

14 February 2018

Chair Peter Harris, AO
Deputy Chair Karen Chester
Productivity Commission
Locked Bag 2, Collins St East
MELBOURNE VIC 8003

Lodged electronically

Re: Superannuation - Assessing Competitiveness and Efficiency Inquiry

Dear Chair and Deputy Chair,

We would like to lodge this submission to the Superannuation Assessing Competitiveness and Efficiency public inquiry.

We are superannuation researchers at the University of New South Wales Business School and the University of Western Australia Business School. We have undertaken extensive research into superannuation in our current roles, and in Kevin's previous position at APRA.

We've attached a paper of new empirical research which is highly relevant to the inquiry.

Please don't hesitate to contact us if you have any questions.

Yours sincerely

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The Impact of Related-Party Outsourcing and Trustee Director Affiliation on Investment Performance of Superannuation Funds

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Executive Summary

In this paper, we examine the impact of related-party outsourcing and trustee director affiliation on the investment performance of Australian superannuation funds using a sample of 101 superannuation funds for the period of 2015 to 2016.

In summary, the results show that:

- While outsourcing is prevalent in the superannuation industry, retail and not-for-profit funds tend to use different outsourcing models.
- Not-for-profit funds predominately use unrelated service providers, whereas retail funds tend to outsource to related parties.
- Retail fund assets managed by related-party service providers have significantly increased over the last decade.
- At the trustee director level, retail funds are more likely to use affiliated trustee directors. On average, 78 per cent of retail fund trustee directors are affiliated.
- The assets and member accounts in the retail sector are predominately managed under a highly-affiliated trustee environment – over 94 per cent of the retail assets and member accounts are managed by trustee boards that are dominated by affiliated trustee directors.
- Retail funds with a higher proportion of affiliated trustee directors are more likely to use related-party service providers.
- Retail funds that use related-party service providers and affiliated trustee directors tend to significantly underperform their peers. This negative relationship is both statistically and economically significant, and consistent across different measures of investment performance (e.g. net return, over-benchmark return, risk-adjusted return with asset allocation adjustment) in both the short-term and the long-term at both the total fund level and MySuper (i.e. default investment option) level.
- A higher level of trustee director affiliation on retail fund boards is associated with lower investment performance.
- Retail funds that are part of a vertically-integrated conglomerate group are likely to be subject to more severe conflicts of interests and duties, which lead to more significant underperformance.
- The significant negative relationship between trustee director affiliation in retail funds and investment performance persists after controlling for other trustee board governance variables.

The results suggest that the use of related-party service providers through highly affiliated trustee boards is not an idiosyncratic fund/trustee practice, but an inherent business model of the retail sector. This provides further evidence supporting Liu (2013), which suggests that the use of related parties in retail funds is motivated by their business model to maintain control of and capture margins in each of the functions in the value chain of their conglomerate groups. As this business model is found to be significantly detrimental to retail fund members' interest, it should be of preeminent relevance to the current Productivity Commission review considering alternative default selection models and a relevant focus of any future governance and prudential reforms in the superannuation industry.

1. Introduction

Australian superannuation assumes a central role in Australia's retirement income policy and represents a cornerstone of the national economic strategy for funding the retirement of Australia's growing ageing population. The superannuation system now covers more than 90 percent of the Australian workforce and manages the world's third largest pension pool with total assets under management exceeding \$2 trillion. The growing importance of superannuation in the Australian financial, economic and public policy landscape has led to increasing attention to the governance of superannuation funds. This issue and its impact on investment performance have been a particularly lively issue of debate in recent years.

One important governance aspect of superannuation is the use of service providers. While trustees are ultimately responsible for fund operations, they are legally permitted to, and often outsource important fund activities to external service providers. The reliance of superannuation funds on service providers enables them to play an important role in fund operations and have a significant influence on the costs and investment performance of superannuation funds. The use of service providers creates a nexus of financial intermediation with multiple layers of principle-agent relationships and potential agency problems between trustees and service providers (Liu, 2013). The risk of high agency costs further escalates where the trustee boards are controlled by trustee directors who are affiliated with fund service providers.

The aim of this paper is to examine the impact of related-party outsourcing and trustee director affiliation on the investment performance of Australian superannuation funds. Taking advantage of the industry's new disclosure regime, we constructed a dataset on related-party outsourcing and trustee director affiliation for a sample of 101 APRA regulated superannuation funds over the period of 2015 to 2016. The sample accounts for 77 per cent of all APRA-regulated superannuation assets at the total fund level and represents 99 per cent of MySuper assets.

We first document the related-party outsourcing landscape at the service provider level. Our findings indicate that while outsourcing is prevalent in the superannuation industry, retail and not-for-profit funds use different outsourcing models. Not-for-profit funds predominately use unrelated service providers while retail funds tend to outsource to related parties. Specifically, 80 per cent of retail funds use at least one related-party service provider compared to 10 per cent of not-for-profit funds. We also document a significant increase in related-party service provider usage in retail funds, which raises serious concerns about growing conflicts of interest in the retail sector. At the trustee director level, retail funds are more likely to use affiliated trustee directors. On average, 78 per cent of retail fund trustee directors are affiliated. Further, over 94 per cent of retail assets and member accounts are managed by trustee boards that are comprised of more than 50 per cent affiliated trustee directors. These results indicate that the assets and member accounts in the retail sector are predominately managed under a highly-affiliated trustee environment, in which multiple layers of conflicts of interests and duties are likely to be an inherent and acute sector issue rather than an idiosyncratic fund/trustee matter.

We then examine the impact of related-party outsourcing and trustee director affiliation on investment performance. The theoretical framework suggests that the use of related parties for outsourcing arrangements can lead to conflicts of interest and high agency costs. Such concerns are likely to arise as the outsourcing arrangements are often fixed at establishment and unlikely to change over time. Further, the fee negotiation process may not be conducted on an arm's length basis. The ongoing monitoring of service providers may also be affected as affiliated trustee directors are likely to be incentivised to align with the interests of the related parties over fund members. Indeed, prior research, which has examined related-party transactions in various non-superannuation settings, finds that these conflicts of interest and duties lead to high agency costs and significant underperformance (Cheung et al., 2006; Freeman et al., 2008; Fricke, 2015; Gordon et al., 2014; Jian and Wong, 2003; Kang et al., 2014; Nekhili and Cherif, 2011). In this paper, we find evidence that is consistent with these arguments and evidence.

Our results show that retail funds that use related-party service providers and affiliated trustee directors tend to significantly underperform their peers. We find that this negative relationship is consistent across different measures of investment performance at both the total fund and MySuper (i.e. the default investment option) levels. We also show that a higher level of trustee director affiliation on retail fund boards is associated with lower investment performance. Retail funds dominated by affiliated trustee directors tend to significantly underperform. This provides evidence that more severe conflicts of interest are likely to occur with higher levels of trustee director affiliation. When retail funds are decomposed into those which belong to a vertically-integrated conglomerate and otherwise, we find that trustee director affiliation in retail conglomerate funds is likely to be subject to more severe conflicts of interests and duties, which lead to more significant underperformance. After controlling for a range of other trustee board governance variables, we find that the significant negative relationship between the proportion of affiliated trustee directors in retail funds and investment performance persists. These results provide strong evidence supporting Freeman et al. (2008), which show that where related-party service providers control the fund board through affiliated directors, the board becomes 'captive'. The underperformance of these retail funds provides further evidence that when trustee boards become 'captive', they tend to engage in a commercial endeavour through related parties to make a profit at the expense of fund members' interests.

The remainder of this paper is structured as follows. Section 2 provides background on related-party outsourcing as well as the theoretical arguments and empirical evidence on their impact. Section 3 provides background on trustee director affiliation, its relationship with related-party outsourcing and impact. Section 4 describes the data. Section 5 and 6 report on the related-party outsourcing and trustee director affiliation landscape respectively. Section 7 discusses the empirical results analysing the impact of related-party outsourcing and trustee director affiliation on investment performance. Section 8 concludes.

2. Outsourcing and Related-party Service Providers

Superannuation fund trustees for various reasons of incentive, resource or expertise limitations, outsource many key functions of their fund's activities (Sy, 2008a). While

trustees are ultimately responsible for fund operations, they are legally permitted to, and typically outsource fund functions to external service providers (Liu and Arnold, 2010a). Superannuation fund service providers are commonly for-profit financial services institutions, such as administrators, asset consultants, insurers, custodians and investment managers.

The reliance of superannuation funds on service providers allows them to play a crucial role in fund operations and have a significant influence on the costs and performance of superannuation funds, and hence the investment experience of fund members (Liu and Arnold, 2010b; Liu and Arnold, 2012). The use of service providers creates a nexus of financial intermediation with multiple layers of principle-agent relationships and potential agency problems between trustees and service providers (Liu, 2013).

The theoretical foundation which challenges the practice of related-party transactions is centred on the inherent conflicts of interest that can arise from such an arrangement (Kohlbeck and Mayhew, 2017). Incomplete outsourcing contracts and imperfect monitoring of related-party service providers can lead to agency problems (Ryngaert and Thomas, 2012). The outsourcing entities tend to find themselves in an underprivileged position to manage related-party service providers, who may not necessarily share the same interests as the outsourcing entities, their shareholders or the beneficiaries. Due to affiliation, the outsourcing fee negotiation process is unlikely to be on an arm's length basis, and there is virtually little risk of the related-party service providers being dismissed for poor performance (Freeman et al., 2008).

Empirical evidence from the mutual fund industry also shows that related service providers charge substantially higher fees and earn abnormal economic profits (Freeman et al., 2008). Evidence from the corporate setting indicates that firms which are controlled by a conglomerate group are more likely to engage in related-party transactions compared to firms which do not belong to such a group. Further evidence shows that this arrangement is associated with negative firm performance (Jian and Wong, 2003). This value destroying effect of related-party transactions can also be stronger in larger conglomerate groups (Kang et al., 2014) and in firms with weaker corporate governance mechanisms (Gordon et al., 2014). There is also evidence that listed companies which engage in related-party transactions with their controlling shareholders create a transfer of wealth from minority shareholders to these parties. These related-party transactions are found to have a negative impact on firm market value (Nekhili and Cherif, 2011).

In Australian superannuation, Liu and Arnold (2010a) find that outsourcing was prevalent in the Australian superannuation industry in 2006, and further that not-for-profit funds and retail funds have different outsourcing patterns. Retail funds were more likely to outsource to related-party service providers while not-for-profit funds tended to use independent outsourcing arrangements. In respect of the impact of service provider relatedness, Liu and Arnold (2010b; 2012) show that 'relatedness' *per se* does not imply higher outsourcing fees. It is the combination of relatedness and profit-orientation that matters – outsourcing by retail trustees to related-party service providers can result in significantly higher fees for fund members. The results suggest that not-for-profit funds and retail funds have different models of outsourcing.

Outsourcing by not-for-profit funds to independent service providers is mainly driven by their need to access external expertise and economies of scale/scope. However, outsourcing by retail funds to related-party service providers tends to be motivated by the business model of retail conglomerate groups to capture margins in each of the functions in the value chain of their groups (Liu, 2013).

3. Superannuation Trustees and Trustee Director Affiliation

An Overview of Trustee Duties

Australian superannuation funds are governed by trustees. Superannuation trustees hold the legal ownership of superannuation fund assets and assume both common law fiduciary duties and statutory responsibilities for safeguarding fund members' interests. They have ultimate responsibilities for, and broad discretion over, fund operations and investment. In addition, as superannuation trustees predominately take the form of a corporation (i.e. a corporate trustee), they are also subject to the Corporations Law.

These two structures mean that superannuation fund trustee directors have both duties to beneficiaries of the trust (i.e. fund members) as trustees and duties to the shareholders of the company as directors of a corporation. In not-for-profit funds, their shares are generally held by the employer and employee sponsors, who have a non-beneficial shareholding and do not have a right to a dividend¹. Thus, there is no conflict between trustee directors' two sets of duties in not-for-profit funds. By contrast, the profit motive in retail (i.e. for-profit) funds inevitably creates conflicts between their directors' duties to shareholders under the *Corporations Act* and their duties to the beneficiaries of the trust (i.e. fund members) under the *SIS Act*. Sy (2008b) highlights that retail trustee directors often find themselves in a situation where they have to decide on whether company shareholder profits or superannuation fund member benefits should have priority in making decisions.

To resolve this conflict, S52(2)(d) was introduced into the *SIS Act* as part of the Stronger Super Reforms arising from the Cooper Review². The provision requires trustees to act in the best interests of beneficiaries and if a conflict of interest arises, to prioritise the interests of beneficiaries above all others. There is also a prudent trustee test, and if a conflict arises, a trustee must ensure that beneficiaries are not adversely affected by the conflict. However, it is unclear if the introduction of the new provision can effectively fully address the inherent conflicts of interest in retail funds.

The Role of Trustees in Superannuation Fund Governance

¹ See for example AustralianSuper Constitution page 54.

² S52(2) The covenants referred to in subsection (1) include the following covenants by each trustee of the entity:

...

- (c) to perform the trustee's duties and exercise the trustee's powers in the best interests of the beneficiaries;
- (d) where there is a conflict between the duties of the trustee to the beneficiaries, or the interests of the beneficiaries, and the duties of the trustee to any other person or the interests of the trustee or an associate of the trustee:
 - (i) to give priority to the duties to and interests of the beneficiaries over the duties to and interests of other persons; and
 - (ii) to ensure that the duties to the beneficiaries are met despite the conflict; and
 - (iii) to ensure that the interests of the beneficiaries are not adversely affected by the conflict; and
 - (iv) to comply with the prudential standards in relation to conflicts.

The introduction of compulsory superannuation and the increasing adoption of defined-contribution (DC) arrangements place much of the risk and responsibilities associated with retirement income provision on individual retirement savers who typically have limited capacity and willingness to comprehend and engage with the complex superannuation system (Bateman, 2009). The high proportion of disengaged members combined with few investment restrictions, high allocation to growth assets and prevalent usage of external service providers (Fear and Pace, 2008; Liu and Arnold, 2010a) drive the substantial risks to which ordinary superannuation members are exposed. In addition, the recent Stronger Super reforms (e.g. the introduction of MySuper) impose heightened duties on trustees to act in the best interests of their members. This implies that most superannuation fund members inextricably rely heavily on trustees for effective governance and prudent operation of their superannuation funds.

Superannuation trustees represent the most important governance mechanisms for fund members. Unlike in the corporate sector, where a range of governance mechanisms are available to protect the interests of shareholders, superannuation funds are subject to a very limited number of governance mechanisms (Clark, 2004). Due to the trust structure of superannuation funds (i.e. the absence of shareholding) and a prohibition on borrowing, the governance mechanisms associated with external monitoring (e.g. monitoring by large shareholders and debt-holders) are not available in the superannuation context. Market discipline through takeover mechanisms is also unavailable at the fund level because of the trust structure. The high proportion of disengaged members (Fear and Pace, 2008) further implies that product-market competition is unlikely to adequately serve as an efficient disciplinary mechanism (Super System Review, 2010). Consequently, the trustee board becomes the predominant means upon which fund members can rely for governance purposes.

Trustee Director Affiliation

The appointment process for trustee directors differs across the industry. Not-for-profit funds typically have equally-represented boards. In retail funds, trustee directors are commonly executives or professional directors associated with the trustee group and/or fund service providers. This can lead to potential conflicts of interest as trustee directors must balance the interests of the fund sponsor's shareholders and fund members (Sy et al., 2008). Conflicts of interest may also arise at the service provider selection stage. There is empirical evidence that mutual fund directors preferentially hire service providers based on their past business affiliations (Kuhnen, 2009). Conflicts of interest may similarly arise in the ongoing monitoring of service providers. For example, directors who are affiliated with service providers may have incentives to act in ways that align with the service providers given that they were appointed due to their affiliation. They may also have aspirations to obtain more board seats (and thus more compensation) on the boards of the service providers' other funds. In such a situation, an affiliated director is unlikely to recommend that their service provider be replaced (Fricke, 2015). These findings suggest that the risk of high agency costs further increases when trustee directors are affiliated with fund service providers. The high agency costs can result in excessive outsourcing fees and sub-optimal service quality.

Consequently, this could lead to fund under-performance, which is detrimental to the interests of fund members.

4. Data

Sample Selection

The objective of this paper is to examine the impact of related-party outsourcing and trustee director affiliation on the investment performance of superannuation funds at both the total fund level and MySuper product level. Therefore, our sample includes all APRA-regulated superannuation funds that offer MySuper products. According to APRA (2016a), there are 116 MySuper products provided by 103 superannuation funds as at 30 June 2015. However, we were unable to access the statutory disclosure documents for two non-public offer corporate funds³, and hence they were excluded from the dataset. Given that the statutory disclosure requirements for superannuation funds to report service provider and trustee director information only came into effect on 1 July 2014⁴, our sample covers the period of 2015 to 2016.

Table 4.1 reports the overall sample coverage. Figure 4.1 presents the sample coverage and distribution of total assets and number of member accounts by sector at both the total fund and MySuper levels.

As Table 4.1 indicates, our final sample covers 101 APRA regulated superannuation funds with \$1,093 billion in total assets and 21.8 million member accounts. Figure 4.1 illustrates that the sample funds represent 77 per cent of all APRA-regulated superannuation assets (ring chart one) and account for 78 per cent of all member accounts (ring chart two). Table 4.1 also shows that within this sample of funds, there are 114 MySuper products with \$471 billion in total assets and 14.9 million member accounts, which represent 99 per cent of all MySuper assets and member accounts, as illustrated in ring charts three and four of Figure 4.1.

With regards to specific sectors, while the sample provides almost full coverage in all sectors at the MySuper Level, the coverage of different sectors at the total fund level varies. Figure 4.1 shows that the sample covers all industry funds and almost all corporate funds. However, as not all retail funds and public sector funds offer MySuper products, they are under-represented in the sample at the total fund level compared to their corporate and industry peers. While a relatively smaller number of retail and public sector funds are included in the sample, they tend to be the major players and represent the majority of their corresponding sector. The sample retail funds represent 74 per cent of all retail assets and 65 per cent of member accounts. The sample public sector funds represent half of the sector assets and member accounts.

³ They are Betros Bros Superannuation Fund No 2 (with \$12 million assets under management and 149 members) & Elphinstone Group Superannuation Fund (with \$61 million assets under management and 708 members).

⁴ The new disclosure regime is part of the *Stronger Super* reform. The requirements are set out in section 29QC of the *Superannuation Legislation Amendment (Further MySuper and Transparency Measures) Act 2012*. These requirements, originally scheduled to commence on 1 July 2013, have been deferred by ASIC Class Orders [CO 13/830] and [CO 13/1275] and came into effect on 1 July 2014.

Table 4.1: Sample Coverage

Sample Statistics	Total
Number of funds	101
Total assets (\$billion)	1,093
Number of member accounts (million)	21.8
Number of MySuper products	114
Total MySuper assets (\$billion)	471.0
Number of MySuper accounts (million)	14.9
Number of service providers	170
Number of outsourcing arrangements	1,878
Number of trustee directors	729

Figure 4.1: Sample Coverage and Distribution of Total Assets and Number of Member Accounts by Sector

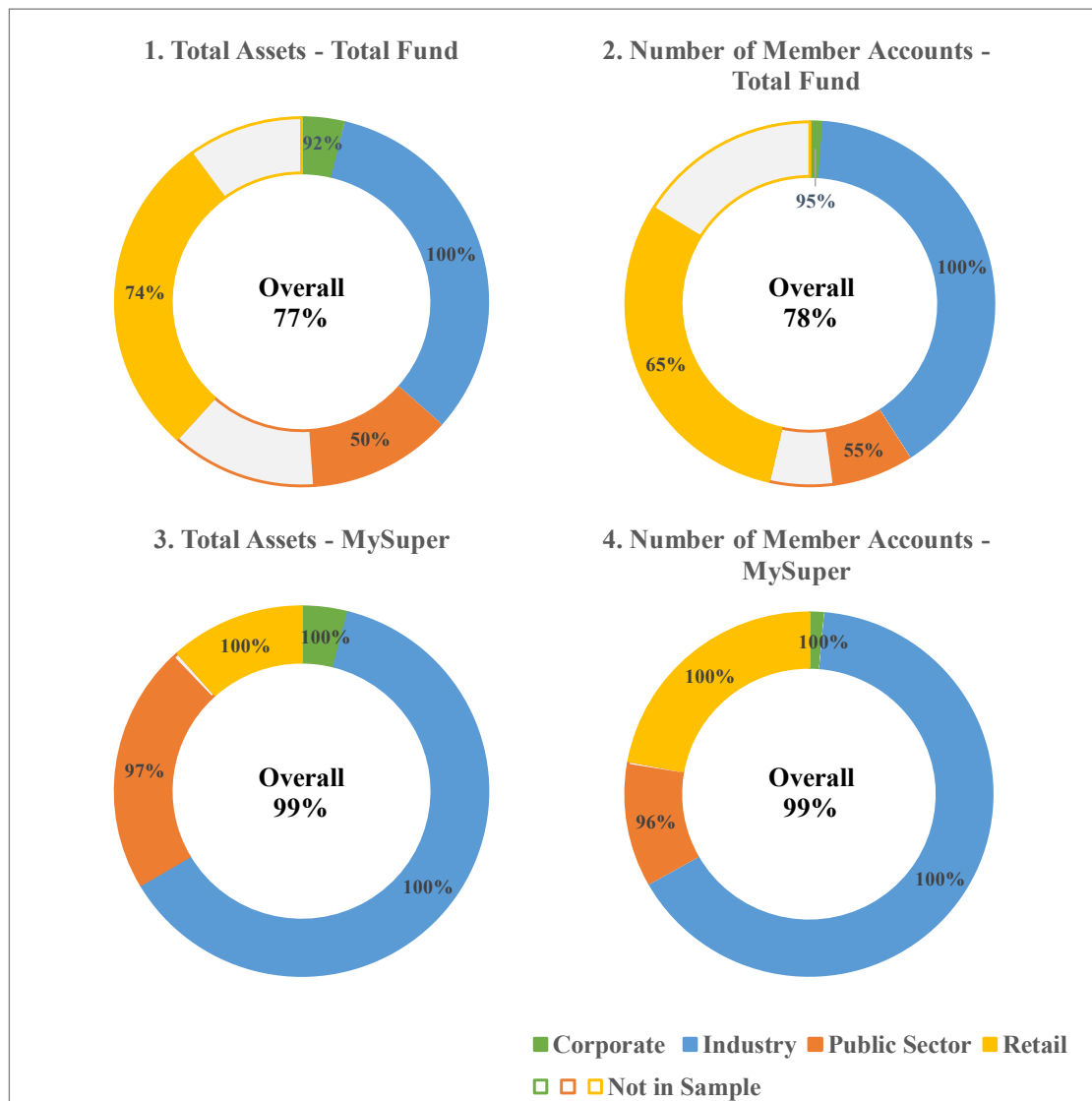


Table 4.2: Summary Statistics by Sector

Statistics	Corporate	Industry	Public Sector	Retail	Total
Number of funds	14	42	10	35	101
Total assets (\$billion)	50.5	466.4	174.3	401.9	1,093.0
Average total assets (\$billion)	3.6	11.1	17.4	11.5	10.8
Total number of member accounts ('000)	323	11,118	1,935	8,455	21,830
Average number of member accounts ('000)	23.0	264.7	193.5	241.6	216.1
Average account balance ('000)	135.1	50.8	114.4	65.1	73.1
Number of MySuper products	14	44	10	46	114
Total MySuper assets (\$billion)	19.2	296.0	101.2	54.6	471.0
Average MySuper assets (\$billion)	1.4	6.7	10.1	1.2	4.1
Total Number of MySuper accounts ('000)	216	9,754	1,594	3,289	14,852
Average number of MySuper accounts ('000)	15.4	221.7	159.4	71.5	130.3

Asset Size Distribution by Sector	Corporate	Industry	Public Sector	Retail	Total
Large (> \$5 billion)	4	17	7	13	41
Medium (\$1-\$5 billion)	3	16	3	9	31
Small (< \$1 billion)	7	9	-	13	29
Total	14	42	10	35	101

Summary statistics for the 101 sample funds are presented in Table 4.2. Corporate funds are relatively small but have the largest account balances; industry funds have the most member accounts while their average account balances are the lowest; public sector funds only represent a small number of funds in the sample, and retail funds have the lowest proportion of assets in MySuper products. The characteristics of each sector exhibited in the sample are consistent with characteristics observed in the superannuation universe (see APRA, 2016b). Therefore, the sample is representative of the total population.

Data Sources and Procedures

In this paper, the main sources of service provider data and trustee director data come from the following s29QB (*SIS Act*) statutory disclosure documents⁵:

- Material Outsourced Service Provider Disclosure⁶,
- Details of Directors and Executive Officers⁷, and
- Register of Relevant Interests and Duties of Responsible Persons⁸.

⁵ To promote systemic transparency, section 29QB of the *SIS Act* requires the publication, on the public section of the fund's website, of information and documents prescribed in regulations 2.37 and 2.38 of the *SIS Regulation*.

⁶ In accordance with *SIS Regulation* 2.38 2(i), RSE licensees of registrable superannuation entities are required to publish the name and ABN of each outsourced service provider who provides a service which may affect a material business activity of the entity.

⁷ In accordance with *SIS Regulation* 2.38 2(j), RSE licensees of registrable superannuation entities are required to publish the name, qualifications and a summary of the experience of their trustee directors.

⁸ In accordance with *SIS Regulation* 2.38 2(l), RSE licensees of registrable superannuation entities are required to publish a register of relevant interests and a register of relevant duties of their trustee directors.

Superannuation funds are required to disclose these documents on the public section of their websites as part of the new disclosure regime, which came into effect on 1 July 2014. Relevant s29QB disclosure documents were downloaded from fund websites during our data collection process.

By analysing the *Material Outsourced Service Provider Disclosure* documents for the 101 sample funds, we identified 1,878 outsourcing arrangements provided by 170 service providers in five outsourcing areas – administration, asset consulting, custodian services, insurance services and auditing. It is noted that the documented practice of outsourcing within the industry in 2006 (Liu and Arnold, 2010a) also included three other outsourced services – investment management, legal services and actuarial services. However, these outsourcing arrangements were excluded from our analysis due to data limitations as most superannuation funds either do not use or do not provide adequate disclosure for the use of these services, such as actuarial services and investment management, respectively. In the case of investment management outsourcing, the small number of funds that did disclose this information rarely reported assets under management for each service provider, which is essential to determine the proportion of assets outsourced in a related-party arrangement.

In this paper, a related-party service provider is defined as a service provider that is a connected entity⁹ or a related body corporate¹⁰ within the group¹¹ (including joint ventures that are collectively owned by multiple industry funds with or without a controlling entity in the structure¹²). This definition is consistent with APRA Prudential Standard SPS 231 and Liu and Arnold (2010a).

Trustee director affiliation is determined using the *Register of Relevant Interests and Duties of Responsible Persons*, which reports trustee directors' current position, duties and interests within and outside the group. A trustee director is deemed 'affiliated' if (i) the trustee director is also a director, executive or employee of a service provider of the fund, or (ii) a director, executive or employee of a connected entity or a related body corporate within a service provider group¹³. Our final sample includes 860 trustee directorships (held by 729 trustee directors) with 207 being identified as affiliated.

The fund characteristics and investment performance data was sourced from APRA's statistical publications. The performance data for the corresponding period is selected and merged with the service provider and trustee director data to create the final dataset for the analysis.

⁹ 'Connected entity', in relation to an RSE licensee of a registrable superannuation entity, means: (a) a subsidiary of the RSE licensee (where the RSE licensee is a body corporate); and (b) any other entity of a kind prescribed by the regulations (*SIS Act* s10(1)).

¹⁰ 'Related bodies corporate': where a body corporate is: (a) a holding company of another body corporate; or (b) a subsidiary of another body corporate; or (c) a subsidiary of a holding company of another body corporate; the first-mentioned body and the other body are related to each other. (*Corporations Act 2001* s50)

¹¹ For the purposes of this Prudential Standard (SPS 231), a reference to 'a group' is a reference to a group comprising the RSE licensee and all connected entities and all related bodies corporate of the RSE licensee, 'connected entity' has the meaning given in section 10(1) of the *SIS Act* and 'related body corporate' has the meaning given in section 50 of the *Corporations Act 2001*.

¹² e.g. Frontier Advisors - an asset consultant jointly owned by AustralianSuper, Cbus, HESTA and FIRST Super.

¹³ Note: This implies that where a fund uses a related-party service provider, a trustee director is classified as affiliated if the trustee director is a director, executive or employee of a connected entity or a related body corporate within the trustee group (as the service provider and the trustee company is within the same conglomerate group).

5. Related-Party Outsourcing Landscape

The key question addressed in this section is “what is the current outsourcing landscape in the Australian superannuation industry?”. We answer this question by examining the level and nature of outsourcing arrangements and identifying any distinctive patterns of outsourcing in the different types of superannuation funds.

Table 5.1 shows the extent to which superannuation trustees outsource across five reported outsourcing areas by sector in 2016¹⁴.

Overall, the results show that outsourcing is prevalent in the superannuation industry. All 101 funds in the sample outsource at least two functions, and the vast majority outsource all five functions. Regarding each outsourcing function of interest, 85 funds (84 per cent) outsource administration services, 83 funds (82 per cent) employ asset consultants, almost all funds use a custodian, and all sample funds outsource insurance and auditing functions. This result is consistent with the documented practice of outsourcing within the industry in 2006 (Liu and Arnold, 2010a; Liu and Arnold, 2012). It highlights that outsourcing is still an indispensable component of the operation of Australian superannuation funds. The heavy reliance on service providers implies that these external parties have a significant influence on the costs and performance of superannuation funds, and hence the investment experience of fund members.

Table 5.1: Number of Outsourcing Funds by Outsourcing Function and Sector

All Outsourcing Arrangements (Related-party)	Corporate	Industry	Public Sector	Retail	Total
Number of funds	14	42	10	35	101
Administration	13 (1)	32 (0)	5 (0)	35 (24)	85 (25)
Asset Consulting	11 (0)	39 (4)	9 (0)	24 (15)	83 (19)
Custodian Services	13 (2)	41 (0)	10 (0)	35 (8)	99 (10)
Insurance	14 (2)	42 (0)	10 (0)	35 (12)	101 (14)
Auditing	14 (0)	42 (0)	10 (0)	35 (0)	101 (0)

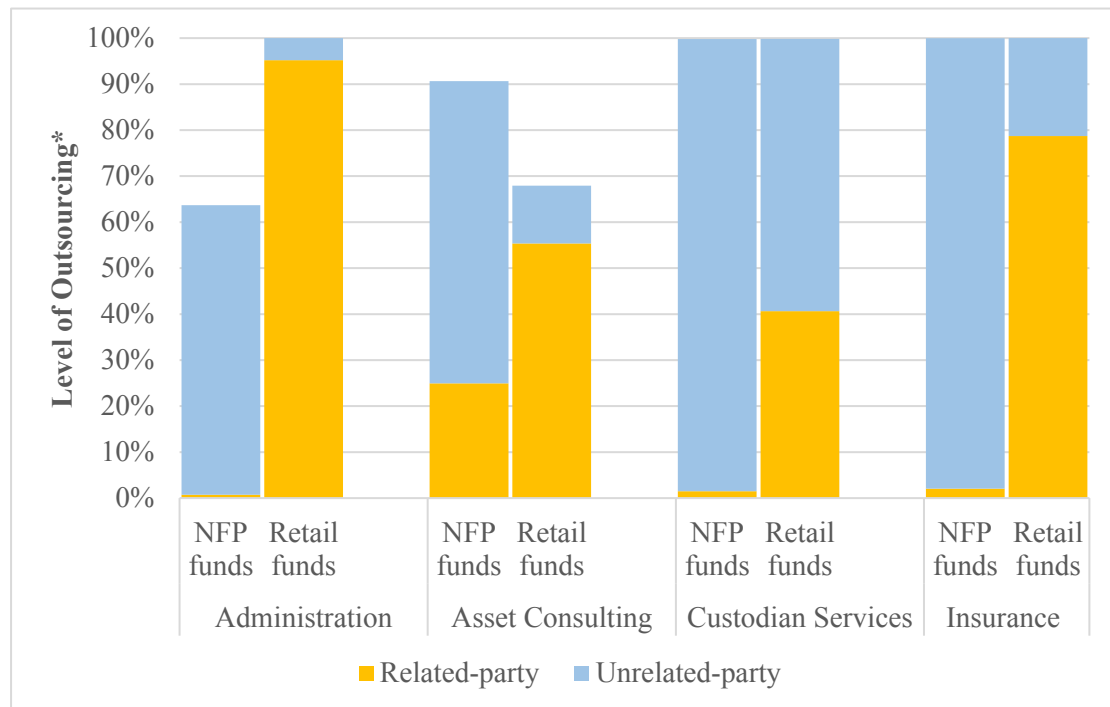
The relationship between service providers and fund trustees shapes the role of service providers and the nature of the outsourcing arrangements. Table 5.1 shows that there are clear patterns of outsourcing for the different types of funds: not-for-profit funds predominately use unrelated service providers, whereas retail funds tend to outsource to related parties. In sum, 80 per cent of retail funds use at least one related-party service provider (excluding investment managers¹⁵). This compares to 10 per cent of not-for-profit funds using related-party service providers¹⁶. Retail trustees are more likely to use related-party administrators (24 out of 35), asset consultants (15 out of 24), and insurers (12 out of 35).

¹⁴ The level of outsourcing and the number of related-party service provider arrangements is consistent over the 2015 to 2016 sample period.

¹⁵ In relation to investment management, most superannuation funds do not provide adequate disclosure for this outsourcing arrangement. Funds that did disclose rarely reported assets under management for each service provider, which is essential to determine the level of assets outsourced to related-party service providers.

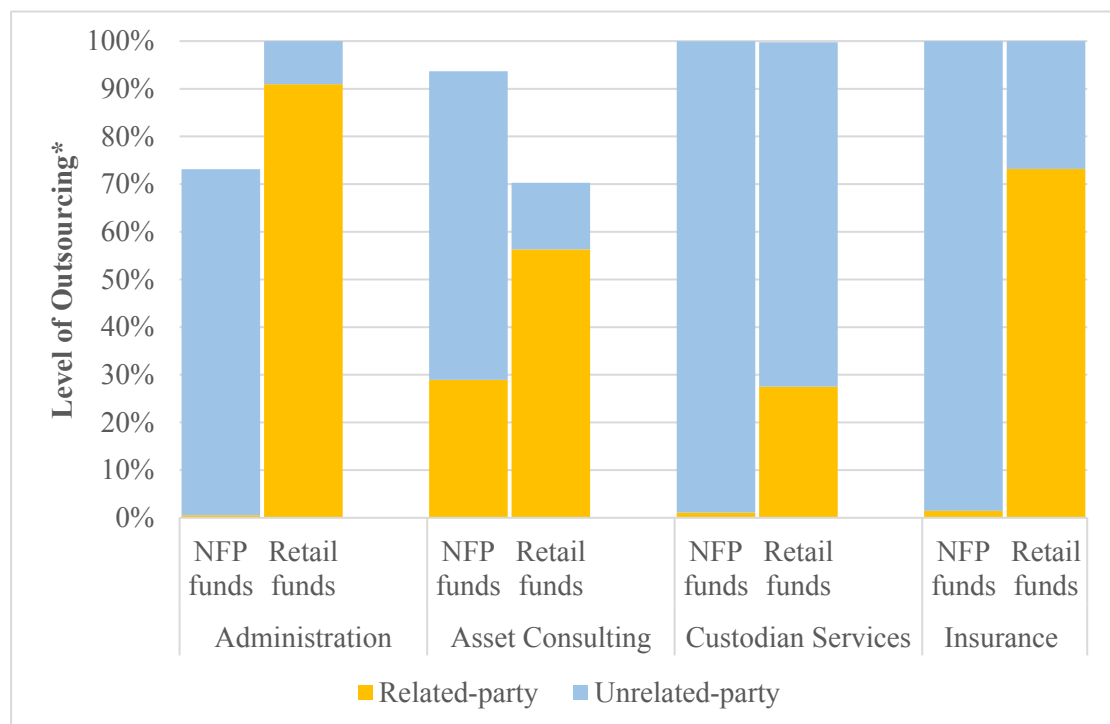
¹⁶ As indicated in Table 5.1, approx. half of these related-party arrangements are used by corporate funds of financial companies for their own employees; and the remaining are collaborative joint ventures used by industry funds.

Figure 5.1: Service Provider Usage - Related-party vs. Unrelated-party by Outsourcing Function and Fund Type (2016 - Total Fund Assets)



* Level of outsourcing is calculated based on assets under management of total funds.

Figure 5.2: Service Provider Usage: Related-party vs. Unrelated-party by Outsourcing Function and Fund Type (2016 - MySuper Assets)



* Level of outsourcing is calculated based on assets under management of MySuper products.

Figures 5.1 and 5.2 further illustrate the high level of related-party outsourcing in retail funds across the four functions¹⁷.

Figure 5.1 depicts the proportion of total fund assets outsourced to related-party and unrelated service providers by fund type for the four key functions. It shows that 95 per cent of total fund assets in retail funds are managed by related-party administrators. In contrast, the level of related-party administrator usage by retail funds in 2006 was less than 67 per cent (Liu and Arnold 2010a). This shows that the usage of related-party administrators by retail funds has significantly increased over the last decade¹⁸. Similar increases in related-party service provider usage in retail funds are also found in insurance (79 per cent in 2016 vs. 60 per cent 2006), asset consulting (55 per cent in 2016 vs. 15 per cent in 2006), and custodian services (41 per cent in 2016 vs. 10 per cent in 2006) outsourcing arrangements (Liu and Arnold, 2010a; Liu and Arnold, 2012). This significant increase in retail fund assets managed by related-party service providers is largely driven by consolidation in the retail sector and the consequent market share increase of retail funds that are part of vertically-integrated conglomerate groups. Figure 5.2 also shows that the high level of related-party usage in retail funds remains consistent when assets under management of MySuper products are considered.

These findings reveal that the proportion of retail fund assets managed by multiple types of related-party service providers have not reduced, but instead have significantly increased over the last decade. This is in spite of the introduction of enhanced trustee duties which place member interests above the interests of all others and new disclosure requirements to disclose material service providers, as a result of the recent regulatory reforms. While related-party service provider usage *per se* is not prohibited in the prudential standard (i.e. Prudential Standard SPS 231 Outsourcing), the trustees must demonstrate that the related-party outsourcing arrangement is conducted on an arm's length basis and in the best interests of beneficiaries. However, as established in Liu and Arnold (2010b and 2012), while related-party service providers used by not-for-profit funds generally charge no more than independent service providers, retail related-party service providers tend to charge much higher fees than their independent counterparts. Liu (2013) provides further evidence that outsourcing by retail trustees to related parties tends to be motivated by the business model of retail conglomerate groups to capture margins across their vertically integrated value chain via related entities within the group. Therefore, the observed significant increase in related-party service provider usage in retail funds raises serious concerns about its potential detrimental impact on retail fund members' investment performance. This concern is examined in Section 7.

The heavy reliance on service providers also indicates that selecting and monitoring service providers constitutes one of the most important responsibilities of superannuation fund trustee directors (Liu 2013). As Freeman et al. (2008)

¹⁷ Auditing is excluded as funds are legally required to use unrelated auditors. Table 5.1 also shows that none of the sample funds use related-party auditors.

¹⁸ It is worth noting that Liu and Arnold (2010a) documented that in 2006 around 50 per cent of not-for-profit fund assets were managed by related-party administrators (esp. by Superpartners, an administrator collectively owned by a group of industry funds). However, due to the acquisition of Superpartners by Link Group in 2014, Superpartners is no longer an affiliated service provider. This significantly reduces the related-party administrator usage in not-for-profit funds.

demonstrated, where related-party service providers control the fund board through affiliated directors, the board becomes ‘captive’, and the outsourcing arrangements cannot be expected to be truly at arm’s length. Therefore, the affiliation of superannuation fund trustee directors with the conglomerate group of the related-party service providers forms an important dimension in understanding the nature and reasons for related-party outsourcing arrangements. The landscape of trustee director affiliation in Australian superannuation fund is examined in the next section.

6. Trustee Director Affiliation Landscape

The aim of this section is to examine the level and nature of trustee director affiliation in the different types of superannuation funds.

Figure 6.1 illustrates the percentage of affiliated trustee director by affiliation type and sector in 2016¹⁹. The results show that retail fund boards are dominated by affiliated trustee directors – on average, 78 per cent of retail fund trustee directors are affiliated, where 34 per cent of these trustee directors are either executives or employees of a related entity within the service provider group, and the remaining 44 per cent are directors of a related entity within the service provider group. In contrast, the presence of affiliated trustee directors in not-for-profit funds is much lower and predominately observed in corporate funds. On average, 34 per cent of corporate fund trustee directors are affiliated²⁰. The usage of affiliated trustee directors in industry and public sector funds is negligible.

Figure 6.1: Trustee Director Affiliation by Affiliation Type and Sector (2016)



The blue sections in Figure 6.1 indicate the percentage of union-affiliated trustee directors. These trustee directors are not affiliated with fund service providers, and they

¹⁹ The percentage of affiliated trustee director usage is consistent over the 2015 to 2016 sample period.

²⁰ All these affiliated trustee directors sit on trustee boards of the previously mentioned financial companies’ staff funds

are highlighted simply for comparison purposes. Figure 6.1 shows that while union-affiliated trustee directors are typically portrayed as the dominant force in not-for-profit funds (especially in industry funds), the percentage of union-affiliated trustee directors only accounts for 29 per cent of trustee directors in industry funds, 30 per cent of trustee directors in public sector funds and 4 per cent of trustee directors in corporate funds. This comparison reveals that retail funds, which are dominated by affiliated trustee directors, are more likely to be subject to potential conflicts of interests and duties than their not-for-profit counterparts.

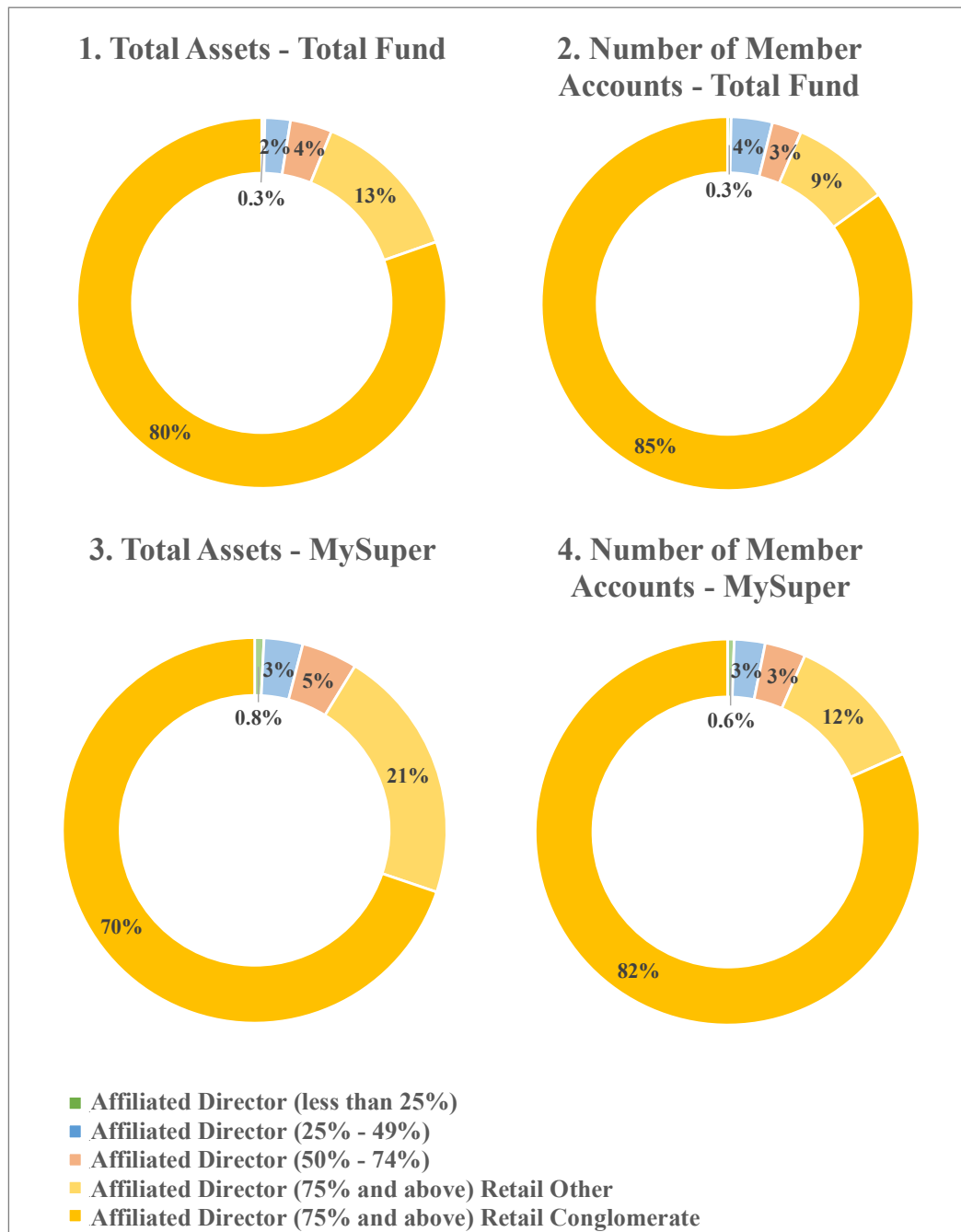
This finding also highlights the shortcoming of the ‘independent director’ definition of the *SIS Act*. A trustee director is classified as ‘independent’ under the *SIS Act*, and consequently reported as an ‘independent director’ in the disclosure documents, if the trustee director is not a member of the fund, and is neither related to an employer-sponsor nor an organisation representing the interests of employer-sponsors or fund members. This definition recognises trustee directors’ affiliation with key stakeholders of employer-sponsored superannuation funds, such as employer sponsors and trade unions. However, it does not capture trustee directors’ affiliation with other interested parties that may have a material financial or business relationship with the fund, such as fund service providers. As a result, almost all non-executive trustee directors in retail funds have been reported as “independent” trustee directors. This creates a misleading perception in the minds of the public that retail funds have a majority of unaffiliated trustee directors. However, as Figure 6.1 illustrates, approximately 80 per cent of trustee directors in retail funds are affiliated trustee directors. This reveals that trustee director independence is, in fact, a scarce commodity in retail funds.

The economic significance of retail funds dominated by affiliated trustee directors is demonstrated in Figure 6.2, which illustrates the distribution of retail fund assets and member accounts by the level of trustee director affiliation. The first ring chart in Figure 6.2 shows that 93 per cent of the total fund assets in the sample retail funds are managed by trustee boards that have more than 75 per cent of affiliated trustee directors, where 80 per cent of the total assets are managed by retail trustee boards of a vertically integrated conglomerate group²¹. The second ring chart indicates that 94 per cent of the retail member accounts are managed by trustee boards that have more than 75 per cent of affiliated trustee directors, where vertically integrated conglomerate funds account for 85 per cent of the member accounts. Similarly, ring charts three and four reveal the same picture when MySuper assets and member accounts are considered.

Overall, over 94 per cent of retail assets and member accounts (at both total fund level and MySuper level) are managed by trustee boards that are dominated by affiliated trustee directors (i.e. have more than 50 per cent affiliated trustee directors). These results reveal that the assets and member accounts in the retail sector are predominately managed under a highly-affiliated trustee environment, in which multiple layers of conflicts of interests and duties are likely to be an inherent and acute sector issue rather than an idiosyncratic fund/trustee matter.

²¹ Vertically-integrated conglomerate retail funds include funds offered by ANZ, CBA, NAB, WBC and AMP.

Figure 6.2: Distribution of Retail Fund Assets and Member Accounts by Level of Trustee Director Affiliation and Fund Type



It is also worth noting that all retail funds of vertically integrated conglomerate groups have trustee boards with more than 75 per cent affiliated trustee directors. Having control over the trustee boards through affiliated trustee directors might be part of the business model of those funds, as it is an effective way of making the board ‘captive’ and reducing its ability to manage any less-than-arms-length outsourcing arrangements (Freeman et al., 2008). In the next section, the impact of trustee director affiliation on fund performance is examined to provide evidence on whether affiliated trustee director usage leads to underperformance, and whether the high level of trustee director affiliation in retail funds should be the focus of the current and future governance reforms in the superannuation industry.

7. Impact of Related-Party Outsourcing and Trustee Director Affiliation on Superannuation Fund Performance

The aim of this section is to examine the impact of related-party outsourcing and trustee director affiliation on superannuation fund performance.

Table 7.1 summarises the variables used in the analysis, while Table 7.2 presents the descriptive statistics of the variables.

We begin by examining the relationship between related-party outsourcing and investment performance. Table 7.3 reports the results of the regression analysis using eight different investment performance measures as dependent variables. Investment performance is measured using three fund-level gross returns. That is, gross raw investment return (*Gross Return*), gross over-benchmark return (*Gross Value Added*), and gross over-benchmark risk-adjusted return (*Gross RAVA*) in columns 1-3 respectively. Investment performance is then measured using fund-level net returns. That is, net raw investment return (*Net Return*), net over-benchmark return (*Net Value Added*), and net over-benchmark risk-adjusted return (*Net RAVA*) in columns 4-6 respectively²². In column 7, investment performance is measured at the MySuper product level. Column 8 measures the long-term investment performance of superannuation funds for the period of 2004 to 2016 using *Net Return* at the total fund level, assuming the relevant related-party outsourcing variables (for Table 7.3) and trustee director affiliation variables (for Tables 7.4-7.10) remain consistent at their respective 2015 values. We control for fund size, retail funds and year fixed effects.

The variables of interest in Table 7.3 are *RPSP-Retail* (a binary variable equal to 1 if a retail fund uses at least one related-party service provider and zero otherwise) and *RPSP-NFP* (a binary variable equal to 1 if a not-for-profit fund uses at least one related-party service provider and zero otherwise).

The regression results in Table 7.3 show that *RPSP-Retail* is negatively related to all performance measures (in columns 1-8). These relationships are all statistically significant. The results reveal that the use of related-party outsourcing arrangements in retail funds is detrimental to fund member's investment performance. The results are robust when investment returns are measured using both raw return and over-benchmark risk-adjusted return measures in both short-term and long-term at both total fund level and MySuper product level.

The underperformance of retail funds that use related-party outsourcing arrangements is also economically significant. For example, column 4 shows that when investment performance is measured using *Net Return*, retail funds that use related-party service providers underperform their peers by 1.29 per cent per annum at the total fund level *ceteris paribus*. When investment performance is measured using over-benchmark return (*Net Value Added*), the underperformance is 1.32 per cent per annum (column 5). The underperformance of retail funds using related-party service providers is 1.71 per cent per annum when MySuper investment performance is considered (column 7).

²² *Gross RAVA* and *Net RAVA* are calculated following the *RAVA* metric methodology developed by Sy and Liu (2009).

Table 7.1: List of Variables

Variables	Definitions
Fund Size	Log of total assets under management
Retail Fund	A binary variable equal to 1 if the fund is a for-profit retail fund
RPSP-Retail	A binary variable equal to 1 if a retail fund uses a related-party service provider
RPSP-NFP	A binary variable equal to 1 if a not-for-profit fund uses a related-party service provider
Prop. of Affiliated Director - Retail	Proportion of affiliated trustee directors on a retail fund board
Prop. of Affiliated Director - NFP	Proportion of affiliated trustee directors on a not-for-profit fund board
Majority of Directors Affiliated - Retail	A binary variable equal to 1 if at least 50% of trustee directors on a retail fund board are affiliated
Majority of Directors Affiliated - NFP	A binary variable equal to 1 if at least 50% of trustee directors on a not-for-profit fund board are affiliated
Board Size	Total number of trustee directors on the board
Number of Female Directors	Total number of female directors
Average Director Age	Average age of trustee directors
Meeting Attendance	Average percentage of board meetings trustee directors attended
Total Board Remuneration (\$)	Aggregate annual remuneration of all trustee directors
Average Director Remuneration (\$)	Average annual remuneration of trustee directors
Independent (unaffiliated) Chair	A binary variable equal to 1 if the chair of a trustee board is independent (SIS Act definition) and unaffiliated (as defined in this paper)
Prop. of Directors - Union Affiliated	Proportion of trustee directors affiliated with a trade union (appointed by a trade union or a current/previous trade union official)
Prop. of Directors - Investment EXP	Proportion of trustee directors with investment expertise
Prop. of Directors - Other EXP	Proportion of trustee directors with other expertise (i.e. accounting, auditing, insurance, legal, actuarial) that is relevant to fund operation
Gross Return	Annual fund-level gross investment return (% pa)
Gross Value Added	Gross Return (% pa) - <i>Benchmark Return</i> ^a (%)
Gross RAVA	Gross Value Added (% pa) / <i>Benchmark Vol</i> ^b (% pa)
Net Return	Annual fund-level net investment return (% pa)
Net Value Added	Net Return (% pa) - <i>Benchmark Return</i> ^a (%)
Net RAVA	Net Value Added (% pa) / <i>Benchmark Vol</i> ^b (% pa)
MySuper Net Return	Annual MySuper net investment return (% pa) ^c

^a Benchmark return is calculated as the sum of products of the asset weights and the benchmark index returns of each asset class following the methodology developed in Ellis et al. (2008).

^b Calculated from asset allocation and benchmark index variance-covariance matrix following the RAVA metric methodology developed by Sy and Liu (2009).

^c Lifecycle products are asset-weighted by stages. Multiple MySuper products offered by one RSE are asset-weighted by products.

Table 7.2: Descriptive Statistics

This table presents descriptive statistics for the sample of 101 funds for the period of 2015 to 2016.

Variables	Mean	Median	SD	Min	Max	N
Fund Size (\$000)	10,841,092	3,477,741	17,941,317	72,417	103,696,676	197
Retail Fund	0.35	0	0.48	0	1	197
RPSP-Retail	0.27	0	0.45	0	1	197
RPSP-NFP	0.07	0	0.26	0	1	197
Prop. of Affiliated Director - Retail	0.27	0	0.41	0	1	197
Prop. of Affiliated Director - NFP	0.05	0	0.19	0	1	197
Majority of Directors Affiliated - Retail	0.29	0	0.45	0	1	197
Majority of Directors Affiliated - NFP	0.05	0	0.22	0	1	197
Board Size	7.76	7	2.44	4	17	197
Number of Female Directors	2.19	2	1.51	0	8	197
Average Director Age	58.72	58.5	4.04	48.8	69.8	197
Meeting Attendance	0.93	0.94	0.05	0.71	1	192
Total Board Remuneration (\$)	486,346	417,499	432,177	0	1,908,590	189
Average Director Remuneration (\$)	60,878	51,298	54,762	0	238,574	189
Independent (unaffiliated) Chair	0.38	0	0.49	0	1	197
Prop. of Directors - Union Affiliated	0.11	0	0.17	0	0.5	197
Prop. of Directors - Investment EXP	0.31	0.22	0.29	0	1	197
Prop. of Directors - Other EXP	0.7	0.75	0.3	0	1	197
Gross Return	0.0651	0.0722	0.0348	-0.0069	0.1296	192
Gross Value Added	0.0046	0.0084	0.0285	-0.0719	0.0913	192
Gross RAVA	0.0413	0.0912	0.3019	-0.8844	0.8217	192
Net Return	0.0570	0.0596	0.0346	-0.0139	0.1190	192
Net Value Added	-0.0035	0.0007	0.0282	-0.0847	0.0868	192
Net RAVA	-0.0477	0.0066	0.3003	-0.0420	0.6455	192
MySuper Net Return	0.0602	0.0596	0.0383	-0.0149	0.2098	197

Table 7.3 Column 8 shows that the underperformance of retail funds that use related-party service providers for the period of 2004 to 2016 is 0.77 per cent per annum. This provides strong evidence that the use of related-party service providers in retail funds can lead to statistically and economically significant long-term underperformance.

In contrast, *RPSP-NFP* is positively related to investment performance. This positive relationship is statistically insignificant in both the short-term and long-term (column 8). This indicates that not-for-profit funds that use related-party service providers tend not to underperform their peers. As discussed in Section 5, the majority of these not-for-profit funds are corporate funds for the employees of financial conglomerate groups, which also manage large retail funds. As these conglomerate groups tend to use the same set of related-party service providers for both their own staff funds and their retail offerings, the different performance relationships observed in *RPSP-Retail*, and *RPSP-NFP* shows that 'relatedness' *per se* is not detrimental to member performance. It is the combination of relatedness and profit-orientation that matters.

Table 7.3: Regression Results - Related-Party Service Provider Usage and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
RPSP-Retail	-0.0216*** (-4.63)	-0.0219*** (-3.91)	-0.2401*** (-4.20)	-0.0129*** (-2.71)	-0.0132** (-2.33)	-0.1479** (-2.54)	-0.0171** (-2.43)	-0.0077*** (-2.67)
RPSP-NFP	0.0061 (1.46)	0.0031 (0.62)	0.0388 (0.76)	0.0062 (1.46)	0.0032 (0.63)	0.0354 (0.68)	0.0098 (1.56)	0.0032 (1.26)
Fund Size	0.0031** (2.09)	0.0007 (0.41)	0.0079 (0.43)	0.0039** (2.53)	0.0015 (0.81)	0.0166 (0.88)	0.0018 (0.79)	0.0132*** (45.94)
Retail Fund	0.0077* (1.76)	0.0144*** (2.75)	0.1578*** (2.95)	-0.0010 (-0.23)	0.0057 (1.08)	0.0623 (1.14)	0.0044 (0.67)	-0.0028 (-1.02)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.961	0.631	0.653	0.950	0.609	0.637	0.903	0.947

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

This result suggests that the underperformance of retail funds that use related-party service providers is not driven by the lack of skills or abilities of the related-party service providers (as they tend not to reduce performance when providing services to their own staff funds), but their commercial endeavour to earn profits when operating in a profit-seeking retail fund environment. The fact that 80 per cent of retail funds use at least one related-party service provider (see Section 5) further supports that this is not an idiosyncratic fund/trustee practice, but an inherent business model of the retail sector. Hence, the results provide evidence supporting Liu (2013) that the use of related parties in retail funds is motivated by their business model to maintain control of and capture margins in each of the functions in the value chain of their conglomerate groups.

Next, we examine the effect of trustee director affiliation on investment performance with regression results presented in Table 7.4. Here, we measure trustee director affiliation with *Prop. of Affiliated Director - Retail* (proportion of affiliated trustee directors on a retail fund board) and *Prop. of Affiliated Director - NFP* (proportion of affiliated trustee directors on a not-for-profit fund board).

The regression results in Table 7.4 show that *Prop. of Affiliated Director - Retail* is negatively associated with all measures of investment performance (in columns 1-8). These relationships are all statistically significant. The results show that the use of affiliated trustee directors in retail funds is detrimental to fund member's investment performance. The results are also robust when investment returns are measured using both raw return measures and over-benchmark risk-adjusted return measures in both the short-term and the long-term and at both the total fund level and MySuper product level. In comparison, the proportion of affiliated trustee directors on not-for-profit fund boards (*Prop. of Affiliated Director - NFP*) is positively associated with investment performance when measured with long-term net returns (in column 8).

It is worth noting that *Retail Fund* (dummy) is positive in columns 1-3 and 5-7, which suggests that retail funds that do not use affiliated trustee director tend to outperform in the sample period of 2015 to 2016. This result may appear to be inconsistent with the previous findings (e.g. Coleman et al., 2006; Ellis et al., 2008) that retail funds tend to underperform their not-for-profit peers. However, it is important to note that, as Figure 6.2 indicates, less than 1 per cent of the retail assets and member accounts (both total fund and MySuper) are managed by non-affiliated trustee boards. This suggests that this apparent positive relationship is driven by a very small number of retail funds that represent a negligible fraction of the retail sector. The fact that this positive relationship disappears in column 8 when long-term investment performance is considered further indicates that this positive relationship is likely to be driven by short-term noise created by this small number of retail funds (that do not use affiliated trustee directors) and it is not sustainable in the long-term.

Nevertheless, given the positive coefficient of *Retail Fund*, the economic significance of the underperformance of retail funds that use affiliated trustee directors need to be determined by examining the net effect of *Prop. of Affiliated Director* and *Retail Fund* (i.e. adding the coefficients of both variables together).

Table 7.4: Regression Results - Affiliated Trustee Director Usage and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
Prop. of Affiliated Director - Retail	-0.0316*** (-4.57)	-0.0390*** (-4.83)	-0.4236*** (-5.13)	-0.0209*** (-2.98)	-0.0283*** (-3.46)	-0.3112*** (-3.69)	-0.0362*** (-3.64)	-0.0146*** (-3.60)
Prop. of Affiliated Director - NFP	0.0028 (0.49)	0.0094 (1.42)	0.0595 (0.88)	0.0056 (0.98)	0.0122* (1.84)	0.0895 (1.30)	0.0082 (0.98)	0.0222*** (6.53)
Fund Size	0.0032** (2.12)	0.0013 (0.73)	0.0125 (0.70)	0.0042*** (2.79)	0.0023 (1.32)	0.0244 (1.34)	0.0029 (1.32)	0.0131*** (47.03)
Retail Fund	0.0153** (2.54)	0.0285*** (4.06)	0.3056*** (4.25)	0.0052 (0.85)	0.0184** (2.59)	0.1964*** (2.68)	0.0191** (2.21)	0.0036 (1.04)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.960	0.646	0.667	0.950	0.626	0.652	0.906	0.949

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

Table 7.5: Regression Results - Affiliated-Director-Dominated Board and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
Majority of Directors Affiliated - Retail	-0.0233*** (-4.51)	-0.0276*** (-4.57)	-0.2992*** (-4.84)	-0.0167*** (-3.21)	-0.0210*** (-3.46)	-0.2326*** (-3.71)	-0.0274*** (-3.75)	-0.0078*** (-2.59)
Majority of Directors Affiliated - NFP	0.0014 (0.29)	0.0070 (1.23)	0.0438 (0.75)	0.0038 (0.77)	0.0094 (1.64)	0.0688 (1.16)	0.0078 (1.08)	0.0171*** (5.78)
Fund Size	0.0024 (1.64)	0.0002 (0.13)	0.0015 (0.09)	0.0038** (2.56)	0.0016 (0.93)	0.0168 (0.95)	0.0021 (0.99)	0.0131*** (46.77)
Retail Fund	0.0097* (1.95)	0.0207*** (3.55)	0.2207*** (3.70)	0.0026 (0.52)	0.0135** (2.31)	0.1446** (2.39)	0.0134* (1.90)	-0.0016 (-0.57)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.960	0.642	0.662	0.950	0.625	0.652	0.906	0.948

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

However, as *Prop. of Affiliated Director* is represented in percentage terms, the interpretation of the combined coefficients would be contingent on the magnitude of *Prop. of Affiliated Director*. To address this issue and provide a more intuitive way to determine the overall economic significance of the underperformance of retail trustees with affiliated trustee directors, we use an alternative measure of trustee director affiliation.

In Table 7.5, trustee director affiliation is measured with *Majority of Directors Affiliated - Retail* (a binary variable equal to 1 if at least 50 per cent of directors on a retail fund board are affiliated) and *Majority of Directors Affiliated - NFP* (a binary variable equal to 1 if at least 50 per cent of directors on a not-for-profit fund board are affiliated). The regression results reveal the same story as Table 7.4. That is, retail funds dominated by affiliated trustee directors (captured in *Majority of Directors Affiliated - Retail*) are negatively associated with all measures of investment performance.

Regarding the economic significance of the underperformance, the combined impact of retail funds that have a majority of affiliated trustee directors can be assessed directly by the sum of the coefficients for *Majority of Directors Affiliated - Retail* and *Retail Fund* (where *Retail Fund* is statistically significant). E.g. in column 1, retail funds (coefficient of *Retail Fund* is 0.0097) that have a majority of affiliated directors (coefficient of *Majority of Directors Affiliated - Retail* is -0.0233) underperform their not-for-profit peers by 0.0136 (0.0097 - 0.0233) – i.e. 1.36 per cent per annum. When investment performance is measured using net over-benchmark return (*Net Value Added*), the underperformance is 0.75 per cent per annum (column 5). When MySuper investment performance is considered (column 7), the underperformance of retail funds dominated by affiliated trustee directors is 1.4 per cent per annum. Column 8 shows that the long-term underperformance for the period of 2004 to 2016 is around 1 per cent per annum²³. In contrast, *Majority of Directors Affiliated - NFP* is positively related to investment performance. This positive relationship is statistically significant in the long-term (column 8). This provides strong evidence that the use of affiliated trustee directors is only detrimental to retail fund members' investment performance. Trustee director affiliation in retail funds can lead to statistically and economically significant underperformance in both the short-term and long-term for the total fund and MySuper products. It is also worth noting that Figure 6.2 highlights that over 94 per cent of the retail assets and member accounts (at both total fund level and MySuper level) are managed by trustee boards that are dominated by affiliated trustee directors. This suggests that the retail fund assets and member accounts are predominately invested in funds that significantly underperform the rest of the superannuation industry.

Besides, the fact that *Retail Fund* no longer has a significant negative relationship with investment performance when service provider relatedness (Table 7.3) and trustee director affiliation (Table 7.4) are included in the models suggests that the previously observed underperformance of retail funds (Coleman et al., 2006; Ellis et al., 2008) is mainly driven by related-party service provider usage and trustee director affiliation. This reflects the inherent business model of the retail sector. That is, using affiliated

²³ As *Retail Fund* is not statistically significant in column 8, the coefficient of *Majority of Directors Affiliated - Retail* accounts for the overall effect.

trustee boards to employ related-party service providers to maintain control of and capture margins in each of the functions in the value chain of their conglomerate groups. The results raise serious concerns that conflicts of interest and duties are likely to be an inherent and an acute sector issue rather than an idiosyncratic fund/trustee matter in the retail sector. To further investigate this, we examine the relationship between the level of trustee director affiliation and the likelihood of related-party service provider usage.

In Table 7.6, a fund's usage of related-party service providers is measured in two alternative ways. *RPSP Usage* is a binary variable equal to 1 if a fund uses a related-party service provider whereas *Num of RPSPs Used* captures the number of related-party service providers used by a fund. The results show that the likelihood of using a related-party service provider is positively associated with the level of trustee director affiliation (column 1) and trustee boards dominated by affiliated trustee directors (column 2).

Table 7.6 also shows that trustee boards with a higher proportion of affiliated trustee directors tend to use a larger number of related-party service providers (columns 3 and 4). This provides strong evidence supporting the results of Freeman et al. (2008), which suggests that where related-party service providers control the fund board through affiliated directors, the board becomes 'captive'. The underperformance of these retail funds documented in the previous sections provides further evidence that when trustee boards become 'captive', they tend to engage in a commercial endeavour through related parties to make a profit at the expense of the interests of their fund members.

To further examine the impact of different levels of trustee director affiliation on investment return, we decompose the proportion of affiliated directors on each retail fund board into three levels of affiliation in Table 7.7²⁴. The results suggest that as the level of affiliation increases from 25 per cent to 75 per cent and over, the negative effect (represented by the coefficients of the relevant variables) on fund-level gross and net investment performance as well as long-term investment performance increases. There is also a negative effect on MySuper performance when the level of trustee director affiliation increases. The results provide evidence that more severe conflicts of interest and duties and the consequent underperformance are likely to occur with higher levels of trustee director affiliation.

In addition to the level of trustee director affiliation, more severe conflicts of interest and duties are also likely to exist in vertically integrated conglomerate groups. These conglomerate groups typically have larger numbers and greater types of related entities that can be used as potential service providers. In Table 7.8, we decompose retail funds into those that are part of a conglomerate group²⁵ and those that are non-conglomerate retail funds. *Majority of Directors Affiliated - Retail Conglomerate* and *Majority of Directors Affiliated - Retail Other* represent the corresponding trustee director affiliation measures.

²⁴ It is noted that there is not as much variation in the level of affiliation in not-for-profit funds thus we continue to use the binary variable *Majority of Directors Affiliated - NFP* to account for not-for-profit funds in the models.

²⁵ Vertically-integrated conglomerate retail funds include funds offered by ANZ, CBA, NAB, WBC and AMP.

Table 7.6: Regression Results - Affiliated Trustee Director Usage and Related-Party Service Provider Usage

Dependent Variables Independent Variables	(1) RPSP Usage	(2) RPSP Usage	(3) Num of RPSPs Used	(4) Num of RPSPs Used
Prop. of Affiliated Director - Retail	2.2188*** (3.18)		3.1463*** (8.38)	
Prop. of Affiliated Director - NFP	1.9988*** (3.56)		1.0016*** (3.16)	
Majority of Directors Affiliated - Retail		1.0440** (2.31)		1.4684*** (4.79)
Majority of Directors Affiliated - NFP		1.9196*** (3.89)		0.9080*** (3.01)
Fund Size	0.2507 (1.26)	0.3411* (1.83)	0.3337*** (4.01)	0.4478*** (5.01)
Retail Fund	1.3542** (2.27)	2.2154*** (4.50)	-0.3244 (-1.00)	0.9453*** (3.21)
Year Fixed Effects	YES	YES	YES	YES
Model	Logit	Logit	OLS	OLS
<i>N</i>	197	197	197	197
Pseudo <i>R</i> ²	0.6118	0.6097		
adj. <i>R</i> ²			0.742	0.685

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

Table 7.7: Regression Results - Level of Trustee Director Affiliation and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
Affiliated Director (25% - 49%) - Retail	-0.0409*** (-3.64)	-0.0466*** (-3.54)	-0.4513*** (-3.35)	-0.0354*** (-3.09)	-0.0411*** (-3.08)	-0.4111*** (-2.97)	-0.0009 (-0.05)	-0.0116* (-1.66)
Affiliated Director (50% - 74%) - Retail	-0.0501*** (-4.62)	-0.0567*** (-4.46)	-0.5687*** (-4.37)	-0.0414*** (-3.73)	-0.0479*** (-3.71)	-0.4968*** (-3.72)	-0.0224 (-1.34)	-0.0149** (-2.12)
Affiliated Director (75% and above) - Retail	-0.0578*** (-5.60)	-0.0675*** (-5.59)	-0.6898*** (-5.57)	-0.0461*** (-4.38)	-0.0558*** (-4.55)	-0.5822*** (-4.59)	-0.0300* (-1.89)	-0.0177*** (-2.74)
Majority of Directors Affiliated - NFP	0.0015 (0.31)	0.0071 (1.30)	0.0453 (0.80)	0.0038 (0.80)	0.0095* (1.69)	0.0697 (1.21)	0.0079 (1.09)	0.0171*** (5.78)
Fund Size	0.0027* (1.88)	0.0007 (0.40)	0.0066 (0.39)	0.0039*** (2.68)	0.0019 (1.11)	0.0201 (1.15)	0.0025 (1.16)	0.0131*** (46.77)
Retail Fund	0.0427*** (4.19)	0.0583*** (4.90)	0.5857*** (4.80)	0.0310*** (2.99)	0.0467*** (3.86)	0.4761*** (3.81)	0.0144 (0.92)	0.0078 (1.23)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.963	0.667	0.686	0.953	0.643	0.668	0.906	0.948

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

Table 7.8: Regression Results - Affiliated Trustee Director Dominated Board (by Retail Fund Type) and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
Majority of Directors Affiliated - Retail Other	-0.0197*** (-3.78)	-0.0261*** (-4.19)	-0.2783*** (-4.38)	-0.0129** (-2.47)	-0.0193*** (-3.09)	-0.2097*** (-3.26)	-0.0230*** (-3.08)	0.0013 (0.42)
Majority of Directors Affiliated - Retail Conglomerate	-0.0323*** (-5.42)	-0.0315*** (-4.42)	-0.3520*** (-4.84)	-0.0261*** (-4.37)	-0.0253*** (-3.54)	-0.2907*** (-3.95)	-0.0389*** (-4.52)	-0.0245*** (-7.38)
Majority of Directors Affiliated - NFP	0.0020 (0.41)	0.0073 (1.27)	0.0471 (0.81)	0.0044 (0.91)	0.0097* (1.69)	0.0724 (1.23)	0.0084 (1.19)	0.0169*** (5.92)
Fund Size	0.0044*** (2.76)	0.0011 (0.57)	0.0130 (0.67)	0.0058*** (3.65)	0.0025 (1.33)	0.0295 (1.50)	0.0046* (1.97)	0.0135*** (49.55)
Retail Fund	0.0112** (2.29)	0.0213*** (3.64)	0.2295*** (3.83)	0.0042 (0.84)	0.0143** (2.42)	0.1543** (2.54)	0.0152** (2.18)	-0.0016 (-0.58)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.962	0.642	0.664	0.952	0.626	0.654	0.909	0.952

t statistics in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

The results in Table 7.8 show that the coefficient of *Majority of Directors Affiliated - Retail Conglomerate* is significantly more negative than *Majority of Directors Affiliated - Retail Other* in all models. This suggests that conglomerate retail funds with a trustee board dominated by affiliated trustee directors have a larger negative effect on all investment performance measures, compared to non-conglomerate retail funds dominated by affiliated trustee directors.

However, as Figure 6.2 indicates, all conglomerate retail funds have trustee boards with more than 75 per cent affiliated trustee directors. Therefore, it is unclear if the more severe negative relationship observed in *Majority of Directors Affiliated - Retail Conglomerate* is driven by the unique characteristics of the vertically integrated conglomerate groups or merely the higher level of trustee director affiliation (as documented in Table 7.7). To address this, we further decompose these two affiliation variables (*Majority of Directors Affiliated - Retail Conglomerate* and *Majority of Directors Affiliated - Retail Other*) into different levels of affiliation in Table 7.9.

In Table 7.9, the comparison between the coefficients of *Affiliated Director (75% and above) - Retail Conglomerate* and *Affiliated Director (75% and above) - Retail Other* shows that conglomerate retail funds have a higher negative impact on investment performance than their non-conglomerate retail peers, after controlling for the level of affiliation. This provides evidence that retail funds that are part of a conglomerate group are likely to be subject to more severe conflicts of interests and duties, which leads to more significant underperformance.

Finally, we add a range of trustee board governance variables to examine the robustness of our results against different model specifications. We include *Prop. of Directors - Union Affiliated* (percentage of trustee directors who are affiliated with a trade union), *Independent (unaffiliated) Chair* dummy, *Board Size*, *Number of Female Directors*, *Average Director Age*, *Total Board Remuneration*, *Prop. of Directors - Investment EXP* (percentage of trustee directors with investment expertise), *Prop. of Directors - Other EXP* (percentage of directors with accounting, auditing, insurance, legal and actuarial expertise) and *Meeting Attendance*. The means of these governance variables by fund type is summarised in Table 7.10.

Table 7.11 reports the results of the regressions when we include these trustee board governance variables. The results show that even after controlling for these variables, retail funds with a greater proportion of affiliated trustee directors are persistently negatively associated with investment performance. There is no strong evidence that the above-mentioned governance variables have any consistent association with investment performance in addition to the trustee director affiliation measures. This suggests that trustee director affiliation is the most important governance variable affecting investment performance.

Table 7.9: Regression Results - Level of Trustee Director Affiliation (by Retail Fund Type) and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return	(8) Net Return (2004-2016)
Affiliated Director (25% - 49%) – Retail Other	-0.0406*** (-3.66)	-0.0466*** (-3.53)	-0.4505*** (-3.34)	-0.0351*** (-3.12)	-0.0410*** (-3.07)	-0.4097*** (-2.96)	-0.0006 (-0.03)	-0.0115* (-1.70)
Affiliated Director (50% - 74%) – Retail Other	-0.0503*** (-4.70)	-0.0567*** (-4.45)	-0.5693*** (-4.36)	-0.0416*** (-3.82)	-0.0480*** (-3.71)	-0.4977*** (-3.73)	-0.0227 (-1.37)	-0.0150** (-2.23)
Affiliated Director (75% and above) - Retail Other	-0.0531*** (-5.13)	-0.0668*** (-5.43)	-0.6759*** (-5.36)	-0.0406*** (-3.86)	-0.0544*** (-4.35)	-0.5586*** (-4.33)	-0.0238 (-1.49)	-0.0056 (-0.89)
Affiliated Director (75% and above) - Retail Conglomerate [^]	-0.0646*** (-6.13)	-0.0685*** (-5.46)	-0.7097*** (-5.53)	-0.0540*** (-5.05)	-0.0579*** (-4.55)	-0.6161*** (-4.69)	-0.0393** (-2.42)	-0.0338*** (-5.30)
Majority of Directors Affiliated - NFP	0.0019 (0.41)	0.0072 (1.30)	0.0466 (0.82)	0.0043 (0.92)	0.0096* (1.71)	0.0720 (1.24)	0.0084 (1.18)	0.0169*** (5.94)
Fund Size	0.0042*** (2.75)	0.0009 (0.48)	0.0112 (0.60)	0.0057*** (3.65)	0.0024 (1.27)	0.0279 (1.45)	0.0046* (1.96)	0.0135*** (49.72)
Retail Fund	0.0436*** (4.34)	0.0584*** (4.89)	0.5884*** (4.81)	0.0321*** (3.15)	0.0470*** (3.87)	0.4808*** (3.84)	0.0157 (1.01)	0.0077 (1.26)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	192	192	192	192	192	192	197	1341
adj. <i>R</i> ²	0.964	0.666	0.684	0.954	0.642	0.668	0.908	0.952

t statistics in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

[^]None of the *Retail Conglomerate Funds* have affiliated trustee directors (%) below 75%.

Table 7.10: Governance Variable Differences by Fund Type

This table reports t-test results of the means of the variables by fund type for the sample of 101 funds for the period of 2015 to 2016.

Variables	NFP Funds	Retail Funds	t-value
Fund Size (\$000)	10,400,073	11,677,729	-0.47
Related-party Service Provider Usage	0.10	0.80	-14.16***
Affiliated Directors (%)	0.07	0.79	-18.13***
Majority of Directors Affiliated	0.08	0.84	-14.97***
Board Size	8.78	5.81	11.85***
Number of Female Directors	2.33	1.93	2.04**
Female Directors (%)	0.26	0.33	-2.61**
Average Director Age	59.02	58.16	1.54
Meeting Attendance	0.92	0.94	-2.81***
Total Board Remuneration	453,080	554,488	-1.28
Average Director Remuneration	48,394	86,448	-3.63***
Independent (unaffiliated) Chair	0.39	0.37	0.27
Prop. of Directors - Union Affiliated	0.17	0	10.34***
Prop. of Directors - Investment EXP	0.17	0.57	-10.67***
Prop. of Directors - Other EXP	0.56	0.99	-17.41***

* p<0.10, ** p<0.05, *** p<0.01

Table 7.11: Regression Results - Trustee Board Governance and Investment Performance

Dependent Variables Independent Variables	(1) Gross Return	(2) Gross Value Added	(3) Gross RAVA	(4) Net Return	(5) Net Value Added	(6) Net RAVA	(7) MySuper Net Return
Prop. of Affiliated Director - Retail	-0.0255*** (-2.75)	-0.0400*** (-3.82)	-0.4241*** (-4.14)	-0.0168* (-1.79)	-0.0313*** (-2.97)	-0.3328*** (-3.19)	-0.0336** (-2.41)
Prop. of Affiliated Director - NFP	0.0120* (1.74)	0.0057 (0.73)	0.0160 (0.21)	0.0141** (2.03)	0.0078 (0.99)	0.0506 (0.65)	0.0144 (1.37)
Prop. of Directors - Union Affiliated	0.0132* (1.66)	0.0037 (0.42)	0.0634 (0.72)	0.0096 (1.19)	0.0001 (0.01)	0.0370 (0.41)	0.0109 (0.89)
Independent (unaffiliated) Chair	0.0041 (1.58)	0.0014 (0.46)	0.0245 (0.86)	0.0027 (1.02)	-0.0001 (-0.02)	0.0099 (0.34)	-0.0012 (-0.30)
Board Size	-0.0003 (-0.39)	-0.0013 (-1.52)	-0.0122 (-1.47)	-0.0001 (-0.09)	-0.0011 (-1.25)	-0.0106 (-1.25)	-0.0006 (-0.49)
Number of Female Directors	0.0009 (1.00)	0.0019* (1.85)	0.0222** (2.18)	0.0014 (1.52)	0.0024** (2.31)	0.0281*** (2.70)	0.0008 (0.57)
Average Director Age	0.0001 (0.21)	-0.0000 (-0.00)	0.0003 (0.10)	0.0001 (0.44)	0.0001 (0.21)	0.0014 (0.39)	0.0002 (0.34)
Total Board Remuneration	0.0000 (0.43)	0.0000 (0.03)	-0.0000 (-0.33)	0.0000 (0.45)	0.0000 (0.05)	-0.0000 (-0.19)	0.0000 (0.94)
Prop. of Directors - Investment EXP	-0.0068 (-1.07)	0.0048 (0.66)	0.0642 (0.91)	-0.0095 (-1.47)	0.0022 (0.30)	0.0214 (0.30)	-0.0050 (-0.52)
Prop. of Directors - Other EXP	-0.0037 (-0.67)	0.0030 (0.49)	0.0385 (0.63)	-0.0007 (-0.12)	0.0061 (0.96)	0.0668 (1.08)	-0.0017 (-0.20)
Meeting Attendance	-0.0054 (-0.25)	-0.0200 (-0.82)	-0.2232 (-0.94)	-0.0179 (-0.82)	-0.0325 (-1.32)	-0.3449 (-1.42)	-0.0275 (-0.84)
Fund Size	0.0028 (1.38)	0.0017 (0.75)	0.0135 (0.60)	0.0035* (1.70)	0.0024 (1.04)	0.0213 (0.93)	0.0016 (0.53)
Retail Fund	0.0190** (2.01)	0.0265** (2.49)	0.2832*** (2.71)	0.0106 (1.11)	0.0182* (1.69)	0.1999* (1.88)	0.0212 (1.48)
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES
<i>N</i>	182	182	182	182	182	182	186
adj. <i>R</i> ²	0.963	0.660	0.698	0.954	0.632	0.674	0.907

t statistics in parentheses: * p<0.10, ** p<0.05, *** p<0.01

8. Conclusion

In this paper, we examine the impact of related-party outsourcing and trustee director affiliation on the investment performance of Australian superannuation funds using a sample of 101 superannuation funds for the period of 2015 to 2016.

We first examine the current outsourcing landscape in the Australian superannuation industry. The prevalent use of service providers suggests that outsourcing is still an indispensable component of the operation of Australian superannuation funds. This result is consistent with the documented practice of outsourcing within the industry in 2006 (Liu and Arnold, 2010a; Liu and Arnold, 2012). The heavy reliance on service providers implies that these external parties have a significant influence on the costs and performance of superannuation funds, and hence the investment experience of fund members. We also document clear patterns of outsourcing for different types of funds: not-for-profit funds predominately use unrelated service providers, whereas retail funds tend to outsource to related parties. Our results reveal that retail fund assets managed by related-party service providers have significantly increased over the last decade despite the introduction of enhanced trustee duties and new disclosure requirements as part of recent regulatory reforms. The documented significant increase in related-party service provider usage in retail funds raises serious concerns about growing conflicts of interest in the retail sector and their detrimental impact on retail fund members' investment performance.

Our analysis of the level and nature of trustee director affiliation shows that retail fund boards are dominated by affiliated trustee directors. On average, 78 per cent of retail fund trustee directors are affiliated. Further, over 94 per cent of retail assets and member accounts (at both total fund level and MySuper level) are managed by trustee boards that are dominated by affiliated trustee directors. These results indicate that the assets and member accounts in the retail sector are predominately managed within a highly-affiliated trustee environment, where multiple layers of conflicts of interest and duties are likely to be an inherent and acute sector issue rather than an idiosyncratic fund/trustee matter.

We then examine the impact of related-party outsourcing and trustee director affiliation on investment performance. Our analysis is closely related to studies by Liu and Arnold (2010b) and Liu and Arnold (2012), which find that related-party service providers charge higher fees than unrelated service providers. We extend these papers by testing the impact of related-party service provider usage on fund performance. While it is arguable that higher fees may be justified by the superior performance provided by related-party providers, we find no evidence in support of this argument. Our results show that both the use of related-party outsourcing arrangements and trustee director affiliation in retail funds is detrimental to fund member's investment performance. This significantly negative relationship is robust to the use of alternative measures of investment performance (i.e. net return, over-benchmark return, risk-adjusted return with asset allocation adjustment) in both the short-term and the long-term at both the total fund level and MySuper (i.e. default investment option) level. We also find that trustee boards with a higher proportion of affiliated trustee directors are more likely to use related-party service providers. These results are in line with Freeman et al. (2008),

which show that where related-party service providers control the fund board through affiliated directors, the board becomes ‘captive’. Our findings further suggest that the profit motivation of retail funds leads to a particular business model where ‘captive’ boards dominated by affiliated trustee-directors tend to engage in a commercial endeavour through related parties to make a profit at the expense of fund members’ interests.

Furthermore, we show that more severe conflicts of interest and the consequent underperformance are likely to occur with higher levels of trustee director affiliation. We also demonstrate that retail funds that are part of a conglomerate group are likely to be subject to more severe conflicts of interests and duties, which leads to more significant underperformance. These results provide further evidence supporting Sy (2008b). Sy (2008b) argues that the existence of multiple layers of conflicts of interests and duties in retail funds often place retail trustee directors in a situation where they face a trade-off between duties to shareholders and fund members. Retail fund trustee directors often have to decide on whether company shareholder profits or whether fund member benefits should have priority. Our results provide evidence that retail funds dominated by affiliated trustee directors tend to prioritise the interests of their conglomerates over the interests of fund members when faced with such conflicts of interest. This raises serious questions about whether these retail trustees are meeting their legal obligations under the *SIS Act S52(2)(c)* and *(d)*.

Moreover, our results show that even after controlling for a range of trustee governance variables, retail funds with a greater proportion of affiliated trustee directors are persistently negatively associated with investment performance. We find no strong evidence that any other governance variables have a consistent association with investment performance to the same extent as our trustee director affiliation measures. This suggests that trustee director affiliation is the most important governance variable affecting investment performance.

These results provide strong evidence that the use of related-party service providers through highly affiliated trustee boards is not an idiosyncratic fund/trustee practice, but an inherent business model of the retail sector. Our results provide further evidence supporting Liu (2013), which suggests that the use of related parties in retail funds is motivated by their business model to maintain control of and capture margins in each of the functions in the value chain of their conglomerate groups. As this business model is significantly detrimental to fund members’ interest, it represents a major source of inefficiency in the superannuation system and hence should be the focus of current and future governance reforms in the superannuation industry.

This research is particularly relevant to the examination of alternative models for allocating default fund members as part of the current Productivity Commission Review on Superannuation. Our results show that the retail fund governance structure coupled with trustees’ profit-seeking motivations and business model give rise to agency issues that are significantly detrimental to fund members’ investment outcomes. As default members are likely to be dispersed and disengaged, minimising agency costs should be a high priority in the default allocation design. A key consideration in assessing the suitability of alternative default allocation models should be their

effectiveness in safeguarding members against exposure to these agency issues. Avoiding default assets and member accounts being managed in a high agency cost environment should be a key objective in designing an alternative default allocation mechanism.

References

- APRA, (2016a) 'Annual MySuper statistics', Australian Prudential Regulation Authority.
- APRA, (2016b) 'Annual fund-level superannuation statistics', Australian Prudential Regulation Authority.
- Bateman, H. (2009), 'Retirement income provision in Australia – Outstanding design issues in a mature system', Working Paper, University of New South Wales.
- Cheung, Y.L, Rau, P.R. and Stouraitis, A. (2006) 'Tunneling, propping and expropriation. Evidence from connected party transactions in Hong Kong', *Journal of Financial Economics*, 82 (2), pp. 343-386.
- Clark, G. (2004), 'Pension fund governance: Expertise and organisational form', *Journal of Pension Economics and Finance*, Vol.3 (2), pp.233-53.
- Coleman, A., Esho, N. and Wong, M. (2006) 'The impact of agency costs on the investment performance of Australian pension funds', *Journal of Pension Economics and Finance*, 5(3), pp.299-324.
- Del Guercio, D., Dann, L.Y. and Partch M.M. (2003) 'Governance and boards of directors in closed-end investment companies', *Journal of Financial Economics* 69(1), pp. 111-152.
- Drew, M. and Stanford, J. (2003) 'A review of Australia's compulsory superannuation scheme after a decade', *Discussion Paper No 322*, School of Economics and Finance Queensland University of Technology, Australia.
- Ellis, K., Tobin, A. and Tracey, B. (2008) 'Investment performance, asset allocation, and expenses of large superannuation funds', Working Paper, Australian Prudential Regulation Authority.
- Fear, J. and Pace, G. (2008), 'Choosing not to choose: Making superannuation work by default', The Australia Institute, Discussion Paper No. 103, November 2008.
- Freeman, J., Brown, S., and Pomerantz, S. (2008) 'Mutual fund advisory fees: new evidence and a fair fiduciary duty test', *Oklahoma Law Review*, 61(1), pp.83-153.
- Fricke, E. (2015) 'Board holdings, compensation and mutual fund manager turnover', *Journal of Financial Services Research*, 47(3), pp.293-312.
- Fu, R. and Wedge, L. (2011) 'Board independence and mutual fund manager turnover', *Financial Review*, 46(4), pp.621-641.
- Gordon, E, Henry, E. and Palia, D. (2004) 'Related party transactions: Associations with corporate governance and firm value', Working paper.

- Jian, M and Wong, T.J. (2003) ‘Earnings management and tunneling through related party transactions: Evidence from Chinese Corporate Groups’, Working paper.
- Kang, M., Lee, H-Y., Lee, M-G. and Park, J.C. (2014) ‘The association between related-party transactions and control–ownership wedge: Evidence from Korea’, *Pacific-Basin Finance Journal*, 29, pp.272-296.
- Kohlbeck, M. and Mayhew, B.W. (2017), ‘Are related party transactions red flags?’, *Contemporary Accounting Research*, 34(2), pp.900–928.
- Kuhnen, C. (2009) ‘Business networks, corporate governance, and contracting in the mutual fund industry’, *Journal of Finance*, 64(5), pp. 2185-2220.
- Liu, K. (2013) ‘Australian superannuation: operational structure, investment performance and trustee governance’, Ph.D. thesis, University of Sydney.
- Liu, K. and Arnold, B. (2010a) ‘Australian superannuation - the outsourcing landscape’, Working Paper, Australian Prudential Regulation Authority.
- Liu, K. and Arnold, B. (2010b) ‘Australian superannuation outsourcing: fees, related parties and concentrated markets’, Working Paper, Australian Prudential Regulation Authority.
- Liu, K. and Arnold, B. (2012) ‘Superannuation and insurance: related parties and member cost’, Working Paper, Australian Prudential Regulation Authority.
- Lo, A, Wong, R. and Firth, M. (2010) ‘Can corporate governance deter management from manipulating earnings? Evidence from related-party sales transactions in China’, *Journal of Corporate Finance*, 16(2), pp.225-235.
- Nekhili, M. and Moêz C. (2011) ‘Related parties transactions and firm’s market value: the French case’, *Review of Accounting and Finance*, 10(3), pp.291-315.
- Ryngaert, M. and Thomas, S. (2012), ‘Not all related party transactions (RPTs) are the same: Ex ante versus ex post RPTs’, *Journal of Accounting Research*, 50(3), pp.845-882.
- Super System Review (2010), ‘Final Report’, *Review into the Governance, Efficiency, Structure and Operation of Australia’s Superannuation System*, 30 June 2010.
- Sy, W. (2008a) ‘Superannuation fund governance: An interpretation’, Working Paper, Australian Prudential Regulation Authority.
- Sy, W. (2008b) ‘Pension governance in Australia: An anatomy and an interpretation’, *Rotman International Journal of Pension Management*, 1(1), pp30-37.
- Sy, W., Inman, C., Esho, N. and Sane, R. (2008) ‘Superannuation fund governance: Trustee policies and practices’, Working Paper, Australian Prudential Regulation Authority.
- Sy, W. and Liu, K. (2009) ‘Investment performance ranking of superannuation firms’, Working Paper, Australian Prudential Regulation Authority (APRA).