

## April 2015 The ‘Perfect Storm’

*“If you aren’t willing to own a stock for ten years, don’t even think about owning it for ten minutes”*

Warren Buffett

What’s the opposite of a perfect storm? Various dictionaries define a perfect storm as a rare combination of circumstances which will drastically aggravate an already tricky situation. So what do you call it when an unusual combination of constructive factors creates an outcome which is extraordinarily positive? Whatever it is, equity investors have benefitted from precisely that over the last 35 years or so.

However, before I go into details, it is time to eat a bit of humble pie<sup>1</sup>. Just a little bit. Over the years, I have made the point numerous times that there is virtually no link in the short term between GDP growth and equity returns, and I have been proven correct. I have also made the point that, over longer time horizons, the correlation rises. This is where the humble pie comes in, as I am having second thoughts about that one.

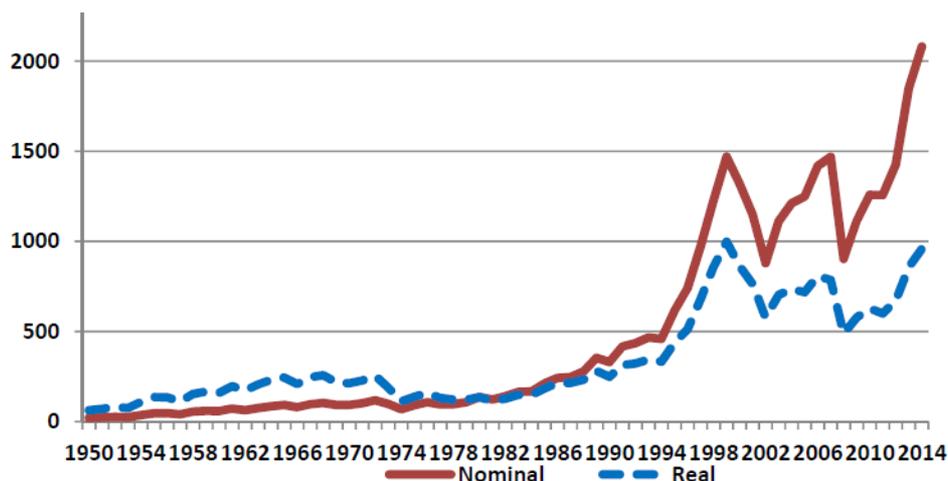
Consider the following. Real economic growth in the U.S. rose at an average annual rate of 3.7% between 1950 and 1980. More recently - between 1981 and 2014 - the annual growth rate was only 2.7% in real terms, and between 2000 and 2014 GDP only grew by an average 1.8%.

Based on those numbers – and based on the half-truth I have been telling our readers for years – you would be forgiven for thinking that equities, on average, should have done better in the earlier period, but nothing could be further from the truth. Have another look at chart 1 in the [March 2015 Absolute Return Letter](#) if you need a reminder, or spend a few seconds on chart 1 below. The 1981-2014 equity bull market has been mind-bogglingly unique.

This month’s Absolute Return Letter is about the true factors that have driven equity prices ever higher since the great bull market took off in the early 1980s - admittedly with a couple of hiccups, like the 2008 financial crisis. I will touch on the factors which have proven far more important to equity market performance than economic growth per se, and why the good times are very unlikely to continue.

<sup>1</sup> Not for the first time, Woody Brock has influenced my thinking. His recent essay, “1981-2015: The most remarkable stock market of the past century” has been a great source of inspiration for this month’s Absolute Return Letter.

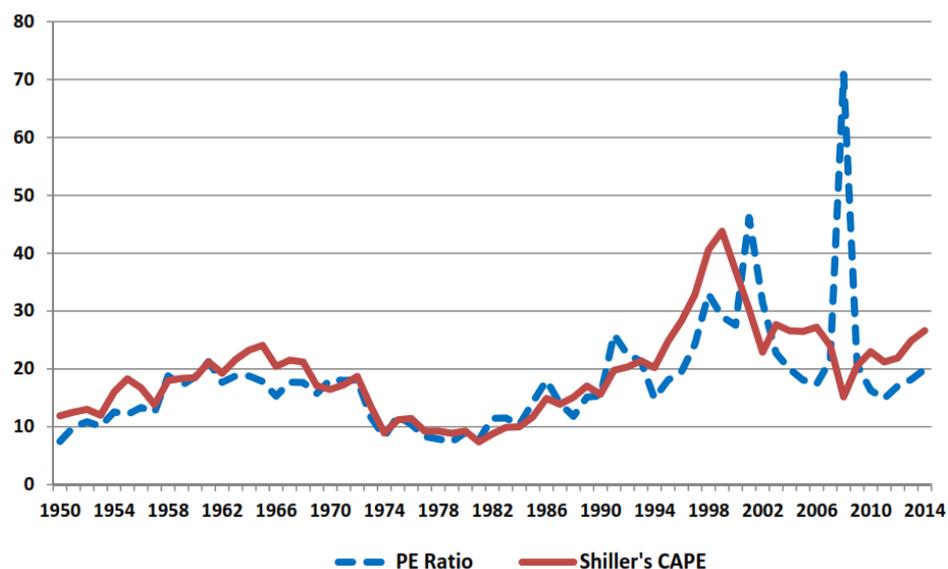
**Chart 1: S&P 500 - nominal and real (PPI 1980=100)**



Source: Strategic Economic Decisions, Standard & Poor's, BLS

The extraordinary equity performance since 1981 has led many market pundits to argue that valuations (P/E ratios) are out of whack by historical standards. *This is not true.* As you can see from chart 2, P/E levels today are not dramatically different from the levels we experienced from the late 1950s to the early 1970s, before the first oil crisis in 1973 took market multiples down to near all-time lows.

**Chart 2: S&P 500 P/E ratio and Shiller's CAPE ratio**



Source: Strategic Economic Decisions, Robert Shiller, Standard & Poor's

**The true reasons behind the great equity bull market**

So what has really happened? A rare combination of circumstances created the perfect breeding ground for exceptional equity performance. Not one pro-equity dynamic did unusually well. *They all did*, and they did so more or less simultaneously, which explains the extraordinary performance of equities over the past 35 years.

A perfect storm so to speak, although the consequences of this storm have been largely positive. Now to those circumstances. For those of you who don't care to read any further, they are:

1. The level - and direction - of interest rates
2. The level - and growth rate - of aggregate earnings as a share of GDP

3. The growth rate of earnings per share
4. Demographics

During the early stages of the great bull market – from 1981 to 2000 – all four factors behaved impeccably well and, as a result, we experienced near perfect conditions for equities in many countries around the world. Of the bigger markets, only Japan experienced some problems.

Since 2000, demographics have begun to turn negative (they did so even earlier in Japan), resulting in pressure on equity valuations, but the other three factors have – at least so far – been favourable enough to keep the bull alive. As a result, equity prices have continued to rise.

#### The level – and direction – of interest rates

If you had gone public back in the early 1980s with a prediction that 10-year bond yields would, within 35 years, fall to near zero, you would probably have been advised to see a psychiatrist. So exceptional has the move in rates been in the interim that I don't think the world has ever experienced anything like it before (with the possible exception of the Weimar Republic collapse in Germany in the 1920s, but the move in interest rates back then didn't really expand much beyond Germany) and may never do so again.

Charts 3 a-c below, dating back to the 18<sup>th</sup> century, provides an indication of how unusual the move has been, and I don't think many would disagree that the extraordinary drop in interest rates has indeed contributed to the spectacular rise in equity prices over the period.

Perma-bears have used the move to argue that stocks are now overpriced and, at first glance, one would have to agree. Take the U.S. equity market. When the great equity bull market took off in 1981, the P/E ratio was about 8. It is now nearly 20 against a long-term average of about 15; so where is the catch?

The catch lies in the dividend discount model (DDM) which is econ. 101 for people with a financial background and is used as a pretty basic methodology to establish the value of companies. The secret is the 'r' in the formula, which is the discount factor that is used to translate the value of all future dividends to a present value.

**Chart 3a: U.S. 10-year government bond yields over the long term**

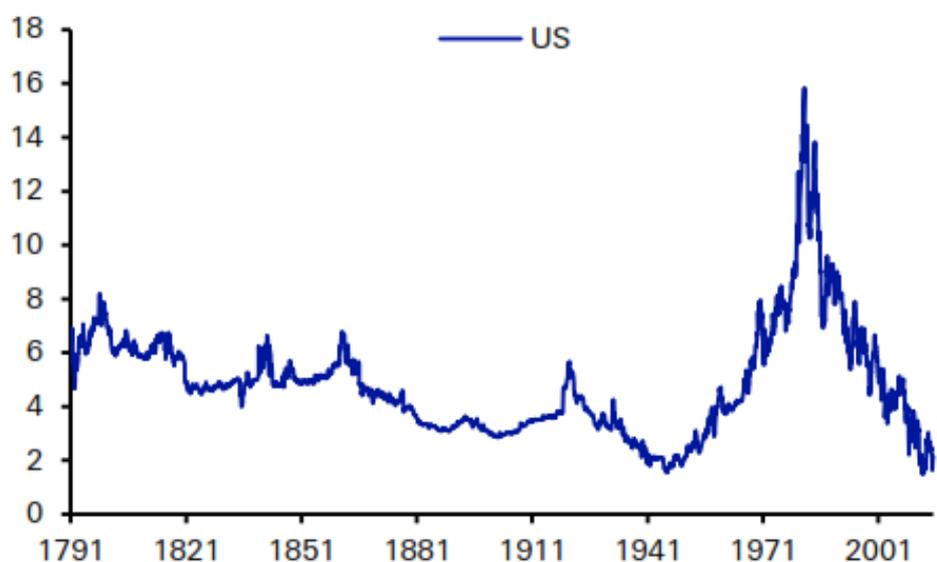


Chart 3b: U.K. 10-year government bond yields over the long term

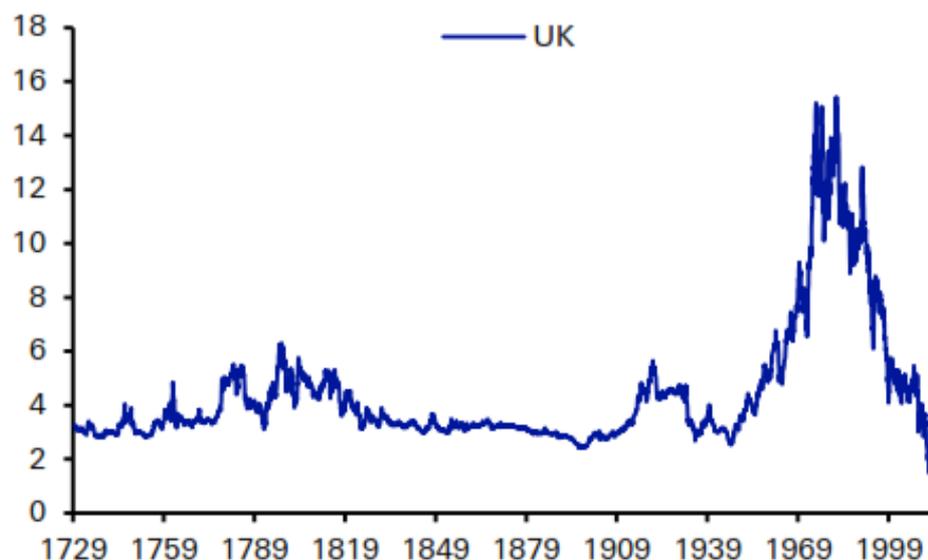


Chart 3c: German 10-year government bond yields over the long term



Source: Deutsche Bank

Now, one can argue which duration to base the calculation on, but in this case it makes little difference as the drop in interest rates has been across the board. At a P/E ratio of 15, which appears to be generally accepted as a fair value, at least in the U.S., the DDM implies a discount factor of approx. 4%, but the discount factor is nowhere near 4% at current levels of interest.

Depending on which discount factor (duration) is used, the fair value for the P/E ratio now is not 15 but somewhere in the mid-20s. Interestingly, one could therefore argue that U.S. stocks are not too expensive as many suggest, but rather too cheap.

#### [The level – and growth rate – of aggregate earnings as a share of GDP](#)

In national economics, one of the most stable ratios over the decades has been the split in national income between capital and labour<sup>2</sup>. Although the ratio varies from

<sup>2</sup> For non-geeks:

*Capital and income always add up to 100% in national economics and, provided the ratio is always the same, the growth rate in aggregate corporate earnings will equal the growth rate in GDP.*

country to country, most countries have experienced a remarkably stable ratio over the longer term.

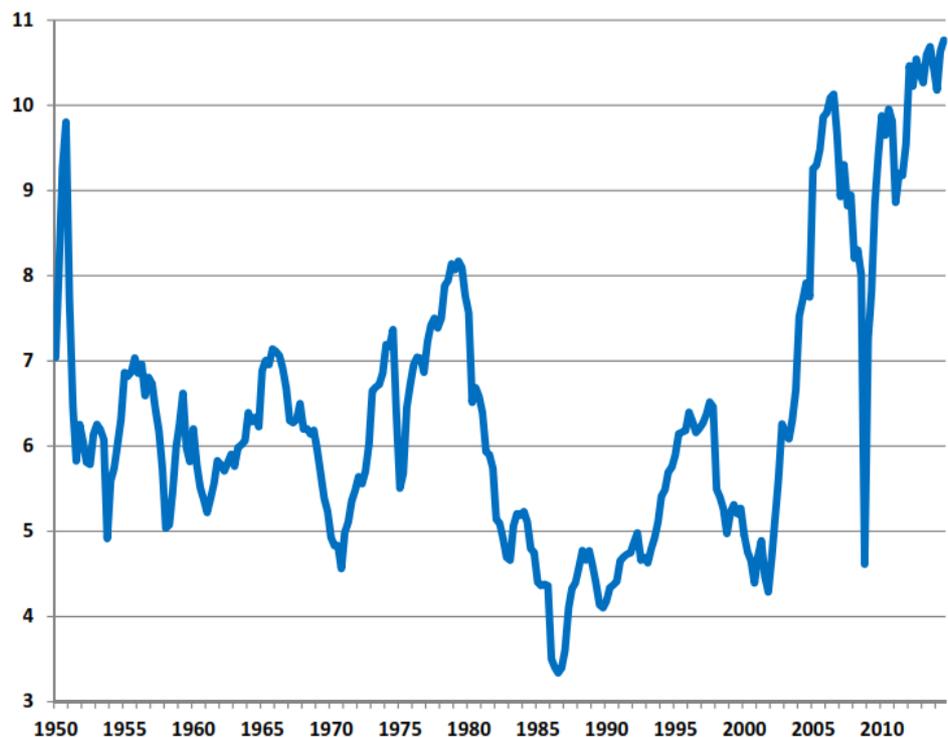
**Chart 4: U.S. labour income as a share of national income**



Source: Conversable Economist

Chart 4 above depicts labour's share of national income in the United States. Until around 1980 it captured about 65% of total national income. The chart only goes back to 1950, but the split in national income between capital and labour has been fairly stable for much longer.

**Chart 5: Corporate profits after tax as a % of GDP**



Source: Strategic Economic Decisions, Federal Reserve Bank of St. Louis

Around 1980 capital began to make inroads before labour made a temporary recovery in the late 1990s. However, in the new millennium, it has been pretty much

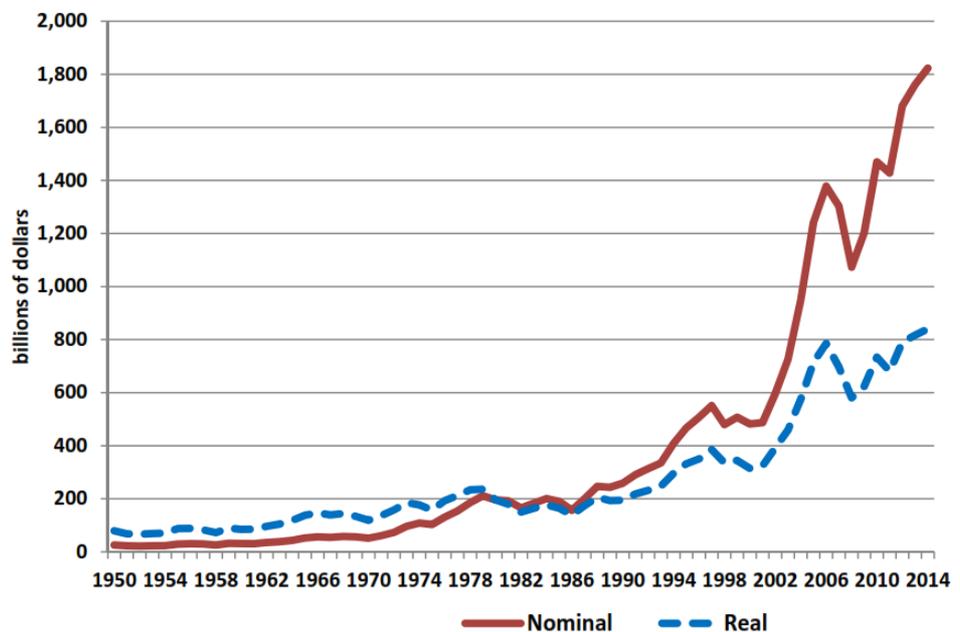
one way traffic and, today, capital accounts for 42-43% of national income – an all-time high.

My point is the following: Every time the ratio has varied meaningfully from the 35/65 average, mean reversion has kicked in and brought the ratio back to its long term average. It has usually taken a little bit longer than a year or two to do so, but it has always happened. I strongly suspect mean reversion will kick in again.

The effect of capital's growing share of national income is that corporate after-tax profits as a percentage of GDP are growing relentlessly. Obviously the great recession in 2008 caused a temporary setback, but it didn't take long to recover to pre-crisis levels, and today corporate after-tax profits as a share of GDP are at an all-time high (chart 5).

Profits in an absolute sense have been equally exceptional since the early to mid-1980s (chart 6), and it is not difficult to understand why equities have done so well in such a profit environment. Remember, this is *despite* overall GDP growth being somewhat lacklustre – at least in a historical perspective.

**Chart 6: Corporate profits after tax (PPI 1980 = 100)**



Source: Strategic Economic Decisions, BEA

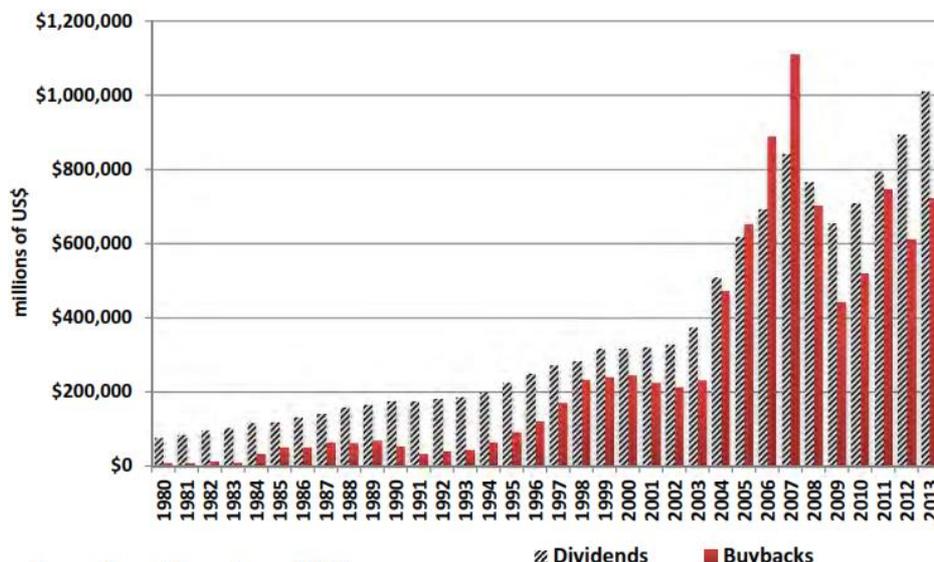
### The growth rate of earnings per share

Not only have earnings on an aggregate basis grown spectacularly well since the early 1980s, earnings per share (EPS) have fared even better, and one of the key reasons for that is the significant growth in equity buy-back programmes.

More and more executives around the world – and in particularly in the United States – are financially rewarded based on EPS and/or stock performance, and it is therefore in the interest of these people to reduce the denominator (the number of shares) as much as possible. (Needless to say, there are sometimes other and more mundane reasons why companies buy back their own stock - e.g. excess cash.)

Therefore one shouldn't be surprised that share buy-back programmes have grown in size from close to zero 35 years ago to a very meaningful number today (chart 7). One caveat: Some of the share buy-back programmes have been instigated to offset the dilution of the many option programmes in place today. Hence the net effect is somewhat smaller than what first meets the eye. Rest assured, though, that the net effect on EPS, when compared to aggregate earnings, is very positive.

**Chart 7: Dividends and stock buybacks (U.S. companies)**

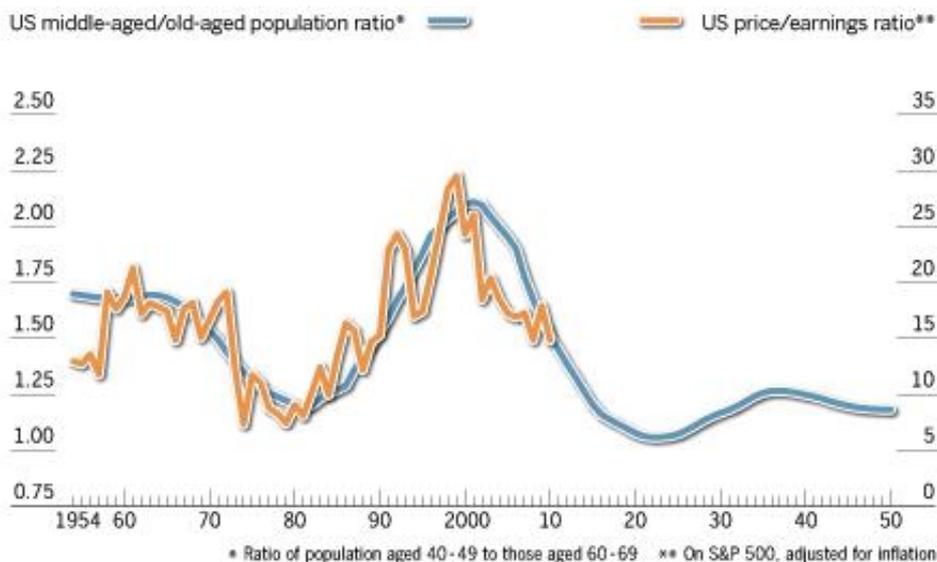


Source: Strategic Economic Decisions, Aswath Damodaran of NYU

### Demographics

Several studies confirm what we already know intuitively. Middle-aged adults are important drivers of capital market returns. They are natural risk takers and, on average, they prefer equities over bonds as they save for their retirement. Meanwhile, senior citizens make no positive contribution to equity market returns. In their 60s, they disinvest to buy bonds, following which they buy goods and services that they no longer produce.

**Chart 8: U.S. M/O ratio versus equity valuations**



Source: "The population conundrum", Financial Times, November 2012.

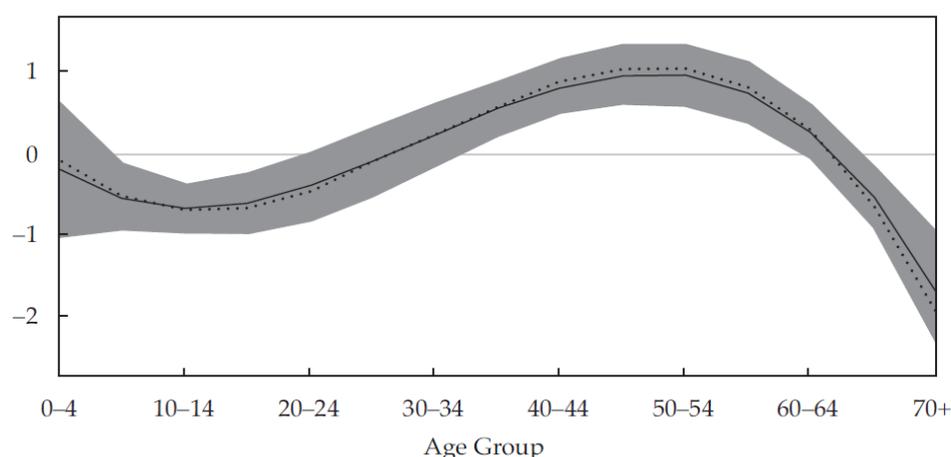
The effect from ageing can be measured on P/E ratios with equity valuations in the United States peaking at about the same time as the ratio between middle-aged and old-aged people did (chart 8).

In 2012, Robert Arnott and Denis Chaves published what I believe to be the largest study ever conducted on the effect on economic growth, stock and bond market returns from changes in age distribution (you can find the study [here](#)). Arnott and Chaves used 60 years of data across more than 100 countries in their study. The objective was to assess whether changes in the age composition of the population has a significant effect on capital market returns and/or on economic growth. Returns were measured as excess returns over cash in order to adjust for the fact that the risk-free rate of return is vastly different across markets and time.

For the purpose of this month's Absolute Return Letter, let's tune in on equity returns (chart 9). As you can see, the chart peaks at around 1% for the 50-54 age cohort, meaning that a 1% higher concentration of 50-54 olds would lead to an *increase* in annual excess equity returns of approximately 1%. Likewise a 1% higher concentration of the 70+ age cohort would lead to a *decrease* in annual excess equity returns of about 2%.

### Chart 9: Equity returns versus demographic shares

Implied Regression Coefficient



Source: Demographic Changes, Financial Markets, and the Economy, Robert Arnott and Denis Chaves, Financial Analysts Journal, Volume 68 No. 1, 2012.

So, yes, demographics matter to equity market returns, as the Japanese have come to realise. The biggest equity buyers are the middle-aged (the 40-49 year olds in particular), and it is no coincidence that the great equity bull market has coincided with the baby boomers going through their middle ages.

### Putting it all together

So let's put it all together and draw some conclusions. Looking at the four factors again, it is actually a miracle that all four have behaved optimally almost simultaneously. Yes, the positive impact from demographics has already peaked and may explain the drop in valuations since 2000 but, overall, conditions since 1981 have been extraordinarily benign, and such circumstances are not likely to be repeated in our lifetime.

Take demographics. Given the large number of boomers knocking on the 70+ door, you will ignore demographic factors at your own peril. We know that total U.S. household wealth is approx. \$84 trillion. We also know that U.S. baby boomers own 60% of the nation's wealth, so their impact on equity markets shouldn't really come as a surprise. What has been a tailwind for many years is likely to turn into a sizeable headwind in the foreseeable future.

The biggest equity buyers (the 40-49 year olds) are being outnumbered by the biggest bond buyers (the 60-69 year olds), pushing bond valuations up and equity valuations down. Importantly, that trend is likely to continue until at least the mid-2020s, which raises another question and one that I won't attempt to answer in this paper. How much of the recent strength in various bond markets should actually be attributed to QE and how much is due to demographic factors? Nobody really knows the answer to that question, but I suspect that the significance of central bank policy has been overestimated.

The other three factors could also quite conceivably turn into significant headwinds. Bond yields cannot fall much further, so that party is largely behind us. Aggregate earnings as a share of GDP are not likely to continue to expand indefinitely, as capital's share of national income has a 'nasty' habit of mean reverting to its long term average.

To complete the picture, EPS growth is not likely to continue to do better than aggregate earnings growth. I expect ageing investors to increasingly demand dividend hikes over equity buy-backs, as bonds continue to fall short of their income requirements. The trend has already begun, as you can see in chart 7.

It is therefore a much more 'sober' 10-20 years (and quite possible even longer) we have ahead of us compared to the party we just came from. It is totally unrealistic to expect a continuation of the near perfect alignment of those important factors that we have enjoyed since 1981.

All of this has (at least) three major capital market implications:

- a. Equities are not likely to bail out all those investors who are in the process of moving significant parts of their portfolio from bonds to equities in search of higher returns than bonds can offer at present.
- b. The significant flow of equity capital from active to passive mandates that is ongoing, could quite possibly happen at exactly the wrong time.
- c. Many of those investors piling into alternative investments at present go into strategies with an equity 'edge' (such as the biggest of them all - equity long/short) and, as a result, are likely to suffer from the same low return environment as long-only equities. This will be further aggravated by the higher fee structure amongst alternative investment managers.

Finally, I should point out that, going forward, equity markets are likely to have a much bigger impact on the economy than has been the case in the past. This is a simple conclusion derived from the fact that total equity market value today is 1.2x GDP. 35 years ago, when we entered the great bull market, total equity market value was only 0.4x GDP (the numbers are U.S.). No wonder the financial collapse in 2008 had such a dramatic effect on the economy.

I am running out of space. Which investment strategies are most (and least) appropriate in the sort of return environment we are expecting is the subject of the next Absolute Return Letter.

#### [An afterword](#)

As a consequence of the above, this month we have added two structural trends to our list of non-cyclical trends which are likely to impact capital markets for years to come:

1. Capital's share of national income to mean revert over the next couple of decades.
2. Share buy-back programmes to diminish in size as ageing investors demand higher incomes.

Both are likely to have a meaningful impact on equity returns but neither should have a dramatic effect on bond yields. The first may impact overall equity performance negatively and could result in significantly lower equity returns than those we have grown accustomed to over the past 35 years, but will not necessarily result in negative equity returns overall.

The second trend may not have a significant effect on overall equity returns but should drive investor demand towards dividend paying companies.

***Niels C. Jensen***

***7 April 2015***

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## Absolute Return Letter contributors:

<b>Niels C. Jensen</b>	<a href="mailto:nj@arpinvestments.com">nj@arpinvestments.com</a>	Tel +44 20 8939 2901
<b>Gerard Ifill-Williams</b>	<a href="mailto:giw@arpinvestments.com">giw@arpinvestments.com</a>	Tel +44 20 8939 2902
<b>Nick Rees</b>	<a href="mailto:nr@arpinvestments.com">nr@arpinvestments.com</a>	Tel +44 20 8939 2903
<b>Tricia Ward</b>	<a href="mailto:tw@arpinvestments.com">tw@arpinvestments.com</a>	Tel +44 20 8939 2906