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We're living longer and so should our superannuation

P J Keating

On 28 November 2012, I delivered the keynote presentation at the Association of Superannuation Funds of Australia (ASFA) conference in Sydney. My presentation focused on the future of superannuation and the retirement system in Australia. This article examines why it might make good sense for the government to be the key provider of a national annuity scheme, to cater for what is now a growing gap in our retirement incomes system as a result of people living longer.

But first, let's look at where scale superannuation came from. Our retirement income system is built on three pillars:

- the means and asset tested age pension
- compulsory superannuation
- tax-assisted voluntary superannuation.

The big leap forward came with occupational superannuation which morphed into compulsory superannuation with the introduction of the Superannuation Guarantee Charge (SGC) in 1991 and its extension to universality in 1992. That change was a defining one for Australia because few democracies can encourage their workforce to save at least 9% of their wages and even more on

top of that voluntarily. But Australia did. And it was my Government that achieved this through the unlikely combination of:

- a centralised wage fixing system
- a formal government policy structure with the workforce (the Accord)
- the Government granting a structural concession for cyclical prudence (wage restraint)
- a supra-boost to productivity coming from a decade of macro and micro-economic policy reform with trend productivity doubling
- affordability for the compulsory SGC paid by employers coming from a sharing of that productivity gain with their employees.

And since then a further 3% of compulsory savings has being approved by the current Government, which will take the compulsory portion up to 12% by July 2019.

This extraordinary combination of events now allows Australians, unlike most citizens of other countries of the world, to bridge the income gap from work, through and into retirement. But it is now clear that the current system does not provide enough because people are living longer now than when my Government created the scheme for them. We built something that took people from age 55 to 75, but these days, if you reach 60, you have a reasonable likelihood of getting to 85. And the numbers continue to change materially with every decade that passes.

So, we have two groups in retirement – a 60 to 80 group and an 80 to 100 group. The 60 to 80 group is all about retirement living and lifestyle, which I think the current superannuation system adequately caters for. But the 80 to 100 (which is technically, the period of life beyond the previous life expectancy) is more about maintenance and disability and less about lifestyle.

I don't believe the current system caters for this. The policy promise of a good retirement cannot be fulfilled with such longevity, and so, the promise has to change.

At the ASFA Conference, I talked about two possible approaches to this problem:

1. People keeping some of their superannuation lump sum, which they generally receive at age 60, until later. This would be achieved by a portion being compulsorily set aside in a deferred annuity – a pre-payment which kicks back in at say 80 or 85 years. This would mean that the compound earnings on say 20-25% of the lump sum would accumulate between say the ages of 60 and 80, to be available on a deferred basis from 80. In essence, a significant proportion of the lump sum would be 'preserved' or 'set aside' for the much later years, including the years of longevity if there are such years. If there are not, the residual value of the deferred annuity would go to the person's estate.
2. An alternative would be for a further 3% of wages (taking us from 12% to 15% in all) to be devoted to health – maintenance, income support and aged care.

While I think the second alternative has the primary merit, I want to examine here the first alternative, but with a twist: the government as the annuity provider.

While I believe that private enterprise has been the appropriate outlet to provide for products and services for our country's compulsory superannuation system (and I have never been in favour of government mega-funds of the European variety), I do think deferred annuity structures are a different kettle of fish. So why do I think there is merit in the government providing a compulsory deferred annuities scheme?

There are a number of reasons:

1. Only governments can bear and pool risk across generations, and as the government also provides the default option, the age pension, it picks itself as the most likely, effective and reliable longevity insurer. Covering oneself for later life and longevity risk is pretty much a classic insurance task, but there is a case for an appropriate government agency to operate such a longevity fund. One thing is clear ... the longevity cohort, the high aged, requires absolute certainty as they have no room or ability to protect themselves.
2. While private enterprises are capable of providing deferred annuity products, they inevitably have to build into their pricing a profit margin as well as a 'regulatory margin' (the need to have a certain amount of assets supporting future promises to clients). As the government does not require either, it is able to offer significantly better deferred annuity rates.
3. The problem with later age, longevity and aged care is that capital markets have difficulty in managing that sort of risk. Private providers of deferred annuities find it problematic to adequately manage asset/liability mismatch meaning more 'regulatory capital' is required, with consequential lower returns to the end annuitants.
4. Albeit somewhat theoretical at this stage, I think the current 'Simple Super' changes underway in our superannuation system as a result of the Cooper Review provide the foundation for the government to play a competent role in the administration of a national and compulsory deferred annuity system. Standardised and systematic data protocols are well advanced and will soon be live, delivering an easy transfer of superannuation data between private enterprise and government.
5. With superannuation account consolidation (also an outworking of the Cooper Review) soon to be a reality, the government (via the ATO) is in the best position to know an individual's total superannuation account balance at age 60 and hence the amount required to be compulsorily set aside for a deferred annuity to kick in at a later date.
6. Through the experience of managing the Future Fund, the government now has a workable precedent for managing assets with a long term perspective, away from the day-to-day business of the government's own balance sheet.

A government-administered, universal, compulsory deferred annuity scheme would be a fully-funded scheme, with the capital provided by the annuitant from a portion of their lump sum superannuation benefit. This would mean that if there was any shortfall in the actual assets set aside and the liability due to the annuitant, the government would fund the gap. However, careful asset management with a long term horizon should ensure that any such shortfall should, over time, be insignificant.

I am still of the view that the compulsory superannuation component should increase further beyond the 12% level. People will recall that in the Budget of 1995, the Treasurer, Ralph Willis, announced that compulsory superannuation would rise from 9% to 15% over time. However, a change of government saw this initiative subsequently reversed, to the detriment of current retirement savings.

If the compulsory superannuation charge was increased from 12% to 15%, it would provide more options to adequately provide for the final phase in life, rather than relying on the age pension.

We live in interesting times: the game-changers in 2013

Graham Hand

The superannuation, advice and investing landscape is facing more game-changers than at any time since the introduction of compulsory superannuation in 1992. Cuffelinks will be covering these subjects regularly during 2013 and beyond, including:

- the Future of Financial Advice (FOFA) reforms, especially the ban on conflicted remuneration and the best interests test. The exemption for stockbrokers and licensing of accountants for self managed super funds (SMSFs) ensures significant competition for financial planners
- changing demographics, where an ageing population will be supported by fewer workers, leading to acute pressure on funding of health services, education and pensions, and perhaps future intergenerational conflict
- unprecedented margins above bill and swap rates paid by Australian banks as they switch billions of dollars of funding from fragile offshore bond markets to local deposits
- continuing growth of SMSFs, now approaching two spectacular milestones: one million members and \$500 billion in funds under management
- the evolution of non-platform technology to manage investment portfolios, throwing out a serious challenge to the dominant platforms
- doubts about the health of many of the (formerly) best sovereign credits in the market. In Europe, the United States and Japan, governments have lived beyond their means, with no solutions to their debt woes in sight
- the loss of trust in active management and the move towards exchange-traded funds, index funds and self management of portfolios, removing the more lucrative fees from many parts of the industry
- the introduction of MySuper, available from 1 July 2013, where default super payments will be paid into a simple, low fee, diversified fund

- rationalising of many parts of the industry, including mergers of industry funds and acquisitions of financial planning groups by major institutions
- the losses in equity markets prior to the recent rally, which prompted a significant switch into defensive investments. Lower rates on bank term deposits are now encouraging a recycling back to equities, particularly high dividend-paying stocks
- the possibility of further changes in superannuation regulations, especially taxes on withdrawals, and the impact such moves will have on the confidence of people saving to fund their own retirement.

The medium to long term consequences for the wealth management industry will be immense, and are already playing out. 2013 will be a challenging and exciting year for the financial services industry and its clients.

'Volatility' – what volatility?

Ashley Owen

Most investors focus on returns, but this paper is about the other side of the risk-reward equation: risk. More specifically, it is about volatility.

2012 was a great year for returns – but what about volatility?

2012 was a great year for investors just about everywhere in the world. Almost every stock market in the world was up (including Australia), every bond market was up (including Australia), commercial property was up in most countries (including Australia), and even gold was up. It was a very rare year in which every major investment asset class was not only up, but ahead of inflation and also ahead of returns on cash and bank deposits. Furthermore, every major asset class did better than its expected long term average return (while acknowledging that housing is a difficult 'asset class' to measure because every house is different, and we don't have reliable data for Australia for 2012 yet).

But enough about returns in 2012. What about all that volatility we keep reading and hearing about in the media?

'Risk' v 'volatility'

First we need to define risk and volatility. In designing and managing investment portfolios for investors I prefer to define 'risk' in terms of several real life risks faced by investors. These real life risks include: the risk of suffering a permanent loss of capital, the risk of running out of money, the risk of failing to achieve specific financial objectives, the risk of declining real purchasing power after inflation, the risk of failing to achieve specific cash flow withdrawals from the portfolio, and other critical investor-related measures.

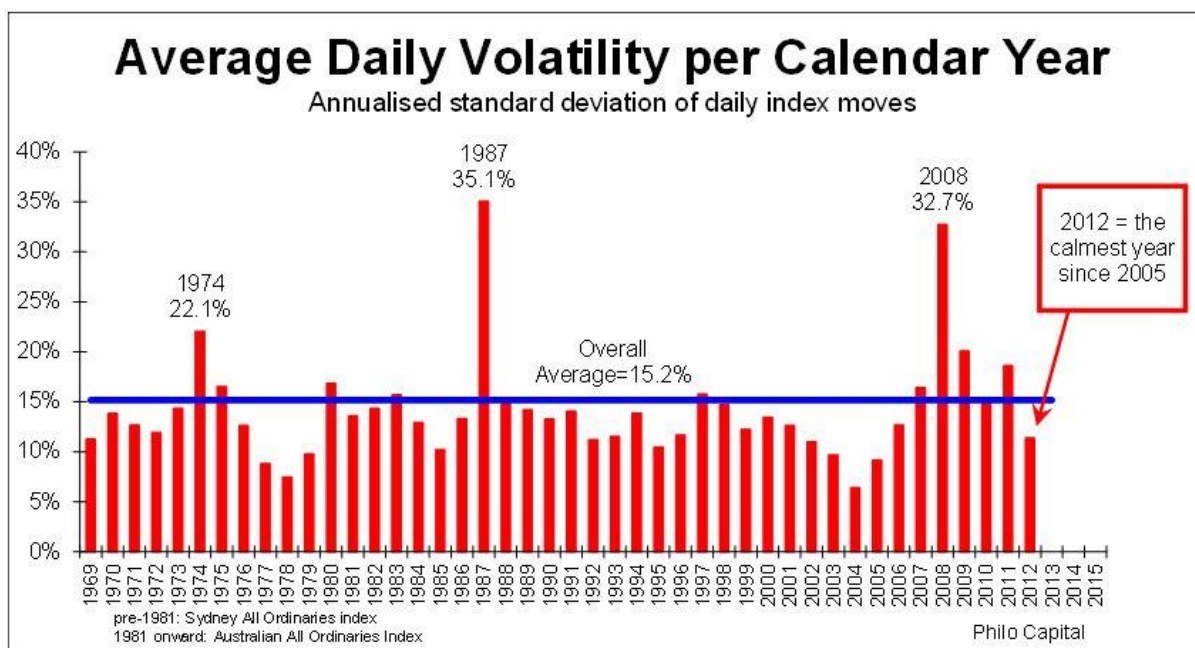
On the other hand, finance textbooks define risk as 'volatility', which is expressed in terms of the variation of actual returns or prices around the average return.

'These volatile times!'

According to the populist media, we are being told constantly that markets are experiencing unprecedented volatility and turbulence. This is the consistent and relentless message being conveyed by the media everywhere, including (and especially) the financial newspapers and those shrill presenters and experts on the 24/7 news and financial news channels. It seems every second sentence is peppered with alarmist terms.

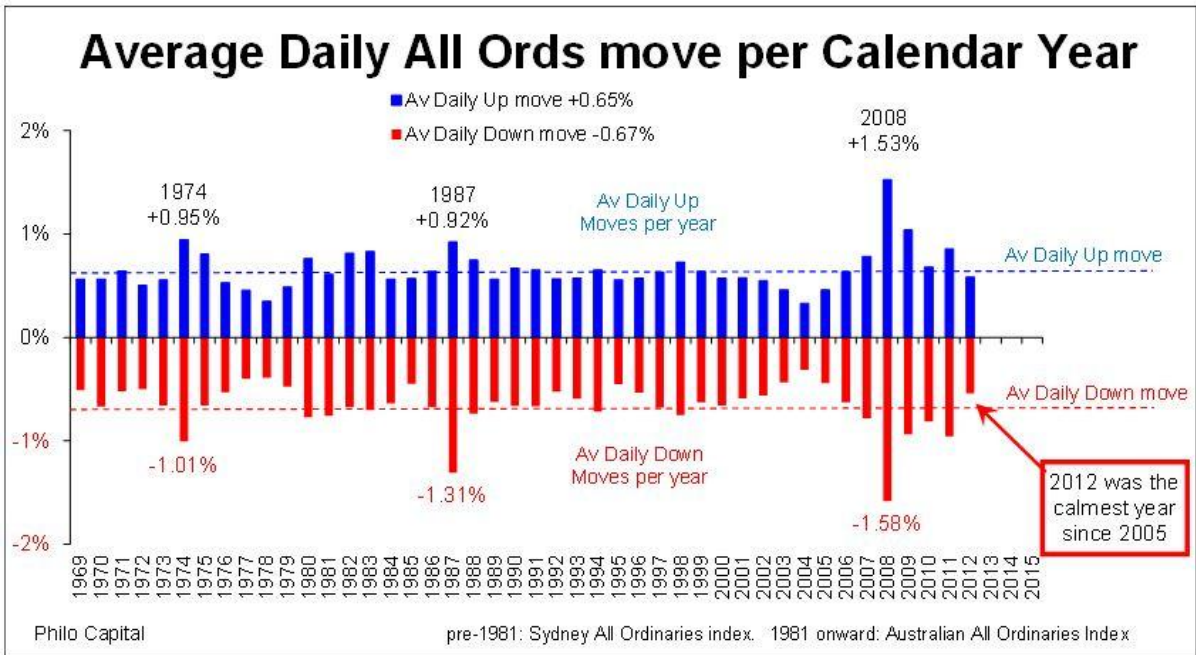
We don't listen to the populist media. We stick to the facts. Contrary to all the alarmist headlines, 2012 was in fact the *calmest* year on markets for at least half a decade, on any measure of volatility.

Measuring volatility using the textbook definition (the 'standard deviation') of daily moves of the All Ordinaries index, 2012 had the lowest average daily volatility of any year since 2005:



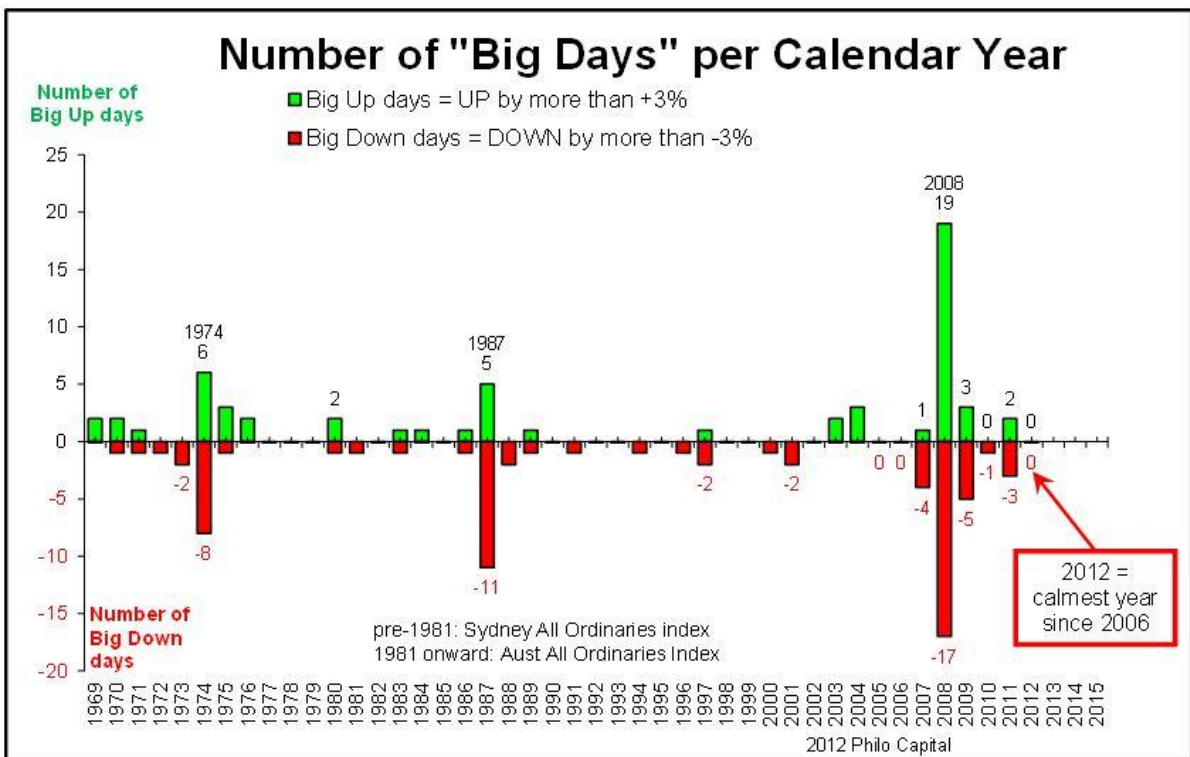
In fact, the real story of volatility on the Australian stock market over the past year has been the great *decline* in volatility in the years since 2008, to the unusually *low* levels of volatility at present. A more meaningful way of measuring volatility is to look at daily moves, since it is the daily moves that grab the media headlines. We separate daily 'up' moves from 'down' moves because most people worry more about down moves.

In 2012 the average daily down moves were well below the long term average down moves and were the smallest since 2005:



An even more targeted measure of volatility is to look beyond average moves to see how many big days there were, again separating the big up days from the big down days. No matter where we set the threshold for the definition of a 'big' day, 2012 was a very smooth year indeed.

For example, if we set the threshold at 3% as a big day, there were no big down days at all in 2012 (or any big up days either). Compare this to a gut-wrenching 17 days in 2008 when the overall market fell by more than 3%, including five days on which the whole market fell by more than 5% in 2008.



The above charts are for the Australian stock market, but it is the same pattern in all other major global markets. For example, 2012 in the US stock market was also the calmest year since 2005 or 2006 depending on the measure used.

The worst day of the year

The worst day on the Australian stock market in 2012 was Friday 18 May. It was a bad day coming at the end of a relatively bad week.

The week started with JP Morgan revealing another \$2 billion derivatives trading loss (the 'London Whale' loss, which later turned out to be a \$6 billion loss), the Greek parliament failing to form a coalition government after tortuous negotiations following the election, and the runs on Greek banks reaching a crescendo during the week, exacerbated by Moody's downgrading of 16 major European banks on the Thursday (Europe time). To top it off, the European Central Bank started talking openly about emergency plans for a Greek exit from the Euro, the infamous 'Grexit'. (Facebook's disastrously mispriced float occurred after the market closed in Australia on that Friday, so it did not factor into Friday's market here).

All of this had very little to do with Australia, but the local media were full of doom and gloom stories and many investors in Australia sold their shares in the media panic, causing the market to fall 2.6%.

So 18 May 2012 may have seemed volatile at the time, but it was mainly because 2012 was such a calm year. That is not to say that 2012 was not an eventful year. There were a host of reasons for investors to panic. There were rolling recessions in the UK, Europe and Japan, sluggish growth in the US, slowdowns in the major emerging markets including the prospect of a hard landing in China, political turmoil and rising violence in many countries, the fiscal cliff crises in the US and also in Japan, a global currency war, escalating military conflict between China and Japan, rising nuclear tensions in Iran, and North Korea setting off rockets over North Asia. On top of all this the local market in Australia was peppered all year with earnings downgrades from companies in almost every industry.

Yet, despite all of this going on, and all of the hype whipped up in the media about volatility in markets, 2012 was in fact almost dead calm.

In contrast, in 2008 *was* a volatile year. In 2008 there were 23 days (or 9% of all trading days over the entire year) in which the All Ordinaries index fell by more than 2.6%. That's more than a whole month of trading days in 2008 that were each worse than the worst single day in 2012! If the 2.6% fall on 18 May 2012 had occurred in 2008, it would have been seen as a quiet day when everyone would have let out a collective sigh of relief!

If we ignore the media hype and look at the facts, we see that 2012 was in fact a smooth sailing year on the market. Great returns *and* low volatility – investors could not wish for more.

To be perfectly franked, and pay no tax

Chris Cuffe

Kerry Francis Bullmore Packer would have loved superannuation and franking credits. In 1991, he was subpoenaed to appear before a Parliamentary Committee enquiring into the print media, and it was wonderful theatre. He bellowed out his responses and left most of the Committee members cowering. But his most memorable response came when asked about his company's tax minimisation schemes:

"Of course I am minimising my tax. And if anybody in this country doesn't minimise their tax, they want their heads read, because as a government, I can tell you, you're not spending it that well that we should be donating extra!"

You may not feel quite as critical as Mr Packer, since our taxes pay for health, schools and pensions, but the superannuation system has been designed to encourage people to finance their own retirement, so it makes sense to use it. Income in superannuation is taxed at 15% in the accumulation phase, and personal marginal tax rates rise from 15% to 19% when earnings exceed \$18,200, so income in superannuation is tax effective for anyone earning above this amount.

But that's only half the story. Let's put franking credits into the mix by understanding how dividend imputation works. Companies pay tax on their profits at a rate of 30% before dividends are paid to shareholders. In the hands of an investor receiving the dividend, the tax paid is called a franking credit or an imputation credit. For tax purposes, the shareholder receives both a cash dividend plus the imputation credit, and is treated as if they paid tax equal to the imputation credit.

The system operates like this to avoid double taxation of income. In effect, the shareholder receives back the tax that has already been paid by the company and instead pays tax at the investor's own tax rate. If the owner of the shares is on a tax rate less than the 30% company tax rate, such as superannuation funds, they are entitled to a rebate of the overpaid amount.

Let's consider a simple example. A company earns a profit of \$10,000, and pays tax of \$3,000, leaving \$7,000. It pays this amount as a franked dividend to its only shareholder, which is a super fund. In its tax return, the super fund adds the tax already paid by the company to the cash dividend received. The 'grossed up dividend' is \$10,000, and the super fund pays tax on this at 15%, or \$1,500. However, it receives a credit worth \$3,000 for the amount of tax already paid by the company, leaving a tax refund of \$1,500. Neat!

So it's a matter of relatively simple maths to calculate how much fully franked dividends is needed to offset the income tax due on the rest of a super fund's portfolio, and therefore pay no tax, meaning that no investments need to be sold to fund the tax bill.

Assume:

P = dollar value of total superannuation portfolio

S = percentage of the portfolio invested in Aussie shares paying fully franked dividends

(1-S) = percentage of remaining portfolio

D = net dividend yield from portfolio invested in Aussie shares paying fully franked dividends

Y = yield from remaining portfolio with no franked dividends

Value of franking credits is $\frac{3}{7} \times D \times S \times P$

Taxable income = gross income from Aussie shares + income from remaining portfolio

= grossed up dividend income (being dividends received plus franking credits)
+ income received from remaining portfolio (unfranked)

= $[P \times S \times (1 + \frac{3}{7}) \times D] + [P \times (1-S) \times Y]$

Tax payable = 15% x taxable income – value of franking credits

So, by substituting formulas for words, it follows that:

Tax payable = $15\% \times [(P \times S \times (1 + \frac{3}{7}) \times D) + (P \times (1-S) \times Y)] - [\frac{3}{7} \times D \times S \times P]$

If we want the tax payable to be zero and we want to "solve for S" (ie to find out how much we need to invest in fully franked shares), the formula reduces to:

$S = 0.15Y / (3D/14 + 0.15Y)$

So with some current day numbers, this formula can be used with actual values for D (the dividend yield on the shares) and Y (the yield on the rest of the portfolio) to determine how much of a portfolio needs to be invested in fully franked shares to have a zero tax rate on the entire portfolio.

- a franked dividend yield on the Australian shares portfolio of 6%
- an unfranked yield on the remaining portfolio of 4% (eg term deposits).

The portfolio would only need to contain 32% of Australian shares paying fully franked dividends to have a zero tax rate. And without getting into a discussion on portfolio construction, most Australian super funds can justify an allocation to Australian shares of at least one-third (the calculation ignores the impact of realised capital gains and expenses from running the portfolio).

The combination of favourable tax rates and dividend imputation shows the power of saving in a superannuation vehicle. Once a fund converts to paying a pension, there is no tax payable by the fund on earnings. In this case, imputation credits are refunded in cash. Furthermore, if the pension recipient is aged over 60, then pension drawdowns are also tax free.

Kerry Packer would have loved it. All that income and no tax. And later, a refund from the government. Kerry probably learned a lot from his father, and maybe it's no coincidence that this powerful process carries the same name as that equally powerful man. Sir Frank.



[Will the new rules for financial advice make a difference?](#)

Rick Cosier

From 1 July 2013, investment managers and platforms will be banned from paying commissions on new business to financial advisers. In my opinion, this is a positive step and should have happened years ago. However, the industry's tardiness in addressing such 'conflicted commissions' has resulted in additional regulations which apply to any advice fees that are deducted from clients' accounts, not only the commissions.

Financial advisers will be required to send clients an annual fee disclosure statement, and every two years clients will have to sign an agreement to allow those fees to continue to be deducted. The catalyst for these measures was the implosion of Storm Financial, but there have been a number of similar collapses which resulted in heavy losses for investors. High commissions and conflicted advice were adjudged to be the main culprits, but percentage-based advice fees which were deducted from a client's investment also came under attack. The Government view is that advisers should charge a 'fee for service' via an invoice, just like other professional service

providers such as accountants and lawyers. Another unexpected legislative change was that insurance commission in super will be banned, but not if the insurance is arranged outside super.

The major objectives of the legislation – unbiased advice with clearly identified charges that are agreed in advance – are commendable, but do they address the original problem, are they fair and will they work? It is possible that the legislation ignores some 'inconvenient truths' which have not been addressed or even satisfactorily debated.

Inconvenient truth 1

There is a fundamental difference between commissions and percentage-based service fees. Commissions are hidden payments to advisers (usually via their dealer groups or licensees) by fund managers or platforms which the client cannot access, even if they sack the adviser. Asset-based service fees are mutually agreed, transparent fees paid to the adviser by the client from their account balance.

Inconvenient truth 2

The legislation encourages 'fee for service' invoicing, which doesn't suit many clients in need of financial advice such as working families with a mortgage to pay, kids to educate, elderly parents to look after, and student children living at home. These people invariably have a cash flow problem already. Given a choice between paying an annual invoice and having the money deducted from their super account, they invariably choose the latter.

Inconvenient truth 3

Australian investors have lost lots of money where criminal or fraudulent activities by advisers, or bad product design by manufacturers, are involved. Commissions were often a symptom but not the underlying cause. Provident Capital and Banksia have recently gone into receivership, and clients will lose a serious amount of money. Their mortgage income products did not pay commission and were sold directly to the general public.

Inconvenient truth 4

Licensees and dealer groups are responsible for the training of their employees and representatives and have absolute responsibility for their actions and advice. In turn, these organisations are regulated by ASIC which is supposed to make sure the licensees are operating properly and identify any misdemeanours. If this system is not working, it will not be fixed by banning commissions and better fee disclosure.

Inconvenient truth 5

Insurance commission for advisers in super is usually a relatively small amount of money deducted on an annual basis from a client's account. Insurance outside super is usually a relatively large upfront commission payment with a relatively small amount paid annually. The former will be banned, the latter will not. Ask yourself whether this measure will see Australians receive advice that is in their best interests.

It is extremely difficult to charge fairly for insurance advice. There is a lot of work involved in setting up an insurance policy, possibly not much while it's in force but a huge amount if a claim needs to be made. Insurance providers work on the premise that everyone pays a relatively small amount of money in order to cover the payouts given to those unfortunate few. Consequently, it seems logical for a financial adviser to use the same principle – receiving small monthly commissions from everyone in order to subsidise the high cost of assisting with a claim. It's not perfect, and there is a high degree of cross subsidisation, but surely this is better than charging a grieving spouse hundreds of dollars at the worst possible time.

Inconvenient truth 6

The average financial adviser does not make much money. The cost of running an independent financial planning practice is rarely less than \$250,000 per annum. Expenses include office rental, support staff, professional indemnity insurance, compliance costs, research, licensee fees, IT, accounting, auditing, and on it goes. The majority of these costs have to be paid monthly. Statistics from the Corporate Super Specialists Alliance reveal that the average superannuation balance is around \$20,000 and the average commission is 0.44% per annum. After GST and company tax, this adds up to \$56 a year for the average client.

Inconvenient truth 7

The 'opt in' provisions require a client to move from an arrangement which the client can stop at any time to one where they are committing to paying advice fees in advance. Many clients will choose not to pay, and go without the advice they need. How can this be a beneficial change?

I agree that commissions are bad and should be banned. I agree that many financial planners focus primarily on selling product, and this is also bad. However, I fear that the new legislation will drive many small-to-medium financial planning practices out of business. Our profession has the potential to do an enormous amount of good. Australians need a thriving, well diversified financial planning industry in order to receive good advice about cash flow, debts, investments, super, insurance, estate planning and tax. Let's not throw the baby out with the bathwater.

An introduction to lifecycle theory

David Bell

Lifecycle theory is one of the more exciting and applicable research fields in financial academia, yet it receives little discussion in Australia's superannuation industry. This is unfortunate as the findings have the potential to improve outcomes for Australian households. The insights from lifecycle theory are full of common sense and are valuable to managers of superannuation funds, financial planners, individuals managing their own money and the financial services industry at large. In this article, I will introduce the background and framework of lifecycle theory. In subsequent articles, I will return to this framework to discuss specific issues.

Before we enter this journey, let's first reflect on the theories which presently guide the way we construct portfolios. Our industry is built on the foundations of what is known as Modern Portfolio Theory (MPT). We come across terms such as the 'Markowitz framework', from his pioneering 1952 paper, and the associated [Efficient Frontier](#), and we commonly use metrics such as the [Sharpe Ratio](#) and [Information Ratio](#) to assess outcomes. The MPT framework considers the range of forecast return and risk outcomes that can be derived from different portfolio asset allocations. These outcomes are commonly plotted on a chart with return on the vertical axis and risk (estimated by standard deviation) on the horizontal axis. The relationship is generally concave upwards sloping. This implies that as we take more risk we expect higher returns but at some point the additional return for taking on more risk diminishes. There are many critiques of this framework, such as how risk is measured and how we account for liquidity in portfolio construction. However in practice most investment products are constructed broadly on this basis. MPT is a portfolio-centric approach where the characteristics and desires of individual investors are ignored. MPT implies that we should all have the same mix of risky assets, however we may have varying levels of exposure to this risky portfolio based on how risk averse we are. MPT is also time agnostic. It recommends the same portfolio regardless of the investment timeframe.

Are portfolio outcomes the most important measure of success? When individuals look back on their lives will they reflect on the peak balance achieved by their superannuation fund? Most likely not. And this is the essence of lifecycle theory: portfolio outcomes should contribute to the attainment of goals and desires in life.

And so an introduction to lifecycle theory. The essence of this theory is that there are a number of important objectives in life which we strive to achieve. The performance of a portfolio is not a direct objective. Rather, it contributes to the attainment of these objectives. The portfolios we construct should help us obtain those objectives cognisant of the risks we are exposed to through our lifecycle. As lifecycle theory has developed, since Paul Samuelson's and Robert Merton's 1969 seminal papers, it has become clear that everyone should hold a unique portfolio specific to their personal objectives and characteristics.

Consumption and leisure across a lifetime are the key objectives in lifecycle theory. Working, saving and investment decisions are the levers we have at our disposal, and work outcomes (for example, pay levels or periods of unemployment), investment returns and mortality are the unknowns. Consumption smoothing over time is a common objective in lifecycle theory. If the savings pool is too little we spend our retirement years on a lower than desired standard of living, and if our savings pool proves more than required we may regret that we sacrificed too much during our working years. Similarly, leisure has a value attached to it. We can experience more leisure by reducing our workload. However this reduces our income and our ability to consume, both presently and in retirement. Saving for retirement reduces consumption during the working years with the intention to build a pool which supports consumption in retirement. So there exists trade-offs between consumption, savings and leisure. The level of investment risk may increase the expected outcome but some of the possible adverse outcomes may be unpalatable.

Lifecycle theory takes into account our preferences for consumption and leisure as well as our tolerance for risk and other household characteristics (such as age, household structure, etc), and then determines the appropriate level of labour provision, savings and optimal exposure to different assets through time. The outcome is not simply a portfolio construction recommendation, as this is not the only lever available to households. It generally emerges (there is rarely full consensus in academia) that every household, because it has a unique combination of preferences and characteristics, will have a unique labour provision, savings and asset allocation through time. Compare this to the MPT framework where each individual has the same mix of risky assets regardless of their individual characteristics. It also emerges that the improvement in outcomes across households, commonly labelled 'welfare improvement' in academia, are significant when households are given tailored plans and portfolios.

Labour characteristics differ across households. An obvious difference is the variation in salaries earned by different people in different occupations. There are also more subtle differences, including the risk of unemployment, wage growth potential, the relationship between wage outcomes and investment outcomes and the flexibility in working age (some people may be in the position to work beyond the standard retirement age). Taking these features into account will result in different savings and asset allocations across households.

Lifecycle theory could be akin to high quality financial planning assisted by powerful software that can conduct the appropriate analysis. However the 'scoreboard' in our industry tends to be solely financial outcomes. The superannuation industry has much to learn from lifecycle theory. The design of default funds could be improved by incorporating some of the findings of lifecycle theory. Target-date funds, which typically reduce their allocation to growth assets as retirement approaches, are an initial example of such work.

Lifecycle theory does take a shot across the bow of much of the financial services industry and particularly the design of default superannuation funds. By treating all default members the same, we are not realising the maximum welfare potential of our superannuation system. The two problems that I see for super funds are:

1. the collection and processing of personal information (although some important information such as age and contribution amount is already known); and
2. the need to change objectives to one which is less clear but more important (lifecycle outcomes as opposed to super fund balance).

Sometimes, our industry appears to have a preference for clear objectives and measures of accountability at the expense of the correct measures.

Lifecycle theory has been developing for over 40 years, and I will discuss more useful lessons in future articles.