

# Fund characteristics and net investment returns

Report prepared for ASFA by Chant West

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Association of Superannuation Funds of Australia

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## EXECUTIVE SUMMARY

- Chant West was commissioned by ASFA to examine whether a relationship exists between fund scale and investment returns. This issue has become increasingly topical, especially in light of the Cooper Review which argued that fund scale does matter, particularly as it relates to per member investment, advice and operating costs.
- The investment performance of 45 major superannuation funds was analysed, focusing on their default investment options. Total assets under management in the investment options considered were around \$190 billion. While the results are specific to the funds surveyed, they are likely to be indicative of APRA-regulated funds as a whole.
- Returns were calculated net of investment fees charged to each fund and tax related to investment earnings. The calculations did not include administration fees or any adviser commissions as the focus was on investment performance.
- Large funds were considered to be those with assets of \$6 billion or more, with small funds falling below that amount. A break point of \$6 billion was used as Chant West considered that at this size funds are able to obtain significant diversification of investment portfolios.
- The analysis undertaken by Chant West indicates that increased scale has allowed larger funds to deliver, on average, performance which is measurably superior over the longer term. Large funds, however, do not always outperform small funds.
- The outperformance of large funds relative to small funds in those 45 examined was on average about 0.7 per cent per annum over seven years.
- The outperformance of the funds surveyed with a high exposure to unlisted assets relative to funds with a low exposure to unlisted assets, was also about 0.7 per cent per annum.
- While a valuation lag applying to unlisted assets can distort comparisons over specific periods, the study indicates that this has not been a significant factor since late 2009 when significant revaluations of unlisted assets were largely complete.
- The best performing funds within the overall group studied were large funds with a high exposure to unlisted assets.
- The key message from the analysis is that while scale is important, scale alone is not enough to deliver superior performance over the long-term. Asset allocation is also a critical factor and the Chant West analysis points to the role of exposure to unlisted assets. There also may be other factors at work, including the specific strategic asset allocation strategies used by the funds that have recorded the higher-than-average investment performance over the period considered.

## 1. INTRODUCTION

### 1.1 Background

Chant West was commissioned by ASFA to examine whether a relationship exists between fund scale and investment returns. This issue has become increasingly topical, especially in light of the Cooper Review which argued that fund scale does matter, particularly as it relates to per member investment, advice and operating costs. Achieving greater scale also appears to be an objective of a number of the *Stronger Super* reforms, including the introduction of MySuper products as the default funds for employees.

Some market observers also argue that scale allows a fund to achieve better returns, as larger funds have access to a broader range of investment opportunities (wider diversification) and are better able to negotiate lower investment fees.

The counter argument is that provided a fund has reasonable scale, what matters most is where it invests. This in turn is a function of the fund's investment beliefs - in particular, its beliefs regarding asset allocation, currency and liquidity. There also are differences in approach between funds in the extent to which they make use of passive or index-based investment strategies. Index-based investment strategies typically have low investment fees.

The findings of this report suggest that scale is just one of a number of factors that contribute to performance differentials between funds. Another particular factor identified as contributing to relative performance is the percentage of assets invested in unlisted assets (including alternative assets such as private equity, infrastructure and hedge funds). The extent to which a fund has been active in managing their asset allocation positions also appears relevant.

Some funds are able to invest more in unlisted assets for reasons other than scale and it is possible, even in smaller funds, when there is a pattern of stable memberships and relatively stronger cash flows through continuing Superannuation Guarantee contributions. Scale can also be purchased to some extent by entering into joint arrangements with other superannuation funds and investors, including in regard to unlisted investments.

### 1.2 Methodology

A total of 45 superannuation funds were included in the Chant West analysis (see Attachment A). Total assets under management in the options considered were around \$190 billion, of which around \$30 billion was in the smaller funds.

The analysis compared the performance of the multi-manager, growth investment option of each fund. 'Growth' for the purposes of the research was defined as meaning a 61 to 80 per cent allocation to growth assets. Most of the funds' default options fall within this risk/return profile.

Investment performance was analysed over one, three, five, seven and 10-year periods to March 2011. All the funds included had a seven-year performance history, but only 36 of the 45 had a 10-year history.

Returns were calculated net of investment fees charged to the fund and tax on investment earnings. The calculations did not include any administration fees deducted by the fund from investment earnings or any adviser commissions. This ensures that the comparisons made were strictly investment-related and not affected by differences in how administration costs and/or adviser fees are paid.

The first stage of the analysis focused on the overall group of 45 funds split by scale and unlisted asset exposure. The second stage focused on various component groups of funds to further assess the relationship between fund scale and net investment returns.

The research used standard deviation as a measure of (observable) investment return volatility. This was considered by Chant West to be the most commonly used measure and the best available. However, it does have limitations in practice because of the infrequency of unlisted asset valuations and the smoothing effect this has on reported returns.

Large funds were considered to be those with assets of \$6 billion or more, with small funds falling below that amount. A break point of \$6 billion was used as Chant West considered that at this size funds are able to obtain significant diversification of investment portfolios. Below this point, diversification options are somewhat limited because of minimum exposure thresholds, especially to 'lumpy' unlisted assets.

Based on these definitions, the population of funds researched included 23 large funds and 22 small funds.

To gauge the impact of unlisted assets, the research divided the funds into two groups:

- Funds with a high exposure to unlisted assets (more than 20 per cent).
- Funds with a low exposure to unlisted assets (20 per cent or less).

Unlisted assets include unlisted property, unlisted infrastructure, private equity, hedge funds and various other illiquid or semi-illiquid assets. The 20 per cent exposure level roughly equates to the industry average, as shown in Table 1. This table shows the main components of unlisted assets by industry segment at June 2010 based on the Chant West *Strategic Asset Allocation Survey* and its methodology.

Universe	Property	Infrastructure	Private equity	Hedge funds	Other	Total
Overall	6	3	3	4	3	19

Based on these definitions, the research included 25 funds that have a high exposure to unlisted assets and 20 funds with a low exposure.

## 2. ANALYSIS OF ALL THE FUNDS IN THE STUDY

### 2.1 Overall group of funds split by scale

Table 2 compares the performance of large funds with small funds in the survey sample over short, medium and long-term periods to March 2011. Clearly, large funds have outperformed small funds over all periods shown, albeit with slightly more observable risk.

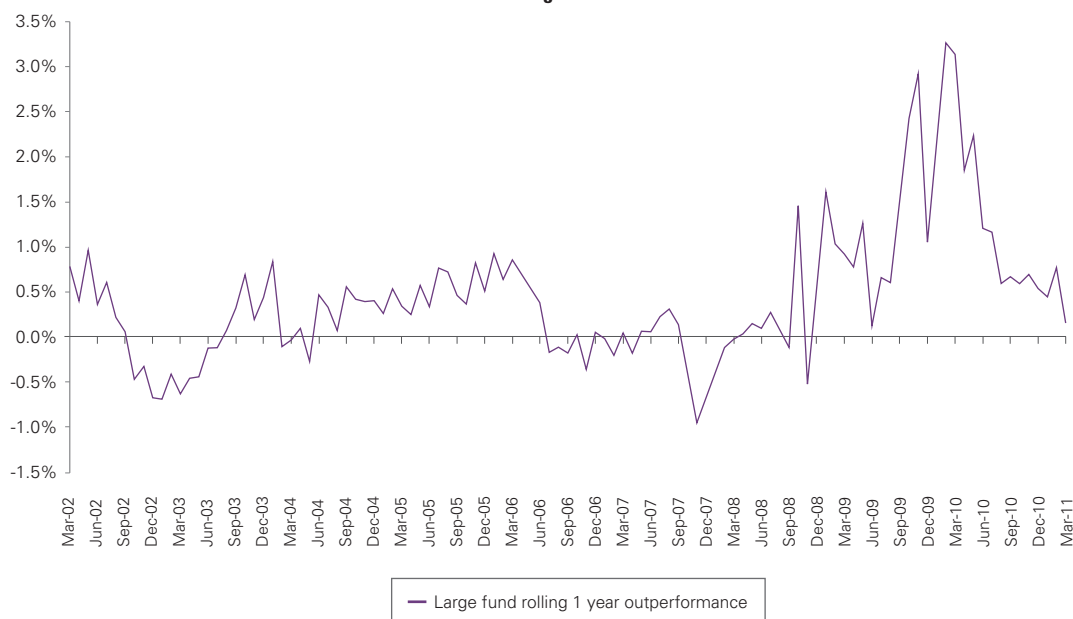
Both groups have similar exposure to growth assets (about 72 per cent). Large funds, however, have a much lower exposure to unlisted assets (about 17 per cent compared with 25 per cent for small funds).

**Table 2: Performance to March 2011 based on fund scale (% pa)**

Fund scale	No. of Funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
Large	23	5.7	1.7	3.1	6.7	5.9	8.1	72	17
Small	22	5.5	1.3	2.2	6.0	5.1	7.4	73	25
Difference		0.2	0.5	0.9	0.7	0.8	0.7	-1	-8

Chart 1 shows the rolling one-year outperformance of large funds relative to small funds within the 10 years to March 2011. Although not all data points are independent of each other, this chart is a useful indicator of consistency. Based on rolling one-year performance, the large funds in the survey sample outperformed the small funds about 75 per cent of the time.

**Chart 1: Large fund outperformance (relative to small funds)  
Rolling 1 Year**



## 2.2 Funds split by exposure to unlisted assets

Table 3 compares the funds surveyed according to their exposure to unlisted assets. It shows that the funds with a high exposure to unlisted assets outperformed the funds with a low exposure over most periods shown, and they did so with much less observable risk. The exception is over three years, which is an unusual period given the very large swings in asset sector performance.

The longer term outperformance by the funds with a high exposure to unlisted assets was mainly due to unlisted assets outperforming listed markets over most periods. This can be seen in Attachment B, which sets out the performance for all the major asset sectors over the period. For example, over a five-year period, Australian unlisted property outperformed Australian listed property and global listed property by 16.7 per cent and 9.1 per cent per annum, respectively.

**Table 3: Performance to March 2011 based on exposure to unlisted assets (% pa)**

Unlisted assets	No. of funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
High exposure	25	5.9	1.3	3.1	6.7	6.0	7.1	74	30
Low exposure	20	5.5	1.6	1.8	5.9	5.2	8.8	71	9
Difference		0.4	-0.3	1.3	0.7	0.9	-1.6	3	21

Based on rolling one-year performance within the 10 years to March 2011, Chart 2 shows that funds with a high exposure to unlisted assets outperformed those with a low exposure 62 per cent of the time.

**Chart 2: Funds with high unlisted outperformance (relative to funds with low unlisteds)  
Rolling 1 year**

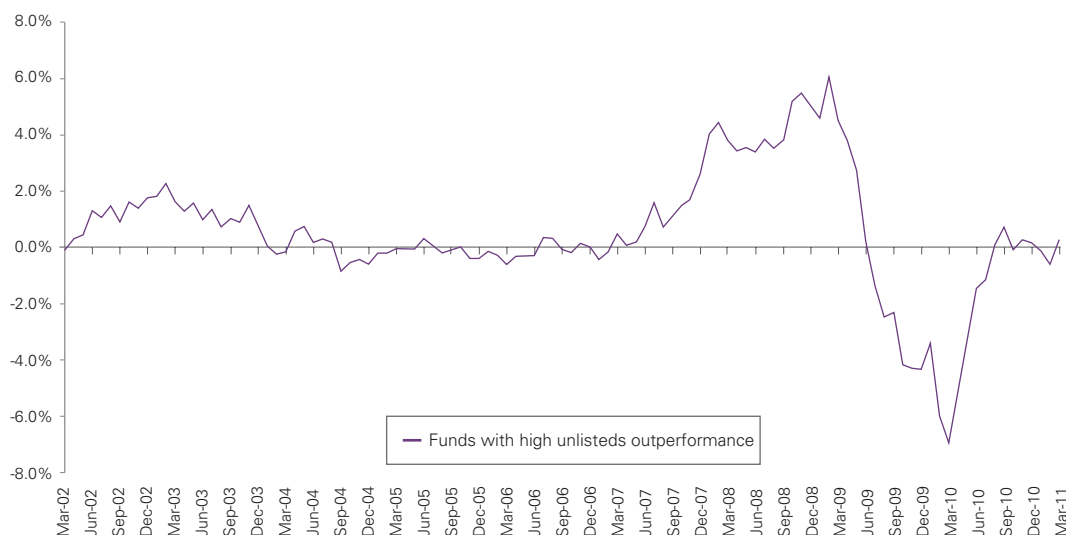




Chart 2 clearly shows the significant outperformance by funds with high unlisted assets during the two major share market downturns experienced over the past 10 years – the ‘tech wreck’ and the global financial crisis (GFC). During those two periods, the outperformance of unlisted assets relative to listed assets was exaggerated due to the lagged effect of revaluing unlisted assets. (Most unlisted assets are only valued every three or six months, and some no more frequently than annually.) In other words, while listed markets were falling, unlisted asset values remained steady for a while, simply because those assets had not yet come up for revaluation.

To illustrate, the GFC began in November 2007 and listed markets reached their low in February 2009. However, the downward revaluation of unlisted assets did not begin until late 2008 and those values did not bottom out until late 2009, by which time listed markets were well into their recovery. So when listed markets began their strong rally in March 2009, funds with low unlisted assets began to outperform for two reasons: their relatively high exposure to listed assets, which were rising; and their low exposure to unlisted assets, which were still falling in value as they came to be revalued.

The extreme effect of valuation lag only occurs when markets change direction rapidly, so this was not a key factor in performance differentials in the period late 2009 to March 2011.

### 2.3 Estimating the impact of scale alone

The analysis above suggests that both scale and the level of unlisted assets are key determinants of long-term performance. Other factors also may be significant but they are not explored in this exercise.

To draw any deeper conclusions about scale and unlisted assets, a further breakdown of the data was required, given that larger funds tend to hold greater proportions of unlisted assets on average. This further breakdown indicated that a positive relationship between scale and performance still holds regardless of the unlisted assets exposure level.

Table 4 shows that large funds outperformed the small funds over the longer term within both the ‘funds with a high exposure to unlisted assets’ and ‘funds with a low exposure to unlisted assets’ grouping

Table 4: Scale benefits – large funds’ outperformance of small funds to March 2011 (% pa)			
Universe	5 yrs	7 yrs	10 yrs
High unlisted assets	1.1	1.0	1.1
Low unlisted assets	0.2	0.4	0.6

However, the positive relationship between scale and performance is not independent of the extent to which a fund invests in unlisted assets (ie scale alone is not enough to deliver superior returns). The best performing funds within the overall group studied were large funds with a high exposure to unlisted assets.

### 3. ANALYSIS OF SUB-GROUPS OF FUNDS

This section looks at how scale affects a range of different categories of funds within the group of funds analysed, noting that some of these categories contain only a few funds.

#### 3.1 High unlisted assets split by fund size

Table 5 compares the performance of the large and small funds within the group that has a high exposure to unlisted assets. With this group, the unlisted assets effect is substantially removed, so the effects of scale should be more evident. Clearly this is the case, with the large funds consistently outperforming the small funds and with lower observable risk.

Fund size	No. of funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
Large	8	6.6	1.8	3.3	7.0	6.3	6.6	74	32
Small	17	5.6	1.0	2.2	6.0	5.2	7.4	73	29
Difference		1.0	0.9	1.1	1.0	1.1	-0.8	1	3

#### 3.2 Low unlisted assets split by size

Table 6 compares the performance of the large and small funds within the group that has a low exposure to unlisted assets. Again, the unlisted assets effect is substantially removed. The large funds mostly outperformed the small funds and with similar observable risk. It should be noted that the degree of outperformance is lower in this group than it is among funds with a high level of unlisted assets.

Fund size	No. of Funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std Dev	Av. growth assets (%)	Av. unlisted assets (%)
Large	15	5.6	1.3	2.0	6.0	5.3	8.8	71	9
Small	5	4.7	1.9	1.7	5.6	4.7	8.5	72	10
Difference		0.9	-0.6	0.2	0.4	0.6	0.3	-1	-1

#### 3.3 Large funds split by exposure to unlisted assets

Table 7 compares the performance of large funds split according to their exposure to unlisted asset. As the table shows, funds with a high exposure to those assets outperform. What is also notable is that this superior performance is achieved with much lower observable risk (standard deviation of 6.6 against 8.8).

Unlisted assets	No. of funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
High	8	6.6	1.8	3.3	7.0	6.3	6.6	74	32
Low	15	5.6	1.3	2.0	6.0	5.3	8.8	71	9
Difference		1.0	0.5	1.4	1.0	1.0	-2.2	3	23

### 3.4 Small funds split by exposure to unlisted assets

Table 8 compares the performance of small funds split according to their exposure to unlisted assets. Here again, those funds with a high exposure to unlisted assets outperformed and with lower observable risk. Note that the unlisted assets effect is less marked in this group than it is among the large funds, both in terms of performance and risk. This is further evidence that the ideal combination is to have scale and a high exposure to unlisted assets.

Unlisted assets	No. of funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
High	17	5.6	1.0	2.2	6.0	5.2	7.4	73	29
Low	5	4.7	1.9	1.7	5.6	4.7	8.5	72	10
Difference		0.9	-0.9	0.5	0.4	0.5	-1.1	1	19

### 3.5 Small funds/high unlisted assets versus large funds/low unlisted assets

Table 9 compares the performance of small funds with a high exposure to unlisted assets to that of large funds with a low exposure to unlisted assets. In this case, the difference in performance is small. The benefit of scale has been offset by the benefit of having a higher exposure to unlisted assets.

Sub-universe	No. of funds	1 yr	3 yrs	5 yrs	7 yrs	10 yrs	Std dev	Av. growth assets (%)	Av. unlisted assets (%)
Small (high unlisted)	17	5.6	1.0	2.2	6.0	5.2	7.4	73	29
Large (low unlisted)	15	5.6	1.3	2.0	6.0	5.3	8.8	71	9
Difference		0.0	-0.3	0.3	0.0	0.0	-1.4	2	20

The key message from the analysis is that while scale is important, scale alone is not enough to deliver superior performance over the long-term. Asset allocation is also a critical factor, and over the past decade it has been of benefit to include a high allocation to unlisted assets in the investment mix.

## ATTACHMENT A

### List of funds included in survey

Funds included in survey (June 2010 data)						
Fund	Market segment	Fund FUM	Growth investment option	Option FUM	Growth assets	Unlisted assets
Large funds (23)		\$m		\$m	%	%
AMP	Master trust	21,900	Future Directions Balanced	6,300	73	19
Asgard	Master trust	8,300	SMA Balanced	700	70	5
AustralianSuper	Industry fund	32,000	Balanced	26,500	73	31
AXA	Master trust	13,100	SD Balanced	1,300	70	5
BT	Master trust	8,300	Multi-Manager Balanced	1,000	70	5
CBA OSF	Corporate fund	6,300	Mix 70	1,900	70	19
Cbus	Industry fund	14,000	Growth	13,100	76	44
CFS FirstChoice	Master trust	18,800	FirstChoice Growth	2,900	80	0
ESS Super	Industry fund	15,000	Growth	350	80	34
First State Super	Public sector fund	19,000	Diversified	11,800	70	7
Health Super	Industry fund	8,300	Medium-Term Growth	2,200	70	23
HESTA	Industry fund	15,000	Core Pool	13,100	73	32
HOSTPLUS	Industry fund	7,900	Balanced	7,200	76	36
IOOF	Master trust	7,400	Capital Growth	900	68	7
Mercer	Master trust	16,400	Growth	4,700	68	5
MLC	Master trust	57,000	Horizon 4	5,800	70	9
OnePath	Master trust	8,300	OptiMix Balanced	3,300	70	0
QSuper	Public sector fund	29,000	Balanced	15,800	72	18
REST	Industry fund	17,400	Core	16,000	77	29
Russell	Master trust	19,600	Balanced	2,100	70	1
Sunsuper	Industry fund	15,000	Balanced	11,700	70	29
Telstra	Corporate fund	9,000	Balanced	3,000	74	17
UniSuper	Industry fund	26,000	Balanced	6,400	70	17

Funds Included in survey (June 2010 Data) (cont)

Fund	Market segment	Fund FUM	Growth investment option	Option FUM	Growth assets	Unlisted assets
<b>Small funds (22)</b>		\$m		\$m	%	%
AGEST	Industry fund	3,800	Balanced	1,900	74	30
Aon	Master trust	1,600	Balanced	700	70	7
Asset Super	Industry fund	1,400	Medium Growth	600	70	16
Auscoal	Industry fund	5,200	Growth	1,500	80	33
Australian Catholic & Retirement	Industry fund	3,900	Balanced	2,900	75	26
AustSafe	Industry fund	1,000	Balanced	800	75	28
BUSS (Q)	Industry fund	1,700	Balanced Growth	1,500	76	36
CareSuper	Industry fund	3,600	Balanced	3,300	75	31
Catholic Super	Industry fund	3,600	Balanced	2,400	70	23
City Super	Public sector fund	1,400	Balanced	800	72	28
EISS	Industry fund	2,800	Diversified	n.a.	70	28
Equipsuper	Industry fund	4,300	Balanced Growth	1,500	70	18
Fiducian	Master trust	900	Balanced	200	69	0
Legal Super	Industry fund	1,300	Growth	800	75	23
LGSS (NSW)	Public sector fund	5,400	Balanced Growth	963	70	29
LUCRF	Industry fund	2,500	Balanced	2,200	73	32
Maritime Super	Industry fund	2,900	Balanced	700	70	30
Media Super	Industry fund	2,600	Balanced	2,000	76	32
NGS Super	Industry fund	3,200	Diversified	2,600	70	23
Optimum	Master trust	1,500	Ibbotson Growth	100	79	9
Tasplan	Industry fund	1,300	Balanced	1,100	70	22
Vision	Public sector fund	4,100	Balanced Growth	1,700	74	36

## ATTACHMENT B

### Asset sector performance

Asset sector (gross) performance to 31 March 2011 (% pa)					
Asset sector	1 yr	3 yrs	5 yrs	7 yrs	10 yrs
Australian shares	3.8	1.1	3.2	9.7	8.9
International shares (hedged)	9.2	-0.1	0.0	4.1	2.0
International shares (unhedged)	0.6	-4.5	-5.5	0.7	-3.6
Private equity	12.5	-2.0	5.8	-	-
Australian listed property	4.7	-14.6	-9.5	-2.1	2.8
Global listed property (hedged)	21.2	-2.8	-1.9	-	-
Australian unlisted property	10.1	0.0	7.2	9.0	9.6
Global listed infrastructure (hedged)	7.2	-1.3	4.5	-	-
Unlisted infrastructure	14.3	1.6	7.9	-	-
Australian bonds	6.9	7.4	6.0	5.9	5.8
International bonds (hedged)	7.4	8.2	7.8	7.2	7.7
Absolute return strategies	30.0	8.8	8.0	-	-
Cash	4.9	5.0	5.7	5.7	5.4

Note: Market indices have been used for all sectors other than for private equity, unlisted infrastructure and absolute return strategies. For those categories, returns specific to a major fund that are representative of those sectors have been used.