

Australian Superannuation Outsourcing: Fees, Related Parties and Concentrated Markets

by

Kevin Liu *

University of Sydney

Bruce R Arnold

Australian Prudential Regulation Authority

25 June 2010

Abstract

Utilising a unique dataset collected by the Australian Prudential Regulation Authority (APRA), this paper examines the outsourcing by superannuation fund trustees eight superannuation functions, including administration, asset allocation, and investment management. In each of these individual outsourcing markets, we analyse related-party service providers, the concentration of independent service providers, and the combined impact on outsourcing costs. We find that ‘relatedness’ per se does not imply higher outsourcing fees: Related-party service providers used by not-for-profit funds generally charge no more than independent service providers, whereas retail related-party service providers tend to charge higher fees than their independent counterparts. We also find a wide diversity in competitiveness in the market for each function: Where outsourcing is concentrated among a small number of service providers – even where a large number of providers offer the service – we find that the dominant service providers charge higher fees.

Keywords: superannuation, outsourcing, related-party service providers, market concentration

Disclaimer: The views in this paper reflect the authors’ views and not necessarily the views of APRA. APRA does not accept any responsibility for the accuracy, completeness or currency of the material included in this publication, and will not be liable for any loss or damage arising out of any use of, or reliance on, this publication.

*

Kevin Liu gratefully acknowledges the financial support of the Australian Prudential Regulation Authority and the Capital Markets Cooperative Research Centre.

Summary

Australia's system of superannuation requires employers to make contributions on behalf of their employees to complying superannuation funds. Beneficiaries are entitled both to choose the fund which receives the contributions, and to transfer amounts in their individual accounts from one fund to another. The combination of compulsory contributions and portable balances has created a large superannuation industry – a A\$1.23 trillion laboratory experiment of global interest.¹

In 2006, APRA compiled a unique dataset relating to 115 large superannuation funds with assets in excess of \$200 million. One segment of the data relates to certain outsourcing arrangements across a number of key functions, such as custody and actuarial services, and includes both the identity of the service providers and the fee arrangements. We enhanced the data by determining any affiliation between the service provider and the trustee of the superannuation fund. This allows us to distinguish between outsourcing arrangements with parties affiliated with the superannuation trustee, and those with independent service providers. A companion paper, 'Australian Superannuation: The Outsourcing Landscape' (Liu and Arnold 2010), discusses the overall usage and different patterns of outsourcing. Indeed, superannuation-fund outsourcing is prevalent – a rich setting in which to explore outsourcing-related risks.

A preliminary examination of the data shows that a significant number of superannuation trustees enter into outsourcing contracts with related parties. We investigate the fee arrangements for evidence of conflict of interest: Trustees have a legal duty to act in the best interests of fund members. When trustees of superannuation funds enter into arrangements with related service providers, there is the risk that the terms favour the trustee's affiliate at the expense of fund members. To test whether this occurs, we compare related-party fee arrangements to those with independent service providers.

We find that 'relatedness' *per se* is not detrimental to fund members. However, when we consider whether the fund has been established on a not-for-profit basis, or as a retail commercial endeavour, we find that the trustees of retail funds pay significantly higher fees to related service providers. In contrast, the fees paid by trustees of not-for-profit funds to related parties are not significantly different than those to independent service providers.

The largest difference relates to administrative services, where we find strikingly different fee models used in different contexts. For independent administrators and not-for-

¹ As at 31 December 2009, superannuation assets totalled A\$1.23 trillion (APRA 2009).

profit related-party ('NFP-related') administrators, the fees are predominantly related to the number of members in the fund. In contrast, retail fund related-party ('retail-related') administrators charge a large fixed fee plus a variable component based on assets under management. These different approaches result in the median fund paying \$12.2 million in fees under the retail-related administrator model, versus only \$2.3 million to a service provider who was independent or NFP-related. Retail funds also pay significantly more to related asset consultants, although the magnitude of the difference is much smaller.

In respect of other functions, we examine the fees paid to independent service providers, and compare those paid by retail funds to those by not-for-profit funds. We find that retail funds pay significantly less for auditing, custody and international fixed income, but significantly more for Australian listed equity. The economic significance of these differences, in the context of the median fund investing in a stylised median portfolio, is suggested by Table 1.

Table 1		
SIGNIFICANT DIFFERENCES IN ESTIMATED ANNUAL COST		
	<i>Not-for-Profit</i>	<i>Retail</i>
<i>Related Service Providers</i>		
Administrative Services		+ \$9,947,000 / fund + \$290.85 / member 79.9 bps on assets
Asset Allocation		+ \$135,000 / fund + \$3.96 / member 1.0 bps on assets
<i>Independent Service Providers</i>		
Auditing	+ \$39,000 / fund + \$1.14 / member 0.3 bps on assets	
Custody	+ \$317,000 / fund + \$9.28 / member 2.5 bps on assets	
Investment Management		+ \$520,000 / fund + \$15.21 / member 4.2 bps on assets

Table 2 presents a summary of annual fees paid in respect of the median superannuation fund, where all functions have been fully outsourced. As can be seen from the last line of the following table, only the combination of a retail fund which outsources to

related service providers generates economically significant results. Under these circumstances, superannuation fund members can incur substantially higher costs.

Table 2				
ALL FUNCTIONS – ESTIMATED ANNUAL COST				
<i>Median Fund</i>	<i>Not-for-Profit</i>		<i>Retail</i>	
Total Expense	<i>Independent Service Providers</i>	<i>Related Service Providers</i>	<i>Independent Service Providers</i>	<i>Related Service Providers</i>
Per Fund (\$000)	6,345	6,309	6,473	16,592
Per Member (\$)	185.53	184.48	189.27	485.13
By Assets	0.51%	0.51%	0.52%	1.33%

We also examine the concentration of the superannuation outsourcing markets for any impact on the level of fees charged by independent service providers. We are able to measure a wide range of concentration across the markets, and find that market concentration has a significant effect on fees. In the more competitive markets (administration and investment management), we find service providers with high market share are associated with lower fees. In the more concentrated markets (custody, actuarial, and auditing), service providers with high market share are associated with higher fees. This suggests that service providers in concentrated markets may be extracting rent from superannuation trustees.

The Australian Superannuation Industry

The *Superannuation Guarantee Charge Act 1992 (Cth)* and *Superannuation Guarantee (Administration) Act 1992 (Cth)* (collectively, the ‘Superannuation Guarantee’), soon followed by the *Superannuation Industry (Supervision) Act 1993 (Cth)* (the ‘SIS Act’), gave birth to a comprehensive system of private retirement accounts, funded by compulsory wage- or salary-based contributions, tax-deductible to the employer and held in tax-effective superannuation funds.

Australian superannuation has a century-long history, and many funds predate the Superannuation Guarantee. ‘Public-sector’ funds were established to provide pension benefits to certain groups of state and federal government employees; ‘corporate’ funds, to the employees of a single company; and ‘industry’ funds, to unionised workers in a single industry. Membership in these three types of funds was both closed and mutually exclusive, thus the funds properly did not consider themselves to be competitors. ‘Retail’ funds sprang

up to cater to individuals not eligible for public-sector, corporate, or industry funds, such as professionals and other self-employed individuals, and to employers not large enough to justify their own dedicated funds. Retail funds also began to gather lump sums rolling out of not-for-profit funds which did not themselves offer post-retirement pensions.

The Superannuation Guarantee raised the stakes — significantly increasing the amount of money flowing into the superannuation system — while the SIS Act transformed the competitive landscape. The SIS Act allowed public-sector, corporate, and industry funds to become ‘public-offer’ funds.² Not only would these funds continue to safeguard the interests of their established membership, but they could also offer membership to the general public, in direct competition with retail funds.

Based on the most recent APRA statistical release (APRA 2009), retail funds accounted for 28.1% of the total; industry funds, 17.8%; public-sector funds, 14.0%; and corporate funds, 4.9%. The balance, or 31.2%, was held in self-managed superannuation funds, which are not regulated by APRA. Overall, one-and-a-quarter trillion dollars have been accumulated in superannuation funds, representing the highest *per capita* investment of this type in the world.³

Trusts and Trustees

An Australian superannuation fund is constituted in the form of a trust.⁴ In most cases, the trustee is a special-purpose corporation, and in common parlance, the directors of the trustee corporation are considered to be ‘the trustees’. For a corporate or industry fund, the trustee board is composed of a predetermined number of employer-, union-, or member-affiliated representatives. A special-purpose trustee company of this type is run on a not-for-profit basis, thus the only fees charged by the trustee are to cover actual operating costs. For this reason, previous APRA studies have grouped corporate, industry, and public-sector funds into a single ‘not-for-profit’ category. (See, e.g., Ellis, Tobin and Tracey, 2008.) The trustee of a retail fund, on the other hand, typically is a member of a financial-services group such as a bank or insurance holding company.

² SIS Act §18.

³ As at the end of June 2008, the AFG Global Funds Management Index calculated that Australians had on average A\$62,632 invested in managed funds, the vast majority of which were held through superannuation vehicles. The United States, second in the world, had an average investment of A\$39,947 as at the same date.

⁴ The exception to this rule is public-sector schemes established under various state or commonwealth laws, and run under the authority of the respective government or its delegate under the enabling law. SIS Act §10.

The recent transformation of the superannuation landscape has had significant governance implications. Prior to the Superannuation Guarantee, defined-benefit funds were prevalent. Whether the fund be public-sector, corporate, or industry, there had always been a single party with a clear financial interest in monitoring the trustee so as to maximise fund performance. Since the Superannuation Guarantee, the vast majority of superannuation assets accumulated over the past two decades is held in defined-contribution schemes. Not only is the investment risk shifted to the individual fund member, but so is the responsibility to monitor trustee performance.

In the context of a superannuation fund, the term ‘performance’ encompasses both investment earnings and expenses incurred by the trustee. Trustees have a legal duty to act in the best interests of fund members. However, there are no explicit constraints on the fees which a trustee can charge for its own services, nor on the extent to which the trustee can sub-contract its duties to affiliated parties. In the case of a public-sector, corporate, or industry fund, the trustee is organised on a not-for-profit basis. In the case of a retail fund, though, the trustee (or the corporate group to which it belongs) has the strong expectation of profiting from its superannuation business. That retail trustees must reconcile their (group’s) profit motives with their fiduciary duty to act in the members’ best interest gives rise to agency risk.

Outsourcing

Superannuation trustees, responding to a 2006 APRA survey, indicated the level of outsourcing across eight functions: auditing, administrative services, legal services, asset allocation, sales and marketing, custody, actuarial services, and investment management. The responses showed that outsourcing is widespread. Every single respondent outsourced at least one function, and nearly two-thirds of the funds outsourced six or more. In some ways, the principal responsibility of superannuation trustees is to select and monitor its service providers.

The following table shows the number of outsourcing arrangements into which the trustees of these 115 superannuation funds entered, tabulated by type of fund and the ‘relatedness’ of the service provider. See Liu and Arnold (2010) for an analysis of outsourcing arrangements framed in terms of the number of funds outsourcing a given function.

Table 3

ALL SERVICES, ALL PROVIDERS	NUMBER OF OUTSOURCING ARRANGEMENTS – ALL FUND TYPES						
		Fund Type	Number of Funds Outsourcing *	Number of Contracts			
				Related Service Provider	Independent Service Provider	Total	
	Administrative Services	Not-for-Profit	71 / 83	30	50	80	101
		Retail	21 / 32	15	6	21	
	Asset Allocation	Not-for-Profit	79 / 83	11	61	72	81
		Retail	12 / 32	5	4	9	
	Auditing	Not-for-Profit	83 / 83	0	101	101	124
		Retail	32 / 32	0	23	23	
	Custody	Not-for-Profit	62 / 83	4	57	61	76
Retail		19 / 32	1	14	15		
Actuarial Services	Not-for-Profit	51 of 83	0	45	45	49	
	Retail	6 of 32	1	3	4		
Investment Management	Not-for-Profit	83 / 83	69	884	953	1026	
	Retail	32 / 32	15	58	73		
Legal Services	Not-for-Profit	74 / 83	7	76	83	88	
	Retail	9 / 32	0	5	5		
Sales and Marketing	Not-for-Profit	15 / 83	3	4	7	19	
	Retail	4 / 32	2	10	12		
	* Funds were required to disclose contractual details only where outsourcing arrangements were for five per cent or more of a given function. Furthermore, some responses included patent errors which could not be rectified by reference to other data collected by APRA. Accordingly, the number of contracts for which we have reliable data can be fewer than the number of funds outsourcing a given function.						

In total, 287 service providers⁵ were represented in the sample, of which 46 were related to one or more funds. Service providers are almost always independent in the case of professional services. This is related in part to probity issues (e.g., auditing), but presumably for other services (e.g., legal), it can be more cost-effective to hire a third party than to develop the capacity in-house. Outside of the professional services, both not-for-profit funds and retail funds retain independent service providers, and that too is presumably driven by cost. However, when the service provider is related to the trustee, it becomes evident that not-for-profit and retail funds are motivated differently.

In the not-for-profit sector, related service providers fall into three categories. Some industry funds sub-contract to related special-purpose companies, which are themselves run

⁵ These figures aggregate multiple entities into a single provider per corporate group.

on the same not-for-profit basis. We interpret these outsourcing arrangements to be strategically driven, e.g., to limit liability or otherwise to insulate the trustee from day-to-day operations. A second category of related-party outsourcing relates to corporate funds, where the employer itself is formally appointed to perform certain functions; this naturally occurs most often in respect of financial-service companies. The third category involves entities unique to the Australian scene: collaborative ventures formed by multiple industry funds, with the objective of attaining economies of scale without paying third-party profits. Some of these ventures charge fees calculated to cover actual operating costs, while others charge competitive rates but rebate profits to the owner funds (see Brown and Davis 2009). In all three of these arrangements, though, our analysis shows that related-party outsourcing has roughly the same impact on fund members as outsourcing to independent service providers. This indicates a consistency in approach by trustees of not-for-profit funds, to minimise the cost of delivering superannuation to the fund's members.

This contrasts greatly with outsourcing in the retail sector. Our analysis shows that the fees paid to related-party service providers are significantly higher than fees paid to third parties. Outsourcing by retail funds does not appear to be intended to reduce members' costs, but instead may constitute part of the revenue model for the retail superannuation product.

Outsourcing – A Review of the Literature

We follow the lead of the Federal Reserve Bank of New York (1999) and the Bank for International Settlements (2005), who define 'outsourcing' as the transfer of direct managerial responsibility – but not accountability – to a third-party service provider (either affiliated or independent) who discharges those responsibilities on a continuing basis. This definition highlights the key feature of outsourcing in the superannuation industry, that trustees retain full accountability for outsourced functions.

The potential benefits of outsourcing are well reported in prior studies: economies of scale via third-party service providers (Harland *et al.* 2005; Hendry 1995; Rimmer 1991); enabling firms to free up assets and concentrate on activities in which they have core competencies (Gewald and Dibbern 2005; Arnold 2000; Prahalad and Hamel 1990); accessing external expertise or technologies (Greaver 1999; Venkatesan 1992); and even improving their own image by association with service providers perceived to be superior (Greaver, 1999). Other benefits of outsourcing include greater flexibility in the face of changing market conditions (Harland *et al.* 2005; Greaver 1999) and improved quality of goods or services in

the face of underperforming in-house production (Gewald and Dibbern 2005; Elmuti and Kathawala 2000).

Although outsourcing offers many benefits, it also poses challenges to both individual firms and the industry as a whole. Outsourcing inevitably places at least part of a firm's destiny in the hands of other entities (Globerman and Vining 2004). This introduces new risks such as operational risk, reputational risk and compliance risk (Chopra and Sodhi 2004; Faisal *et al.* 2006a & b; Wu *et al.* 2006). Incomplete contracting and imperfect monitoring can lead to agency problems, especially when service providers are related to the outsourcing firm (Freeman and Brown 2008). As a result, a firm must develop new managerial competencies and dedicate sufficient resources to manage outsourcing relationships and mitigate corresponding risks (Isern and Bendixen 2007). The failure to do so may lead to recurrent operational problems or even a severe disruption to a firm's business (Federal Reserve Bank of New York, 1999). At the industry level, a concentrated market can see a small number of common service providers, on which multiple outsourcing firms rely heavily. This can constitute systemic risk – perhaps one which should draw the attention of regulators (IOSCO 2005; BIS 2005).

Benefits and risks are shaped by the materiality of activities outsourced and the nature of the outsourcing arrangement (IOSCO 2005). According to Federal Reserve Bank of New York (1999), materiality can be decomposed into size (the extent of outsourcing) and criticality (the importance of the function outsourced). Traditionally, outsourcing was limited to support services such as administration, human resources and information technology (Ono 2003; Stroh and Treehuboff 2003; Lacity and Willcocks 1998; Cross 1995), so-called secondary-value chain activities. Furthermore, only a part of the function was outsourced, thus leaving firms with at least some residual capabilities (Harland *et al.* 2005). Recent patterns, though, see firms outsourcing their core activities (Globerman and Vining 2004; Lamming 1993), leading to debate over how much and how 'close to core' a firm should outsource (Harland *et al.* 2005).

The nature of the outsourcing relationship is also important. While the same general principles apply, the risks of outsourcing to a related party may be different, as the contractual arrangement may be of a less-than-arms-length nature (Coates and Hubbard 2007; IOSCO 2005). The outsourcing firm may find itself less able to control a related service provider – a phenomenon known as a captive outsourcer (Freeman and Brown 2008).

In the financial-services sector, prior studies have examined outsourcing arrangements in the mutual-fund industry in the United States, where outsourcing has been found to

account for between 13% and 26% of all investment-management activities. As to the motivation for this level of outsourcing, Cashman and Deli (2009) provide evidence supporting the knowledge-transfer argument of Jensen and Meckling (1992): Where it is costly to transfer specific knowledge, funds feel a need to outsource in order to access outside expertise. However, in their analysis of a cross-sectional sample of 2002 data, Cashman and Deli find no performance difference between outsourced and in-house management. Chen, Hong and Kubik (2006) find that outsourced funds actually underperform in-house managed funds, using a more comprehensive panel data from 1994 to 2004. They argue that it is harder for a fund sponsor continuously to monitor the effort of an external manager; sponsors rely on returns to do so, thus external managers are more likely to be replaced after a period of poor performance. As a result, external managers tend to minimise the likelihood of underperformance, which influences their risk-taking behaviour. On the other hand, Duong (2007) asserts that underperformance is not due to risk-taking behaviour but to conflicts of interest. Conflicts of interest are also documented by Freeman and Brown (2008), which show that related service providers charge (captive) funds substantially higher fees for the same services.

One feature of these studies is that they all focus on mutual funds organised to generate commercial profits. As discussed above, the superannuation industry in Australia is founded on a trust structure, where funds must be managed in the best interest of the members. While there is still room in the Australian scheme for superannuation funds to generate commercial profits, this is not a motivation for a large portion of the industry. This paper aims to expand the literature by empirically examining outsourcing in the Australian context, where the profit motive may or may not be present.

Data and Testing Procedures

In late 2006, APRA asked superannuation trustees to complete two surveys, one relating to historical investment performance and the other to a wide range of governance issues, including outsourcing. APRA received 187 responses to the two surveys. 115 funds provided data sufficient for analysing five-year investment fund-level investment performance (*see* Sy and Liu 2010). Those same 115 funds are examined here.

In respect of outsourcing, trustees were asked to identify all service providers to whom five per cent or more of any of certain specified functions were outsourced, and to disclose the level of compensation paid to the service provider. We then undertook to enhance the data, by examining the relationship between the service provider and the superannuation

trustee. This required us to classify each service provider as an independent party or related to the trustee.⁶ We augmented the survey data with information from both an APRA-maintained directory of service providers and quarterly information returns. The net result is what we believe to be a unique dataset, with relevance not only to the superannuation landscape in Australia, but also to any investigation of outsourcing in its own right.

The vast majority of responses, some 95 per cent, indicated that the entire function had been outsourced, or that the entire function had been retained. A substantial number of the remaining responses showed outsourcing of 90 per cent or more, but less than 100 per cent. This suggested one of two interpretations: In the first case, the trustee may have retained an oversight role to which it had attributed a percentage of the overall function. In the second case, the trustee may have outsourced the entire function, but to more than one service provider; if any service provider were less than five per cent of the function, though, the arrangement would not have been reportable under the terms of the survey. Another set of responses noted that ten per cent or less of a function had been outsourced, which suggests that the trustee had retained almost complete control of the function, but perhaps used a service provider for one or more small tasks. Roughly two per cent of the responses were true intermediate values, most of which referred to the investment management function, where multiple investment managers is more the rule than the exception.

In respect of the investment management function, fees were invariably reported as a percentage of funds under management, and there is no need to adjust the data to accommodate partial outsourcing. For other outsourced functions, however, we use the dollar amount of the fee as reported, but normalise all other variables to the percentage of the function outsourced. Thus, for example, if a respondent were to have reported a \$1,000,000 fee attributable to 25% of the administration of a \$2 billion fund, we treat it as if the fee were attributable to 100% of the administration of a \$500 million fund.

Economic Significance

For each outsourced function, we supplement our statistically significant findings with an assessment of the economic significance, in the form of per-member dollar costs, derived from our best-fit regressions using median values for fund assets and number of members. In that fees are generally levied on the basis of assets and/or members, we also estimate costs for the first and third quartiles, to identify any economies of scale which might be available

⁶ We also determined the consolidated group to which each service provider belonged, which prevents double-counting of the number of service providers across multiple functions.

to members of larger funds. The following table presents median and average characteristics across fund type. As the figures show, corporate not-for-profit funds are relatively small, industry funds have the most members, and retail funds have more assets under management.

Table 4						
FUND CHARACTERISTICS						
	<i>Not-for-Profit</i>				<i>Retail</i>	<i>All</i>
	<i>Corporate</i>	<i>Industry</i>	<i>Public-Sector</i>	<i>All NFP</i>		
Number of Funds	22	47	14	83	32	115
Total Assets in Sector	29.3	136	49.5	214.8	128.4	343.2
Average (Median) Fund Assets (\$BB)	1.283 (0.633)	2.654 (1.271)	3.400 (2.529)	2.417 (0.962)	3.806 (1.843)	2.803 (1.245)
Average (Median) Number of Members	12,568 (8,650)	177,674 (84,444)	60,643 (44,789)	114,171 (34,140)	102,834 (41,778)	111,016 (34,200)
Average (Median) Member Balance (\$)	102,949 (92,642)	28,409 (16,398)	104,669 (79,597)	61,030 (36,549)	69,270 (49,643)	63,323 (37,850)
Average (Median) Number of Investment Options	6.1 (4.5)	7.0 (7.0)	5.3 (5.5)	6.5 (6.0)	98.6 (36.0)	32.1 (7.0)

Detailed Analysis

Our focus in this paper is to examine the fees charged for outsourced services. To the extent the data allows, we examine the interaction between fees and both the status of the service provider (related or independent) and the type of fund (not-for-profit or retail). We use three explanatory variables to attempt to replicate the revenue models of the service providers. Service providers could charge on the basis of funds under management, in which case the fund assets would explain the fees. Alternatively, services could be provided on a per-member basis, thus the number of members would be a useful explanatory variable. We also use the number of investment options as a proxy for fund complexity as a possible determinant of fees.

Administrative Services

‘Administrative Services’ offered one of the richest datasets, with 101 reported outsourcing arrangements widely distributed across all types of funds and service providers. Table 5 sets out the results of modelling fees in this area. Across all funds, administrative

fees appear to have been formulated on the basis of a ‘flagfall’ (*i.e.*, the regressed constant) plus a variable cost based on both the number of members and the size of the fund, but not fund complexity. (See Table 5, Model 1.) We proposed fund complexity as an explanatory variable on the basis that funds with more investment options would likely see greater transactional volume, which in turn would increase the cost of administration. However, we note that fees for transactions such as switching investment options can be charged directly to the individual member’s account, and therefore would not appear in the fees paid by the fund as a whole.

Retail funds pay significantly higher fees for administrative services (Model 2) and in particular for outsourcing to related service providers (Model 3). In Model 3 we do not find a significant coefficient on the dummy variable for NFP-related service providers, suggesting that there is no difference between the fees charged by independent services providers and NFP-related parties.

Based on analyses of various sample subsets, we find that fees for outsourced administration appear to be based on three distinct revenue models. Accordingly, we simultaneously estimate a revenue model for each group (Model 4). As the full-model results show, independent service providers base their fees primarily on the number of members in the fund, while related providers in the retail sector charge a flagfall plus a variable component based on funds under management. Related service providers in the not-for-profit sector use a hybrid revenue model, based on both members and fund size, but on average the fees are comparable to those charged by independent service providers. Why the different administrators charge on different bases for the same service is not clear. It is a concern for the not-for-profit sector, though, that administrators are charging on a per-member basis when their costs are likely to be incurred on a per-transaction basis.

TABLE 5

ADMINISTRATIVE SERVICES – REGRESSION DIAGNOSTICS

<i>Coefficient (t-stat)</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Full Model</i>	<i>Model 5</i>
Intercept *	1134.1 (1.11)	-17.1 (-0.02)	339.8 (0.31)		734.5 (0.54)
Assets (Normalised) †	0.165 (4.98)***	0.137 (4.43)***	0.126 (4.03)***		0.051 (0.44)
Members (Normalised) ‡	15.26 (2.77)***	18.44 (3.50)***	18.82 (3.69)***		24.45 (2.84)***
Fund Options	3.34 (0.19)				
Retail Dummy		7296.8 (3.44)***			
Retail-Related Dummy			10467.5 (4.13)***	9655.5 (3.69)***	8921.0 (3.03)***
Assets × Retail				0.211 (2.92)***	0.161 (1.18)
Members × Retail				-1.09 (-0.06)	-25.53 (-1.29)
NFP-Related Dummy			-539.6 (-0.29)	299.5 (0.19)	-434.9 (-0.18)
Assets × NFP-Related				0.107 (2.10)**	0.056 (0.45)
Members × NFP-Related				19.52 (2.08)**	-4.92 (-0.39)*
Independent Dummy				734.5 (0.54)	
Assets × Independent				0.051 (0.44)	
Members × Independent				24.44 (2.84)***	
Observations	101	101	101	101	101
F-test statistic	39.86	48.65	40.90	25.51	20.29
Prob > F-stat	<.0001	<.0001	<.0001	<.0001	<.0001
Pearson's r^2	0.5521	0.6008	0.6302	0.7139	0.6383
Adjusted r^2	0.5383	0.5884	0.6148	0.6859	0.6068

* The coefficient relates to thousands of dollars for the contract as a whole.

† The coefficient corresponds with percentage points, thus a coefficient of 0.01 corresponds to a 1 basis-point annual fee.

‡ The coefficient corresponds with dollars per member.

Qualification of t-stat:

* Significant at the 10% level

** Significant at the 5% level

*** Significant at the 1% level

We quantify the economic significance of the different fee models by examining the fees charged to a fund with the median number of members per fund (34,200) and the median fund size (\$1.245 billion), estimated with the full-model regression coefficients. We also estimate the fees for a smaller ‘First Quartile Fund’ with 12,200 members and assets of \$505 million, and a larger ‘Third Quartile Fund’ with 122,900 members and assets of \$3.539 billion.

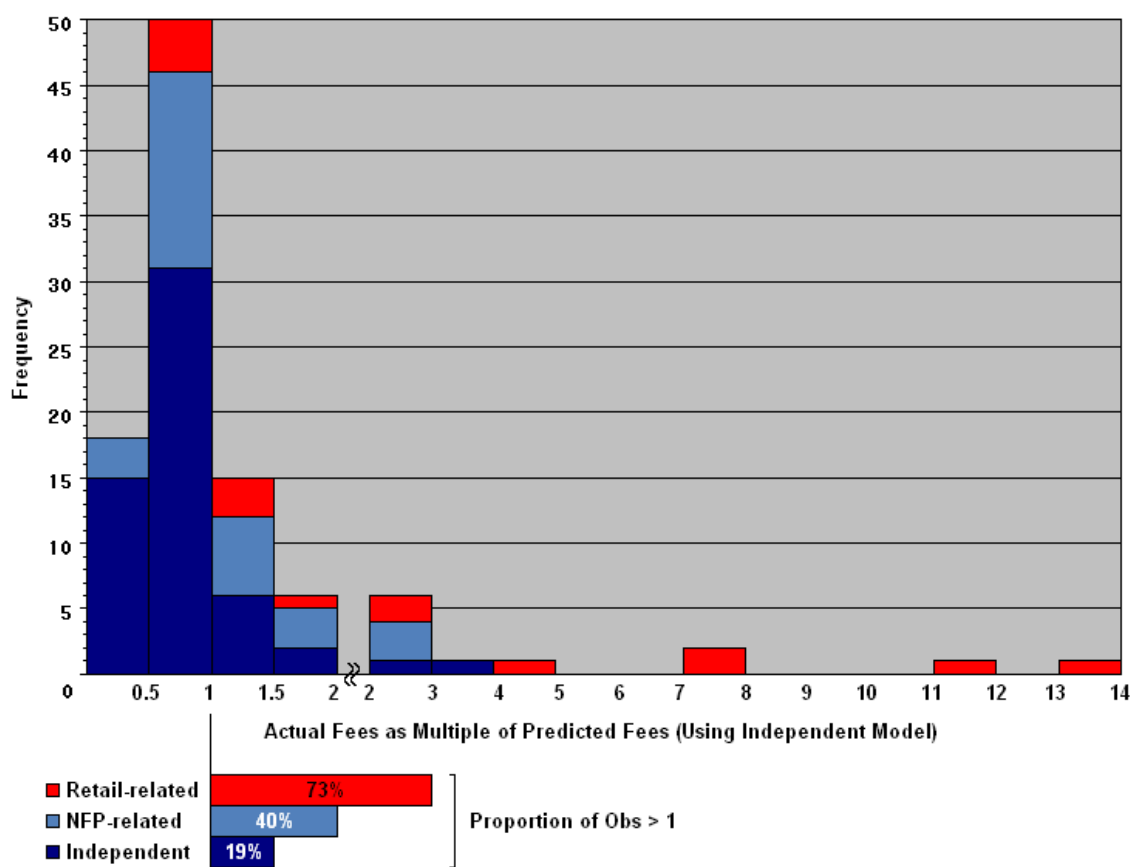
Table 6			
ADMINISTRATIVE SERVICES – ESTIMATED ANNUAL COST			
	<i>Not-for-Profit</i>	<i>Independent</i>	<i>Retail</i>
<i>First Quartile Fund</i>			
Per Fund (\$MM)	1.08	1.29	10.71
Per Member (\$)	88.52	105.74	877.87
Per Dollar	0.21%	0.26%	2.12%
<i>Median Fund</i>			
Per Fund (\$MM)	2.30	2.20	12.25
Per Member (\$)	67.25	64.33	358.16
Per Dollar	0.19%	0.18%	0.98%
<i>Third Quartile Fund</i>			
Per Fund (\$MM)	6.49	5.54	17.00
Per Member (\$)	52.81	45.08	138.32
Per Dollar	0.18%	0.16%	0.48%

The impact of the distinct revenue models is clearly significant in an economic sense, with the retail-related service providers charging the median fund \$10 million more than an independent or NFP-related-party service provider. For smaller funds, the large flagfall payable by the trustees of retail funds exacerbates the cost disadvantage on a per-member basis. For larger funds, members of retail funds benefit more from economies of scale, but still absorb higher per-member costs than in the not-for-profit sector.

To investigate further the impact of relatedness on fees, we effectively force each outsourcing contract through each of the three revenue models, and look for any systematic effects. We start by using the coefficients for the independent service-provider model to predict fees for all service providers. We then compare actual fees to predicted fees; the scatter plot below charts the residuals.

Figure 1

ADMINISTRATIVE SERVICES – ACTUAL FEES AS A MULTIPLE OF PREDICTED FEES



Observing that the residuals appear to be correlated to the type of arrangement, we then regress the residuals on dummies corresponding to the three distinct revenue groups. Using the independent revenue model, the coefficient for the independent dummy is necessarily zero. Significant coefficients for the other dummies, however, can be construed to indicate differences in absolute fee levels.

We repeat the procedure for all revenue models. The results, set out in the table below, are striking.

Table 7			
ADMINISTRATIVE SERVICES – RESIDUALS ANALYSIS			
<i>Revenue Model</i>	<i>Service Provider</i>	<i>t-stat</i>	<i>Prob > t </i>
Independent	Independent	0.00	1.000
	NFP Related	0.47	0.638
	Retail Related	6.12***	<0.001
NFP Related	Independent	0.17	0.864
	NFP Related	0.00	1.000
	Retail Related	5.50***	<0.001
Retail Related	Independent	-7.72***	<0.001
	NFP Related	-6.27***	<0.001
	Retail Related	0.00	1.000
*** T-stat significant at the 1% level			

The residual regressions show that there is no significant difference between the fees charged by independent providers or by NFP-related providers. However, the absolute fees charged by retail-related providers are significantly higher. This same effect is visible when all three groups are run through the NFP-related revenue model: the coefficient for independent service providers is not significantly different than zero, while the retail-related coefficient is highly significant and positive. Finally, when the retail-related model is specified, both the independent and NFP-related service providers charge significantly less than retail related parties. By any measure, then, retail-related fees are significantly higher, while NFP-related providers charge the same as independent service providers.

Overall, our results on administrative services suggest that ‘relatedness’ is not *per se* associated with different fee levels. NFP-related providers do not charge significantly different amounts than independent service providers. However, retail-related providers charge a large annual fixed cost plus fees calculated on assets under management. This results in much higher fees for smaller funds due to the fixed cost, and in respect of the larger funds, reduces what would otherwise be economies of scale due to larger fund size.

As noted above, some funds impose fees on individual members for transactions such as switching investment options. To the extent these fees are charged, they do not appear in our data. Thus we are unable to determine whether independent and NFP-related administrators are in all cases charging fees sufficient to recover their actual costs, particularly in the case of complex funds.

Asset Allocation

‘Asset Allocation’ is the only other function with sufficient data to investigate fees paid to related parties. Model 1 of Table 8 shows that fees are charged on the basis of a fixed fee, plus a variable component based on fund size. The fees paid by the trustees of retail funds to all service providers are not significantly different from those paid by the trustees of not-for-profit funds. However, when we use a dummy to identify related parties (5 retail and 11 not-for-profits), different rates prevail. As the full-model results show, independent service providers tend to charge a large flagfall and a relatively small variable fee. Retail-related parties tend to forego the flagfall, but charge a variable fee some nine times greater. NFP-related service providers also charge a greater variable fee than independents, but this is more than offset by a much smaller fixed charge.

TABLE 8			
ASSET ALLOCATION – REGRESSION DIAGNOSTICS			
<i>Coefficient (t-stat)</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Full Model</i>
Intercept *	177.2 (7.47)***	171.1 (7.09)***	186.8 (7.61)***
Assets (Normalised) †	0.0033 (3.49)***	0.0035 (4.94)***	0.0027 (3.45)***
Members (Normalised) ‡	0.09 (0.55)		
Fund Options	-0.205 (-1.00)		
Retail Dummy		31.1 (0.55)	
Retail-Related Dummy			-195.0 (-1.37)
Assets × Retail			0.0214 (2.38)**
NFP-Related Dummy			-112.7 (-1.71)*
Assets × NFP			0.0039 (2.38)**
Observations	78	78	78
F-test statistic	8.76	12.53	8.24
Prob > F-stat	<.0001	<.0001	<.0001
Pearson's r^2	0.262	0.2505	0.3639
Adjusted r^2	0.2321	0.2305	0.3197
* The coefficient relates to thousands of dollars for the contract as a whole. † The coefficient corresponds with percentage points, thus a coefficient of 0.01 corresponds to a 1 basis-point annual fee. ‡ The coefficient corresponds with dollars per member.			
Qualification of t-stat: * Significant at the 10% level ** Significant at the 5% level *** Significant at the 1% level			

As with the administrative function, we quantify economic significance in the context of a median fund (\$1.245 billion), and explore the impact of size in the context of first- and third-quartile funds (\$505 million and \$3.539 billion, respectively).

Table 9			
ASSET ALLOCATION – ESTIMATED ANNUAL COST			
	<i>Not-for-Profit</i>	<i>Independent</i>	<i>Retail</i>
<i>First Quartile Fund</i>			
Per Fund (\$000)	107.2	200.3	113.4
Per Member (\$)	8.78	16.41	9.29
Per Dollar	0.021%	0.040%	0.022%
<i>Median Fund</i>			
Per Fund (\$000)	155.9	220.0	291.5
Per Member (\$)	4.56	6.43	8.52
Per Dollar	0.013%	0.018%	0.023%
<i>Third Quartile Fund</i>			
Per Fund (\$000)	306.8	281.3	843.8
Per Member (\$)	2.50	2.29	6.87
Per Dollar	0.009%	0.008%	0.024%

For the median and smaller funds, the reduced flagfall paid to NFP-related service providers more than offsets the higher variable cost. For larger funds, however, the lower variable component of independents' fees eventually results in lower overall costs. The retail funds contracting to related service providers are generally larger (\$3.2 billion on average vs. the \$1.245 billion median size), where the higher variable rate results in substantially higher per-member costs.

Auditing

All superannuation funds use an independent auditor,⁷ thus our analysis focuses on the comparison of fees between the retail and not-for-profit sectors. (See APRA (2008), pp. 7-17 for a discussion of recent trends in superannuation auditors and audit expenses.) We begin by running a single regression across all outsourcing arrangements to discern whether the fees are based on fund size, number of members or fund complexity. As Model 1 shows (see Table 10 below), all three explanatory variables are significant inputs into the fee calculation. Model 2 adds a dummy for retail funds, and the regression results show that trustees of retail funds pay marginally lower audit fees than their not-for-profit counterparts. In the full-model results, the trustees of not-for-profit funds appear to be willing to pay audit fees

⁷ APRA requires superannuation funds to retain independent auditors, thus trustees do not have the option to perform this function themselves. Nonetheless, auditing falls within the scope of this outsourcing study because of the trustees' role in appointing, compensating, and otherwise monitoring the auditor.

calculated as a flagfall plus a variable charge based on total fund size. In contrast, trustee of retail funds seem to be able to negotiate fees based on the number of members and the number of investment options – an arrangement which results in lower costs to members.

TABLE 10			
AUDITING – REGRESSION DIAGNOSTICS			
<i>Coefficient (t-stat)</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Full Model</i>
Intercept *	58.1 (6.71)***	62.1 (7.01)***	
Assets (Normalised) †	0.0013 (3.48)***	0.0014 (3.73)***	
Members (Normalised) ‡	0.26 (3.07)***	0.24 (2.87)***	
Fund Options	0.243 (2.38)**	0.331 (2.95)***	
Retail Dummy		-34.3 (-1.8)*	24.6 (1.14)
Assets × Retail			-0.0005 (-0.71)
Members × Retail			0.93 (3.27)***
Options × Retail			0.409 (3.6)***
NFP Dummy			53.3 (3.89)***
Assets × NFP			0.0020 (4.44)***
Members × NFP			0.13 (1.37)
Members × NFP			1.35 (0.77)
Observations	124	124	124
F-test statistic	25.27	20.12	47.77
Prob > F-stat	<.0001	<.0001	<.0001
Pearson's r2	0.3872	0.4035	0.7671
Adjusted r2	0.3719	0.3834	0.7511
* The coefficient relates to thousands of dollars for the contract as a whole. † The coefficient corresponds with percentage points, thus a coefficient of 0.01 corresponds to a 1 basis-point annual fee. ‡ The coefficient corresponds with dollars per member.			
Qualification of t-stat: * Significant at the 10% level ** Significant at the 5% level *** Significant at the 1% level			

The economic significance of the difference in auditing fees, based on the median fund size, number of members and number of investment options is suggested by Table 11.

Table 11		
AUDITING – ESTIMATED ANNUAL COST		
	<i>Not-for-Profit</i>	<i>Retail</i>
<i>Median Investment Options</i>		
Per Fund (\$000)	91.8	52.8
Per Member (\$)	2.68	1.54
Per Dollar	0.007%	0.004%
<i>Adjusted for Options *</i>		
Per Fund (\$000)	84.9	68.5
Per Member (\$)	2.48	2.00
Per Dollar	0.006%	0.005%
* The revenue model for auditing includes the number of investment options as a significant explanatory variable. The median number of investment options across all funds is seven, but the median retail fund offers 30 options. 'Adjusted for Options' reflects the higher auditing cost for funds with more options.		

Custody

The use of related party custodians is limited to only five funds, and thus we do not have enough data to explore the effect of service-provider independence on the fees charged.⁸ For the 71 independent service providers, custodial fees are charged purely on an assets-under-management basis, as neither members nor investment options is significant in explaining fee levels. (See Model 1, Table 12.) Controlling for fund size, we find that the trustees of retail funds pay significantly less in custodial fees than the trustees of not-for-profit funds. (See Model 2, Table 12.)

⁸ In the retail sector, only one of the 16 custodial outsourcing arrangements involved a related service provider. However, the fee charged by that custodian was over ten times higher than the second highest fee, even though the second highest fee was for a fund with more members and more funds under management. The value was so extreme that its inclusion dominated all regressions, and was dropped for that purpose. We also dropped four custodial arrangements with related service providers in the not-for-profit sector (all were corporate plans within the financial-service sector), leaving 71 independent service providers to both not-for-profit and retail funds.

TABLE 12		
CUSTODY – REGRESSION DIAGNOSTICS		
<i>Coefficient (t-stat)</i>	<i>Model 1</i>	<i>Model 2</i>
Intercept *	129.5 (1.91)*	181.8 (2.71)***
Assets (Normalised) †	0.028 (15.52)***	0.027 (19.6)***
Members (Normalised) ‡	-0.03 (-0.12)	
Fund Options	-0.63 (-1.07)	
Retail Dummy		-317.2 (-2.74)***
Observations	71	71
F-test statistic	120.97	204.23
Prob > F-stat	<.0001	<.0001
Pearson's r^2	0.8442	0.8573
Adjusted r^2	0.8372	0.8531
* The coefficient relates to thousands of dollars for the contract as a whole. † The coefficient corresponds with percentage points, thus a coefficient of 0.01 corresponds to a 1 basis-point annual fee. ‡ The coefficient corresponds with dollars per member.		

For a fund with median assets under management (\$1.245 billion), the annual custodial fee payable by a not-for-profit fund is estimated at \$523,000, or \$15.30 per member, while the fee payable by a retail fund is estimated at \$206,000, or \$6.02 per member. However, these results must be tempered by the fact that retail funds rarely invest directly. Instead, the vast majority of assets in a retail fund consist of investment products where the service provider independently arranges for the custody of the underlying assets. Thus the bulk of a retail fund's true cost of custody is bundled into the fees paid for investment management.

Actuarial Services

Not all funds – especially of the defined-contribution type – require actuarial services. Indeed only 49 actuarial contracts were reported, and all but one outsourcing arrangement were with independent service providers. Looking only at those data, we find no significant difference between fees paid by trustees of retail superannuation funds and trustees of not-for-profit funds. In both cases, the magnitude of the fees is on the order of three to four cents per member.

Investment Management

Investment management arrangements were divided into nine categories. For some of these categories, such as balanced funds comprised of investments in different asset classes, the fee data was difficult to compare across different funds, given the idiosyncratic nature of certain investment mandates. For six categories, the data were relatively homogeneous, thus we are able to compare fees paid by trustees of not-for-profit funds to fees paid by retail trustees. We note that the data do not reflect any investment-manager compensation or expense reimbursement that is withheld directly from gross investment returns.

In respect of the other outsourced functions, we set the dollar amount of the contract as the dependent variable, and when we control for fund size, the coefficient is positive. Here, the dependent variable is the fee expressed as a percentage. When we control for fund size, a negative coefficient means that larger funds are able to negotiate a lower rate, notwithstanding the fact that the dollar amount of the arrangement is higher.

For cash-management products and international fixed income, there is no correlation between the assets consigned to an investment manager and the fee charged by that manager. For the other categories (Australian fixed income, international listed equity, Australian listed equity, and Australian listed property), the fee decreases with contract size, but not linearly. Instead, the better fit is provided by the logarithm of the consigned assets.⁹ The regression diagnostics are set out in Table 13.

⁹ This fee model also proved useful in the context of direct property investments. This asset class is limited to not-for-profit funds, thus does not appear in Table 12.

TABLE 13

INVESTMENT MANAGEMENT – REGRESSION DIAGNOSTICS

<i>Coefficient* (t-stat)</i>	<i>Cash</i>	<i>Int'l Fixed Income</i>	<i>Aus'n Fixed Income</i>	<i>Int'l Listed Equity</i>	<i>Aus'n Listed Equity</i>	<i>Aus'n Listed Property</i>
Intercept	0.205 (2.79)***	0.538 (4.61)***	0.535 (3.46)***	1.980 (11.58)***	1.868 (12.08)***	1.304 (4.17)***
Log of Assets	-0.008 (-1.15)	-0.022 (-1.92)*	-0.027 (-1.87)*	-0.125 (-7.95)***	-0.126 (-9.03)***	-0.093 (-2.84)***
Retail Dummy	0.042 (1.10)	-0.137 (-1.87)*	-0.111 (-0.9)	0.048 (0.53)	0.111 (1.81)*	0.070 (0.41)
Observations	43	63	57	217	250	25
F-test statistic	1.07	4.22	2.07	31.64	42.82	4.16
Prob > F-stat	0.3536	0.0193	0.1359	<.0001	<.0001	0.0294
Pearson's r^2	0.0506	0.1233	0.0712	0.2282	0.2574	0.2743
Adjusted r^2	0.0032	0.0941	0.0368	0.2210	0.2514	0.2083

* The coefficient corresponds with percentage points, thus a coefficient of 0.01 corresponds to a 1 basis-point annual fee.

Qualification of t-stat:

- * Significant at the 10% level
- ** Significant at the 5% level
- *** Significant at the 1% level

The only asset classes where there is a statistically significant difference in the fees payable by trustees of retail and not-for-profit funds are international fixed income and Australian listed equity. We find retail trustees obtain a discount of approximately 13.7 basis points on international fixed income investment arrangements, but appear willing to pay 11.1 bps more for Australian listed equity. From the coefficients of determination (r^2), it is evident that these regressions have less explanatory power than regressions estimating the dollar amount of fees, but the results are nonetheless significant.

To determine the economic significance of these differences, we looked at asset allocations across all reporting funds to create a stylised portfolio, based on the median allocations to the six classes reported above. On an asset-weighted basis, and giving heed only to statistically significant differences in fee levels), In this stylised portfolio, international fixed income accounts for seven per cent of fund assets, and Australian listed equity for forty per cent. Thus the 'retail discount' on the international bond portfolio is more than offset by the higher fees on the Australian share portfolio. The net result is that retail trustees pay a composite investment-management fee some of 4.3 bps higher than not-for-profit trustees, or 30.4 bps *pa* retail vs. 26.1 bps not-for-profit. For the median fund, this fee differential amounts to \$520,000 annually, or \$15.21 per member.

Market Concentration

Shifting from the perspective of the trustee to the perspective of the service provider, we examine the relationship between the level of fees charged by independent service providers and the concentration of the market in which they function. We used a number of proxies for market concentration, including the number of competitors and concentration ratios (CR5, representing the aggregate market share of the five largest competitors; and CR10, the ten largest competitors). We concluded that the Herfindahl-Hirschman Index provided the most apt proxy for the purpose here.

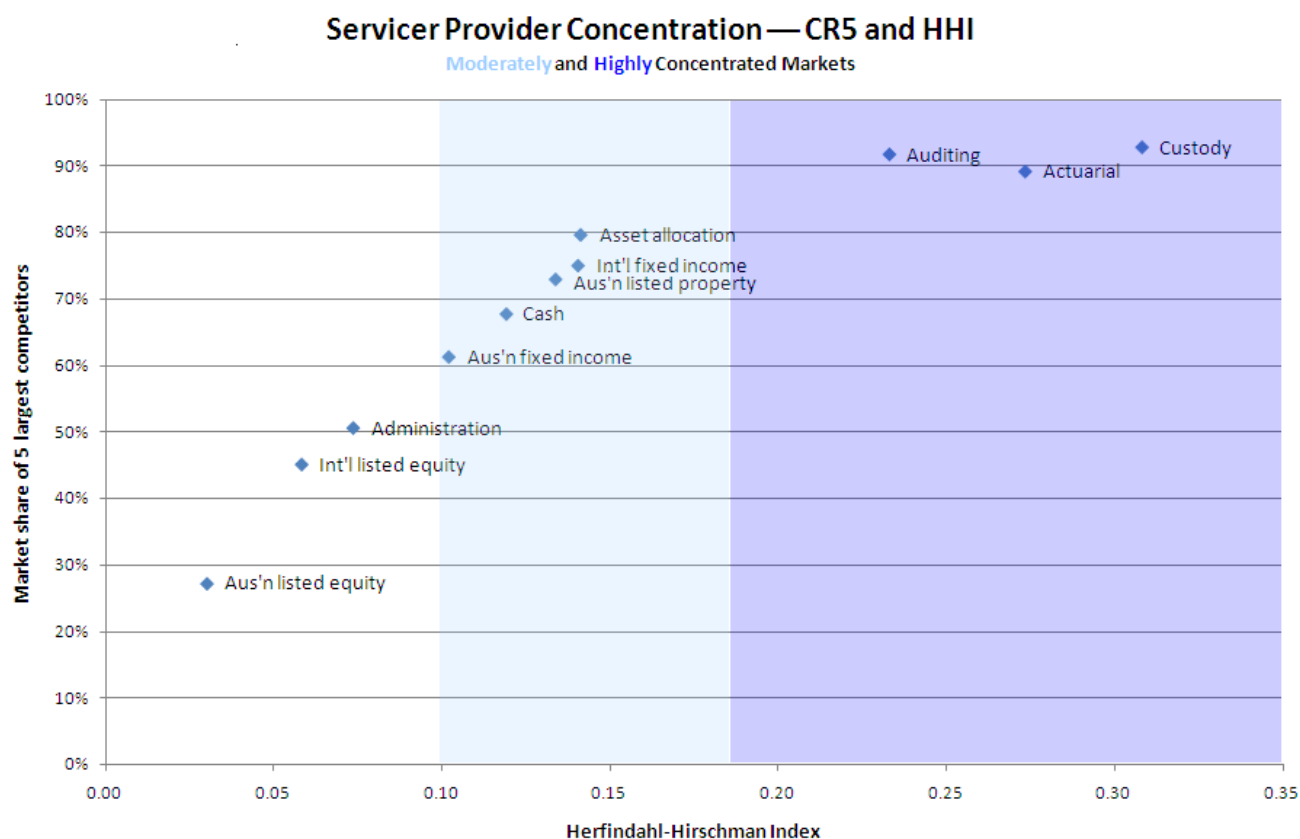
The Herfindahl-Hirschman Index (HHI) is a widely adopted measure intended to capture the degree to which market share is held by the largest firms (Honohan and Kinsella 1982; Rhoades 1993). It is calculated as the sum of the squares of the market share (MS) of all competitors:

The HHI for a pure monopoly is 1, and decreases in both the number of competitors and the fragmentation of market share. According to United States Department of Justice guidelines, an HHI above 0.18 indicates a highly concentrated market, and above 0.10, a moderate concentration. Chan Schumacher and Tripe (2007) find that higher HHIs are correlated with greater pricing power by competitors.

Figure 2 maps the major functions outsourced by superannuation trustees to HHI and the CR5 concentration ratio. Professional services show highly concentrated markets, while administrative services and the management of many classes of investment assets are offered in highly competitive markets.

Figure 2

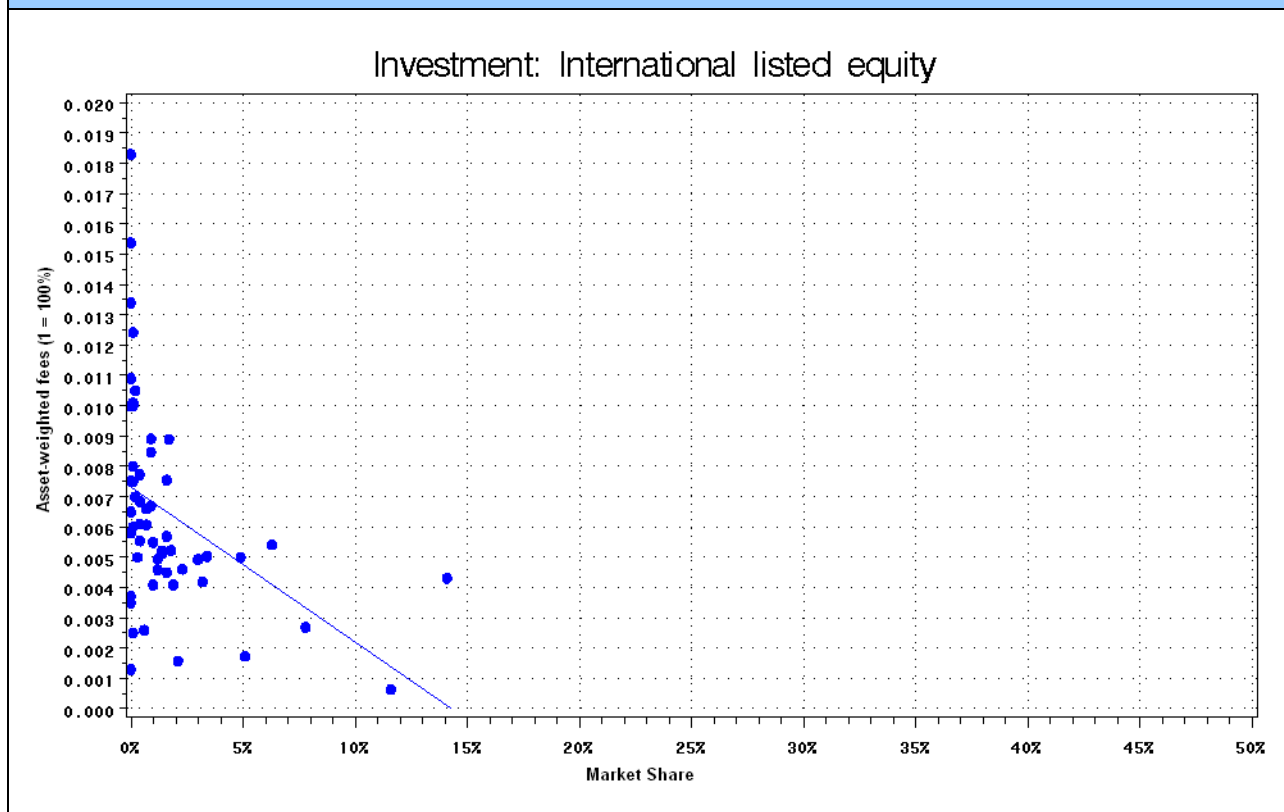
NORMALISED FEE vs MARKET SHARE – CUSTODY



Looking at each market separately, we model the relationship between market share and pricing. In the absence of pricing power, we would expect that lower prices are correlated with higher market share. For example, Figure 3 shows the fees charges by various investment managers in the highly competitive international listed equity sector. The negative slope of the fitted line indicates that larger fund managers tend to charge less than smaller fund managers, or more likely, that fund managers charging lower fees tend to win more business than those charging higher fees. In fact, across all markets with an HHI cut-off of 0.18, fees were decreasing in market share. (Table 14, Model 1.)

Figure 3

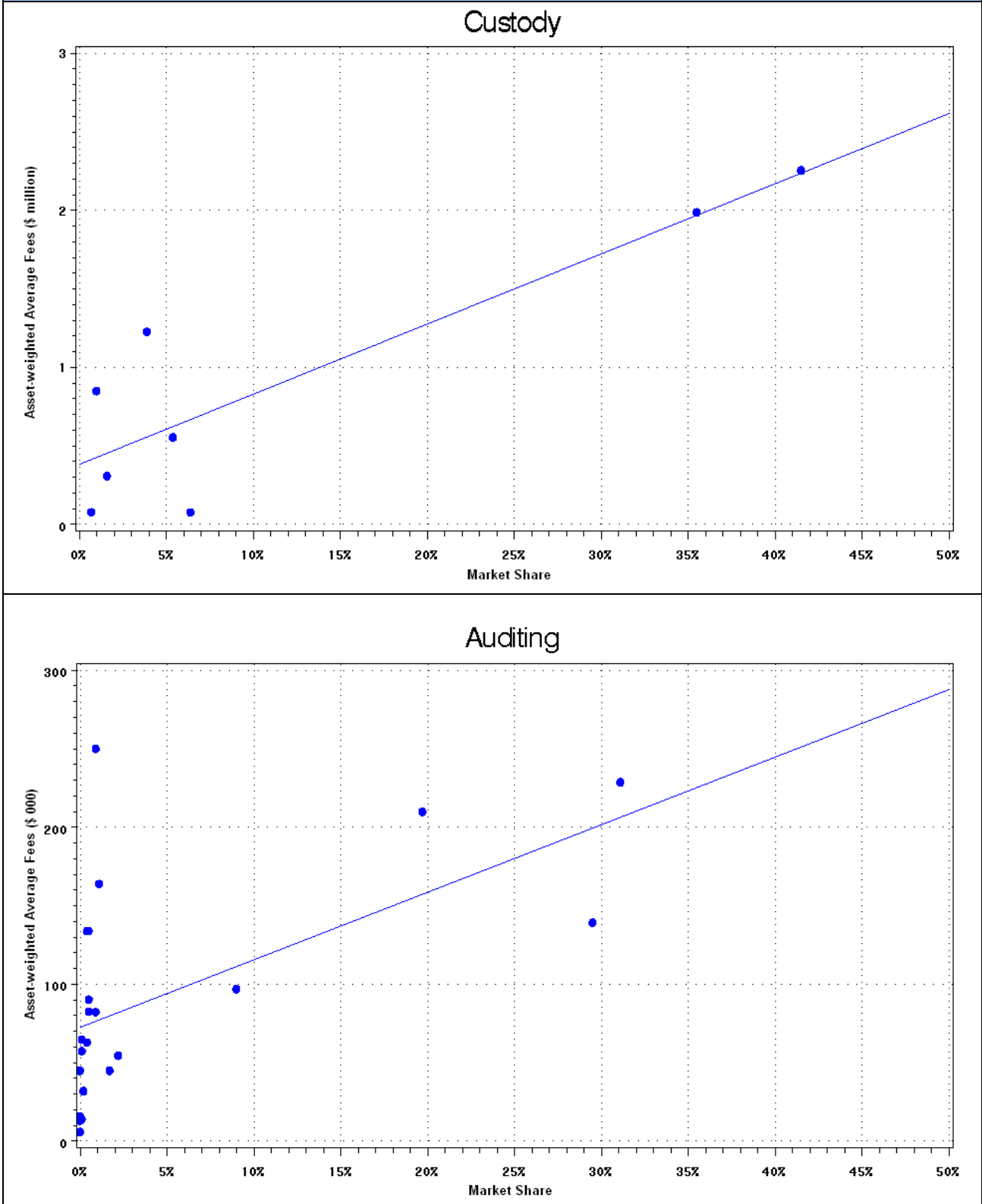
NORMALISED FEE vs MARKET SHARE



By comparison, the relationship between market share and fee level is reversed where markets are highly concentrated. Figure 4 shows the data for custodial and actuarial services (see also Table 14, Model 2), where the slope of the fitted line is positive. This indicates that the firms with high market share are able to command premium prices – evidence of pricing power.

Figure 4

NORMALISED FEE vs MARKET SHARE



To assess the nature of fee-setting across all markets, each with a different level of concentration, we introduce a variable equal to the product of a competitor's market share and the HHI score for the respective market. This term, which is high for large providers in

concentrated markets and low for small providers in competitive markets, effectively isolates the impact of market concentration.

TABLE 14				
MARKET CONCENTRATION – REGRESSION DIAGNOSTICS				
<i>Coefficient (t-stat)</i>	<i>Model 1 Less Concentrated Markets Only</i>	<i>Model 2 Highly Concentrated Markets Only</i>	<i>Full Model All Markets</i>	<i>Model 4 All Markets</i>
Intercept	0.0773 (1.75)*	-0.3827 (-3.36)***	0.0573 (1.42)	0.0655 (1.44)
Market Share	-2.2148 (-4.08)***	1.6612 (3.96)***	-2.6719 (-3.44)***	-2.6911 (-3.46)***
Assets (Normalised) Flat-Rate Services			0.5904 (11.92)***	0.5921 (11.94)***
Assets (Normalised) Percentage Rates			-0.2814 (-8.17)***	-0.2802 (-8.13)***
Market Share × HHI *			9.3522 (3.43)***	9.4190 (3.45)***
Retail Dummy				-0.0791 (0.86)
Observations	773	242	1015	1015
F-test statistic	16.65	15.72	59.37	47.63
Prob > F-stat	<.0001	<.0001	<.0001	<.0001
Pearson's r^2	0.0211	0.0615	0.1904	0.1910
Adjusted r^2	0.0199	0.0576	0.1872	0.1870
* HHI score calculated by reference to market share determined by assets under management. A robustness check using market share determined by number of mandates returns similar results.				
Qualification of t-stat: * Significant at the 10% level ** Significant at the 5% level *** Significant at the 1% level				

In the full model, adding the interaction term and controlling for fund size, we find a (highly significant) negative coefficient for market share. This captures the price elasticity of a competitive market. We find that the coefficient for the interaction term is positive and highly significant, indicating that pricing power is more prevalent in concentrated markets. We interpret the full-model results to indicate that the more concentrated the market, the fee charged by larger service providers is increasingly higher relative to other competitors. (Robustness checks using CR5 and CR10 return similar results.) Finally, in Model 4, we add a dummy for retail funds, to analyse whether the trustees of retail funds are more or less susceptible to the pricing power exhibited by large competitors in concentrated markets, and find no effect.

It is instructive to consider the relative size of the coefficients for ‘Market Share’ and ‘Market Share × HHI’: At first glance, the impact of market concentration appears three times greater than the natural effect of price elasticity. However, because the average HHI of the markets here is 15% (or one in seven), the sensitivity of fees to market concentration is roughly three/sevenths the sensitivity to competition on price. The net effect of these two factors is as follows: For markets with a low HHI, there is an expected benefit to using service providers with higher market shares. The expected benefit decreases until the market exhibits an HHI of approximately 29 per cent, after which superannuation funds are charged higher fees by the dominant service providers.

These results suggest that superannuation trustees seeking to outsource services in highly concentrated markets should consider service providers with lower market shares – the ‘minnows’. If these competitors are able to provide comparable services, trustees should be able to negotiate lower fees on behalf of their fund members.

Conclusion

The following table estimates the annual costs associated with a superannuation fund, the trustees of which have outsourced all of its functions, and which has invested in the stylised portfolio described above.

Table 15				
ALL FUNCTIONS – ESTIMATED ANNUAL COST				
Sector / Provider	Not-for-Profit		Retail	
First Quartile Fund Median Fund Third Quartile Fund	Related Service Providers *	Independent Service Providers	Related Service Providers *	
Per Fund (\$000)				
Administration	1,079	1,289	1,289	10,709
	2,302	2,202	2,202	12,249
	6,494	5,535	5,535	17,001
Asset Allocation	107	200	200	113
	156	220	220	292
	307	281	281	844
Auditing	70	70	35	35
	92	92	53	53
	158	158	126	126
Custody	320	320	3	3
	523	523	206	206
	1,152	1,152	835	835
Investment Management	1,740	1,740	2,014	2,014
	3,272	3,272	3,792	3,792
	6,097	6,097	7,265	7,265
Total Expense	3,317	3,620	3,541	12,875
	6,345	6,309	6,473	16,592
	14,208	13,223	14,042	26,071
Differential *		303	224	9,558
		-36	128	10,247
		-985	-166	11,863

Sector / Provider	Not-for-Profit		Retail	
First Quartile Fund Median Fund Third Quartile Fund	Related Service Providers *	Independent Service Providers		Related Service Providers *
Per Member (\$)				
Administration	88.46	105.65	105.65	877.82
	67.32	64.39	64.39	358.17
	52.84	45.03	45.03	138.33
Asset Allocation	8.79	16.41	16.41	9.29
	4.56	6.43	6.43	8.52
	2.50	2.29	2.29	6.87
Auditing	5.76	5.76	2.86	2.86
	2.68	2.68	1.54	1.54
	1.29	1.29	1.03	1.03
Custody	26.25	26.25	0.25	0.25
	15.30	15.30	6.02	6.02
	9.37	9.37	6.79	6.79
Investment Management	142.62	142.62	165.08	165.08
	95.67	95.67	110.88	110.88
	49.61	49.61	59.11	59.11
Total Expense	271.89	296.7	290.26	1055.31
	185.53	184.48	189.27	485.13
	115.61	107.59	114.26	212.13
Differential *		24.81	18.37	783.42
		-1.05	3.74	299.60
		-8.02	-1.35	96.52
By Assets				
Total Expense	0.66%	0.72%	0.70%	2.55%
	0.51%	0.51%	0.52%	1.33%
	0.40%	0.37%	0.40%	0.74%
* For auditing and other functions where there is no related-party service provider, the figures incorporate fees paid to independent providers to the same sector (not-for-profit vs. retail)				

The exact composition of fees is slightly different for not-for-profit funds or retail funds outsourcing exclusively to independent service providers. Nonetheless, for the median fund, the total expense borne by the members is virtually identical. Members of larger funds generally benefit from economies of scale, but these economies are better realised when the fund trustees outsource to independent service providers. Where the fund is relatively small, costs are higher on a per-member basis; NFP-related service providers are slightly more advantageous as their different revenue model lessens the cost-impact of smaller fund size.

Superannuation trustees have a legal duty to act in the best interest of fund members. Trustees act for their members when they award, negotiate, and monitor outsourcing arrangements – arrangements which in the aggregate amount to tens of millions of dollars for larger funds. Accordingly, the trustees' legal duty is to ensure that fund expenditures are generating value for money exclusively from the perspective of fund members. Based upon the results of this study, trustees of not-for-profit funds and retail trustees using independent service providers are generating near-identical value propositions. In contrast, some retail trustees using related-party administrators, are paying significantly higher fees, effectively almost doubling the median member's cost load. Reconciling this finding with the superannuation trustee's fiduciary duty to fund members will bear further investigation.

References

- Arnold, Ulli, 2000, 'New Dimensions of Outsourcing: A Combination of Transaction Cost Economics and the Core Competencies Concept', *European Journal of Purchasing and Supply Management* 6 (1), 23-9.
- Australian Prudential Regulation Authority, 'Annual Superannuation Bulletin, June 2008', *APRA Statistics*, revised to 10 February 2010
- Australian Prudential Regulation Authority, 'Quarterly Superannuation Performance, December 2009', *APRA Statistics*, 11 March 2010.
- Bank for International Settlements (BIS), 2005, 'Outsourcing in Financial Services', Basel Committee on Banking Supervision, available online: www.bis.org/publ/joint12.pdf.
- Brown, Christine A and Kevin Davis, 2009, 'Is Pension Fund Collaboration Possible and Sustainable? Insights from Australian Experience', *Working Paper*, 31 March 2009. Available at SSRN: <http://ssrn.com/abstract=1371452>.
- Cashman, George D and Daniel N Deli, 2009, 'Locating Decision Rights: Evidence from the Mutual Fund Industry', *Journal of Financial Markets* 12 (4), 645-671.
- Chan, Donald, Christoph Schumacher, and David Tripe, 2007, 'Bank Competition in New Zealand and Australia', *12th FINSIA-Melbourne Centre for Financial Studies Banking and Finance Conference*, Melbourne, 24-25 September 2007.
- Chen, Joseph, Harrison Hong, and Jeffrey D Kubik, 2006, 'Outsourcing Mutual Fund Management: Firm Boundaries, Incentives and Performance', *Working Paper*, University of Southern California, Available at SSRN: <http://ssrn.com/abstract=891573>.
- Chopra, Sunil and ManMohan S Sodhi, 2004, 'Managing Risk to Avoid Supply-Chain Breakdown', *MIT Sloan Management Review* 46 (1), 52-61.
- Coates, John and Glenn Hubbard, 2007, 'Competition in the Mutual Fund Industry: Evidence and Implications for Policy', *Discussion Paper No. 592*, Harvard Law School, Cambridge, August 2007.
- Cross, John, 1995, 'IT Outsourcing: British Petroleum's Competitive Approach', *Harvard Business Review* 73 (3), 94-103.
- Duong, Truong, 2007, 'Outsourcing in the Mutual Fund Industry', *Working Paper*, University of Minnesota, Available at FMA: http://www.fma.org/Orlando/Papers/DuongTruong_MFOutsourcing_FMA07.pdf.
- Ellis, Katrina, Alan Tobin, and Belinda Tracey, 2008, 'Investment Performance, Asset Allocation and Expenses of Large Superannuation Funds', *Working Paper*, Australian Prudential Regulation Authority.

- Elmuti, Dean and Yunus Kathawala, 2000, 'The Effects of Global Outsourcing Strategies on Participants' Attitudes and Organizational Effectiveness'. *International Journal of Manpower* 212, 112-128.
- Faisal, Mohd Nishat, DK Banwet, and Ravi Shankar, 2006a, 'Mapping Supply Chains on Risk and Customer Sensitivity Dimensions', *Industrial Management & Data Systems* 106 (6), 878-895.
- Faisal, Mohd Nishat, DK Banwet, and Ravi Shankar, 2006b, 'Supply Chain Risk Mitigation: Modelling the Enablers', *Business Process Management Journal* 12 (4), 535-552.
- Federal Reserve Bank of New York, 1999, 'Outsourcing Financial Services Activities: Industry Practices to Mitigate Risks', October 1999, Available at SSRN: <http://www.newyorkfed.org/banking/circulars/outsource.pdf>.
- Freeman, John P and Stewart L Brown, 2008, 'Mutual Fund Advisory Fees: New Evidence and a Fair Fiduciary Duty Test', *Oklahoma Law Review* 61, 83.
- Gewald, Heiko and Jens Dibbern, 2005, 'The Influential Role of Perceived Risks versus Perceived Benefits in the Acceptance of Business Process Outsourcing: Empirical Evidence from the German Banking Industry'. *E-Finance Lab Working Paper* 2005-9.
- Globerman, Steven and Aidan Vining, 2004, 'The Outsourcing Decision: A Strategic Framework', *Research Paper*, Western Washington University, USA and Simon Fraser University.
- Greaver, Maurice F, 1999, 'Strategic Outsourcing: A Structured Approach to Outsourcing Decisions and Initiatives', *American Management Association*, New York, NY.
- Harland, Christine, Louise Knight, Richard Lamming and Helen Walker, 2005. 'Outsourcing: assessing the risks and benefits for organisations, sectors and nations'. *International Journal of Operations and Production Management*, 25 (9), 831-850.
- Hendry, John, 1995, 'Culture, Community and Networks: the Hidden Cost of Outsourcing', *European Journal of Management* 13 (2), 193-200.
- Honohan, Patrick and RP Kinsella, 1982, 'Comparing Bank Concentration across Countries', *Journal of Banking & Finance* 6 (2), 255-262.
- International Organization of Securities Commissions (IOSCO), 2005, 'Principles on Outsourcing of Financial Services for Market Intermediaries', February 2005, Available at: <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD187.pdf>.
- Isern, Jennifer and Michael Bendixen, 2007, 'Outsourcing for Financial Service Providers: A Decision Framework', *Working Paper*, Nova Southeastern University, Available at SSRN: <http://www.poms.org/conferences/cso2007/talks/20.pdf>.

- Jensen, Michael C and William H Meckling, 1992, 'Specific and General Knowledge, and Organizational Structure', in Werin, Lars and Hans Wijkander, (eds), *Contract Economics*, Oxford, Blackwell.
- Lacity, Mary and Leslie, Willcocks, 1998, 'An Empirical Investigation of Information Technology Sourcing Practices: Lessons from Experience', *MIS Quarterly* 22 (3), 363-409.
- Lamming, Richard, 1993, 'Beyond Partnership: Strategies for Innovation and Lean Supply', Prentice-Hall, Englewood Cliffs, NJ.
- Liu, Kevin and Bruce R Arnold, 2010, 'Australian Superannuation: The Outsourcing Landscape', *Working Paper*, Australian Prudential Regulation Authority.
- Ono, Yukako, 2003, 'Outsourcing Business Services and the Role of Central Administrative Offices', *Journal of Urban Economics* 53 (3), 377-95.
- Prahalad, CK and Gary Hamel, 1990, 'The Core Competences of the Corporation', *Harvard Business Review* 3, 79-91.
- Rhoades, Stephen A, 1993, 'The Herfindahl-Hirschman Index', *Federal Reserve Bulletin* 79, Board of Governors of the Federal Reserve System.
- Rimmer, Stephen, 1991, 'Competitive Tendering, Contracting out and Franchising: Key Concepts and Issues', *Australian Journal of Public Administration*, 50 (3), 292-302.
- Stroh, Linda and Deborah Treehuboff, 2003, 'Outsourcing HR Functions: When and When Not to Go Outside', *Journal of Leadership and Organizational Studies*, 10 (1), 19-28.
- Superannuation Industry (Supervision) Act 1993, *Commonwealth of Australia*.
- Sy, Wilson and Kevin Liu, 2010, 'Investment Performance Ranking of Superannuation Firms', *Working Paper*, Australian Prudential Regulation Authority.
- Venkatesan, Ravi, 1992, 'Strategic Sourcing: To Make or Not To Make', *Harvard Business Review*, November-December, 98-107.
- Wu, Teresa, Jennifer Blackhurst, and Vellayappan Chidambaram, 2006, 'A Model for Inbound Supply Risk Analysis', *Computers in Industry* 57, 350-365.