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The implications of complexity for systemic risk in the superannuation system

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Synopsis

The funds, entities and regulators involved in the superannuation industry together comprise a system that is complex and dynamic. The differentiation between roles and the distribution of responsibility offers the system as a whole resilience against local failure. However the interconnections that bind and constitute the system create and transmit risks within the system undermine the system's resilience to exogenous shock. This paper starts to map and analyze those links, assessing the nature of the threat the links pose to systemic resilience. It concludes by speculating on the regulatory responses that might be required to address the risks.

Introduction

The Australian superannuation system enrolls a great many participants; funds, fund managers, custodians, administrators, actuaries, consultants, in the delivery of investment vehicles that facilitate the accumulation of retirement savings. It is, as one of the key architects of the superannuation system, the Hon Paul Keating, recently described it ‘government sponsored but privately managed.’² The result is an interconnected and dynamic system of intimidating complexity.

Importantly, however, the lengthy roll-call of participants also suggests that the system may be diverse. Diversity, in turn, offers the prospect of resilience in financial markets, just as in ecosystems.³ Diversity within the system can assist the system to withstand shocks from exogenous forces even if component parts of the system cannot. That is to say, local disturbances need not translate into systemic failure.

On the other hand, linkages between component parts can mean that the impact of local failure can be felt on a much wider scale. This paper considers that possibility. It starts to map how the internal structure of the system affects its ability to withstand different types of shock. In particular it demonstrates that the existence of different types of linkages between funds and their service providers reduces the actual diversity of the system in certain important respects. It also starts to consider the different types of regulatory response that might be required to address these ‘endogenous’ sources of systemic risk. The paper thus introduces the background to, and initial analytical priorities for, the programme of research funded by CIFR Grant EO33: Identifying, monitoring and managing systemic risks in Australia's superannuation system.

² Reported in Nick Coates and Sasha Vidler, ‘Superannuation Policy. Commentary on an Interview with Paul Keating, former Prime Minister’ (2004) 53 *Journal of Political Economy* 9.

³ See for instance Andrew Zolli and Ann Marie Healy, *Resilience*, (Headline, 2012); May, R, Levin, S.A and Sugihara, G (2008), ‘Complex systems: Ecology for bankers’, *Nature* Vol. 451: 893-895; Proceedings of Federal Reserve Bank of New York conference, ‘New Directions for Understanding Systemic Risk’ published in *FRBNY Economic Policy Review*, 13(2) (2007).

1. Constituting the superannuation ‘system’

The superannuation system comprises a wide range of entities that interact in a variety of ways. These entities, and the interactions between them, can be said to ‘constitute’ the system in the sense that together they give it form.

The key institution in the system is the superannuation fund. A superannuation funds can take one of two basic forms; intermediated and self-managed. There are currently approximately 330 intermediated funds responsible for administering \$1,080bn on behalf of approximately 31 million member accounts,⁴ and approximately 500,000 self-managed funds holding \$496bn in assets on behalf of 914,000 members.⁵

There are certain activities that are integral to the administration of a superannuation fund. A modern superannuation fund is however a ‘virtual’ institution. It is of course axiomatic from a legal perspective that, unlike a corporation or a statutory body, a trust has no separate legal existence. Strictly it is a set of (equitable) obligations owed by an individual or individuals (the trustee or trustees) to another set of individuals (the beneficiaries, or in the case of a superannuation fund, the members) in respect of certain property held by the trustees.⁶ In the paradigm case the trustee holds title to the assets and has responsibility for administering the trust according to its governing rules and the rules of equity, so far as those rules are not eclipsed or reset by relevant statutory provisions.⁷ The courts have however accepted that for practical reasons trustees may need to ‘outsource’ some of the activities required to administer the trust, so long as the trustee does not thereby purport to delegate its discretion.⁸ As a result, most trustees today outsource at least some of these activities, especially those, such as member benefit administration, custody of the assets and investment management, in which there are economies of scale beyond the reach of individual funds or in which specialist skills are required.⁹

The system, then, includes not just the trustee of superannuation funds but also the constellation of entities that assist the trustees to administer the funds in which member contributions are invested. Importantly, the relationships between the funds and these other entities create linkages not just between the funds and their service providers, but indirectly between the funds themselves, articulated through the links a single service provider will most likely have with other funds. This raises the possibility that a failure of some kind in one of the service providers could have widespread and perhaps even systemic effects.

⁴ The excess of member accounts over the number of individuals employed in the workforce is attributed to individuals holding accounts simultaneously in multiple funds. See further CHOICE, ‘The Super Secret: How multiple accounts cost consumers billions’ (November 2006), 7, available from www.choice.com.au.

⁵ Asset values and number of funds as at 31 March 2013; APRA, *Quarterly Superannuation Bulletin* (March 2013, issued 23 May 2013). Number of members as at 30 June 2012; APRA, *Annual Superannuation Bulletin* (June 2012, issued 9 January 2013). Both available at www.apra.gov.au

⁶ *Re Scott* [1948] SASR 193, 196 (Mayo J).

⁷ This is expressly provided for in the superannuation context by section 350 of the *SIS Act*.

⁸ *Re Speight* (1883) 22 ChD 727, 756. For APRA’s expectations in respect of such arrangements, see APRA, *Superannuation Prudential Standard SPS231 Outsourcing*. www.apra.gov.au.

⁹ Kevin Liu and Bruce Arnold, ‘Australian Superannuation Outsourcing’ [2010] *Jassa*, (4), 6.

A note of clarification is warranted at this point. The phenomenon under examination here has been characterised consistently in this paper as a ‘system’ rather than a ‘network’, ‘industry’ or ‘market’. That is no accident. There are clearly a great many networks at play in superannuation. There are also a great many different types of networks. There are networks of trustee directors and networks of contractual relationships, for instance. It is also true that the information flows in the system and the financial markets in which superannuation funds invest can be conceptualised as networks. The various networks are overlaid on each other and interact with each other to constitute the system. Describing the phenomenon as a ‘system’ permits recognition of the simultaneous operation of these networks. It also permits consideration of the possible interaction between the various networks.

Similarly, the term ‘industry’ is inadequate in the context of this paper because the analysis presented here extends beyond an analysis of the private sector actors offering their products and services to individual consumers. It encompasses both those types of actors but it also encompasses the processes and interactions between them, and indeed the rules that guide the interactions between the participants.

Finally, to characterise the phenomenon as simply a ‘market’ is to misconceive the nature of some, at least, of the motive forces that animate it. In particular, it underemphasises the importance of the public policy objectives underpinning the system. That is not to say that the competitive pressures that animate a ‘market’ do not play a role. They do. However there are other influences on the behaviour of the actors that are vitally important and must therefore also be considered.

What, then, of the notion of a ‘system’? Meadows describes a system as ‘an interconnected set of elements that is coherently organised in a way that achieves something’.¹⁰ This description highlights that a system is constituted both by the elements present in the system as well as the interconnections between those elements. Moreover it is possible to distinguish between those interconnections that have the character of ‘transactions’ between the elements¹¹ and those of a higher level of abstraction that govern the nature of those transactions, which might be termed ‘meta-connections’. The rules comprising the regulatory scheme governing the superannuation system, the social norms that influence participant behaviour and market modalities such as competition and innovation, are examples of such ‘meta-connections’. As such, ‘system’ is a more accurate and fertile characterisation of the phenomenon under examination in this Thesis than any of ‘network’, ‘industry’ or ‘market’.

¹⁰ Donella Meadows, *Thinking in Systems*, (Chelsea Green, 2008), 11.

¹¹ The term transaction here extends beyond its colloquial meaning to encompass a broader set of interactions, including, for instance, direct and indirect communication between the actors.

2. 'Systemic risk' in the superannuation context

The notion of 'systemic' risk in financial markets has attracted much attention in recent years.¹² The global financial crisis of 2008-10 provided a stark reminder that risk cannot always be absorbed and distributed purely by price action on securities exchanges and other markets. Limited liability means that debt interests simply disappear when firms fail for insolvency, markets fail to clear (at any price) when liquidity dries up and risks are transmitted from one market to another by the institutions involved in them.

Besar et al describe this new sensibility thus:

'A systemic risk materialises when an initial disturbance is transmitted through the networks of interconnections that link firms, households and financial institutions with each other, leading as a result, to either the breakdown or degradation of these networks'¹³

Notably, there is no reference to the size of the risk. Clearly there are some exogenous shocks that are of such a magnitude that their occurrence would affect the whole financial system. Default by a major sovereign borrower (as occurred in Russia in 1917 and China in 1949), temporary closure of a securities exchange (as occurred following the terrorist attacks in September 2001) or removal of a reserve currency from an exchange rate regime (as occurred when Sterling was removed from the ERM in September 1992), are examples of such shocks. They are inescapable simply because of their magnitude. In contrast, the primary focus here is on the way in which the effects of a small, usually, local disturbance are transmitted across the networks that constitute the system in such a way that its ultimate effect is far greater than is suggested by its initial manifestation.

The other notable element of the definition offered by Besar et al is the criterion employed for identifying a risk as systemic: that it results in breakdown or degradation of the network. The focus then is not on securities prices, but on the network itself, and (implicitly), on the function of that network. There may indeed be coincident price volatility but a risk is systemic when its occurrence threatens the functioning of the network.

What then is the objective of the superannuation system? Stripped to its essentials, Australia's superannuation system exists to administer the process of accumulation of capital by individuals. The various institutions collect and invest monies on behalf of individuals, and return monies according to some pre-determined calculation (different depending on the nature of the scheme)¹⁴ to those individuals (predominantly) upon retirement. The Federal government has

¹² The literature is voluminous; see for instance Kartik Anand, Prasanna Gai, Sujit Kapadia, Simon Brennan and Matthew Willison, 'A network model of financial system resilience' (2013) 85 *Journal of Economic Behaviour and Organization* 219; Stefano Battison, Domenico Delli Gatti, Mauro Gallegati, Bruce Greenwald and Joseph Stiglitz, 'Liaisons dangereuses: Increasing connectivity, risk sharing, and systemic risk' (2012) 36 *Journal of Economic Dynamics and Control* 1121; D. Besar, P. Booth, K.K. Chan, A.K.L. Milne and J. Pickles, 'Systemic Risk in Financial Services' (2011) 16(2) *British Actuarial Journal* 195; Andrew Haldane, 'Rethinking the financial network' (speech delivered at the Financial Student Association, Amsterdam, April 2009, available at www.bankofengland.co.uk/publications/speeches/2009/speech386.pdf).

¹³ Besar et al, above n 12, 196.

¹⁴ The most obvious distinction is between defined benefit (DB) and defined contribution or accumulation (DC) schemes, but there are subtle variations (see for instance the UniSuper DB scheme which is in fact a

designed its taxation scheme to discourage non-payment of superannuation contributions by employers¹⁵ and to encourage discretionary contributions by individual, but these measures operate for the most part outside the system considered in this paper.

3. The types of linkages

The links between the entities in the system are multifarious. The links arise in part because of the explosive growth over recent decades in the number and variety of financial instruments and structures that link financial institutions and markets across the globe.¹⁶ It is also the case that there are a number of financial institutions whose ubiquity across markets and geographies has made them systemically significant.¹⁷

There is an additional wrinkle unusual to financial systems, such as Australia's superannuation system, in which the legal architecture is provided by trust law. The separation of trust assets from those of the trustee means that failure of an entity acting as trustee, though it will undoubtedly be disruptive to the practical administration of the trust, does not directly affect the interests of members in the way that, for instance, depositors in an insolvent bank would be affected. The court or a regulator may appoint a replacement trustee and the corpus of the fund itself, to the extent that it is not a creditor of the trustee for some reason, should be unaffected. For this reason alone, it is worthwhile examining the nature of the linkages between entities in the superannuation system a little more closely because the dynamics of transmission are likely to be quite different from those that pertain in other parts of the financial system.

A starting point in this examination is to classify the different types of linkages that currently exist in the superannuation system. It turns out that a closer examination of the different types of linkages between entities can provide a richer understanding of the ways in which local disturbances might escalate into systemic risk. Importantly, as we shall see not all transmitted risks depend on the failure of an entity. A piece of rogue data,¹⁸ such as a misquoted currency exchange rate or security price, could propagate through the system without the source of the error strictly 'failing'.

hybrid of the two) and conditions (eg early release, or payments upon death or disability) that result in different calculations.

¹⁵ *Roy Morgan Research Pty Ltd v Commissioner of Taxation* (2011) 281 ALR 205.

¹⁶ See for instance Tobias Adrian and Hyun Song Shin 'The Changing Nature of Financial Intermediation and the Financial Crisis of 2007–2009' (2010) 2(1) *Annual Review of Economics* 603; Chen Beck, Chen Lin, and Frank M Song (2012), "Financial Innovation: The Bright and the Dark Sides" (2012) HKIMR Working Paper 05/2012.

¹⁷ Markus Brunnermeier, Andrew Crockett, Charles A Goodhart, Avinash Persaud and Hyun Song Shin, 'The Fundamental Principles of Financial Regulation' (2009) Geneva Reports on the World Economy, 11.

¹⁸ Of course not all data errors are inadvertent – see for instance the LIBOR scandal in which a number of parties are alleged to have deliberately misreported benchmark-generating data; Andrea Monticini and Daniel L. Thornton 'The Effect of Underreporting on LIBOR Rates' *Federal Reserve Bank of St. Louis Working Paper Series*, Working Paper 2013-008A (February 2013). Available at <http://research.stlouisfed.org/wp/2013/2013-008.pdf>.

One way to classify the links between entities is to group them according to the types of financial or informational transactions they represent. These transactions create the links between entities. As such, they are readily recognisable to those familiar with the superannuation system.

The first grouping may be termed ‘Operational links.’ These links assist the trustee to administer the trust effectively. They include situations in which information required for administration of the trust, such as member balances and investment valuations, are provided to the trustee by third parties, as well as situations where the entity may give effect to processes that contribute to the administration of the trust, such as custody of the assets. These transactions are often recognised as sources of ‘operational risks’,¹⁹ but less often is the potential for such risks to be systemic recognised. There will for instance be circumstances where the service providers themselves are linked through another entity that serves each of them, such as a credit rating agency, a bank or a clearing house. It can readily be seen that failure or mistake on the part of an entity on which the trustee directly or indirectly relies, would have flow-on effects on the trustee’s ability to administer the trust. If that entity served a number of funds, the local failure would have a ripple effect across potentially a large number of funds

The second grouping may be termed ‘Financial links’. This is the key focus of the flurry of recent research into systemic risk in the banking sector.²⁰ In the banking sector such links arise primarily from cross shareholdings or cross-holdings of deposits.²¹ It is sometimes described as a ‘cascade’ or ‘domino’²² effect. The failure of one entity causes the failure of another entity, which causes the failure of another, and so on. The aetiology in the superannuation context is a little different. As was noted above, the use of the trust structure quarantines superannuation funds to a large extent from direct losses incurred by their trustees in non-fund related business. Any effects are therefore likely to be secondary in nature. Commercial failure by an entity related through ownership structure²³ to either the trustee of a fund or another entity involved in the system might undermine, perhaps terminally, the ability of the trustee or other entity to perform its role in the system. A replacement may need to be found, which might entail short term disruption.

The third group may be termed ‘Collaborative links.’ They arise where funds co-invest with other funds and entities in legal structures, such as SPVs and JVs, in which their rights and expectations are to some extent enjoyed mutually. These arrangements can enable funds to participate in investment opportunities they might not be capable of undertaking alone but they can also result in contagion where difficulties in one fund can cause it to have to act with respect to the co-mingled structure in ways that adversely affect the healthy fund, for instance by seeking to liquidate its interest in the structure.

¹⁹ For APRA’s expectations in respect of operational risk, see APRA, Superannuation Prudential Standard 114: Operational Risk Financial Requirement.

²⁰ See for instance Prasanna Gai, Andrew Haldane and Sujit Kapadia ‘Complexity, concentration and contagion’ (2011) 58 *Journal of Monetary Economics* 453.

²¹ Amil Dasgupta, ‘Financial Contagion through Capital Connections: A Model of the Origin and Spread of Bank Panics’ (2004) 2(6) *Journal of the European Economic Association* 1049.

²² See for instance Battiston et al, above n 12.

²³ These links could arise where entities are part of a broader corporate group, operate ancillary businesses in the form of wholly or partly owned subsidiaries, or ‘rent’ regulatory capital from another corporate entity.

Finally there are ‘Social links.’ These links are distinct from the preceding three groups because they do not operate directly but rather indirectly through normative pressure. Examples include beliefs about investment markets²⁴ and the expectations of appropriate trustee-director behaviour (to the extent that they go beyond the strict letter of the law). These links cause the behaviour of individuals and entities to be correlated notwithstanding the absence of any formal direct link between the individuals or entities. This can undermine dramatically the apparent diversity of a system by causing component parts to act similarly and not in a diverse way.

4. A diverse system?

There is no doubt that the Australian superannuation system appears diverse when viewed from certain perspectives. For instance APRA reports that there were 336 registered superannuation entities on 31 December 2012.²⁵ That is down over 90% over the past twelve years but still earns the industry an HHI score²⁶ less than 3%.²⁷ That is because the largest ten funds by assets comprise just 27 per cent of the market share of the superannuation industry.²⁸ The largest fund is AMP Superannuation Savings Trust administers approximately \$52bn on behalf of 2.9 million members, which represents a market share (by assets) of approximately 6.2% of all APRA regulated funds. The largest not-for-profit fund, Australian Super, administers \$47.8bn on behalf of 1.9 million members, a market share of approximately 5.7%.

This diversity can be seen in Figure 1, which depicts the 200 largest superannuation funds in terms of their assets under management.

²⁴ See for instance Stephanie Kremer, Dieter Nautz, ‘Causes and consequences of short-term institutional herding’ (2013) 37 *Journal of Banking & Finance* 1676.

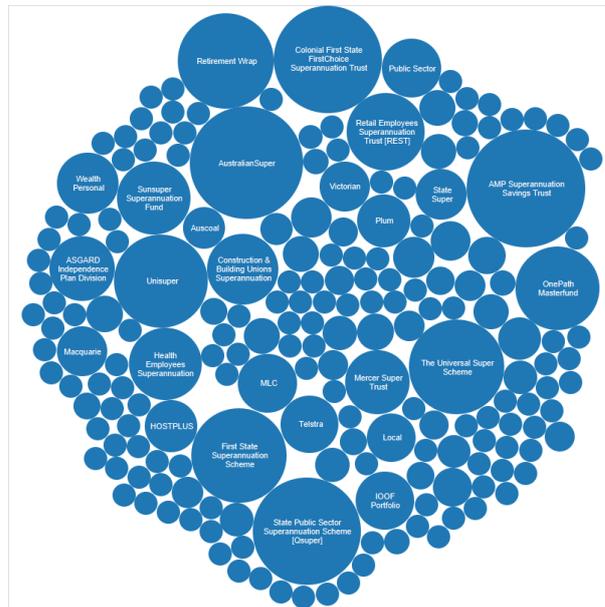
²⁵ APRA, *Quarterly Superannuation Bulletin* (December 2012).

²⁶ The Herfindahl-Hirschman Index (HHI) is a measure of the concentration that exists within a market or industry. It assumed the names of two of its near-simultaneous parents: see Albert O. Hirschman, ‘The Paternity of an Index’ (1964) 54(5) *American Economic Review* 761.

²⁷ APRA, *Annual Statistics Bulletin* (2012), 12.

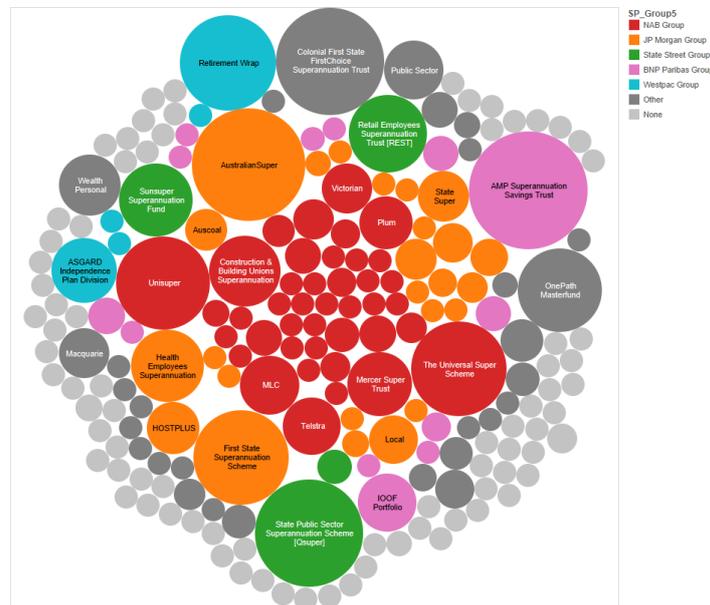
²⁸ Ibid

**Figure 1: Map of the Australian superannuation system
(Funds by AuM as at 30 June 2012)**



The granular diversity illustrated in this graph is potentially misleading. As we saw above, there are a range of features of the system that link the entities directly. There is for instance considerably more concentration in the custody, member benefit and insurance industries that serve the trustees of funds, than in the list of superannuation funds themselves. Funds may therefore not be linked directly, but may be linked by virtue of sharing the same service provider. Figure 2 portrays this quite clearly. It depicts the same funds indicated in the previous graph, each coloured according to the custodian it employs. The large number of funds coloured red, orange and pink in particular demonstrates the exposure of the system to a small number of global custodian banks.

**Figure 2: Map of the Australian superannuation system, coloured by custodian
(Funds by AuM as at 30 June 2012)**



A similar pattern can be seen when funds are coloured by reference to member benefit administrator and insurer.

There are other features, less easily illustrated in graphical form, that promote correlated behaviour and hence synchronous results. Regulation, industry structure, shared investment frameworks and behavioural factors can all influence decisions by trustees and their agents (especially investment managers and asset consultants) the net effect of which is to produce similar investment performance.²⁹ So too might overlapping directorships, a pervasive but declining phenomenon in the system.³⁰

This potential lack of diversity is important for two reasons. First it suggests the possibility that the system may not be as resilient as it appears: there are potentially vulnerabilities in the system that are not apparent from observation of the (still comparatively large) number of regulated entities. Second, it suggests that the system may not possess the synaptic wisdom that the early architects of the system expected would promote efficient capital allocation. A system comprised

²⁹ Adam Clements and Michael Drew, 'Institutional Homogeneity and Choice in Superannuation' (2004) 17 *Accounting Research Journal* 102. Also David Blake, Bruce Lehmann and Alan Timmerman, 1998, 'Performance Clustering and Incentives in the UK Pension Fund Industry' (1998) 3 *Journal of Asset Management* 173; Torben Lutje, 'To be good or to be better: asset managers' attitudes towards herding' (2009) 19 *Applied Financial Economics* 825.

³⁰ APRA reported in 2008 that directors of trustee companies in the Retail sector held 7 other directorships simultaneously, directors in the Corporate sector 1.7, directors in the Public Sector 1.9 and directors in the Industry fund sector 2.4; APRA, 'Superannuation fund governance: Trustee policies and practices' (2008) *Insight* 14. For a description of APRA's functional classification into the four sectors see APRA, *Classification of superannuation entities* (May 2005). Both available at www.apra.gov.au

of independent, diverse decision-makers might be expected to pursue local optima in a highly granular way, such that the economic efficiency of the system (and the impulse for customisation and innovation) might be promoted. The enormous size of the asset pool collected in the superannuation system makes the prospect of allocative inefficiency very troubling.

5. Regulatory implications

Prudential regulation of the superannuation system is the responsibility of the Australian Prudential Regulation Authority ('APRA'). APRA describes its mission as to

'establish and enforce prudential standards and practices designed to ensure that, under all reasonable circumstances, financial promises made by the institutions APRA supervises are met within a stable, efficient and competitive financial system'.³¹

Its approach to supervision and regulation is risk-based, outcomes-focused and principles-based.³²

For the most part, APRA's supervisory activities treat individual entities in the system separately. Supervisory teams are organised into teams responsible for a small list of institutions and the ongoing reporting protocols do not elicit the types of information that facilitate close analysis of the sorts of linkages and shared exposures described in this paper. That said, APRA's attention to outsourcing risk³³ and investment governance³⁴ signals that it recognises that the trust-law based legal architecture of the superannuation system means that risks need not stem from the failure of an entity (a trustee for instance) but may arise from entities on which the trustee relies.

Nevertheless the descriptions and analysis in this paper represent a challenge to APRA's current approach to regulating the superannuation system on several fronts:

1. Criticality for the system may emerge from local disturbances that of themselves appear immaterial. Specifically, cascades and other forms of contagion could occur notwithstanding that the individual entities, viewed in isolation, satisfy standard prudential measures. This is particularly true of informational dependencies which may quickly propagate disturbances widely throughout the system, but also to issues arising from, for instance, co-investment.
2. APRA may need to calibrate its regulatory stance with respect to individual entities in ways that reflect those entities' importance to the system as a whole.³⁵ Systems such as the Probability and Impact Rating System ('PAIRS')³⁶ used by APRA to focus its supervisory effort on entities posing the greatest risk need to have regard not just for the

³¹ APRA, 'The APRA Supervision Blueprint' (January 2010), 4; available at www.apra.gov.au.

³² APRA, above n 30, at 8. See also Julia Black, 'Managing Regulatory Risks and Defining the Parameters of Blame: A Focus on the Australian Prudential Regulation Authority' (2006) 28 *Law and Policy* 1

³³ See for instance APRA, *Superannuation Prudential Standard 231: Outsourcing*. Available at www.apra.gov.au.

³⁴ See for instance APRA, *Superannuation Prudential Standard 530: Investment Governance*. Available at www.apra.gov.au.

³⁵ For an analogous sensibility in the banking sector see; Viral V. Acharya, 'A theory of systemic risk and design of prudential bank regulation' (2009) 5(3) *Journal of Financial Stability* 224. Also Haldane, above n 12, 25.

³⁶ See www.apra.gov.au for more details on the PAIRS approach.

size of the entity (in assets or members), but also its multi-faceted connections with the rest of the system. The same may be said for the level of regulatory capital deemed appropriate for different prudentially-regulated entities.

3. APRA may also have to justify regulatory intervention in respect of an entity based not on characteristics or conduct peculiar to the entity seen in isolation, but on a more holistic basis. This in some ways resembles the mode of regulation sometimes required of competition regulators, such as the ACCC, when the need for regulatory intervention is inspired by changes to a market that are unrelated (at least directly) to the entity or entities left occupying an unacceptably dominant position.
4. Many of the critical nodes in the system lie outside APRA's regulatory jurisdiction. Although APRA has jurisdiction with respect to superannuation funds and their trustees, as well as to the banks and insurance companies with which they interact, key service providers such as custodians, member benefit administrators and investment managers lie outside APRA's jurisdiction.³⁷ As we have seen, failures of these service providers, or disturbances caused by them, can in certain circumstances represent a material systemic risk.

Concluding comments

The presence of complex interactions between the entities involved in Australia's superannuation system ought not to be a great surprise. The superannuation system is in many ways a microcosm of the global financial system of which, from a functional perspective, it is a part. This paper has however highlighted and started to excavate the consequences of that complexity for systemic risk and for the regulatory scheme applied to the system.

³⁷ In respect specifically of investment managers and member benefit administrators, see Super System Review, *Review into the Governance, Efficiency, Operation and Structure of the Superannuation System: Final Report - Part Two: Recommendation Packages* (July 2010), at 76 and 170 respectively. Available at www.supersystemreview.gov.au.