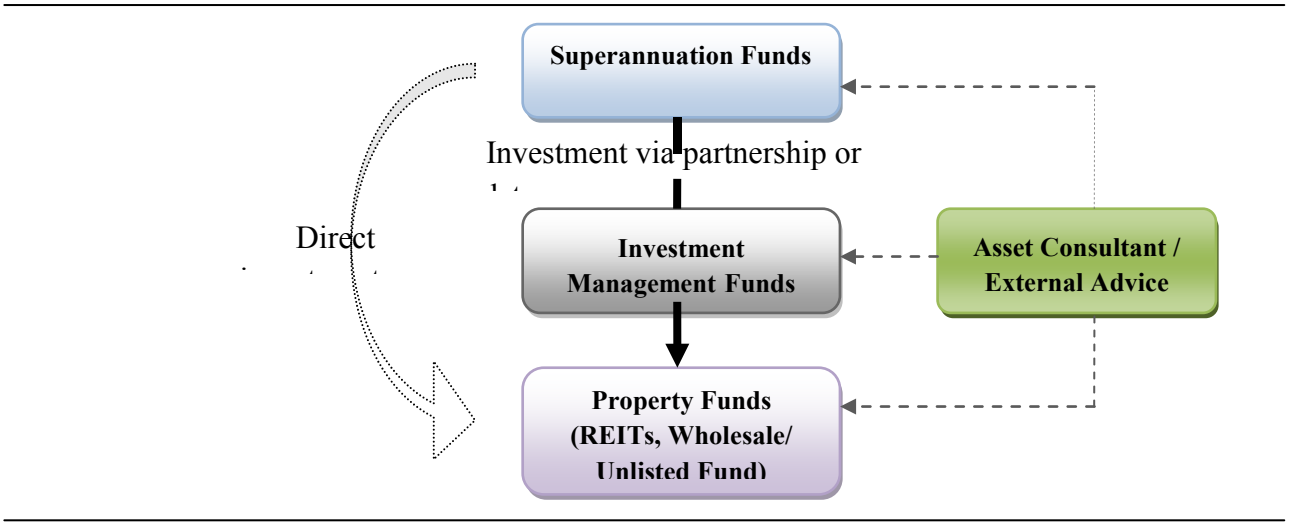
Newell et al (2002) stated that there is a need for more research to enhance the stature of property as an asset class, identifying in particular the role of property in a mixed-asset portfolio as the top priority research topic for stakeholders in Australia. While there are several studies on the level of property allocation in a multi-asset portfolio, research on the actual property asset allocation decision-making process is limited in Australia. Therefore, the primary aim of this research paper is to identify the current strategies and considerations that facilitate the optimal property asset allocation view and investment decisions for Australian managed funds.

Most Australian institutional investors currently hold property investments (both direct and indirect) through property fund vehicles. Rowland and Kish (2000, p104) defined a property fund as an investment vehicle that specialises in acquiring, developing and managing property investments on

behalf of other institutions and investors. These funds include real estate investment trusts (REITs), property syndicates and other pooled investments predominately invested in real estate, for example Challenger Property Securities Fund, DEXUS Property Group and Lend Lease.

Property funds are distinct from other managed funds such as superannuation funds and investment management funds (also known as diversified managed funds) which may only hold an allocation to property in their portfolios. By definition, superannuation and other managed funds that own properties as a minor part of their investment portfolio are not 'property funds' but may be direct and indirect owners of properties. Institutions, such as superannuation funds, may also invest in property assets through their exposure in investment managed funds (via mandate and partnerships). Investment management funds invest in property assets mainly via property securities funds and REITs (Rowland 2010).

Figure 1 illustrates a typical Australian managed fund industry property asset allocation structure. The investment allocation structure is developed from a superannuation fund perspective, the largest fund managers in Australia.



Superannuation Fund Property Investment Structure
Source: Author
Figure 1

Each managed fund type has distinct property asset allocation strategies and investment processes. In addition, the managed fund asset allocation and investment strategies can also be based on asset consultant or external advice. Hence, the industry survey undertaken as part of the data collection process for this research targeted a cross-section of industry experts from superannuation funds, investment managed funds, property funds and asset consultants. This approach allowed both fund specific analysis and general or industry evaluation of how Australian fund managers determine optimal property asset allocation strategies and decisions. While there are several studies on the level of property allocation in multi-asset portfolios, this is the first research paper that covers the actual property asset allocation decision-making process of all major groups in the Australian managed funds industry including superannuation funds, investment managed funds, property funds and asset consultants.

LITERATURE REVIEW

Investment Theory and Asset Allocation Concepts

Investment theory suggests that investors should diversify their investment portfolio in order to reduce total risk at a given level of return (Alexander et al 2001, Gitman et al 2004). This is easier said than done as institutional investors face a complex set of choices with respect to investment portfolio composition and management. Modern portfolio theory provides a theoretical framework for this process, however in practice, asset allocation decisions must be made in an environment of incomplete information, changing estimates of return and shifting definitions of the acceptable investment risk.

Markowitz (1952) quantitatively explored the notion that diversification is not achieved merely through an increased number of investments, but by investing in a number of assets whose patterns of returns are distinct and different enough from one another to partially or wholly offset each other's returns and thus reduce overall portfolio volatility. Markowitz pioneered the mean-variance approach which has been used to determine the optimal portfolio allocation. An optimal portfolio of assets is selected by combining an efficient frontier with a specification of the investor's preferences for risk and return. Furthermore, according to Darst (2003, pp46-47):

> "……...the asset allocation process draws upon and ties into Markowitz's Modern Portfolio Theory by focusing on the effects that including, limiting, or excluding a specific asset class will have on the risk (volatility) and return characteristics of the portfolio as a whole".

Any investment selection decision is preceded (either implicitly or explicitly) by an asset allocation decision. Asset allocation is therefore an important factor in the investment decision making process. Asset allocation decisions refer to the appropriate asset mix and relative weighting of asset classes in an investment portfolio. Asset allocation also seeks to identify what is the proper division of assets between conventional and alternative investments (Ragsdale and Rao 1994).

In the past asset allocation was described as a pedestrian and ad hoc process. Institutional investors were generally advised to place 60% of their assets in stocks and 40% in bonds. Today, the asset allocation process is a far more rigorous exercise for institutional investors involving the use of complex and sophisticated decision making tools and techniques that have transformed the process. Asset allocation is now seen as a complex system of interdependent decisions that is divided into two broad categories: strategic (longer term) and tactical (short term) allocation. There are now several economic, statistical and financial principles which affect the asset allocation decision. In addition, asset allocation and asset selection decisions are now increasingly being made by investment fund managers and asset consultants (Hauss 2004, Lummer and Riepe 1994, Rowland 2010, Wendt 1994).

Property Asset Allocation Concepts

Typically, institutional investors have used their property allocations to improve portfolio performance by adding an uncorrelated asset class (MacGregor and Nanthakumaran 1992, Morrison 2010). Combined with its comparatively good returns, real estate's low volatility (even after adjusting for the effects of valuation smoothing) emphasise its attractive risk and return characteristics to investors (Bond et al 2007, Dhar and Geotzmann 2005). Although property has always been considered as one of the major asset classes in an investment portfolio, it has a number of disadvantages, mainly illiquidity. Robinson (2002) explains that in the context of property investment, illiquidity is a major deterrent to investment and divestment decisions because of the time required to complete a transaction.

According to Dhar and Geotzmann (2005), the allocation of resources to property provides several challenges for institutional investors as choices about investment vehicles have expanded over the past two decades with the rise of REITs and other unlisted property funds and syndicates. In addition, the decision making process may differ for unlisted property and REITs and based on the size and type of fund, therefore making generalisations across funds inappropriate. Parker's (2010) extensive literature survey of REITs found that, in theory, the investment decision making process is sequential and linear but the nature and extent of the process may differ between investment products.

Several leading researchers (Craft 2001, De Wit 1996, Farragher and Savage 2008, Rowland 2010) have concluded that property asset allocation is typically made in the context of a mean-variance framework. An optimal portfolio of assets is selected by combining an efficient frontier (representing the risk and return characteristics of available portfolios) with a specification of the investor's preferences for risk and return. Dhar and Geotzmann (2005) explain that the application of modern portfolio theory as developed by Markowitz is almost mechanical once all the parameters of the asset return distributions are known. However, in reality, investors are faced with considerable uncertainty about the true underlying return-generated process.

According to French (2001), whilst definitive inputs in a property asset allocation model (historic data or predictive forecasts) are important, fund managers are also influenced by many other non-financial considerations such as behavioural issues. Fund managers use their own judgement, experience and creativity to make a good property allocation investment decision. An earlier study by Worzala and Bajtelsmit (1997) of US pension funds found that the most common investment technique used for real estate allocation was general experience/ intuition.

Some institutions determine future property allocation by anchoring on their current allocation. This may primarily be due to the fact that they see the current allocation as conceptually a safer harbour and it thus becomes a benchmark from which the institution deviates as new information becomes available and the yardstick by which the magnitude of deviation is measured (French 2001). Gallimore and Gray (2002) explored the concept of investor sentiment and argued that investor sentiment for property investment differs from that which applies to the financial markets. Their study of UK property investors found that, while there is extensive use of hard market information, use of personal feel for the state of the market or information based on the views of others is highly significant in a decision-making process.

Institutional Real Estate Inc's (2010) study of US pension funds highlights that the use of asset consultants in real estate investment strategies is commonplace. Asset consultants typically advice US pension funds on portfolio strategy, manager selection and performance monitoring. Likewise, the use of asset consultants in Australian superannuation fund property allocation decisions is also widespread. According to Newell (2008), asset consultant contributions were more evident at the strategic level, as well as in the allocation to direct property versus listed property and at the specific property fund selection level.

Institutions make reference to a series of risk and return evaluation measures when evaluating their property asset allocation decisions. Farragher and Savage's (2008) investigation of the US institutional real estate asset allocation decision making process found that the internal rate of return (IRR) and cash-on-cash rate of return were the most important return measures. Sensitivity analysis, debt coverage ratio and scenario analysis are the most popular quantitative risk assessment techniques. Rowland and Kish (2000) in a study of Australian property fund's investment decision making process identified IRR as the most important return evaluation measure. In evaluating

properties, sensitivity analysis, and to a lesser extent scenario analysis, dominated the methods of defining risk. Earlier Australian institutional investor studies (Boyd et al 1995, IPD 2000, Newell et al 1993) also identified IRR and the initial yield as the most frequently used measures of property return, with sensitivity analysis being the most popular risk analysis technique.

Dhar and Geotzmann (2005) and Rowland (2010) explain that the secular trends in property returns (ranging from periods of credit crunch to the boom in values) made long-term forecasts of risk and return somewhat challenging. Events such as the 2007 global financial crisis have seen investors questioning fund managers' investment models, with a re-think on the optimal allocation level to property assets and the related asset allocation strategies. Newell (2008) found that institutional investors were unsure about the impact of their future exposure for both direct and listed property, with this uncertainty being stronger for A-REITs than direct property. The institutional survey conducted as part of this research investigated these issues, including the theories and concepts related to property asset allocation in an Australian context.

Research Design

After university ethics approval and a pilot study, the survey was mailed to a target sample of 130 institutional fund managers and asset consultants within Australia. The survey data was collected between May – August 2011 through semi-structured questionnaires. For confidentiality reasons all information is reported in an aggregate format. Previous institutional surveys (Newell et al 1993, Rowland and Kish 2000) on the subject similar to the research topic have generally targeted a sample size of 100 participants. The target respondent group included superannuation funds (60), investment management wholesale funds (40), property funds (15) and asset consultants (15).

The respondent selection was based on judgemental (non-random/ non-probability) sampling. The institutions surveyed were identified on the basis that they held or managed significant investments in real estate assets (both direct and indirect). The sample respondent list for superannuation funds was drawn from the Australian Prudential Regulation Authority publication 'Superannuation Fund-Level Profiles and Financial Performances: September 2010'. The list of investment management wholesale funds for the survey was identified from the Australian Trade Commission publication 'Investment Management Industry in Australia: June 2010'. Respondents were shortlisted after consultation with industry experts.

Of the targeted 130 institutions, the survey pack was successfully delivered to 125 respondents. In total, 79 institutions responded to the survey which included 51 completed responses and 28 refusals. The 51 completed responses included superannuation funds (21) (Public Sector Superannuation 9; Industry Superannuation 6; Corporate Superannuation 3; Retail Superannuation 3), investment management wholesale funds (15), property funds (7) (to avoid bias results, responses from property funds have been excluded from some survey analysis) and asset consultants (8). From the 28 institutions that did not agree to be part of the survey, 19 were superannuation funds that mainly out-sourced their property asset allocation functions to asset consultants or external managers. Some funds were also in the process of being merged with other superannuation funds. The asset consultant firms surveyed were those listed as service providers for the targeted superannuation funds.

Overall, the completed response rate for the survey was 41%, refusals 22% and non-response rate 37%. The list of survey respondents/compilers included chief executive officers (8), chief investment officers (18), fund managers (14) and analysts/ consultants (11).

SURVEY RESULTS AND DISCUSSION

Property Allocation Level of Funds Surveyed

The funds under management of institutions surveyed (excluding asset consultants) were approximately A$576 billion, distributed approximately 50% superannuation funds, 39% investment management funds and 11% property funds (PFs). The property exposure for these institutions was approximately A$115 billion. The total property exposure excluding property funds was A$53 billion.

Table 1 provides details of the Australian fund manager's property asset allocation levels in relation to their funds under management.

Property Type (% of FUM*)	***Superannuation Funds (21)***	***Investment Management Funds (15)***	***Average*****
Direct Property	**4%**	**2%**	**3%**
Indirect Property			
REITs	3%	4%	4%
Unlisted Property Fund	5%	1%	3%
Total indirect property	**8%**	**5%**	**7%**
CMBS	0%	1%	0%
Total Property Exposure	**12%**	**8%**	**10%**

*FUM refers to funds under management.

**Total valid sample size was 36 (excluding property funds and asset consultants).

Property Allocation Level for Fund Surveyed
Source: Author
Table 1

Property formed 12% of the superannuation fund and 8% of the investment management fund's portfolio. The average property asset allocation level for superannuation funds and investment management funds surveyed was 10% (3% direct and 7% indirect). The results are consistent with earlier studies (Armytage 2002, Newell et al 1993, Newell 2008, Rowland 2010) and shows that the allocation to property has remained unchanged (average of 10% of lower) for Australian managed funds in recent decades.

Of the total number of institutions surveyed, 28% expect their property allocation target to move within the 11-15% range within the next 5 years. This expected higher allocation to property is a reflection of funds seeking greater portfolio stability post 2007 global financial crisis. The results are consistent with PCA (2009) who report forecast allocation to property to increase to 10-15% for some Australian managed funds.

The size of the funds under management has a direct impact on the property allocation decisions of fund managers. Table 1 shows that superannuation funds, who tend to have greater funds under their management (50% of total funds of those surveyed) have a higher allocation to property (12%) when compared to Investment Management Funds, holding 39% of the funds under management and having an allocation of 8%.

In terms of the investment strategy, only 16% of the institutions surveyed invested in property assets directly, with the majority investing via property fund vehicles (45%), mandate (24%) and

investment management funds (15%). Respondent comments indicate that there is disparity in how institutions surveyed classify different property assets. Some fund managers surveyed now categorise direct property within the unlisted band together with infrastructure assets. REITs are increasingly banded within the equities asset class. Other respondents argued that the mindset needs to change, stating that fund managers/ investors need to understand the function and dynamics of real estate and to keep REITs out of the general equities classification.

The level of managed fund investment in property assets and the related investment strategies are largely dependent on the property personnel available. The asset allocation team of the managed funds surveyed generally consists of 4 to 12 committee members with property staff representation being 1 to 2. Other representations on the asset allocation committee are from the equities and bonds team. Some fund managers and asset consultants surveyed were at unease with the low level of property personnel presence within the fund asset allocation team. The key concern was that their lack of understanding of local and overseas property products or markets indirectly limits the fund's exposure to property assets.

The average number of property professionals employed to make property allocation decisions for the institutions surveyed is three (excluding PFs). This figure generally includes one senior manager and two analysts each contributing 50% of their time. Funds that do not employ any property professionals outsourced their property allocation and investment management functions to asset consultants or via other partnerships.

Table 2 provides a cross-tabulation of results for number of property professionals employed by fund managers versus their level of property exposure and related property investment strategy.

Property Professional Employed:	***0***	***1 to 3***	***3+***
Superannuation (21)	11	7	3
Investment Management Funds (15)	1	12	2
Percentage of funds surveyed (36 excl. PFs)	**33%**	**53%**	**14%**
Property Exposure $ Billion			
Average	0.4	1.6	3.2
Lowest	0.1	0.2	0.2
Highest	1.1	4.0	8.0
Property Investment Medium:			
Direct Property	0%	21%	43%
Indirect/ Securitised Property	100%	79%	57%

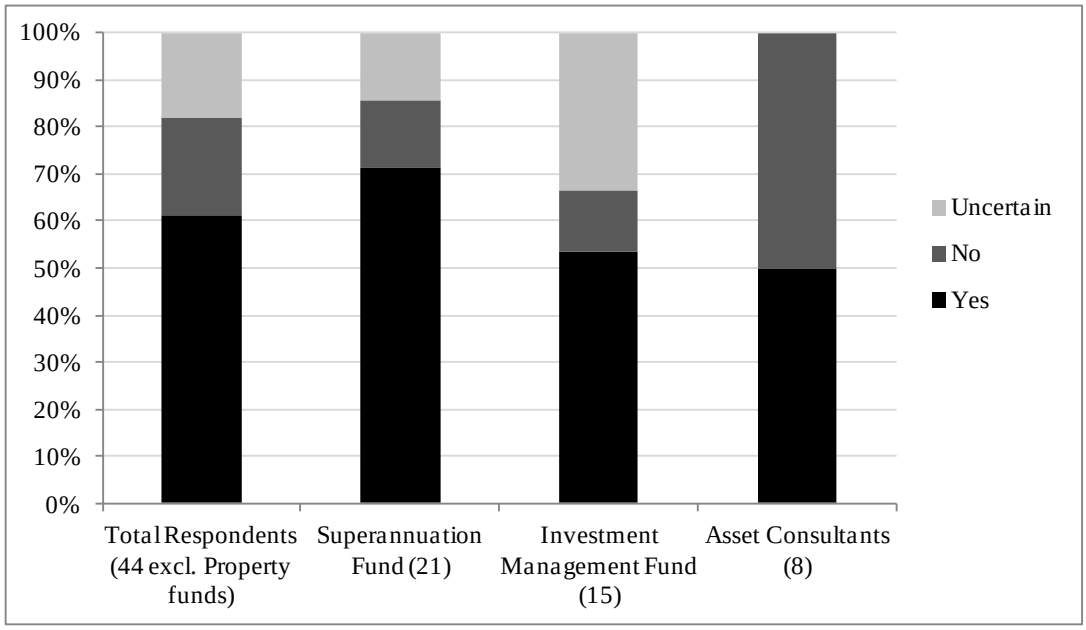
Cross Tabulation: Number of Property Professionals Employed vs Property Exposure
Source: Author
Table 2

Of the 36 managed funds surveyed (excluding PFs), 33% do not employ any property staff, while 53% employed between 1 to 3 and only 14% had more than 3 property personnel. The funds that did not employ any property professionals had a nominal average property investment of A$0.4 billion. In contrast, funds that employed staff with property backgrounds generally had property investments in the range of A$1.6 to $3.2 billion (average). Funds with fewer than 3 property staff

are likely to invest predominantly in the indirect or securitised property sector. Funds with higher number of property personnel (3+) are likely to invest actively in both the direct and indirect property investment sectors. The cross-tabulation results indicate that the number of property personnel employed by an institution has a direct impact or influence on a fund's level of property asset allocation and its property investment strategy. The results indicate that funds with greater levels of property expertise are likely to invest more actively in both direct and securitised property markets. Funds with no property expertise are limited in their property exposure, particularly direct property investments.

Is the Current Allocation to Property Optimal?

Figure 2 illustrates the respondents view on whether the current level of allocation to property is optimal for their funds.



Respondent's view on whether Current Allocation Level to Property is Optimal
Source: Author
Figure 2

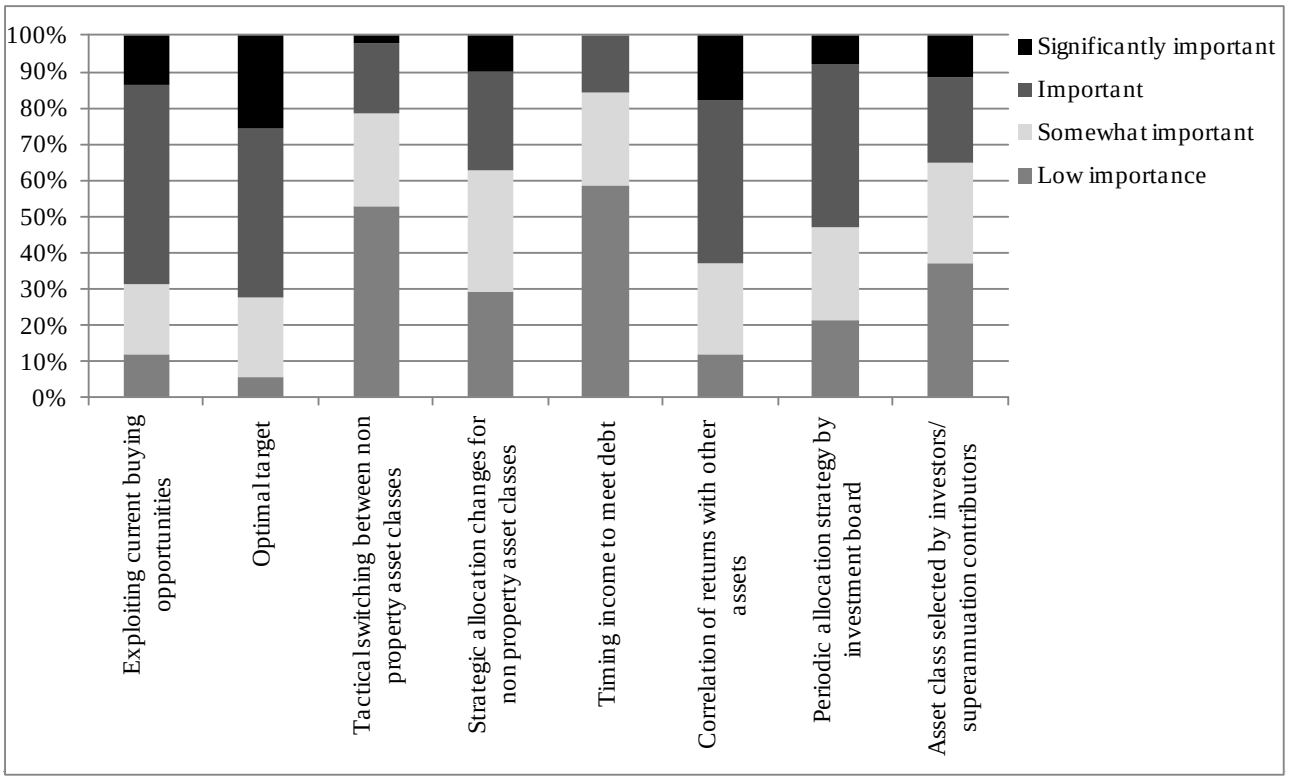
A majority of the institutions surveyed (61%) are comfortable with their current level of property asset allocation. However, approximately 39% of respondents believe that the current allocation level to property is not sufficient or were uncertain.

Respondents felt that the allocation level to property for their funds was optimal based on the institution's asset liability modelling, portfolio construction process, risk/return profile, advice received from asset consultants and property's relative attractiveness to alternative assets. In most cases, the institutions have pre-agreed investment constraints and thus manage their property optimisation process within those constraints. Respondent comments highlight liquidity as the predominant constraint to optimal property allocation decisions. Apart from liquidity, other constraints to optimal property allocation include management fees, limitations on modelling, limits on listed/ unlisted split, difficulty in obtaining stock, declining market conditions, funds available to invest, entry restrictions and time and staff.

An interesting factor was that some fund managers surveyed felt that their institution's allocation level to property was optimal based on the assumption that it equates to a neutral market allocation of 10%. This conforms to research conducted in UK (French 2001, Gallimore and Gray 2002) which highlighted that some institutions may determine future property allocation by initially anchoring on their current allocation or information based of the views of others in the market. As direct property is a long-term investment with large capital outlay, the inclusion of property within a portfolio assists with diversification and it will be expensive for organisations to change their investment strategies.

What Influences Property Allocation Target?

The fund managers were also asked to rank the importance of a set of key factors that are likely to influence how much property their institution holds. The results are illustrated in Figure 3.



Factors Influencing Property Allocation Target
Source: Author
Figure 3

Overall, the dominant factor likely to influence how much property an institution holds is the *exploiting of current buying opportunities*. Interestingly, tactical switching between asset classes was ranked as a low importance factor. Rowland and Kish (2000) in an earlier study of Australian property fund managers identified tactical switching between asset classes as the most important factor likely to influence the level of property weight in a portfolio. The current results are reflective of the changes in property asset allocation tactics for Australian fund managers amid a competitive and uncertain market.

Funds Managers were also asked if there are written rules that restrict what percentage of their investment portfolio can be allocated to property assets. Of the total 21 superannuation funds surveyed, 13 (or 62%) have specified limits to their property allocation levels. Similarly, 67% of the

investment management funds surveyed and 63% of the asset consultants surveyed are restricted by their (or their client's) investment policy statements when determining optimal allocation to property assets. The responses indicate that for some funds there may not be restrictions placed specifically for property assets, but unlisted investments generally. The written rules governing target allocation to property assets can be amended by the investment committee.

Property Allocation Process

The fund managers surveyed were asked to identify and describe their institution's property asset allocation strategies. The responses indicate that Australian managed fund's property asset allocation models are generally run on a 7-10 year (strategic allocation) and 1-3 year (dynamic allocation) time horizon.

Strategic asset allocation (SAA) was identified as the fund's long term property investment strategy or policy. Dynamic strategic asset allocation (DSAA) was defined by fund managers surveyed as a medium term tilt from the fund's long term property allocation strategy mainly to defend against or exploit market extremes. Tactical asset allocation strategy (TAA) is described by respondents as short term opportunistic moves, linked to annual business plans and only relevant to listed property. The decision-making process for these long and short terms strategies is the same, but the timing within which decisions are made or reviewed differs (annually, quarterly or monthly/weekly).

Table 3 provides details of the asset allocation strategies adopted by Australian fund managers for property assets.

Institutions	***SAA***	***DSAA***	***TAA***
Total Respondents (44 excl. Property funds)	**57%**	**22%**	**21%**
Superannuation Fund (21)	54%	26%	20%
Investment Management Fund (15)	63%	17%	21%
Asset Consultants (8)	47%	35%	18%

Fund Manager's Property Asset Allocation Strategies
Source: Author
Table 3

Table 3 results illustrate that SAA is the dominant asset allocation strategy used by the fund managers for property; reflective of the nature of the property asset class (illiquid and long-term investments). However, respondent comments indicate that shorter term strategies (DSAA, TAA), although not as prominent as SAA, are now viewed as more effective by fund managers. In particular, dynamic asset allocation strategy has become more prominent for several funds surveyed due to its ability to react to the current market environment more effectively. Respondent comments indicate that post 2007 global financial crisis investors are disbelieving of long term data and therefore the industry is more tactical than in the past. It would appear that those organisations that employ a higher number of property professionals are more open to apply DAA strategies.

Of the total number of 51 institutions, only 15 (or 29%) outsourced their asset allocation models, with 11 being superannuation funds and 4 investment management funds. A significant majority (92%) of the institutions that out-source their property allocation and investment management functions do not provide complete discretion to outside managers or consultants.

Determining Optimal Allocation to Property Assets

Table 4 provides a summary of the key determinate factors that guide Australian fund manager's property asset allocation decisions.

The institutions surveyed determine an optimal allocation view for property assets based on the fund's asset allocation strategy, external advice and a series of quantitative analysis and qualitative overlay. Funds would generally have a capital markets or investment research team that provide analysis and run optimiser models (both historic and forecast integrated such as efficient frontier) for each investment asset class. The fund's asset allocation committee would review both in-house and external recommendations for determination of the institution's optimal allocation to property assets.

Key Determinate	***Drivers/ Inputs***
Asset Allocation Committee Asset consultant advice Investment policy statement Product Disclosure Statement /Prospectus Fund investment strategy Quantitative and qualitative analysis	Investments choices by plan members Fund member profile (such as age) Funds available to invest Client investment mandates/ objectives or expectations Client investment constraints Investment philosophy (active, risk managing) Risk tolerance Risk/return forecast House view on asset classes/ opportunities (correlation with other assets) Characteristics of property (assessment of liquidity) Liability matching (superannuation) Economic trend Market view/ peers Regulatory compliance – ASIC/ Corporation Act/ Superannuation Act)

Key Determinate Factors Influencing Fund's Optimal Allocation View for Property
Source: Author
Table 4

For most superannuation funds surveyed, external advice and asset liability modelling were the key determinates of optimal allocation to property assets. Asset consultant's optimal allocation view is customised to their client's investment objectives. Like superannuation funds, the investment management funds surveyed determine their optimal property allocation view based on a series of quantitative analysis and qualitative overlays. However, their analysis is predominantly undertaken in-house. External advice (mainly from asset consultants) is limited to setting up fund's strategic asset allocation targets on 3-5 year intervals.

The institutions surveyed use a number of forecast models (property, capital markets, financial and mathematical) and software to aid their property asset allocation decisions. Larger funds would generally have a team of in-house professionals dedicated to conducting industry research, developing and maintaining databases on various markets and submarkets such as economic, geographic, political, capital markets and property. Such databases would also track the performance of various property markets and sub sectors including key property statistics (rental, occupancy, outgoings and valuation), demand and supply forecasts, transaction volumes, construction or re-development costs, correlation matrix (property vs alternative assets) and other

variables. Smaller funds that did not employ any property professionals or have a small research team base their property asset allocation decisions on analysis conducted by industry consultants.

Table 5 provides a summary of quantitative analysis methods and qualitative overlay used by the institutions surveyed as part of their property asset allocation decision-making process.

Methods	***Key Inputs***
Quantitative	Portfolio construction process (investment objective/ strategy)
Valuation modelling (cap rate)	Asset consultant advice
Scenario analysis	Investment committee meetings
Efficient frontier based on historical returns	External fund manager meetings
Mean variance optimiser	Software (Cougar; bespoke; Yardi; Estatemaster; Argus)
Covariance	Market understanding (in-house research):
Monte Carlo simulations	▪ property market fundamentals
Risk/return analysis	▪ property market forecast (expected long term fluctuations in values)
Volatility analysis	▪ top-down and bottom up analysis (property and economic)
Correlation matrix	▪ economic forecast
Factor analysis	▪ historical data
Financial models (cashflow; P&L; DCF)	▪ capital markets assumptions
Financial ratios (REIT specific)	Factsheet/ data from managers (e.g. returns, leverage etc)
Econometric models	Market investment opportunities
Asset liability modelling	Investment timeframe
Portfolio construction models/ portfolio optimiser	Funds available to invest
Relative return models vs alternative investments	
Qualitative	
Judgement (“gut-feeling”)	
Manager skill and quality	
Asset quality	
General discussions with managers	
Client/ member views (surveys)	
Investor/ shareholder meetings	
Fund manager experience/ understanding	
Industry peer comparison	

Analysis Techniques Influencing Property Asset Allocation Decisions
Source: Author
Table 5

The results show that Australian fund managers use a combination of quantitative and qualitative analysis as part of their property asset allocation decision-making process. The type of quantitative analysis that generally aids Australian fund manager’s property asset allocation decisions includes valuation, financial/ investment analysis models and economic analysis. Asset allocation models used are efficient frontier analysis based on historical returns and scenario analysis.

Fund managers surveyed have also placed greater importance on qualitative overlay to any quantitative output before decisions are finalised. The key qualitative overlays identified by the Australian fund managers include judgement (‘gut-feeling’), experience and understanding of investing in property assets, feedback from clients or shareholders, fund manager skills, asset

quality assessment and peer comparison. The results are comparable to similar studies conducted overseas (French 2001, Gallimore and Gray 2002, Worzala and Bajtelsmit 1997) that identified general experience/ intuition, judgement and the use of personal feel of the market as key qualitative factors that influence institutional property allocation decisions in the US and UK.

Institutions surveyed were asked to rank internal and external factors that are likely to influence their property asset allocation decision making process. Table 6 illustrates the results by institutions surveyed.

Internal factors influencing property asset allocation decision	***Overall (51)***	***Super'n Fund (21)***	***Investment Mgmt Fund (15)***	***Property Specific Fund (7)***	***Asset Consultant (8)***
Advice from internal investment team	**5**	5	5	4	5
Relative external asset manager skills	**4**	5	3	2	5
General skills/ intuition of decision-maker	**4**	4	4	4	4
Intended investment period	**4**	4	4	4	4
External factors influencing property asset allocation decision					
Recent trends in the property market	**4**	4	4	4	4
External/ independent advice	**4**	4	3	3	4
Actions taken by industry peers	**3**	3	3	2	3
Market sentiment	**3**	3	3	2	3
Regulatory/ legislative environment	**4**	4	3	3	4
Economic environment/ outlook	**4**	4	4	4	4
Financial market conditions	**4**	4	4	4	4
Market demand and supply factors	**4**	4	4	4	4

Note: Degree is median score on a scale of 1 to 5 (1 not important; 2 low importance; 3 somewhat important; 4 important; 5 significantly important)

Internal and External Factors Influencing Property Asset Allocation Decisions: Median Rank by Fund Type
Source: Author
Table 6

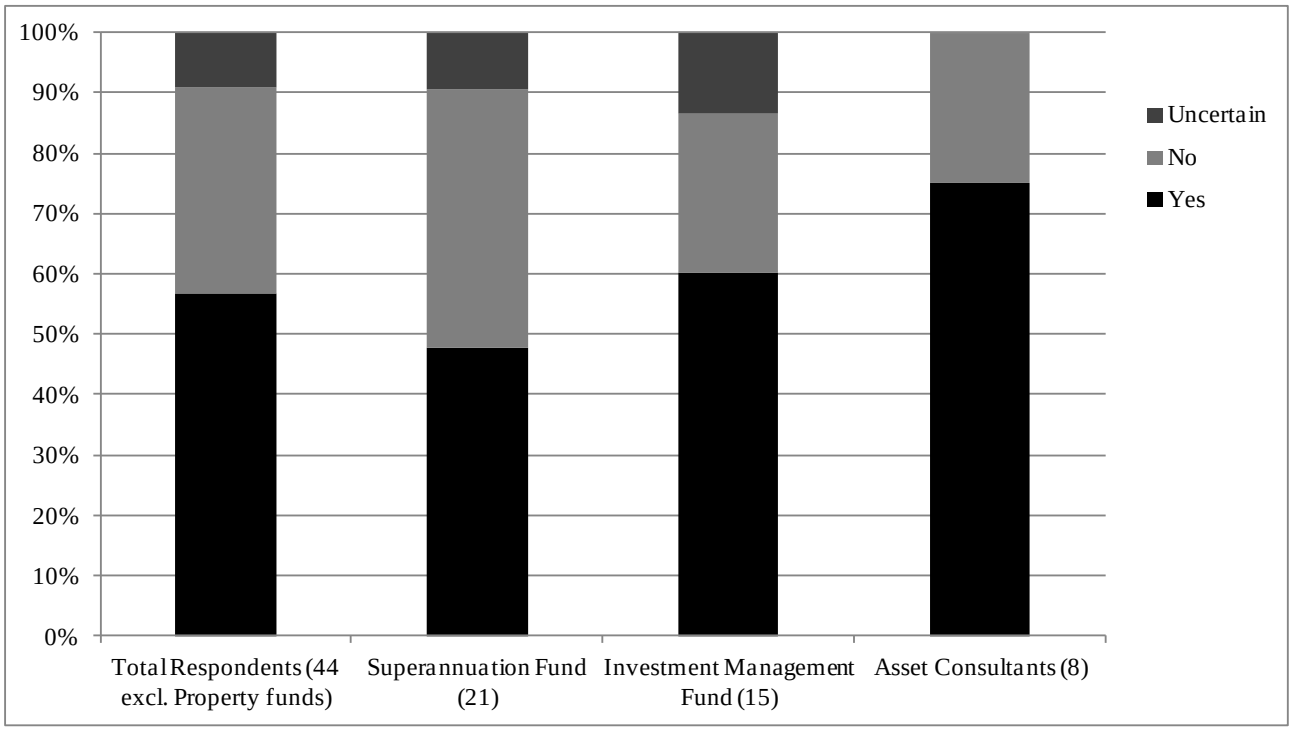
Responses on a fund specific level were generally parallel, with *advice from internal investment team* rated as the most important internal factor likely to influence the property asset allocation decision making process. The key external factors likely to influence a fund's property asset allocation decision were *market demand and supply*, *economic environment and outlook* (inflation, interest rate and exchange rate), *financial market conditions* and *recent trends in the property market*.

Table 6 shows the correlation of results was high between the superannuation funds and asset consultants with both also ranking *relative external asset manager skills* as significantly important. The factors that are rated as less significant or somewhat important for Australian fund manager's property asset allocation decision making process include *actions taken by industry peers* and *market sentiment*. Respondent comments indicate that whilst action taken by industry peers may be considered by fund managers, it does not drive their own property asset allocation process.

Overall, the results were comparable to similar studies conducted overseas (Dhar and Geotzmann 2005, Gallimore and Gray 2002, Worzala and Bajtelsmit 1997) that highlighted relative skills of external manager, intuition, statistical estimates of risk and return and long-term historical performance as the key factors influencing institutional investor's property allocation decisions. However, these studies also placed greater importance on peer comparison and market sentiment.

Optimising Future Property Allocation Level

Despite the current low allocation level, indications are that a majority of the funds are likely to increase their investment in property assets. Figure 4 provides details of whether the institutions surveyed expect any change to their level of property asset allocation in the next 5 years.



Do Institutions Expect Change in Property Allocation in the Next 5 Years?
Source: Author
Figure 4

Figure 4 shows the level of responses indicates that approximately 56% of the funds surveyed expect to see changes in their property asset allocation level in the next 5 years. The institutions that have indicated a change in their property asset allocation level were driven by its attractive risk/return outlook. According to the survey respondents, property's mid to low risk asset classification and its strong inflation hedging characteristics are likely to continue to attract investors in future. The key reasoning behind the expected change in property asset allocation level includes:

i) a move away from listed market – the current trend is to diversify away from REITs with higher allocation to direct property and unlisted property funds due to the stability of income;
ii) examining international property opportunities or allocating additional property investment offshore due to factors such as the growth in Asian

markets, higher Australian dollar and lack of opportunities locally. Also potential move towards global REITs from Australian A-REITs; and

iii) portfolio diversification and stability, with the need to attain a 50/50 split between listed and unlisted assets.

The respondent comments were similar across the managed funds concerning their future property allocation direction. The asset consultants surveyed also expect a minor increase in the level of property allocation for their wholesale clients due mainly to market factors such as the stabilisation of the property fund industry.

Fund managers surveyed also indicated their desire to have more control in how they invest in property assets. Funds are more focused on core assets and owning property directly to reduce risk. Although indications are that Australian managed funds will become more direct participants in property, the investments will mainly be via partnership and mandates. Respondents stated that the preference for direct is due to the control element, ability to control key decisions relating to the assets. The consensus view was that fund managers were only interested in making key decisions. They do not want to be involved in the day-to-day operation of the assets, i.e. they don't want to be asset managers. This will be a slight change from current allocation strategies where managed funds largely allowed external managers to make the key property asset selection, investment and divestment decisions.

CONCLUSION

The research illustrates that there has been a shift in Australian fund manager's property asset allocation views and strategies driven mainly by the fund's need to adapt to the continued uncertain global financial and investment market conditions. Although strategic asset allocation remains the dominant property allocation strategy, shorter term strategies, in particular dynamic asset allocation structure has become more prominent for several funds due to its ability to react to the current uncertain market environment more effectively.

The techniques and analysis that drive Australian fund manager's property asset allocation decisions are sophisticated and comparable to those utilised by US and UK fund managers. The key quantitative asset allocation analyses include efficient frontier analysis based on historical returns and scenario analysis. Fund managers also placed significant importance on qualitative overlay, mainly judgement ('gut-feeling') and experience.

Fund managers surveyed were generally comfortable with the current level of property allocation based on their institution's asset liability modelling, risk/return profile and advice from asset consultants. It is interesting to note that neutral market view (10%) drives optimal property allocation decisions for some funds. In most cases, fund managers have predetermined investment constraints and thus manage their property optimisation process within those constraints. Liquidity was the predominant constraint to optimal property allocation decisions.

Going forward, allocation to property assets will remain important for Australian fund managers. The effect of declining stock market values due to continued uncertain global financial market conditions is expected to increase the need for funds to focus on stable investment sectors such as property. Australian fund managers are now downgrading indirect /securitised property exposure, with higher weighting to direct property. Fund managers are also seeking greater international property exposure due to factors such as a higher Australian dollar and lack of opportunities locally. This may result in some managed funds adopting a more in-house approach with larger investment teams involving more property expertise to drive their property asset allocation analysis and decisions. Although indications are that Australian managed funds will become more direct

participants in property, the investments will mainly be via partnership and mandates. Overall, the push towards direct property is reflective of the need to achieve greater portfolio stability and the need for funds to have more control over key decisions relating to their assets (strategic and investment level).

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