

*The Finsia Journal of Applied Finance*

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**The value of total assets**

HUNG CHU SA Fin and  
WAYNE LONERGAN SF Fin

The assessment of the market value of total assets is an important issue for stamp duty and tax purposes. In this paper, we re-evaluate the relationship between the value of the total assets of a business entity and its enterprise value (EV). In practice there are several methods commonly used to assess the value of total assets, based on various adjustments to the EV. However, our findings indicate that all of these adjustments are inappropriate, with the exception of the addition of the value of surplus assets to the DCF-based enterprise value. The total assets to which the market value standard is applied for tax and stamp duty purposes should include the net working capital assets. The correctly derived enterprise value reflects the market value of total assets.

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**Evidence of the banks' role in filling gaps in  
the exchange-traded derivatives market**

ADRIAN MELIA and DAVID STOCKEN

This paper examines the market capitalisation, relative trading volume and volatility of the S&P/ASX 200 Index constituent stocks. We classify stocks into three groups: stocks with listed exchange-traded options (ETOs); stocks with listed warrants but no ETOs (warrant-only); and stocks that have no listed exchange-

traded derivatives. We find that ETO stocks have large market capitalisations relative to warrant-only stocks. However, ETO stocks do not have higher relative trading volumes or lower volatility compared with warrant-only stocks. When comparing warrant-only stocks with stocks that have no exchange-traded derivatives, warrant-only stocks are larger, have higher relative trading volumes and are more volatile. These results are consistent with banks taking advantage of the opportunity to profit by listing warrants on stocks that do not have ETOs.

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**Backdoor listings in Australia**

ANDREW FERGUSON and PETER LAM

We study a large sample of Australian backdoor listings (BDLs) over the period from 1994 to 2014. BDLs account for roughly 13 per cent of all firms going public on the Australian Securities Exchange and are popular among hi-tech firms and those with foreign-domiciled assets. We find that the BDL market is likely influenced by the sentiment in the initial public offering (IPO) market, with the number of BDLs announced in a year being negatively (positively) correlated with the number of IPOs lodged (the percentage of IPOs withdrawn) in the prior year. Contrary to common belief, BDL transactions take longer to complete than IPOs, since they typically combine both a reverse takeover and the public listing process. Roughly three-quarters of our sample raised equity capital as part of the BDL process.

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**The Financial System Inquiry**

Introduction by the Guest Editor

DAVID G MAYES F Fin

In this Special Section of JASSA on the Financial System Inquiry, five members of the Australia–New Zealand Shadow Financial Regulatory Committee (ANZSFRC) offer their independent critiques of the assessment and recommendations in the recently completed Financial System Inquiry (FSI) in Australia. The ANZSFRC has not, as yet, produced a joint statement on the inquiry. Since Kevin Davis SF Fin, the Managing Editor of this journal, was both one of the five panel members of the FSI Committee and still is co-chairman of the ANZSFRC, these papers have been produced independently.

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### **Resilience**

DAVID G MAYES F Fin

This paper appraises the Financial System Inquiry's proposals for making the banking system more resilient by increasing capital buffers to reduce the chance of bank failures and by improving the resolvability of banks with minimum real impact should they fail. It concludes that the main problems lie in the area of resolvability, where Australia has taken limited steps compared with the rest of the OECD. Many questions need to be answered before satisfactory arrangements in line with the Financial Stability Board's recommendations can be introduced. On capital buffers, it is not clear why Australia should want to exceed the recommended levels or why the Basel Committee's proposed leverage ratio should be omitted. Surprisingly, the inquiry does not discuss whether the balance between Australia's big four banks and other sources of finance is best for resilience.

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### **Superannuation and retirement incomes**

RAFAL CHOMIK and JOHN PIGGOTT

In this paper we consider four aspects of the recommendations in Chapter 2 of the Financial System Inquiry Final Report and identify where they have fallen short or been limited by the inquiry's remit. First, while the recommended formal clarification of objectives for superannuation is welcomed, a broader understanding of policy interactions is required. Second, ineffective price competition may be addressed through a tender system of investment, but we agree that current reforms need time to settle. Third, the inquiry makes an important contribution by highlighting that the payout phase requires government intervention, but supply-side issues are not adequately addressed. Fourth, while 'independence' of boards appears attractive, the related evidence is scant and some governance questions remain unanswered. Overall, we conclude that a more complete perspective on retirement incomes is needed to develop a comprehensive retirement income policy.

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### **Innovation and the Financial System Inquiry**

DEBORAH RALSTON SF Fin

The Financial System Inquiry rightly has a strong focus on innovation in its

recommendations on how the financial system can better meet the needs of growth in the Australian economy. This paper appraises the inquiry's recommendations in four areas: collaboration to enable innovation; crowdfunding; data access and use; and comprehensive credit reporting. The inquiry highlights that openness to innovation with regard to information sharing by government, existing participants and regulatory bodies is not strong in Australia. These policy settings will need to be addressed in order for the financial system, and the whole economy, to take full advantage of these opportunities to innovate.

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### **Consumer outcomes of the Financial System Inquiry**

ANDREW C WORTHINGTON SF Fin

This paper reviews the eight recommendations of the 2014 Financial System Inquiry relating to consumer outcomes. These include strengthening product issuer and distributor accountability, providing specific product intervention power to the Australian Securities and Investment Commission (ASIC), and facilitating innovative product disclosure. They also include better aligning the interests of financial firms and consumers, raising the competency of financial advisers, and improving guidance and disclosure in general insurance. The response by Australian industry and consumer groups has been generally favourable despite the expected difficulties and lack of detail associated with the product design and distribution obligation, and concerns about the substantial product intervention powers extended to ASIC. Some unease also exists about the apparent inattention to key issues in the general insurance industry, especially underinsurance and noninsurance in home and contents insurance relating to natural disasters.

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### **Financial System Inquiry: A mixed bag on regulation**

RODNEY MADDOCK

The regulatory chapter of the Financial System Inquiry Final Report is strongest in the areas where it chooses not to change current regulatory arrangements. The inquiry's overall approach reflects a view that problems of coordination, operation and governance are all amenable to improvements within the current structures. This paper is sceptical that the solutions proposed will be effective and points out the ongoing weaknesses in regulatory transparency and accountability.

# FROM THE

## *Managing Editor*

KEVIN DAVIS SF Fin, Professor of Finance, University of Melbourne  
Research Director, Australian Centre for Financial Studies and Professor of Finance, Monash University  
Member of the Financial System Inquiry panel

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This issue of *JASSA* features a special section on Australia's recently completed Financial System Inquiry which has examined how the financial system can be positioned to best meet Australia's evolving needs and support Australia's economic growth.

In this special section of the journal, five members of the Australia–New Zealand Shadow Financial Regulatory Committee (ANZSFRC) critically assess the deliberations and recommendations of the inquiry.

I trust that you will find these articles incisive and helpful in advancing the important debates that have emerged following the inquiry about the future directions of the Australian financial system and the wider economy.

David G Mayes F Fin, who is a Professor of Banking and Financial Institutions at the University of Auckland and a Member of the Australia and New Zealand Shadow Financial Regulatory Committee, has kindly agreed to be Guest Editor of the special section of the journal because of my involvement as a panel member of the inquiry, and also my role as Managing Editor of *JASSA*.

The first paper in this issue of *JASSA* is by Bart Frijns F Fin and Alireza Tourani-Rad F Fin, who investigate the replicability of the recently introduced New Zealand retirement funds (KiwiSaver) by the same providers. Frijns and Tourani-Rad were interested in whether they could replicate a KiwiSaver fund that has the same level of risk and return compared with an existing fund but has a lower level of fees, which, in turn, translates into higher returns. After replicating moderate/balanced funds based on a combination of conservative and growth/aggressive funds offered by providers, the authors find that in many cases the moderate/balanced funds are linear combinations of these conservative and growth funds, but the replicated fund is cheaper than the fund offered by the provider. The study suggests that there is some mispricing in the fees charged for the various fund types that are offered by KiwiSaver fund providers.

Next, Hung Chu SA Fin and Wayne Lonergan SF Fin re-evaluate the relationship between the value of the total assets of a business entity and its enterprise value (EV). Chu and Lonergan note that the assessment of the market value of total assets is an important issue for stamp duty and tax purposes, and that this can be a particularly contentious issue in 'land rich' cases. The authors indicate that while it may seem uncontroversial for valuers and investors to use EV to assess the value of total assets, in practice, a number of adjustments to this are often made. The findings of this study suggest that all of these adjustments are inappropriate, with the exception of the addition of the value of surplus assets to the DCF-based enterprise value. The paper also finds that total assets to which the market value standard is applied for tax and stamp duty purposes should include the net working capital assets.

Then, Adrian Melia and David Stocken take a close look at the evidence of the banks' role in filling gaps in the exchange-traded derivatives market. Their findings are consistent with banks taking advantage of the opportunity to profit by listing warrants on stocks that do not have exchange-traded options (ETOs). After examining the market capitalisation, trading volume and volatility of the S&P/ASX 200 Index constituent stocks with and without exchange-traded derivatives the authors find that stocks with listed ETOs have large market capitalisations relative to warrant-only stocks. This result is consistent with the findings of Mayhew and Mihov (2004) in relation to market capitalisation. However, Melia and Stocken also find that when compared with warrant-only stocks, ETO stocks do not have higher relative trading volumes or lower volatility. Also consistent with Mayhew and Mihov, when comparing warrant-only stocks with stocks with no exchange-traded derivatives, the authors find that warrant-only stocks are larger, have higher relative trading volumes and are more volatile.

The final paper in the first section of the journal is another equities-related paper in which Andrew Ferguson and Peter Lam examine the recent trend towards backdoor listings (BDLs) in Australia. The authors note that backdoor listings have long been considered a viable alternative to initial public offerings (IPOs) for private firms seeking to list on the Australian Securities Exchange and that in 2014 Australia witnessed a record number of BDLs, raising a number of regulatory concerns about the BDL process. Despite popular perceptions, the authors find evidence from a sample of 302 Australian BDLs which suggests they are not necessarily simpler or faster than the IPO process. With BDLs being essentially a combination of a reverse takeover and the public listing process, they require more regulatory approvals and take longer to complete than IPOs. This finding has implications for entrepreneurs/owners of private firms contemplating a public listing via the backdoor route.

Thank you to all of our contributors, and to Guest Editor David Mayes in particular, and I look forward to a year ahead with many more outstanding contributions to *JASSA*.

# KIWISAVER FUNDS:

## *Can they be replicated cheaper?*

BART FRIJNS F Fin, Professor of Finance, Department of Finance, Auckland University of Technology and Director, Auckland Centre for Financial Research

ALIREZA TOURANI-RAD F Fin, Professor and Head of Department of Finance, Auckland University of Technology

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*This study investigates the replicability of the recently introduced New Zealand retirement funds (KiwiSaver) by the same providers. Specifically, we replicate moderate/balanced funds based on a combination of conservative and growth/aggressive funds. We observe that moderate/balanced funds are in many cases linear combinations of the conservative and growth funds with some serious mispricings between the fees of actual funds and reconstructed funds.*

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In recent years, the responsibility for retirement planning has progressively been moving away from governments to households through the use of defined contribution retirement schemes, as opposed to the traditional defined benefit plans (Benartzi and Thaler 2001; Broadbent et al. 2006; Cannon and Tonks 2011). New Zealand introduced a version of a defined contribution scheme, called KiwiSaver, in 2007. One of the New Zealand Government's main objectives in introducing the KiwiSaver scheme was to increase long-term household and private savings and to encourage people to provide for a better retirement.<sup>1</sup> Under this system, employees who 'opt in' contribute a percentage of their income and receive employers' contributions and certain additional tax incentives. These funds are invested on the employees' behalf by private pension fund providers. KiwiSaver funds have come to play an important role in New Zealand financial markets. Since the commencement of KiwiSaver, investors have gradually realised the importance of investing in the scheme. As at mid-2014, KiwiSaver funds had in excess of NZ\$23 billion in assets under management and more than 2.2 million investors.

While the scheme was established in a way that minimises the investment decisions that must be made by employees (they need to choose from a limited pool of fund types and their percentage of contribution), such decisions could have a significant impact on retirement savings. The decisions made by employees require a broad understanding of a number of basic financial concepts, such as the level of personal contribution, the quality of the fund provider, the type of fund and its risk level, and the fees involved. Those who do not 'opt out' and fail to make the above decisions are automatically enrolled in one of six default conservative funds with personal contributions set at 3 per cent.<sup>2</sup> Interestingly, a large percentage of KiwiSaver investors have not moved beyond a default conservative fund (MBIE 2012). In addition, a recent survey shows that less than 30 per cent of participants choose their provider based on performance and less than 25 per cent consider fees (Colmar Brunton 2010). It has been argued that the combined consequences of these decisions will leave many participants short of the sum required for their retirement. Therefore, there is evidence to suggest that despite the importance of the decisions which the public is being asked to make about their contributions to KiwiSaver, they may be failing to make sound decisions, especially regarding the choice of their funds and the fees paid. In this study, we are particularly interested in the question of fees charged by fund providers.

There has been very limited academic research on KiwiSaver, which is unquestionably due to the young age of this particular fund industry and the lack of long-term data. There are, however, a number of recent studies that examine several relevant issues. Thomas and Matthews (2014) investigate the determinants of fund and member flows among KiwiSaver funds. The authors find that, on average, there is a positive relation between performance and fund flows (both inwards and outwards). However, the positive relationship which they observed between performance and outflows could not be explained. Thomas and Matthews also find inconclusive results when investigating the influence of the size of a fund, and the number of investors, on fund flows.

In another paper, using a unique proprietary data set of 405,107 individual KiwiSaver accounts, Zhang (2014) looks at the possible impact that financial advice could have on the asset allocation decision of investors. Her findings indicate that female, older investors and relatively wealthy investors appear to obtain financial advice more than others. Zhang observes that those investors who receive advice hold riskier assets in their portfolios, less cash and bonds, and more property and equity. Zhang further reports that differences in the investment performance of the two groups, advised and non-advised investors, is marginal over the five-year period she examines. Finally, Frijns and Tourani-Rad (2014) use the capital asset pricing model (CAPM) and multifactor models to investigate the risk-adjusted performance of KiwiSaver funds with large investment in domestic and international equity markets. On the whole the authors observe severe underperformance by these funds.

In this paper, we are mainly interested in whether we can replicate a KiwiSaver fund that has the same level of risk and return compared with an existing fund but has a lower level of fees, which, in turn, translates into higher returns. As mentioned earlier, there is a limited range of funds available to investors. Most fund providers offer four to five categories. For example, BNZ offers: cash, conservative, moderate, balanced and growth funds. To varying degrees, based on their risk exposure, these investment funds invest in cash, domestic bonds, international bonds, domestic equity, international equity and property. Our findings indicate that, for the majority of fund providers (16 out of the 28 we examine), our synthetic ‘moderate and balanced funds’ are linear combinations of the conservative and growth/aggressive funds that the KiwiSaver providers offer. We observe that, in various instances, investors can combine existing funds to replicate a moderate or balanced fund with different transaction costs. In 12 out of the 16 cases, we find that the replicated fund is cheaper than the fund offered by their provider. This suggests that there is some mispricing in the fees charged for the various fund types that are offered by KiwiSaver fund providers.

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*In 12 out of the 16 cases, we find that the replicated fund is cheaper than the fund offered by their provider. This suggests that there is some mispricing in the fees charged for the various fund types that are offered by KiwiSaver fund providers.*

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## Methodology

We examine the replicability of KiwiSaver funds based on their conservative and growth strategies.

### Constrained OLS – fund replication

The first step in our analysis is the examination of whether funds can be replicated within a particular KiwiSaver fund provider. Specifically, we address the question of whether, say, a balanced fund or moderate fund is a linear combination of a conservative and growth fund. To examine this issue we rely on a constrained OLS methodology that allows estimation of a relationship between variables while imposing constraints on the coefficients that are being estimated. Specifically, we estimate the following model:

$$r_{it} = \beta_1 r_{cons,t} + \beta_2 r_{growth,t} + \varepsilon_t \quad (1)$$

This regression imposes the following constraints. First, we constrain the constant in the regression to be zero. Second, we constrain coefficients,  $\beta_1$  and  $\beta_2$ , to be greater than zero. Third, we add the constraint that the sum of the coefficients is equal to one (i.e.  $\beta_1 + \beta_2 = 1$ ). These restrictions imply that the coefficients,  $\beta_1 + \beta_2$ , can essentially be interpreted as allocations, or weights, that need to be put on the respective KiwiSaver funds.

To determine whether the allocations in two funds lead to a good replication of the fund in question (e.g. whether a balanced fund can be constructed out of a conservative and a growth fund), we perform a second regression to assess the fit of the replicated fund on the actual fund. Specifically, we regress

$$\hat{r}_{it} = \alpha + \beta r_{it} + \varepsilon_t, \quad (2)$$

where  $\hat{r}_{it}$  is the return of the replicated portfolio and  $r_{it}$  is the return of the actual portfolio. If the replicated portfolio fits the actual portfolio perfectly then we would expect  $\alpha = 0$  and  $\beta = 1$ . Whether the replicated portfolio fits the actual portfolio can be assessed through a joint test (*F*-test) on  $\alpha$  and  $\beta$  in Equation (2). In addition, if the replicated portfolio fits the actual portfolio well, we would expect a very high  $R^2$  for this regression.

Note that regressions such as Equation (2) and joint tests on the coefficients are commonly used in the financial forecasting literature, where a forecasted value is assessed against the actual realisation, and the coefficients and  $R^2$  are used to assess the forecasting performance of the specific forecaster (see, for example, Andersen et al. 2003).

Finally, we compute the fees on the reconstructed fund using the formula

$$\overline{fee} = \beta_1 fee_1 + \beta_2 fee_2, \quad (3)$$

where  $\overline{fee}$  is the reconstructed fee of the reconstructed funds, and  $fee_1$  and  $fee_2$  represent the fees of the conservative and growth funds, respectively.

## Data

We obtain monthly return data on KiwiSaver funds from Morningstar over the period September 2007 to April 2013. In Table 1, we present summary statistics on the funds in our sample, where we consider all funds used in the analysis. Average annual returns over the sample period range from 2.75 per cent (Grosvenor High Growth) to 9.71 per cent SIL Growth. For most of the funds we observe that the more risky strategies yield higher returns, but this is not the case for all funds. When we consider the annualised standard deviations of the funds we find that they range from 0.18 per cent (Staples Conservative) to 12.31 per cent (Tower Equity). In general, these standard deviations are rather low, especially considering that the sample period covers the global financial crisis. It suggests that many of the growth and equity funds have invested in relatively low-risk assets over this period, and perhaps even increased their holdings in fixed income securities. We note that all the funds display negative skewness, a common observation in financial time series. Kurtosis for most funds is close to three, suggesting there is little evidence of fat tails for most of the funds.

**TABLE 1: Summary statistics**

Fund	Average (%)	St. Dev. (%)	Min (%)	Max (%)	Skewness	Kurtosis
AMP Conservative	5.88	2.22	-1.25	1.86	-0.83	4.63
AMP Moderate	6.10	3.83	-2.77	2.72	-1.02	5.06
AMP Moderate Balanced	6.40	5.50	-4.24	3.59	-1.08	5.06
AMP Balanced	6.94	6.36	-4.85	4.19	-1.05	5.01
AMP Growth	7.05	8.88	-7.18	5.35	-1.12	4.99
AMP Aggressive	7.32	10.60	-8.70	6.23	-1.13	4.98
Aon Conservative	8.92	3.20	-1.60	2.08	-1.00	3.57
Aon Moderate	8.84	5.63	-3.97	3.12	-1.40	5.04
Aon Balanced	8.84	8.49	-6.64	4.69	-1.43	5.34
Aon Growth	9.00	10.41	-8.23	5.71	-1.37	5.14
ASB Conservative	5.57	1.58	-0.52	1.32	-0.43	2.91
ASB Moderate	6.50	3.33	-1.48	2.21	-0.19	2.50
ASB Balanced	6.85	5.33	-2.78	3.27	-0.21	3.57
ASB Growth	6.91	7.43	-4.08	4.32	-0.24	2.63

Fund	Average (%)	St. Dev. (%)	Min (%)	Max (%)	Skewness	Kurtosis
ANZ Conservative	6.61	1.52	-0.47	1.33	-0.73	3.05
ANZ Conservative Balanced	7.56	2.83	-1.46	2.13	-0.57	2.89
ANZ Balanced	8.30	4.33	-2.40	2.93	-0.55	2.86
ANZ Balanced Growth	8.98	5.88	-3.33	3.71	-0.56	2.84
ANZ Growth	9.63	7.45	-4.31	4.50	-0.56	2.86
BT Westpac Conservative	6.56	2.04	-0.98	1.65	-0.58	2.90
BT Westpac Balanced	7.45	5.10	-2.91	3.52	-0.47	2.83
BT Westpac Growth	8.17	6.25	-3.84	4.06	-0.55	2.97
Fidelity Conservative	6.11	2.92	-1.50	1.98	-0.67	2.91
Fidelity Balanced	5.39	5.07	-2.79	2.95	-0.54	2.48
Fidelity Growth	5.06	6.73	-3.70	3.92	-0.44	2.47
Grosvenor Conservative	6.10	2.29	-1.04	1.60	-0.42	2.72
Grosvenor Balanced	4.78	3.87	-2.76	2.56	-0.44	3.66
Grosvenor High Growth	2.75	8.10	-5.68	4.74	-0.36	3.06
Mercer Conservative	5.56	1.67	-0.68	1.19	-0.61	2.69
Mercer Balanced	6.12	4.76	-2.93	2.82	-0.70	2.98
Mercer High Growth	6.56	7.66	-5.09	4.60	-0.63	3.21
OnePath Conservative	6.77	1.45	-0.54	1.32	-0.72	3.78
OnePath Conservative Balanced	7.29	2.60	-1.69	2.14	-0.79	4.30
OnePath Balanced	7.65	4.01	-2.84	2.91	-0.81	4.15
OnePath Balanced Growth	7.99	5.47	-3.99	3.66	-0.83	4.04
OnePath Growth	8.30	6.99	-5.19	4.47	-0.83	3.98
SIL Conservative	6.68	1.53	-0.47	1.32	-0.74	3.01
SIL Conservative Balanced	7.65	2.84	-1.41	2.15	-0.54	2.81
SIL Balanced	8.33	4.35	-2.43	2.93	-0.55	2.85
SIL Balanced Growth	9.06	5.92	-3.42	3.72	-0.56	2.88
SIL Growth	9.71	7.49	-4.32	4.49	-0.57	2.86
Staples Conservative	3.09	0.18	0.16	0.40	0.45	3.86
Staples Balanced	9.12	5.95	-3.47	3.96	-0.47	2.96
Staples Growth	6.24	5.77	-5.69	3.43	-1.72	7.86
TOWER Conservative	6.36	2.15	-0.85	1.68	-0.32	2.89
TOWER Balanced	6.57	4.94	-2.56	3.20	-0.32	2.62
TOWER Growth	7.17	7.68	-4.65	4.68	-0.59	3.27
TOWER Equity	5.60	12.31	-7.44	8.05	-0.28	2.98

Note: This table presents summary statistics for the funds in the sample. All numbers are on a per annum basis.

## Empirical findings

In this section, we present the results for the analyses based on methodologies presented above. We start by assessing the replicability of KiwiSaver funds within a fund family.

### Replicability of KiwiSaver funds

To assess the replicability of KiwiSaver funds within a specific fund family, we select all KiwiSaver funds that have moderate or balanced funds (moderate risk) as well as conservative (low risk) and growth/aggressive funds (high risk). For these KiwiSaver funds, we examine whether it is possible to create a synthetic fund (based on a combination of conservative and growth funds) that tracks a balanced or moderate fund. We report our results for this analysis in Table 2.

In the first columns of Table 2, we report the results for the constrained OLS regression in Equation (1), where we replicate funds based on the conservative and growth funds of a KiwiSaver fund provider or, if available, we use the conservative and aggressive/equity funds. The coefficients we report are essentially the weights that one would have to put onto the respective conservative or growth funds in order to replicate the fund. Within specific styles, we observe that there is considerable variation in weights. For instance, Grosvenor Balanced consists of a mix of 66 per cent conservative and 34 per cent growth, whereas Aon Balanced consists of a mix of 25 per cent conservative and 75 per cent growth.

In the next three columns, we report the fit of the reconstructed funds. If the reconstructed fund fits the actual fund, we expect  $\alpha = 0$  and  $\beta = 1$ . Overall, we observe that this is the case for most of the funds. We further observe relatively high  $R^2$  values that are greater than 95 per cent in all but a few cases. The values for the  $F$ -tests indicate whether we can reject the null hypothesis that  $\alpha = 0$  and  $\beta = 1$ . In most cases (16 out of 28), we observe that we cannot reject this null hypothesis, but we find significant results for some of the funds (e.g. the SIL and ANZ funds do not seem to be simple replications of a Conservative and Growth fund; Staples Balanced is not a simple mix of the other funds either).<sup>3</sup> This can be because these funds indeed have different asset mixes (e.g. Staples Balanced, which produces an  $\alpha$  that is very different from zero, a  $\beta$  that is very different from 1; and a relatively low  $R^2$ ) or it could be due to some other factors (e.g. SIL Balanced, which produces a very high  $R^2$  and  $\beta = 1$ , but has a significantly negative  $\alpha$ ).

**TABLE 2: Replication of funds**

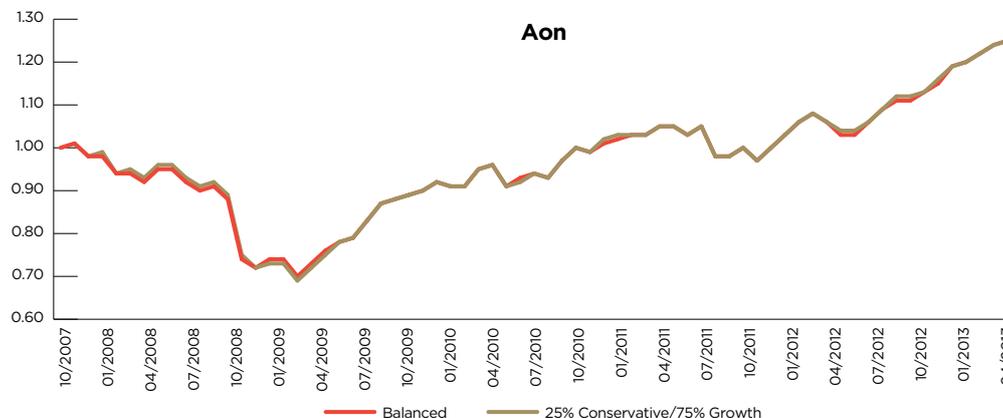
Fund	Constrained OLS					Fit of Reconstructed Funds					Fees	
	Conservative	Growth	Aggressive/ Equity	Alpha	Beta	R <sup>2</sup>	F-test	Fund Fees	Recon- structed Fees	Diff.		
AMP Moderate	0.73 (143.88)	0.27 (52.47)	0.21 (43.15)	0.012 (0.93)	1.01 (98.57)	99.34%	0.99	0.975%	0.9177%	-0.05734%		
AMP Moderate	0.796 (158.23)			0.018 (1.08)	1.01 (81.50)	99.03%	1.01	0.975%	0.9328%	-0.04225%		
AMP Moderate Balanced	0.49 (377.46)	0.51 (391.61)	0.41 (155.49)	0.005 (1.61)	1.00 (564.20)	99.98%	1.57	1.025%	0.9556%	-0.06942%		
AMP Moderate Balanced	0.59 (223.62)			0.0137 (1.61)	1.00 (225.37)	99.87%	1.76	1.025%	0.9775%	-0.0475%		
AMP Balanced	0.36 (66.49)	0.64 (118.06)	0.52 (127.32)	-0.021 (-1.51)	0.99 (161.02)	99.75%	2.68*	1.025%	0.9761%	-0.04888%		
AMP Balanced	0.48 (119.40)			-0.011 (-0.85)	0.99 (169.95)	99.78%	0.98	1.025%	1.0050%	-0.02%		
AMP Growth	0.19 (55.10)		0.81 (228.76)	0.017 (1.51)	1.00 (277.37)	99.92%	1.32	1.033%	1.0775%	0.0445%		
Aon Moderate	0.64(55.02)	0.36 (31.12)		0.038 (1.20)	0.98 (74.25)	98.82%	1.64	0.94%	0.9384%	-0.0016%		
Aon Balanced	0.25 (47.39)	0.75 (140.16)		0.214 (1.50)	1.00 (230.75)	99.88%	1.30	1.01%	1.0125%	0.0025%		
ASB Moderate	0.64 (63.22)	0.36 (35.81)		-0.028 (-1.08)	0.97 (61.98)	98.34%	2.99*	0.60%	0.5080%	-0.092%		
ASB Balanced	0.32 (49.19)	0.69 (107.16)		-0.022 (-1.34)	0.99 (146.57)	99.70%	1.66	0.65%	0.6110%	-0.039%		
ANZ Cons. Balanced	0.75 (307.60)	0.25 (103.25)		-0.011* (-1.75)	1.00 (210.73)	99.85%	3.08*	1.02%	1.0575%	0.0375%		
ANZ Balanced	0.51 (227.02)	0.50 (222.27)		-0.014*** (-2.70)	1.00 (347.40)	99.95%	4.88**	1.07%	1.1052%	0.0352%		
ANZ Balanced Growth	0.25 (147.43)	0.75 (436.52)		-0.009** (-2.19)	1.00 (591.58)	99.98%	3.23**	1.12%	1.1325%	0.0125%		
BT Westpac Balanced	0.29 (13.09)	0.71 (32.20)		-0.0167 (-0.49)	0.97 (54.72)	97.84%	2.14	0.65%	0.6565%	0.0065%		
Fidelity Balanced	0.50 (28.81)	0.50 (29.20)		-0.0228 (-0.75)	0.99 (61.48)	98.31%	0.72	1.19%	1.1550%	-0.035%		
Grosvenor Balanced	0.66 (97.63)	0.34 (51.25)		-0.017 (-0.99)	1.01 (115.64)	99.52%	0.76	1.07%	1.0380%	-0.032%		
Mercer Balanced	0.41 (70.70)	0.59 (103.64)		-0.00 (-0.06)	0.99 (167.04)	99.77%	2.10	0.72%	0.6888%	-0.0312%		
OnePath Cons Balanced	0.76 (175.99)	0.25 (57.05)		-0.008 (-0.78)	0.99 (117.17)	99.52%	1.03	0.60%	0.6106%	0.0106%		
OnePath Balanced	0.51 (12.62)	0.49 (12.23)		-0.016 (-0.19)	0.84 (17.95)	83.00%	6.51***	0.65%	0.6482%	-0.0018%		
OnePath Balanced Growth	0.25 (132.66)	0.75 (393.00)		0.001 (0.14)	1.00 (510.10)	99.98%	0.14	0.70%	0.6950%	-0.005%		
SIL Cons Balanced	0.75 (297.63)	0.26 (101.83)		-0.013** (-2.06)	1.00 (206.98)	99.85%	3.65**	1.06%	1.1096%	0.0496%		
SIL Balanced	0.51 (247.65)	0.49 (241.17)		-0.016*** (-3.34)	1.00 (386.35)	99.96%	7.01***	1.11%	1.1335%	0.0235%		
SIL Balanced Growth	0.25 (134.39)	0.75 (400.93)		-0.013*** (-2.99)	1.00 (557.98)	99.98%	5.47***	1.16%	1.1725%	0.0125%		
Staples Balanced	0.14 (2.15)	0.86 (12.78)		0.1647 (1.07)	0.71 (12.26)	69.81%	13.20***	1.05%	1.1440%	0.094%		
Tower Balanced	0.56 (25.14)	0.44 (19.40)		-0.014 (-0.30)	0.96 (42.79)	96.52%	1.43	0.98%	0.9724%	-0.0076%		
Tower Balanced	0.74 (57.03)		0.26 (19.70)	-0.031 (-0.68)	0.96 (43.75)	96.67%	2.76*	0.98%	0.9450%	-0.035%		
Tower Growth	0.43 (23.04)		0.57 (30.26)	-0.024 (-0.38)	0.95 (46.68)	97.06%	2.98*	1.09%	0.9997%	-0.0903%		

Note: This table reports results for the constrained OLS in Equation (1). The regression to measure the fit of the replicated funds (see Equation (2)) and the differences between actual fees and reconstructed fees. The F-test is a test for the joint significance of  $\alpha$  and  $\beta$ . Fund fees either represent total fees or total variable fees as they are reported by the funds in their investment statements.

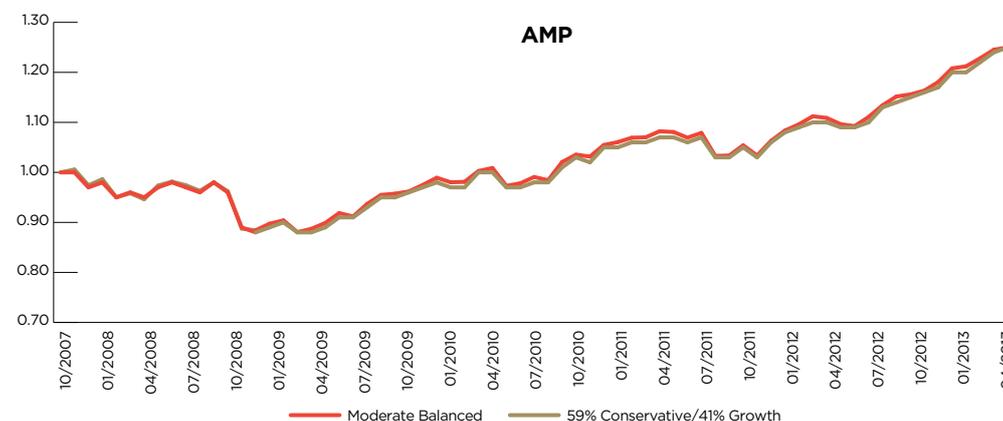
To provide a visual representation of the fit between actual and replicated funds, we show the performance of \$1 invested in the actual versus the replicated fund for the Aon Balanced fund (Panel A) and the AMP Moderate Balanced fund (Panel B). As can be seen from both graphs, the fit between the actual fund and the replicated one is very close.

**FIGURE 1**

**Panel A – Replication of the Aon Balanced fund**



**Panel B – Replication of the AMP Moderate Balanced fund**



The last column of Table 2 reports the fees of the actual fund versus the fees of the replicated fund (which are based on a weighted average of conservative and growth funds).<sup>4</sup> We note that of the funds that we can replicate successfully (i.e. those which produce an insignificant  $F$ -test), the difference between fees on reconstructed funds and the actual are mostly negative (12 out of 16 cases). For these funds we find that the average (median) difference between the fees on the reconstructed fund and the actual fund is -0.02 per cent (-0.025 per cent), and this average difference is significant with a  $t$ -statistic of 2.75 (Wilcoxon rank test statistic of 2.37). We find particularly large negative values for the AMP funds, suggesting that these funds can be replicated more cheaply than what they are offered to investors, whereas other funds, like Aon seem to price their funds relatively accurately.

## Conclusions

KiwiSaver funds and their performance have not yet been widely examined so far. The present study investigates a particular issue, namely, the replicability of KiwiSaver funds within a family of funds (based on their conservative and growth/aggressive strategies). Of the 28 funds we examine, 16 can be replicated from conservative and growth funds. Our results suggest that of those 16, 12 funds charge higher fees than if they were replicating the fund themselves. This difference is statistically significant, using standard statistical tests. The methodology outlined in this study thus presents a tool to check whether a fund's fee is in line with the different products that the same provider offers.

In general, the investors in KiwiSaver are not given the option to invest in a variety of alternatives as is the case, for example, in Australia. All KiwiSaver providers are private for-profit organisations. Effectively, investors are obliged to invest in a small menu of funds, normally five, with a selected number of fund providers. Moreover, as the size of investors' portfolios increases over time, fund providers tend to charge higher fees accordingly.

In Australia, the vast majority of providers of MySuper are non-profit organisations and they generally charge a fixed fee. In New Zealand, the KiwiSaver providers have more incentive to charge higher fees and the findings of our study suggest that some overcharge in cases where their products are simply a replication of their other existing products.

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## Notes

1. In New Zealand, there is evidence of negative savings among some portion of the public, with youth saving the least (Scobie and Henderson 2009). Further, when the KiwiSaver was introduced, less than 30 per cent of the labour force was covered by some sort of retirement plan (Kritzer 2007). The question of sufficient wealth accumulation and the adequacy of the current contribution rate have been studied in a recent paper by MacDonald et al. (2012). Applying stochastic simulation analysis, the authors indicate that the current rate of 6 per cent is far too low to ensure New Zealanders have sufficient retirement savings in the long term.
2. Details of KiwiSaver are available at <http://www.kiwisaver.govt.nz>
3. We highlight the funds for which we cannot reject the null hypothesis of replicability in bold.
4. Note that fees should not be compared between the different KiwiSaver providers as these funds do not represent the total fees charged in all cases. Fees are based on what fund providers report in their investment statements. Some providers only report total fees, some provide management fees, etc. However, the fees that we report capture all fees that vary across the different investment styles of the funds.

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# THE VALUE OF *Total assets*

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*The assessment of the market value of total assets is an important issue for stamp duty and tax purposes. In this paper, we re-evaluate the relationship between the value of the total assets of a business entity and its enterprise value (EV). In practice there are several methods commonly used to assess the value of total assets, based on various adjustments to the EV. However, our findings indicate that all of these adjustments are inappropriate, with the exception of the addition of the value of surplus assets to the DCF-based enterprise value. The total assets to which the market value standard is applied for tax and stamp duty purposes should include the net working capital assets. The correctly derived enterprise value reflects the market value of total assets.<sup>1</sup>*

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The value of total assets often becomes a contentious issue in what are known as 'land rich' cases where assessing the value of the total assets of an entity is relevant for tax purposes.<sup>2</sup> Typical 'land rich' issues arise in commercial transactions where the consideration for a 100 per cent equity interest in the entity is either observable or ascertainable.

The source of contention is whether the total value of assets is the same as the EV of the entity. The latter is the present value of the expected cash flows from that entity, which can be practically measured as the sum of the market value of equity (on 100 per cent controlling interest basis) plus the market value of interest-bearing debt.

By definition, the value of the total assets of a business entity is the present value of the expected future cash flows from these assets and one might intuitively expect that it would be uncontroversial that valuers, investors etc. should use enterprise value to assess the value of total assets (the EV method). However, in practice, this is not the case. In many instances, the commonly adopted method is to add the book value of the total liabilities of the entity to the observable or ascertainable implied value of the 100 per cent equity interest in the entity. There are several variants of this alternative method of assessing the value of total assets, where the value of total assets is variously calculated as EV *plus*:

- > book value of all non-interest-bearing liabilities and provisions; or
- > book value of working capital liabilities; or
- > book value of working capital assets; or
- > book value of net working capital assets; or
- > less commonly, other permutations and commutations of the above

These various methods are hereinafter referred to as the EV plus add-on method.

In order to illustrate the source of confusion and errors, Figure 1 provides a comparison<sup>3</sup> between a simplified accounting balance sheet and a simplified economic/valuation balance sheet.

**FIGURE 1: A simplified accounting balance sheet and a simplified economic/valuation balance sheet**

Accounting perspective			
Assets	\$m	Liabilities	\$m
Cash	1	Payables	1
Receivables	3	Interest-bearing debt	7
Producing assets	14	Equity	10
	18		18

Economic/valuation perspective			
Assets	\$m	Liabilities	\$m
Cash	1	Interest-bearing debt	7
Receivables	3	Equity	10
Less payables	(1)		
Net working capital assets	3		
Producing assets	14		
	17		17

The comparison in Figure 1 indicates that the economic/valuation perspective (underpinning the EV method) focuses on the forward-looking cash flow generating/maintaining capability of the going concern business and provides delineation between value creation and value distribution. This is because shifting trade payables to the asset side of the balance sheet makes this side of the balance sheet truly represent the ability of the existing economic resources underpinning the going concern business to create forward-looking cash flows/value at a given point in time, while leaving the right-hand-side or liability side of the balance sheet to represent the distribution of value between the providers of debt and equity capital to the business. This important delineation is blurred in the pure accounting balance sheet (underpinning the EV plus add-on method) due to its inherent focus on the separation of accounting assets from accounting liabilities.

In addition, given that the economic/valuation perspective focuses on the forward-looking ability of a business entity to generate cash flows and create value, it also better reflects what the business could be sold for at a given valuation date.

Figure 2 sets out a sample of 'land rich' cases where we have observed the incidence of the EV plus add-on method adopted by opposing experts<sup>4</sup> through our involvement as one of the valuation experts.

**FIGURE 2: A sample of 'land rich' cases**

Case	Type of 'land rich' cases	Subject of valuation	Nature of add-ons
A	Stamp duty	Mining assets	Non-interest-bearing liabilities <sup>(1)</sup>
B	Stamp duty	Mining assets	Non-interest-bearing liabilities <sup>(1)</sup>
C	Stamp duty	Aged care facilities	Non-interest-bearing liabilities <sup>(2)</sup>
D	Stamp duty	Aged care facilities	Non-interest-bearing liabilities <sup>(2)</sup>
E	Stamp duty	Aged care facilities	Non-interest-bearing liabilities <sup>(2)</sup>
F	Stamp duty	Aged care facilities and retirement villages	Non-interest-bearing liabilities <sup>(2)</sup>
G	Stamp duty	Airport facilities	Non-interest-bearing liabilities <sup>(3)</sup>
H	Stamp duty	Mining assets	Non-interest-bearing liabilities <sup>(3)</sup>
I	Stamp duty	Mining assets	Gross working capital assets
J	Income tax	Mining assets	Net working capital assets
K	Income tax	Mining assets	Net working capital assets
L	Income tax	Mining assets	Net working capital assets
M	Income tax	Mining assets	Net working capital assets
N	Income tax	Mining assets	Net working capital assets

**Notes:**

(1) Including (significant) deferred tax liabilities and provision for rehabilitation costs

(2) Including (significant) deferred tax liabilities

(3) Excluding deferred tax liabilities

The contentious issue arising from the land rich cases presents an interesting situation where what is virtually taken for granted in corporate finance theory is challenged in practice, with important flow-on tax implications. The aim of the paper is to conduct a conceptual re-evaluation of the relationship between the value of the total assets of an entity and its enterprise value.

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To this end, this paper re-evaluates the following conceptual issues:<sup>5</sup>

- > what is to be valued
- > the treatment of working capital assets in assessing Enterprise Value on a going concern basis
- > the distinction between the treatment of working capital assets on a going concern basis of valuation and a liquidation basis of valuation.

The re-evaluation of these issues, in turn, sheds light on the inappropriateness of the EV plus add-on method.

### **What is to be valued?**

There are three important questions in terms of what is to be valued. These are: what standard of value to apply; the basis upon which the standard of value is applied; and what constitutes the total assets being valued.

The standard of value most frequently adopted in practice is market value. This is usually defined as the price that would be negotiated in an open and unrestricted market between a knowledgeable, willing but not anxious buyer (WBNAB) and a knowledgeable, willing but not anxious seller (WBNAS) acting at arm's length within a reasonable timeframe. For such participants, the value of any asset or entity is the present value of the expected future cash flows from the asset or entity.

The question of what is included in the total assets being valued is closely linked to the purpose of a going concern commercial business or enterprise. A going concern business consists of a collection of assets which are combined with the intention of generating profits or cash flows. Thus, there must be an economic correspondence between the composition of the total assets being valued and the cash flow generating capability of the going concern business. In addition, there must also be a consistency between the standard of value and the subject to which the standard of value is applied.

Because the standard of value is market value, which is forward-looking in nature and hence (technically) based on forward-looking cash flows, the total assets to which that standard of value is applied must be those assets which generate or support forward-looking cash flows of the entity (total cash flow relevant assets). In simple terms, the total assets that are to be valued must be those which match, not overstate or understate, the forward-looking cash flow generating capability of the business.

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Furthermore, since for stamp duty and tax purposes, the total assets being valued are generally a collection of assets owned by a going concern business, the sale of which triggers the assessment of tax and duty liabilities, they should be valued on a going concern basis.

Confusion and errors arise in practice partly from the failure to recognise the fact that total assets can be characterised in a valuation sense or in an accounting sense. The total assets whose market value is to be assessed must be the total cash flow relevant assets, rather than the total accounting assets or some mix thereof. This is because:

- > Total cash flow relevant assets include only true assets which, in an economic sense, contribute to the forward-looking cash flow generating capability of the entity. In contrast, total accounting assets, on the one hand, may not include all of the true assets which contribute to the forward-looking cash flow generating capability of the underlying business, due to idiosyncratic accounting conventions. On the other hand, they may include pure accounting entries which have little or no cash flow consequences and, hence, have little or no bearing on the forward-looking cash flow capability of the business<sup>6</sup> and little or no market value.
- > Total cash flow relevant assets include opening net working capital assets which are, as explained below, consistent with the forward-looking cash flow generating capability of the entity as at that date, whereas total accounting assets include opening gross working capital assets, which inherently overstate the forward-looking cash flow generating capability of the underlying business.

### **The treatment of working capital assets in assessing Enterprise Value on a going concern basis**

From an economic and valuation perspective, in the case of a capital intensive or land intensive business which has no material goodwill value, the collection of assets employed by the business to support and maintain its cash flow generating capability at a given point in time can be broadly classified into two distinct types:

- > *Primary or producing assets* e.g. mining rights, mining equipment, mining and transport infrastructure for a mining business or land assets and bed licences for a residential aged care business.
- > *'Stabilising' assets* e.g. cash holdings and inventories that act as a buffer for the smooth forward-looking exploitation of the primary or producing assets. For example, cash holdings are required when revenue will be received after operating expenses have to be paid. Similarly, holdings of raw materials and consumables are required for the uninterrupted exploitation of the primary assets.

From an accounting perspective, total accounting assets include gross working capital assets due to the need to separate accounting assets from accounting liabilities for accounting purposes. This reflects how financial statements are required to be presented for accounting purposes.

From an economic and valuation perspective, the relevant question is: what are the levels of investors' funds 'tied up in' or invested in 'stabilising' assets? This is because the outcome determines what is available as a buffer for the smooth forward-looking exploitation of the primary or producing assets to generate forward-looking cash flows.

Gross working capital assets for accounting purposes inherently overstate the market value of economic 'stabilising' assets because some of those gross assets are held to settle short-term liabilities arising from past production activities.<sup>7</sup>

At a micro level, the manner in which the expected cash flows from the business and its Enterprise Value reflect the impact of the 'stabilising' net working capital assets is quite subtle.

While being convenient and practical, the discounted cash flow model (DCF) modelling based on discrete periods of a reasonable length (say annual) does not show any timing mismatch arising *within* each annual period from revenue being received *after* operating expenses are paid, which underpins the necessity of the economic 'stabilising' assets discussed earlier.

In simple terms, despite these assets not being apparently visible due to the natural focus and design of an (annual) DCF model, they should be reflected in the present value of the expected cash flows from a business entity because they are economically necessary to the generation of the projected cash flows visible from such a DCF model. The size of the 'stabilising' net working capital assets is not necessarily the optimal or required maximum or minimum size of the economic buffer they constitute. It only reflects what is in place to perform the economic function of the stabilising assets. The amount in place is time, cycle and sometimes 'chance' dependent. The 'chance' dependency is partly attributable to the susceptibility of the available net working capital assets to 'noise' caused by delays associated with payments and receipts of cash flows arising from past activities. Any material departure from the necessary amount of net working capital assets caused by the chance dependency factor should be 'corrected' by subsequent working capital injections or withdrawals which are readily allowed for within the DCF modelling and reflected in the assessed Enterprise Value.

However, subsequent working capital injections or withdrawals (to move from the existing level of working capital assets to a desirable level of working capital assets in the future) are distinct from the existing net working capital assets that are in place to perform the economic function of the stabilising assets, which are reflected in the Enterprise Value of the business entity.<sup>8</sup>

### **The treatment of working capital assets on a going concern basis versus a liquidation basis**

In assessing the Enterprise Value of a business which is a going concern business, the DCF modelling should naturally and technically pick up the cash flow impacts associated with the notional release of working capital on a net present value basis in the assessment of terminal value.<sup>9</sup>

However, confusion arises when the terminal value is assessed on a notional liquidation basis where the gross working capital assets as at the terminal date are used. In order to avoid this confusion, it is necessary to recognise that the terminal value assessed as part of the going concern Enterprise Value assessment is substantively different from terminal value assessed as at the terminal date on a standalone liquidation basis (i.e. in isolation from the going concern Enterprise Value assessment).

What needs to be assessed for tax and stamp duty purposes is the market value of total assets as at a valuation date, not the market value of total assets as at the terminal date. Because the business entity is still a long-lived going concern business, the going concern basis of valuation applies and the net working capital assets constitute the 'stabilising' assets as an appropriate constituent of the total cash flow relevant assets of the going concern business at that time.

### **Conclusion**

In assessing the value of the total cash flow relevant assets as at a given valuation date, it is generally incorrect to apply any of the variants of the EV plus add-on method. The correctly derived Enterprise Value of a going concern business (based on market value of interest-bearing debt and equity) implicitly makes allowance for the cash flow impacts of working capital assets and liabilities. It therefore represents the market value of total assets relevant for tax and stamp duty purposes, and also implicitly includes net working capital assets.

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## Notes

1. The authors would like to thank Michael Bradbury, Kevin Davis (the Managing Editor of *JASSA*) and an anonymous referee for providing insightful comments on earlier drafts of this paper.
2. In 'land rich' cases, the tax outcome depends either on the value of the land assets relative to the value of the non-land assets, or on the percentage of the value of land assets to total assets, depending on whether it is an income tax matter or stamp duty matter.
3. For simplicity, the present value effect is ignored.
4. For confidentiality reasons, we are unable to disclose specific details of these cases.
5. In order to simplify the analysis and avoid any confusion, we have assumed that the subject entity has no surplus assets. In practice, where there are surplus assets, the value of, or cash flows associated with, the surplus assets is usually separated from the present value of the expected cash flows from the core businesses of the entity. In such cases, it is common and appropriate to add the market value of the surplus assets to the enterprise value of the core business in assessing the overall enterprise value of the entity. However, this is substantively different from the various 'add-ons' that may be applied to EV under the EV plus add-on method, where there are no surplus assets.
6. Examples include unrecognised deferred tax assets, accounting deferred tax liabilities on wasting assets that will never be sold and contingent liabilities.
7. Gross accounting working capital assets also inherently overstate the economic stabilising assets in that they do not reflect present value.
8. The recognition of the distinct existing assets also implies that as long as these are 'employed' in the business, they should earn a fair return embedded in the total cash flows from the business.
9. Ultimately, working capital is released when the asset or enterprise terminates, at which time the net working capital flows to equity or debt. Assuming terminal value is correctly calculated in the DCF modelling, the present value of that release will be reflected in the EV. However, in practice, the terminal value is normally calculated by capitalising 'steady state' cash flows in perpetuity, where 'steady state' cash flows arise in the year in which there are no expected material changes in net working capital. Inherently, this does not allow for the ultimate release of working capital in the far distant future, although the present value impact of such treatment on the overall Enterprise Value assessment is generally immaterial.

# EVIDENCE OF THE BANKS' ROLE *in filling gaps in the exchange-traded derivatives market*

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*This paper examines the market capitalisation, relative trading volume and volatility of the S&P/ASX 200 Index constituent stocks. We classify stocks into three groups: stocks with listed exchange-traded options (ETOs); stocks with listed warrants but no ETOs (warrant-only); and stocks that have no listed exchange-traded derivatives. We find that ETO stocks have large market capitalisations relative to warrant-only stocks. However, ETO stocks do not have higher relative trading volumes or lower volatility compared with warrant-only stocks. When comparing warrant-only stocks with stocks that have no exchange-traded derivatives, warrant-only stocks are larger, have higher relative trading volumes and are more volatile. These results are consistent with banks taking advantage of the opportunity to profit by listing warrants on stocks that do not have ETOs.*

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Exchange-traded options (ETOs) and warrants are derivative securities traded on the Australian Securities Exchange (ASX). ETOs were first traded on the Sydney Stock Exchange (the previous entity to the ASX) in 1976 when it became the first exchange outside of North America to list ETOs over equities. However, it was not until 1991 that warrants trading began on the ASX. The stocks on which ETOs are listed are determined by the ASX Listing Guidelines (ASX 2012).

These listing guidelines require that:

- > the security must have an issued capital of at least AUD \$250 million
- > the security's relative liquidity must be greater than 20 per cent over six months (where relative liquidity is the total value of turnover, including off-market trades, divided by average market capitalisation)
- > the security must be a component of the S&P/ASX 200 Index (or likely to be in the near future)
- > the ASX must have two market makers willing to cover the ETOs.

Warrant creation and listing is, however, decided by the warrant issuer, typically an investment or domestic bank. Furthermore, warrants cannot be short sold and the buyers of warrants assume counterparty risk. However, for warrant-only stocks, the warrants (particularly vanilla call and put trading warrants) may act as a substitute in providing a security with similar contract specifications to those of ETOs. Some warrants, such as instalment warrants, also provide the investor with the opportunity to engage in a leveraged investment and thereby receive the dividends and associated franking credits of the underlying stock. Self-managed super funds limited to non-recourse borrowing may use this form of indirect leverage provided by the instalment warrants.

Mayhew and Mihov (2004) identify market capitalisation, volume and volatility as the characteristics that make stocks more likely to be selected for option listing as it is these characteristics that are likely to maximise the exchange's profit (from trading fees) through high trading volumes reflecting an increased capacity to trade (market capitalisation), investor interest (trading volumes) and the potential to profit on a speculative position or from meeting the needs of hedgers (volatility). The four central listing guidelines for ASX ETOs that are noted above are consistent with Mayhew and Mihov (2004) with respect to market capitalisation and volume. However, volatility is not mentioned in the guidelines.

Consistent with the ASX listing guidelines, stocks with ETOs are expected to be those with the largest market capitalisation and highest trading volume. But as volatility is a priori a driver of potential profitability for derivatives traders, banks may be expected to exploit the gap in the listing criteria used for ETOs by issuing warrants on stocks without ETOs that have high volatility, consistent with Mayhew and Mihov (2004). As banks issuing warrants are motivated by profit, they will maximise their own profit by choosing to issue warrants on stocks for which demand for the warrants issued is expected to be high.

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High-volatility stocks would be expected to have higher demand for the following reasons. First, investors would be more likely to hedge using warrants when volatility of the underlying stock is high. Speculators would also be most interested in the profitable opportunities available in warrants for which volatility in the underlying stock is high (Aitken and Segara 2005). This, coupled with evidence that the warrant market is overpriced, would be expected to motivate banks to issue warrants on underlying stocks with high volatility to help maximise both premium revenue and profit (Hunt and Terry 2011). Therefore, arguably, warrant issuers may also be willing to trade off-market capitalisation and volume to issue warrants on stocks with high volatility. As instalment warrants also provide a way for retail investors to obtain a 'buy and hold' leveraged position in a stock with less cash outlay than a direct purchase this also allows banks to potentially benefit from the implicit interest rates in the implied borrowings.

Furthermore, market-making obligations in ETOs are more demanding than the warrant issuer's market-making obligations. In order for the ETO market maker to receive discounted trading and clearing fees on their options for a top 20 ETO Class, the market maker must continuously quote in 48 options series around the money. For ETOs outside the top 20 stocks, the market maker is required to continuously quote in 24 option series around the money (ASX 2014). The ETO market maker is also required to provide 'orders on request for all series with up to twelve months expiration in the minimum quantity and at or within the maximum spread' (ASX 2014, p. 1). However, the warrant issuer only has to quote their static strike warrant listing.<sup>1</sup> This difference between the static quoting requirements of the warrant issuer versus the dynamic quoting obligations of the ETO market maker, coupled with the ASX ETO listing guideline that two market makers must commit to an ETO listing, sets a higher infrastructure bar (that also offers warrant issuers a listing opportunity in stocks that are derivatives listing candidates) to which ETO market makers are unwilling to commit.

This issue may have increasing significance in the future as the ASX has been faced with pronounced disengagement by their ETO market makers in recent years. Tibra and IMC Pacific have both cut their market-making commitments in ASX ETOs and Optiver publicly announced their resignation as an ASX Participant on 1 September 2014.

To examine whether banks exploit this opportunity, this paper examines the market capitalisation, trading volume and volatility of three categories of stocks that comprise the S&P/ASX 200 Index: those with ETOs; those with warrants only; and those with no exchange-traded derivatives.

## Data and analysis

This study examines the firm characteristics of the constituents of the S&P/ASX 200 Index as at 30 June 2014. Of the 200 stocks that comprised the index at that time, 71 had listed ETOs. Of the 71, 68 also had warrant listings; generally, the higher the company's market capitalisation, the more warrants that were listed. Of the remaining 129 companies, 79 had warrants only and the remaining 50 companies had no exchange-traded derivatives (i.e. no ETOs or warrants). For the six-month period from 1 January 2014 to 30 June 2014 the total value of ETOs traded was approximately \$14.6 billion compared with \$1.8 billion in total warrants traded.<sup>2</sup> While the ETO market is substantially bigger than the warrant market with respect to trading, the warrant market is still a sizable and important component of the exchange-traded derivatives market.

We begin by examining the 129 constituent firms that do not have ETOs. All 129 stocks passed the ASX \$250 million market capitalisation listing guidance test and only five stocks failed the six-month relative liquidity listing guideline. Clearly these listing guidelines provide necessary tests with very achievable hurdle metrics.

Table 1 provides an examination of the differences between the characteristics of stocks with exchange-traded derivatives (ETOs or warrants) and those that do not have exchange-traded derivatives. Market capitalisation is as at 30 June 2014 and the relative trading volume is measured as the previous six-month trading volume of the stock as a percentage of the number of shares on issue as at 30 June 2014. The relative trading value is measured as the previous six-month trading value as a percentage of the market capitalisation as at 30 June 2014,<sup>3</sup> while volatility is measured as the standard deviation of daily return over the 100 trading days up to and including 30 June 2014.

**TABLE 1: Characteristics of stocks with and without exchange-traded derivatives**

	Stocks with ETOs <sup>4</sup> (n=71)	Stocks with warrants only (n=79)	Stocks with no exchange-traded derivatives (n=50)	Difference between means (stocks with ETOs less stocks with warrants only)	Difference between means (stocks with warrants only less stocks with no exchange-traded derivatives)
Average market capitalisation	\$16.7 billion	\$2.1 billion	\$1.5 billion	\$14.6 billion (4.48)**	\$0.6 billion (2.29)*
Relative turnover (value)	57%	64%	49%	-7% (-1.06)	15% (2.23)*
Relative turnover (volume)	54%	62%	47%	-8% (-1.46)	15% (2.61)**
Volatility	24%	35% <sup>5</sup>	27%	-11% (-4.60)**	8% (3.28)**

Notes: z-statistics are provided in parentheses. \*denotes significance at 5%. \*\*denotes significance at 1%.

Consistent with expectations, the results provided in Table 1 show that ETO stocks have larger market capitalisations (eight times larger) than warrant-only stocks. If the ETO stocks are sorted by market capitalisation, the average market capitalisation of the bottom half of firms with ETOs is still almost three times larger than the average market capitalisation of firms with warrants only. While relative turnover (both value and volume) were not significantly different between the two groups, the larger market capitalisation and dollar turnover of ETO stocks provides greater potential for the value of related option trading. Consistent with expectations, we also found that volatility was significantly greater for warrant-only stocks (35 per cent per annum) compared with ETOs (24 per cent per annum). While Mayhew and Mihov (2004) find exchanges list exchange-traded options on stocks with large market capitalisation, high trading volume and high volatility, ETO listing in the Australian market is largely driven by market capitalisation.<sup>6</sup>

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For stocks in the S&P/ASX 200 Index that do not have ETOs, consistent with Aitken and Segara (2005) and using the Mayhew and Mihov (2004) characteristics of market capitalisation, trading volume and volatility as a guide for exchange profitability, it would be expected that banks would also maximise their own profitability on the basis of market capitalisation, trading volume and volatility for potential warrant issuances. Again, consistent with expectations, the results reported in Table 1 show that stocks with warrants only are significantly larger, have higher trading volumes and have higher volatility when compared with stocks with no exchange-traded derivatives.

## **Conclusion**

By examining the market capitalisation, trading volume and volatility of the S&P/ASX 200 Index constituent stocks with and without exchange-traded derivatives we find that ETO stocks have large market capitalisations relative to warrant-only stocks. This is consistent with Mayhew and Mihov (2004) with respect to market capitalisation. However, when compared with warrant-only stocks, ETO stocks do not have higher relative trading volumes or lower volatility. Consistent with Mayhew and Mihov (2004) when comparing warrant-only stocks with stocks with no exchange-traded derivatives, warrant-only stocks are larger, have higher relative trading volumes and are more volatile.

## **Acknowledgement**

The authors are grateful for the helpful suggestions of Carole Comerton-Forde, Kevin Davis, Steve Easton and the anonymous referee.

## **Notes**

1. Warrants are issued by banks on a one-off basis with a prescribed or 'static' strike price. The warrant issuer must generally make two-way bid and offer quotes in the static warrant strike for 90 per cent of the trading day (ASX 2007). An ETO market maker, however, is 'dynamically' obligated to quote over time on new series of options listed by the exchange with new strike prices, unlike the issuer of the warrant who is quoting on an unchanged product.
2. Trading value comparisons may not be reflective of comparisons between open interest (ETOs) and amounts on issue (warrants).
3. Relative turnover by value differs from relative turnover by volume as the prices of the trades used to calculate the trading value over the six-month period from 1 January to 30 June 2014 differ from the price as at 30 June 2014 when market capitalisation is calculated.
4. As Scentre Group was only listed on 25 June 2014 it was removed from the sample.
5. For Karoon Gas Australia Limited, the 100 trading days prior to it being placed in a trading halt on 25 May 2014 were used to calculate volatility.
6. Our results are robust when we exclude the three stocks that have ETOs but no warrants.

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# BACKDOOR LISTINGS

## *in Australia*

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*We study a large sample of Australian backdoor listings (BDLs) over the period from 1994 to 2014. BDLs account for roughly 13 per cent of all firms going public on the Australian Securities Exchange and are popular among hi-tech firms and those with foreign-domiciled assets. We find that the BDL market is likely influenced by the sentiment in the initial public offering (IPO) market, with the number of BDLs announced in a year being negatively (positively) correlated with the number of IPOs lodged (the percentage of IPOs withdrawn) in the prior year. Contrary to common belief, BDL transactions take longer to complete than IPOs, since they typically combine both a reverse takeover and the public listing process. Roughly three-quarters of our sample raised equity capital as part of the BDL process.*

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Backdoor listings (BDLs) have long been considered a viable alternative to IPOs for private firms seeking to list on the Australian Securities Exchange (ASX). In 2014, Australia witnessed a record number of BDLs, with these transactions being widely reported in the financial media.<sup>1</sup> This recent 'mining to tech' backdoor listing trend led Australian Securities and Investments Commission (ASIC) Commissioner John Price to raise a number of regulatory concerns about the BDL process.<sup>2</sup> Despite the popularity of BDLs on the ASX, Brown et al. (2013) is the only empirical Australian work that has been published in this area. While Kuo and Humphrey (2002) consider some of the key commercial, structural and regulatory issues surrounding BDLs, their discussion is largely qualitative in nature, relying mostly on anecdotal evidence. In view of this, the objective of this paper is to provide large sample evidence on various facets of BDL transactions, including their clustering across time and industry, origin of the private target, transaction format, deal size and consideration, regulatory approvals, related-party transactions, change of control, capital raisings, and transaction duration.

### **Backdoor listing defined**

Backdoor listing is a loosely defined term that generally refers to a sequence of structured intercompany events whereby a private/unlisted firm or asset (target) achieves a listing status through a reverse takeover (RTO) of a publicly listed firm (shell), using the corporate shell of the latter as a vehicle for going public. Some confusion exists as to what constitutes a BDL and this has been reflected in various media reports.

It is important to note that a change of control in the listed entity is critical to the BDL process. Without a change of control, the transaction is simply a change in the direction and/or scale of a listed entity's business, with target shareholders having no significant role in the merged firm after the takeover.<sup>3</sup> We assume a change of control has occurred if target shareholders collectively own a majority of the voting rights in the merged entity at the conclusion of the RTO prior to any capital raisings. In cases where a majority shareholding is not achieved, it is sufficient for target shareholders to have effective control if they, collectively, become the largest equity blockholder<sup>4</sup> and either dominate the board of directors or occupy the position of CEO/managing director of the combined firm.

*It is important to note that a change of control in the listed entity is critical to the BDL process. Without a change of control, the transaction is simply a change in the direction and/or scale of a listed entity's business, with target shareholders having no significant role in the merged firm after the takeover. We assume a change of control has occurred if target shareholders collectively own a majority of the voting rights in the merged entity at the conclusion of the RTO prior to any capital raisings.*

## Data

Our sample consists of 302 BDLs completed on the ASX between January 1994 and December 2014. The sample is identified through media search on Factiva. Each case is verified as a genuine BDL according to our definition by manual examination of the relevant public announcements disclosed by listed shells on Morningstar's *DatAnalysis Premium* database. For comparison purposes, we obtain a sample of initial public offerings (IPOs) spanning the same time period from the Connect4 database.

## Distribution of BDLs across years and industries

Figure 1 depicts the distribution of BDLs over the 1994–2014 period together with a breakdown by industry. Table 1 presents additional information on both BDL and IPO activity over the same time period. It is evident that BDL completion frequency is relatively low before 1999 and peaks in 2000 (coinciding with the dotcom bubble with 31 transactions completed). They remain active over the ensuing period (2001–04) before tapering off in the lead-up to the global financial crisis (GFC) when the IPO market was booming. BDL activity picks up again after the GFC, cumulating in another record year in 2014. Overall, BDLs account for 13 per cent of all firms going public during the 1994–2014 period.

**TABLE 1: Distribution of BDLs and IPOs by year**

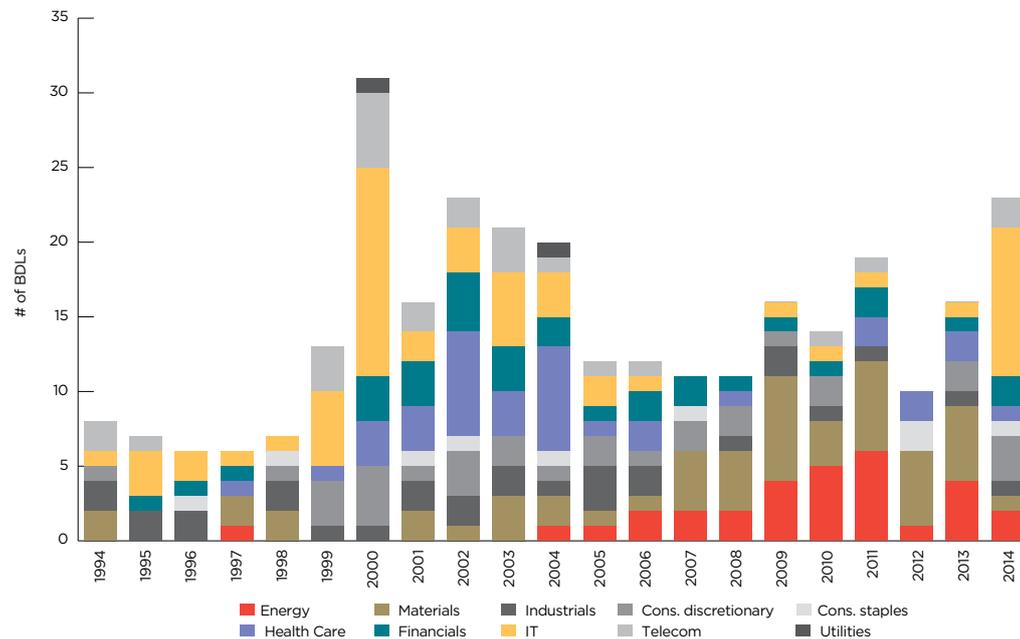
Year	BDL				IPO						All going-public Transactions		
	Announced		Completed		Lodged		Listed		Withdrawn		All	% BDL	% IPO
	No.	%	No.	%	No.	%	No.	%	No.	% of lodged			
1994	11	3.5	8	2.6	114	4.9	90	4.5	18	15.8	98	8.2	91.8
1995	7	2.2	7	2.3	44	1.9	37	1.8	4	9.1	44	15.9	84.1
1996	5	1.6	6	2.0	78	3.3	68	3.4	6	7.7	74	8.1	91.9
1997	7	2.2	6	2.0	79	3.4	76	3.8	9	11.4	82	7.3	92.7
1998	4	1.3	7	2.3	45	1.9	47	2.3	1	2.2	54	13.0	87.0
1999	26	8.2	13	4.3	112	4.8	106	5.2	1	0.9	119	10.9	89.1
2000	24	7.6	31	10.3	195	8.4	149	7.4	37	19.0	180	17.2	82.8
2001	21	6.6	16	5.3	70	3.0	59	2.9	20	28.6	75	21.3	78.7
2002	25	7.9	23	7.6	75	3.2	66	3.3	15	20.0	89	25.8	74.2
2003	19	6.0	21	7.0	110	4.7	91	4.5	8	7.3	112	18.8	81.3
2004	13	4.1	20	6.6	182	7.8	161	8.0	16	8.8	181	11.0	89.0
2005	16	5.0	12	4.0	191	8.2	172	8.5	20	10.5	184	6.5	93.5
2006	8	2.5	12	4.0	203	8.7	181	9.0	18	8.9	193	6.2	93.8
2007	9	2.8	11	3.6	250	10.7	247	12.2	22	8.8	258	4.3	95.7
2008	13	4.1	11	3.6	59	2.5	42	2.1	16	27.1	53	20.8	79.2
2009	17	5.4	16	5.3	48	2.1	38	1.9	5	10.4	54	29.6	70.4
2010	24	7.6	14	4.6	138	5.9	100	4.9	16	11.6	114	12.3	87.7
2011	9	2.8	19	6.3	114	4.9	106	5.2	28	24.6	125	15.2	84.8
2012	15	4.7	10	3.3	69	3.0	49	2.4	20	29.0	59	16.9	83.1
2013	16	5.0	16	5.3	62	2.7	59	2.9	13	21.0	75	21.3	78.7
2014	28*	8.8	23	7.6	94#	4.0	78	3.9	4	4.3	101	22.8	77.2
Total	317	100.0	302	100.0	2332	100.0	2022	100.0	297	12.7	2324	13.0	87.0

Notes: \*Includes 16 BDLs that are still ongoing. #Includes 14 IPOs that are upcoming floats.

**TABLE 2: Correlations between BDL and IPO markets**

	( <i>t</i> )	( <i>t</i> -1)	( <i>t</i> -2)
	# IPOs lodged		
# BDLs announced ( <i>t</i> )	0.043	-0.265	-0.106
	% IPO withdrawn		
# BDLs announced ( <i>t</i> )	0.081	0.208	0.322

The correlation coefficient (Table 2) between the number of BDLs announced in year *t* and the lagged (year *t*-1) number of IPOs lodged is -0.265. This seems to suggest that when the IPO market is booming, there is less demand for BDLs. In addition, the number of BDLs announced in year *t* is positively correlated with the percentage of IPOs withdrawn in year *t*-1 ( $\rho=0.208$ ) and year *t*-2 ( $\rho=0.322$ ). If a high percentage of IPOs withdrawn is a proxy for unfavourable IPO market conditions, the positive correlation indicates a higher subsequent demand for BDLs as an alternative route to public listing (i.e. a substitution effect).

**FIGURE 1: Distribution of backdoor listings across years and industries**

In terms of industry breakdown, Figure 1 shows technology firms (IT and telecommunications) dominate the two BDL peak years of 2000 and 2014, whereas the 2001-04 period has seen increased participation from the healthcare sector (biotechnology and life science firms). BDLs from the energy and materials sectors played a greater role during the 2007-13 period, coinciding with the later stages of the mining boom and subsequent downturn.

**TABLE 3: Breakdown of BDLs and IPOs by industry sector, 1994-2014**

Transaction type	Global Industry Classification Standard										
	10	15	20	25	30	35	40	45	50	55	Total
BDL	10.3%	16.9%	9.6%	10.3%	3.0%	11.9%	10.3%	18.5%	8.6%	0.7%	100.0%
IPO	10.2%	35.4%	9.4%	9.6%	2.4%	7.3%	14.7%	7.6%	2.1%	1.5%	100.0%

Note: The Global Industry Classification Standard (GICS) sectors are: energy (10), materials (15), industrials (20), consumer discretionary (25), consumer staples (30), health care (35), financials (40), information technology (45), telecommunication services (50), and utilities (55).

In aggregate, Table 3 shows IPOs are more concentrated than BDLs in the materials (35.4 per cent vs 16.9 per cent) and financial (14.7 per cent vs 10.3 per cent) sectors, whereas BDLs are more concentrated than IPOs in the health care (11.9 per cent vs 7.3 per cent), information technology (18.5 per cent vs 7.6 per cent) and telecommunications (8.6 per cent vs 2.1 per cent) sectors.

## Target domicile

**TABLE 4: Target domicile by region**

Region	No.	%
Australia	203	67.2
<i>Foreign</i>		
North Asia	21	7.0
Southeast Asia	20	6.6
North America	15	5.0
Africa	13	4.3
South Pacific	11	3.6
Europe	9	3.0
South America	5	1.7
Other	5	1.7
Total	302	100.0

The ASX is a popular destination for BDL by foreign firms (Table 4). Of the 302 BDLs sampled, close to one-third (99 cases or 32.8 per cent) of the targets are foreign (either their operations or assets are located outside of Australia). Asia is the leading source of foreign targets, with 21 and 20 of them originating from North Asia (predominately, China) and Southeast Asia (predominately, Singapore and Indonesia), respectively. Other significant sources of foreign targets include North America (15), Africa (13) and South Pacific (11, including New Zealand). By industry, the majority (51 cases or 51.5 per cent) of foreign targets are in the extractive industries (energy and materials). Indeed, 66.2 per cent of all extractive industry targets have their tenements/projects overseas.

## Transaction format

**TABLE 5: Transaction format**

Transaction format	No.	%
Share sale agreement	261	86.4
Public takeover	16	5.3
Scheme of arrangement	5	1.7
Acquisition of business and assets	20	6.6
Total	302	100.0

Table 5 shows the vast majority (261 cases or 86.4 per cent) of BDLs are structured by way of a share sale agreement. This is the case if the target is incorporated as a private company. If the target is an unlisted public company, the transaction has to be structured as a public, off-market takeover (16 cases or 5.3 per cent). In five BDL cases (1.7 per cent), the transaction is conducted as a scheme of arrangement, whereby shareholder approvals and formal court sanctions are required. The remaining 20 cases (6.6 per cent) are acquisitions of businesses and assets, popular if the private target is a real estate development asset.

## Deal size and consideration paid

**TABLE 6: Deal size, consideration and shareholding by target**

Variable	No.	Mean	Median	SD	Min	Max
Deal size (\$m)	302	38.4	12.8	107.0	0.6	1168.1
Cash consideration (\$m)	302	1.8	0.0	7.9	0.0	94.8
Share consideration (\$m)	302	36.5	11.6	106.3	0.6	1168.1
Shareholding by target (%)	302	65.8	66.7	18.2	20.5	99.4

*Note: All dollar values have been converted to 2014 dollar terms using the Consumer Price Index published by the Australian Bureau of Statistics.*

BDLs are typically small deals (Table 6). In 2014 dollar terms, the average deal size in our sample is \$38.36 million, with a median of \$12.76 million, indicating skewness to the right tail. The smallest and largest deals are \$0.64 and \$1,168 million, respectively. This contrasts with a mean (median) deal value of \$821.44 (\$133.19) million for a sample of 912 other successful acquisitions (other than RTOs) announced during the 1997–2014 period.<sup>5</sup> Note that our measure of deal size includes only consideration paid by the shells in the form of cash (average \$1.8 million) and shares (average \$36.5 million), suggesting shares account for 95.2 per cent of the total consideration paid. Contingent claims have also been used as a form of payment in BDL transactions. In total, 113 cases (37.4 per cent) involved options as part of the consideration and 60 cases (19.9 per cent) involved earn-outs or deferred payments that depend on certain pre-determined performance hurdles being achieved by the target. Earn-outs are common among BDL deals where the target is involved in technology or mining/exploration businesses and are seen as a way of protecting the shell shareholders from the inherent risk associated with the target.<sup>6</sup>

### Regulatory approvals

In Australia, there is no formal regulation of BDLs *per se*. There are, however, provisions in the Corporations Act and the ASX Listing Rules that may become operative and applicable to certain aspects of a BDL. The Corporations Act s 606 generally prohibits a person, or parties acting in concert, from acquiring a relevant interest in the voting shares of a public company if, because of the transaction, that person's voting power in the company increases from 20 per cent or below to more than 20 per cent. Section 611(7) provides an exemption to the prohibition if an acquisition is approved previously by shareholders by a resolution passed at a general meeting. To assist shareholders in assessing the merits of the transaction, the law also requires that shareholders be given all information material to the decision on how to vote on the resolution. In practice, an independent expert's report will normally be required, expressing an opinion on the fairness and reasonableness of the transaction to shareholders. Table 7 reveals that of all 302 transactions in the sample, the takeovers provisions are invoked in 212 cases (70.2 per cent).

**TABLE 7: Regulatory approvals**

Approval type	No.	%
<i>Corporations Act – Section 606</i>		
Invoked	212	70.2
Not invoked	90	29.8
<i>ASX change of activity</i>		
No significant change	14	4.6
Change to nature	45	14.9
Change to scale	51	16.9
Change to both nature and scale	192	63.6
<i>ASX re-admission requirement</i>		
No re-admission requirement	32	10.6
Re-compliance with Chs. 1 and 2 of Listing Rules	229	75.8
Shareholder approval only	41	13.6
<i>Related-party transaction</i>		
Related	66	21.8
Not related	236	78.2
<i>Name change</i>		
No change	59	19.5
Changed	243	80.5
<i>Prospectus</i>		
Not required	78	25.8
Required	224	74.2

ASX Listing Rule 11.1 deals with any proposed significant change to the nature or scale of activities by listed entities. Depending on how significant the change of activity is, the ASX may, at their discretion, require the listed entity to obtain shareholders' approval at a general meeting and re-comply with the requirements of Chapters 1 and 2 of the Listing Rules again as if the entity is applying for admission to the ASX official list. As Table 7 suggests, only 14 BDL transactions (4.6 per cent) do not constitute a significant change of activity. The remaining 288 cases are classified as significant changes of activities in nature (45 cases or 14.9 per cent), scale (51 cases or 16.9 per cent) or both (192 cases or 63.6 per cent). In excess of 80 per cent of all BDLs are also associated with the shell changing its name. In most cases the name changes to that of the target.

In terms of re-admission requirements (Table 7), 229 BDL cases (75.8 per cent) are required by the ASX to re-comply with Chapters 1 and 2 of the Listing Rules as if they are applying for a new listing while 41 cases (13.6 per cent) require shareholders' approval only. No shareholder approval or re-admission requirements are imposed on the remaining 32 cases (10.6 per cent). Close to three-quarters (74.2 per cent) of all BDLs issued some form of a prospectus or information memorandum for re-compliance and/or capital raising purposes.

### Related-party transactions

Table 7 also reports that of all the 302 BDLs, 66 cases (21.8 per cent) are considered related-party transactions. These transactions involve one or more of the vendors of the target being a director and/or substantial shareholder of the shell at the time when the transaction was announced. This indicates vendors of the target might already have a toehold in the shell before the transaction. As a safeguard against conflict of interest, related-party transactions are regulated by Chapter 2E of the Corporations Act and Chapter 10 of the ASX Listing Rules, requiring shareholder approval at a general meeting.

### Change of control

**TABLE 8: Change of control**

Control type	No.	%
Majority shareholding	238	78.8
Largest blockholder + BOD + CEO/MD	38	12.6
Largest blockholder + BOD	5	1.7
Largest blockholder + CEO/MD	21	7.0
Total	302	100.0

Target shareholders, on average, obtained 65.8 per cent of the shareholding in the merged entity at the conclusion of the RTO (prior to any concurrent capital raisings), with a range between 20.5 per cent and 99.4 per cent (Table 6). By control type, Table 8 reveals target shareholders gained control by acquiring a majority of the voting rights in the merged entity in 238 cases (78.8 per cent). Of the remaining 64 cases, target shareholders obtained control by becoming the largest blockholder of the merged entity (with a shareholding of between 20 per cent and 50 per cent) and dominating either the board of directors (5 cases or 1.7 per cent) or the CEO/managing director (21 cases or 7.0 per cent) or both (38 cases or 12.6 per cent).

## Concurrent capital raisings

**TABLE 9: Capital raisings**

Raising type	No.	Mean	Median	SD	Min	Max	Sum
<i>BDLs</i>							
No capital raising	68	0.0	0.0	0.0	0.0	0.0	0.0
Public offer (\$m)	148	7.4	4.8	10.8	0.2	102.5	1098.4
Private placement (\$m)	46	8.7	3.5	14.4	0.1	72.9	401.4
Rights issue (\$m)	8	13.7	6.4	16.9	2.5	52.6	109.5
Mixed offer (\$m)	32	13.3	6.3	24.9	0.8	139.5	426.6
Total (\$m)	302	6.7	3.2	13.3	0.0	139.5	2035.9
<i>IPOs</i>							
Public offer (\$m)	2022	94.6	9.7	590.2	0.3	22404.0	191306.3

Note: All values are converted to 2014 dollar terms using the Consumer Price Index published by the Australian Bureau of Statistics.

Not all BDLs involve capital raisings. As Table 9 shows, 68 cases (22.5 per cent) did not raise any equity capital, suggesting the shell was essentially a cash box or market conditions were not favourable for raising capital at the time. For the remaining 234 cases where capital raisings are involved, the mean and median proceeds (in 2014 dollars) are \$8.7 million and \$4.8 million, respectively. The smallest amount of capital raised is a mere \$0.12 million while the largest raising is \$139.5 million. In terms of capital raisings by type, 148 cases are public offers, 46 cases are private placements, eight cases are rights issues and 32 cases involve mixed offers (more than one offer type).

## Transaction duration

**TABLE 10: Transaction duration (days)**

	No.	Mean	Median	SD	Min	Max
All BDLs	302	174.3	139.5	122.8	36	1216
<i>ASX re-compliance requirement</i>						
Yes	229	189.1	155	131.1	41	1216
No	73	127.8	108	76.1	36	541
<i>Capital raisings</i>						
Yes	234	184.3	148.5	131.8	38	1216
No	68	139.5	126.5	76.2	36	541
<i>By capital raising type</i>						
Public offer	147	194.6	162	139.9	50	1216
Private placement	46	155.4	120.5	93.3	43	394
Rights issue	8	153.0	138	111.0	38	405
Mixed offer	32	190.5	135	142.8	41	618
<i>By transaction format</i>						
Share sale agreement	261	170.6	135	125.8	36	1216
Public takeover	16	182.6	162	77.4	93	390
Scheme of arrangement	5	212.0	180	95.8	134	363
Acquisition of business and assets	20	205.9	185	119.2	64	418
<i>All IPOs</i>						
From lodgement to listing	2022	60.2	51	34.7	12	414
From kickoff to listing	2022	102.2	93	34.7	54	456

Market folklore has it that it is quicker to complete a BDL than an IPO in the process of going public. Table 10 presents evidence on the duration (in days) of BDL transactions, measured from the first announcement date by the shell to the completion date, where the latter is taken as the date the merged entity is re-admitted to the ASX (if re-compliance with Chapter 1 and 2 of Listing Rules is required) or the official date the RTO is completed (if no re-admission to the ASX is required). For BDLs, the mean (median) duration is 174.3 (139.5) days, respectively. Due to an outlier (max = 1,216 days), we focus on the median rather than the mean.

Sub-sample results show BDL transactions with ASX re-admission requirements (155 days) generally take longer to complete than those without re-admission requirements (108 days). Cases with concurrent capital raisings (148.5 days) require more time to complete than those that raise no capital (126.5 days). By capital raising type, BDLs with public offers take the longest (162 days) while those with private placements take a median of 120.5 days, with rights issues and mixed offers lying in between. In terms of transaction type, BDLs structured as share sale agreements are the fastest to execute (135 days), followed by off-market public takeovers (162 days). Scheme of arrangement transactions tend to take longer to complete (180 days), probably due to the more formal procedures (e.g. court sanctions) involved. Interestingly, BDLs structured as acquisitions of business and assets have the longest transaction duration (185 days).

For comparison, we compute two measures of transaction duration for our IPO sample. The first measure captures the number of days from the prospectus lodgement date with ASIC to the listing date. The mean (median) IPO duration is 60.2 (51) days, respectively, which is shorter than that for BDL transactions. We obtain a second measure of IPO duration (from date of kick-off meeting between IPO firm and investment bankers/underwriters until listing date) by adding 42 days<sup>7</sup> to our first measure. This results in a mean (median) IPO duration of 102.2 (93) days, which is still lower than that for BDLs. Note that the duration measure for BDLs does not take into consideration the initial planning and negotiation stages undertaken by the target prior to the formal deal announcement by the shell. Kuo and Humphrey (2002) estimate it typically takes a target up to four weeks from the initial appointment of advisers through to execution of the term sheet with the shell. Adding another four weeks to our BDL duration measure would render the difference between the two types of going-public transactions even greater.

## Conclusion

Evidence from a sample of 302 Australian BDLs suggests they are not necessarily simpler or faster than the IPO process. BDLs are essentially a combination of a RTO and the public listing process. As a result, more regulatory approvals are required and they take longer to complete than IPOs. This finding has implications for entrepreneurs/owners of private firms contemplating a public listing via the backdoor route.

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## Notes

1. See, for example, 'Record numbers queuing up for backdoor listings' by Nick Abrahams published in *The Australian Financial Review* on 30 September 2014.
2. 'ASIC raises red flag over "mining to tech" backdoor', by Tess Ingram published in *The Australian Financial Review* on 31 July 2014.
3. For example, the listed firm can acquire the private target by paying all (or majority of) the consideration in cash.
4. We require target shareholders to own at least 20 per cent of the shares in the merged entity.
5. This sample of other acquisitions is obtained from the Connect4 database.
6. The lack of information in assessing the value of these contingent payments means they are not included in our calculation of deal size.
7. Evidence from Floros and Shastri (2010) on US penny stock IPOs shows that the median duration between the kick-off meeting and prospectus registration date is approximately 42 days.

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*SPECIAL SECTION  
ON THE FINANCIAL  
SYSTEM INQUIRY:  
PAPERS FROM  
ANZSFRC*

# THE FINANCIAL SYSTEM INQUIRY *Introduction by the Guest Editor*

DAVID G MAYES F Fin, Professor of Banking and Financial Institutions, University of Auckland and Member, Australia–New Zealand Shadow Financial Regulatory Committee

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*In this Special Section of JASSA on the Financial System Inquiry, five members of the Australia–New Zealand Shadow Financial Regulatory Committee (ANZSFRC) offer their independent critiques of the assessment and recommendations in the recently completed Financial System Inquiry (FSI) in Australia. The ANZSFRC has not, as yet, produced a joint statement on the inquiry. Since Kevin Davis SF Fin, the Managing Editor of this journal, was both one of the five panel members of the FSI Committee and still is co-chairman of the ANZSFRC, these papers have been produced independently.*

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Australia is unusual in that it has conducted three such inquiries in the past 35 years. This reflects a rare willingness to conduct fundamental public reviews of a country's financial system. It is not that Australia has obviously had more problems than everybody else. Indeed, as a result of these fundamental reviews it is likely that Australia's problems are somewhat less pronounced than in other countries, as changes usually follow perceived problems where the outcomes have been unwelcome. Remarks about stable doors and bolted horses spring to mind. It is rare indeed to consider possible problems and make changes in advance of difficulties. Regulatory change tends to be an exercise in avoiding the problems of the past. In this case, the objective as set out in the Terms of Reference was clearly forward-looking:

The inquiry is charged with examining how the financial system could be positioned to best meet Australia's evolving needs and support Australia's economic growth. (Final Report, p. vii)

The Terms of Reference are comprehensive, covering more than two pages of the report with eight headings and fourteen subheadings.

The five contributions in this special section clearly indicate that the authors all welcome the findings of the inquiry and are generally supportive of its conclusions. However, in part, this is a reflection of the perception that following the global financial crisis (GFC) Australia does not have striking problems in financial regulation that are not already being addressed.

The five contributions follow the order of the main five chapters in the Final Report of the inquiry: resilience (David Mayes F Fin); superannuation and retirement incomes (Rafal Chomik and John Piggott); innovation (Deborah Ralston SF Fin); consumer outcomes (Andrew Worthington F Fin); and regulatory system (Rodney Maddock). There is neither room nor need to repeat the summary of each of them here as it is to be found both on the contents page and at the start of each contribution. The first 31 pages of the Final Report present an overview, following an executive summary. These suggest that the five chapters respond to the main problems that the inquiry has identified as a result of weaknesses in the Australian financial system (p. xiii) stemming from:

- > taxation and regulatory settings distorting the flow of funding to the real economy
- > susceptibility to financial shocks
- > superannuation not delivering retirement incomes efficiently
- > prevalent unfair consumer outcomes
- > policy settings that do not focus on the benefits of competition and innovation.

To an outsider from across the Tasman, the inquiry is not very outward-looking. Are there features to the Australian financial system which make it different from the rest of the developed world? Are there aspects of good regulation and efforts to foster an environment for change and growth that exist elsewhere that are not (yet) adopted in Australia? To pick two examples from my own chapter: it is not clear to me that the balance between funding from the four major banks and other sources is necessarily optimal for growth, innovation and the absorbance of shocks. In addition, the GFC has emphasised the importance of contagion across borders and the importance of close cooperation and even joint institutions in the case of Europe. Yet the Report does not consider New Zealand, which although small could still cause significant problems for Australia — and indeed vice versa.

One might also quibble that the extent to which continuing revelations of problems with the culture and ethics of financial institutions and markets have been underrated. However, the complaints about what the inquiry has not done and what the recommendations should say are second-order concerns compared to the support for what the inquiry has done. That is a very considerable vote of confidence.

# RESILIENCE

DAVID G MAYES F Fin, Professor of Banking and Financial Institutions, University of Auckland and Member, Australia–New Zealand Shadow Financial Regulatory Committee

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*This paper appraises the Financial System Inquiry's proposals for making the banking system more resilient by increasing capital buffers to reduce the chance of bank failures and by improving the resolvability of banks with minimum real impact should they fail. It concludes that the main problems lie in the area of resolvability, where Australia has taken limited steps compared with the rest of the OECD. Many questions need to be answered before satisfactory arrangements in line with the Financial Stability Board's recommendations can be introduced. On capital buffers, it is not clear why Australia should want to exceed the recommended levels or why the Basel Committee's proposed leverage ratio should be omitted. Surprisingly, the inquiry does not discuss whether the balance between Australia's big four banks and other sources of finance is best for resilience.*

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*The Financial System Inquiry 2014, Final Report*<sup>1</sup> sets out its fundamental belief (p. 3):

The inquiry believes the financial system [performs its role] most effectively when it operates in an **efficient** and **resilient** manner and treats participants **fairly**. This occurs when participants fulfil their **roles and responsibilities** in a way that engenders confidence and trust in the system. [emphasis in original]

The report then elaborates on the meaning of each of the inquiry's emphasised concepts. I propose to focus on just one of these, resilience, which is the topic of Chapter 1 of the Final Report. With eight recommendations (which are set out in the Appendix), perhaps even this is too much ground to cover properly.

The inquiry defines resilience as: 'the financial system's capacity to adjust to both the normal business cycle and a severe economic shock' (p. 4). It emphasises that 'A resilient system does not preclude failure' and, more controversially, 'nor necessarily imply price stability'. Building on that statement, the report indicates:

Rather, a resilient system can adjust to changing circumstances while continuing to provide core economic functions, even during severe but plausible shocks. In a resilient system, individual institutions in distress should be resolvable with minimal costs to depositors, policy holders, taxpayers and the real economy.

It then examines the main characteristics of the system required to achieve this, focusing largely on the capital cushion that banks are required to hold and the nature of the resolution regime for handling bank failures.

This position reflects the conventional wisdom that banks should have a much better capital buffer than previously but, if that buffer fails, the banks should all be resolvable overnight without recourse to public money. But given that in practice Australia's four large banks are 'too big to fail', implementing the inquiry's recommendations would represent a substantial step forward. My remarks therefore start with the issue of resolvability and then examine the issue of capital adequacy, before concluding.

First, however, a preamble is in order because the inquiry does not start with an analysis of the resilience of the financial system and its constituent parts but instead focuses fairly quickly on the banks, particularly the four major banks.

## **Preamble**

One might want to start by considering whether the structure of the system is best for resilience. Should there be less reliance on banks, and more on equity markets and on commercial bond markets in particular? These markets are often referred to as a 'spare tyre' in the event of banking problems.<sup>2</sup> Much is said about shadow banking; for example, it may contribute to resilience by absorbing shocks. Ironically, volatility in one sector may help in ensuring the stability and resilience of the system as a whole. The more the banking system is concerned with financing higher risk activity, which is itself essential for a vibrant economy, the more it has to be able to absorb the consequent risks. Especially, since the main banks are so large, this involves building up major capital buffers associated with the whole of the banks' activities. There are major issues here about what the most appropriate structures of the financial system in Australia might be, say, in comparison with the US, where the sources of finance are more diverse and the concentration in the banking system is lower, and also with continental Europe where the focus on the banks is even greater and the financial system is consequently more vulnerable because the ratio of bank liabilities to GDP is relatively high.

The second facet to the structure of the Australian financial system which is ignored in the FSI Report is New Zealand. New Zealand may only represent 15 per cent of the Australian banks' assets but that is enough for it to be a threat to financial stability in Australia. Australia is, of course, a much greater threat to the resilience of the financial system in New Zealand, since the same four banks hold 85 per cent of the New Zealand market. The problems of resolving cross-border banks (when they fail) dominate the discussion about the world's largest banks because coordination among authorities has proved too difficult. The US and the UK propose to solve this through using what is described as the Single Point of Entry (SPOE) approach,<sup>3</sup> whereby the home country resolves the parent and thereby keeps all of the systemically important functions in the other host countries operating without the need to enter insolvency proceedings or elaborate joint actions with other authorities. (The EU approach is less clear and it remains to be seen how the Single Resolution Board (SRB) will seek to balance SPOE and its counterpart MPOE (multiple point of entry), as it is yet to start operating.)

New Zealand has effectively given up on having a coordinated discussion on this subject with Australia which does not involve the use of taxpayers' funds and has therefore implemented its own 'Open Bank Resolution' (OBR) scheme<sup>4</sup> that requires treating the retail operations in New Zealand as being completely separate both functionally and legally. It is by no means clear that this is the optimal solution for either country, but it is a logical one for New Zealand given the apparent lack of interest in this issue within Australia. It is a pity that the inquiry did not deal with this even in passing as strong New Zealand subsidiaries would help resilience in Australia and weak subsidiaries would harm it.

## **Resolvability**

Recommendations 3, 5 and 6, shown in the Appendix, handle resolvability. Recommendation 3 suggests that something like what is well on the way to agreement internationally through the FSB<sup>5</sup> should be implemented in Australia, but Recommendation 6 on maintaining ex post funding for the Financial Claims Scheme, Australia's version of guaranteeing ordinary deposits, is not. Both the EU and the US have decided that implementing a resolution, particularly for a large institution is likely to require some funds for the resolution authority. In the US, the FDIC, their deposit insurer, already has considerable funds raised from levies on the banking industry, which it frequently uses in the resolution of smaller banks. In the case of the largest US banks, the FDIC now has access to an Orderly Liquidation Fund through the Orderly Liquidation Authority as part of Title 2 of the Dodd-Frank Act. These funds are available through the government and can be topped up as necessary. Any such funding is expected to be temporary and merely provides the means of keeping the institution operating while recapitalisation, writing down of claims or realisation of assets enables the sums to be repaid.

In the US case, it is expected that a bridge bank (and possibly more than one) run by the FDIC will be set up to manage the affairs of the failed bank in the interim and it is this which requires the financial backing. In the EU, it is hoped that a small resolution fund (up to 0.8 per cent of liabilities) will suffice, raised from the banks themselves progressively over a period of eight years. In this case, it is unclear where any back-up funding would come from if the funds ran out, as with a cross-border bank such funding might effectively be going to another country. With SPOE that particular worry should not arise.

The inquiry offers two arguments against ex ante funding. The first is that it 'would be an ongoing cost for all ADIs' (p. 83) and the second is '[b]ecause Australia's depositor preference arrangements reduce the risk of an ADI's assets being insufficient to meet insured deposits' (p 83). In this, Australia is not any different from either the US or the EU, where depositor preference will prevail (although in the EU such preference cannot be applied merely to domestic depositors as in Australia – something that would also need to change under SPOE). Hence, we have to look for some line of argument in favour of the inquiry's approach that is generally applicable and not Australia-specific.

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Taking the second argument first, it seems likely that the requirements for TLAC (total loss absorbing capacity) that is going to be placed on banks will be sufficient to cover all but the most extreme failures. (Of the large bank failures – that is large relative the country's GDP – only the case of Anglo-Irish Bank in Ireland would not meet these requirements.)<sup>6</sup> TLAC, however, merely puts the balance sheet straight. It first writes down the claims of shareholders and then the claims of creditors in increasing seniority under the same terms as under insolvency until either the losses are expunged (as in the New Zealand OBR) or until the bank is recapitalised up to the regulatory minimum as in the EU under the EU Bank Recovery and Resolution Directive (BRRD). There are few instances where, if the proposed rules under the BRRD had been applied in the failures in the EU during the GFC, senior (unsecured) debtholders would have been called on and then this would not have got as far as the preferred depositors, whether or not insured.<sup>7</sup> Even in the case of the major failures of the three main Icelandic banks it looks as if the senior bondholders will have just enough value that the depositors will not lose out after the liquidations are completed.

Thus, under a resolution of the larger banks it appears that deposit guarantee funds will normally be repaid. It is only the smaller banks that may require a permanent contribution from the deposit guarantee fund. These banks can be allowed to fail and cease operating under the new *lex specialis* (special insolvency regimes) such as the BRRD, which are being implemented to keep the vital functions of large banks operating. This, therefore, seems to support the inquiry's view that an ex ante fund would be unnecessary. What tips the balance is the fact that quite considerable funds may be needed in the interim before the deposit guarantor is repaid from the insolvency.

Who should pay for such funds? Should they be at the discretion of the government? One of the advantages of an ex ante fund is that they are levied on the whole banking industry including the bank which fails rather than simply on the survivors. Also, the resolution authority will have access to the funds within the terms of the legislation. This then makes their use a technical decision based on what will be the lowest cost and the lowest impact to the real economy (and hence the taxpayer). With ex post funding it remains a political decision. In any case, a cost-benefit assessment might be a sensible way forward and in the case of the EU the finding in favour of the fund was clearly positive.

One of the major gains from implementing the new resolution legislation around the world is that it would make resolution of any bank plausible ex ante without the use of taxpayer funds. This, it is hoped, will reduce the moral hazard, both encouraging banks and their shareholders to ensure that they manage their risks well because the shareholders and the senior management will be the first to be hit in a resolution, and encouraging the shareholders to find a market solution – i.e. a ‘recovery’ rather than a resolution, which at least enables them to retain some value and control.

Australia has not yet put into effect a version of the lex specialis, such as the BRRD<sup>8</sup> or the OBR in New Zealand, and the inquiry rightly advocates getting on with this job, which was proposed in 2012 but put on hold until the inquiry reported. However, it advocates omitting one facet, which forms part of the Dodd-Frank Act and 2013 Banking Act in the UK, namely, some requirements for separating the riskier ‘non-banking’ activities from the banking activities that need to be saved. In the Dodd-Frank Act it is a version of what is known as the Volcker Rule and in the UK it is a version of the ring-fencing advocated by the Vickers Report. (The EU legislation, proposed in January 2014,<sup>9</sup> following the Liikanen Report<sup>10</sup> seems to have stalled, but Belgium, France and Germany at least have implemented their own legislation.)

The inquiry’s reasons for not following the general pattern are: ‘These measures can have high costs, and require changes in all institutions regardless of the institution-specific risks. Neither APRA nor the RBA nor the banking industry saw a strong case for these reforms.’ (No surprise in the last case of course.) It is possible to have some sympathy for the inquiry’s conclusion for a different reason. There has been little agreement internationally about how to impose these restrictions.

Whatever is decided, each bank must be resolvable in a manner which seems plausible ex ante to all parties, including the resolution authority and the shareholders of the bank. Australia is a long way from both this and plausible recovery plans without bank failure.

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## **Capital buffers**

As a G20 member, Australia is a party to the discussions about capital buffers through the Basel bodies and hence one would expect that the inquiry would conclude that it should at least follow the standards being set. In Recommendation 7 (see Appendix), the inquiry focuses on one area where Australia has decided not to implement the Basel III recommendations, namely in the use of a leverage ratio as a backstop, and it argues that such a backstop should be added. The inquiry does not rehearse the rather weak arguments that have been advanced in Australia (and New Zealand) for not having the backstop but it also does not really draw out the main argument in favour of this.

The history of detecting banking problems from declines in risk-weighted capital is at best poor. The measure is most misleading for large banks when they are getting into trouble.<sup>11</sup> A leverage ratio is more difficult to finesse and it is much more obvious to outside observers. Over-optimistic assessments of risk are a normal feature of banking problems and widely held over-optimism is usually a characteristic of crises. Hence, risk-weighting is inherently likely to be a weak measure just at the time it is most needed. A leverage ratio offsets this. Given the inquiry’s enthusiasm for higher than average standards in Australia, the question is: why have they simply advocated the use of the minimum agreed ratio as a backstop rather than adding a more ambitious ratio as a normal part of the capital buffer?

The inquiry's explanation of the nature of the international agreement on buffers is very clear and its Figure 3 on p. 39 will no doubt be used widely in teaching on the subject. However, their justification of why the main Australian banks should seek to have capital buffers in the top quartile of international banks is difficult to understand. For a start, if international banks generally are under- or over-capitalised, why should Australia follow the trend? The appropriate height of buffers should reflect the risk of the individual banks, the Australian financial system and the country as a whole to shocks. The extent of exposure to volatile commodity prices is one reason why Australia might wish to have above-average requirements, as is the high concentration in the banking system, but the AAA rating for the country suggests that the absorptive capacity of the country in the face of shocks is thought to be high. An argument not raised by the inquiry is that since it is not advocating any division of financial institutions into riskier and core banking elements, the overall risk of Australian ADIs may be greater than that of their counterparts.

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The inquiry does not recommend either a specific level for capital ratios or a specific increase over current levels. It merely suggests that the benefits from greater resilience are considerable and the costs of raising such extra capital are small by comparison. The interesting question which the inquiry does not address is where the extra capital should lie in the spectrum of loss absorbing capacity. The implication is that it should be equity but it is not clear whether the extra cushion should occur at the next level up through hybrids and debt that can be converted into equity on the basis of objective triggers that lie above the regulatory limits. The advantage of using such instruments is that they threaten to dilute the equity of the existing shareholders, thus giving them an extra incentive to act early and assess risk carefully. Furthermore, it adds a second group of stakeholders who have something at risk even if a bank only has to go through a recovery program and not a resolution. Such an incentive for greater monitoring is clearly a help.

There are of course downsides, as having the threat of this bail-in will tend to bring forward the point at which the banking problem becomes reflected more widely in asset prices rather than just the stock of the affected institution.<sup>12</sup> However, an incentive to earlier action may be exactly what is needed to keep the costs of the crisis down.

### **Concluding remarks**

Views will differ on whether the inquiry has made the right recommendations on resilience but it has clearly produced a helpful basis for debate and raised most of the issues which need to be considered. If the authorities simply follow their advice, the debate is likely to be a move in the right direction. Legislative action to ensure resolvability is a high priority as here Australia is clearly behind the major countries. Here, in particular, I think there is room for modification, both in including New Zealand and in ensuring that there are adequate funds available to handle the four major banks and make their likely resolution without a bailout appear credible. It would be a major step forward to put the whole process of recovery through enhanced capital buffers and resolution through loss absorbing capacity that does not have significant adverse effects on the real economy into a single coherent framework would be a major step forward. This would put Australia towards the forefront of preparedness for resilience rather than being somewhat behind in some areas as it is at present. At least, as the inquiry notes, Australia is starting from a point of relative strength.

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## **Appendix – The recommendations for resilience**

1. Set capital standards such that Australian authorised deposit-taking institution capital ratios are unquestionably strong.
2. Raise the average internal ratings-based (IRB) risk weight to narrow the difference between average mortgage risk weights for authorised deposit-taking institutions using IRB risk-weight models and those using standardised risk weights.
3. Implement a framework for minimum loss absorbing and recapitalisation capacity in line with emerging international practice, sufficient to facilitate the orderly resolution of Australian authorised deposit-taking institutions and minimise taxpayer support.
4. Develop a reporting template for Australian authorised deposit-taking institution capital ratios that is transparent against the minimum Basel capital framework.
5. Complete the existing processes for strengthening crisis management powers that have been on hold pending the outcome of the inquiry.
6. Maintain the ex post funding structure of the Financial Claims Scheme for authorised deposit-taking institutions.
7. Introduce a leverage ratio that acts as a backstop to authorised deposit-taking institutions' risk-weighted capital positions.
8. Remove the exception to the general prohibition on direct borrowing for limited recourse borrowing arrangements by superannuation funds.

## **Notes**

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9. European Commission 2014, [\*Proposal for a Regulation of the European Parliament and of the Council on structural measures improving the resilience of EU credit institutions.\*](#)
10. [\*High-level expert group on reforming the structure of the EU banking sector in 2012.\*](#)
11. Haldane, A and Madouros, V 2012, '[\*The dog and the frisbee\*](#)', paper given at the Federal Reserve Bank of Kansas City's 36th economic policy symposium, The Changing Policy Landscape, Jackson Hole, Wyoming.
12. Goodhart, C and Avgouleas, E 2014, '[\*A critical evaluation of bail-ins as bank recapitalisation mechanisms\*](#)', *Centre for Economic Policy Research Discussion Paper*, no. 10065.

# SUPERANNUATION *and* *retirement incomes*

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*In this paper we consider four aspects of the recommendations in Chapter 2 of the FSI Final Report and identify where they have fallen short or been limited by the inquiry's remit. First, while the recommended formal clarification of objectives for superannuation is welcomed, a broader understanding of policy interactions is required. Second, ineffective price competition may be addressed through a tender system of investment, but we agree that current reforms need time to settle. Third, the inquiry makes an important contribution by highlighting that the payout phase requires government intervention, but supply-side issues are not adequately addressed. Fourth, while 'independence' of boards appears attractive, the related evidence is scant and some governance questions remain unanswered. Overall, we conclude that a more complete perspective on retirement incomes is needed to develop a comprehensive retirement income policy.*

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The Financial System Inquiry's (FSI's) early deliberations and final report give considerable prominence to superannuation and retirement incomes. The prominence of the retirement income system in an inquiry focused on the nation's financial system is unlikely to have occurred in most other developed countries. It is a testament to the power of pre-funding retirement incomes (the absolute value of Australia's funds under management places it fourth in the world), and to the half-executed nature of our retirement income policy (Australia is alone in offering no structure to the drawdown of a mandatory pre-funded retirement plan).

It provides a welcome spotlight on the weakest part of Australia's retirement policy, the payout phase. It draws attention to issues such as behavioural bias and retirement product design. But the limitations of the scope of the inquiry, either designated or assumed, did not permit a comprehensive treatment of retirement policy, and this needs to be borne in mind in assessing the inquiry's contribution to the retirement income debate. There is much value in what is said, but there is much that has been left unsaid. Importantly, the interactions between the age pension, taxation, superannuation, and retirement planning decisions themselves, are not explored in any depth. It is difficult to determine appropriate policy and regulatory prescriptions without taking these interactions into account.

The findings and recommendations in the FSI's chapter on superannuation comprise four main points. First, the purpose of superannuation should be clearly articulated and 'enshrined in legislation'. Second, operational inefficiencies, brought about in part by lack of effective price competition, should be addressed through a tender system of investment. Third, the payout phase of superannuation requires government intervention. Fourth, the FSI has made an explicit recommendation about the governance of superannuation funds, indicating that the chair and the majority of the board of trustee directors should be 'independent'.

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In what follows, we consider each of these points and their treatment in the final report. Along the way we highlight the limitations imposed by the remit of the inquiry and indicate where arguments have fallen short. We conclude that while the FSI provides some progress towards this, a more complete perspective on retirement incomes is needed before a comprehensive retirement income policy can be developed.

### **Setting clear objectives for the superannuation system (FSI Recommendation 9)**

This is the least controversial of the four major recommended actions. The idea that there should be a clear and identified purpose is self-evident and featured in a number of submissions (e.g. CEPAR 2014a; ASFA 2014).

While the purpose of superannuation is often discussed, it has not been formally stated. For example, the Super System Review (Cooper Review) in 2010 noted that the purpose of superannuation was 'to provide income for Australians in their retirement' but it did not actually recommend that this purpose be formally acknowledged. Some statutory basis exists in the 'sole purpose test' of Superannuation funds (*Superannuation Industry (Supervision) Act 1993 (SIS Act) s 62*), in that these must provide benefits for members on or after retirement or at a prescribed age (or death). But such a statutorily prescribed purpose appears to be as much about accumulating lump sums as providing retirement income. In the FSI, the purpose itself, such as 'to provide income in retirement to substitute or supplement the Age Pension', did not make it into the recommendation explicitly, but it is stated subsequently in the supporting text as an objective.

As the FSI discussion emphasises, formalisation of agreement on purpose should clarify policy intent, and simplify future policy decisions and their implementation. But the recommendation nevertheless raises various questions, some acknowledged in the report, which require further analysis.

For most members of industry, corporate and public sector funds, accumulations are probably mostly devoted to providing resources through retirement. But for self-managed superannuation funds (SMSFs) this is not always true. While many SMSFs doubtless have as their primary goal the provision of resources for retirement, the 'Red Book' (the policy guide prepared by government departments for incoming governments following an election) prepared for the 2010 election described SMSFs as 'the tax minimisation vehicle of choice' (Dunnin 2010). Much debate about the taxation of superannuation funds would evaporate if the purpose could be better crystallised, and the tax avoidance-motivated SMSFs were re-labelled (and taxed differently). SMSFs therefore provide a good example of how a strong statement of purpose clarifies what should and should not be thought of as a retirement income instrument.

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The issue of purpose also begs the question of what constitutes a maximum legitimate accumulation for income in retirement, an issue which the FSI explicitly avoids. Whatever the answer to that question, it should guide the limits to resources enjoying superannuation taxation arrangements. The FSI suggests that the ongoing process leading to the Tax White Paper (to be completed by end-2015) should take account of the appeal to purpose, but the FSI offers no views of its own on tax design, thresholds, or related matters.

Other definitional matters come into play in a discussion about purpose; for example, the definition of what constitutes a stream of 'income' and how to define 'retirement'. Such definitions directly affect superannuation products and parameters. To what extent does funding retirement include aged care costs? How equivalent are lump sums, phased withdrawals and longevity products (see discussion below) and should those who 'roll over' their superannuation to start drawing down a minimum amount be counted as retired and incur different levels of tax? Or should age be the deciding factor — an approach which would minimise the adverse impact of retirement policy on choices regarding income drawdown and labour force participation? These questions will become more important as Australia responds to the challenges of population ageing. The absence of such discussions in the FSI underscores the need to have a comprehensive inquiry about retirement incomes with an adequately framed remit.

### **Introducing greater competition into superannuation**

A key thrust of the inquiry has been to improve the level of efficiency and competitive pressure in the superannuation industry in the presence of scheme members who have been compelled to participate in the system but are mostly disengaged or lack capacity to drive market discipline. This was recognised in the Cooper Review and ultimately led to the introduction of MySuper default products. Indeed, by looking at insights from behavioural finance (CEPAR 2014b), the FSI builds on the Cooper Review's departure from past initiatives that instead sought only to increase engagement and choice among Australians in their retirement planning.

The FSI recommends that the government introduce a formal competitive process to allocate new default fund members to products, unless a review by 2020 concludes that reforms thus far have significantly improved competition and efficiency in the system.

The inquiry also notes an alternative. This is to increase competition by abolishing the process for selecting default funds via Australia's industrial relations framework. This would allow all MySuper products to be available as defaults to be chosen by employers, not just those currently linked to awards as determined by the Fair Work Commission (FWC). Opening the door for retail funds to be able to pitch for default product status, could be expected to foster greater levels of competition.

The government has indicated a preference for the alternative option of opening up the default product market; but it is worth considering in more detail the main recommendation of the FSI.

Those concerned with a lack of competition in superannuation often refer to the level and variance of account fees involved, particularly compared with the lower fees charged in overseas markets. There is, however, some debate about the evidence. Comparability with other occupational schemes is hindered by the fact that the Australian environment is characterised by the importance of Defined Contribution (DC) accounts relative to Defined Benefit (DB), more choice (whether useful or not), more in-house investment management, and greater levels of investment in equity compared with other markets (see, for example, Schroders 2014). There are also claims that not all fees are counted appropriately or included in comparisons (see, for example, FSC 2014, which criticises Minifie et al. 2014 for excluding administration fees).

The objections are not always valid. For instance, Sweden's centralised administrative DC nature means that it can offer plenty of investment choice at a low cost. The model of in-house or external investment management should not be an excuse for higher fees. And, most importantly, many of the international comparisons are to occupational pension systems that manage far fewer assets than Australia's. As the FSI points out, the scale of Australian superannuation system implies that fees could be lower than they currently are (see Rice Warner 2014 for more details). Some recent fee reductions as part of the introduction of MySuper suggest that the reforms ought to be allowed to settle before further reforms are made.

Chile is often used as an example of a country where pension fund fees are said to be lower. It is also the country which runs the type of competitive process that the FSI has recommended.

Chile's pension funds are worth US\$170 million, serving about five million contributors (who are charged fees as a fixed proportion of salary) and five million retired members (who are not charged fees). The government runs a tender for default fund status every two years based on initial preselection and subsequently on the lowest fee bid (an auction *for the field*). The fee then applies to all new defaulted contributors in the fund as well as those exercising choice and those who have been previously defaulted into the fund. The fund must also offer up to five investment options, each of which has a guaranteed level of return, topped up if necessary from a reserve equal to 1 per cent of assets (Chant West 2014).

Such a system could in theory deliver significant reductions in fees. But this does not come without concerns. For example, it could result in a drive toward a concentrated oligopoly in place of what is currently about 300 or so funds. Chile's four largest funds hold 96 per cent of pension assets (Chant West 2014).

It may also introduce a structural bias toward passive investment, as more expensive active investment becomes less attractive. This is not necessarily a bad thing if we accept that active management is a zero sum game, but passive management can also result in less exposure to unlisted assets and raise systemic risk by increasing trading commonality.

There are also practical concerns about fee-only tendering, since it is long-term net investment performance that matters. The FSI suggests that preliminary work on the practical aspects of the competitive process should begin and it points to other examples where tendering has worked and resulted in an average reduction in fees of 43 basis points (Rice Warner 2014). Whatever becomes the future model to increase competition in Australia's superannuation system, the consensus appears to be that current MySuper and SuperStream reforms need time to take effect before major changes are introduced.

### **Decumulation: The gap in the Australian retirement policy framework**

Perhaps the most valuable contribution of the FSI chapter on superannuation is its treatment of the retirement phase. The panel is generally cautious about involving government, or interfering with consumer choice. Yet the rationale of the central recommendation and the accompanying material for this section is that the 'potential gains to members, the economy and taxpayers from a more efficient retirement phase are significant and warrant intervention'. This recognition alone is a significant contribution to the retirement policy debate. The complexity of decision making around retirement and financial choices is recognised; behavioural biases are briefly discussed, and the limited range of retirement income products available in Australia is flagged. The report also points to the contrast between Australia and other countries where retirement income streams are more broadly accepted.

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The discussion of these issues hangs on a recommendation that every superannuation fund should be required to offer a 'Comprehensive Income Product for Retirement' (CIPR). But there are various design issues to resolve with such a default (CEPAR 2014c). The inquiry appears uncertain about how far to go in the direction of encouraging the purchase of retirement income products with longevity risk pooling, although it emphasises that greater longevity insurance would make retirees better off, and possibly also shift some longevity risk from the government (through the age pension) to the private sector. It is comfortable with removing 'product development impediments', but does not recommend the use of tax or age pension incentives to encourage their purchase, although they should not discourage their use (p. 126). It does recognise that:

... increasing the range of products alone will not be sufficient to improve outcomes for retirees significantly, because behavioural biases and other system incentives will continue to impede the widespread use of pooled longevity risk products, despite evidence that many individuals would be better off. (p. 126)

This leads to a statement in the conclusion of the superannuation chapter that if introducing pre-selected CIPRs is not effective, age pension and tax incentives could be considered. While the potential role of tax policy and age pension design is acknowledged, the inquiry again abstains from venturing into discussion about how design of these policy instruments might be used to facilitate a stronger overall retirement income environment in Australia.

While the section is valuable in giving the issue of retirement incomes genuine profile, its discussion of the underlying issues and policy directions is restrained. For example, while behavioural issues are acknowledged, there is no systematic analysis of the force of defaults, or in what circumstances they might be most effective.

There is little on supply side impediments to a more developed retirement income product market, such as government provided hedging instruments (for example, long-dated inflation-indexed bonds). Counterparty risk, either real or perceived, is not raised as a possible reason why long-dated longevity insurance products are not purchased, and consequently, the potential role of government as a provider of these products is not discussed either.

Nor is the institutional regulatory complexity confronting these kinds of products fleshed out. An important reason why decumulation structures are deficient in Australia is that there are so many different responsible agencies for a product developer to deal with: DSS, APRA, ASIC, and the ATO. And even though all of these agencies are involved in the development of products, there is no single agency for a potential provider to approach. Further, none of the agencies listed have a mandate to deal with retirement income issues and/or promote their development. In the absence of such a mechanism, the prospects for a successful retirement income product market in Australia are poor. Yet Australia needs such a market more than almost any other OECD country because of its reliance on pre-funded superannuation for consumption smoothing.

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These shortcomings in the chapter are perhaps inevitable in a report whose primary remit is the financial system rather than retirement incomes *per se*. However, the decision to emphasise retirement incomes to the extent evident in the report is both welcome and prescient, given the impending impact of demographic shift on our pre-funded system.

## **Governance issues**

The FSI touches on governance issues within superannuation and makes three recommendations: (1) that funds be required to have a majority of independent director trustees (including an independent chair); (2) that penalties be introduced for a director trustee's failure to act in the interests of members; and (3) that conflicts of interest be deemed disclosed only when acknowledged by all director trustees.

The measures aim to bring the governance of superannuation funds closer to that of financial institutions overseen by the Australian Securities and Investments Commission (ASIC). Intuitively, all of these measures seemingly strengthen the checks and balances required for a board's independent decision making in favour of its members above and beyond those already present in existing trust law, statute, prudential regulations and guidance, and industry best-practice principles. However, while the latter two recommendations on governance within superannuation are less controversial, the recommendation about independent director trustees has faced an ongoing and heated debate in Australia.

Insisting on a majority of independent director trustees would affect not-for-profit public offer funds that follow the 'equal representation' model under the SIS Act. In this model half the board is made up of directors nominated by employees and half by employers (though independent trustee-directors can be invited to join the board). It is consistent with the origins of the superannuation system that mainly consisted of single-employer sponsored funds, which is increasingly less the case. It does not apply if there is no standard employer sponsor. The arrangement is not dissimilar to most other OECD countries (Stewart and Yermo 2008).

This FSI recommendation echoes that of the Cooper Review, which, among a raft of recommendations on superannuation fund governance, recommended that one third of trustee directors be independent. Abandoning the equal representation model was rejected by the then Labour Government but it resurfaced in a recent consultation initiated by the Coalition Government (Commonwealth of Australia 2013). In public comments, the government has also indicated a preference for independent boards.

The notion that formally unaffiliated, independent director trustees will have a positive effect on governance and member outcomes is intuitively appealing, yet, as pointed out by the Productivity Commission (2012a), this is not based on evidence. Governance overall is shown to have an effect on performance (Ambachtsheer 2007). But rather than disadvantage members, there is some evidence that funds with 'equal representation' boards outperform corporate funds with independent boards (APRA 2014). Apparently, boards that include employee and employer stakeholders are associated with lower fees and agency costs, but it is difficult to link this directly to governance (Bryan et al. 2009).

There were other facets of governance to which the FSI pays little attention. For example, the actual levels of skills, competence and effectiveness of superannuation fund boards. This is despite research that some boards still lack adequate expertise and training, feel unconfident with relevant financial decisions, and can suffer from bias about their own abilities (Russell Investments 2010; Mercer 2014; Gupta et al. 2008).

The Productivity Commission (2012b) has previously indicated that a specialised review of superannuation fund board governance be assembled to look at the actual evidence of effectiveness. The FSI chooses not to follow this route.

## **Concluding remarks**

The FSI does Australia a favour in opening up superannuation policy to official scrutiny. It attests to the importance of the superannuation system, especially as it matures and demographic transition bites harder. The report examines all of the important issues, although it inevitably falls short on in-depth analysis of some. It provides strong policy leadership on competition in the accumulation phase, and emphasises the importance of an income framework when thinking about drawdowns. It also makes some sensible recommendations regarding superannuation fund governance.

But understandably, it touches on, but avoids making any recommendations about taxation. Taxing super must be done in a fashion consistent with Australia's overall tax structure and the stated purpose of superannuation, and should take account of the age pension. In some ways, sensible taxation policy could act as the glue holding the various branches of Australia's retirement policy together. But policy formulation and recommendation in this area requires a remit to deal comprehensively with retirement policy in its totality. The Henry Review provides a way forward, but more work needs to be done to shape the taxation of superannuation into a policy which is sustainable.

More generally, this work should be undertaken as part of an inquiry focused specifically on retirement incomes. The FSI flags its importance, and an initiative is now needed to take this a further step forward.

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# INNOVATION *and the Financial System Inquiry*

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*The FSI rightly has a strong focus on innovation in its recommendations on how the financial system can better meet the needs of growth in the Australian economy. This paper appraises the inquiry's recommendations in four areas: collaboration to enable innovation; crowdfunding; data access and use; and comprehensive credit reporting. The inquiry highlights that openness to innovation with regard to information sharing by government, existing participants and regulatory bodies is not strong in Australia. These policy settings will need to be addressed in order for the financial system, and the whole economy, to take full advantage of these opportunities to innovate.*

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At the heart of the Financial System Inquiry is the objective 'to assess, and make recommendations on, how the financial system can most effectively help the Australian economy be productive, grow and meet the financial needs of Australians.'<sup>1</sup>

To assess this objective, the inquiry uses the criteria of stability, efficiency and fairness. Apart from evident changes over the past 16 years since the Wallis Inquiry, such as increased concentration in the banking sector, the growth of the superannuation system, and global re-regulation, a remarkable aspect of this inquiry has been its need to address the all-pervading presence of technology and digital disruption in most areas of the financial system.

The value of innovation becomes apparent in the context of industries dominated by a small number of large firms increasingly focused on core competencies and economies of scale (and subsequent cost controls) to drive profit growth. New firms can challenge incumbents by offering alternative products and services to customers, and can assist in the evolution of business processes through the development of new technologies.

Technology provides opportunities to lower barriers to entry in financial services, reduce transaction costs, address issues of information asymmetry, empower consumers and facilitate international linkages. This is evident across the payments system, in credit markets, debt and equity markets, and in retirement savings and advice.

While technology offers many benefits, especially in terms of contributing to the goals of efficiency and fairness, it also presents risk, and from the inquiry's point of view, this must have been particularly challenging as many aspects of digital disruption are yet to fully play out. Although it is estimated that as much as \$27 billion of current banking industry revenue<sup>2</sup> is under threat from digital disruption, the Report recognises that responding in an open, timely and coordinated manner across both regulatory and industry sectors is critical if the benefits of this disruption are to be maximised.

From its inception the inquiry stressed the importance of removing unnecessary government regulation and other impediments, to preserve and strengthen price signals in financial markets. Indeed, on reading the Final Report it seems that technology has become the inquiry's greatest tool for encouraging market forces, and stimulating competition and innovation.

While the role of technology and innovation is evident throughout the Final Report, Chapter 3 specifically addresses innovation and makes seven recommendations. The remainder of this paper discusses four of these recommendations which pertain most directly to supporting innovation in financial services and funding for start-ups and the small and medium-sized enterprise (SME) sector: collaboration to enable innovation; crowdfunding; data access and use; and comprehensive credit reporting.

## Collaboration to enable innovation

From a regulatory standpoint, one of the greatest challenges in terms of innovation in the financial system is deriving an appropriate balance between openness to innovation and disruptive technologies, and protecting the interests of consumers, investors and the privacy of individuals. The rapid pace of innovation in financial services requires a collaborative approach between industry bodies, regulators and innovators themselves to ensure that the benefits of digital disruption are realised, that regulators can anticipate challenges, and that risks are controlled.

Consideration also needs to be given to the extent to which the interests of existing participants should be protected, especially where they are highly regulated. In the taxi industry, for example, where traditional providers pay expensive annual licenses, the adoption of disruptive business models such as Uber has presented challenges to the system. Attempts to level the playing field by bringing these new entrants into line with industry conduct have proved fairly ineffective.

Consequently, Recommendation 14 in the FSI Report suggests the establishment of:

a permanent public-private sector collaborative committee, the 'Innovation Collaboration', to facilitate financial system innovation and enable timely and coordinated policy and regulatory responses.

The proposed Innovation Collaboration (IC) would be comprised of financial sector innovators, consumer groups, academics, and relevant government agencies and regulators. The purpose of such a group would not only be to ensure better understanding of the potential for innovation and to allow opportunities to be examined from a system-wide perspective but, most importantly, to provide a single point of reference for innovators seeking to gain regulatory approval. Creating a greater awareness of, and openness to, innovation among regulators is critical as they represent the point of entry to the system. In the United Kingdom, the Financial Conduct Authority has established a similar network called Project Innovate which supports industry innovation to improve consumer outcomes. The UK 'fintech' industry also has its own industry body, Innovate Finance, to support technology-led financial services innovators (FSI Final Report 2014, p. 149). In Australia ASIC has recently indicated an intention to establish a fintech "hub" along similar lines, to streamline licence applications from innovative companies.

Creating openness to innovation represents the most challenging part of this proposal.

In contrast to economies such as the UK, which are actively promoting innovation as a means of introducing stronger competitive forces to the financial services sector, Australian regulators have tended to retain a low-risk, conservative approach to regulation. Ultimately the ability of key agencies to adapt and adjust risk levels to accommodate disruptive technologies will impact on the international competitiveness of the sector.

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Another challenge will lie in developing a collaborative approach. Strong networks across the innovation ecosystem have been essential to successful innovation ecosystems. Ferrary and Granovetter (2009) note that the entire innovation ecosystem is less efficient if only one agent is missing, and that collaboration between all agents is crucial. In the past, a major barrier to growth in Australian innovation ecosystems has been a lack of collaboration between established corporations in Australia and other members of the innovation ecosystem. According to a 2013 report by the Department of Industry, Australian organisations are among the least collaborative of all OECD countries (OECD 2013). Greater collaboration between researchers, innovators, corporates and regulators could lay a foundation for a sustainable financial services innovation ecosystem.

## Crowdfunding

One of the challenges within the Australian economy has been the inadequacy of both debt and equity funding for start-ups and SMEs. The FSI Final Report gives due recognition to these challenges and makes three related recommendations on crowdfunding, data access and use, and comprehensive credit reporting.

Lack of debt and equity funding for start-ups and SMEs is recognised in Recommendation 18, which proposes a policy change to:

Graduate fundraising regulation to facilitate crowdfunding for both debt and equity and, over time, other forms of financing.

As the report points out, there are two crowdfunding models emerging, crowd-sourced equity funding (CSEF), and debt funding or peer-to-peer-lending. These financial transactions are facilitated by a platform which links providers and users of funds. It should be noted that while crowdfunding has been around for a while, CSEF differs in that it involves the transfer of financial securities to the capital provider via this platform.

CSEF would be a welcome initiative in Australia where equity capital for start-up firms has traditionally been in short supply. As the 2013 OECD venture capital (VC) statistics show, Australian VC comprises just 0.02 per cent of GDP, one quarter less than that of Canada and only around one twentieth of the level of VC investment in Israel (OECD 2013).

The relative lack of activity by local VC funds can have implications beyond capital availability as in successful innovation ecosystems, VC funds have traditionally been the key intermediaries facilitating collaboration between the various members of innovation ecosystem. In a similar way, crowdfunding platforms could play an important role in raising local, national and potentially international awareness of early-stage investment opportunities, building networks across the innovation ecosystem and increasing the potential for syndicate investing, as well as providing an additional avenue for raising capital.

While starting from a low base, it is estimated that around \$10 billion has been raised through crowdfunding over the past five years, having grown by ten times over this period (Crowd Valley Inc 2014).

The issue of adapting the regulatory framework to support and monitor these new models is challenging. Governments in the UK, Canada and New Zealand have either implemented or are finalising the implementation of regulatory regimes to support CSEF. In the US, the enactment of the Jumpstart our Business Start ups (JOBS) Act 2012, which referenced the importance of online funding for start-ups and other companies to raise capital, was pivotal for CSEF globally (Ralston and Jenkinson 2014a).

In Australia, government will consult on a proposed regulatory model for CSEF. The 2014 Corporations and Markets Advisory Committee's (CAMAC) CSEF report indicates that, for CSEFs to operate in the best interests of investors and issuers, a specific regulatory structure is required. Elements of the CAMAC proposal include:

- > placing a cap on an issuer's fundraising — no more than \$2 million in any 12-month period — and limited disclosure requirements
- > introducing caps on investments by investors — \$2,500 per issuer, and \$10,000 overall, in any 12-month period — and communicating the high risks to investors
- > requiring issuance to occur via a licensed intermediary that is prohibited from providing investment advice, soliciting investors and lending to investors' (FSI Final Report p. 179).

Through the process of peer-to-peer or online lending, crowdfunding can also be a source of debt funding for SMEs. This technology provides access to funding at a point when traditional SME funding globally has become increasingly constrained through long-term structural changes in credit markets.

Consolidation of banks and centralised credit assessment have increased the distance between borrowers and lenders, both geographically and in terms of relationships. With distance comes an increase in information asymmetry, resulting in higher transaction costs as larger credit corporations struggle to deal with very small but complex loans, and higher search costs for SMEs as they seek out avenues of funding (Mills and McCarthy 2014). The consequence of this long-term trend, together with shorter-term cyclical factors such as the economic conditions surrounding the global financial crisis (GFC), has seen lenders become more risk averse, impacting negatively on the availability of credit for SMEs.

The European Commission has noted the reduction in SME lending post-GFC. In conjunction with the release of a series of reforms aimed at improving access to finance for SMEs in Europe, Michael Barnier, EU commissioner for financial services noted 'we need to diversify financing sources in Europe and improve access to finance for small and medium-sized enterprises that are the backbone of the European economy' (Fontanella-Khan 2014). The package of measures being implemented by the European Commission includes strategies for strengthening the European crowdfunding sector.

In Australia, where SMEs have relied on banks for 90 per cent of their intermediated credit, innovation in online and peer-to-peer lending has the potential to lower the barriers to entry for alternative funding sources, reduce information asymmetry between SMEs and lenders, and reduce transaction costs for SME lenders.<sup>3</sup>

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Access to financial information on smaller companies, however, is a significant impediment. The banking sector tends to have something of a monopoly on the financial information of small firms that are not subject to the disclosure requirements of equity markets, or have a publicly available risk rating. Hence there is an information asymmetry when SMEs seek finance from alternative sources. For a new potential lender to offer credit, information needs to be collected and assessed from a range of sources, adding to the cost of a new credit assessment.

The UK has recently undertaken a detailed consultation process to assess the merits of mandated sharing of SME borrower information between banks and SME lenders (HM Treasury 2014). The motivations for the proposed mandated sharing of SME information are to increase the reliability of credit assessment for SME loans by potential lenders and increase competition amongst lenders to SME borrowers.

The proposal has met with widespread support and has been put before the UK Parliament in the *Small Business, Enterprise and Employment Bill 2014–15* (UK Parliament 2014).

The risk to investors of participating in crowdfunding has created concerns for ASIC around the potential for fraud, issuer failure and dilution, especially where CSEF platforms are concerned. However, as outlined in the CAMAC proposal, limiting the exposure of individuals, and clear disclosure of the risks involved would partly address these concerns. Structures based around a graduated form of the current Managed Investment Scheme regulation should assist regulators in facilitating a policy framework which accommodates peer-to-peer lending.

## **Data access and use**

A critical aspect of encouraging alternative finance providers, reducing barriers to entry and lowering transaction costs lies in the ability to provide greater access to data. With increased computational power, big data solutions and powerful algorithms, such data can assist in understanding the needs of individuals and in developing appropriate solutions to service provision.

More generally, however, apart from financial data, there is a wide range of public and private data which can inform and assist individuals and businesses in a range of activities. The FSI Report notes that while national governments globally are adopting open data policies, in Australia there has been little recognition of the importance of this issue or debate about the need for change.

The FSI has pointed to these issues in Recommendation 19:

Review the costs and benefits of increasing access to and improving the use of data, taking into account community concerns about appropriate privacy protections.

The issue of privacy protection is obviously one of the barriers to wider access of personal data in particular. The need to balance efficiency and privacy interests is central to this issue.

Several recent public reports including the *Productivity Commission Annual Report 2012–13* and the National Commission of Audit have noted the limited use of public sector data resources in Australia and that despite the low initial costs of doing so, there is a lack of recognition of the benefits of shared information for achieving better outcomes for the economy. On this point the Productivity Commission observed that ‘... academics, researchers, data custodian agencies, consumers and some Ministers are eager to harness the evidentiary power of administrative data, but this enthusiasm generally is not matched by policy departments’.<sup>4</sup>

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As a means of exploring better use of data as per Recommendation 19, the FSI has proposed that the Productivity Commission be tasked with undertaking ‘an inquiry into the costs and benefits of increasing access to and improving the use of data, subject to privacy considerations’, with the intention being to ‘enhance consumer outcomes, better inform decision making, and facilitate greater efficiency and innovation in the financial system’ (FSI Final Report p. 184).

## **Comprehensive credit reporting**

Innovative new companies seeking to serve the SME sector need to be able to access meaningful data on companies to allow a better assessment of credit risk. In this regard, potential alternative lenders are at something of a disadvantage in Australia. First, there is no required lodging of annual data on small businesses and, second, Australia lags many nations in the availability of credit information through its long-term adherence to a negative credit reporting regime. While the latter provides some information in terms of defaults on loans, it is inadequate in helping to build a financial profile of a potential borrower.

More comprehensive credit reporting, on the other hand, presents more constructive information for a potential lender as it provides not only default information but details on the dates credit accounts are open and closed, the type of credit extended and the repayments history.

Legislation to introduce comprehensive credit reporting was drawn up for discussion in March 2012, the legislation was enacted in March 2014, but at the time of writing, the data-sharing agreement between credit providers has yet to be finalised. As the Final Report notes, even with the implementation of that agreement, significant amounts of data are not expected to be exchanged until late 2016 or early 2017.

Hence the need for Recommendation 20:

Support industry efforts to expand credit data sharing under the new voluntary comprehensive credit reporting regime. If, over time, participation is inadequate, Government should consider legislating mandatory participation.

It is made clear in the Final Report that the inquiry has rejected the UK approach of mandating the release of such information to the market, where the SME owner is in agreement. So it remains to be seen whether there is a will among existing credit providers to accelerate this process and make data available more widely on a voluntary basis.

There is, however, more broad-based support for expanding the number of fields included in the CCR regime to support better credit decisions, and to include details such as the account balance. The latter, however, would require an amendment to the Privacy Act.

The slow pace with which the CCR regime has developed to date, and the fact that CCR imposes additional costs on lenders who already have something of a monopoly on SME information, suggests that any immediate expansion of these efforts is unlikely. Contrast that with the rapid rise in alternative online lenders and what appears to be unsatisfied demand for credit in the SME sector, and it seems that this recommendation may well be a little optimistic about the extent to which barriers to entry can be lowered in a timely manner.

## Conclusion

The great advantage of undertaking periodic reviews of the financial system is that it allows time for an assessment of the stability, fairness and efficiency of a system when there is no impending crisis. Holding any system up to the spotlight and comparing it with other regimes can only be of benefit, especially for Australia with such a highly concentrated domestic financial sector.

A distinguishing feature of the FSI, when compared with its predecessors, has been the influence of technology, advances in the use of data, the growth of online platforms, and the increased internationalisation of the sector. While many aspects of these changes have yet to be fully realised, they are having a significant impact on the conduct of the financial sector and, in some areas, present a real opportunity to drive a more open and competitive approach, to the benefit of Australian consumers and businesses.

The inquiry also highlights, however, that Australia's openness to innovation and sharing of information by government, existing participants, and regulatory bodies is not strong. These policy settings will need to be addressed in order for the financial system, and the whole economy, to take full advantage of these opportunities to innovate.

## Notes

1. *Financial System Inquiry Interim Report*, p. xv.
2. *Financial System Inquiry Final Report*, p. 150.
3. Discussed in Ralston and Jenkinson (2014b).
4. *Productivity Commission Annual Report 2012–13*, Chapter 1: Using administrative data to achieve better policy outcomes, p. 1.

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# CONSUMER OUTCOMES

## *of the 2014 Financial System Inquiry*

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*This paper reviews the eight recommendations of the 2014 Financial System Inquiry relating to consumer outcomes. These include strengthening product issuer and distributor accountability, providing specific product intervention power to the Australian Securities and Investment Commission (ASIC), and facilitating innovative product disclosure. They also include better aligning the interests of financial firms and consumers, raising the competency of financial advisers, and improving guidance and disclosure in general insurance. The response by Australian industry and consumer groups has been generally favourable despite the expected difficulties and lack of detail associated with the product design and distribution obligation, and concerns about the substantial product intervention powers extended to ASIC. Some unease also exists about the apparent inattention to key issues in the general insurance industry, especially underinsurance and noninsurance in home and contents insurance relating to natural disasters.*

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In November 2014, the Financial System (Murray) Inquiry (2014b) released its final report on the Australian financial system. Only the third such inquiry in more than three decades, the inquiry built upon the 1979 Australian Financial System (Campbell) Inquiry, which led to the floating of the dollar and the deregulation of the financial sector, and the 1996 Financial System (Wallis) Inquiry, which invoked further changes in financial services regulation, including the creation of the current regulatory authorities. At its inception in November 2013, Commonwealth Treasurer Joe Hockey tasked the inquiry with:

examining how the financial system could be positioned to best meet Australia's evolving needs and support Australia's economic growth [and with providing recommendations] to foster an efficient, competitive and flexible financial system, consistent with financial stability, prudence, public confidence and capacity to meet the needs of users (Financial System Inquiry 2014b, p. vii).

Unexpectedly, the inquiry's resulting terms of reference were broad, and included commenting on developments in the financial system since the previous inquiry and the recent global financial crisis (GFC), as well as their implications for Australia's capital needs, the level of domestic competition and international competitiveness, and the cost, quality, safety and availability of financial services and products for users. The terms of reference also included directions to 'refresh' the philosophy, principles and objectives underpinning a well-functioning financial system, including the balance of competition, innovation, efficiency, stability and consumer protection, the nature and management of financial and systemic risk, the effectiveness of financial regulation, and the role of government and financial regulators. Lastly, the inquiry was to identify any emerging opportunities and challenges likely to drive change in the financial system, including the role of new technologies, market innovations, and consumers, changes in the sources and uses of capital, and the nature of corporate governance structures in the financial system and their effect on stakeholders.

In addressing these terms of reference, the inquiry focuses on and makes recommendations across seven themes: strengthening the economy by making the financial system more resilient; improving the superannuation system; driving economic growth and productivity through innovation; enhancing confidence and trust in the financial system; developing regulator independence and accountability; and minimising the need for future regulation. These objectives largely corresponded to the themes (and report chapters) of resilience (Ch. 1), superannuation and retirement incomes (Ch. 2), innovation (Ch. 3), consumer outcomes (Ch. 4) and the regulatory system (Ch. 5) (Financial System Inquiry 2014b).

The purpose of this paper is to comment on the fourth of these themes, namely consumer outcomes. I first summarise the background to the themes which the inquiry uses in making its recommendations. I then review the recommendations themselves. Finally, I discuss some of the responses to the recommendations, both from the Interim Report (Financial System Inquiry 2014c) and the Final Report (Financial System Inquiry 2014b).

### **Background to recommendations**

In terms of consumer outcomes, the view of the inquiry (Financial System Inquiry 2014b, p. 197) is that the financial system should deliver five outcomes. First, consumers should have access to products and services that help them meet their individual financial needs. Second, consumers should have access to the information, advice, and education necessary to make effective decisions about financial products and services. Third, consumers should have confidence and trust in the financial system and be protected by effective regulation that minimises misconduct and promotes fair outcomes. Fourth, financial services and products should be accurately described and perform as described. Finally, consumers should have access to timely, low-cost, and efficient dispute resolution and remedies when problems arise.

In viewing the current system governing consumer outcomes, the inquiry believes that the current regulatory framework, with its focus on disclosure, financial advice and financial literacy, is necessary but not sufficient to achieve these desired outcomes. In particular, the inquiry suggests that while product disclosure plays an important part, it is not sufficient to allow consumers to make informed financial decisions. Likewise, while financial literacy implies more informed and engaged consumers, and strategies in this regard are of benefit and should continue, this is also not sufficient to ensure fair outcomes. Consequently, the inquiry believes that the current arrangements are generally working well, and that any changes are intended to be low-cost, not unnecessarily increasing the existing regulatory burden, and can be accommodated within the current regulatory authority structure, with some strengthening of ASIC.

In terms of the balance of regulation, the inquiry also seems to suggest that while industry self-regulation could meet some of the recommendations described in the next section (including raising industry standards, and levels of disclosure and professionalism) increased government regulation may be required at the sector level. This may be necessary where competitive pressures mean that some desired consumer outcomes come at a cost to individual firms and industries.

### **Recommendations**

The inquiry makes eight recommendations pertinent to consumer outcomes (Financial System Inquiry 2014a), as shown in Table 1. Recommendation 21 indicates that the government should introduce a principles-based product design and distribution self-regulatory obligation. The stated purpose of this obligation is to ensure that product issuers and distributors consider and agree upon a range of consumer-related factors in designing and distributing any product, and that a periodic post-sale review be undertaken to ensure that the product objectives are still being met. The belief is that this positive approach would effectively match consumer needs with appropriate products and would thus avoid the existing heavy reliance on product disclosure, which have failed on a number of recent occasions (Storm Financial, Opes Prime, Westpoint etc.). However, this would still leave this requirement with product issuers and distributors best placed to understand the features of the product and its targeted market. This process is already operating in some best-practice firms and should be encouraged as an industry standard. The thinking is that this solution would be more effective, less costly, and less prone to manipulation than the alternative of individual appropriateness tests at point of sale which are used in the European Union, Japan, Hong Kong and Singapore.

Recommendation 22 is that ASIC be provided with product intervention power as a last resort to protect consumers. This ranges from amendments to marketing and disclosure materials, warnings to consumers and labelling of terminology changes, and restrictions to product distribution, all the way to outright product banning. In making this recommendation, the inquiry points to several specific instances where ASIC was powerless to intervene. This includes mortgage managed investment schemes (MIS) prior to the GFC where the expectation of consumers was of greater liquidity and unlisted debenture investments, as in the case of Banksia Securities, where the consumer perception was that this was a bank term deposit. The inquiry indicates that this approach would neither stifle innovation nor involve unnecessary regulatory costs for firms with robust product design and distribution practices, and that these powers should be carefully used, limited, and subject to review, with the overall aim being to rebuild consumer confidence in the financial system.

**TABLE 1: Consumer outcome recommendations**

No.	Description
21	Strengthen product issuer and distributor accountability
22	Introduce product intervention power
23	Facilitate innovate disclosure
24	Align the interests of financial firms and consumers
25	Raise the competency of advisers
26	Improve guidance and disclosure in general insurance
40	Provision of financial advice and mortgage broking
41	Unclaimed monies

Recommendation 23 aims to remove regulatory impediments to innovative product disclosure and communication with consumers, and improve the way risks and fees are conveyed to consumers. In making this recommendation, the inquiry takes the view that the existing mandated product disclosure requirements, with their heavy focus on form and content, have inhibited the ability of issuers to communicate with consumers. It also indicates that through opening up this process to innovation, particularly through 'new media' rather than the existing paper-based disclosure, consumers could be more effectively engaged.

Recommendation 24 is that the interests of financial firms and consumers could be better aligned by raising industry standards, enhancing the power to ban individuals from management of financial firms, and ensuring remuneration structures do not affect the quality of financial advice. The inquiry suggests that the financial services industry has suffered from poor standards of conduct and professionalism, and that while this should be principally improved through industry efforts, ASIC should be given powers to bans persons from the management of financial firms. The inquiry also argues that the remuneration structures in the life insurance and stockbroking businesses do not act in consumers' best interests. In terms of the former, the inquiry recommends an amendment to the law such that the upfront commission for life insurance advice is no greater than the ingoing commissions, thereby reducing the incentive for churning and improving that for quality advice. In terms of the latter, the inquiry recommends a review to focus on the effect of remuneration structures on the quality of consumer outcomes which, depending on the outcome, may result in the removal of the sector's current exemption from the ban on conflicted remuneration, particularly 'grid' commissions where commission-based remuneration is received soon after the advice is given.

Recommendation 25 is that the Commonwealth Government should continue its current efforts in raising the competency standard for financial advisers. The inquiry notes that despite the consumer benefits affordable and quality financial advice could bring, training standards are still too low, particularly in relation to the complexity of many financial products. The inquiry considers that such efforts may increase the cost and availability of advice, particularly as existing advisers may leave the industry and that the higher standard may act against entry (but with some transition arrangements). Nonetheless, the inquiry remains of the opinion that it is in the interests of consumers to maintain a high standard of advice, even in relation to Australia's peer jurisdictions. The inquiry also recommends the establishment by ASIC of a register of employee advisers beyond the existing system of financial advice licensees and notification of authorised representatives.

Recommendation 26 specifically targets the general insurance industry, and particularly, home insurance, indicating that the industry should enhance the existing tools and calculators used to guide consumers as to the likely replacement value for homes building and contents. (It includes the proviso that a lack of progress would prompt government attention.) In part, the inquiry declares that this is the result of inadvertent underinsurance and the lack of awareness of insurance policies, including key features, caps and limits and exclusions, primarily as a result of recent experiences with high-cost insurance in natural disaster prone areas (including floodplains and cyclone-prone areas) leading to noninsurance and underinsurance.

Recommendation 40 is that 'general advice' be renamed and that there be a requirement for financial advisers and mortgage brokers to disclose ownership structures. This results from the inquiry's opinion that there is value to consumers in making ownership and alignment more transparent, certainly more broadly than that currently required. Finally, Recommendation 41 is that unlike the existing requirements where bank accounts and life insurance policies are deemed to be unclaimed monies and transferred to the government if they are inactive for three years, this be extended to seven years, principally as a means of reducing the number of claims.

### **Critique**

Most of the recommendations in the interim and final reports concerning consumer outcomes have been well received and largely expected, as with other themes covered by the inquiry. Clearly, the intention is that these recommendations complement the existing Future of Financial Advice (FOFA) and product disclosure reforms, with a key objective being to improve overall consumer trust and confidence in the financial system. This naturally leads to a focus on professional standards, competency, and conduct by individuals and financial services firms. However, Ernst and Young (2014) argue that '... in a significant philosophical shift at the regulatory level, the recommendations include a greater focus on product suitability requirements and regulatory intervention across the value chain. In particular, the inquiry has acknowledged the fundamental role product providers (rather than just distributors alone) play in impacting consumer outcomes. As a result, integrated product design, advice and distribution approaches will come under greater scrutiny'.

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PwC Australia (2014) similarly points out that this '... paradigm shift away from the reliance on point of sale measures like disclosure, financial advice, and consumer financial literacy' is one of the defining and radical features of the recommendations. Barton Deakin (2014), Byrne (2014), Gilligan (2014), Inside Publishers (2015), Minter Ellison (2014) and Shapiro (2014) have made similar supportive comments, with Deloitte (2014) declaring that in adopting a pragmatic outcomes-based approach and avoiding overly prescriptive statements, the inquiry has taken 'the right approach'.

Of the eight recommendations, Recommendations 23-25, 40 and 41 have been most well received and perceived as fairly benign and consistent with existing developments. For example, the CFA Societies Australia (2014) and Financial Planning Association of Australia (2014) have both come out in support of Recommendation 25 (Liew 2014) with PwC Australia (2014) arguing that this is likely 'to be relatively easier to implement, given the support these measures have received from ASIC and the industry more broadly'. Similarly, most industry and consumer groups have also endorsed Recommendation 23 on enhancing and allowing innovation in disclosure, and this appears to correspond closely with industry submissions to the inquiry (ANZ 2014). Choice (2014) has particularly welcomed Recommendation 24

regarding the advanced powers to be given to ASIC banning individuals from financial firm management and the disclosing of the ownership structure of firms providing financial advice so consumers understand advisers' or mortgage brokers' association with the financial product issuers. However, the Financial Planning Association of Australia (2014) points out 'the incentive to improperly manage conflicts of interest is exacerbated by low consumer engagement, the complexity of disclosure documents, and widespread financial illiteracy [and that] positive change can only occur through a mixed strategy of reform aimed at creating a critical mass of behavioural change'.

As discussed, even though Recommendation 21 is one of the more radical consumer outcomes of the inquiry, most have welcomed it. This is because of both the expected ease of implementation, in that existing controls can be simply scaled up to the new standard, and also that the more costly prospect of individual appropriateness tests at the point of sale for complex products (suggested in the interim report and found in other jurisdictions) has not been pursued further (Herbert Smith Freehills 2014). The main objection to this recommendation mirrors Allens (2015) concerns in that while the inquiry's recommendation is less prescriptive to the alterative 'the difficulty with a "principles based" obligation is that while it can be simply stated, what it requires is likely to be unclear — and abstract norms are much easier to weave into claims by consumers'.

I cannot say the same of Recommendation 22 which confers specific product intervention power to ASIC. Allens (2015) acerbically notes that: 'The inquiry appears to have accepted ASIC's ambit claim for a product intervention power without any critical examination of its merits or its basis (or otherwise) in fact — and product intervention could make FOFA feel like a beating with a peacock feather.' Likewise, King and Wood Mallesons (2014) accept that the product intervention power is to be only used as a last resort or pre-emptive measure where there is risk of significant detriment to a class of consumers and would be temporary and subject to a judicial review and prior consultation with the Australian Prudential Regulatory Authority (APRA) where necessary. However, King and Wood Mallesons (2014, p. 1) notes that:

[M]any industry stakeholders expressly did not support a power of this kind in their submissions to the inquiry and there are concerns that it could create uncertainty, constrain innovation, increase costs, detract from consumer accountability and increase reputational risk. However, the inquiry did not accept these concerns.

The remaining significant issue with the inquiry's recommendations on consumer outcomes relates to Recommendation 26 concerning consumer guidance and disclosure in the general insurance industry. Foremost among these, the Financial Rights Legal Centre (2014) contends that the insurance industry still 'requires urgent review and regulatory reform [and that the] failure to undertake that review in the context of climate change leaves consumers, the Government, the insurance industry and other financial services providers (and the economy as a whole) at serious risk'. Clearly, the inquiry's view that the general insurance industry should be left to 'complete its recent work on reducing complexity and facilitating consumer understanding of key features and exclusions' does not go far enough toward what it refers to as the alternative of 'a prescriptive regulatory regime'.

## **Summary**

In its Final Report, the Financial System Inquiry (2014b) into the Australian financial system makes eight recommendations relating to the theme of consumer outcomes coincident with its stated aim of 'seek[ing] to strengthen the current framework to promote consumer trust in the system and fair treatment of consumers.' (Financial System Inquiry). Overall, these recommendations have been welcomed and are largely consistent with existing regulation and industry efforts and expectations. However, three of the recommendations are more contentious, with some highlighting the lack of detail concerning the product design and distribution obligation, the substantial, albeit temporary, intervention powers extended to ASIC, and the relative inattention to pertinent issues in the general insurance industry, including underinsurance and noninsurance relating to natural disasters.

## **Acknowledgements**

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# FSI: *A mixed bag on regulation*

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*The regulatory chapter of the Financial System Inquiry Final Report is strongest in the areas where it chooses not to change current regulatory arrangements. The inquiry's overall approach reflects a view that problems of coordination, operation and governance are all amenable to improvements within the current structures. This paper is sceptical that the solutions proposed will be effective and points out the ongoing weaknesses in regulatory transparency and accountability.<sup>1</sup>*

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Chapter 5 of the *Financial System Inquiry Final Report* starts with the assertion that 'Australia needs strong, independent and accountable regulators to help maintain trust and confidence in the financial system'. Perhaps it should have included 'effective' as an additional adjective since some key recommendations focus on the effectiveness of the different regulators and the system overall.

To help achieve this objective the Financial System Inquiry (FSI) makes five specific recommendations while batting away a number of alternatives. These are to:

- > strengthen the Australian Securities and Investments Commission (ASIC)
- > improve the regulator accountability framework
- > improve the effectiveness of our regulators
- > rebalance the regulatory focus towards competition
- > improve the process of implementing new financial regulations.

The recommendations explicitly considered and rejected imply:

- > no change to the institutional structure
- > no change to the regulatory perimeter
- > no additional regulators brought into the Council of Financial Regulators
- > no reallocation of functions between regulators
- > self-managed superannuation to stay outside the net.

## **Were the regulators the big winners?**

There were three basic regulatory issues that needed to be resolved. First, the FSI needed to form a view about whether the current separation between the Australian Prudential Regulation Authority (APRA) and the Reserve Bank would be retained. The second was how to deal with the problems swirling around ASIC, and the third issue was to address concerns with the way the various regulators operated.

The FSI appears to have been influenced by the fact that different countries are experimenting with different regulatory structures and that there is no clear consensus on the appropriate approach. In the absence of this, and given that our system appears to be working well, the FSI recommends no change. This seems sensible.

It has stronger views about what to do with ASIC and, in doing so, incorporates the spirit of the recommendations from the Senate inquiry into the performance of ASIC. These effectively strengthened ASIC, narrowing its brief and strengthening its finances, while rejecting more substantial changes.

1. This paper draws on Maddock, R, Dimasi, J and King, SP 2014, '[Rationalising rustic regulators](#)', *Monash Business Policy Forum Paper*.

With the rapid pace of regulatory change which followed the global financial crisis (GFC), concerns emerged about the mode of operation of the regulators. These were not driven by concerns about how the crisis had been managed but rather with the post-crisis phase, particularly where regulations were introduced without any of the give-and-take of the normal processes of domestic policy formation. There was a concern that APRA was deciding how and when to implement decisions taken by the Basel Committee without serious local input or review. The FSI left operational matters with APRA but instituted a form of oversight to address concerns.

### **Greater accountability to government**

Some of the most innovative recommendations in the FSI Final Report relate to the accountability of regulators to government. Specifically the inquiry recommends establishing a new Financial Regulator Assessment Board tasked to undertake annual review of the performance of regulators against their mandates. The assessment board concept arises from the panel's struggle to find a mechanism which balances the conflict inherent in the principles it sets out of independence and accountability. It hopes that this process will ensure that regulators 'give stronger and more transparent consideration to competition and compliance cost issues'. To facilitate this, regulators are asked to develop better indicators of how they are performing.

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At the same time, the FSI suggests regulators should get a little more cover. It recommends that government should make more explicit what it expects the regulators to do, particularly by setting out more clearly the government's appetite for risk in the financial system.

Unfortunately neither recommendation is likely to be effective.

An assessment board which takes its job seriously will report to the Minister that regulator A has done a good job, but regulator B is underperforming. Regulator B will then explain to the Minister that the board is wrong, and it is actually performing its mandate appropriately. The Minister will then have to resolve the issue, and fix the performance, without having either group resign. Well-qualified potential regulators may even refuse to operate under this model.

The most serious alternative considered, with each regulator having a board, and a separation of executive responsibility from board responsibility, was rejected on the grounds that the HIH Royal Commission had recommended against it. Since the separation of board from executive is standard in most of Australia's commercial sector, it is difficult to see why it is not appropriate for our regulators.

The best option would be to encourage the assessment board to operate rather like a normal board of directors to the regulators. While it will probably not be selecting chief executives, the assessment board could well discuss and consider strategic developments with the regulators, and then report to the Commonwealth Treasurer rather as a normal business board does with corporate shareholders. This would change the operation of the assessment board somewhat from what the FSI envisages, but it is likely to constitute a more effective form of governance.

The recommendation that governments set out in advance a risk appetite statement for the regulators seems unlikely to be effective. Do we seriously believe the government is going to say to ASIC that it is allowed to have three small financial scandals each year, a major scandal every two years? Would the Rudd Government have told APRA just to let Bankwest collapse in accordance with its risk appetite statement of one bank failure per decade?

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That said, the regulators will have to comply with the government's new Regulatory Performance Framework which will help address some of these concerns. It now requires self-assessments of regulatory performance burdens which will be reviewed every three years and will capture the financial sector regulators.

### **Raising regulatory effectiveness**

The inquiry makes a number of recommendations about how the regulators should operate, which are designed to improve their effectiveness. Most intriguingly the panel felt that it was necessary to remind the regulators of the importance of competition: 'the inquiry believes there is complacency about competition, and that the current framework does not systematically identify and address competition trade-offs in regulatory settings'.

The panel clearly believes that the regulators, and probably APRA in particular, have allowed prudence to dominate their analysis and settings at the expense of the other aspects of their briefs.

Whether this admonition will have any effect is unclear. In the aftermath of the HIH collapse, fingers were pointed at APRA for not paying sufficient attention to the risks in the insurance sector. More recently, ASIC has been criticised by the Senate for not foreseeing problems in several finance companies. The fact that the regulators are blamed for collapses surely means that they will continue to value the stability of institutions above competition between them.

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By contrast, the idea of an initial Hilmer-style external review of existing unnecessary regulatory barriers to completion is clearly appropriate and regular evaluations of regulatory solutions for potential anti-competitive impact is certain to align with the views of the Competition Policy Review currently underway. The panel's call is not to actively promote competition. The focus is rather on removing barriers to entry, allowing space for competition to develop, and encouraging normal competitive activity. There is no call on the regulators to tilt the table against particular players. Again this seems likely to be consistent with the approach taken by the Competition Policy Review. Such external 'competition' reviews of the sector represent a significant positive move.

The call to improve the processes applied when new regulations are implemented is a reflection that regulators are avoiding undertaking proper analysis, consultation and review of the wave of new regulations that Australia has seen post-GFC.

Again though, the recommendations seem unlikely to have much effect: 'the inquiry recommends that Government and regulators adhere to minimum implementation lead times and monitor impacts more thoroughly post-implementation'.

Post implementation reviews are a waste of time and effort. They sound good from a bureaucratic point of view: the agency should learn from its mistakes. But post hoc reviews are of no value to the industry or little value to the society. The central problem is that a poor regulation, such as the Financial Services Reform Act 2001 (FSRA) when it was introduced, causes the industry to incur millions (possibly hundreds of millions) of dollars in investment and retraining. To decide a few years down the track that it was a mistake does not recoup the investment. And then a decision to reverse the mistake, even to go back to the old rules, requires firms to incur even more costs. Calling for longer lead times has no real impact other than to spread the adjustment costs over more time.

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A better process would be to take more time and care initially. This has to involve real engagement with the industry to ensure that new regulations are designed to be as easy to implement and administer as possible.

The inquiry recommends that ASIC and APRA should both be strengthened through increased budget stability built on periodic funding reviews, and with greater operational flexibility. ASIC, APRA and the payment systems function of the RBA should also commit to six-yearly capability reviews. These are helpful recommendations.

### **The non-recommendations**

The Wallis Inquiry established the basic architecture of Australia's financial regulators. There have been four major changes since then, from which we should learn.

First is the complete change of the focus of ASIC from relying on consumers to make sensible choices, to the current focus where sellers have responsibility for stopping consumers making silly choices. This consumer protection brief in finance looks very similar to the consumer protection brief of the ACCC. Do we need two consumer protection agencies? The inquiry opines that it is necessary for ASIC to keep consumer protection in finance because it sees consumer protection as an important part of ASIC's toolkit. The logic is weak: every industry could have its own regulator with its own consumer protection function but Australia has chosen to place these powers with the ACCC across a full range of industries with perhaps the only exception being finance. Why is finance different? We are told, without substantial justification, that: 'The inquiry sees value in an integrated consumer regulator for financial services.'

The second major change was the experience of the GFC. The regulatory model, and nature of cooperation, worked during a period of considerable stress so that broadly we would expect to support it. Experiences in other countries have, however, shown fragilities that we can learn from. The first is the potential impact of prudential policy on stability policy, and the move of prudential policy makers to focus on macroprudential issues. This has led to questions about the separation of APRA-like functions from Reserve Bank-like functions in various jurisdictions and the reintegration of some. At the same time, quantitative easing in various countries has led to questions about just how separate fiscal and monetary policies can be, again with some countries rethinking the relationship between the two.

The inquiry barely reflects on these issues. The key observation is: 'The Reserve Bank of Australia ... and APRA each have responsibility for financial stability. However, most macro-prudential tools can only be deployed by APRA. This places a strong premium on cooperation between the two agencies.'

The third major recent change has been the emergence of new technologies which have the potential to bypass the regulated institutions. The Wallis Inquiry made the mistake of assuming institutions would not adapt, and that financial markets would have supplanted them by now, which clearly has not happened. The banks, in particular, integrated markets into their business models, especially on the funding side. What is not clear now is whether technology will allow markets to evolve and undercut the advantages banks have developed in matching lenders to borrowers. The panel examined this issue and has basically left it unresolved, other than to give the Reserve Bank a watching brief over the issue and to establish greater coordination between the public and private sector on this (Chapter 3). Since it is too early to tell how the finance industry will develop in the shadow of the institutions, this is probably the most sensible choice.

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The growth of the superannuation sector post-Wallis is reshaping the financial system quite significantly. From a regulatory point of view this has not created particular new issues with APRA continuing to monitor the major institutions within the sector. The self-managed segment, however, lies outside APRA's brief and the inquiry has decided to leave it largely to its own devices. Its only intervention is to recommend a limit on the use of leverage by self-managed funds on the basis that unlevered funds could do little damage to the system. The financial products that funds use will be captured under the general provision of ASIC, and other products in effect by the ACCC, with the Australian Tax Office responsible for trustee behaviour. This was a pragmatic non-decision by the inquiry and probably the correct one.

### **The missing issues: transparency and appeals**

There are two big missing elements, features one expects of a good regulatory process.

There seems to be no requirement for regulators to conduct public hearings or to issue discussion papers; in fact, there is very little emphasis on the transparency of decision making. The emphasis is on reporting and assessing decisions after they have been taken and often after they have been implemented.

Nor does there seem to be any appeal mechanisms envisaged. This is in sharp contrast with, for example, how the ACCC operates. While we do not want appeals against the Reserve Bank's interest rate settings, it is not clear why other regulatory decisions should not be appealable.

The inquiry touches on the issue of inconsistencies in the mandates of the different regulators but makes no decisive recommendation. The Reserve Bank and the Payments Systems Board have responsibilities to balance core responsibilities against issues like promoting certainty and minimising compliance costs, but it is not clear that these apply to APRA and ASIC at all. This is an area where we could certainly have done with a clear recommendation to fix the suite of mandates.

## Overall assessment

The regulatory chapter is one of the weakest in the report. Ironically the non-decisions were probably the best, with no changes recommended to the regulatory structure or the regulatory perimeter. The self-managed superannuation sector has basically been left alone, and the impact of emerging technologies on regulation is to be monitored.

The steps taken to increase accountability seem designed to fail. If the Accountability Board is strong, it will undermine the independence of the regulators and they will work against it or resign. If it is weak, it will have no impact. The best hope is that it is transformed into a more normal board which reports to the Treasurer (as 'shareholder').

The call for government to establish (what are effectively) risk appetite statements for regulators is unlikely to succeed. What government will tell APRA it is acceptable to have one failure like HIH every decade, or one major bank every 20 years? This simply seems impractical.

The steps designed to increase regulatory effectiveness also have problems. Asking regulators to pay more attention to competition is unlikely to have any impact when the regulator's career incentives are all biased against allowing failures to occur: prudence will always take priority.

Similarly the idea of having post-implementation reviews looks as if someone read a textbook on public administration rather than was concerned about the real world. So we do a review in five years' time and say that a particular decision was wrong. What effect does that have? It has no benefit for the industry, the implementation costs have all been sunk, and the staff responsible are probably promoted. At best, the review might provide a case study for trainee regulators. Taking more care upfront and consulting more effectively with industry seem much more likely to produce good outcomes.

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The whole regulatory section of the final report has little to say about openness, transparency, information sharing, or appeals. This is a major deficiency.