

# Edition 58, 17 April 2014

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### The 'new normal' and demographic change

### **Graham Hand**

From day to day, we are barely conscious of our own ageing, never mind the long term trends in Australia or the world. You might receive a sudden jolt when you see an old friend after a 30 year absence, all wrinkles and paunch, and wonder if you have also changed as much. Or you look back and realise you've had the same job for 30 years, or lived in the same house for 20.

The one time we all consider the passing and future decades is when we approach retirement, and think about how long our money needs to last. However, we cannot plan our own financial outlook without considering an economic or global context. For example, if we retired at a time when the number of retirees was small in proportion to workers (the so-called 'dependency ratio'), then we could be more confident that rising tax revenues and economic growth would support age pensions, health systems and public transport. Notwithstanding the introduction of compulsory superannuation over 20 years ago, the majority of Australians will continue to access at least part of the age pension, and this reassurance about future services is crucial for their retirement plans.

But what if that low dependency ratio is in the past? In recent weeks, Treasurer Joe Hockey and other Federal Government ministers have made it clear that the budget deficit cannot be allowed to blow out to sustain the levels of support traditionally provided. We have a pension system which exempts the family home, and a couple sitting in a multimillion dollar house with \$1 million in other assets and annual income of \$60,000 can draw a part pension with all the associated health benefits (hearing aid cost \$5,000, supplied for free, come back for another next year). The current debate on increasing the pension age from 65 to 70 is scratching the surface on likely changes.

Consider the following table, showing the proportion of the Australian population in each age group: the younger people up to 19 years of age; the large bulk of the working population from 20 to 64; and the older people (currently pension age) of 65 years and older.

Country	Year	0-19	20-64	65+
Australia	1950-2010 Average	32.6%	57.2%	10.2%
	Std. Dev.	4.5%	2.7%	2.0%
	1950	33.4%	<b>58.5</b> %	8.2%
	2010	25.7%	60.8%	13.4%
	2050	23.7%	53.3%	23.1%

Source: Journal of Indexes, September/October 2013, 'A New 'New Normal' In Demography and Economic Growth', by Robert Arnott and Denis Chaves, page 25.

In 1950, only 8.2% of the population was over 65, but by 2050, it is expected to reach 23%. At the moment, two-thirds of people aged 65 to 69 are retired. For a person aged 65 expecting to live at least another 20 years, the majority of their remaining years will involve some level of disability or dependency. The costs of such services in Australia are a massive drain on public resources, as well as the age pension. There's no doubt future entitlements will reduce, and we need to focus on the demographic changes that are coming, and not think as 2030 or 2040 as the never-never.

The Californian research and investment strategy company, Research Affiliates, has produced interactive maps which show the likely effect of demographic change on GDP for major countries around the world, including Australia. In addition, Robert Arnott and Denis Chaves have written extensively on the economic and social implications of these changes, as shown in the following article.

The <u>first 'infographic'</u>, <u>linked here</u>, allows the user to select the year by moving the tab in the top right corner, and see the effect on GDP growth of demographic change in that country. For example, the figure below shows the year 2020.





The <u>second 'infographic'</u>, <u>linked here</u>, shows population distribution by country, with Australia shown below. The most notable increase is in the 70+ age group, accompanied by a rapidly rising median age.



# **Population Distribution By Country**

#### Introduction to the Arnott and Chaves paper

This is background to the following paper by Rob Arnott and Denis Chaves of Research Affiliates. They argue there is a disconnect between what we take for granted given our recent experiences and what we *should* anticipate given simple arithmetic and the numbers in the above graphs. We are not automatically entitled to fast-growing prosperity and ongoing high growth.

In recent decades, we have been blessed by the favourable demographics of a younger, more productive workforce which provided a growth tailwind. The reversal towards an older population will create more of a headwind, and our policies cannot simply spend our way out of trouble for as long as it takes. How we manage the transition will determine the quality of retirement for the majority of Australians.

(Note that the infographic reflects changes between demographics and GDP per capita growth based on the percentage size of each age group. This method results in more extreme forecasts as the size of each age group, especially retirees, continues to grow, while the following article uses an average of two methods that results in a smoother result).

# Mind the (expectations) gap: demographic trends and GDP

### **Rob Arnott and Denis Chaves**

A large body of research in psychology and economics shows that human beings tend to form their expectations by relying on past experiences — especially *recent* ones. Malmendier and Nagel (2011), for instance, talk about investors who live through long periods of poor stock market performance and how this experience affects their risk-taking propensities ... *for life*. The most famous example comes from the 'Depression Babies,' an entire generation that was scarred for life by the financial and macroeconomic shocks of the Great Depression. Of course the opposite effect also exists: periods of economic ebullience give rise to more intrepid investors, entrepreneurs, and so on.

Those times might feel like a distant past now, but until recently 3–4% growth in real GDP was considered 'normal.' So it should come as no surprise that the economic performance of the past few decades has strongly influenced expectations about economic growth. However, when optimistic expectations get detached from reality we risk creating a significant expectations gap — a disconnect between what we take for granted given our recent experiences and what we *should* anticipate given simple arithmetic.

We explore the role of demography on economic growth in this paper. This synopsis of <u>our more</u> <u>comprehensive paper</u> demonstrates that favorable trends in the size and composition of populations have helped to fuel the rapid economic growth experienced in the developed world over the past 60 years, and their reversal plays a crucial part in the current rapid deceleration in developed world growth.

### Demographic evolution

Tracing very long term trends will certainly help situate existing and emerging demographic states of affairs in their historical context. It may also indicate what used to be `normal,' if, indeed, there ever was such a condition. We examine four distinct phases that represent past, current, and future population profiles across different countries:

**Phase I**. The first phase, covering most of human history, was a high-mortality steady state, with births roughly matching deaths, short lifespans, and elevated support ratios (the number of non-workers, young and old, supported by the labor force). Life in the first phase can probably be described best by Hobbes' famous quote as "*solitary, poor, nasty, brutish, and short.*"

Phase II. This phase, beginning around the time of the industrial revolution and climbing to a pinnacle in the decades after the Second World War, was characterized by a steady rise in life expectancy and a decline in birthrates. The working-age population soared and support ratios improved enormously.

**Phase III.** This phase, beginning in the present century, is almost an inverted image of the second phase: the fraction of seniors skyrockets and the fraction of workers tumbles. Until fertility rates get back to replacement levels (roughly 2.1 children per woman of child-bearing age), the population crests and begins to subside, with very high support ratios associated with senior citizens. However, this should not come as a surprise, because both phases II and III are impelled by the same forces: rising life expectancies and falling fertility rates.

**Phase IV**. This phase is the 'future state,' which is by definition somewhat speculative. For convenience, we model it as a new steady state with births equaling deaths, and with long lifespans, perhaps much longer than today's. We include it for the purpose of comparison; since phases II and III are unquestionably temporary, it must differ from them.



# Figure 1. Examples of Demographic Profiles in All Four Phases

Source: Research Affiliates, based on data from the United Nations and Bacaër (2011).

The demographic profiles for each phase are illustrated in **Figure 1**. The solid blue line shows the profile of one of the first reasonably accurate demographic tables, produced by Edmond Halley for the city of Breslau (currently Wroclaw in Poland) in 1693. Not surprisingly, mortality rates were much higher than they are today. In particular, infant mortality was so high that there is an inflection in the curve right after age group 0-4 years: many newborns didn't last a single year, let alone five. Median life expectancy was only 24 years at birth, but 34 for those fortunate or hardy enough to survive that first lethal year. From our perspective, Phase I is a 'steady state'; through the lens of our telescope, population structures were relatively stable for centuries. Obviously, for someone living through famine, wars, or decimating diseases, life was anything but stable.

The second phase is represented by the green lines, which depict two distinct points in U.S. history-1950and 2010—and the average for the intervening period. It is possible to see the peak of the baby boomers in 1950 (dashed line) and the subsequent increase in the relative size of the working force in 2010 (dotted line). In these six decades, tumbling support ratios provided a strong tailwind to economic growth, as children fell relentlessly to historical lows as a share of the population, the working-age population soared, and support ratios for senior citizens remained low. Interestingly, the dotted line for 2010 becomes almost flat up to approximately age 50, reflecting the combined effects of lower mortality rates and the transition to a new steady state (Phase IV below).

As an extreme example of the strong demographic imbalances which are developing in some countries, the red line presents the forecasted demographic profile for Japan in 2050. The slope of the curve is completely reversed, revealing a discouragingly small number of children and an astonishingly large number of senior citizens.

Finally, the gold line shows an example of a demographic profile of a hypothetical country with a life expectancy of 80 years (approximately the life expectancy for the developed economies of the world at the present time). This phase will be characterized by support ratios that are both higher than the demographic tailwind of recent decades and lower than what we expect in the coming Phase III decades.

### Economic growth

As interesting as studying historical and prospective demography might be, such an analysis would be incomplete if we did not consider the future prosperity of different countries in view of their past, current, and future demographic profiles. For this reason, we combine the rich trove of past and forecasted future data from the United Nations with our previous work establishing a link between demographic profiles and economic growth. **Figure 2**, drawn from Arnott and Chaves (2012), shows the relationship between the size of each age group and growth in Real Per Capita GDP.



# Figure 2. Relationship between Age Group Size and Real Growth in GDP per Capita

Our results show that children have a slightly negative effect on economic growth, but young adults start to positively contribute as they join the workforce. Skeptics might argue that wages and productivity peak later in life, typically in one's 40s and 50s. This is generally true, and helps to explain why the most prosperous nations often have a larger proportion of mature adults than the less prosperous nations. However, the definition of a peak, whether for productivity or anything else, is that we stop rising and start falling! When we reach peak productivity, by definition our productivity growth is zero.

The average contribution to GDP growth becomes negative between 55 and 60. This does not mean that people begin to consume more GDP than they produce after age 55, only that—on average—workers above age 55 have passed their peak in productivity. Intuitively, the average 60-year-old is more productive than the average 40-year-old, but not so relative to the average 55-year-old. At ages 60 and above, the coefficients decline much more sharply: the mature worker exhibits falling productivity, and in retiring, a worker's productivity simply falls off a cliff.

The influence of demography on economic growth should not be underestimated. Our research shows that demography contributed to a tailwind in Phase II and will likely contribute to a headwind in Phase III. Figure 3 presents the results for the countries of the G-8 and the BRICs. We forecast growth in Real Per Capita GDP (holding everything else constant) for every five-year interval between 1950 and 2050, based on the demographic linkages observed in the 1950-2010 data spanning 22 countries. These are not 'normal' GDP growth rates, they are abnormal GDP growth rates, reflecting the impact of a demographic tailwind or headwind.



Figure 3. Forecasts of Economic Growth Based on

Source: Research Affiliates, based on data from the United Nations, Penn World Table, and Global Financial Data.

Japan displays the most manifest effects. The Japanese 'economic miracle' of the 1960s to the 1980s got a terrific lift from demography. The birthrate plunged, so that support ratios associated with legions of children disappeared, and the support ratios associated with legions of senior citizens did not really outstrip the decline in the roster of children until the 1990s. Their demographic 'dividend' may have peaked at approximately 3% per year, relative to the average demographic profile of the century from 1950 to 2050.

Now, the youngsters of the late 1940s and early 1950s are approaching retirement, and the baby bust from about 1980 onward is delivering a continually shrinking roster of new entrants to the labour force. With relatively few young workers to take the place of retiring boomers, Japan's prospective demographic headwind may be greater than 2% per year. A transition from a 3% tailwind to a 2% headwind is shocking: it suggests a 5 percentage point drop in normal real per capita GDP growth rates from the heady growth of the 1960s to the 1980s. Even if changes in policies and entitlements can halve these figures, it's a formidable headwind.

All 12 countries in the table will confront varying speeds of demographic headwinds in the coming decades, first in the developed economies, then in the older emerging economies (China and Russia), and finally in the younger emerging economies (Brazil and India). These headwinds get stronger over time and appear to stabilize in the developed world and the older emerging economies only after about 2040. For the younger emerging economies, the demographic headwinds do not become acute for perhaps another 20–30 years.

All 12 countries enjoyed demographic tailwinds during the past 60 years, so these headwinds will feel more obstructive than they are. It is human nature to consider our personal experience to have been 'normal,' so we evaluate subsequent events in comparison with this self-referential 'norm.' If the people of Japan consider the former tailwind of 2–3% to be 'normal,' then a future 2% headwind will feel like a ponderous 4–5% drag, relative to expectations. On average, the countries in this analysis enjoyed benign demographic profiles that boosted GDP growth by around 1% per year during much of the past six decades.

The first few decades of the sample were particularly beneficial to developed countries. China and Brazil seem to have experienced their peak demographic dividend recently. That said, a 2% erosion in high-single-digit growth is hardly a pessimistic forecast. Absent egregious policy missteps, these economies have ample room to catch up to the developed world, albeit at a gently decelerating pace. The young emerging economies, like India (where the median age today is still only 25), will continue to enjoy a demography-fueled tailwind over the next decade or two.

### Conclusion

Our main goal in presenting these results is to correct the common misconception that developed countries went through a 'normal' period of high growth, as if we are all entitled to fast-growing prosperity. In reality, the developed world is entering a new phase in which the low fertility rates of past decades lead to slow growth (in many countries, no growth) in the young adult population; young adults are the dominant engine for GDP growth. Mature adults, many of whom are at or near their peak productivity, are poised to retire, creating an impressive surge in the rolls of senior citizens. These newly-minted senior citizens, transitioning from near-peak productivity to retirement in a single step, will be drawing on the economy while no longer producing goods and services. The unequivocal good news of a steady rise in life expectancy means that these retirees will create a very substantial drag on GDP growth, as these seniors move from peak productivity to negligible productivity in just a few years.

The danger is not in the slower growth. Slow growth is not a bad thing. It's still growth. The danger is in an expectations gap, in which we consider slower growth unacceptable. If we expect our policy elite to deliver implausible growth, in an environment in which a demographic tailwind has become a demographic headwind, they will deliver temporary outsized 'growth' with debt-financed consumption (deficit spending). If we resist the necessary policy changes that can moderate these headwinds, we risk magnifying their impact.

Rob Arnott is Chairman and Chief Executive Officer of Research Affiliates LLC, and Denis Chaves is Vice President, Research. Research Affiliates is based in Newport Beach, California, and as at 31 December 2013, about US\$166 billion was managed using strategies developed by them. Its Advisory Panel includes Harry Markowitz, Burton Malkiel, Keith Ambachtsheer and Richard Roll.

For references and endnotes, see article linked here.

A more comprehensive version of the paper was published in <u>Journal of Indexes</u>, <u>September / October</u> <u>2013</u>, <u>linked here</u>.

# Think about risks as well as returns

### **Roger Montgomery**

When investors talk about stocks, the focus tends to be on which stocks have the potential to perform the best, and that is understandable. Professional fund managers typically do the same.

But portfolio risk management probably doesn't get as much attention as it deserves. Risk management can make for boring conversation, but it is important for investors who hope to succeed over long periods of time.

In fact, in one sense, risk and return can be thought of as the same thing. This is best illustrated with an example. Imagine that you have two potential investments: one is an investment in a stock market index that is expected to return 10% per annum with a moderate level of risk. The other investment is in one stock that is expected to return 8% per annum but with half the risk of the stock market index. Let's also assume you can borrow at an interest rate of 5%.

As a long term investor who is happy to accept the ups and downs of the stock market, you might think you are better off taking the 10% return, which should result in a better long term result. However, here is another way of thinking about it.

\$100 invested in the first strategy has an expected return of \$10 over one year, whereas \$100 invested in the second has an expected return of \$8 over one year. However, consider a strategy of investing \$100 in the second stock, and also borrowing an additional \$100 at 5% interest and investing that as well.

You now have \$200 earning 8%, which gives you an expected return of \$16. You will need to pay \$5 of interest on the borrowed money, so your net return will be \$11.

That \$11 is better than the \$10 you could get in the index, but what about risk – doesn't the leverage make this a risky strategy? In this case, the answer is no. If the 8% strategy has half the risk of the 10% strategy, then in simple terms you can invest twice as much into that strategy and still have the same total level of risk. In other words, the leveraged approach that that gets you an \$11 return has the same risk as the first strategy that gets you \$10. Now which one should you prefer?

The point of all this is that risk and return can – to some extent – be thought of as substitutes for one another, and reducing risk can be worth just as much as getting a higher return. The consequence is that you can't sensibly measure one without knowing something about the other.

This concept is important when comparing different fund managers. There is a tendency in the industry to rank fund managers on the returns they achieved over (for example) the last 12 months, with little regard to the risk taken to get those returns.

But managers have very different styles. Some will try to hit the ball out of the park by taking large bets on particular companies or themes, and even using leverage. When those bets succeed, that manager will be at the top of the league table (and will tell all and sundry about it). When they miss, the manager will be at the bottom (and stay relatively quiet). Managers who take a more cautious approach are less likely to be at either extreme.

Because of these differences, making performance comparisons is not a straightforward business. It is important for individual investors to think carefully about position sizes and in what circumstances they will hold cash or use leverage. It can be even more important in assessing fund managers: a manager who earns a performance fee in years when they *do* hit the ball out of the park is not going to give it back the following year if they strike out. As a result, high risk fund managers can impose substantial hidden costs on unwary investors. An investor should understand the risk as well as the expected return in any investment.

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# Bonds have a role in managing inflation risks

### Warren Bird

One of the standard reasons given by advisers against investing in fixed interest is that "you can't grow your earnings". After all, so the thinking goes, your interest is fixed. That must mean you can only earn a constant amount of income.

However, to borrow from Sportin' Life in *Porgy and Bess*, it ain't necessarily so. There is a simple way that investors can grow their fixed income earnings; in fact, many investors already do so without realising it. The strategy is to reinvest at least a portion of the interest payments. This grows the capital of the investment and enables compounding of interest.

Here's an illustration. \$100,000 invested in a ten year fixed income investment with a 4.5% interest rate will pay \$4,500 a year if all the interest is taken as income. However, if the interest is reinvested then by the final year the income will have grown to \$6,687 and the total value of the portfolio to \$155,297. This assumes, for simplicity, that the same 4.5% interest rate can be earned throughout the period and, of course, ignores taxation. The year by year progression is shown in the following table:

Year	Interest earned	End of year portfolio value
1	4,500	104,500
2	4,702	109,203
3	4,914	114,117
4	5,135	119,252
5	5,366	124,618
6	5,608	130,226
7	5,860	136,086
8	6,124	142,210
9	6,400	148,610
10	6,687	155,297

By the final year of this investment, the initial outlay of \$100,000 is earning \$6,687 a year in interest even though the level of interest rates hasn't gone up.

This is effectively what happens in many investments already. It happens in the fixed income component of superannuation funds, where all income is automatically reinvested, and also in term deposits where the reinvestment rate is the same as the initial yield.

### Inflation risk

Of course, a lot of investors need to draw income from their portfolios and can't simply reinvest all the interest. The trouble with doing this is that in ten years' time the real value of the \$4,500 interest payment (to use the above example again) has been eroded by inflation. If inflation was 2.5% over the ten years of this investment, the real value of the final year's interest payment has declined to \$3,515.

#### Can we get around this?

A variation on the full reinvestment strategy is to partially reinvest. This still enables some growth in earnings to take place, but also provides cash flow in the investor's hand. If the inflation component of the interest rate is reinvested and only the real component is kept as income, then the income payment each year will rise in line with inflation and its purchasing power will be maintained.

Let's say inflation is running at 2.5%. In this case, the investor in our example would reinvest \$2,500 of the first interest payment and retain \$2,000 (a 'real' rate of 2.0%). In year 2 the 4.5% rate would be earned on a portfolio of \$102,500, delivering interest of \$4,612. Of this, the inflation component for reinvestment is \$2,562 and the investor keeps \$2,050.

Continuing this process through the ten years of the investment results in the investor receiving an income payment of \$2,498 in year 10, which will purchase the same amount of goods and services at that time as \$2,000 could buy today.

The obvious question at this point is, what happens if inflation rises to more than 2.5%? A simplistic application of the strategy means that in those years the retained income is reduced. For example, if inflation in one year is 3.5% then the investor would only take an income payment of 1.0% of the portfolio in that year.

Alternatively, the investor might assume that the following year's inflation will fall back again – as the RBA would likely tighten monetary policy to achieve that outcome – and continue to follow the 2.5/2.0 split. This is an imperfect response, but provided inflation does average 2.5% over time, it still delivers the outcome intended.

There is another more elegant alternative.

### Inflation-linked bonds

In essence, inflation-linked bonds (ILB) automatically follow the strategy outlined above. A real yield is paid each year, with an inflation component reinvested. The nominal capital value of the investment increases in line with inflation and thus the income that is generated is also maintained in real terms.

The following chart shows the actual history of the quarterly interest payments since 2005 of the Commonwealth Government's ILB maturing in 2020. On the y-axis, 1.2 means \$1.20 for every \$100 of original face value purchased, or 1.2% of face value (same thing).



The steady increase in the interest payment over time means that by this year (2014) an investor who bought this security and held it through the period is now being paid 27.5% more income than they were nine years ago. Over the same period consumer prices, as measured by the CPI, have also increased by 27.5%.

### **Comparing the approaches**

The key difference between nominal bonds and ILB, which makes ILB better at protecting investors against inflation, is that with ILB it is only the real yield component that is fixed.

In the example we've been using, this is the 2.0% component. The combination of the real and the inflation components isn't fixed at 4.5%, as is the case with nominal bonds. Whatever the inflation rate, the capital value of the ILB will adjust and the investor is paid each year 2.0% of that amount.

The difference between the yield on a nominal bond and the real yield on an ILB of similar maturity is the break-even inflation rate. In our example, this is 2.5%. A steady inflation rate of 2.5% would produce identical investment outcomes from either holding an ILB or using the reinvestment strategy with nominal bonds.

ILB come out ahead over the longer term if inflation during the life of the security exceeds the breakeven at purchase. For example, if inflation ended up being 3% a year instead of 2.5%, the ILB would end up growing by 5% a year instead of 4.5%.

This is especially useful when there are jumps in inflation due to policy changes. For example, if the GST rate were to be increased and the CPI to jump, the capital value of the ILB will adjust upwards and in turn so will the interest payments.

On the other hand, if inflation were to track at a lower average than the break-even rate, then the nominal bond approach achieves a superior outcome.

#### **Concluding remarks**

The point of this discussion is not to argue that investors should choose fixed income over any other asset class. For example, it says nothing about the relative attractiveness at any point in time of interest rates against dividend yields or property rental yields. Rather, the point is simply that investors need not shun including fixed interest in their portfolios due to a misunderstanding about the potential for earnings to grow at least in line with inflation. Fixed income is a good asset class to use for inflation risk management – not only inflation linked bonds, but nominal bonds also.

*Warren Bird was Co-Head of Global Fixed Interest and Credit at Colonial First State Global Asset Management. His roles now include consulting, serving as an External Member of the GESB Board Investment Committee and writing on fixed interest.* 

### Age pension reform: income taper change is unlikely

# David Bell

I have previously suggested that reform of the age pension is likely at some point in the future and investigated one area of reform (the approach to pension indexation, see Cuffelinks 21 March 2014). I now look at another reform candidate, the income test taper rate. Once again we can identify how complex and sensitive an area of reform this would be – the Government needs to tread carefully!

### Background on age pension income testing

Currently the full age pension fortnightly base payment for a single is \$751.70, which can increase to \$827.10 once supplement payments are included. Combined couple base payments are \$1,133.20 (\$1,246.80 with supplements).

To be eligible for the age pension you must meet age and residency requirements. The amount you receive is dependent on two tests, one based on the income and the other on the level of assessable assets. In this article we focus on the income test.

The income test consists of a threshold level; beneath this level the age pension entitlement is unchanged. For singles this level is a fortnightly income of \$156 and for couples \$276 combined. For each dollar earned beyond this level of fortnightly income the age pension fortnightly rate is reduced by 50 cents. So a single age pensioner would receive no age pension payments once fortnightly income reaches \$1,841.60 (or a combined income of \$2,817.20 in the case of couples).

In 2009 the Rudd government introduced the <u>Work Bonus programme</u>. Under this programme, a level of employment income is excluded from the income means tests (\$250 per fortnight per individual regardless of whether one is single or part of a couple).

### What did the Harmer Review say on income testing?

The 'Harmer' Pension Review, released in 2009, looked at income means testing in detail. It was a balanced exploration of the issues. Some key issues were:

- to ensure that those with a moderate reliance on the age pension were not receiving inadequate government support
- a focus on sustainability, meaning that there should exist sufficient incentives for those past retirement age to work
- treating different segments of the population equitably (by income and age).

With regard to the first dot point, the Harmer Review found that that "there is no evidence that the means test as a whole is operating to provide an inadequate level of support to pensioners with low to moderate reliance on the pension."

The second dot point questioned whether high taper rates were sustainable given the backdrop of an aging population. The taper rate could be thought of as an effective tax rate. Once a single person (or a couple) earns more than the relevant minimum level of income, then for every additional dollar, even though it is (usually) not taxed, they receive a lower age payment. This has the same net effect on disposable income as a tax on earnings. To this extent, a taper rate of 40% (as it was at the time of the Harmer Review) represents an effective marginal tax rate of 40% - very high for low income earners. This could be viewed as a major deterrent to working beyond pension eligibility age. **This taper rate is now 50% making working pensioners effectively the highest taxed (from a marginal perspective) of all working Australians.** 

From an equity consideration (the third dot point) the Harmer Review considered that those on low income were given appropriate assistance and that the poor required more additional support. The Harmer Review also identified large inequalities between the outcomes of workers below working age versus those who are eligible for the age pension. For instance, at the time of the Harmer Review, an age pensioner who is in employment and is paid the equivalent of the Federal Minimum Wage would have had a disposable income of \$627.84 a week. Compared to the outcome of a non-pensioner (\$494.44 a week), it is easy to identify the inequality that exists based on age.

Following this review, the Rudd Government announced major reforms to age pensions in 2009. The pension rate was increased and the income test taper rate was also increased, from 40c in the dollar to 50c in the dollar. The previously mentioned Work Bonus scheme was also introduced. This all appears to be reasonable policy: for those not looking to work the changes represented a redistribution of government age pension capital to the poor and away from those with other income sources (supported by the Harmer Review), while those looking to work are less penalised by high effective tax rates.





Chart 1: Impact of 2009 Rudd government changes to age pension

The changes make a small amount of work a more financially attractive proposition for those past retirement age. This fits nicely with Harmer Review focus groups where people were most people said they were not looking for full time or stressful work. The benefits of the Rudd Government changes gradually disappear as employment income increases and for those earning \$2,000 per fortnight the changes have little or no impact.

#### Where is the potential for age pension reform with respect to income test taper rates?

I see little potential for a direct change to income test taper rates. Decreasing taper rates would be expensive for the government. And if taper rates increase then this will increase the financial disincentives to work and more people will cease to participate in the workforce and collect a higher age pension. It is worth noting that amongst the many (137 to be exact) reform recommendations of the Henry Review, it was recommended that no change be made to the way that employment income is treated versus investment income: the Work Bonus appears supported by those who have undertaken the major reviews.

I suspect that income test taper rates are not prominent on the Coalition budget radar. Issues such as pension rate indexation, asset testing (specifically the assessment of your home), and the age pensioner concession card appear more obvious candidates for reform.

David Bell's independent advisory business is St Davids Rd Advisory. In July 2014, David will cease consulting and become the Chief Investment Officer at AUSCOAL Super. He is also working towards a PhD at University of NSW.

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