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From the Chair of the Editorial Board

International Perspective: 2008 — Banking crisis, 2011 — sovereign debt crisis: two sides of the same coin?
LORD EATWELL

It has been obvious for some time that the banking crisis that engulfed the Western world in 2008 has also seriously weakened sovereign financial systems. The commitments to bail-outs were dwarfed by the sharp fall in tax revenues in the recession that, in turn, led to major increases in fiscal deficits and substantial public debt accumulation. However, the impact on the eurozone has been far more severe than elsewhere.

Response to ‘Adjusting the market risk premium to reflect the global financial crisis’
MARTIN HALL F FIN

‘Adjusting the market risk premium to reflect the global financial crisis’ — a rejoinder
STEVEN BISHOP F FIN, MICHAEL FITZSIMMONS SF FIN and BOB OFFICER SF FIN

Papers from the Melbourne Money & Finance Conference 2011
Finsia acknowledges the contribution of the papers from the 16th Melbourne Money and Finance Conference to this issue of JASSA. The conference — Retail and Household Finance: Current Issues — was held in July 2011 by the Australian Centre for Financial Studies.
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**Australian consumer payment behaviour and preferences**

SOPHIA CHONG, JOHN BAGNALL and KYLIE SMITH

Based on a 2010 study of consumer payment patterns, this paper examines how payment methods, including cash, are currently being used in Australia and how that use has changed over time. It also provides qualitative evidence of consumers’ preferences regarding different payment methods and highlights some potential areas for improvement in the payments system, as perceived by consumers.

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**Post GFC regulation — product innovation, ensuring customer suitability and problem resolution**

NICK HOSSACK

Post-GFC, the Australian Government has moved in a more interventionist regulatory direction but, in comparison with other countries, it has gone beyond the ‘regulatory plumbing’ to intervening more directly in financial markets. This new approach lacks any obvious conceptual underpinning. Without this, financial regulation swings with the vagaries of politics, creating uncertainty, which ultimately affects access, cost, innovation and productivity.

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**Australian equity warrants: are retail investors getting a fair go?**

BENJAMIN HUNT and CHRIS TERRY

The ASX has two functionally similar markets for contingent equity contracts — a warrants market principally serving retail investors and an ETO market that may be used by retail and professional traders. Using pricing and volatility comparisons, this study finds that warrants are generally overpriced and are significantly dearer than their ETO equivalents. This paper recommends that short selling be allowed in the warrants market in order to reduce the pricing differentials and end the systematic exploitation of retail warrant investors by warrant issuers.

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**Retail derivatives: what we know, what we don’t know, and regulatory challenges**

ALEX ERSKINE

This paper reviews what is known about retail investor participation in derivative products, including capital guaranteed/protected investments, CFDs and ETFs as well as futures, options and warrants. It highlights trends, information gaps, regulatory issues raised and the role of gatekeepers in promoting confident and informed retail investors. The paper suggests that there will be new or exacerbated challenges ahead with retail derivatives.

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**Consumer financial protection: future directions**

RICHARD SANDLANT

With governments around the world taking a renewed interest in effective consumer financial protection, this paper focuses on four key pillars: financial literacy, disclosure, advice, and product regulation. Although there is no one ‘silver bullet’ that will provide effective consumer financial protection on its own, there are potential synergies between these four pillars (and other measures), which can have a multiplier effect on the effectiveness of individual components, enhancing the overall efficiency of the policy framework.
POWERING THE PEOPLE who are building the STRONGEST FINANCIAL SERVICES INDUSTRY in the world.

WE POWER THE PEOPLE WHO DRIVE THE FUTURE
With financial markets again facing heightened volatility and uncertainty, this issue of JASSA examines the market risk premium arising from the global financial crisis and the key causes of the current European debt crisis.

First, Lord Eatwell, an internationally renowned expert on financial markets and the banking sector, highlights the extent to which the banking crisis that engulfed the Western world in 2008 has also seriously weakened sovereign financial systems. Noting that the impact on the eurozone has been far more severe than elsewhere, John Eatwell indicates that the commitments to bail-outs were dwarfed by the sharp fall in tax revenues in the recession that, in turn, led to major increases in fiscal deficits and substantial public debt accumulation. He suggests that the structural origins of this extraordinary turn of events are now well known, and include: the absence of any effective all-zone treasury function; the lack of a single eurozone bond; no substantial budgetary operation within which might be embedded the sort of fiscal transfers necessary to stabilise the monetary union; and a lack of coherent and decisive political leadership.

Next, the paper by Martin Hall provides a response to the paper by Steven Bishop F Fin, Michael Fitzsimmons SF Fin and Bob Officer SF Fin, ‘Adjusting the market risk premium to reflect the global financial crisis’, which was published in the first issue of JASSA this year. Hall says that the paper presents an interesting conceptual idea about deriving estimates of market risk premium (MRP) from the implied volatility of traded index options. He notes, however, that there are some significant issues with the authors’ proposed method of quantifying this variation, which he identifies in his response.

Following this, in their rejoinder, Steven Bishop F Fin, Michael Fitzsimmons SF Fin and Bob Officer SF Fin indicate that they do not see the matters raised in Hall’s response as leading to a ‘fundamental (and presently insurmountable) mismatch’ between a short-term view and a long-term view. They believe it is incorrect to assume that the MRP is constant over time and that the long term does not reflect the series of short terms that it comprises.

The remainder of this issue of the journal is devoted to papers from the 16th Melbourne Money and Finance Conference on Retail and Household Finance: Current issues. An outline of these papers is provided in the introduction to that section of the journal. We thank both the sponsors of the conference and the authors for their contribution to this issue of JASSA.

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Peculiarities in the structure of the eurozone have led to the extraordinary situation in which the stability of banks throughout the zone, and indeed the survival of the currency system itself, have been endangered by a sovereign debt crisis in an entity that comprises a little over 2 per cent of eurozone gross domestic product (GDP).

The structural origins of this extraordinary turn of events are now well known. They include: the absence of any effective all-zone treasury function; the lack of a single eurozone bond; no substantial budgetary operation within which might be embedded the sort of fiscal transfers necessary to stabilise the monetary union that exist in, say, the United States or Australia; and, as has been painfully evident, a lack of coherent and decisive political leadership.

Yet there are some all-pervasive and more fundamental trends in international finance, which have played a major part in the worldwide crisis and have assumed a particular significance in the context of the eurozone.

Key factors contributing to the crisis

First, the growth of the international bond market. Prior to the wave of financial market liberalisation that was sparked by President Nixon’s abandonment of the Bretton Woods system in August 1971, post–World War II sovereign bond markets were predominantly national. With liberalisation, international markets grew rapidly. Overseas sales of US bonds rose from 3 per cent of US GDP in 1970 to 200 per cent in the early 2000s; while overseas sales of UK bonds rose from nil in 1970 (such sales would have been illegal) to 1000 per cent of UK GDP in the early 2000s. The enormous scale of international bond transactions today makes it possible for there to be huge swings in the funding of national bond markets, between holdings of, say, dollar, sterling or euro bonds, or between different sovereign euro bonds. These potentially destabilising swings have transformed the sensitivity of funding policy to market forces.

Second, the financial innovation that accompanied liberalisation has resulted in rapid growth in the size of the balance sheets of the banks (and other financial intermediaries) relative to the underlying transactions that those balance sheets are based upon. Broadly speaking, the assets of the banks have grown at an average rate of 15 per cent since 1978. Given that world GDP has grown (in nominal terms) at a little more than 5.8 per cent per annum over the same period, the excess growth of 9.2 per cent per year suggests that the banks’ balance sheets are now around 20 times greater, relative to the given underlying GDP, than was the case 33 years ago. Since deposits are not likely to rise at a rate much faster than the growth of GDP, the relative increase in the size of financial balance sheets must be due to the growth of wholesale lending between financial institutions.
Today the balance sheet looks quite different. Deposits to households and firms (the remaining 60 per cent) and trade acceptances (around 40 per cent) and loans are a mixture of very liquid assets, such as Treasury bills by households and firms. The assets of the bank were liabilities of a bank consisted almost entirely of deposits. The growth of the banks’ balance sheets consists of loans to households and firms, with the rest being marketable loans and securities and other investments, and repos.

The overall result has been a fundamental shift in bank funding, away from deposits (that tend to be very ‘sticky’) toward short-term market transactions that must be continually refinanced. The 90 banks covered by the recent European Banking Authority stress tests, for example, need to refinance €5,400 billion of debt in the next two years, equivalent to 45 per cent of European Union GDP. This is not too difficult to turn over in tranquil times, but a significantly greater challenge today.

The eurozone crisis

The impact of the 2008 financial crisis on public debt is well known. Among OECD countries, the ratio of public debt to GDP doubled from 1970 to 2008, rising from 40 per cent of GDP to 80 per cent of GDP. In the past three years it rose to 106 per cent of OECD GDP. Of particular interest is the balance between domestic funding of public debt (a nation borrowing from itself) and international funding. It is noticeable that among developed countries, it is the eurozone countries that have by far the greater international exposure (see Figure 1). Taking Canada, Japan, the United States and the United Kingdom together, the overseas proportion of public borrowing is around 12 per cent. However, taking Belgium, France, Germany, Greece, Ireland, Italy, Portugal and Spain together, around 50 per cent of public debt is funded overseas (predominantly, but not exclusively, in other countries of the eurozone) — and this figure is roughly the same for each country.
There are two major reasons for this difference in the structure of funding.

First, while the eurozone economy is larger than the US economy and, hence, any balanced bond portfolio must contain euro-denominated bonds, exposure to the euro can be obtained by investing in any of the various eurozone sovereign bonds. Investors therefore have a choice as to which euro sovereign to hold, a choice that is likely to be informed by the risk, return and hence diversification of their entire euro holding.

Second, the policy of the European Central Bank (ECB) resulted, at least up to the end of 2009, in all eurozone sovereign bonds being treated by the market as if they were almost equivalent to one another, despite obvious differences in national debt structures which were, in turn, reflected in bond ratings (Buiter and Sibert 2005). A key decision was made to assign all eligible euro-denominated sovereign debt instruments issued by the eurozone central governments to the same (highest) liquidity category. Accordingly, not only were spreads between the returns on sovereign bonds very small, but also the ECB operations in the repo market ensured that sovereign debt could be transformed into cash, easily and cheaply. It was therefore in the interest of the banks to hold large quantities of sovereign debt on their balance sheets — in effect, earning a substantial risk-free return. Moreover, since all sovereign debt was treated the same, then it made sense to hold a ‘balanced portfolio’ of sovereign instruments from throughout the eurozone. An unintended consequence of ECB policy was to make sovereign funding very easy and very cheap.

Eurozone states are prohibited from printing money, but they were provided with a financial facility that (so long as confidence lasted) was almost as good! This was a particularly attractive source of funding as tax revenues collapsed in 2007–09.

A further element of ECB policy was the excessive increase in the valuation haircut associated with the maturity of the collateral used in repo transactions. This encouraged the move to short-term funding that has become typical of eurozone banks and eurozone sovereigns.

These arrangements could not survive the market shock of the emergence of funding difficulties in Greece, Portugal and Ireland, and latterly in Spain and Italy. Around €450 billion of sovereign debt is held by Europe’s top 24 banks, of which €50 billion is from Greece, Ireland and Portugal, nations that make up about 6 per cent of eurozone GDP. As CDS spreads widened, the repo market was no longer a source of ready cash, indeed Greece could only sell government bonds direct to the ECB. Banks holding large quantities of eurozone sovereign debt faced the prospect of large write-downs. The banking crisis has led to a sovereign crisis that has led back to a banking crisis.

The most spectacular collapse so far has been the recent demise of the Franco-Belgian financial group Dexia — a bank that was rated one of Europe’s safest in the stress tests last July. Dexia held €21 billion of ‘peripheral’ eurozone sovereign bonds. The overall balance sheet was financed by short-term borrowing that required

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**FIGURE 1: Gross government debt**

<table>
<thead>
<tr>
<th>Gross government debt</th>
<th>As % of GDP, 2011 forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt</td>
<td>Primary* budget balance as % of GDP, 2011 forecast</td>
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<tr>
<td>-</td>
<td>-</td>
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<tr>
<td>Japon</td>
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<tr>
<td>Greece</td>
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<tr>
<td>Italy</td>
<td>0.5</td>
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<tr>
<td>Ireland</td>
<td>-6.8</td>
</tr>
<tr>
<td>Portugal</td>
<td>-1.9</td>
</tr>
<tr>
<td>United States</td>
<td>-8.0</td>
</tr>
<tr>
<td>Belgium</td>
<td>-3.3</td>
</tr>
<tr>
<td>Euro area</td>
<td>-1.5</td>
</tr>
<tr>
<td>France</td>
<td>-3.4</td>
</tr>
<tr>
<td>Canada</td>
<td>-3.7</td>
</tr>
<tr>
<td>Germany</td>
<td>0.4</td>
</tr>
<tr>
<td>Britain</td>
<td>-5.6</td>
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<tr>
<td>Spain</td>
<td>-6.4</td>
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</tbody>
</table>

*Excluding interest payments

daily funding of €10 billion to €20 billion funding from the wholesale markets. A ratings downgrade closed that short-term door forcing Dexia to turn to the French and Belgian governments to guarantee €90 billion of short-term funding. Dexia is now going through what is effectively an insolvency process.

It is worth reflecting on why the ECB pursued its common strategy toward sovereign bonds. The central bank of a single sovereign, say the Bank of England or the Federal Reserve, will automatically regard bonds issued by its sovereign state as being the most liquid in the market, since the state can always swap the bonds for cash — it can print money. It would seem that the ECB carried over this not unreasonable approach to management of the repo market in a single state to the peculiar multi-state structure of the eurozone.

A further notable characteristic of the eurozone is the lack of a single, all zone funding mechanism — the lack of a eurobond. This means that investors seeking exposure to the euro are required to hold bonds issued by individual sovereigns. This also means that exposure can be maintained while switching from one sovereign to another. Moreover, any holder of euro cash and bank deposits (which lack any national identity) can achieve the security of a desired national identity by moving cash balances from say, Greek current accounts, into, say, German bonds. There is thus the potential for massive capital flight. Between states with different currencies, capital flight results in the accumulation of unwanted currency in the central bank of the recipient state. That central bank will seek to transform unwanted currency into desired reserve denominations, putting downward pressure on the currency from which capital has fled. Nothing of this sort can take place within the eurozone since it is a single currency area. The result has been that large balances have been accumulated in the accounts of the central banks of recipient countries at the ECB, and equivalent negative balances in the accounts of the central banks of the countries from which capital has fled (see Figure 2). This capital flight might well be reversed if a convincing rescue deal for the euro were put in place. Its very existence is evidence of a serious design fault in the eurozone.

The solutions
The short-term solution to the eurozone’s problems is clear enough. The ECB must guarantee the sovereign debts of all member states and, where necessary, print money to clear them.
holders is a matter of political taste (or perhaps, political necessity in the case of countries that are doing the refinancing). However, the larger the haircut imposed, the greater the resources that will be required to recapitalise the banks that have suffered the haircut. Despite the broad economic logic of the short-term solution to the current situation being straightforward, it has, up to now, run into a brick wall of political resistance.

Moreover, these short-term measures would not solve the medium- to long-term problem. Once the debt of the less competitive countries has been in some way written off, and growth resumes, then the same pattern of indebtedness will begin to reappear. This is inevitable in any monetary union. The idea that a monetary union could be uniformly competitive is a fantasy. That is why all workable monetary unions have the characteristics listed above — most notably, an all-union bond issuance to fund a major part (though not necessarily all) of public debt and a substantial budgetary process that redistributes income from rich to poor, hence limiting the accumulation of debt. For example, tax revenues in London and the south-east of England are roughly 25 per cent greater than government expenditure in the region, the difference being used to support other parts of the United Kingdom. Nobody notices.

The importance of the all-union bond should be evident from the experience of the internal capital flight that has afflicted the eurozone. Compare this situation to that of the United States. The fiscal problems of California (far bigger within the US economy than is Greece within the eurozone) affect the funding of the Californian deficit, but are in no way destabilising to the federal bond market. There is no comparable dollar crisis.

Will solutions be found, to both the short term and the longer term problems? The answer is to be found in the saying ‘follow the money’. In other words, who is the greatest beneficiary of the existence of the euro? The answer is Germany. Not only does the rest of the eurozone absorb 40 per cent of German exports, but consider the exchange rate of a reconstituted deutschmark. The German economic model of export-led growth would crumble as the mark soared, in the same way that the prosperity of Switzerland is now threatened by the ‘safe haven’ status of the Swiss franc.

The beneficiary may be reluctant to pay for the benefits it enjoys, and there are still obvious historical inhibitions to German leadership, but the remorseless logic of economic advantage will triumph in the end. After 20 excruciating months of inflammatory indecision, Germany’s Angela Merkel and France’s Nicolas Sarkozy are talking of a ‘real economic government’ for the euro, though they have not yet defined what this means or when it will happen. Sarkozy has even declared that ‘euro bonds can be imagined one day’, though this would be ‘at the end of the integration process, not the beginning’. That eurobond market would be as large as the dollar market, and equally irresistible.

The deals reached this autumn are still in the ‘fire-fighting’ category, and the key to temporary success will be whether the flames are doused. The longer term reconstruction of the eurozone will determine whether this is a temporary respite or whether a new, resilient structure emerges. Such a structure will inevitably involve a far greater degree of political integration (at least in economic decision making) than has been conceived of up until now.

There is a long way to go and along the way many reluctant electorates to be persuaded. But in five years, with coherent political leadership and a lot of luck, the institutional framework of a passably workable monetary union will have been cobbled together.

References
**RESPONSE TO ‘ADJUSTING THE MARKET RISK PREMIUM TO REFLECT THE GLOBAL FINANCIAL CRISIS’**

Bishop, Fitzsimmons and Officer’s paper in JASSA: The Finsia Journal of Applied Finance (Issue 1, 2011) proposes a method for adjusting the market risk premium (MRP) based on the implied volatility derived from prices of three-month and 12-month call options on the ASX 200. While it is widely recognised that the MRP was higher during the global financial crisis (GFC), there are some significant issues with the authors’ proposed method of quantifying this variation which are identified in this response.

**Keywords:** market risk premium, cost of equity, global financial crisis, options pricing, implied volatility.

The paper by Steven Bishop F Fin, Michael Fitzsimmons SF Fin and Bob Officer SF Fin, ‘Adjusting the market risk premium to reflect the global financial crisis’, presents an interesting conceptual idea about deriving estimates of MRP from the implied volatility of traded index options. However, it:

> has an underlying inconsistency;
> materially overstates the size of the MRP shift;
> makes an inappropriate comparison with debt spreads;
> fails to consider other factors influencing the markets relied on by the authors; and
> is inconsistent between its use of measures of historic volatility and implied volatility.

**Fundamental inconsistency**

MRP is a long-term parameter in that equity cash flows by their nature occur over an extended period of time. There is, therefore, a fundamental inconsistency when using short-term information (data from three-month and one-year options) to estimate a long-term parameter such as MRP.

The paper by Bishop, Fitzsimmons and Officer attempts to get around this by putting forward (without discussion) a notional ‘one-year MRP’, which is not a well-defined concept (since there are no equity assets with cash flows only occurring over a one-year period). Furthermore, this leaves undefined the issue of how a ‘one-year MRP’ would be converted into a true (long-term) MRP. Although the paper has an endnote, which mentions the possibilities of assuming a ‘glide’ over three years or, alternatively, stepping down the MRP after two years to derive a long-term average, it does not discuss this further.

**Size of MRP shift**

The paper suggests that the normal level of MRP in Australia is generally accepted to have an average range of 6 per cent to 7 per cent (constant for all terms).

The paper also estimates that the current ‘one-year MRP’ is 9.7 per cent. While the paper goes on to state that converting this into a longer term MRP requires further assumptions, it may not be obvious to the casual reader that in valuing most equity assets with cash flows only occurring over a one-year period. Furthermore, this leaves undefined the issue of how a ‘one-year MRP’ would be converted into a true (long-term) MRP. Although the paper has an endnote, which mentions the possibilities of assuming a ‘glide’ over three years or, alternatively, stepping down the MRP after two years to derive a long-term average, it does not discuss this further.

For instance, for a 20-year equity cash flow growing at 3 per cent per annum with a one-year MRP of 10 per cent grading down to 6 per cent MRP for years 4+ and a flat risk-free rate of 5.5 per cent per annum, the equivalent constant MRP is 6.95 per cent, as shown in Figure 1.
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875.5996    875.5996

Put more simply, the authors’ dramatically higher MRP of 9.7 per cent, even if correctly calculated, is only a notional one-year MRP, not a long-term MRP. Under plausible assumptions (e.g. a reduction of MRP over four years back to a long-term rate of 6 per cent), this is actually consistent with the range of the long-term MRP that most practitioners and regulators currently adopt in practice.

**Comparison with debt spread**

The paper compares the calculated risk premium on debt (spread of seven-year BBB bond yield over 10-year Commonwealth bond yield) with the MRP calculated from the implied volatility of options. The authors state that ‘the relative consistency in the behaviour of spreads in these two markets gives us confidence in the approach we have adopted to estimate the forward equity market MRP’.

However, the observed debt spread data does not support the authors’ case:

- **first**, the authors wrongly compare the short-term (one-year) MRP against longer term debt spreads (seven-year BBB bond yield net of 10-year Commonwealth bond yields), whereas the MRP appropriate for the seven-year term of the BBB bonds would not be at the short-term level, but rather considerably closer to the long-term level (how much closer would depend on what assumptions are made about mean reversion.)

- **second**, debt is much less risky than equity, as is shown by the normal spreads (namely a MRP of about 6 per cent and BBB spread over Commonwealth bonds of 1.2 per cent), which are consistent with BBB debt having a beta of 0.2. Thus the authors’ observed increased spreads for seven-year BBB bonds being similar to the observed increase in the one-year MRP implied by option values is much more than would be expected, even if there were no mean reversion in MRP. If other factors were unchanged, it would be more consistent for BBB spreads to increase in proportion to the MRP, not by the same amount. Put simply, the GFC was primarily a banking and credit crisis, which affected credit spreads dramatically, and only indirectly an economic crisis, with much smaller effects on the MRP than the normal relationship between debt spread and the MRP would indicate.

**What the authors missed**

The observed debt spreads during the GFC (and subsequently) were significantly affected by a number of abnormal factors such as:

- the artificial suppression of official rates by central bankers to support their economies;

> second, debt is much less risky than equity, as is shown by the normal spreads (namely a MRP of about 6 per cent and BBB spread over Commonwealth bonds of 1.2 per cent), which are consistent with BBB debt having a beta of 0.2. Thus the authors’ observed increased spreads for seven-year BBB bonds being similar to the observed increase in the one-year MRP implied by option values is much more than would be expected, even if there were no mean reversion in MRP. If other factors were unchanged, it would be more consistent for BBB spreads to increase in proportion to the MRP, not by the same amount. Put simply, the GFC was primarily a banking and credit crisis, which affected credit spreads dramatically, and only indirectly an economic crisis, with much smaller effects on the MRP than the normal relationship between debt spread and the MRP would indicate.
> ‘quantitative easing’ in the United States, artificially depressing longer term US bond yields (with flow-on effects elsewhere);
> shifts in reserve holdings as banks and other financial institutions increased their holdings of government bonds; and
> the lack of liquidity in corporate bond markets.

Liquidity is very important to investors, but it is not separately allowed for in the capital asset pricing model (CAPM), which assumes all assets are fully liquid at all times. Accordingly, liquidity margins (and, particularly, increases in liquidity margins) should not be equated with risk margins as per the CAPM. A more reasonable interpretation of the observed bond spreads is that there was a blow-out of liquidity spreads for corporate bonds due to the GFC and this persisted for some time, particularly for BBB bonds, which is a thin market in Australia.

The end result is that the authors’ assessment of the MRP is materially overstated due to their failure to distinguish between:
> the impact of risk and the impact of (significantly reduced) liquidity; and
> the different duration of those impacts.

Other factors affecting option values

The implied volatility calculated for option prices is also materially affected by factors other than the market’s view of risk.

In particular, structural changes that alter the attractiveness of writing options will alter the supply of option writers and, hence, will alter option prices. During the GFC (and remaining in place after it), a number of changes were made which had the effect of reducing the attractiveness of writing options, including:
> the Australian Clearing House (ACH) increased margin requirements;7
> restricting ACH’s eligible collateral to fully paid stocks in the ASX200 (plus specific cover);8
> increasing core liquid capital requirements for clearing participants from $100,000 to $2,000,000 in December 2008;9 and
> the low interest rate paid by the ACH on cash-backed margin calls; the financial impact of which was greatly exacerbated by the combination of collapsing equity values, widening option spreads due to option market illiquidity, increased margin requirement noted above and the necessity to lodge cash security at a time when liquidity was at a premium.

Furthermore, buy/sell spreads for options widened considerably, reducing the liquidity of the market and, hence, reducing the attractiveness to option writers (noting that option buyers are more often at least potential long-term holders of the underlying security, who wish to protect their position, whereas option sellers are more often speculative and, hence, more likely to wish to close out their profitable positions early).

These significant market changes have meant that some of the observed shift in implied volatility calculated from option prices is due to factors other than expected risk over the option term. As a result, by calculating MRP movement directly from shifts in implied volatility, the authors overstate these changes and this also causes their current MRP estimate to be overstated.

Historic and implied volatility

Historic volatility is actual volatility over a period, whereas implied volatility is calculated from option prices under the assumption that the Black-Scholes pricing formula applies.

The paper uses historic volatility to calibrate MRP per unit volatility but then uses implied volatility to estimate current short-term MRP. This implicitly assumes that the two measures are equivalent. However, this is not the case as implied volatility is generally higher than historic volatility.

There are a number of reasons for this, including:
> imperfections in the assumptions underlying the Black-Scholes option price formula as a description of actual market behaviour and, hence, the completeness of its calculation of value;10 and
> the general preponderance of option buyers (seeking protection from volatility on underlying assets) over sellers.

Accordingly, the authors’ failure to allow for the inconsistency between actual historic volatility and implied volatility again causes them to overestimate the MRP.
Some conclusions
The paper’s underlying conceptual idea of measuring MRP by reference to implied option volatility is worthy of further research. But its resulting assessment of MRP is materially overstated due to the authors’:

- comparison with debt spreads of non-matching terms, which is not a comparison of like with like;
- failure to allow for the fact that debt spreads were materially impacted by other abnormal factors;
- wrongly attributing and perpetuating (short-term) liquidity aberrations into (long-term) risk margins;
- failure to allow for the material adverse impact of structural changes to the option market during the GFC; and
- failure to differentiate between actual historic volatility (a factual matter) and implied prospective volatility (a mathematical calculation from an option model), even though these are, in practice, typically different.

In an ideal world, further empirical research might conceivably allow for each of these errors to be corrected. However, in my view, this is unlikely to occur due to the measurement problems involved.

The authors are to be commended for proposing an interesting alternative approach to calculating the MRP. However, their estimated current MRP of 9.7 per cent is very materially overstated as an estimate of true (long term) MRP. At a more fundamental level, the calculation of a long-term MRP based on short-term option volatility represents a fundamental (and presently insurmountable) mismatch.

The views contained in this paper are those of the author and not necessarily those of his firm.

Notes
1. Date not stated but presumably December 2010.
2. Examples of ‘glide’ over three years or step-down after two years to long-term average are given in an endnote to the paper.
3. Which this author does not accept.
4. I note that it is not stated whether this implied volatility is based on a 90-day option, one-year option or some other term or terms.
5. For instance, assuming a grading to long-term MRP by year 4 (as for equity cash flows calculated above) would mean that a 10 per cent one-year MRP would be equivalent to an overall MRP of some 7.3 per cent for a seven-year bond.
6. This was the clearing house at the relevant time, but has subsequently been replaced by ASX Clear Pty Limited.
7. For instance, the ASX margin intervals for S&P/ASX 50 Options (XFL) and S&P/ASX 200 Options (XJO) increased (in a series of steps) from 6 per cent in June 2008 to 14 per cent in January 2009, effectively more than doubling the proportion of value required to be held as risk margin (which is calculated as the worst change to value of position from the underlying security changing to somewhere in the range from an increase by the margin interval to a decrease by the margin interval).
9. Also announced by the ASX in the risk management changes document released on 7 July 2008.
10. As shown, for instance, by volatility ‘smile’, where deep out-of-the-money and deep in-the-money options generally trade at higher implied volatility than at-the-money options for the same asset and term. Under the assumptions underlying the Black-Scholes formula, all of these options should trade at prices consistent with the same volatility.
‘ADJUSTING THE MARKET RISK PREMIUM TO REFLECT THE GLOBAL FINANCIAL CRISIS’ — A REJOINDER

This rejoinder addresses the comments by Martin Hall in his response to our paper. We do not see the matters raised in his response as leading to a ‘fundamental (and presently insurmountable) mismatch’ between a short-term view and a long-term view. We believe it is incorrect to assume that the MRP is constant over time and that the long term does not reflect the series of short terms that it comprises.

Our detailed response to the comments on our paper follows the same five headings as used by Hall. As a general rule, we have not repeated the comments so this should be read in conjunction with Hall’s paper (pp. 11-14).

The paper has an underlying inconsistency

Hall suggests that there is a fundamental inconsistency when using short-term data to estimate a long-term parameter. First, we note that there is nothing in the Capital Asset Pricing Model, or in its practical application, that defines the forward market risk premium (MRP) to be either long term or stable. Second, the long term is just a series of short terms. Our paper suggests transitioning a short-term view of the MRP to a long-term average, thereby reflecting consistency across time, rather than creating an inconsistency as Hall suggests. Unless he would argue that all investments have an infinite horizon, the shorter-term view is important to decision making.

The difference between the MRP derived from our recommended method and the long-term average will depend upon the assumed reversion period and the decision horizon of interest. There is nothing to suggest that an MRP is stable over time so considering the short run is essential, particularly for short-to-medium decision horizons. Most regulatory regimes, for example, involve use of a weighted average cost of capital for setting revenue or price caps over a five-year period and many asset and personal investment decisions are for the short or medium term.

It materially overstates the size of the MRP shift

Our paper makes it clear that the one-year view of the MRP derived from the implied volatility on one-year options on the market index is not constant over time, just as the historical record does not show constancy. As noted, we recommend a reversion to the mean and, further, we only recommend use of this approach in ‘unusual economic circumstances’ such as those currently being experienced.

Clearly there is a challenge in defining the length of a reversion period because there is no well-developed theory to guide the choice. Consequently a pragmatic approach is required. However, not making an adjustment for medium-term investment horizons is probably more incorrect than the relatively ad hoc nature of our selection of the reversion period. This is particularly the case under circumstances in which the cost of equity derived using the long-term average works out to be lower than the cost of debt, which makes no sense. This can occur for low beta assets. By way of example, the current debt spread on seven-year BBB-rated bonds is around 380 basis points. Use of a MRP of 6 per cent when the beta is less than 0.63 per cent will lead to an equity risk premium below the cost of debt.
The example in the Hall response shows that use of a constant MRP of 6.95 per cent will provide an equivalent present value of cash flows to a profile of MRPs declining from 10 per cent to 6 per cent over four years, and remaining at that level until the end of the life of a 20-year project. Hall argues that the 6.95 per cent is still in the 6 to 7 per cent range for MRPs and could, we assume, be ignored, i.e. using 6 per cent not 6.95 per cent is not material. Using 6 per cent instead of 6.95 per cent gives an error of approximately 7 per cent in the example. If the life of the project were five years, or we were considering a five-year regulatory period, the ‘error’ would be 22 per cent in the example. The constant MRP that would provide an equivalent answer to the profile of MRPs is 8.4 per cent.

It makes an inappropriate comparison with debt spreads

The key point we make in our paper is that we would expect the risk spreads (premiums) on both debt and equity to behave similarly, i.e. if the risk premium on debt rises, then we would also expect the risk premium on equity to rise. Otherwise, investment strategies would change to take advantage of the mismatch. Our interest is in the relative behaviour of debt and equity risk spreads. As Hall correctly points out, comparing a seven-year MRP to a seven-year debt spread would not change the relative behaviour of the risk spreads, just the level (for a given glide or decline path).

The apparent statement that the GFC affected debt risk spreads more than equity risk spreads is not substantiated by Hall and appears quite at odds with the dramatic decline in equity values.

It fails to consider other factors influencing the markets relied upon by the authors

Hall’s comment cites four factors affecting debt spreads which he suggests that we ‘missed’ thereby leading to a ‘material’ overstatement of our assessment of the MRP. This may or may not be the case, however, our interest would be in the extent of any such overstatement and guidance as to how to make such an adjustment. Our purpose is to provide a practical way of reflecting the ‘high’ levels of market volatility in the MRP. We look forward to a quantification of the impact of our omissions or to an alternative and more robust method of making an adjustment to the cost of equity to reflect this risk.

It is inconsistent between use of historic(al) volatility and implied volatility

Our analysis of implied volatility data prior to the GFC provided an average volatility of 14 per cent. This is consistent with the historical estimate of volatility for the market index derived from January 1980 using an annualised 90-day rolling estimate. Consequently, we do not see the inconsistency that Hall asserts.

The key point we make in our paper is that we would expect the risk spreads (premiums) on both debt and equity to behave similarly, i.e. if the risk premium on debt rises, then we would also expect the risk premium on equity to rise. Otherwise, investment strategies would change to take advantage of the mismatch.

Conclusion

In summary, we do not see the ‘fundamental (and presently insurmountable) mismatch’ that Hall sees between the short-term and the long-term MRP. As we have noted, the long term is made up of a series of short terms. Our pragmatic approach to reflecting unusual short-term effects, such as the GFC and its aftermath, in a longer term view leads to consistency between the short and long term rather than the alleged mismatch. We encourage valuers to be wary of using 6 per cent as a MRP for equity when spot debt spreads are well above the historical experience, as is currently the case for BBB-rated debt.
PAPERS FROM
THE MELBOURNE
MONEY & FINANCE
CONFERENCE 2011

Finsia acknowledges the contribution of the papers from the 16th Melbourne Money and Finance Conference to this issue of JASSA. The conference — Retail and Household Finance: Current Issues — was held in July 2011 by the Australian Centre for Financial Studies.

We gratefully acknowledge the support of the generous sponsors:
ANZ, APRA, Finsia — The Financial Services Institute of Australasia, NAB, Reserve Bank of Australia
The following section in this issue of JASSA is devoted to papers from the 16th Melbourne Money and Finance Conference on Retail and Household Finance: Current Issues, which was conducted by the Australian Centre for Financial Studies in July 2011. The sponsors of the conference were the ANZ Bank, Australian Prudential Regulation Authority (APRA), Finsia, National Australia Bank and the Reserve Bank of Australia.

The conference papers in this issue of the journal focus on a number of important regulatory issues in the banking and consumer finance space, many of which were highlighted by the global financial crisis. The papers canvass key options for regulators seeking to strengthen the financial policy framework, addressing concerns in areas such as financial literacy, product regulation, advice, information gaps and disclosure.

The first paper on ‘Australian consumer payment behaviour and preferences’ by Sophia Chong, John Bagnall and Kylie Smith examines how payment methods, including cash, are currently being used in Australia and how that use has changed over time. It also provides qualitative evidence of consumers’ preferences regarding different payment methods and highlights some potential areas for improvement in the payments system, as perceived by consumers.

Claire Matthews F Fin analyses the findings of a recent national study of consumer attitudes and behaviour to determine how bank switching in New Zealand differs by product and what the lessons might be for Australia. After exploring the influence of the number and type of products held by bank customers on their attitudes towards switching costs and switching, the author finds that some products, particularly electronic payments, increase the perception of the hassle of switching. The paper suggests that the focus of regulatory action needs to be on making it easier to move electronic payments.

Nick Hossack’s paper suggests that post-GFC, the Australian Government has moved in a more interventionist regulatory direction but, in comparison with other countries, it has gone beyond the ‘regulatory plumbing’ to intervening more directly in financial markets. It indicates that this new approach lacks any obvious conceptual underpinning.

As governments around the world take a renewed interest in effective consumer financial protection, the paper by Richard Sandlant looks at possible future directions in this area. It focuses on four key pillars: financial literacy, disclosure, advice, and product regulation. The paper suggests that although there is no one ‘silver bullet’ that will provide effective consumer financial protection on its own, there are potential synergies between these four pillars (and other measures), which can have a multiplier effect on the effectiveness of individual components, enhancing the overall efficiency of the policy framework.
Next, Benjamin Hunt and Chris Terry examine whether retail investors are getting a fair go in relation to Australian equity warrants. They note that the ASX has two functionally similar markets for contingent equity contracts — a warrants market principally serving retail investors and an ETO market that may be used by retail and professional traders. Using pricing and volatility comparisons, their paper finds that warrants are generally overpriced and are significantly dearer than their ETO equivalents. It recommends that short selling be allowed in the warrants market in order to reduce the pricing differentials and end the systematic exploitation of retail warrant investors by warrant issuers.

Finally, Alex Erskine reviews what is known about retail investor participation in derivative products, including capital guaranteed/protected investments, CFDs and ETFs as well as futures, options and warrants. His paper highlights trends, information gaps, regulatory issues raised and the role of gatekeepers in promoting confident and informed retail investors. It also suggests that there will be new or exacerbated challenges ahead with retail derivatives.

Once again, I would like to thank both the sponsors of the conference and the authors for their contribution to this issue of JASSA.
AUSTRIAN CONSUMER PAYMENT BEHAVIOUR AND PREFERENCES

Based on a 2010 study of consumer payment patterns, this paper examines how payment methods, including cash, are currently being used in Australia and how that use has changed over time. It also provides qualitative evidence of consumers’ preferences regarding different payment methods and highlights some potential areas for improvement in the payments system, as perceived by consumers.

In November and December 2010, Roy Morgan Research undertook a study of consumer payment patterns on behalf of the Reserve Bank of Australia. This 2010 Consumer Payments Use Study was the second of its kind undertaken by the Reserve Bank. The first study was undertaken in 2007 as part of a review of the Reserve Bank’s payments system reforms. This second study was undertaken to complement the Payments System Board’s Strategic Review of Innovation in the Payments System.

The 2010 study had several aims. The first was to identify how different payment methods, including cash, are currently being utilised in Australia and how this had changed over the three years since the first payments use study. The second was to gain a better understanding of the reasons for individuals’ use of different payment methods, to shed light on the ways in which the Australian payments system could be made more responsive to the needs of its users. The third was to provide information on consumer responses to recent payment reforms, including surcharging of card transactions.

This article provides a summary of some of the key findings of the 2010 study. It concludes that the broad patterns of payment behaviour observed in the 2007 study still hold, although they have evolved somewhat in the three years since the first study. The most significant change has been the decline in cash use, with debit cards appearing to have been the main substitute.

Description of the data

The 2010 Consumer Payments Use Study comprised two main components: the Roy Morgan Research Financial Transaction Diary (the diary); and a questionnaire completed at the end of the diary period (the end-of-study questionnaire). For the diary component, individuals were asked to record, in a specially designed pocket-sized diary, the details of every purchase, bill payment and cash withdrawal made over a one-week period. For each payment, participants were asked to record: the day and date; the payment amount; the payment method used; the merchant category; the payment channel (in person, internet, phone or mail); and whether a surcharge was paid for a card payment. In total, 1,240 valid responses were received, resulting in a sample of almost 19,500 payments for a total value of around $1.3 million.

The end-of-study questionnaire was designed to provide further insight into consumers’ payment behaviour and their preferences regarding making different types of payments. For example, it asked consumers their reasons for choosing particular payment methods, their reactions when faced with credit card surcharges and the factors that might increase their use of online payments. It also asked about payment behaviour that could not be easily captured in the payments diary, such as the use of newer payment methods.
The responses for the diary and end-of-study questionnaire were matched to demographic data for each respondent. The demographic information was obtained from Roy Morgan Research’s Single Source database, and included information such as gender, age, personal income and postcode.

The current payments landscape

The patterns of payments observed in the 2010 study are broadly consistent with those observed in 2007. Overall, most payments made by consumers in Australia are for low values. The study results suggest that transactions of up to $50 account for around three-quarters of the number of payments, but only one-fifth of the value of payments. By contrast, only 0.1 per cent of transactions are for more than $5,000, but they account for more than one-fifth of the value of payments.

Given this, it is not surprising that cash continues to be the most widely used payment method in Australia, accounting for 62 per cent of the number of all payments made by consumers (Table 1). However, while it is the dominant method used for low-value payments (under $40), it makes up less than one-quarter of the value of all consumer payments (Figure 1). Cards are the dominant payment method used for mid-sized transactions and are the second most frequently used payment method for all payments. BPAY, internet/telephone banking and cheques are important payment methods for higher-value transactions (particularly those above $500), although these payment methods collectively account for less than 10 per cent of the number of payments.

Median payment values are consistent with these payment patterns. Cash payments have the lowest median value (at around $12), reflecting the dominant role of cash for low-value transactions, while methods used to pay bills, such as BPAY and internet/telephone banking, have the highest median values (around $100 and $132, respectively). These median values are largely unchanged from the 2007 study.

![Figure 1: Share of payments](image-url)

**TABLE 1: Payment methods, number and value (per cent)**

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<td>1</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Paymate, PayPal &amp; POLI</td>
<td>1</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Other&lt;sup&gt;(b)&lt;/sup&gt;</td>
<td>1</td>
<td>16 (3)</td>
</tr>
<tr>
<td>Personal cheque</td>
<td>1</td>
<td>5 (3)</td>
</tr>
</tbody>
</table>

<sup>(a)</sup> Figures in brackets exclude transactions of $9,999 or above.

<sup>(b)</sup> Other payment methods include Cabcharge payments, money orders, petrol cards, prepaid cards and store cards.

Source: Roy Morgan Research.
Payment patterns across merchant categories have also remained broadly unchanged from the 2007 study. Cash is the dominant method where average payment values are low and where quick tender times are preferred, such as at take-away stores, pubs and small food stores. Cheques are used infrequently and tend to be used when the average payment value is high, while BPAY stands out as a key method for paying household bills. Cards are used across a wide range of merchants, with debit card use particularly strong in the petrol, electrical/furniture, holiday travel, supermarket and health categories, while credit cards are used most heavily for holiday travel.

In terms of the channels through which consumers make their payments, it is perhaps not surprising that more than 90 per cent of everyday consumer payments are made in person. However, with many of these in-person payments being for low values, they make up only 67 per cent of the value of consumer payments. By contrast, internet and phone payments — the next most popular payment channels — together account for under one-tenth of the number of all payments, but one-third of the value of payments, given that payments via these channels are typically for higher values. Payments by mail account for a negligible share of both the number and value of payments.

To gain some understanding as to why consumers tend to choose the payment methods that they do, the end-of-study questionnaire asked about the factors that determine a consumer’s choice of payment method when paying in person at the point of sale. Consumers were asked to mark all relevant factors and then to indicate which of these factors was the most important. A considerable proportion of consumers indicated that they simply use what they happen to be carrying with them. In terms of the characteristics of different payment methods, the speed of the transaction, a preference to use their own funds (i.e. their deposit rather than credit account), and the ease of managing finances were identified as being the most important factors in choosing which payment method to use (Figure 2). The importance of speed possibly explains why cash continues to be used for low-value transactions; however, it also suggests that there is the potential for cash displacement as transaction times for card payments decline. While rewards points and charges were identified by around 30 per cent of participants as factors affecting their payment decisions, relatively few identified either as the most important factor.

The evolution of payment patterns

Although the broad patterns of payment behaviour remained unchanged between 2007 and 2010, the use of different payment methods had evolved to some degree. The number of total payments per person increased, primarily driven by an increase in the use of debit cards (Table 2). However, the increase was not consistent across all payment methods. The average number of credit card and personal cheque payments decreased over the three years between studies.

Cash

The relative use of cash declined between the 2007 and 2010 studies (Table 3). Although the average use of cash actually increased slightly, the increase was less than for other payment methods. Therefore, the share of cash use in the total number of payments decreased from 70 per cent in 2007 to 64 per cent in 2010. Card payments were responsible for the bulk of this shift away from using cash for low-value payments: card payments accounted for around 24 per cent of payments under $50 in 2010, up from 19 per cent in 2007. To a lesser extent, there has also been some substitution to other electronic forms of payment, such as BPAY: the merchant category with the largest decline in cash use was household bills, where ‘paperless’ billing, which encourages electronic payment, has been promoted in recent years.

---

**TABLE 2: Average payments by method, number (per person per week)**

<table>
<thead>
<tr>
<th>Method</th>
<th>2007</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>9.3</td>
<td>9.5</td>
</tr>
<tr>
<td>eftpos</td>
<td>1.5</td>
<td>2.1</td>
</tr>
<tr>
<td>MasterCard/Visa credit card</td>
<td>1.4</td>
<td>1.2</td>
</tr>
<tr>
<td>MasterCard/Visa debit card</td>
<td>0.5</td>
<td>1.3</td>
</tr>
<tr>
<td>American Express/Diners Club card</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Personal cheque</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>BPAY</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13.3</td>
<td>14.8</td>
</tr>
</tbody>
</table>

*The average number of payments may be affected by survey fatigue, whereby fewer payments are recorded towards the end of the diary period, although the effect is likely to be small.*

Source: Roy Morgan Research.

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**TABLE 3: Use of payment methods, share of number and value (per cent)**

<table>
<thead>
<tr>
<th>Method</th>
<th>Number</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2010</td>
</tr>
<tr>
<td>Cash</td>
<td>70</td>
<td>39</td>
</tr>
<tr>
<td>Card</td>
<td>27</td>
<td>45</td>
</tr>
<tr>
<td>Personal cheque</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>BPAY</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

*Figures are based on payment methods included in both the 2007 and 2010 studies.*

Source: Roy Morgan Research.
FIGURE 2: Factors influencing choice of payment method at the point of sale

<table>
<thead>
<tr>
<th>Per cent of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
</tr>
</tbody>
</table>

Source: Roy Morgan Research.

FIGURE 3: Debit card payments by merchant category

<table>
<thead>
<tr>
<th>Per cent of number of payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrol</td>
</tr>
</tbody>
</table>

Source: Roy Morgan Research.

FIGURE 4: Response to surcharging on MasterCard/Visa credit cards

<table>
<thead>
<tr>
<th>Per cent of respondents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use MasterCard/Visa credit card</td>
</tr>
</tbody>
</table>

* Respondents with a MasterCard/Visa credit card were asked for their response if faced with a surcharge of 1 percent for using a MasterCard/Visa credit card to make a $100 transaction at a department store.

Source: Roy Morgan Research.
Cards
The average number of card payments made by each respondent in a week increased from around 3.5 payments to 4.8 payments between 2007 and 2010. This was largely driven by strong growth in the use of debit cards.

Within debit cards, growth was particularly strong for payments on MasterCard/Visa debit cards. This likely reflects the wider issuance of these cards by the major banks in the period following the first study.6 The 2010 study results suggest that while eftpos is used more frequently at merchants where a high proportion of payments are made online — such as holiday travel and leisure — due to its ability to be used for remote payments (Figure 3).

By contrast, growth in the use of credit cards has been subdued over the past three years. One reason for this preference for debit cards may be the increased prevalence of surcharging on credit card transactions between the study periods. The Reserve Bank first introduced reforms to remove surcharging restrictions in 2003, leading to a steady increase in surcharging by merchants over time. This has resulted in a greater prevalence of surcharging merchants in 2010, compared with 2007. However, consumers appear to have become better at avoiding credit card surcharges, in part by using payment methods that do not attract surcharges (see below). Indeed, the proportion of payments on which consumers actually paid a surcharge remained virtually unchanged between the studies, at around 5 per cent.

The 2010 study provides some insight into consumers’ responses when faced with a surcharge. The end-of-study questionnaire asked participants to indicate their typical behaviour when presented with a hypothetical situation of a 1 per cent surcharge for using a MasterCard or Visa credit card in a department store.7 Only 36 per cent of consumers indicated that they would choose to continue using their MasterCard or Visa credit card. A little under half of consumers would pay with a debit card or cash — payment methods that typically do not incur a surcharge — while 14 per cent of consumers would choose to go to another store (Figure 4).8 9

Respondents who reported holding an American Express or Diners Club card were also presented with another hypothetical situation of a 2 per cent surcharge for using an American Express or Diners Club card, and a 1 per cent surcharge for using a MasterCard or Visa credit card.10 This question was designed to examine consumer responses to ‘differential’ surcharging across card schemes. The majority of consumers indicated that they would switch to using a MasterCard or Visa credit card (43 per cent — broadly similar to the proportion that would continue to use their MasterCard or Visa credit card in the first scenario), while 11 per cent would proceed with an American Express or Diners Club card (Figure 5). This result reflects the high degree of

Consistent with long-term trends evident from other data sources, the diary data show a decline in cheque use.

Substitutability between American Express/Diners Club credit cards and MasterCard/Visa credit cards for those consumers that hold both cards, as well as the sensitivity of consumers to the higher surcharges that American Express/Diners Club cards often attract. Of the remaining consumers, around 30 per cent would use a payment method that does not attract a surcharge, while around 10 per cent would go to another store.

Cheques
Consistent with long-term trends evident from other data sources, the diary data show a decline in cheque use.21 This is reflected in the change in the proportion of study participants using cheques, down from 12 per cent in 2007 to 7 per cent in 2010 (based on the first week of the 2007 study).

Less than 40 per cent of participants indicated in the end-of-study questionnaire that they had made a payment by cheque in the year prior to the survey. The most important reason people gave for using a cheque was that they believed there was no alternative for the type of payment they were making (38 per cent, Figure 6). This was followed by respondents who said that they value the record of payments that cheques provide (25 per cent).

The use of online and newer payment methods

Online payments
The 2010 study explicitly captured the use of online payment methods for the first time. The study results show that, as most consumer payments are made in person, the share of payments made by internet/telephone banking and specialised online payment schemes (Paymate, PayPal and POli) is quite small (Table 1). However, the adoption of online payments is actually quite high, with about 80 per cent of consumers (with access to the internet) having made a purchase online at some stage and almost 60 per cent having made online transfers to a family member or friend.22 Just over 60 per cent of people with internet access pay most of their bills online.

As part of the end-of-study questionnaire, participants were asked to indicate the various factors that would increase their use of online bill payments, purchases and transfers.23 They were asked to identify all the factors that were important to them and then the single most important factor. These questions were aimed at providing a perspective on perceived gaps in the services that online payments offer.
A substantial proportion of people indicated that they were perfectly satisfied with current online payment methods and did not believe there were factors that would lead them to increase their use of these methods. This was true of around 40 per cent of people for online bill payments and funds transfers to friends or family (Figure 7 and Figure 8). This may be a reflection of a degree of comfort with internet-banking-based payment options, such as BPAY for bill payments and ‘pay anyone’ arrangements for transfers. A smaller proportion (31 per cent) were perfectly satisfied with the way they can make online purchases, for which credit cards, scheme debit and PayPal are more typically used (Figure 9).

The risk of fraud was the biggest deterrent to making different types of payments online that was identified by consumers. This concern was higher for online purchases than for bill payments and transfers. Again, this possibly reflects the fact that consumers tend to feel most secure making payments online when they can be made through their financial institution’s internet-banking site, although the degree of trust in the payee might also be a factor.14
Newer payment methods

In addition to the established payment methods discussed above, the 2010 study focused on some newer payment methods. These relatively new payment methods include contactless payments and mobile payments. The results suggest that adoption of both of these payment methods is currently quite low.

Only around 3 per cent of respondents recorded that they had made a contactless payment in the month prior to the survey, most likely reflecting limited availability of, and education about, contactless payments at the time the study was conducted. Although contactless functionality is largely targeted at cash replacement, the relatively high payment values recorded in the survey (with an average of over $20) suggest that they may primarily be replacing more standard debit and credit card transactions at the point of sale.

Also, despite the very high penetration of mobile phones in Australia (91 per cent of respondents), only around 10 per cent of people with a mobile phone had made a mobile payment. These payments were mainly for phone-related services and products, with about 60 per cent of users buying ring-tones, games or applications (‘apps’) for their phones (Figure 10). Most of the remaining use seems to be internet payments made via mobile phones, for example, personal transfers using internet banking (43 per cent of mobile payments users), bill payments (40 per cent) and online purchases (32 per cent).

**FIGURE 7: What would improve online bill payments?**

![Chart showing factors improving online bill payments.](source: Roy Morgan Research)

**FIGURE 8: What would improve online transfers?**

![Chart showing factors improving online transfers.](source: Roy Morgan Research)
Overall, consumer payment patterns in 2010 were broadly consistent with those observed in 2007. Cash remains the most widely used payment instrument and the dominant instrument for low-value payments (under $40), but its use relative to cards is declining. The use of cards remains the dominant payment method for mid-value payments, while BPAY, cheques and internet/telephone banking are important payment methods for higher-value payments, particularly those greater than $500. Nonetheless, cheque use continues to decline.

The 2010 study results also highlight some potential areas for improvement in the payments system, at least as perceived by consumers, with the most notable being the security of online payments. Further, the results suggest that the use of payment methods that have only been brought to market in recent years — such as contactless and mobile payments — remains relatively low to date.

The authors thank the individuals who participated in this study.
Appendix A – The Payments Diary

**TABLE A1: Fields in the 2010 payments diary**

<table>
<thead>
<tr>
<th>Payments(a)</th>
<th>Cash withdrawals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Date</td>
</tr>
<tr>
<td>Day of week</td>
<td>Day of week</td>
</tr>
<tr>
<td>Payment amount (nearest dollar)</td>
<td>Withdrawal amount (nearest dollar)</td>
</tr>
<tr>
<td>Card surcharge paid (yes/no)</td>
<td>ATM operator fee paid (yes/no)</td>
</tr>
</tbody>
</table>

**Payment method:**

1 - Cash
2 - ATM/efpos
3 - Visa Debit/Debit MasterCard
4 - Visa/MasterCard credit
5 - American Express/Diners Club
6 - Personal cheque
7 - BPAY
8 - Internet/telephone-banking transfer (pay anyone)
9 - PayPal
0 - Paymate
X - POLi
V - Other

**Withdrawal method:**

1 - ATM
2 - eftpos cash-out
3 - Over-the-counter at a bank branch
4 - Other (friends, Medicare office)

**Payment channel:**

1 - In person
2 - Phone
3 - Internet
4 - Mail

**Merchant category:**

A - Supermarket/bottle shop
B - Small food store (butcher, deli, greengrocer)
C - Electrical/furniture
E - Other retailer (department store, book, newsagent, hardware)
F - Take-away food/fast-food
G - Cafe/restaurant
H - Pub/bar
K - Petrol/service station
L - Transport (tolls, parking, public transport, taxi)
M - Leisure/sports/entertainment
N - Holiday travel (accommodation, flights, car hire)
P - Household bills (rent, phone, Pay TV, school fees)
R - Medical/health
S - Services (plumber, hairdresser, baby sitter, accountant)
Z - Other

\(a\) Participants were asked not to record in the diary: payments made for any business purpose; direct debits from deposit accounts or credit cards; payments made by someone else from a joint account; transfers of funds between members of the household; or loan repayments.
Notes

1. The authors would like to thank Matthew Gibson and Tim West for their contributions to this study in its early stages. The views expressed in this paper are those of the authors and are not necessarily those of the Reserve Bank of Australia.

2. For the results of the first study, see Emery, West and Massey (2008).

3. For a more detailed report of the results, see Bagnall, Chong and Smith (2011).

4. Further details of the fields in the payments diary are provided in Appendix A.

5. For comparisons between the 2007 and 2010 studies, we exclude payment methods not included in both studies, as well as payment methods classified in the ‘other’ category, unless otherwise stated. This is aimed at achieving a like-for-like comparison, where we compare the same payment methods in both 2007 and 2010; the ‘other’ category is excluded because of uncertainty over the types of transactions recorded in that category.

6. The use of scheme debit cards is also likely to be overstated because of consumer confusion between scheme debit and credit cards, which look quite similar and typically require use of the ‘credit’ button at point-of-sale terminals.

7. Only individuals who owned a MasterCard or Visa credit card were required to respond to this question.

8. In a similar questionnaire on debit card surcharging in the Netherlands, only 5 per cent of consumers indicated they would go to a different store (Bolt, Jonker and Van Renselaar 2010). The application of surcharges is quite different in the Netherlands though, with consumers only being charged for low-value debit card transactions. Our results may also reflect not just consumers who would actually walk out of a store but also consumers who would avoid a particular store that they know surcharges.

9. The question specified that cash and debit cards are assumed not to include a surcharge.

10. Only 10 per cent of consumers in the 2010 study reported holding an American Express or Diners Club credit card.

11. For example, see Reserve Bank of Australia (2010) for further evidence.

12. Around 90 per cent of respondents indicated that they have access to the internet at work or home.

13. For online bill payments, if consumers indicated that they paid most of their bills online, they were asked ‘What factors would most improve your experience of paying those bills online?’ or if they indicated that they did not pay most of their bills online, ‘What factors would make you pay more of your bills online?’ For online purchases, consumers were asked ‘What factors would make you more likely than currently to pay for goods or services online?’ For online transfers, consumers were asked ‘What factors would make you more likely than currently to transfer money over the internet to a friend or family member?’

14. BPAY payments can be made via a bank’s internet-banking site, phone-banking service or mobile payments service. According to the diary data, around 75 per cent of BPAY payments are made via internet banking.

15. Contactless card payments require the consumer only to hold their card in close proximity to, or to touch the card against, the terminal and do not require a PIN or signature for the transaction.

References


How Bank Switching in NZ Differs by Product: Lessons for Australia

A recent national study explored attitudes and behaviour around bank switching in New Zealand. Using that data, this paper examines the influence of the number and type of products held by bank customers on their attitudes towards switching costs and switching. It finds that some products, particularly electronic payments, increase the perception of the hassle of switching. This suggests that the focus of regulatory action needs to be on making it easier to move electronic payments.

Issues related to bank switching have been the subject of substantial public and political interest for several years. Concerns primarily relate to customers’ apparent reluctance to change banks, and the perceived difficulties faced by those who seek to change banks. Other concerns are the power conferred on banks in their relationships with their customers, and the additional costs imposed on consumers of banking services.

These concerns have led governments and regulators to seek to address the issues, and to empower consumers. In a recent example, the banking reform package introduced by the Federal Government in Australia in December 2010 was largely directed to improving competition in the banking market (Grubel 2010). One goal of the package was to strengthen the competitive position of building societies and credit unions, and the package included elements designed to encourage bank customers to switch banks, and particularly to make it easier for customers to leave the Big Four banks (see Figure 1 for details). Part of that package was the commissioning of a report into options for greater account transferability. The report, Banking services: cost-effective switching arrangements, was released in August 2011 and can be found at www.bankingreforms.gov.au.

Considerable work has been done exploring the existence of switching costs and their impact on markets and consumers, including in banking specifically. While it is widely agreed that switching costs exist in banking markets, work continues to better understand their effects and their drivers in order to contribute to discussions on how to reduce or even eliminate switching costs and improve competition. In general, switching refers to the transfer of the main banking relationship from one bank to another, but the old bank accounts may not be closed, instead becoming secondary accounts of less importance to the consumer.

Switching costs may be seen as a defensive strategy used by firms to reduce the number of customers lost to competitors. However, at the same time, they can generate monopolistic profits for firms from higher costs for customers (Ongena & Smith 1997; Padilla 1992). A Norwegian study found that lock-in of customers, resulting from the existence of switching costs, can contribute 16 per cent of the value of an additional customer (Kim, Kilger & Vale 2001). At a market level, Klemperer (1987) found that ‘switching costs cause an allocative inefficiency’ (p. 390), and that the key contributing factor to this effect is that competition between firms shifts from concerns about a consumer’s needs in one period to considering those needs over multiple periods (Farrell & Klemperer 2006).
The reform package includes three broad streams.

**Empowering consumers to get a better deal:**

- an outright ban on exit fees on new home loans from 1 July 2011;
- boost consumer flexibility to transfer deposits and mortgages;
- introduce a mandatory key fact sheet for new home loan customers;
- empower the ACCC to prosecute anti-competitive price signalling;
- fast-track legislation to get a better deal for Australians with credit cards;
- launch a national community awareness campaign to empower consumers in banking; and
- set up a taskforce with the Reserve Bank of Australia to enhance ATM competition reforms.

**Supporting smaller lenders so they can put more competitive pressure on the big banks:**

- build a new pillar in the banking system based on the combined competitive power of the mutual credit unions and building societies;
- confirm the Financial Claims Scheme as a permanent feature of the financial system, to secure critical deposit funding for smaller lenders;
- introduce a further $4 billion investment to support the Residential Mortgage Backed Securities market which many of our smaller lenders rely on to make cheaper loans; and
- accelerate the development of a ‘bullet bond’ structure for RMBS issuance to strengthen and diversify RMBS funding for smaller lenders.

**Securing the long-term safety and sustainability of the financial system:**

- allow all banks, credit unions and building societies to issue covered bonds to broaden access to cheaper, more stable and longer-term funding, and harness our national superannuation savings to domestically fund more productive investment in our economy; and
- develop a deep and liquid corporate bond market by launching the trading of Commonwealth Government Securities on a securities exchange, to reduce our reliance on offshore wholesale funding markets.

Switching costs may be categorised in various ways, but Matthews (2009a) found that the nine basic categories of monetary loss, benefit loss, search, learning, brand relationship, personal relationship, service disruption, uncertainty, and hassle (see Table 1), were appropriate, and could be reduced to financial, relational and procedural. It was found that perceptions of these costs varied in relation to the family life cycle, and switching costs caused customers to be locked-in to their bank, as their desire to switch did not translate to a likelihood of actually changing banks.

It is possible that the nature of the banking relationship may also influence attitudes and behaviour around switching, due to its link to the family life cycle. This link can be illustrated by examining how a person’s banking relationship may change as they move through different stages in the family life cycle. For example, a young, single person living at home requires limited banking products and services, perhaps comprising a transaction account, a savings account and a debit card. Once they move out of home, automatic payments and/or direct debits may be needed to meet rent and other living expenses. The next ‘traditional’ move is to become part of a couple, followed by the addition of children to the family unit, with each stage adding more bank accounts and other products that could include home loans, credit cards, internet banking and additional regular payments. As the children grow up they leave home, and the family unit reduces back to a
couple, with retirement following and then a sole survivor, with this process likely seeing a related reduction in the banking relationship, with fewer accounts needed and the home loan fully repaid. Matthews (2009a) confirmed the existence of a relationship between the three elements of switching costs, family life cycle and banking relationship complexity, with the latter measured in two ways: by the total number of products held; and by the number of different types of product held.

This paper explores the influence of the nature of the banking relationship further, looking specifically at how the type and number of products held by a consumer affects their attitudes towards switching costs and switching. It may provide a number of lessons for Australia as it seeks to address concerns about switching costs in its banking market.

Data and methodology

This paper uses data collected for a recently completed broad study of switching costs in New Zealand. The data collection was undertaken in 2006; using a mailed questionnaire. The questionnaire was mailed out to 2,983 people across New Zealand, with the names drawn randomly from the election rolls. The initial posting was followed two weeks later with a reminder letter to non-respondents, and after a further two weeks, a second copy of the questionnaire was sent to continued non-respondents. A total of 955 valid responses were received, with 135 returned for an incorrect address and 130 people advising that they did not wish to participate in the study, giving a final response rate of 33.5 per cent.

The respondents are broadly representative of the New Zealand population. As often happens with surveys (Hair, Bush & Ortinau 2006) there is a higher proportion of female respondents (51.2 per cent) than found in the overall population. While the respondents are older, on average, than the New Zealand population, there is a reasonable distribution across the age groups. The respondent group appears to have a higher level of education, with 24.8 per cent holding a Bachelor degree or higher compared to 14.2 per cent in the New Zealand population, but this is also not unusual for survey respondents (Green 1996).

Respondents reported relationships with all the main bank brands and a number of smaller non-bank financial institutions, in proportions similar to the market shares of those financial institutions. More than half of respondents reported having a relationship with more than one financial institution, with 34.1 per cent having a relationship with two financial institutions, 13.4 per cent banking with three financial institutions, and 4.4 per cent banking with four to 11 financial institutions. As noted earlier, switching refers to the transfer of the main banking relationship, and these respondents answered the questions with respect to their main banking relationship.

The survey questionnaire comprised 70 questions, but not all are relevant for the issues discussed here. The variables of relevance here are: perceptions of switching costs; desire to switch banks; future likelihood of switching banks; and, the type and number of bank products held. Perceptions of switching costs are measured with 36 statements to which respondents were asked to indicate the extent of their agreement or disagreement using a seven-point Likert scale; (Matthews 2009b) and, as expected, on average, switching costs were perceived to be higher where more products were held. However, an exception was found in the case of the personal relationship category, where holding a greater number of bank products was associated with a perception of lower switching costs. There was no obvious explanation for this surprising result. The total number of products held was more important than the number of product types held (Matthews 2009b).

The other set of questions relates to the specific products held, and the influence that might have on a person’s attitudes towards switching costs and switching, because there is a perception that some products are easier to switch than others and some create a stronger tie to the existing provider.

Only holding a transaction account (p=0.01), a debit/EFTPOS card (p=0.03) and having internet banking (p=0.01) were significantly related to differences in perceptions (relative to not having that product) of switching costs overall.4 However, almost all of the products were associated with a variance in perceptions of some specific categories of switching costs as shown in Table 1. The only exception was savings account, which is therefore omitted from the table.

A variance in the perception of hassle was significantly related to seven different products and, in all cases, respondents holding that product perceive hassle to be greater than those who do not. Of particular interest is the fact that for all of the three regular payment products (automatic payments, direct debits and direct credits), respondents who have that payment perceive hassle to be greater than those who do not. A variance in the perception of monetary loss was significantly related to six different products, but the results for monetary loss are mixed. While monetary loss is perceived to be greater by those who have at least one housing loan, insurance
Internet banking was the product type with the most significant variances in the perception of switching costs. Respondents with this service had significantly lower perceptions of switching costs in the categories of benefit loss, monetary loss, brand relationship and personal relationship, but perceived hassle as being higher. Connected accounts were significantly related to the perception of higher switching costs for four categories: search, learning, monetary loss and hassle.

**Desire to switch and likelihood of switching**

Testing found that the number of banking products held had no influence on a person’s desire to switch banks or likelihood of switching. The effect of the type of product held on the desire or likelihood of switching was limited.

Matthews, Moore & Wright (2008) found that seven of the nine categories of switching costs reduce the likelihood of switching compared to the desire to do so — the exceptions were learning and uncertainty. This means that although the product type does not directly impact the likelihood of switching, it has an indirect effect through influencing perceptions of switching costs, which then reduce the likelihood of switching.

**Conclusion and lessons for Australia**

Understanding how the bank products that a customer holds influences their attitudes to switching allows for more accurately targeted action to be taken to address the specific issues associated with particular products. To some extent, the reported findings simply confirm existing perceptions about the effect of specific products. In doing so, the findings provide evidence that those perceptions are accurate, and they can inform policy action taken to deal with undesirable effects of switching costs.

A key finding of this paper is that customers holding more products perceive switching costs to be higher, but this...
Based on these findings, the actions taken to date in Australia to improve competitiveness in the banking market and to encourage customers to switch are unlikely to have any real effect. The focus to date has been on lending products, but these results indicate that these do not significantly affect perceptions of switching costs, although the reforms do address the perception of increased monetary loss for those with a housing loan.

As shown in this paper, there is a higher perception of switching costs for changing automatic payments and other electronic payments from an account at one bank to an account at another. Account number portability is proposed as one solution to reduce this switching cost and Matthews (2010) concludes that account number portability is the best solution for making it easier for customers to switch banks from a regulatory perspective.

Account number portability was one option considered in the government-commissioned report on greater account transferability. It was expected that the costs associated with this solution would be high, with recent comments from Westpac’s Chief Information Officer describing the costs of account number portability as ‘horrific’ and warning that from overseas experience it was unlikely that sufficient value would be delivered to justify the investment (Head 2011). The Dutch considered account number portability but deemed it too expensive and instead successfully introduced an automated system for dealing with the transfer of regular payments (direct debits etc). The high cost was confirmed by the Banking Services report, which found that account number portability would not deliver sufficient benefits to offset the substantial costs it would impose on payment system users (Fraser 2011).

The results of this paper indicate that the key to encouraging switching is to simplify the process of moving existing electronic payment arrangements between financial institutions. Thus, if the costs of account number portability are found to be excessive, another means that achieves the same effect would need to be found.
Notes

1. A more detailed description of the data and methodology used can be found in (Matthews 2009a).
2. While the survey was completed nearly five years ago, there have been no changes in the banking market that would be expected to substantially alter the findings.
3. The Likert scale is commonly used in survey research and asks respondents to select a response from an ordered list (generally five or seven items) ranging from, for example, completely disagree to completely agree.
4. These ‘p values’, and those in Table 1 refer to the probability of observing a difference of the size found between the two variables (product use and perception of switching cost type) by chance (under the null hypothesis that there is no difference).

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Post-GFC, the Australian Government has moved in a more interventionist regulatory direction but, in comparison with other countries, it has gone beyond the ‘regulatory plumbing’ to intervening more directly in financial markets. This new approach lacks any obvious conceptual underpinning. Without this, financial regulation swings with the vagaries of politics, creating uncertainty, which ultimately affects access, cost, innovation and productivity.

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POST-GFC REGULATION — SOME OBSERVATIONS ON CONSUMER PROTECTION POLICY CHANGES

One widely reported and compelling fact that stands out in any analysis of the global financial crisis (GFC) is that too many American households had unsuitable financial products, particularly housing loans. Both advocates for stronger controls on financial institutions, and advocates for less control cite the United States’ sub-prime loan crisis as evidence supporting their cause. For some, the fact that so many consumers ended up with loans they could not afford was a failure of underwriting standards and inadequate consumer protection laws. For others, it was an example of government intervention distorting markets and creating poor incentives. For example, the government’s implicit support for Fannie Mae and Freddie Mac increased the supply of loans to credit risky households.

Strong move towards greater consumer protection

Despite the absence of consensus on the causes of the US sub-prime loan crisis, governments throughout the world, including Australia’s Federal Government, often in cooperation with State governments, have chosen to move in a more interventionist regulatory direction. Indeed, in Australia, the government has broken with longstanding regulatory orthodoxy and is using very interventionist tools under the rationale of consumer protection.

The regulatory initiatives can be separated into three categories involving revamping of the current prudential and markets regulatory approach. First, there is a range of initiatives to increase the resilience of institutions to financial losses, by increasing the proportion of capital in funding profiles and strengthening liquidity requirements.

Second, there are initiatives to improve the transparency of financial transactions and markets by moving away from bilateral to centralised clearing and increasing disclosure. Third, there are initiatives to remove conflicts of interest and risky incentives inherent in product supply chains, such as the securitisation market, and even executive remuneration.

The Australian Government has moved on all of these fronts in cooperation with international political and policy making bodies. But, in comparison with other countries, the government here has gone beyond the ‘regulatory plumbing’, to intervening more directly in financial markets by undertaking initiatives at the actual product level. The Australian Government has focused on consumer protection issues more intensely than other jurisdictions. Indeed, there appears to be little international coordination of consumer protection initiatives.

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Responsible lending

In 2008, the Federal Government, through the Council of Australian Governments (COAG), moved to centralise regulation of consumer credit by adopting the Uniform Consumer Credit Code. This initiative was aimed at improving the efficiency of regulation and removing state-based anomalies, but it also extended the scope of consumer credit oversight to cover investment housing loans. It also made it a requirement that licensed credit providers belong to an ASIC-approved external dispute resolution (EDR) scheme.

The most significant change, from a consumer protection point of view, was the enshrining of a ‘responsible lending’ obligation in the Act, making it an offence to enter into ‘unsuitable’ credit products with borrowers.

Despite support for the principle behind the responsible lending provision, there is an obvious concern over how the provision will be interpreted by EDR schemes, ASIC and the courts.

An ‘unsuitable’ product is one where meeting the contractual obligations creates substantial financial hardship for the borrower, such as where repayment obligations can only be met through the sale of the property. Another example is where there is a disconnect between the product offered or sold by the provider and the requirements and objectives of the borrower. Providing credit to buy a car through issuance of a credit card might be an example of this.

A key feature of this obligation is the necessity for the credit provider to take reasonable steps to verify the financial situation of the borrower in the information provided by the loan applicant. Without a demonstrated paper trail of checking details, the product provider is at risk of contravening the law or being unable to convince the regulator it has complied with the law. In essence, the obligation transfers the product ‘suitability’ responsibility from the borrower to the provider; quite a different approach from a disclosure-based model where greater onus is placed on consumers to determine what is affordable and best suits their needs.

The responsible lending provision has had a market impact; access to loans has become marginally more difficult. ‘No documentation’ loans are no longer supplied to the market and, for a loan applicant to obtain ‘low documentation’ loans, more information is required than previously. There have also been instances reported in the media in which people seeking loans with maturities in excess of the borrower’s expected retirement age have had difficulty securing finance without demonstrating how they will meet the commitments after retirement. This problem led ASIC to update regulatory guidance in this area.

It is not clear what evidence or market developments prompted the Australian Government to enshrine the ‘responsible lending’ provision in the Act.

There is no obvious evidence that banks have embarked upon irresponsible lending. For example, at the height of the GFC in early 2009, the percentage of impaired housing loans in Australia reached around 0.6 of one per cent, compared with nearly 4 per cent in the United States. Also, the percentage of high-risk housing loans in Australia was very small, totalling around 1 per cent of the total housing finance market.

This performance suggests the pre-existing commercial and regulatory framework yielded incentives conducive to prudent lending practices. The major banks did not enter the very high-risk lending market; it remained the domain of niche mortgage originators.

One possible reason for this is that Australia’s prudential capital rules require banks to allocate a higher percentage of capital to non-standard housing loans. Also, the structure of Australia’s housing finance market meant that sound returns on equity could be derived from the prime lending market. Lastly, the Reserve Bank and APRA spokespeople were quite vocal in warning against high-risk housing lending.

Other important factors included Australia’s relatively well-performing economy, a strong preference of households towards home ownership, and the fact that lenders have recourse to assets above that of the borrower’s mortgaged property.

Future of Financial Advice (FoFA)

A more dramatic intervention in the financial services market is the set of initiatives grouped under the title of the Future of Financial Advice (FoFA). Its practical aim is to impose a statutory ‘best interests’ duty on financial advisers and to remove the conflicts of interest in the financial advice industry by outright prohibition of certain remuneration structures. For example, financial advisers cannot be paid bonuses by lenders for achieving sales targets.

Currently, the majority of financial planners derive the bulk of their remuneration through payments from product
issuers, via upfront and/or trailing commissions on recommended products or ‘volume-based’ incentives.

The government has announced that all volume-based (product linked) payments or payments relating to sales targets from product issuers to financial advisers will be prohibited. This will result in financial advisers relying solely on income derived directly from retail customers.

The government is also proposing to constrain directly remuneration arrangements between financial advisers and the retail customers. For example, percentage-based fees on assets under management must be based solely on the equity component of the investment (i.e. excluding assets financed by leverage).

Further, the government has announced that it will cap the duration of any financial advice contract to two years (initially the proposal was for one year), via a requirement for explicit customer contract renewal consent via an ‘opt in’ mechanism.

One aspect of the FoFA reforms receiving a ‘warm industry welcome’ is the proposed best interests duty, which clarifies the requirement for financial advisers to give priority to their client’s interests before any other interests, including their own.

This is not surprising as this measure will give prospective customers greater confidence in the quality and integrity of advice and, therefore, potentially increases demand for advisory services. However, it does not deal with the issue of competence per se and, hopefully, the inclusion of this duty will not be viewed by many clients as a substitute for performance and brand reputation.

Overall, the FoFA reforms will increase the upfront cost of financial advice as advisers will not be able to cover the cost of their advice through commissions from fund managers. In this respect, it will make access harder for some consumers. It represents a very different regulatory approach to one based on disclosure.

Banning of mortgage exit fees
The government has prohibited banks and other credit providers from charging housing borrowers exit fees for terminating housing loan agreements, although fees associated with taxes, early termination of fixed rate contracts or explicit services (such as fees covering any applicable government charges) are allowable.

This initiative stemmed from a concern that competition in the housing market had declined since the GFC and that this was evidenced by banks increasing standard variable mortgage rates outside Reserve Bank changes to the official cash rate.

This initiative effectively alters the means by which banks and most other lenders recover the costs of originating housing loans. In the 1990s, most lenders charged loan establishment fees. In 2002, one mortgage originator removed this fee and introduced a deferred establishment fee instead, now commonly referred to as an ‘exit fee’.

Overall, the FoFA reforms will increase the upfront cost of financial advice as advisers will not be able to cover the cost of their advice through commissions from fund managers. In this respect, it will make access harder for some consumers. It represents a very different regulatory approach to one based on disclosure.

How lenders will now recover these costs will be up to market forces, and may include a return to higher upfront loan establishment fees, a marginally higher interest rate or, explicit expansion of the initial loan amount to cover these costs.

The motivation for the banning of exit fees can be thought of as a consumer protection initiative. The government has said it is concerned about the lack of competition in banking and the impact this has on the variable interest rate. By removing a cost to switching housing loan provider, the government is aiming to place additional competitive pressure on lenders to offer competitive rates.

When the legislation came before the Senate, it was opposed by the Coalition Opposition on the grounds that it would disadvantage smaller lenders. The concern is that smaller lenders, who are not as diversified as larger lenders, face limited options as to how they can recover the lost income from the fee’s removal.

At this stage, it appears that the initiative will reduce the cost of refinancing for some customers (e.g. those who ‘churn’ or are influenced to churn their mortgage, e.g. those leveraging perceived equity growth in security property to finance other activities), although the prohibition applies only to new loans originated after 1 July 2011.

There is no evidence to date that the major banks or other significant lenders have moved to reinstate higher loan origination fees in place of ‘exit fees’. However, it should be noted that, currently, there is a housing market share war underway and the long-term structure of pricing in housing loans is probably yet to emerge.

In terms of evidence justifying this regulatory intervention, the government relied upon a logical argument that where a financial barrier existed to refinancing a loan, it must then act as a disincentive to refinancing and, therefore, diminish competition. Yet, statistics collected by the Australian Bureau of Statistics (ABS) show that around 30 per cent of all new loans are refinanced loans. Switching provider appears not to be a problem.
Banning credit card over-the-limit fees
As part of its Phase Two credit initiatives, the government has banned credit card over-the-limit fees. Consumers will only be charged a fee if they ‘opt in’ to a fee arrangement with their bank, which would allow the bank to ‘make good’ a payment which exceeds the card limit, for a fee.

Where there is no such agreement, the bank would be forced to disallow any transaction beyond the card’s limit or could honour the transaction but not charge a fee.

One stated justification for this intervention is to protect consumers against what is labelled ‘excessive’ fees for harmless mistakes. It is not clear how providers will respond to this measure.

Another important aspect here is the fact that the government has chosen to ban these fees even though there is evidence that competitive forces were impacting on the fee. One large bank unilaterally removed the fee and used this product change in marketing.

Banning pre-approved credit limit offers
Another recent legislative initiative by the government (part of Phase Two credit reforms) has been to ban banks from offering customers pre-approved credit limit increase offers, such as through sending a letter with relevant disclosures and requiring only a signature on a form to facilitate that increase. Customers may elect to opt in to this service.

Banks have demonstrated comfort in this practice from a credit risk perspective by basing such offers on techniques such as behavioural scoring, enabling them to identify default risk associated with that customer.

Once again, the government’s justification for this intervention simply comes down to propositional logic. Many consumer advocates have successfully argued that behavioural scoring is not perfect, so some consumers will be invited to take additional credit they cannot afford if offers continue to me made.

In response, the banks argue there is no evidence that credit card debt overall is causing substantial hardship. And, when viewed at an aggregated level, defaults are low and growth in credit card debt has fallen to below the rate of inflation since the GFC.

Other initiatives and proposals bearing on consumer protection
In a different realm of consumer protection, the government is currently consulting industry on design features of the Financial Claims Scheme (FCS) introduced in mid-2008. One aim of the scheme is consumer protection against potential losses associated with a failed institution. However, there is little evidence available to quantify the extent of risk, particularly given the depositor priority provision in the Banking Act and the extensive tools available to regulators to manage a bank failure.

The Australian Greens have also made a number of proposals, including capping foreign ATM fees. This is the fee charged by the owner of an ATM to a customer (from another bank) when the customer uses its ATM. Fees average around $2.05 per transaction (domestically), a similar level to that charged before the direct charging regime was introduced in 2009.

The Australian Greens have also proposed a mechanism to control housing loan variable interest rates. Under the proposal, each bank would be required to price variable loans according to a formula agreed with the Australian Prudential Regulation Authority (APRA). Also, both the Federal Government and Opposition are actively attempting to influence the way banks set variable mortgage rates. Spokespersons for both organisations have stated that banks should only move variable interest rates in alignment with RBA cash rate target movements.

Dispute resolution
When Phase One of the National Credit Code was introduced in 2009, as mentioned previously, one of the key new initiatives in the National Consumer Credit Protection Act 2009 was the requirement for all credit providers and credit brokers to belong to an ASIC-approved External Dispute Resolution (EDR) scheme. The primary dispute resolution scheme for financial services is the Financial Ombudsman Service (FOS).

FOS offers consumers, who are unsuccessful in settling a dispute with their credit provider, a free dispute resolution mechanism. The scheme rules are generous to the consumer. For example, a determination by FOS does not legally bind a consumer to the determination outcome unless the consumer accepts the determination, in which case, it also binds the institution that has the FOS as its ASIC-approved EDR.

Under its terms of reference (ToR), the FOS cannot settle disputes over the cost of credit or the legitimacy of fees charged by the institution, so long as the pricing arrangements have been explicitly agreed as part of the contract.

FOS is having an effect through its capacity to delay the normal timeframes for bringing about the enforcement of a housing loan in default or recoveries from other types of consumer and small business credit facilities. Under the rules, an institution must delay recovery action while FOS is investigating the dispute.

While FOS has always had the capacity to assess whether a lender has undertaken what FOS regards as good lending practice, the new ‘responsible lending’ provision has intensified the process that a bank must go through before offering and issuing a loan. This has widened the range of factors to be investigated and there is therefore a greater likelihood that FOS will find that the customer’s loan was ‘maladministered’ by the lender. A finding of maladministration typically leads FOS to recommend a restructuing of the loan agreement to give the customer more flexibility in meeting the repayment obligations.
What is behind all of this regulatory activity?

The actions described in this paper point to a different regulatory emphasis from the regulatory orthodoxy relied upon since the mid-1980s. In this period, the prevailing regulatory orthodoxy was based on the idea of competitive and efficient markets. Regulation was seen as a select tool to be used only in areas where there was a clear case of market failure or potential for market failure.

Given the anti-competitive effect of information asymmetry in the market, the free market economic orthodoxy sat comfortably with extensive disclosure requirements and prohibitions against misleading business practices.

The idea of government specifically intervening in markets to control prices, ban fees, alter product features and put the onus on institutions to assess a borrower’s needs and objectives, is a style of regulation we have not seen since the pre-deregulation period. There are a number of potential explanations for this:

> Loss of political confidence in the competitiveness of many financial markets in Australia, compounded by examples of poor corporate behaviour of some banks in other countries in the lead-up to the GFC. However, while increased concentration in banking has occurred (enabled by government approval of the last two bank mergers) definitive evidence of deleterious effects (excessive pricing or profitability) is hard to find.

> Behavioural economics is being used to justify more direct government intervention in product markets. While there is no doubt some consumers make poor or irrational decisions — that fact is not in dispute — whether this small risk should result in governments intervening to influence product features (which reflect preferences of the majority of customers) and investment decisions across the board is another question.

> Given bipartisan support for balanced budgets, the political tool kit for appealing to constituents is narrowed and regulation to ‘crack down’ on unpopular businesses like banks and financial advisers may become a ‘more favourable’ political option. Unfortunately, the costs and disadvantages are more difficult to observe than direct government expenditure and revenue measures which are reported in budget papers.

The Australian Government has broken with regulatory orthodoxy and is now directly intervening in financial product markets. The possible consequences of this will be to reduce access to financial services, increase cost, blunt incentives for innovation, and impair productivity.

Long-term implications

If the regulatory interventions we have seen in recent years are being driven by politicians needing to be ‘seen to do something’, then there will inevitably be adverse consequences. This is particularly the case for financial innovation which responds to a stable and certain environment, fostered through a regulatory system based on very clear and well-thought-through principles. Where ‘politics’ plays an influential role on the regulatory environment, the uncertainty it creates will impact on innovation.

History shows us that at key periods, smaller institutions and new entrants have often driven product innovation. One often-overlooked cost of government intervention in markets is that it usually has a disproportionally large impact on these smaller and less-diversified institutions (with consequent impact on borrowers and investors as discussed throughout the paper).

Conclusion

The Australian Government has broken with regulatory orthodoxy and is now directly intervening in financial product markets. The possible consequences of this will be to reduce access to financial services, increase cost, blunt incentives for innovation, and impair productivity. This, of course, needs to be assessed against potential benefits, the main one being that more consumers may end up getting more suitable financial products. However, whether there is strong empirical evidence to support such changes, which are driven by experiences of the GFC and political dynamics, is open to debate.
Notes


10. Australian Bureau of Statistics (ABS), Housing Finance, Australia, 5609.0.

11. Phase 1 was discussed earlier, the initiative to adopt a nationally based regulation of credit, including adoption of a responsible lending requirement.


13. ABA unpublished estimate.


17. The banking industry established the forerunner of FOS in 1989, called the Australian Banking Industry Ombudsman, as an independent EDR scheme for banks that provided a free dispute resolution service for bank customers.


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CONSUMER FINANCIAL PROTECTION: FUTURE DIRECTIONS

With governments around the world taking a renewed interest in effective consumer financial protection, this paper focuses on four key pillars: financial literacy, disclosure, advice, and product regulation. Although there is no one ‘silver bullet’ that will provide effective consumer financial protection on its own, there are potential synergies between these four pillars (and other measures), which can have a multiplier effect on the effectiveness of individual components, enhancing the overall efficiency of the policy framework.

It is widely accepted that consumer financial protection is important not only to protect consumers but also for financial stability.1

Consumers need protection because of the well-known asymmetry between the consumer and the financial services provider. Typically, the consumer has little experience with or understanding of making certain financial decisions, particularly complex financial decisions with long-term considerations. The financial services provider, on the other hand, is usually comprised of a team whose professional specialisation is creating financial products and selling them to consumers.

There is also a view that consumers need protection from themselves, due to their vulnerability to making poor financial decisions, their susceptibility to certain sales messages when framed in a particular way, and their underestimation of their own lack of financial understanding.

Consumer financial protection is also about empowerment and financial stability. The well-being of the Australian people is central to Treasury’s mission.2 Confident and knowledgeable consumers would also be an enormous asset for well-functioning and efficient financial markets, if only we could figure out how to reliably produce them.

The reality is that few consumers meet such high expectations, and with financial services growing in complexity faster than the capacity of regulators (let alone consumers) to stay ‘one step ahead’, and with consumers increasingly being given more, not less, responsibility for their own long-term financial security, governments around the world are taking a renewed interest in effective consumer financial protection.3

Perhaps the rationale also becomes clearer when confused retail investors making poor financial decisions in complex markets take the world to the brink of global financial meltdown.4

Four pillars of Consumer Financial Protection

There are many components to consumer financial protection, but I would like to focus on four key pillars: financial literacy (also known as financial education), disclosure, advice and product regulation. These four are not only important individually, but collectively, as we shall see. By this I mean that the sum of the whole can be greater than the parts.

If we look at what has been going on with respect to these four pillars, we find a number of significant policy initiatives and interesting trends.

Keywords: consumer financial protection, financial literacy, disclosure, advice, product regulation.
Financial literacy
Numerous studies reveal that the level of financial literacy among Australians is depressingly low, but low financial literacy is a worldwide phenomenon. This reflects the fact that while financial services have been evolving at a rapid pace, individuals’ capacity to understand money has been plodding along by comparison.


The new financial literacy strategy focuses on four interrelated areas:

- delivering quality financial literacy education to all Australians through schools, workplaces, higher education institutions and in the community;
- providing all Australians with access to the information and tools they need to make good financial choices;
- going beyond education to guidance and other strategies to enhance the financial well-being of Australians, including developing a new consumer website; and
- developing partnerships between the various sectors involved in financial literacy work and better means of measuring the impact of what we do.

It’s a long-term strategy, because improvements in financial literacy require generational change (think ‘slip-slop-slap’ and suntans). The new consumer website leverages the unique strengths of the internet to deliver financial literacy services to consumers.

Research across a number of fields has shown that people learn something best from actually doing it. Not surprisingly, few want to curl up in front of the fireplace with a good financial literacy book. With this in mind, the new MoneySmart website offers tools and functionality that are designed to be interactive, useful, fun and engaging over time.

The idea is that MoneySmart can become a trusted source of personalised money guidance for financial decisions, even more complicated decisions such as those relating to superannuation contributions, margin loans and income tax.

If we step back and look at the big picture, this website represents the ‘first rung’ on the ladder of financial advice, providing what is otherwise known as free ‘generic advice’ to every Australian with access to the internet.

A similar innovation is underway in the United Kingdom where their consumer website, Money Made Clear, became ‘The Money Advice Service’, a free, independent financial advice service funded by financial services companies. It provides free telephone and face-to-face advice, in addition to website functionality.

The United Kingdom took this further step, they tell us, because ‘we found that if you offer people money advice for free, then most of those people will do something as a result of that advice’.

This brings us to the next pillar of consumer financial protection: financial advice.

Financial advice
From a consumer protection perspective, a financial adviser should be a trusted professional who acts in their best interests. The financial adviser should be someone consumers can rely on to navigate complex financial issues and help them to make the right decisions, and someone who is financially literate, highly trained, competent and ethical.

The fundamental challenge with advice has been that advice is also a distribution channel for product providers. Product providers need to invest in their distribution and, for an advice business, this represents a revenue stream that is difficult to ignore.

In 2009, ASIC estimated that around 85 per cent of the 18,000+ advisers in Australia were associated with a product manufacturer (including many independently owned dealer groups that had ‘white label’ arrangements). The Independent Financial Advisers Association of Australia (IFAAA), by comparison, had seven members in April 2011.

In 2009, in the wake of the collapses of Storm Financial and Opes Prime, the Parliamentary Joint Committee (PJC) on Corporations and Financial Services conducted an Inquiry into financial products and services in Australia examining, among other things, the role of financial advisers and commission arrangements. In its recommendations, the PJC called for a fiduciary duty requiring advisers to ‘place their clients’ interests ahead of their own’ and action to develop ‘the most appropriate mechanism by which to cease payments from financial product manufacturers to financial advisers’.

The government responded with the Future of Financial Advice (FoFA) reforms, which include a ban on product
commissions and volume payments, and introduce a statutory duty requiring advisers to act in the ‘best interests’ of consumers. Perhaps the key to understanding FoFA is that the reforms aim to change the source of adviser remuneration from the product provider to the consumer.13

In 2010, ASIC reported that up to 80 per cent of adult Australians had never used a financial adviser, and that many Australians want piece-by-piece simple advice rather than holistic financial planning (which can cost upwards of $2,500).14 The FoFA reforms also seek to ensure that financial advice will be more widely available and within the reach of more Australians, by facilitating the expansion of more affordable ‘scaled’ or limited advice.

Striking the right balance between enabling lower-cost, ‘simple advice’, while at the same time protecting consumers from ‘product flogging’, is something of a ‘holy grail’ in advice reform. A ‘best interests’ duty is one way to address this issue; another is disclosure, to which we now turn.

**Financial product disclosure**

The Financial Services Reform Act 2001 enshrined disclosure as a key consumer financial protection measure in Australia. The thinking was based on ‘efficient markets theory’, and relied on disclosure and conduct regulation to manage conflicts of interest, with the expectation that consumers would use disclosure to make informed decisions and that efficient markets would thereby drive competition and innovation.

The legislation was drafted using a principles-based approach, to provide financial service providers with maximum flexibility. This sounds good but the outcome, as is now well known, was that disclosure turned into a liability-management tool for product providers. Disclosure ratcheted up in size and complexity until it became virtually unreadable. Ever since, the entire reliance on disclosure has come into question.15

As ASIC commented to the 2009 PJC Inquiry:

[ASIC is] querying whether it has gone far enough in protecting retail investors, given the important role, which was not foreseen by the Wallis inquiry, that retail investors would play in the market. They had not foreseen and could not have foreseen the impact that the superannuation levy has had on investment in our markets. In that situation, you have a much broader range of retail investors and retirees. You have groups of people who lose money at the wrong time in their life and it is no answer to them to say: ‘Well, it was a risk, you know. There was disclosure. You should have read the disclosure statement’. The fact is that they cannot easily come back into the workforce.16

The government has responded with a number of measures designed to improve and simplify disclosure. Product disclosure statements (PDSs) for margin loans, superannuation and simple collective investment schemes have been shortened and provide only the key information, in summary form, that a consumer needs to know in order to make their financial decision. Everything additional to this core information is ‘incorporated by reference’, which means it is provided online or upon request.

Disclosure is important, but the question is now how it can be used more effectively to communicate the key information consumers need to know. One of the key lessons of recent years is that this is very hard to get right.17 It’s not just that we need ‘plain English’, we need ‘stark language’ because sometimes the message needs to be really clear and unambiguous.18 At the 2010 ASIC Summer School, for example, Paul Clitheroe suggested that PDSs should feature a photo of a family standing on the street next to their belongings along with a warning that ‘this could happen to you’.19

The future of disclosure, I suggest, is to keep working on improving it, and also to look at new ways of using disclosure to assist consumers to make better financial decisions. Assuming that consumers have access to advisers and that advisers are acting in the consumer’s best interests, one obvious way is to design disclosure to be more helpful to advisers in comparing products and making their recommendations.

Another, less obvious way is to design disclosure for computers (and even journalists, not consumers. The idea here is that the information consumers need to know can reach them through indirect channels.20 Complex data that is very difficult for consumers (and even some advisers) to compare meaningfully could be designed for computers to compare. The results could be made publicly available not so much for consumers but for advisers and financial journalists, who could then publish their analysis in a way that consumers actually might understand and care about.

ASIC has recently developed a novel approach to disclosure by setting new disclosure benchmarks for
complex products. These benchmarks require issuers to clearly identify the key risks consumers should understand before making a decision to invest. At the same time, ASIC has set benchmarks for how product manufacturers should address these risks in establishing their business model and compliance procedures. The issuer is then required to state in the PDS (and other disclosure) whether they meet these benchmarks, and if not, why not.21

The question arises, however, whether it is necessary to go even further for consumer financial protection than all of this, and regulate financial products themselves, which brings us to the final pillar: product regulation.

Financial product regulation
The recent global financial crisis (GFC) has led to a reassessment of the effectiveness of traditional conduct and disclosure regulation. Regulators are now asking how much we can expect from disclosure reform and financial literacy when financial products themselves are becoming excessively complex. In some overseas jurisdictions, thoughts are turning to the possibilities for financial product regulation.

For example, Martin Wheatley, then CEO-designate of the new UK Financial Conduct Authority (FCA), recently asked whether it was time for regulators to consider direct product intervention which, he acknowledged, was a fundamentally different approach from the way most regulatory regimes have operated in the past.22

The concern here is that it may be inherently difficult for competition in retail financial services to prevent consistently poor consumer outcomes.23

If this argument is right then, perhaps, logically the regulator should look upstream and consider measures that might influence the design and construction of products. While still a work-in-progress, the new rules being floated would mandate certain requirements on products and product features and potentially restrict sales of complex and risky products to certain classes of consumers.24

In all of this the UK authorities explicitly recognise that excessive regulation inhibits innovation and competition, which might otherwise be to the benefit of consumers. However, they argue that perhaps this is acceptable where the resulting benefits to a majority of consumers (from not being miss-sold a product) outweigh the costs to a minority who might benefit from being able to access it.

This is a very tricky policy issue, because if we want informed and empowered consumers to stimulate innovation and competition, this might be harder to achieve if governments intervene too much in product design. On the other hand, the potential risk to consumers (and to financial stability) of complex products being miss-sold, particularly when all the other reform elements are still a work in progress, is significant. For this reason, the idea of product intervention in the United Kingdom is no longer ‘out of bounds’.

The 2009 PJC inquiry considered whether there should be limitations placed on certain complex and risky financial products so that they were not available to retail investors. It decided that ‘it is not for the parliament or the government to determine for whom particular investment products are appropriate. This is a decision for individual investors, in consultation with a financial adviser bound by a fiduciary duty to put their clients’ interests ahead of their own’.25

In Australia there have been a number of product interventions with consumer financial protection objectives in mind. For example, we see an example of ‘libertarian paternalism’ in the compulsory superannuation system and recently in the introduction of MySuper.26

The United Kingdom has also recently experimented with ‘simple’ or ‘vanilla products’, however, some of their experiences illustrate the challenges. For example, the Stakeholder product initiative struggled to appeal to its target market (less experienced, less knowledgeable consumers). Partly, this was due to mandated requirements for low fees, free movement in and out of the products without penalty, and the low balances invested. Product providers simply preferred to sell other products that delivered greater profitability, while the target market itself had little enthusiasm to seek the ‘simple products’ on their own initiative. Moreover, to keep costs low, distribution had to be through a ‘Basic Advice’ model which proved difficult to achieve in practice.27

An alternative to various forms of intervention in product design or creating ‘vanilla products’ is to tighten the regulation around consumer access to more complex and risky products. In Australia, the government is currently reviewing the retail/wholesale investor classification as part of the FoFA reforms. A number of countries are also exploring requirements for consumer knowledge to be tested before they can access complex and risky products.28

Synergy in consumer financial protection
There is no one ‘silver bullet’ that will provide effective consumer financial protection on its own but there are potential synergies between these four pillars (and other measures) which can have a multiplier effect on the effectiveness of individual components, enhancing the overall efficiency of the policy framework.

For example, an integrated approach can entail using financial education to teach consumers not only financial concepts, but also how to use disclosure more effectively (it should not be assumed that consumers understand how to use disclosure to compare products and services). Financial education could be used to build this capability using relevant ‘real life’ examples. Feedback from this process could perhaps even lead to improvements in product design.

Similarly, one of the challenges in making ‘generic advice’ more effective is how to inform consumers that it exists.
Consumer financial protection is not just about protecting consumers, we want financial markets to become more efficient as a result of consumers making more informed financial decisions, and we need efficient markets to ultimately improve well-being.

and encourage them to actually use it. Again, financial education can be used to establish awareness about generic advice and give consumers hands-on experience in using the tools and resources that are available. Disclosure can be used to further market the availability of such publicly available resources, especially at the point of sale. Could product design even make ‘generic advice’ a built-in component of the product’s own features?

In all of this, where the rubber really hits the road is the moment when a consumer makes a financial decision.

Consumer financial protection is not just about protecting consumers, we want financial markets to become more efficient as a result of consumers making more informed financial decisions, and we need efficient markets to ultimately improve well-being.

Governments promote competition in financial services because that, in turn, leads to better social and economic outcomes, in the form of lower prices and a better match between financial needs and the products and services provided.

Because of the linkages between all of these elements, it is in our collective interest to get consumer financial protection right. And, as this paper has argued, there are real benefits in thinking through how each of the four pillars can be used to strengthen the other three, to ultimately contribute to well-being and financial stability over the long term.

Notes
1. ‘The recent crisis demonstrated the critical importance of financial literacy and good financial decision-making, both for the economic welfare of households and for the soundness and stability of the system as a whole’, statement by Ben Bernanke, Chairman of the Board of Governors of the Federal Reserve System, provided for the record of a hearing held on 12 April 2011 conducted by the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, US Senate, Washington DC, 20 April 2011.
3. For example, in February 2011 the G20 Finance Ministers and

Central Bank Governors asked the OECD, the FSB and other relevant international organisations to develop common principles on consumer protection in the field of financial services by their October 2011 meeting. See FSB, Progress in the implementation of the G20 recommendations for strengthening financial stability, 10 April 2011. The author is the Australian representative on the OECD Taskforce on Consumer Financial Protection which is leading the work related to the development of these principles.

4. Recent economic events have focused attention on the financial decisions made by consumers and the practices of retail financial institutions. Many argue that consumer confusion in the increasingly complex mortgage market contributed to the subprime market meltdown of 2007 which, in turn, triggered the global financial crisis. John Y. Campbell, Howell E. Jackson, Brigitte

5. See, for example, Australian Government Financial Literacy Foundation, Financial literacy: Australians understanding money, 2007.


8. ‘A key plank of this strategy is the development by ASIC of a generic guidance service — ‘personalised money guidance’ — for a mass market. ‘Generic’ means the guidance does not recommend specific brands of products’. ASIC, op. cit., p. 42.

9. Gerard Lemos, ‘The UK Money Advice Service’, speech at the


11. The FIAAA has a ‘Gold Standard of Independence’ that few advisers can meet — they can’t be affiliated with a product provider, receive commissions or charge asset-based fees.


13. ‘I strongly believe that financial planners should only have one master — the consumer. Yet, for years, product providers have called the tune because they are the ones paying the planners through sales commissions and other kick-backs like expensive conferences. Any industry that survives on these kinds of practices will not be trusted by consumers. This lack of trust is one reason why up to 80 per cent of Australians have never used a financial adviser. It’s time that the regulatory framework governing the provision of financial advice shifted the focus back to the consumer’, the Hon Bill Shorten MP, Assistant Treasurer and

14. Parliamentary Joint Committee on Corporations and Financial Services, Inquiry into financial products and services in Australia, November 2009.

15. ‘Many investment products have become excessively complex, and doubts are cast as to whether they make any meaningful economic sense. In some cases, only the product providers, which are often companies that sell only a particular product to their customers, are the ones who really understand these products or advising their clients on these products find it impossible to grasp the structure of these products … Before the advent of complex structured products, regulatory attention was appropriately targeted at conduct issues, mainly in the sales process. But with investment banks continuing to recruit droves of mathematicians and financial engineers each year, we can expect more complex products to come on stream’, Martin Wheatley, ‘Rethinking Investor Protection’, Australian Centre for Financial Studies, International Distinguished Lecture Series, 2 May 2011, p. 10.


17. ‘Words are done by lawyers and they are very poor disclosure tools. What would I like on the cover is a group of retirees with their furniture in the street outside their house. Then I’m happy for the words to say: “This may not happen to you but guess what, mate”. That would get their attention.’ Paul Clitheroe (Panel Discussion), ‘Jump on board! Protecting retail investors and financial consumers in capital markets’, ASIC Summer School 2010, p. 170.


19. ASIC is proposing to introduce disclosure benchmarks for contracts for difference (CFDs): in July 2010 ASIC published a detailed report on the retail CFD market in Australia (Report 205 Contracts for difference and retail investors). Following this ASIC released an investor guide, Thinking of trading contracts for difference (CFDs)? to help retail investors understand the risks of investing in CFDs and a consultation paper on disclosure benchmarks for over-the-counter (OTC) CFDs (Consultation Paper 146 Over-the-counter contracts for difference: improving disclosure for retail investors). A regulatory guide with final benchmarks for OTC CFDs is likely to be released later this year. ASIC has also recently published a consultation paper on financial requirements for issuers of retail OTC derivatives (Consultation Paper 156 Retail OTC derivatives: financial requirements).

20. There is a wide range of policy tools that might be used to achieve such ambitious aims, from requiring product providers to have appropriate product governance processes in place to more prescriptive measures, such as requiring product pre-approval, mandating or banning some products, mandating appropriate charging structures, requiring product benchmarking, and mandating risk warnings. In Australia, Dimity Kingsford-Smith has been an advocate of merit regulation. See ‘Regulating investment risk: individuals and the global financial crisis’, UNSW Law Journal, vol. 32, no. 2, 2009, pp. 914–46.


22. ‘I strongly believe that financial planners should only have one master — the consumer. Yet, for years, product providers have called the tune because they are the ones paying the planners through sales commissions and other kick-backs like expensive conferences. Any industry that survives on these kinds of practices will not be trusted by consumers. This lack of trust is one reason why up to 80 per cent of Australians have never used a financial adviser. It’s time that the regulatory framework governing the provision of financial advice shifted the focus back to the consumer’, the Hon Bill Shorten MP, Assistant Treasurer and

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28. For example, Hong Kong recently introduced a derivatives knowledge test requiring distributors to assess consumer knowledge of derivatives and rate them based on that knowledge. The Securities and Futures and Companies Legislation (Structured Products Amendment) Ordinance 2011 was passed by the Legislative Council on 4 May 2011. Singapore is also reviewing whether advisers need to obtain from consumers ‘information that is necessary to ascertain the customer’s investment knowledge or experience before selling an investment product’. See, for example, Monetary Authority of Singapore, Consultation Paper P003, 2010, Regulatory Regime for Listed and Unlisted Investment Products,
AUSTRALIAN EQUITY WARRANTS: ARE RETAIL INVESTORS GETTING A FAIR GO?

The ASX has two functionally similar markets for contingent equity contracts — a warrants market principally serving retail investors and an ETO market that may be used by retail and professional traders. Using pricing and volatility comparisons, this study finds that warrants are generally overpriced and are significantly dearer than their ETO equivalents. The paper recommends that short selling be allowed in the warrants market in order to reduce the pricing differentials and end the systematic exploitation of retail warrant investors by warrant issuers.

The Australian Securities Exchange (ASX) and its antecedents have traded call and put exchange-traded options (ETOs) over ASX-listed stock since 1976. This was the first market outside the United States to trade equity options. In 1991, the ASX commenced trading third-party issued call and put warrants. Many of the traded warrants contracts have the same underlying security, exercise style, exercise price and expiry date as a contemporaneously traded ASX option contract. The seeming duplication of contracts raises two important questions: Why did the ASX introduce warrants trading when its existing ETO market had the ability to satisfy the demand for price-contingent contracts to buy and sell Australian stocks? And, why have the two markets existed in parallel for more than 20 years?

Market segmentation appears to be the main reason. The ETO market, with its relatively complex trading arrangements to facilitate margin-based trading, can be more easily accessed by institutional and professional investors, whereas the warrants market, since its inception, has aimed to attract retail investors. According to Hunter (1999), warrants are more suited to retail investors because they are not called upon to write them; this being more risky than simply taking long positions. Moreover, when introduced, warrants traded on the existing electronic equity trading platform, which meant that retail investors could directly trade warrants via internet systems provided by brokers. At the time (and up to 1997), options were traded on a ‘floor’ where brokers executed orders placed by the traders.

The existence of dual markets offering functionally equivalent instruments is unusual in global financial markets and we could find no non-Australian studies that investigated relationships between related warrants and ETOs. There are, however, two previous Australian studies. Lee (2000) found evidence of warrant overpricing, although the results of the study are subject to the criticism that non-contemporaneous pricing data formed the basis of his findings. A more recent study by Bertin et al. (2010) investigated the lead/lag price dynamics between the two markets rather than the question of pricing parity in the two markets.

The central contention of this study is that functionally identical instruments should trade at the same price (according to the law of one price), unless there are differences in the institutional arrangements for trading these two instruments that justify the price difference.
Institutional arrangements, ETOs and warrants

The main specifications of option contracts are the underlying security, the option type (call or put), the exercise style (European or American), the contract size, the expiry date and the exercise price. Traders can take long or short positions in ETOs, and the clearinghouse (ASX Clear) operates a margin management system, ASX Derivatives Margining System (ADMS). ASX Clear calls margins from the brokers who, in turn, call margins from their clients. The ADMS offsets individual option positions to arrive at an overall ‘portfolio’ margin value for each option market trading entity. ASX Clear manages the aggregate positions of the participating options brokers who, in turn, are responsible for managing their clients’ positions.

The market attracts traders through low transaction costs, such as small trading commissions and narrow bid-ask spreads. The ASX employs a system of market makers and those who fulfil their obligations to maintain market liquidity, either on a continuous basis or on a quote request basis, are rewarded by the ASX with lower trade registration fees.

The warrant market

Historically, warrants were company-issued call options over their own stock. Initially ASX warrants were also equity options over Australian-listed equities. Currently, however, the ASX warrants market trades a wide variety of derivative instruments. Moreover, the ASX warrants market has moved away from its option origins as a number of the most traded warrants, such as Minis and International LEPOs, have very little or no option component and are more like forward/CFD instruments.\(^3\)

Data on the dimensions of the warrants market are presented in Table 1.

This study focuses on ordinary call and put equity warrants which, while producing some 35 per cent of ASX warrant volume, have had a much smaller (4.7 per cent) share of the value of ASX warrant trading to date in 2011. While the share may be small, it is worth noting that the total value of the turnover in ordinary equity warrants exceeded $500 million in 2010.

Applications to list a new warrants series must be accompanied by a product disclosure statement (PDS) that specifies the nature of the instrument and the conditions under which it will trade. Most of their specifications are the same as for equity ETOs but warrants have two further specifications: the warrant issue size and the warrant conversion ratio.

The issue size is not really a constraint as there is no initial public offering (IPO) for equity warrants but rather the warrant issuer normally stands ready to continue to issue fresh securities throughout the life of the warrant by maintaining an active offer price and volume presence during market trading hours.

<table>
<thead>
<tr>
<th>Type</th>
<th>Warrant</th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Trading</td>
<td>Commodity</td>
<td>3,616,692</td>
<td>7,715,835</td>
</tr>
<tr>
<td></td>
<td>Currency</td>
<td>802,221</td>
<td>294,939</td>
</tr>
<tr>
<td></td>
<td>Equity</td>
<td>148,338,626</td>
<td>47,678,955</td>
</tr>
<tr>
<td></td>
<td>Equity Barrier</td>
<td>67,626,430</td>
<td>64,036,620</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>34,416,558</td>
<td>25,535,872</td>
</tr>
<tr>
<td></td>
<td>Index Barrier</td>
<td>10,996,812</td>
<td>12,783,385</td>
</tr>
<tr>
<td>Investment</td>
<td>Various</td>
<td>74,191,761</td>
<td>302,865,623</td>
</tr>
<tr>
<td>International LEPOs</td>
<td></td>
<td>3,884,269</td>
<td>177,514,203</td>
</tr>
<tr>
<td>Minis</td>
<td>80,414,145</td>
<td>374,805,205</td>
<td>37.0%</td>
</tr>
<tr>
<td>Total</td>
<td>424,287,514</td>
<td>1,013,228,637</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

\(^*\) Market volume and value, May year to date.
Source: ASX.
The warrant conversion ratio specifies the number of warrants needed to be exercised to purchase one unit of the underlying security. Most ASX warrants have conversion ratios of between 4:1 and 6:1 whereas ETO conversion ratios are 1:1. The higher the conversion ratio the lower is the price per warrant, which may have a superficial appeal to retail traders, but it has no effect on any other important feature of a warrant.

Warrants trade on the ASX’s equity trading system ASX Trade. Warrant transactions are registered and cleared through CHESS. Retail investors are more familiar with CHESS trading and settling arrangements than they are with the trading and settling arrangements of ASX options that are designed to support margin trading.

Issuers are required to provide a reasonable bid quote with sufficient volume on a continuous basis during market opening hours to enable investors to closeout an open long warrant position. On the expiry date, the issuer of the warrant is required to accommodate the exercise requirements of warrant holders; to purchase (sell) the contracted quantity of the underlying security from any in-the-money call (put) warrant holders. Most warrant issuers choose to hedge the resulting exposure to risk of loss in one of two ways. First, the issuer can purchase an equivalent offsetting ETO contract. The advantage of this strategy is that it completely eliminates warrant risk as the long ETO position is the mirror image of the issuer’s short warrant position. The disadvantage of the ETO hedge strategy is that the ETO market is often thinly traded (see Table 3 below) and an attempt to hedge a large warrant position could have a significant impact on ETO prices, and thus erode a proportion of the warrant issuer’s potential profit. Alternatively, the issuer can delta hedge their positions. The advantage of delta hedging is that it involves transacting in the ASX stock market which is much more liquid than the ETO market. The disadvantage of delta hedging is that it is less precise than option hedging and usually has greater transactions costs.

Data and analysis

Data for this study was accessed from iRESS, a commercial provider of contemporaneous trading data. The warrant and ETO data for a particular stock was collected within the shortest possible time interval (usually a two- or three-minute period) in an attempt to minimise the problem of data non-synchronicity.

The study compares warrants and ETOs over four underlying shares: BHP, CBA, RIO and WPL, and the sample data collection was limited to 12 specific days. Warrants over these four shares account for approximately three-quarters of the trading in standard equity warrants by value and the value of trades in call warrants exceeded that in puts by a factor of seven or eight. This is not surprising as the retail investor market is generally more comfortable taking positions that benefit from share market rises rather than the reverse.

TABLE 2: Snapshot of the ASX warrants market on 17 May 2011

<table>
<thead>
<tr>
<th>Stock</th>
<th>Warrants on Issue</th>
<th>Warrants with a Bid and Ask Quote</th>
<th>Bid, Ask Quote Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call</td>
<td>Put</td>
<td>Total</td>
</tr>
<tr>
<td>BHP</td>
<td>24</td>
<td>17</td>
<td>41</td>
</tr>
<tr>
<td>CBA</td>
<td>20</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>RIO</td>
<td>21</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>WPL</td>
<td>20</td>
<td>14</td>
<td>34</td>
</tr>
<tr>
<td>Totals</td>
<td>85</td>
<td>61</td>
<td>146</td>
</tr>
</tbody>
</table>

The data were extracted from an iRESS terminal at approximately 3:30 pm on 17 May 2011.

* % figures represent the ratio of warrants with bid and ask quotes to total warrants on issue.

# Bid and ask values are the average value of orders at the current best bid and ask quote levels.

TABLE 3: Snapshot of the ASX ETO market on 17 May 2011

<table>
<thead>
<tr>
<th>Stock</th>
<th>Options on Issue</th>
<th>Options with a Bid and Ask Quote</th>
<th>Bid, Ask Quote Details*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call</td>
<td>Put</td>
<td>Total</td>
</tr>
<tr>
<td>BHP</td>
<td>555</td>
<td>547</td>
<td>1102</td>
</tr>
<tr>
<td>CBA</td>
<td>417</td>
<td>408</td>
<td>825</td>
</tr>
<tr>
<td>RIO</td>
<td>404</td>
<td>398</td>
<td>802</td>
</tr>
<tr>
<td>WPL</td>
<td>337</td>
<td>329</td>
<td>666</td>
</tr>
<tr>
<td>All</td>
<td>1713</td>
<td>1682</td>
<td>3395</td>
</tr>
</tbody>
</table>

The data were taken from an iRESS terminal at approximately 3:30 pm on 17 May 2011.

* % figures represent the ratio of ETOs with bid and ask quotes to total warrants on issue.

# Bid and ask values are the average value of orders at the current best bid and ask quote levels multiplied by the lot size of 100.
Citigroup, Macquarie Bank and the Royal Bank of Scotland (RBS) were the issuers of the 146 standard warrant series written over the four stocks. Each issuer had a similar spread of warrant issues across the four stocks in question but only 28 (19 per cent of the 146 warrants) were duplicates of another series. Trading data in the warrant and ETO markets, as at approximately 3.30 pm on 17 May 2011, are presented in Tables 2 and 3, respectively.

Three-quarters (110) of the warrants had active bid and offer prices and they had a narrow bid-ask spread of less than 1 per cent (Table 2, third-last column).

Table 3 provides a snapshot of ETO trading activity. Observe in Table 3 that of the 3,395 option series available for trade on 17 May 2011 only 521 (15.3 per cent) maintained an extant bid and offer quote. Note the relatively low liquidity in the ETO series with bid and ask values, on average, being less than $10,000.

Price analysis
To test the relationship between warrant and option prices, we filtered the data for matching series where each instrument had valid bid and ask quotes, leaving a data set consisting of 571 records on 90 matched warrant and ETO contacts.

We found a number of arbitrage opportunities existed between the two markets. A long-arbitrage transaction is the simultaneous purchase of a warrant contract (at the ask price) and the sale of an equivalent options contract (at the bid). Conversely, an immediate short-arbitrage opportunity exists if the warrant bid price exceeds the ETO ask price. Table 4 presents data that decomposes each simultaneous observation on the warrant and option markets into three categories: long arbitrage, no arbitrage or short arbitrage. Short-arbitrage opportunities existed for 92.6 per cent of the observations and the majority of stocks exhibited short-arbitrage conditions for more than 90 per cent of the observations.

Next we examine the value of the arbitrage opportunities. The data in Table 5 show the average difference in value of the warrants compared to the value of the equivalent ETO expressed as a percentage of the ETO price on a mid-price (of the bid-ask spread) basis and an arbitrage price basis (using the warrant bid price and the option ask in the percentage overpricing estimate).

The data in Table 5 indicate that these warrants (on average) are overpriced by 49.4 per cent on a mid-price basis and 41.7 per cent on an arbitrage-price basis. The law of one price does not apply to warrants and their equivalent ETO, and the extent of the overpricing of warrants is consistent with, but exceeds, the overpricing results obtained by Lee (2000) using 1995 to 1999 ASX data.

Volatility analysis
Another method for comparing the valuation of warrants and their equivalent options is to examine their implied

---

### TABLE 4: Warrant/option price arbitrage opportunities

<table>
<thead>
<tr>
<th></th>
<th>Long Arbitrage</th>
<th>No Arbitrage</th>
<th>Short Arbitrage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHP</td>
<td>5</td>
<td>16</td>
<td>191</td>
<td>212</td>
</tr>
<tr>
<td>CBA</td>
<td>0.0%</td>
<td>7</td>
<td>225</td>
<td>232</td>
</tr>
<tr>
<td>RIO</td>
<td>1</td>
<td>6</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>WPl</td>
<td>0.0%</td>
<td>7</td>
<td>70</td>
<td>77</td>
</tr>
<tr>
<td>All</td>
<td>6</td>
<td>36</td>
<td>529</td>
<td>571</td>
</tr>
</tbody>
</table>

*A short arbitrage opportunity exists if the warrant bid price exceeds the option ask price. A long arbitrage opportunity exists if the option bid price exceeds the warrant ask price. Otherwise no arbitrage opportunity exists.

### TABLE 5: Overpricing of warrants as indicated by prices

<table>
<thead>
<tr>
<th></th>
<th>Mid Price Overpricing*</th>
<th>Arbitrage Price Overpricing*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Call</td>
<td>Put</td>
</tr>
<tr>
<td>BHP</td>
<td>33.5%</td>
<td>47.8%</td>
</tr>
<tr>
<td>CBA</td>
<td>66.2%</td>
<td>81.2%</td>
</tr>
<tr>
<td>RIO</td>
<td>54.4%</td>
<td>86.8%</td>
</tr>
<tr>
<td>WPl</td>
<td>21.1%</td>
<td>45.3%</td>
</tr>
<tr>
<td>All</td>
<td>42.1%</td>
<td>64.2%</td>
</tr>
</tbody>
</table>

*The mid prices are the average of the bid and ask prices. Mid price overpricing percentage is computed as the difference between the warrant mid-price and the equivalent option mid-price as a proportion of the option mid-price.

**Arbitrage overpricing is computed as the warrant bid price less the option ask price expressed as a proportion of the option price asking price.
volatility. In principle, market warrant and option prices change each time there is a change in the price of the underlying security. Implied volatility changes more slowly with changes in perceived underlying asset volatility suggesting that implied volatility differences between the warrant and ETO markets are less likely to be influenced by timing differences during the extraction of the warrants and options data.

Evidence of the overpricing of warrants relative to ETOs in terms of units of implied volatility is presented in Table 6. On average, the warrant mid-point implied volatility is 7.7 per cent higher than that of ETO options. The arbitrage-implied volatility difference, which is computed as warrant-bid-implied volatility less option ask implied volatility is 7.3 per cent on average. The probability that this level of difference is simply the result of sampling error is very low at 3.7 per cent for the mid-point implied volatility (assuming the volatility differences are normally distributed).

The results presented in Table 5 clearly indicate the presence of a price premium applying to warrants relative to ETOs, however, this does not, by itself, indicate which one is mispriced. Volatility analysis can provide an indication of which market, if any, is fairly priced and which market is overpriced.

In an efficient market the implied volatility of options ought not to stray far from measured historic volatility and thus the difference between implied volatility and historic volatility provides a measure of fair/efficient pricing. Such data are presented in Table 7 over the most recent 30-day and 90-day periods.

Depending on whether 30-day or 90-day volatility is used, warrant-implied volatility, on average, is 11.7 per cent or 11.4 per cent greater than historic volatility. While the difference between the implied volatility and historic volatility for warrants will fluctuate between stocks, series and days, the probability that there was no difference between the two was either 1.1 per cent or 0.6 per cent. These probabilities are sufficiently low to make the proposition that warrant-implied volatility is comparable to historic volatility implausible.

ETO series also traded at a premium to historic volatility; 4.0 per cent and 3.8 per cent depending on the choice of historic volatility. But the premiums are much lower than the warrant market equivalent and the probability that the difference is zero is 15 per cent or 16 per cent depending on whether 30-day or 90-day historic volatility is used.

The results presented in Table 7 indicate ASX ETOs may be reasonably priced or slightly overpriced but, more importantly, that ASX warrants are definitely overpriced. However, it is difficult to place a dollar figure on the extent of overpricing. There are no statistics on the net warrants sold by issuers as there are no published warrant ‘open interest’ figures. All that is available are statistics indicating the volume and value of trade. These figures
are not sufficient in and of themselves to place a number on the net flow of funds from the warrant holders to the warrant issuers due to overpricing.

It is clear from the results presented in Table 6 and Table 7 that standard equity warrants are overpriced. But according to the data in Table 1, standard equity warrants represent only 4.7 per cent of the overall warrants market. However, the overpricing of standard equity options may be a manifestation of the general overpricing of option-type warrants. We examined the pricing of equity barrier warrants to investigate this possibility.

Barrier warrants have no direct counterparts in the ETO market. Thus it is not possible to estimate a warrant’s overpricing through direct comparison with ETO prices. It is, however, possible to estimate barrier warrant overpricing by comparing the market prices of barrier warrants to theoretical barrier warrant prices using appropriate volatility measures. Table 8 displays the percentage difference between the market mid-price for knockout barrier warrants and the theoretical barrier option price using either (a) implied volatility gleaned from the standard ETO market or (b) 60-day historic volatility.

Surprisingly (given their lack of transparency born of structural complexity) the results presented in Table 8 indicate a lower degree of overpricing for barrier warrants than for standard warrants. Barrier warrants overpricing is of the order of 25 per cent compared with the 50 per cent overpricing prevailing in the standard warrants market.

Conclusions

There is strong evidence that ASX warrants are overpriced relative to both ETO options and fair value using historic volatility. A warrant traded at fair value systematically favours neither the buyer nor the seller. However, a warrant traded on an overpriced basis systematically benefits the seller and penalises the purchaser.9 Warrant trading is a zero-sum game and the ASX warrant market is such that, at any point in time, the net sellers are investment banks only and the net buyers are largely retail investors.

Investment banks are exploiting retail investors by selling them overpriced securities. Warrant-issuing investment banks, while having marketing costs, face very little risk selling overpriced warrants. A warrant issuer can lock-in the profit associated with the sale of an overpriced warrant by either purchasing an identical ETO or by delta hedging their short position by purchasing stock in the share market.

The warrant market structure favouring issuers is supported by the ban on warrant short selling. Market forces would immediately return warrant prices to at least ETO levels, if not fair value, if arbitrageurs were allowed to short sell warrants.

The warrant market structure favouring issuers is supported by the ban on warrant short selling. Market forces would immediately return warrant prices to at least ETO levels, if not fair value, if arbitrageurs were allowed to short sell warrants. The ASX currently provides organisational infrastructure to facilitate short selling in many of its markets.10 While there would be some additional costs associated with providing traders with the ability to short sell, these costs would be small in comparison with the amount currently being appropriated from retail warrant investors via the systematic overpricing of warrants.

The principle recommendation of this paper is that the warrant short selling be allowed. We also recommend that conversion factors be limited to 1:1 so as to improve the transparency of warrant value.

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TABLE 8: Estimate of the overpricing of barrier warrants

<table>
<thead>
<tr>
<th>Sample Numbers</th>
<th>Overpricing</th>
<th>Option Implied Volatility*</th>
<th>Historic Volatility*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stock</td>
<td>Call</td>
<td>Put</td>
</tr>
<tr>
<td></td>
<td>BHP</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>CBA</td>
<td>8</td>
<td>7</td>
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<tr>
<td></td>
<td>RIO</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>WPL</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>All</td>
<td>28</td>
<td>29</td>
</tr>
</tbody>
</table>

*Average implied volatility for each stock was obtained from standard ETO and used to compute theoretical knock out barrier option prices.

60 day historical volatility was used to compute theoretical knock out barrier option prices.
Notes
2. American or European exercise style.
3. LEPOS are low exercise call options that have virtually no time value. MINs are geared undated forward contracts.
4. Any increase (decrease) in the price of the underlying security beyond the exercise price hurts a call (put) warrant issuer.
5. Delta hedging is a name given to the practice of hedging an options position by holding a proportional and opposite position in the underlying security. The quantum of the position held is determined by the option position’s sensitivity to changes in the price of the underlying security, i.e. the option’s delta.
6. Data was taken from IRESS in the 30 minutes to the close on the following days: 4, 8, 11, 12, 15, 18, 21 and 28 April; and 3, 5, 9 and 17 May 2011.
7. The results when overpricing is weighted by the value of trade in the underlying stocks are essentially the same.
8. This study did not calculate implied volatility measures directly, but rather used the implied volatility numbers generated by IRESS.
9. For example, the probability of a purchaser of an at-the-money, two-month, call warrant (using realistic assumptions in relation to interest rate, dividend rate and volatility) making a profitable trade is 53 per cent. This probability is reduced to 35 per cent if the warrant were purchased at a 25 per cent premium over fair value.
10. For example, the ASX allows short selling in its market for company stock, its ETO market and its futures and associated options market.

References

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In recent decades, the range and complexity or sophistication of financial products accessible to ordinary Australians has increased. The number of direct retail investors has grown, with a small (and in some cases growing) number embracing derivatives (either directly or embodied in other products), including via self-managed super funds (SMSFs).

This paper examines a broad range of the main derivative products available to retail investors, including structured products, contracts for difference (CFDs), options, futures, warrants and exchange-traded funds (ETFs), focusing more on the products where retail participation is or has been most rapidly rising.

Significant gaps in data about retail investors’ use of derivatives make it difficult to monitor trends, but available information suggests that:

- the range of derivatives available (and marketed) to retail investors has grown;
- the number of retail investors investing in some derivatives has grown (e.g. CFDs); and
- new derivatives (or products that incorporate substantial use of derivatives) are developing rapidly (e.g. some ETFs).

Factors driving a broadening retail demand include:

- increasing personal wealth inside and outside superannuation that is exposed to market risk;
- continued messaging from government and industry for investors to raise, diversify and risk-manage their wealth;
- the increasing number of ‘Baby Boomers’ approaching retirement;
- technological innovations that make investments more attractive and/or convenient to access; and
- the marketing strategies used by product issuers and intermediaries.

This raises a number of questions for industry and regulators. ASIC, for example, has begun to raise concerns about the ability of retail investors to appropriately assess the features and risks of retail derivatives — to distinguish the differences between the products, determine the suitability of the investments for their needs and preferences, and manage them appropriately.

The central tenet of Australia’s regulatory approach in this area has been that investors take responsibility for their investment decisions. However, research about Australians’ financial literacy levels and the difficulties many investors have in understanding and assessing investment risks suggests that the potential for detriment with retail...
derivatives warrants ongoing attention from regulators. Consequently, ASIC plans to continue to guide and educate investors to be ‘money smart’, set standards and provide regulatory guidance, check for compliance through monitoring and surveillance, and enforce the law and take appropriate action for non-compliance so that:

- investors can make informed decisions;
- participants in financial markets meet required standards; and
- misconduct is dealt with and deterred.

In addition, the risks and issues raised in this paper support actions by product issuers, gatekeepers and other licensees, and those responsible for preparing advertising, to look at what they can do to meet their responsibilities. Such efforts would likely include improvements to standard requirements such as effective disclosure, but might also extend to improvements in industry ethics and standards, including the development of sound product approval processes.

The financialisation of Australian households

Between 1990 and 2010, households’ financial assets grew fivefold in nominal terms and, as at June 2010, financial assets accounted for approximately one-third of all household assets.4

Superannuation is households’ primary financial asset (see Figure 1), rising from approximately 35 per cent to almost 50 per cent of total households’ financial assets between 1990 and 2010. Figure 1 also shows the sobering impact of the GFC on households (reflecting falls in the value of market-related assets and moves away from risk assets to deposits).

Despite increased holdings of financial assets, the overall direct and indirect exposure (and usage) of households in aggregate to derivatives is still very low. Demand-side data (i.e. surveys) confirm that few Australians directly invest in derivatives:

- Only 5 per cent of the 2400 adult Australians surveyed in the Australian Securities Exchange’s (ASX) 2010 Australian Share Ownership Study held ‘other listed investments’ (i.e. direct investments other than shares) (see Figure 2).
- Only 1 per cent of the 16.6 million adult Australians represented in Roy Morgan Research’s Single Source survey in the year ending December 2009 held warrants, futures or options (i.e. approximately 140,000 adult Australians).5

The central tenet of Australia’s regulatory approach in this area has been that investors take responsibility for their investment decisions. However, research about Australians’ financial literacy levels and the difficulties many investors have in understanding and assessing investment risks suggests that the potential for detriment with retail derivatives warrants ongoing attention from regulators.

FIGURE 1: Australian household financial assets — end-December
Only 5 per cent of the adult Australians, and 11 per cent of the retail investors, who participated in a study commissioned by ASIC (2008) prior to the global financial crisis (GFC), held ‘other direct investments’. Derivatives comprised a negligible proportion within the other direct investments category.

However, there has been some growth in retail use of derivatives and the fastest growing categories appear to be structured products, CFDs and ETFs. Investment Trends data show that the number of Australians investing in listed or over-the-counter (OTC) derivatives, or products incorporating derivatives, has increased in recent years (see Table 1). It seems reasonable to expect that these trends will continue, and will heighten questions over financial literacy and investors’ capacity to make well-informed decisions.

Profile of retail investors investing in derivatives

The relatively little information available about those in Australia who do invest in retail derivatives suggests differentiation by type of derivative. Note, though, that investor surveys, like all data sources, have limitations (e.g. self-selection bias — the people who respond to a survey may not be representative of the underlying population).

Structured product investors

The median age of the structured product investors surveyed by Investment Trends (2011) in 2010 was 56. The median income ($110,000) and portfolio size ($1.2 million) were both high, but the survey targeted high net worth investors so these results may overstate the wealth and characteristics of the typical structured...
product investor. Business owners and the self-employed were over-represented (i.e. 23 per cent of the investors were business owners or self-employed) and while most (60 per cent) of those with structured products were investing in their own name, almost a third (32 per cent) were investing through a self-managed super fund (SMSF).

Half of the investors planned to hold their investments for five years or more (down from 58 per cent in 2009) but only 3 per cent planned to hold the investment for more than 10 years (down from 4 per cent in 2009). When asked what had triggered their initial investment, the key factors were diversification (43 per cent of investors, up from 25 per cent in 2009) and capital guarantee (43 per cent, up from 17 per cent in 2009). Investment Trends analysis revealed that gearing was a reasonably frequently used strategy, with 15 per cent of investors geared internally by the product, 17 per cent geared by the product provider and 6 per cent geared by the investor (note that 8 per cent were unsure if they were geared or not).

Use of financial planners has recently increased from 39 per cent in 2009 to 43 per cent in 2010, with self-directed clients dropping from 30 per cent to 27 per cent.

CFD Investors
A considerable number (43 per cent) of the CFD traders surveyed by Investment Trends (2010d) in 2010 had more than 10 per cent of their investable assets in CFDs, and 12 per cent had more than half of their investable assets in CFDs. Their average age was 43, their average annual income was $98,000 (median $82,000), many were tertiary educated and the vast majority were men. Most were employed and those who were employed were distributed across a range of occupations, although finance professionals, information technology (IT) specialists, and business owners appeared to be overrepresented. Separate Investment Trends (2010c) research suggests that few SMSFs invest in CFDs, and intended future use among SMSF trustees is declining.

In a smaller depth study commissioned by ASIC (2010b) many CFD investors reported that the majority of their investment portfolio was in shares and that they were using CFDs to diversify their portfolio. Many saw CFDs as a way to easily generate additional returns in a shorter timeframe.

ASIC’s research found that many did not understand how CFDs worked and the significant risks involved in trading them. Some considered CFDs to be analogous to equities. On the other hand, many appeared to be overconfident about their understanding of CFDs and their ability to successfully trade them. They tended not to seek professional advice about CFDs before investing in them and relied disproportionately on material provided by CFD issuers.

ETF Investors
An Investment Trends (2010a) 2009 ETF survey found that ETF investors had relatively small investment portfolios compared with investors in other alternative investments and tended to be younger (though older than CFD investors). They tended to cluster into two key groups: those aged 25 to 55 with an annual income above $75,000 (45 per cent of investors) and those aged over 55 with an income of less than $150,000 (26 per cent). More recent Investment Trends research (cited in Munro 2011) suggests that diversification was a key motivation for those investing in ETFs in 2010, and that most investors were self-directed and not influenced by an adviser (only 10 per cent of those surveyed said they were being advised by a financial planner and a further 7 per cent by a stockbroker).

Research reported by Tria Investment Partners (2011) suggests that SMSFs have been early adopters of ETFs, and that, ‘it’s common for local ETFs to have SMSFs representing 30 per cent to 40 per cent of their unitholders’.

Summary of risks with derivatives for retail investors: what is ASIC’s response?

Option, future and warrant investors
According to a large survey of adult Australians conducted by Roy Morgan Research (2009) only 0.4 per cent of the represented population held work share options; 0.3 per cent held other share options; 0.1 per cent held warrants; and 0.1 per cent held futures. Only the options sample is robust enough to inform demographic analysis.

Compared to the adult Australian population, option investors were more likely to be male, full-time employed, tertiary educated and among the highest (i.e. most affluent) socioeconomic quintile. Unsurprisingly, they were more likely to agree with attitudinal statements that indicated a preference for taking risks and/or a strong sense of personal responsibility. They were also more likely to have recently used the internet for financial reasons.

An Investment Trends (2010c) survey of 840 SMSF trustees found that 7 per cent were using geared products for investment and, of these, 13 per cent identified warrants as the product they primarily used to gain leverage.

Separate Investment Trends (2011) data reported a considerable fall in the number of retail investors using instalment warrants between November 2008 (21,000) and December 2010 (9,000) and those using put/call warrants during the same period (from 17,500 to 6,000 investors).

Key risks and issues
The key risks an investor must consider before investing in retail derivative products include: market risk;
counterparty risks, including risks with collateral, short selling and securities lending; agency risks including conflicts of interest; and risks from leverage and margin calls. The extent of these risks depends on the underlying asset and derivative instruments used by each product and varies with market conditions and activity. High leverage is particularly risky as it can easily and dramatically magnify losses.

So are retail investors being sufficiently informed of these risks and do they understand the risks?

Marketing, distribution and suitability
The rapid growth of new complex products means that many retail investors are relatively unfamiliar with their features and risks. Compounding this, some marketing or distribution practices may confuse retail investors about the risks involved and/or attract unsuitable investors.

ASIC has raised concerns about the mass marketing approach adopted by some CFD issuers (including primetime television advertising), which may give retail investors (who are often judging these products themselves without reference to advisers) the impression that CFDs are easy to use.

ASIC has also identified instances of poor disclosure during its reviews of selected PDSs (2010a, 2010b), and has found that retail investors are highly sensitive to terminology and the way information is presented (ASIC 2011a).

Since their introduction, the complexity of ETFs has changed quickly and materially. Retail investors may misunderstand the differences in the various ETFs and their underlying risks.

Availability of market data
There is little public information about retail investment in derivatives and significant gaps in the available commercial data, which inhibits ASIC’s ability to understand and quantify the number, characteristics, preferences and behaviour of those who invest in these products. Pending a more comprehensive set of reliable data, ASIC may continue to commission targeted market research to better understand retail investors and the risks they face.

ASIC’s response
ASIC has responded to these risks and issues in a number of ways, including:

> providing targeted investor guides and plain language material on its investor and financial consumer website, MoneySmart, which explain the features and risks of specific investments such as CFDs and capital guaranteed/protected investments, as well as providing more general investing and financial tips;

> conducting research to better understand the way investors make decisions and using that knowledge to effectively communicate with them through a range of channels, and inform policy and industry guidance;

> conducting assessments of particular sectors or products;

> monitoring and addressing compliance issues in advertisements, disclosure and conduct;

> monitoring investor complaints;

> releasing regulatory guides for industry;

> releasing consultation papers to explore further measures (e.g. enhanced disclosure benchmarks and changes to financial requirements for issuers); and

> encouraging issuers to develop robust client suitability policies and product approval processes.

ASIC may pursue additional regulatory mechanisms if it feels they are required (e.g. shadow shopping and/or proposing law reform).

Regarding gatekeepers, ASIC needs to ensure that intermediaries who provide or assist in providing investors with the information they use to make decisions are competent, act with integrity and are held to account. ASIC takes a wide view of gatekeepers (i.e. they include accountants, directors, advisers, custodians, product manufacturers, market operators and participants).

Advisers (including financial planners and stockbrokers) need to consider whether they have sufficient understanding of any products about which they provide advice to retail clients, and ensure that any products they recommend are suitable for their clients.

Research houses and others offering opinions on the investment merit of these products need to consider all the factors that might significantly affect their value, the complexity of the interactions of the factors and, ultimately, whether it is possible to provide a reliable and useful assessment of the products’ suitability for retail investors in light of these considerations.

Product manufacturers need to consider whether products intended for the retail market are suitable for
retail investors and are capable of being understood by them. This requires robust product approval processes and improvements to disclosure, such as:

> designing more ‘investor-focused’ documents (clear, concise and effective);
> differentiating between generic risks and significant/product-specific risks; and
> considering disclosure on who the product is intended for in order to assist with suitability assessments.

Finally, ASIC believes industry bodies have an important role to play to improve industry standards and ethics.

Future developments and challenges

There will be new or exacerbated challenges ahead with retail derivatives. These will simultaneously necessitate, and yet put strains on, regulators’ capacity to help retail investors to take confident, well-informed decisions. It is easy to note that improved data and analysis will be required to assess and respond to the risks that arise, but financial innovations always outstrip extensions of regulatory coverage.

The global proliferation of retail derivatives is likely to continue and those that are currently only available overseas such as property price derivatives and the more exotic ETFs may become more accessible to Australian investors. In addition, new products may emerge with an appeal to Australians seeking to increase net worth or protect existing net worth, including volatility derivatives, fixed income derivative products, more capital protected products, and more covered warrants and features such as knockout barriers.

Such products are likely to continue to attract the attention of regulators concerned that the speed of their development and innate and/or added complexity is exceeding the ability of issuers to effectively explain them and/or retail investors’ capacity to understand them.

In addition, the local annuity market may develop to meet the needs of Baby Boomers, driving more indirect household exposure to derivatives via the assets into which annuity providers invest their clients’ monies. Some with SMSFs may also to seek to replicate such institutionally created retirement income products. While the Australian annuities market is currently very small due to factors such as product inflexibility, low returns, tax considerations and the ‘safety net’ of the age pension, new product marketing campaigns are already beginning to develop.

Technological advances will continue to influence product design, access and take-up. The introduction of mobile and other digital technology will no doubt alter the way retail investors trade in financial products (including derivatives), and may also alter the way information is disclosed to them. Mobile developments are already underway internationally and domestically.

Finally, retail investors’ access to investment opportunities in foreign jurisdictions is likely to increase. ASIC will therefore need to continue to manage retail investors’ expectations about the limits of its regulatory reach — including warning that consumer protection levels and approaches vary across different jurisdictions and that people who invest money in foreign jurisdictions often do so at their own risk.

Notes

1. The paper presents the personal views of the author and is a shorter version of the original conference paper available at www.australiancentre.com.au/acfs-events/events-2011/melbourne-money-and-finance-conference-2011/. While they have benefited from contributions from his colleagues in Research – Office of the Chief Economist and within ASIC, the views are not necessarily shared by the Australian Securities and Investments Commission. Particular thanks are due to Clare Marlin.

2. While most ETFs currently listed in Australia are not classified as derivative products because they hold the underlying assets that they track, there are a large number of synthetic ETFs listed overseas that rely substantially on the use of derivatives to replicate the performance of the underlying asset.

3. Australia has a more open environment for retail investor access to derivatives than many other countries. In addition to access to all listed derivatives, prohibitions on retail participation in over-the-counter derivatives markets were relaxed after the recommendation of the 1997 Inquiry into the Australian Financial System (Wallis inquiry) (see Recommendation 20). Product disclosure and regulation of the sales and advice process remain the key forms of consumer protection for these transactions.

4. At June 2010, household financial assets were $2.387 billion (ABS 2010).

5. The options category included work and other options. Base sample: 49,371 Australians aged 18 and over.

6. Retail investors were defined as investors with shares, investment property, managed investments, SMSFs and other direct investments (including investments such as debentures and bonds). A capped number of investors with lower-level investments such as term deposits, voluntary superannuation contributions and high interest savings accounts were also included in the research. The base sample for the Australian population was 53,307 and
the base sample for the investor population was 1,217. The data was collected in 2006/07. The most commonly owned other direct investment was debentures (39%), followed by bonds (21%), short-term securities (9%) and options (9%).

7. We list ETFs as ‘derivatives’ because of the more exotic versions available overseas. However, note that these exotic products are not present in the cited local statistics.

8. Defined here (i.e. by Investment Trends) as capital guaranteed funds with a fixed duration. In a recent review of selected product disclosure statements (PDSs) for capital protected products and other structured or derivative products marketed to retail investors, ASIC considered foreign exchange (FX), futures, commodities, warrants, deferred purchase agreements (DPAs) and non-traditional managed funds with structured product-type exposure (such as those with inbuilt alternative asset class exposure, leverage or dynamic management) (ASIC 2010a).

9. This was older than the median age of 54 in 2009 (Investment Trends 2010b).

10. Based on a number of sources, including a series of 30 in-depth interviews with a mix of current, former and future traders of CFDs commissioned by ASIC. The interviews were conducted by Colmar Brunton Social Research (CBSR) over the phone and face to face between 15 December 2009 and 29 January 2010. The sample also included a representation of retail investors who had considered trading CFDs but decided not to do so (deliberate non-traders). The research included a product knowledge test.

11. It must be noted that, even if investors allocate only a small proportion of their investment portfolio to CFDs, the very high leverage involved means they are taking on a considerable amount of risk.

12. Base sample: 49,371 Australians aged 18 and over. Respondents were interviewed between January and December 2009. They were asked which investment types they currently had money directly invested in, either alone or jointly.

13. The sample included a mix of respondents sourced from a broad-based survey of the Australian population as well as members of an opt-in research panel who had taken part in previous investment-related research and indicated that they had a SMSF.

14. Including adult Australians and school-age Australians, e.g. the Helping Our Kids Understand Finances (HOKUF) initiative. See www.financialliteracy.gov.au for more details about ASIC’s financial literacy work.

15. For example, Thinking of trading contracts for difference (CFDs)? (ASIC 2010f) and Get the facts: Capital guaranteed or protected investments (2010d).


17. For example, Report 205: Contracts for difference and retail investors (ASIC 2010b).

18. For example, Regulatory Guide 212: Client money relating to dealing in OTC derivatives (ASIC 2010c).

19. For example, Consultation Paper 156: Retail OTC derivatives: Financial requirements (ASIC 2010b) and Consultation Paper 146: Over-the-counter contracts for difference: Improving disclosure for retail investors (ASIC 2010a).

20. Annuity providers generally use derivatives for risk management (e.g. derivatives such as futures, options, swaps, and more recently synthetic ETFs are used to hedge against variables such as equity market, interest rate and currency volatilities).

21. One of the largest annuity providers (Challenger), doubled their sales to $740 million in the March 2011 quarter alone after embarking on a $5 million advertising campaign in February to boost their retail life annuity sales (The Australian 2011).

22. IG, a major UK CFD provider, reported that its iPhone app had been downloaded 12,000 times in its first month of release and that it processes over 100,000 mobile trades a month, which is about 10 per cent of total trades (Gibson 2011).

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The Australian: see Unauthored.


This is the full index of articles that have appeared in 2011. It includes papers from the papers from the 16th Melbourne Money and Finance Conference: ‘Retail and Household Finance: Current Issues’, conducted by the Australian Centre for Financial Studies (in July 2011) and published in Issues 3 & 4. The conference was sponsored by ANZ, APRA, Finsia, NAB and RBA.

Entries are grouped under general subject headings and each contains the title, author, the issue (Issue 1, Issue 2, Issue 3 and Issue 4) in which the article appeared and a brief summary of the content. Some entries in the index appear more than once, where the content is appropriate to more than one category. Following the subject index is an author index listing the names of authors, the titles of their articles and the issues in which they appear.

**Banking crisis**


It has been obvious for some time that the banking crisis that engulfed the Western world in 2008 has also seriously weakened sovereign financial systems. The commitments to bail-outs were dwarfed by the sharp fall in tax revenues in the recession that, in turn, led to major increases in fiscal deficits and substantial public debt accumulation. However, the impact on the eurozone has been far more severe than elsewhere.

**Consumer protection**


With governments around the world taking a renewed interest in effective consumer financial protection, this paper focuses on four key pillars: financial literacy, disclosure, advice, and product regulation. Although there is no one ‘silver bullet’ that will provide effective consumer financial protection on its own, there are potential synergies between these four pillars (and other measures), which can have a multiplier effect on the effectiveness of individual components, enhancing the overall efficiency of the policy framework.

**Emerging market equities**


With emerging market equities favourably positioned to benefit from strong regional growth dynamics and ongoing regulatory reforms, our findings indicate that international equity portfolios are underallocated to emerging markets, and that portfolios are underallocated to Asia. This suggests that investors should review their Strategic Asset Allocation when positioning for future developments in capital markets.

**Derivatives**

**Retail derivatives: what we know, what we don’t know, and regulatory challenges,** by Alex Erskine, JASSA, Issue 4, pp. 55–61.

This paper reviews what is known about retail investor participation in derivative products, including capital guaranteed/protected investments, CFDs and ETFs as well as futures, options and warrants. It highlights trends, information gaps, regulatory issues raised and the role of gatekeepers in promoting confident and informed retail investors. The paper suggests that there will be new or exacerbated challenges ahead with retail derivatives.
Equity markets

Australian equity warrants: are retail investors getting a fair go?, by Ben Hunt and Chris Terry, JASSA, Issue 4, pp. 48–54.

The ASX has two functionally similar markets for contingent equity contracts — a warrants market principally serving retail investors and an ETO market that may be used by retail and professional traders. Using pricing and volatility comparisons, this study finds that warrants are generally overpriced and are significantly dearer than their ETO equivalents. This paper recommends that short selling be allowed in the warrants market in order to reduce the pricing differentials and end the systematic exploitation of retail warrant investors by warrant issuers.

Energy

Picking winners: understanding the future cost of electricity generation in Australia, by Jason West F Fin, JASSA, Issue 1, pp. 15–21.

With liberalised electricity markets, investment in Australia’s future energy mix will be greatly dependent on the expected generation cost of alternative energy sources. Based on analysis using a levelised cost of energy approach to directly compare alternative technologies, fossil fuels continue to remain competitive relative to nuclear, hydro and wind generation sources over the long term.

Ethical investment

Retail investors and ethical Investment, by Howard Pender and Marie Brocchetto, JASSA, Issue 3, pp. 26–31.

Ethical and responsible investment markets have experienced phenomenal growth around the world in recent years and were relatively unaffected by the global financial crisis. This paper provides an overview of the framework for, and key issues involved in, ethical investing at the retail level in Australia. Ethical investment in Australia primarily involves screened portfolios, with limited activity occurring in community finance and shareholder advocacy.

Financial planning

‘I can’t get no satisfaction ... or can I?’ a study of satisfaction with financial planning and client well-being, by Kym Irving SA Fin, Gerry Gallery, Natalie Gallery and Cameron Newton, JASSA, Issue 2, pp. 36–44.

As industry and policy makers strive to professionalise financial planning and enhance the quality of advice, it is important to understand how financial advice contributes to consumer well-being. The findings of this study indicate financial planning advice has positive effects, with clients feeling more in control of their finances, more prepared for contingencies and putting more effort into their financial affairs. The results also indicate that respondent clients’ appraisals of their financial situation have a bearing on a number of other areas of their life and well-being.

Financial reform


This paper examines the legal and policy implications of the implosion of the securitisation market internationally and argues that comprehensive reform cannot be left to the courts. The paper highlights the limitations of the current legal framework by evaluating the US settlement reached by Goldman Sachs following SEC proceedings against it. Reforms based on proceedings such as this divert attention from the key normative values of permissibility, responsibility and legitimacy — critical features of liberal democracy on which contemporary capitalism rest.

Financial reporting


Empirical evidence from a study of a large number of brokerage firms in Turkey highlights the extent to which their profitability has declined and the determinants of profits have changed following the introduction of IFRS-based financial reporting in early 2005. This study examines some of the possible links between these events.

Finsia news and views – Book reviews


(Two vols, Penguin, 2000) The House of Rothschild is a fascinating study of a fascinating family. For readers weaned on Michael Lewis (Liars’ Poker) and the like, it may prove tiring. It contains no ‘get-rich-quick’ hints and, at times, becomes bogged down in detail. But it offers an
altogether different perspective on subjects ordinarily the province of social and political historians: the Napoleonic era, the Industrial Revolution, the revolutions of 1848 and the 1870s, Bismarckian Germany and the re-unification of Italy, the Whigs and the Tories.

Finsia news and views – From the Editorial Board

The 2010 JASSA Prize winners are Scott Bennett SA Fin and Vivekananda Lal Sondhi of Russell Investments for their article, ‘Active Money — providing additional insights into portfolio risk’, published in Issue 4, 2010. There were also two Merit awards for 2010. The first award went to Bart Frijns and Alireza Tourani-Rad F Fin, Auckland University of Technology, and Christian Tallau, Georg-August-Universität Göttingen, for their article, ‘Australian Implied Volatility Index’, published in Issue 1, 2010. The second award went to Jiri Svec and Maurice Peat F Fin, University of Sydney, for their article, ‘Systematic risk, CDS spread and market integration: an empirical investigation’, published in Issue 3, 2010.

Finsia news and views — Webmaster

From the Chair of the Editorial Board, by Scott Donald SF Fin, JASSA, Issue 1, pp. 4–5.

As this issue of JASSA goes to press, policy and structural adjustments are still occurring in many economies around the world as they seek to regain a firm footing after the global financial crisis (GFC). Some of the adjustments underway in financial markets are reflected in this issue of the journal.

Financial crisis, cyber threat, equity market intelligence and better banking.

From the Chair of the Editorial Board, by Scott Donald SF Fin, JASSA, Issue 2, pp. 4–5.

Almost three years after the emergence of the global financial crisis, financial services professionals and policy makers continue to grapple with the after-effects of the crisis. Financial markets continue to be affected by uncertainty about the strength of the global recovery and debate persists about the existence of a ‘patchwork’ or ‘two-speed’ economy domestically. The current issue of JASSA addresses some of the key top-of-mind issues for regulators, investors and industry professionals in the face of these ongoing challenges.

From the Chair of the Editorial Board, by Scott Donald SF Fin, JASSA, Issue 3, p. 4.

This issue of JASSA includes important new research insights for practitioners on currency management and bank sustainability disclosure. It also contains a series of papers from the 16th Melbourne Money and Finance Conference.

From the Chair of the Editorial Board, by Scott Donald SF Fin, JASSA, Issue 4, p. 5.

With financial markets again facing heightened volatility and uncertainty, this issue of JASSA examines the market risk premium arising from the global financial crisis and the key causes of the current European debt crisis.

Finsia news and views — JASSA Prize

Announcing the 2010 JASSA Awards, JASSA, Issue 1, pp. 6–7.

The 2010 JASSA Prize winners are Scott Bennett SA Fin and Vivekananda Lal Sondhi of Russell Investments for their article, ‘Active Money — providing additional insights into portfolio risk’, published in Issue 4, 2010. There were also two Merit awards for 2010. The first award went to Bart Frijns and Alireza Tourani-Rad F Fin, Auckland University of Technology, and Christian Tallau, Georg-August-Universität Göttingen, for their article, ‘Australian Implied Volatility Index’, published in Issue 1, 2010. The second award went to Jiri Svec and Maurice Peat F Fin, University of Sydney, for their article, ‘Systematic risk, CDS spread and market integration: an empirical investigation’, published in Issue 3, 2010.

Finsia news and views — Webmaster

Webmaster recommends, JASSA, Issue 1, pp. 41–43. Financial crisis, cyber threat, equity market intelligence and better banking.


Webmaster recommends, JASSA, Issue 3, p. 48. ETFs and options, mortgage resources and tools and corporate governance.


Foreign exchange markets


This study examines the monthly seasonality of foreign exchange (FX) returns for eight major currencies (against the US dollar) from 1972 to 2010. It finds that five currencies exhibit significantly higher returns in the month of December and a significant reversal in January. Previous research has focused largely on the daily patterns within FX returns. With global FX daily spot transactions reaching US$4 trillion dollars, these findings have important practical implications for currency hedgers, arbitrageurs and speculators.

Investor protection

Rethinking investor protection, by Martin Wheatley, JASSA, Issue 2, pp. 6–10.
Using the rear-view mirror alone in regulating the market means that the market will always get ahead of regulations. As product complexity is growing at an ever faster pace, investor protection work calls for the exercise of foresight, and the power to act pre-emptively. However, we must be careful that the new power to intervene does not distort the incentives or create moral hazard.

Longevity risk


The significant accumulation of superannuation assets must be converted into income to finance the development of a life annuity market in Australia focusing on the risk management for potential suppliers of long-term guaranteed annuity products. It also examines the role of government in this market, particularly in hedging for the major risks involved.

Market risk premium

Adjusting the market risk premium to reflect the global financial crisis, by Steven Bishop F Fin, Michael Fitzsimmons SF Fin and Bob Officer SF Fin, JASSA, Issue 1, pp. 8–14.

Because of the substantial increase in stock market risk arising from the global financial crisis, it is not appropriate to use a constant market risk premium (MRP) when estimating the cost of equity. This is particularly so when estimates of the weighted average cost of capital include the current high risk premiums on debt but this is not reflected in the equity MRP. We propose a method for adjusting the MRP to reflect unusual risk situations.

Response to ‘Adjusting the market risk premium to reflect the global financial crisis’, by Martin Hall F Fin, JASSA, Issue 4, pp. 11–14.

‘Adjusting the market risk premium to reflect the global financial crisis’ — a rejoinder, by Steven Bishop F Fin, Michael Fitzsimmons SF Fin and Bob Officer SF Fin, JASSA, Issue 4, pp. 15–16.

Melbourne Money and Finance Conference

Introduction to the Conference Papers, by Kevin Davis SF Fin, JASSA, Issue 3, p. 19.

The conference papers selected for this issue of the journal focus on a range of important superannuation and taxation issues, highlighting key areas where further reform may be necessary, both within Australasia and internationally.

Introduction to the Conference Papers, by Kevin Davis SF Fin, JASSA, Issue 4, pp. 18–19.

The conference papers in this issue of the journal focus on a number of important regulatory issues in the banking and consumer finance space, many of which were highlighted by the global financial crisis. The papers canvass key options for regulators seeking to strengthen the financial policy framework, addressing concerns in areas such as financial literacy, product regulation, advice, information gaps and disclosure.


Payments system


Based on a 2010 study of consumer payment patterns, this paper examines how payment methods, including cash, are currently being used in Australia and how that use has changed over time. It also provides qualitative evidence of consumers’ preferences regarding different payment methods and highlights some potential areas for improvement in the payments system, as perceived by consumers.

Product innovation


Post-GFC, the Australian Government has moved in a more interventionist regulatory direction but, in comparison with other countries, it has gone beyond the ‘regulatory plumbing’ to intervening more directly in financial markets. This new approach lacks any obvious conceptual underpinning. Without this, financial regulation swings with the vagaries of politics, creating uncertainty, which ultimately affects access, cost, innovation and productivity.
Savings

Household saving and investing for life-cycle events: government incentives and insurance bonds, by Kevin Davis SF Fin, Ross Higgins and Deborah Ralston SF Fin, JASSA, Issue 3, pp. 32–37.

Individuals face difficulties in developing and executing optimal lifetime savings and investment plans, product complexity continues to grow, and there are increasing demands on government to support individuals’ financial needs. Within this context, this paper examines the rationale for government policies aimed at influencing household savings and investment decisions — focusing on the financing of life-cycle events and the design of suitable financial products to achieve desired outcomes.

Self-managed superannuation funds (SMSFs)

SMSFs: can we do better?, by Tom Valentine, JASSA, Issue 3, pp. 20–25.

Self-managed superannuation funds (SMSFs), also called DIY superannuation funds, are larger than any other single component of the superannuation industry. Their growth has been fostered by the significant tax concessions which they share with other superannuation vehicles. It is, therefore, legitimate to ask whether this arrangement generates benefits sufficient to justify the concessions or whether, as some commentators argue, it is simply a tax avoidance scheme for the wealthy.

Superannuation

Post-retirement policy — a view, by Ross Clare, JASSA, Issue 3, pp. 43–47.

Much of the recent focus on superannuation policy outcomes and settings has related to the accumulation phase, and considerable work remains to be done regarding the post-retirement phase. Although the Henry and Cooper reports raised a number of important postretirement issues, their recommendations provided only a partial response to the challenges involved. This paper outlines these challenges and provides potential policy options to address them.

Superannuation funds

Voluntary disclosure, trustee governance and background in Australian superannuation funds, by Monica Guo Sze Tan and Marie-Anne Cam, JASSA, Issue 2, pp. 28–35.

Despite the significant role of superannuation funds in maintaining the sustainability of national retirement schemes, little is known about their governance structure. Our research indicates that very few Australian superannuation funds voluntarily disclose information about their main controlling body — the board of trustees. The current low level of disclosure by boards of trustees, including information about trustees, raises questions about the selection and review of trustees, and their accountability to fund members.

Sustainability disclosures


This research study examines the sustainability disclosures of the three Australian banks which prepared their sustainability reports in compliance with the Global Reporting Initiative’s (GRI) G3 Sustainability Reporting Guidelines and Financial Services Sector Supplement. This initiative became obligatory on 1 January 2010 for organisations that wish to achieve the highest level of disclosure. The results indicate that although the three banks achieved the highest level of disclosure, there were several areas that needed improvement.

Switching costs


A recent national study explored attitudes and behaviour around bank switching in New Zealand. Using that data, this paper examines the influence of the number and type of products held by bank customers on their attitudes towards switching costs and switching. It finds that some products, particularly electronic payments, increase the perception of the hassle of switching. This suggests that the focus of regulatory action needs to be on making it easier to move electronic payments.
Tax incentives

While tax distortions are traditionally measured using marginal tax rates, or real effective tax rates (Henry Review Panel), empirical studies have identified six margins where tax affects investment decisions. Measuring selected Australian savings vehicles against those margins highlights tax distortions affecting retail investor behaviour. These findings have significance for tax policy makers and financial institutions, and for the current policy debate about the standards of tax knowledge mandated for financial planners and the exemption from financial advice licensing for tax professionals.

Volatility

**Using volatility to enhance momentum strategies**, by Graham Bornholt and Mirela Malin SA Fin, JASSA, Issue 2, pp. 16–21.
A simple modification to the popular momentum strategy applied to international market indices produces highly profitable results in emerging market indices. High-volatility recent winners outperform low-volatility recent losers on an annualised basis by 17.4 per cent, with the strategy’s long portfolio driving the superior performance. In contrast, applying the momentum/volatility strategy to developed market indices produces small but consistent improvements over the standard momentum approach.
Bishop, Steven F Fin (with Michael Fitzsimmons SF Fin and Bob Officer SF Fin), ‘Adjusting the market risk premium to reflect the global financial crisis’, Issue 1, pp. 8–14.

Bishop, Steven F Fin (with Michael Fitzsimmons SF Fin and Bob Officer SF Fin), ‘Adjusting the market risk premium to reflect the global financial crisis’ — a rejoinder, Issue 4, pp. 15–16.

Bornholt, Graham (with Mirela Malin SA Fin), Using volatility to enhance momentum strategies, Issue 2, pp. 16–21.


Clare, Ross, Post-retirement policy — a view, Issue 3, pp. 43–47.

Davis, Kevin SF Fin (with Ross Higgins and Deborah Ralston SF Fin), Household saving and investing for life-cycle events: government incentives and insurance bonds, Issue 3, pp. 32–37.


Erskine, Alex, Retail derivatives: what we know, what we don’t know, and regulatory challenges, Issue 4, pp. 55–61.

Evans, John F Fin (with Michael Sherris F Fin), The development of a life annuity market in Australia: an analysis of supplier risks and their mitigation, Issue 2, pp. 11–15.

Hall, Martin F Fin, Response to ‘Adjusting the market risk premium to reflect the global financial crisis’, Issue 4, pp. 11–14.


Hunt, Ben (with Chris Terry), Australian equity warrants: are retail investors getting a fair go? Issue 4, pp. 48–50.

Irving, Kym SA Fin (with Gerry Gallery, Natalie Gallery and Cameron Newton), ‘I can’t get no satisfaction ... or can I?’: a study of satisfaction with financial planning and client well-being, Issue 2, pp. 36–44.


Pender, Howard (with Marie Brocchetto), Retail investors and ethical investment, Issue 3, pp. 26–31.


Tan, Monica Guo Sze (with Marie-Anne Cam), Voluntary disclosure, trustee governance and background in Australian superannuation funds, by Issue 2, pp. 28–35.


Valentine, Tom, SMSFs: can we do better? Issue 3, pp. 20–25.

West, Jason F Fin, Picking winners: understanding the future cost of electricity generation in Australia, Issue 1, pp. 15–21.

Wheatley, Martin, Rethinking investor protection, Issue 2, pp. 6–10.

Yap, Christina (with Kerry Series), Rebalancing to Asia, Issue 1, pp. 22–28.
Financial markets

**IOSCO commodity derivatives markets supervisory principles**
www.iosco.org under Library


The Principles are aimed at ensuring a globally consistent approach to the oversight of commodity derivatives markets which will deliver effective supervision, combat market manipulation and improve price transparency. The principles are aimed at contributing to enhanced price discovery in commodity derivative markets as opposed to addressing absolute price levels or price volatility in an underlying physical commodity.

**Report to the US Congress on Credit Ratings**
www.federalreserve.gov under Publications

Released by the Board of Governors of the Federal Reserve System on 25 Jul 2011, this report documents the review by the Board of its regulations under Section 939A of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Act). It identifies 46 references to or requirements regarding credit ratings. The majority of references to credit ratings appear in its capital requirements, but others apply to certain activities of state member banks, to the regulation of member banks’ international operations, to the US operations of foreign banking organisations, and to certain transactions between member banks and their affiliates.

**Dynamic allocation strategies with exchange-traded funds**
www.edhec-risk.com under Publications

In a new study entitled Capturing the Market, Value, or Momentum Premium with Downside Risk Control: Dynamic Allocation Strategies with Exchange-Traded Funds, EDHEC-Risk Institute researchers analysed the performance of risk-controlled dynamic asset allocation strategies. The study concludes that appropriate implementation of the dynamic core-satellite approach can boost portfolio returns while keeping downside risk under control.

Dynamic risk budgeting methodologies such as dynamic core-satellite strategies are used to provide risk-controlled exposure to different asset classes. There is extensive evidence that investment strategies based on momentum and value are attractive for portfolio managers who seek outperformance. Momentum and value are among the most robust return drivers in the cross-section of expected returns.

**Austrade report highlights Australia’s dynamic financial services industry**

On 5 October 2011, the Minister for Trade, the Hon. Dr Craig Emerson MP welcomed the release of a report by Austrade, the Australian Trade Commission, examining Australia’s economic strength and its attraction as a regional financial services centre.

The 2011 Benchmark Report: Australia – A Wealth of Opportunities demonstrates the factors which make Australia a good place to invest.

Consumer finance

**New website highlights payday lending facts**
www.debttrap.org.au

A coalition of consumer and financial counselling organisations has launched a new website to ensure that hard truths are heard in the debate about the future of short-term, high-cost loans. The new website delivers confronting facts about payday loans, busts myths currently being spread by payday lenders, and outlines safer credit options available to low-income earners.

The website, sponsored by the Consumer Action Law Centre, Financial Counselling Australia and the Consumer Credit Legal Centre, also illustrates broad-based support for the Federal Government’s proposed payday lending reforms, which would put an end to exorbitant interest rates which are typically between 400 and 1000 per cent.

Frontier thinking

**Australian government cyber policy**
http://cyberwhitepaper.dpmc.gov.au

On 3 June 2011, the Australian Government released a public discussion paper as part of the development
of a cyber white paper, to be released in the first half of 2012. The discussion paper invited submissions on a range of issues regarding the importance of cyberspace to Australia’s social well-being, economic prosperity and broader national interests. The Cyber White Paper will cover a broad range of areas including consumer protection, cyber safety, cyber crime, cyber security and cyber defence, and will outline a vision for Australia’s digital future based on Australian values.

Ongoing challenges in technology change

A recent study from Canon, Change or Be Left Behind, highlighted the crucial role that technology plays as Australian organisations go through changes in their business. The two-part Canon-sponsored research study sought to understand attitudes and trends in how Australian businesses view change, pinpoint key barriers to change, the role that technology plays in the process and what the formula for good change is. Both senior Australian executives responsible for change and general business workers have agreed that technological advancements present the biggest challenges for business, and that it is the key catalyst and driver for change in itself and in increasing the pace of change.

Key global trends impacting leadership
www.haygroup.com under Press center

In a report released in September 2011, Hay Group identified the six most significant trends likely to affect organisations, employees and managers over the next two decades, and the key competencies required of successful future leaders.

The report, Leadership 2030, examined six global trends — globalisation 2.0, climate change, demographic shifts, digitisation, individualisation and technological convergence — and their impact on leadership and organisations. Future success would require collaborative, nimble and adaptable approaches to revolutionise cultures, structures, systems and processes.

Partnerships critical in detecting serious crimes

A report recently released by the Minister for Home Affairs and Justice, the Hon. Brendan O’Connor MP, highlighted the vital role that businesses and Australian government agencies play in disrupting criminal activity within the international financial environment.

The AUSTRAC typologies and case studies report 2011 reveals how the efforts of law enforcement agencies, combined with AUSTRAC’s analysis of reports provided by Australian businesses, have led to asset seizures and the arrests of criminals here and overseas. The report examines the ways in which criminals misuse banks, casinos and money transfer agencies to commit serious transnational crime, fraud, terrorism financing, and people smuggling and human trafficking.

New AML/CTF obligations came into effect from 1 November 2011 for all reporting entities and remitters under a new registration scheme.

Inaugural Future Business Index launched
www.commbank.com.au under Corporate

The inaugural Commonwealth Bank Future Business Index, launched on 17 October 2011, found that a significant proportion of the market does not have a risk, business continuity or succession plan in place.

The Index provides a bi-annual analysis of the views of financial decision makers in companies with a turnover of $10 million to $100 million, measuring their outlook for business conditions, challenges and opportunities, projected revenue, and how prepared they are to navigate future volatile conditions.

The survey sample, comprising 427 financial decision makers in public and private companies throughout Australia from a range of sectors including retail, business services, construction, health and education, information media and telecommunications, manufacturing, mining, transport and logistics, and wholesale trade.

Recent research on ASX 100 board composition and remuneration
www.acsi.org.au under Publications

The Australian Council of Superannuation Investors (ACSI) recently released its tenth annual research paper on ASX 100 boards, reviewing board composition, director independence, gender balance, director remuneration, director tenure and director age profile, as well as the extent to which S&P/ASX 100 entity boards have established committees in accordance with the ACSI Guidelines.

There were 88 boards in the sample, with 598 individuals holding a total of 728 board seats. The proportion of female directors across the Top 100 pool increased from 11.1 per cent in 2009 to 12.2 per cent in 2010. The proportion of Top 100 board seats held by women also increased, from 12.1 per cent to 13.5 per cent. Progress remains slow, with women accounting for 8 per cent of Top 100 directors and 9.2 per cent of directorships in 2001.
WE thank you FOR your continued SUPPORT AND contribution TO THE financial services industry.

Seasons Greetings and Happy New Year