1. The Implications of Behavioural Biases on Investment Decisions

"I can calculate the motion of heavenly bodies, but not the madness of people'

Sir Isaac Newton, 1720

All humans have inbuilt biases when making decisions – they have evolved over time as part of our survival instincts. Unfortunately, many of these behavioural biases are diametrically opposed to the systematic approach one should adopt for the ongoing management of investments.

The major behavioural biases that can work against us having a positive investment experience are:

- **Overconfidence** – most people think they are smarter than others, meaning their portfolio will undoubtedly perform better than most.
- **Hindsight bias** – rises and falls in markets appear obvious after the fact, therefore many think the future must also be predictable.
- **Familiarity bias** – only investing in securities we 'understand' or 'know' can breed a false sense of control over our investments and lead to highly concentrated portfolios. Unfortunately, the market doesn't reward investors for familiarity.
- **Regret Avoidance** – not allowing ourselves to make the same mistake again. If we lost money in bank stocks in late 2008, we may decide never to buy bank stocks again.
- **Self-attribution bias** – we give ourselves credit for being smart when successful, but attribute failures to externalities beyond our control.
- **Extrapolation** – we rely too heavily on recent facts to make decisions on our future, or only pay attention to data that supports our bias and ignore data that refutes it. For example, when stock markets fall, we think the markets will continue to fall and therefore avoid entering markets, even though the expected rate of return of stocks has increased. So many investors do the opposite of what they should do.

There are valid human reasons for us to have these inherent biases, but when it comes to investing, these biases can be problematic. When faced with risky decisions, the typical human reaction is to allow emotion to overwhelm reason.

We therefore need a systematic and disciplined investment approach and plan to control emotions. This often requires discussing potentially emotive decisions with an objective and impartial expert.

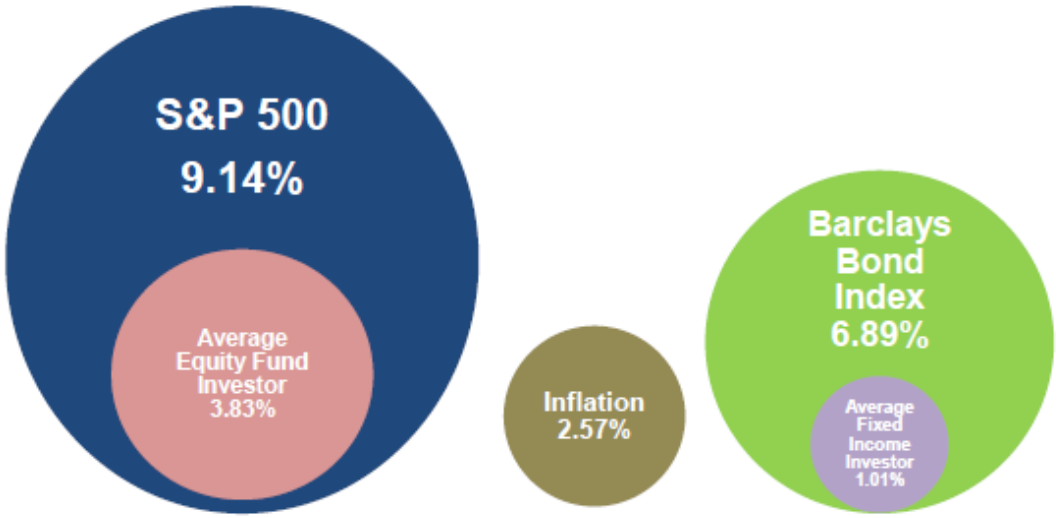
"At the end of our investing lifetime, it won't matter what your funds did, it will matter what you did. And what you did will be a pure function of the quality of advice you received – from one caring, competent adviser and not from any number of magazines"

Nick Murray, Investment Adviser Magazine, October 1994

And here's the evidence of what happens when we don't control these biases.

Dalbar provides independent research in the US financial services industry. In 2010, when the S&P 500 index rose 15.06%, Dalbar estimated the average US investor only received 13.60% - or 10% less.

Over the longer term, Dalbar has analysed the average market return for equity investors compared to the S&P 500 index and for fixed interest investors compared to the Barclays Bond Index. The annual results over the 20 year period to 31 December 2010 are shown below:



Equities = 5.31% pa **Behaviour Gap** ***Fixed Interest = 5.88% pa***

After 20 years, the average equity investor has succumbed to their behavioural biases to market time (buy high and sell low) and stock pick. This behaviour has cost them on average 5.31% pa, resulting in a portfolio worth 63% less than the market portfolio over 20 years. Their performance has only just outperformed inflation.

The results were similar for the average fixed interest investors, where the behaviour gap has cost on average 5.88% pa. At the end of 20 years, the average fixed interest portfolio is worth 68% less than the market portfolio. In addition, their investments failed to keep pace with inflation, meaning the purchasing power of their money went backwards.

Investment returns are more dependent on investor behaviour than fund performance. Patient and disciplined investors typically earn higher returns over time than those who attempt to time the market or do not have diversified portfolios.

So why do investors try? There is no doubt that if you could successfully time markets it would make you rich. But no one has the ability to consistently do this successfully without a significant amount of luck, so why try? Winning lotto can also make you rich, but hopefully nobody spends the majority of their income buying lotto tickets.

Trying to time markets to 'win' can give investors a buzz, but it's speculating, not investing.

"Investing should be dull. It shouldn't be exciting. If you want excitement, take $800 and go to Las Vegas"

Paul Samuelson, 1970 Nobel Laureate in Economics

And the media generally isn't interested in controlling your biases – it feeds off them. The media is paid by advertisers – they are not rewarded by whether you make money or not.

"You make more money selling advice than following it. It's one of the things we count on in the magazine business – along with the short memory of our readers"

Steve Forbes, Publisher, Forbes Magazine, Presentation to UCLA, 15 April 2003

At times investors may consider our Asset Class investment philosophy unexciting, or at times static. But at its core, this philosophy is designed to overcome behavioural biases and use evidence and discipline to maximise the probability that our client's achieve their objectives.

We focus on the outcome and a 'peace of mind' experience along the way – **and it has proven to work**.

If investors can afford to have some fun along the way and wish to speculate with a portion of their portfolio, there is nothing wrong with this approach, so long as they understand this is not investment and that the core of their portfolio remains invested in accordance with a strategy and risk profile designed to achieve their longer term goals and objectives.

Our goal is to ensure that our clients capture the asset class market returns in the most cost and tax effective way.

2. Why Chasing Recent Winners Reducers Your Expected Return

How many investors will choose to invest in a stock, fund manager or asset class (e.g. fixed interest, property or shares) based solely on its recent performance over perhaps the last five years?

There is no research to provide a definitive answer, but based on conversations in pubs, on golf courses and around dinner tables, it's safe to assume that this is the approach adopted by a large number of investors.

Investing based on recent performance has a higher probability of providing you with relatively lower expected returns compared to smart investors. This paper helps to explain why.

The index that tracks the performance of the 500 largest listed companies in the United States is the S&P 500. Since January 1926, this index (in local currency) has returned just under 10% pa[1]. Over the past 10 years, the return has been 2.6% pa. In comparison, the Australian market has returned 7.2% pa over the past decade[2].

Based on this particular example, is it right to conclude that the US has a lower expected return and we should shun investing in North America and just focus on Australia?

Some simple mathematics will demonstrate that recent underperformance of one country's stockmarket relative to others may indicate that that country now has a higher expected return compared to other countries. Consequently, it may be appropriate to invest more money into the country with the recent underperformance rather than less, through rebalancing.

Here's why.

Investment assets or "Securities" are priced according to expectations of risk and return.

The price you should pay today for a security – whether it is a bond or a share – is calculated as the present value of the future expected cashflows (profits) that security will pay you, adjusted for risk.

This is a black and white rule that remains current no matter if stockmarkets are rising or falling.

The expected cashflows often reflect the underlying strength of an economy. The adjustment for risk is determined by investors. Below is an example of how an investor's determination of risk can influence the valuation of two similar companies.

Let's assume we have Company A and Company B. Over the next 5 years, the market expects each company to produce the same annual cashflows. However, the risk of Company B not achieving the expected cashflows is higher.

As a result, investors in Company A decide they require an annual return of 10% over the next 5 years to justify the risk of investing in the company. For Company B shareholders, they require a higher annual return of 15% per annum.

[1] Source: Returns Program for period 1 January 1926 to 31 August 2011.

Based on these simple assumptions, an investor would be prepared to pay $334 today for the expected cashflows that Company A – or the lower risk company - will produce over the next 5 years, compared to $292 for Company B. The calculations are shown below.

		Year 1	Year 2	Year 3	Year 4	Year 5
Company A						
Annual Cashflows		$70	$80	$90	$100	$110
Required Return	10%					
Discount Rate		0.909	0.826	0.751	0.683	0.621
Present Value of Future Cashflows		$64	$66	$68	$68	$68
Net Present Value		$334				
Company B						
Annual Cashflows		$70	$80	$90	$100	$110
Required Return	15%					
Discount Rate		0.870	0.756	0.658	0.572	0.497
Present Value of Future Cashflows		$61	$60	$59	$57	$55
Net Present Value		$292				

To understand how the required return impacts the current value of the company, consider the Year 4 calculations.

Both companies are expected to generate $100 of cashflow. However, if I want to earn 10% per annum for the next 4 years (which is the expected return for Company A) and receive $100 at the end of year 4, I would need to invest $68 today. If I want my return to be 15% (the expected return for Company B) for the next 4 years and then receive $100, I would need to invest $57 today.

So the riskier the asset, the less I am prepared to pay today for the expected returns that asset will produce. On the flipside, the lower the risk a company presents, the more I have to pay today.

Whilst recent past performance would be one component in how the required rate of return has been quantified by investors, it has already been factored into the price. Past performance alone does not provide an investor with any definitive guide on what stock, fund manager or asset class is going to perform best in the future.

As a starting point, the expected return of buying a share with the same expected cashflows in Australia, U.S, Europe or Asia is the same. Then investors adjust their expected return for the risk of cashflows being achieved.

So if an investor thinks it is more risky to invest into the U.S stockmarket compared to the Australian stockmarket, then the required rate of return to invest in the U.S will be higher. Consequently, the expected return will be higher.

Think back two years, when many investors were reluctant to invest in the U.S stockmarket. Over the past two years, the S&P 500 index has returned 16.7% pa (ignoring currency impacts). In comparison, the Australian stockmarket, which many investors regarded as a less risky place to invest two years ago, has returned 6.5% pa over the same period.

The concept of riskier assets applies to our approach of breaking stockmarkets into three components – Large, Small and Value stocks. Large stocks, which often contain 'blue chip' companies, are lower risk stocks to invest into compared to Small and Value stocks. Consequently, investors expect a higher return when investing in Small and Value stocks.

As the table below demonstrates, in Australia over the past 20 years, this expectation has held true:

Strategy	Annual Return	Annual Outperformance	Cumulative Outperformance
Large	9.73%	-	-
Small	10.53%	+0.80%	+16%
Value	14.43%	+4.70%	+131%

Source: Returns Program to 31 August 2011

During the GFC, the reason prices for shares fell so sharply and so quickly was because the expected cashflows were falling (due to the expectation of a significant global recession) whilst at the same time the required rate of return demanded to be invested in the stockmarket rather than safer assets like government bonds was increasing.

On the flipside, if you chase recent winners, you're effectively investing in assets where the required rate of return demanded by investors has fallen (as the assets are considered less risky to hold). So you not only pay more to buy the asset, but your expected return is lower.

In the 1990s, the S&P 500 Index returned 18.2% pa. This comfortably outperformed the Australian sharemarket, which returned only 10.9% pa. If an investor had based their investment decisions for the next decade on recent performance, they would have experienced lower relative returns over the past decade.

As the Australian stockmarket has performed relatively well over the past decade, many Australian investors in particular need to be conscious of not ignoring the benefits from investing globally. Australians on average have 73% of their assets invested locally – the highest home bias percentage in the world.

When we make recommendations to rebalance client portfolios, we are effectively selling assets that have performed well in recent times (and are now overweight in the portfolio) to buy assets that may have underperformed in recent times (and are now underweight in the portfolio).

The outcome is that we are selling assets with lower expected returns to purchase assets with higher expected returns. However, we remain conscious of ensuring the appropriate risk mitigation strategies remain in place, such as maintaining defensive asset capital bases.

Or put another way, we are selling assets that have had stronger recent performance to buy assets that have had weaker recent performance. This is the exact opposite behaviour of what most investors do.

Investing contrary to basic human emotion requires education, patience, a longer term investment timeframe and discipline. Part of our role is to instil this discipline in our clients to ensure they receive the best possible investment experience.

If you invest based on the recent strong performance of a stock, fund manager or asset class, you may be failing to appreciate the mathematics of asset valuation and fall into a trap of not positioning your portfolio to target sectors or assets that actually offer you a higher expected return.

Using evidence to target assets with higher expected returns is one of the foundations of our investment philosophy.

3. How Do You Measure Sovereign Risk?

What is the best signal for investors worried about the risks posed by investing in sovereign bonds[3]? Does one look at the relative size of a countries' debt, the nature of their borrowings or their credit ratings? Or is the market itself the best guide?

History's first sovereign default came in the 4th century BC, committed by 10 Greek municipalities. There was one creditor: the temple of Delos, Apollo's mythical birthplace[4]. Old habits die hard.

With the strained balance sheets of governments in Europe and the US, the focus of so much media and market attention in recent times, it is understandable that investors would fret about the risks of putting their money into sovereign bonds.

Alongside the sheer size of the current and future liabilities being accumulated by many governments, the often reckless behaviour of politicians in seeking to deal with these policy issues hardly inspires confidence.

For example, how does a country like France, with total government debt of nearly 70% of its economic output, maintain a top tier 'AAA' bill of health from all the major credit rating agencies – Moody's, Standard & Poor's and Fitch?

Correspondingly, how does a country like Japan, with an even bigger proportionate debt load (184% of GDP) than beleaguered Greece (148%), maintain a superior credit rating (AA/AA-) to the "junk" bonds of the Greeks (CCC/CC)?

And how does the United States – supposedly the safest of all safe havens – hold a AAA/AA+ credit rating when it has the biggest nominal debt load of any country at nearly $US15 trillion or just over 60% of its economic output?

So what should we pay attention to: The nominal debt, the proportionate load, the interest bill or the credit rating? And if we decide the credit rating is the best guide, whom do we believe: Moody's, S&P or Fitch? For instance, while S&P recently downgraded the US to AA+ with a negative outlook, Fitch later confirmed the US as AAA. It can cause great confusion to even knowledgeable investors.

Listening to the Market

But there is an alternative marker. And that is the market price.

Specifically, there is a very large market in a form of derivatives called 'credit default swaps' or CDS. These are a form of insurance policy that some investors take out against a loan default. There are CDS for corporate borrowers and for sovereign borrowers.

While none of our client's funds are invested in credit default swaps, this very liquid market does provide a useful guide to how the market views the relative risk of default among various sovereign borrowers.

And it is clear that risk as judged by the market and the risk as judged by credit rating agencies are not necessarily the same.

[3] A sovereign bond is a bond issued by a national government in their home currency
[4] Bloomberg, 24 September 2011

For example, seven months before it defaulted in 2008, Ecuador was rated 'BBB' by Standard & Poor's. Yet, its bonds were yielding around 9% above those of US Treasury bonds, which implied a risk associated with a 'CCC' rating, according to a report by the International Monetary Fund.

And this isn't a one-off quirk. Chart 1 below maps the prices of credit default swaps (the vertical axis) for 26 different sovereign borrowers (the horizontal axis). Marked against the individual chart points are the average credit ratings – based on the three major agencies - for the individual countries.

Broadly speaking, the higher the price of default insurance for each sovereign borrower, the greater the market sees as the risk of investors not getting their money back.

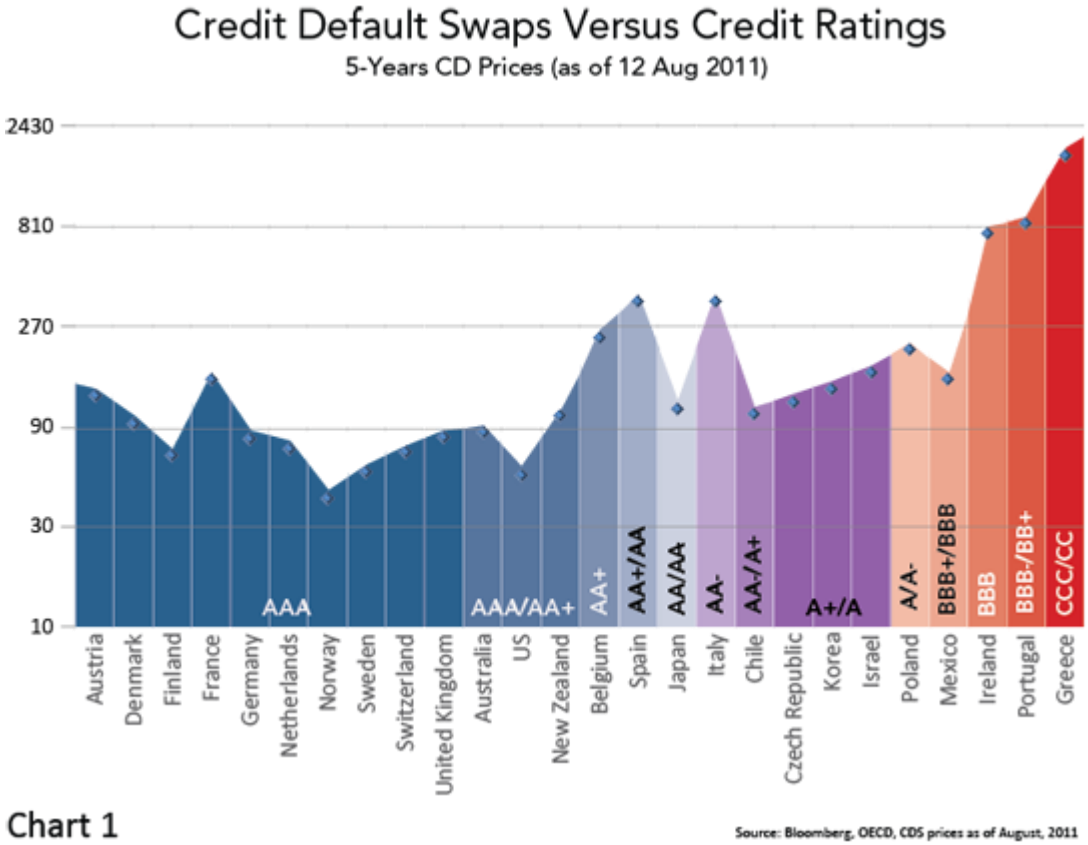


Chart 1

Source: Bloomberg, OECD, CDS prices as of August, 2011

Not surprisingly, the most expensive CDS – as of August 2011 – were those for Greece, which also happened to be the lowest rated country in this sample. The least expensive CDS were for Norway, a AAA-rated borrower with a low debt burden. So far, so good.

But now look at the US, which was downgraded by S&P, but whose cost of default insurance was lower than that of France, which maintained a AAA rating at time of writing. Or compare Mexico, with the lowest investment grade rating of 'BBB', whose default insurance actually cost less than AA-rated Spain.

The point of this is that the market believes the US, while fiscally challenged, retains sufficient flexibility to raise funds if needed. On the other hand, some of the European borrowers – locked into the monetary settings and debt constraints of the European Union – were seen by the market as having less flexibility.

Now look at the second graphic, Chart 2, below. This charts the total debt-to-GDP ratios (vertical axis) of seven countries in our sample with the price of their individual credit default swaps (horizontal axis).

Again, Greece was the most expensive country to insure and Norway the cheapest when we took this snapshot. But then look at Japan, whose total debt in proportionate terms is the highest of them all, but whose CDS were only marginally more expensive than Chile (the least indebted of all the nations in our sample). Incidentally, Australia – also one of the least indebted sovereigns in the developed world – was judged by the market as a higher credit risk than the US.

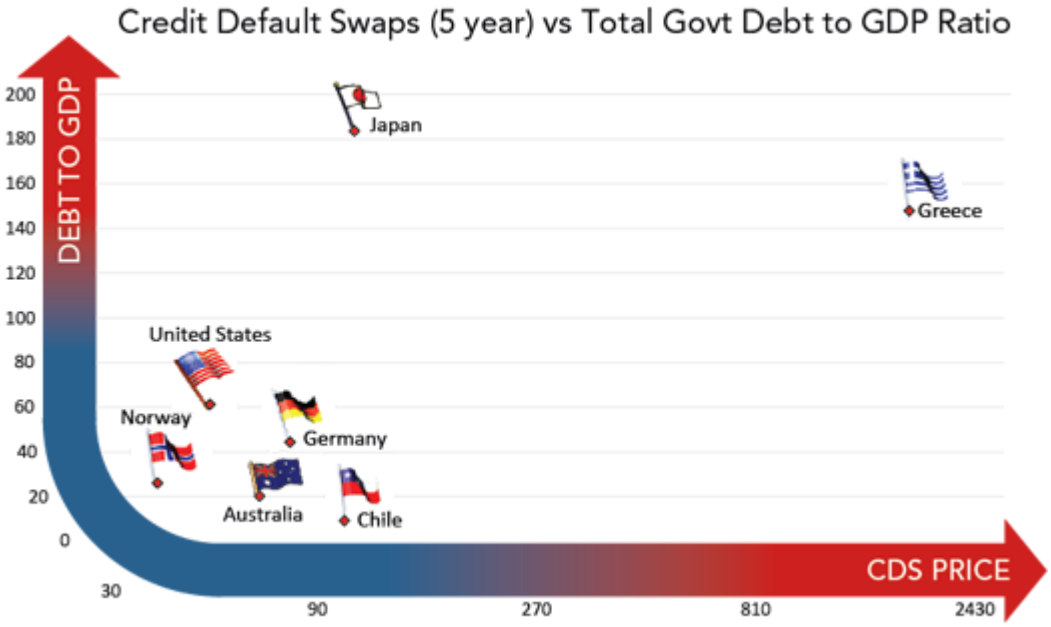


Chart 2

Source: Bloomberg, OECD, CDS prices as of August, 2011

So which offers the best signal: the credit rating agencies, the economic fundamentals or the market? The answer to that question is that no-one knows for sure, because no-one has found a way of correctly and reliably forecasting the future.

But in pricing risk, it is usually better to give greater weight to market signals – if for no other reason than the price represents the combined wisdom of millions of market participants staking real money on the outcome.

While credit ratings and debt-to-GDP ratios are important, the market ultimately judges sovereign risk on both the perceived ability of sovereign borrowers to find new sources of revenue as needed and the perceived willingness of those borrowers to repay.

So while the US undoubtedly is stretched, it is perceived by the market as having the capacity to fund its liabilities relatively easily through tax increases and/or additional spending cuts. It also has the advantage of being able to borrow in its own currency in capital markets and is less reliant than the Europeans are on bank funding.

Markets incorporate all these pieces of information - economic variables, credit ratings, risk perceptions, willingness to pay - and put a price on them. And that is why we believe the first point of reference is always the market itself, not economic variables or the credit rating agencies.

Sovereign risk is named as such because it is a risk, like any other. Countries can and have defaulted. As recently as 2010, Jamaica defaulted on its debt. Others to default in the past decade have included Ecuador (2008), Belize (2006), Dominican Republic (2005), Uruguay and Nicaragua (2003), Moldova (2002) and Argentina (2001).

Even Australia has experienced credit rating downgrades, though few are likely to remember.

In September 1986, both Moody's and Standard and Poor's downgraded Australia's foreign currency sovereign rating. The country was shocked. Australia was downgraded a second time in 1989.

We then went into a deep recession and many of our banks failed, including the State Bank of Victoria and State Bank of South Australia. This was Australia's own financial crisis, and our federal budget went into deep deficit and the unemployment rate reached 10.9% in December 1992. This is all entirely consistent with the U.S today.

Australia did not recover our AAA rating until February 2003 – 17 years after that first downgrade.

If any Australians avoided investing in our local stockmarket whilst our credit ranking was below AAA, they missed out. Between 1986 and 2003, our stockmarket returned 9.5% pa compared to the global stockmarket (as measured by MSCI) return of 6.7% pa. The Australian stockmarket portfolio would have been worth 55% more than the global portfolio.

It will be interesting to see how the U.S stockmarket performs relative to other countries over the next decade and beyond.

Summary

The way to deal with those risks are the tried and true methods of working with the market, diversifying broadly, taking risks only when there is a demonstrated reward for doing so and basing one's strategy on a long-term, evidenced based approach.

The size of a country's debt – both in nominal and proportional terms – is one input to this process, as is its credit rating. But also important is the market's perception of a country's ability and willingness to raise new revenues, reduce outlays and pay back its debt. Ultimately, all this information is reflected in market pricing.

4. Financial Claims Scheme

The Financial Claims Scheme (FCS) was established by the Federal Government in October 2008 at the height of the Global Financial Crisis.

Its purpose is to protect depositors of Australian authorised deposit-taking institutions (banks, building societies and credit unions) and policyholders of general insurers from potential loss due to the failure of these institutions.

Currently deposits up to $1M are guaranteed by the Federal Government until 1 February 2012. A recent announcement will extend the terms of the FCS as follows:

- A permanent cap of $250,000 will be introduced from 1 February 2012.
- The cap applies to each account holder per institution.
- Continuance of this scheme is subject to financial regulators advice that it remains appropriate.
- Grandfathering arrangements will maintain the $1M cap on term deposits until the end of 2012.

The extension of the FCS is primarily designed to promote competition amongst small lenders.

FYG Planners fixed interest investment approach is built on the following key pillars:

1. Preserve capital by minimising credit risk
2. Earn a premium over cash
3. Liquidity
4. Minimise term risk
5. Diversification
6. Transparency

The recently announced changes to the FCS do not necessitate any changes to our current approach.