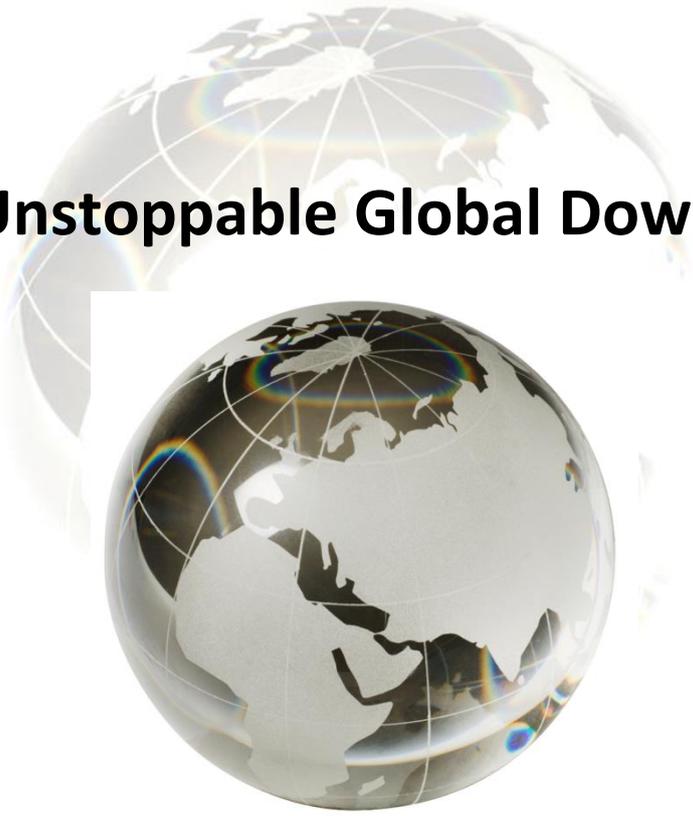


Profiting from lower growth and increased volatility  
The new normal.



## The Unstoppable Global Down-Shift

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## GDP Growth = Worker Population Growth + Productivity Growth

**The two core drivers of GDP growth have down-shifted in a decade's long next stage of economic evolution.** Workforce growth and productivity growth are now much lower, with one virtually irreversible. This means lower GDP growth ahead, almost *everywhere* long term. In turn, earnings per share will be driven down as a result. Average equity investment returns will thus drift lower. The first driver, demographics, has moved into an unstoppable new phase of decline. The second driver, productivity has stalled. Fiscal and monetary policies are not cures. Should a new boost to global productivity appear, it will not be enough to compensate for the first drivers' irreversible decline.

**This downshift was set in motion over 20 years ago, the nature of which takes this long to be felt.** Its eventual emergence was masked by the simultaneous event of the last market bubble - The GFC, popping at the same time. Central bank, political and industry responses have since been focused solely on the GFC.

**Eight years of global effort has only kicked the problem down the road, creating a far larger one.** This goes a long way to explain why all efforts to re-boot economic growth to previous post WWII levels has by and large failed - even after the extreme actions of quantitative easing and negative real rates being applied. Similarly, increased fiscal spending, nationalism and anti-globalisation measures will fail to reboot prosperity to past levels of performance.

**The down-shift extrapolates into lower economic growth** as our 'new normal'. Remove China's short term excess growth from global GDP figures (making up 1/3rd of the figure) and its already present. Included, it barely meets the average.

**Not all boats will float on the next rising tide!** Moving ahead, only certain industries and countries will be able to generate the average long term equity returns enjoyed for the last 30 years. Overall, markets will post lower than previous return averages but with increased volatility. These profound changes will need to be understood and exploited if investor expectations and needs are to be met. In the next 5-10 years, false starts and failed economic responses will create social upheaval and market volatility. To avoid much of the pain and tap into where strong growth will exist requires a re-think of such things as investment selection, asset allocation processes, base portfolio assumptions and new ways to manage risk.

**The inevitable human and organisational behavioural responses** mean that politicians, industries, central banks, economists, fund managers and companies will not all move together, nor with logic or with successful actions. Some will move too early, others too late and many will dither in the middle of deniability. Many responses will fail.

**Fortifying retail investor portfolios against these events will be crucial.** The global GDP downshift means investor returns will also lower jeopardising financial longevity and security. This is not an 'event' like the GFC, rather a new phase of man's economic evolution. Understanding what drives GDP and how these factors have changed is needed to properly prepare for a new future of investing.

Majority of higher growth will centre on developing nations. Our success will be dependent on theirs. Technology is impacting faster, wider and deeper than we believe.

Mature economies are moving into low growth/ decline phase. Power shifting and anti-globalism along with failed economic responses will result in severe volatility and disruption to markets and economies.

This change in phase of economic evolution explains why the world is not bouncing back to pre-GFC norms. Globalism or government policy are neither cause nor cure.

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### Source of information and data

We have sourced data and observations (and at times inspiration) from a variety of global sources expert in their fields. We gratefully acknowledge each institution. The Japan Ministry of Health Labour and Welfare, The OECD, The World Bank, The United Nations, UNICEF, The CIA, The International Monetary Fund, Econo Weekly, Maersk Group, Monetary Authority of Singapore, Standard and Poors, Australian Bureau of Statistics, IBS, Russell Investments, Morningstar Research, UBS, Business Insider, Insync Funds Management, BIS, The ASX, Standard & Poor's Corp, Investopedia -K Michaels, Haver Analytics, Yardeni Research and Gap Minder. (We ignored Donald Trump's tweets). A big acknowledgment of thanks to the late Hans Rosling whom opened our eyes to the reality of the world today!

# 1. Executive Summary

The GFC cloaked a much more profound and irreversible down-shift that is impacting investment returns, necessitating a re-think in allocating money to best protect capital and in building income for the decades ahead. This has even bigger implications for nations, but our focus is its impact on investing. About the time of the GFC, the world experienced its first fallout from a turning point on worker population growth. Caught in a pincer movement between falling birth rates and growth in aging populations, global GDP is foundering. Naturally this impacts investment returns.

Nations and organisations will eventually recognise then respond to this new normal, but it will take a long time before then figuring out how best to do so. In itself this will cause volatility, unexpected outcomes and disappointment. This paper will not revisit well covered ground on debt, risks to the global system, concentration of wealth and the like. This is not to say these other issues are not important for investors, because they are. Our focus is on the juggernauts driving medium to long term future growth. Shrinking workforces and flattening productivity. Equities will struggle to average the returns enjoyed to date across entire indices across developed nations. In shorter time frames we may experience better than average returns. Like building a wall to stop an ever advancing glacier however, the result over time is inevitable.

## 18 key points you need to know.

1. **Fewer workers are creating a downshift of GDP growth** well below what we have enjoyed since WWII. This is an essential driver for GDP growth.
2. **Studying all periods of data where decade long growth occurred since WWII**, there are very few instances where growth has exceeded 3% (and almost never in excess of 6%) for any nation without minimums of 2% p.a. growth in each of *workforce growth* and *productivity growth*. Today, no large or developed nation has anywhere near these base requirements. The result HAS TO BE lower average growth longer term.
3. **When growth was achieved** they were few in number and due to one-off events. China is one right now and is pulling out all stops to prolong its end. There are no others on the horizon.
4. **Productivity** – is the second essential growth driver. Presently at a historical low of around 2% this is also a third off its post WWII trend. Nothing is in sight to indicate a change up; only down or flat.
5. **The two essential growth drivers have thus fallen dramatically**; workforce growth plunging to zero or less for developed nations (including China and India), and not much better in most other developing nations.
6. **Corporate earnings and thus average equity returns will eventually fall in response**. This does not mean an end to cycles or bouts of irrational exuberance (such as the equity bull-run we are presently experiencing), or one off events (franking credit introduction & Trumps profit repatriation). There will be sectors and regions that will not move down, but these are represented in places that investment allocation and strategies are not focused on.
7. **Irreversible demographics** mean the world is having fewer babies and people are living longer. This was set in motion over 20 years ago as we halved severe poverty and it's still falling.
8. **The facts of the matter are that even if world leaders could wave a magic wand** and restore birth rates above the replacement rate globally, it would take 25 years before a positive impact would be felt.
9. **As nations develop better transport, basic health and women receive better rights**, unstoppable demographic change occurs (fewer children per family and longer lives) irrespective of race, culture or religion! This may surprise. The world of human development is entering its next mega phase of development.

10. **All major developed nations have declining workforces** and are also suffering flat productivity growth. This is a more powerful negative force than short term pump-priming of easy cash, fiscal spending and cheap debt can counter. Retreating into nationalistic policies or blaming previous governments will fail to produce a reversal (Wall building, anti-globalisation, a distrust of 'others' and blaming them for our own woes, will further impede growth).
11. **Singular nations can create a buffer against this trend via immigration medium term.** They cannot be inoculated entirely from slowing growth globally as such actions are a zero sum game outcome. Ironically, the anti-immigration feelings in the Australian community endanger the only thing keeping Australia performing at minimum levels.
12. **Australia faces a high risk of a slowdown** due to its over-reliance on China's continuing ability to avoid economic repercussions of its slowing high growth phase (and the market's reluctance to see the writing on the wall). Our own industrial base is poorly positioned for an altered global economic future. It remains heavily skewed to nations with permanent slow growth (and the big but high risk exception- China). We're overweight to maturing industries with falling earnings, whilst ignoring others on our doorstep with big futures. Successive governments continue to dither in setting a new course and vision for the nation's future.
13. **As global institutions and governments focus on only one of the two issues** (The GFC) economies are still not responding as hoped for. Frustration and a dogmatic assumption as to the full cause have engendered a 'doubling down' of current strategies. This only increases and creates new risks to economies, the financial system and investors.
14. **An obvious short term outcome for investors has been asset bubbles**, especially in real estate and in rising equity prices. Abundant cheap funds, sound employment and any hint of good news drives a market wildly upwards. Pricing of risk has all but disappeared.
15. **Meanwhile the weight of funds** from superannuation inflows and Bond markets (trillions moved in the last quarter of 2016 alone) into both index funds and 'index hugging' active funds similarly drive up valuations on equities to become a self-fulfilling proposition (bubble mania). No wonder most active value managers or those that hug indexes are not outperforming the indexes after fees!
16. **Little has changed with advice licensees in response.** No concerted action or thought to;
  - a. **Review where and how client portfolios are positioned** to adapt to where decent returns exist. This will be required if clients are to sustain retirements they have come to expect and indeed have been incorporated into their financial plans. It heralds a departure from long held investment assumptions and orthodoxies (e.g. Balanced Portfolio Theory).
  - b. **Only scant evidence of firms broadly preparing portfolios for sharp long lasting corrections.** Nor do we see much development of holistic risk strategies. We expect, just like what occurred during the GFC, hundreds of thousands of Mum and Dad investors are unnecessarily exposed to risk, loss and hard times- as too will advisers.
17. **Investors and advisers can however adapt** and alter their perspective and actions to;
  - **Shield themselves from the worst manifestations** of global risks devastating their savings and security
  - **Pursue the regions and sectors of economies that are positioned well** (and avoid the worst).

**18. This requires a different approach and a re-think to;**

- a. **Asset allocation** , style blending and a 'look forward' approach (not only historical)
- b. **Bias to strategies that pursue growth where demographics are sound** and benchmark unaware returns.
- c. **Reconsider the bias to domestic equities outside any income drivers.**
- d. **Benchmark weightings moving to low cost index vehicles** (away from benchmark hugging active managers), and overall index allocations ALSO being reduced.
- e. **Risk management techniques that incorporate actions of fund managers** utilised to shield investors from the worst down-sides of market volatility and catastrophe.

**Local headwinds against a successful response for investor clients:**

- **Our actions as humans are based** on *opinions* emanating from *attitudes* that stem from *beliefs* that were mostly formed pre-1980s. Most of what we *assume* the world to be composed of demographically is accurate if only it was still 1975 (our educational institutions reinforce this and media are unwitting reinforcers).
- **Institutional ownership** of advice licensees naturally favours orthodoxy with little strategic thought from management. Instead this is left to research technicians. Further compliance and regulatory systems drive management into a narrow focus, resulting in herd like mentality driven by their own commercial necessity. There is little personal/group benefit for those involved to challenge this paradigm.
- **Advice firms are mostly under prepared** at a portfolio level for another catastrophic investor event. It seems very little has been done in learning from the GFC. Risk management is under developed relying mainly on now disproven Balanced Portfolio Theory and the intuitive views the adviser has on how much cash should be held.
- **Today markets are booming.** Humans find it hard to move against their immediate state of comfort.
- **Fund Managers will chase a dollar hard.** This means big risks at times are often taken. Additionally most larger managers have brand and shareholder priorities resulting in hugging benchmarks for the safety of the flock, that rarely benefits investors.
- **They know support is gained by either distribution control or by being a 'chart topper'.** Both have large negative consequences to investors.
- **By nature the advice industry is conservative in its thinking.** Paradoxically this has inadvertently created a non-conservative and risky outcomes for clients whom rely on it.
- **Most researchers are bound by the past (and their own business model) creating dangerous biases. This acts as a choke point on innovation.** Most thinking emanates from wholesale market investor needs- not always sound for retail investors. As management also is not applying the required skill either, this leaves advisers in a precarious position.
- **Nearly all advisers still chase 'chart toppers' driven by past absolute performance.** Facts prove this. Plot funds flow and performances and you will see very high correlations. Fund Managers respond accordingly

**Investors and advisers must acknowledge this global downshift, then leverage the opportunities whilst employing sensible risk management for a secure future .**

## 2. Introduction:

The next phase of economic evolution has begun and with this a change to where and how returns and risks will present themselves to investors. The past base assumptions used to calculate both have forever altered. Today's reality is different to our present beliefs (being built on facts of the past).

**2.1 Globally growth is stalling. Why is this?** The focus of this paper is on the Why, What, and How it occurred and importantly; how investors can adapt successfully. Almost all government and central bank policy responses, along with academic and economic thought, falls in lock step with this GFC centric assumption. In response policy measures are aimed at solving a GFC created enduring problem only. Could we be focused on trying to solve the wrong problem now that we are well past the GFC?

### What if there were TWO events occurring simultaneously and we missed the second?

**The reality is that these policy measures have not worked all that well.** Growth remains subdued at best globally. The last 8 years of monetary policy has not removed the enduring problem of low growth (for a world that expects and is counting on more). The Red Indian proverb of "strapping another dead horse to ones' current dead horse will not improve things" rings familiar.

**This is causing global distortions across economies in both real and financial assets.** Growth remains stubbornly low and markets 'brittle', easily spooked at the first sign of reality or fear. Market volatility has increased as a result in these uncharted times adding further uncertainty and increased risk to investors with returns dropping.

**"The Emperor has no Clothes"** .....is a useful parody to explain the world's *hopeful ignorance* on this matter. Whilst paying down debt was the necessary response initially to the GFC, and this did occur for a few years afterwards, a dramatic reversal ensued. As a result today we have real interest rates at or below zero, a massive ballooning of debt never experienced before, and the electronic printing presses generating noughts and ones as fast as possible.

**2.2 There are two major factors that are structurally impeding economies and resulting investment returns.** Work Force Population Growth and Productivity Growth. These are central to our hypothesis and are the major drivers of GDP growth. Whilst our industry generally accepts that lower returns are ahead, asset allocations, stock selection processes and manager blending remain unaltered as if nothing has changed.

### 2.3 Five things advisers need to re-evaluate.

1. **Asset allocations'** long held 'norms and assumptions' will requires a careful overhaul in equities
2. **Equity management styles**, some will be particularly exposed to negative aspects of the down-shift
3. **Managing volatility** as this will rise into the future. Especially a consideration for those in draw-down mode
4. **Style blending** across equity managers
5. **Managing risk beyond the usual.** The roll of real assets and can fund managers also do more here?

Overall many advisers may need to challenge their educational assumptions about the world and markets. Adopting a fresh approach requires one to be viewed as an outlier. The history of human endeavour is filled with more success than failure in this regard and may provide comfort for those venturing into this frame of mind. Our paper is sure to create objection as it challenges many industry norms and questions many of the foundations of how we produce investment outcomes that meet the individual investor's needs.

**2.4 Purpose of this paper: To provide investors with insight and direction.** For financial advisers the output of all this is something a little more confronting immediately to daily life. How to generate returns for clients resembling what is 'baked' into portfolio recommendations? Our investigations have shown almost all licensees base their investment returns and allocations on the same and now dangerous assumptions. Dangerous because the numbers driving these long term assumptions have shifted down. How can returns be the same? Added to this are growing risks caused by market distortions and uncertainty. Canvassing of researchers and licensees find scant evidence of significantly revaluating these risks, thus remaining bound to what we believe are now an *out of date* series of asset allocation and return assumptions unwittingly endangering investors and advisers alike.

**Our hypothesis looks at the major fundamental changes heralding the next phase of human economic development.** It explains why global growth is stalled, and why this is likely to continue trending down even further before settling at a new 'normal' irrespective of central bank/government orthodox responses.

**Further, we provide insight as to where growth (at the levels we used to experience) may still be found.** Then, implications advisers will need to acknowledge, and finally the adjustments required for investors to profit. We provide our own response to this challenge and provide a worked illustration of a hypothetical typical client- *the retiree*. We shine new light on the unseen negative consequence of how top ranking funds in performance tables do not always correlate with better investor results in their hip-pockets.

**Overall, rather than commentary, we aim to deliver insight and an *alternative view*** that we hope others will both add to and challenge in the spirit of seeking solutions that deliver peace of mind for investors in coming decades.

### **For advisers a note of caution on one nation we are riding the bow wave of.....**

China won't save us, or drive our future prosperity to the extent we are already relying on it to do so. It has significant structural headwinds ahead and some that are well beyond the economic variety posing grave and significant threats to the Chinese regime. The old adage proclaiming 'Hope is not a strategy' is useful to remember.

Right now China is delaying the inevitable betting it can defy economic gravity and kick the proverbial can down the road some more. We will examine China in further detail given its significant impact. Negative changes China experiences will usually impact Australia's wellbeing too. Australian investors will need to look elsewhere to lessen risks and better ensure a smoother pathway for decent equity returns beyond the ASX.

**2.5 Insync's position with this white paper.** Our position is neither from an Optimist's view nor of the Pessimist. We are Realists, open to the facts irrespective of what sacred cows, confronting scenarios and uncomfortable outcomes this produces. In seeking confirmation of the GFC as the major cause of lower returns and poorer performing economies, we stumbled upon a larger and longer lasting driver.

Knowing *all* the strategic drivers of equity returns is important to structuring investment portfolios for above average long term performance, and managing downside risk. We expect that portions of this paper and many of its facts and assertions will challenge traditional assumptions and thinking. We welcome respectful intellectual challenge.

Our assertions do not predict movements of markets, prices or returns over *shorter* time periods (less than 3 years). Indeed equity performance and economics decouple in shorter time periods. Rather *longer* term trends and larger influences with equities for the long haul is our focus. In the *short term* however our findings suggest increased volatility of prices and also for short term actions!

We are not 'bears' on markets just because we see real threats others have not. Bear and Bull runs as well as cycles will continue, but as they do, numbers will trend downwards with entire mature industries facing sustained declining return prospects.

**Let's now begin at where the world actually is today, in areas you may not have thought all that much about.....**

## 3. World events impacting investments.

Today's world has many features that we have not witnessed before, and in critical areas are profoundly different to the past. Collectively they are the dominant shapers of future investor returns.

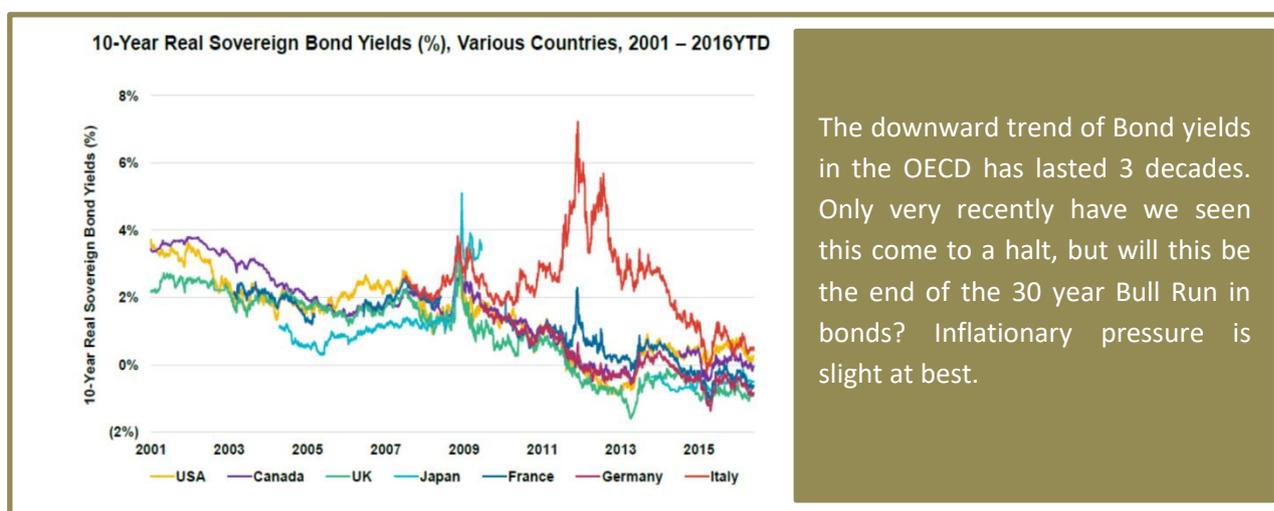
**3.1 Income disparity** is increasing in developed nations to very high levels of concentration where the most is held by the least. At the same time the majority of the population however still wakes up each morning with a roof, food, a job, health, comforts and the belief that their aspirations for a better life are still achievable. By example, three decades ago the top 0.1% of the USA population owned just 9% of the nations' wealth. This has ballooned to around 22% today. In 2011 the top 1% controlled over 40% of national wealth but has grown much further since. This situation is played out the world over, especially in OECD nations since around 1980. Technological advances are compounding this in industries where wealth ownership and worker numbers are both concentrated and small. The technology industry itself is the lead example.

**3.2 World Severe Poverty has halved.** This amazing positive event has been achieved in under 30 years, yet has never received the global acclaim and attention it deserves. Billions of people are now beyond misery and virtual slavery. Rising incomes and basic levels of food, shelter and health are growing. The 'middle income world' is exploding in number by hundreds of millions. Our industry may have focused on some of its obvious benefits but has dangerously ignored structurally negative ones.

**3.3 There is no 'Third World' anymore** (except Africa). Most beliefs and views we have of what was known as the Third World is accurate, but only if this was still 1975. Almost all macro factors and statistics have changed markedly. Vietnam for example now has a higher life expectancy than the USA. Inside the next 8 years, almost half of global consumption will occur outside the developed world. Yet the thoughts and assumptions of politicians, commentators, economists, world organisations and the media are based on a paradigm that changed long ago.

**Action:** The best way to discover more about these profound changes is to tune into the famous, entertaining and highly factual 18 minute TED Talk by the world's most profound demographer, **Hans Rosling**. He has many presentations but start with "The best stats you've ever seen". Watch it now on YouTube.

**3.4 Interest rates:** Until recently it was unthinkable the advent of zero real rates and in some nations, negative real rates, would be the new norm. Can you recall a previous time when central bankers actually talked aggressively about trying to boost inflation? How times change, yet hoped for results have not transpired. At best it has simply delayed and magnified the underlying issue that remains unaddressed, creating new and imposing headaches generating new and larger systemic risks.



**3.5 Liquidity:** The world is awash in digital cash sloshing around looking for a home, distorting both financial and real assets alike. In the USA alone corporations are sitting on **Trillions of dollars** in cash deposits, even after almost exhausting shareholder buy-backs and pumping up dividends. China and Europe the same. Until 6 years ago, had you heard the term QEII, one would immediately think of the Queen or that gracious Cunard ocean liner. Now we may be staring at QEIII and beyond like a bad series of Die Hard movies.

**3.6 No real wage growth for over a decade.** At least to those that count- the working and middle classes. Nearly all developed nations. What must be remembered is that whilst real wage growth is mostly absent, the cost of most daily goods and services have also fallen, behaving as an offset preserving lifestyles. Easy consumer credit has also offset the impact.

**Consider these statistics in the USA as one example;** Food in 1950 consumed one third of household income. In 2013 it accounted for only 13%. The same for housing, energy, and household goods (electronics, clothing, furniture and appliances). Even imports from China have seen their price fall by 2% p.a. for the last 3 years. For services the result is mixed. Education is rising faster than inflation, not a good result if a nation is to stay ahead of the game. Healthcare overall after subsidies, has not grown its share of household expenditure which will surprise many (its problems fixable by government). Communications and transport has fallen in cost and share of household income.

Lately wage growth is making a reappearance in the USA due to full employment. This will help markets but is achieved at the expense of rising inflation - the workers' and retiree's enemy.

**3.7 Governments are finding their social security obligations moving beyond their ability to deliver.** This year saw key western European nations declare unfunded liabilities exceed their ability to bridge shortfalls. Public and private sector funds in the USA are in the same boat- many face insolvency. Australia and the UK along with nearly all OECD nations face similar prospects. World-wide governments have limited policy tools to stave off the inevitable.

1. Raise the age of retirement,
2. Increase taxation,
3. Tighten eligibility
4. Pay out less.

Of course benefits will end up being wound back and universal entitlement will diminish along with tax benefits (Australia has witnessed all three in the last 20 years and this will intensify). This is an immense global problem which includes China who has more than two thirds of its aging population without adequate pension or health support or funding. The ratio is worsening.

**Otto Von Bismarck invented the retirement pension** in the late 1800s. A reward for service over a lifetime of work in Germany, and payable for just 5 years once you reached 65, a time when life expectancy was in the late 50's. Not a hard government promise to be able to keep.

Fast forward to today and we warped its construct terribly. No wonder we have ballooning liabilities requiring longer funding by fewer people, for more recipients. England furthered the concept of the Welfare state in the years after WWII, something which all Europe embraced generously. However funding it now is problematic. Politically it will most likely have to crash, creating devastation before any real action is taken politically (think Greece).

**3.8 Global trade is slowing and commodity prices are flat** (due to reduced demand), some at lows not seen in decades. This is already a trend before any lunatics run the political asylums in France, the UK or the USA to name just a few. Nationalism will only accelerate matters harming constituents of these policies and offsetting any shorter term gains. Some examples of economic 'canaries in the mine'- Mearsk + Sinagpore.....

**Container movements:** Maersk, the world’s biggest goods carrier and port operator, serves as a bellwether on trade. Profits plunged 95% over last quarter (March 2016). Whilst container growth was at a paltry 1%, supply growth stood at 7%. Container movements globally have been in decline for some time now. Oil shipping was of course worse as well. As Soren Skou the CEO stated recently, “We improved our financial performance compared to the fourth quarter in 2015..... In a market with record low freight rates, we won market share, drove down cost and continued to deliver positive free cash flow.” So cuts are made, efficiencies lift, sell-offs, prices drop and demand slows. A 95% drop in a profit still results. Where to next for its shareholders and many firms like it?

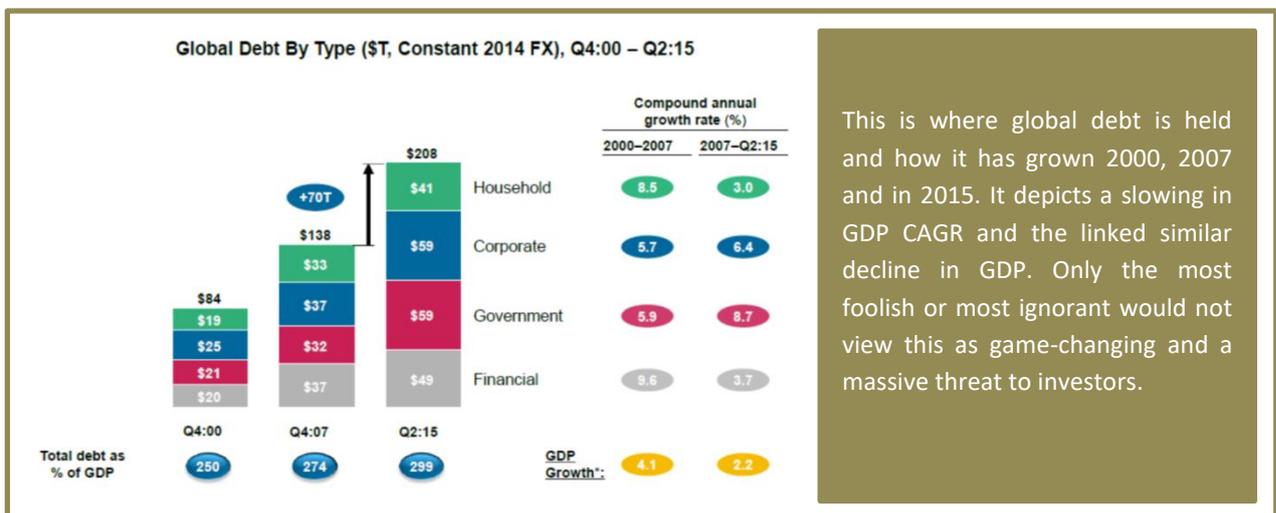


**Trading Hubs, Singapore:** A nation reliant on trade and one of the world’s biggest and most successful centred on the engine room of global growth – Asia. Goods between the USA, Europe and of course China are its big clients. For the first time in over 4 years trade and container movements are declining every month and at times exceed -15% (to October 2016). Oil (of which Singapore is a major hub and refiner) is in similar circumstances. The world is consuming less energy and is trading less. With less trade comes less growth. Singapore GDP is contracting rapidly as recession becomes an inevitability



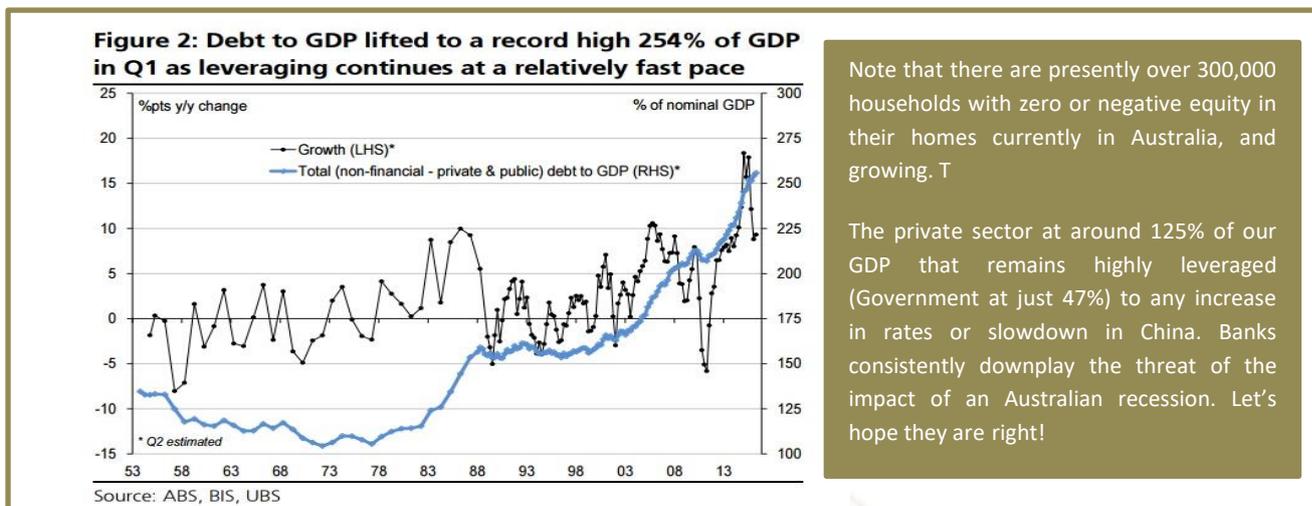
**3.9 \$70 Trillion USD created since the GFC:** as central banks flooded the system with funds. Cheap funding has distorted asset prices globally and aided corporations in maintaining dividends and shareholder buy-backs. At a certain point however companies hit a ‘saturation point’ of debt and it begins to hobble performance. The reporting season just ended may well be one of the last where a majority of firms report results and declaring dividends as if nothing has happened to their underlying markets. Only two choices face a corporation when facing eventual debt saturation; either let inflation devalue it (with inflation at record lows this is not likely) or pay it down to restore balance sheets impacting profits and dividends in the shorter term.

**China as an example has debt in excess of 270% of GDP** (catastrophic for other nations and dangerous for emerging nations to hold). Its government is caught in a trap to either let this continue or pull back credit growth with equally hurtful short term impacts to it and the world at large. China’s credit growth rate is double its GDP growth a fact now alarming global rating agencies (i.e. debt is not converting into growth as much of this debt has been diverted into real estate speculation/asset bubbles). Capital controls are thus tightening, pressuring their currency to devalue.



This is where global debt is held and how it has grown 2000, 2007 and in 2015. It depicts a slowing in GDP CAGR and the linked similar decline in GDP. Only the most foolish or most ignorant would not view this as game-changing and a massive threat to investors.

**Australian total debt also stands above 250% of GDP** and growing at rates well beyond economic growth. Unlike most other nations, it is private sector debt that is ballooning occupying the biggest piece of the debt pie. In fact it ranks in the top 3 nations in private sector debt growth as well. As UBS recently stated; “Notably, household wealth (i.e. assets less debt) actually fell in Q1 (2016), which is consistent with a fading of the wealth effect.”



**3.10 Australian companies fail by and large to thrive globally.** (Ex- resources due to their very nature).

With low growth inside Australia and with its major trading partners we are vulnerable to the global downshift. Capital allocations are unwisely invested for long term gains. For example Australian companies have invested twice as much in dollar terms in New Zealand, a tiny nation of just 4.5 million, to that of its other neighbour, Indonesia has 250 million growing at 6% p.a. GDP (Its middle income population greater than the population of Australia).

Our trading figures with Indonesia are miniscule. Cultural bias remains the unspoken issue within the boardrooms of the nation's business and political leaders. We fail to support and launch our wonderful talent and innovation onto the global stage across technology, science and medicine to name but a few. When ANZ embarked on a decade's long strategy to become a regional player in the only rising region in the world, Asia, institutional analysts repeatedly punished the stock. It rewarded its board for a short termed focused about face by its new CEO to retreat locally into a low growth economy, albeit an oligopoly it enjoys.

**3.11 Since WWII worker growth was 2% p.a. From 1990 it halved!** Whilst world population will rise

by another 2.5 billion by 2050 before falling, it's not a rising population that is the world's problem. This growth is driven not by babies but by grandparents. This produces a massive slow-down in young workers entering the workforce as a ratio and as a total number. It is this segment that is most crucial to global GDP growth and it is caught in a 'pincer' movement of low birth rates and an aging population. Very little can be done about it for the foreseeable future (the next 20 years at least). Great news for the planet on resource consumption and for food supplies (retirees consume roughly one third less calories than a worker); but terrible for global growth.

**3.12 Global productivity has stalled:** After many decades of constant productivity growth at rates of 3%+ its

slowing (and has been for more than 10 years). A massive productivity boost globally occurred when women entered the workforce in vast numbers in the eighties. Japan's long term failure to get its female population working has held it in recession since the 1990s. Female participation globally reached its peak in 1990 at 57% but is now actually falling (currently 55%). The OECD estimates if member states eliminated the gender gap in work-force participation, their GDPs would rise 12% over the next 15 years.

**USA productivity is stalled at just 2%.** It has been in decline since before 2000 irrespective of who is in the White House. No large economies are enjoying rates all that different and are often worse. Technological leaps forward have been a key driver in developed nations' productivity growth. This has slowed in the last 20 odd years and where it has manifested itself recently (the Tech sector); it benefit concentrated to a small number of individuals without broad based benefits being disbursed across populations.

**Whilst USA gains grew by over 35% from 20 years ago it all went to the top 1% of its population.** Often the impact of productivity on working populations has been negative with lowering of job security, wage growth and redundancy across whole industries and very short time periods. This latest wealth wave of our economic evolution has not 'trickled down', but has concentrated in the hands of the very few.

**Australia presently has circa 1.5% productivity growth,** this meagre amount due almost entirely to immigration, bridging the gap between replacement and actual birth rates. This is under immense community and political pressure to be reduced. Strong immigration is the exception, not the norm for developed nations as fear 'trumps' fact.

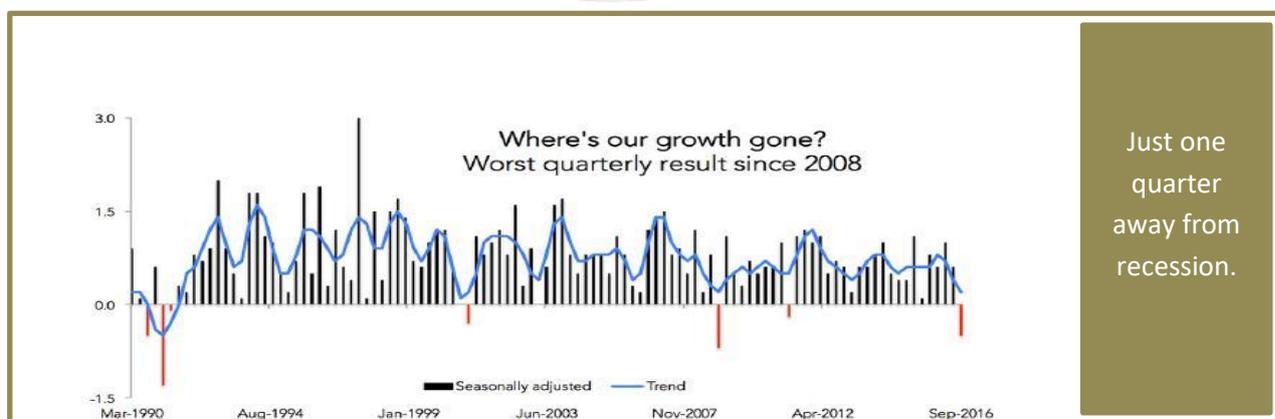
**3.13 Economists, bankers and politicians worry if growth slows.** This is because of the assumption that it is only growth that can sustain modern economies. They worry that if prices fall people will delay spending to be able to purchase the same later more cheaply. Growth has been the only path we have so far explored to attain prosperity. The world thus relies on it.

**GDP growth can also suffer from advances in innovation.** For example; lower costs from innovative technologies producing the same service more cheaply can detract from economic growth for a nation, yet it could be providing tools that greatly benefit its future prosperity (e.g. the internet, google). By and large they are not properly accounted for with current GDP calculations that bias higher input costs of production. Yet it is innovation that has produced prosperity to billions and lifted hundreds of millions more out of poverty.

GDP was an invention of US government in the 1930's as a way to measure progress out of the Great Depression. This was a time when goods, not services dominated the economy as well. Still our system and its controllers have no desire to revisit the primary measure of success and now it dominates how we think and measure success.

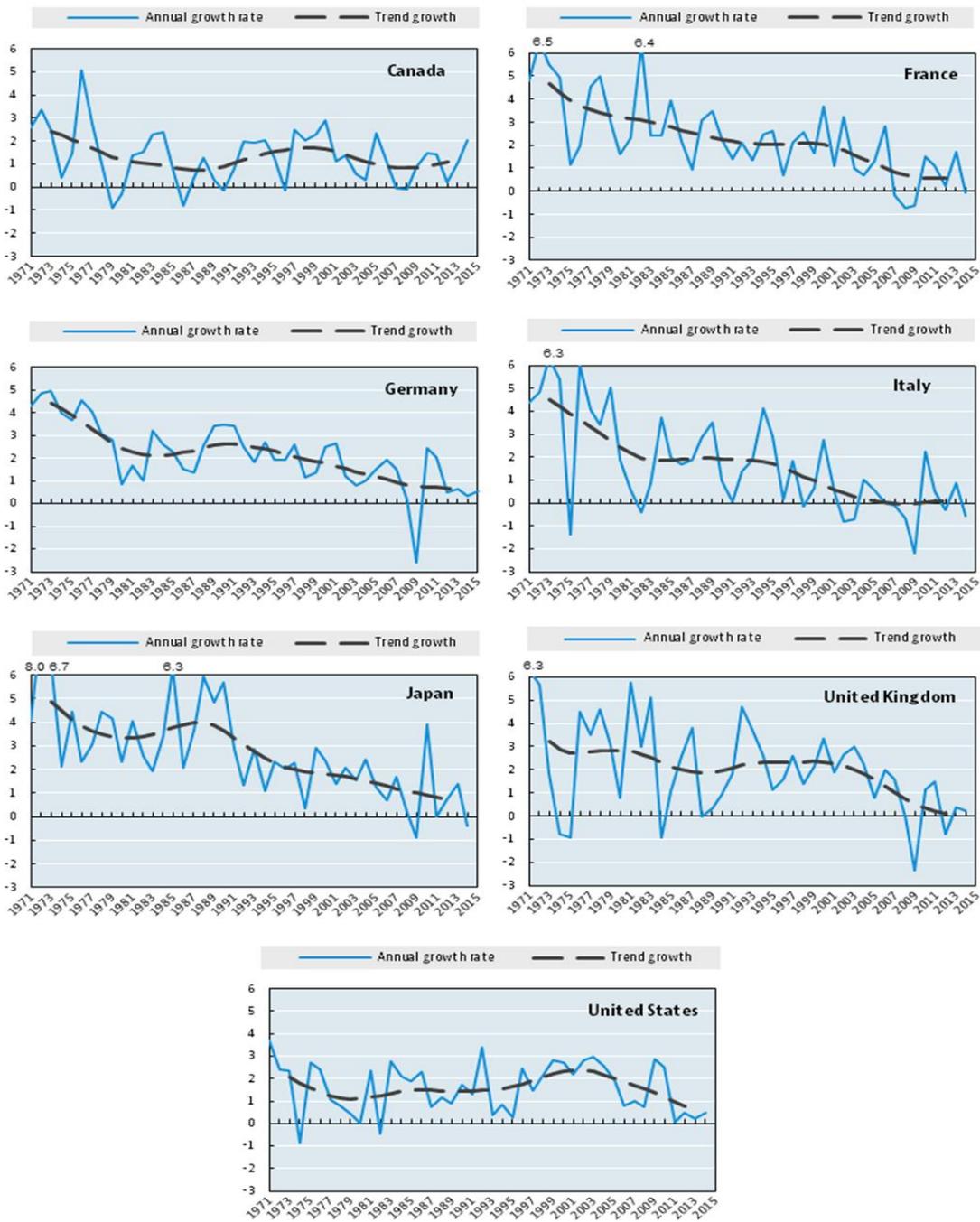
**3.14 A worsening Australian GDP.** In the most recent quarter it actually shrank by 0.5% the worst result since the GFC, and you would have to go back to the mid 90's to find a similar result before that.

This is not a random or an unexpected outcome. Australian productivity is just 1.5% and slowing. The last Quarter of 2016 it went negative. Without the mining boom propping up the economy and the squandering of the opportunity it provided to reposition and recalibrate Australia for a new future, this sort of performance will become the norm. We spent our one-off gains on unproductive things such as the continual trading of homes between Mum and Dads. The party is ending but the revellers are unaware!



**3.15 G7 productivity:** The worlds 'Country Club' members! Down, down, down since the seventies with the odd positive respite along the way (e.g. women entering the workforce, globalisation after the Cold War and the internet). The trend is clear in mature economies as the graphs below show. Many are *hoping* that new technologies will appear and lift productivity and distribute its windfall broadly without destroying middle income populations.

**Trend labour productivity growth in G7 countries**  
Average annual rate



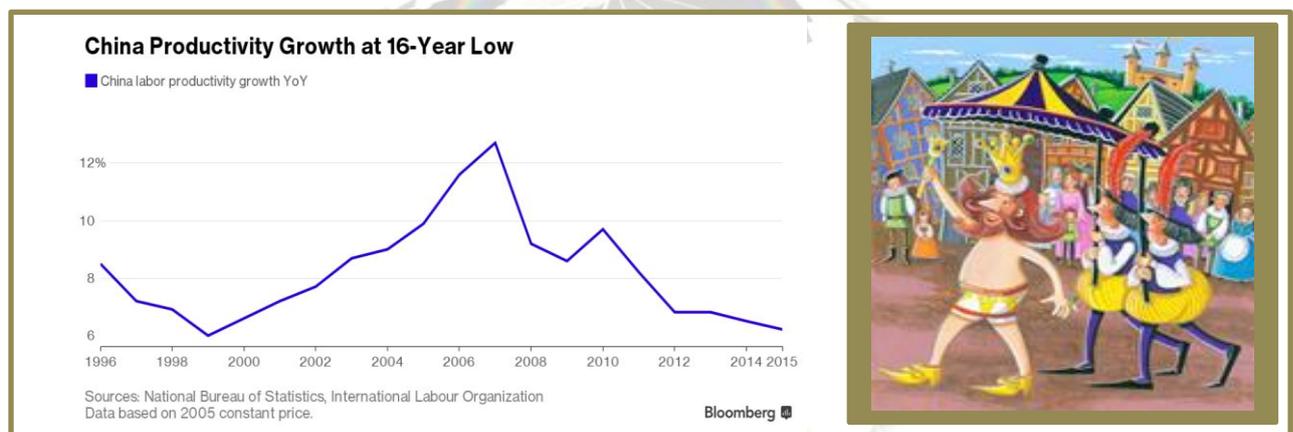
OECD Commentary 2016: “The productivity slowdown observed in recent years (as per the above graphs) has occurred at a time of rapid technological change, increasing participation of firms and countries in global value chains (GVCs), and rising education levels in the labour force, all of which are generally associated with higher productivity growth. These seemingly contradictory facts have revived the debate on whether the productivity slowdown is a transitional phenomenon, a longer term condition or a function of mismeasurement.”

“Yet, the slowdown in productivity growth is not a recent phenomenon. Indeed, it is a common feature among advanced economies, and underlying long-term trends suggest that the slowdown predates both the crisis and the current technological wave which has created the digitalised economy.”

**3.16 Inflation.** Inflation pays down debt in real terms but destroys asset values and purchasing power. However without it ballooning debt is not easily digested long term. Economic neo liberal mantra relies on the presence of inflation as it favours central banks. They are doing all they can to regenerate inflation, even to the extent of punishing depositors and banks alike for hoarding excess cash governments created. These measures have failed to stimulate growth. Simply put, businesses cannot see growth in their markets even with low cost debt and easy terms. There is little prospect of inflation rising back to old long term post war levels. Australian CPI stood at just 1% (June 2016) the lowest since 1999. The RBA targets a rate of between 2-3%. This compares to the longer term average of 5.12% since 1951. Our economy suffered its greatest negative quarter recently, the worst since the GFC. Hardly the back drop for rising inflation.

**3.17 Perhaps Australia’s long depended on saviour is different?**

Most pundits view China as a massive advancing machine seemingly operating beyond the usual economic realities all other countries are bound by and thus being unstoppable in its above system growth rates. Indeed as it makes up one third of global GDP growth, all the world is relying heavily on it to continue. This goes some way to explain why most investors and governments are wishfully turning a collective blind eye to not just the current economic storms brewing there such as ballooning debt, but also to the structural shifts already in motion. *Could the Emperor have no clothes?*



**China faces massive structural and political hurdles** to sustain the initial surge it has enjoyed since opening up its economy and industrialising (a one-off event). The same goes for the structural imbalances present in its economy today. In its imperative to move from an export led economy to that of consumption based, the head winds of low productivity must be overcome if this is to be achieved (it can’t reverse its negative workforce growth for the next 25 years). Until recently wages grew to the extent that China lost its competitive export edge compared to other emerging nations. This internally focused consumption led economic shift is therefore essential. How can this be done without a massive political threat emanating from underemployment, or its debt problem catching up to reality? These are just two challenges.

**China’s growth is slowing and whilst ‘officially’ it’s around 6%** the likelihood is that it is lower, as government statistics in key areas are often questionable. At some point real estate and infrastructure oversupply their bubbles will cease being funded or come home to roost savagely. Government continues to ‘kick the can down the road’ and rely on debt binges (and more infrastructure spends) to patch over the problem to prop up prosperity. Allowing its currency to drift lower and new draconian capital controls are further measures to stave off the slow down occurring too soon/too fast. Volatility, uncertainty and calamities are likely. Shocks to the global financial system will result from fiscal calamity inside China.

Technology means hours and days to spread. In the real economy hits to trade, resource demand, consumer consumption and growth overall are some of the impacts and risks. China is already breaching the bounds of reality in fiscal solutions and has little room to move with monetary or fiscal policy levers. Perhaps its government can ‘invent’ new solutions to avoid any of these events from occurring. **For Australia this threat is a clear and a present danger.**

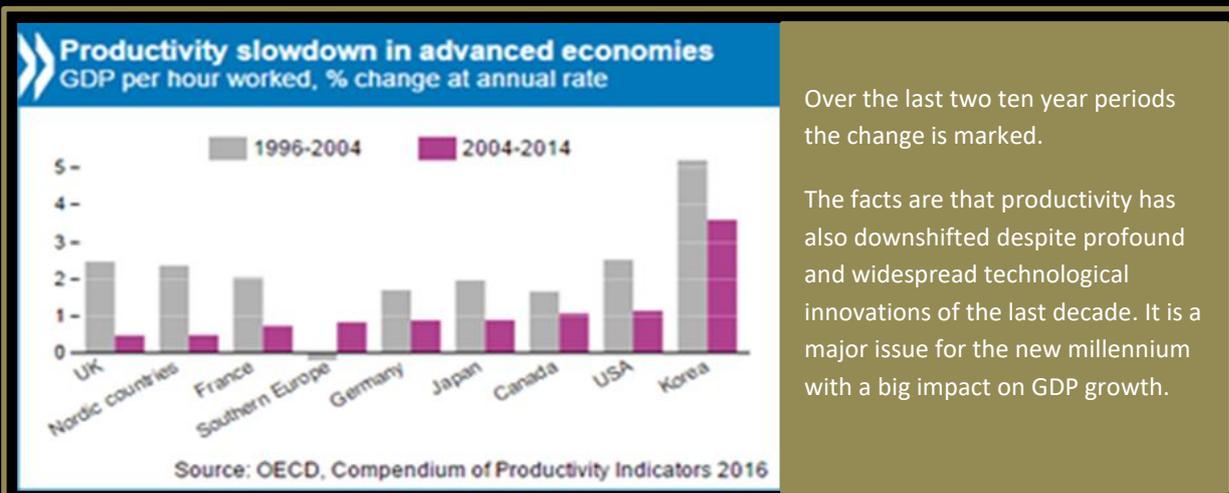
**3.18 Emerging economies:** As an emerging economy assembles a series of pre-requisite economic foundations, such as rule-of-law and the like, they experience a short-term surge in *per labour unit* (ULC) GDP growth. Right now it is these economies at this point of evolution (e.g. Indonesia, Philippines, India), that are keeping global growth higher than otherwise it would be as consumption and incomes rise. Western economies would be in dire straits otherwise. Interestingly they too have falling birth rates shrinking their working populations.

Rising consumption and productivity are their bright spots *temporarily* overcoming workforce decline. But they are reliant on continued foreign capital investment that was diverted there in search of better returns than could be found in the West. The world has seen already the devastation wreaked upon them once capital takes flight (The South East Asian crisis). Young economies are often volatile and unstable, so how one goes about investing and allocating capital there is crucial for investors' income security. Investing directly into emerging market Funds may not be wise.

Even with strong growth, low national debt and rising consumption, their impact is not enough to reverse the overall declining global outcome on GDP. For as many *above the line* winners, there are *below the line* losers.

### Section 3: Summary

- **Global GDP is slowing to a new normal**, without a rebound on the near horizon.
- **Below 3% GDP growth** is the new normal globally and below 2% for developed nations.
- **We passed into this next phase around the same time as the GFC**, which given its 'big bang' nature obscured our focus on this longer lasting change to our economic system.
- **In the past something has always popped up to boost productivity**. Such an event (if it does occur) is unlikely to reverse this down-shift but may well slow it.



Over the last two ten year periods the change is marked.

The facts are that productivity has also downshifted despite profound and widespread technological innovations of the last decade. It is a major issue for the new millennium with a big impact on GDP growth.

**Conclusion:** This will impact longer term average growth rates from equities. That impact will be in a lowering of ROE, one that until the recent spike –from the USA election, is already occurring. It is likely to also change the pattern of where returns emanate from and for how long. Industry and country assumptions will require revisiting.

Investor illustrations that calculate how much needs to be accumulated for a secure future, and how much can then be drawn down, are likely to be overly optimistic in this new downshift of GDP and returns. This has driven investors in a search for yield which in itself has pushed up asset prices to alarming levels with little factoring in of a risk premium. This scenario has never ended well for investors.

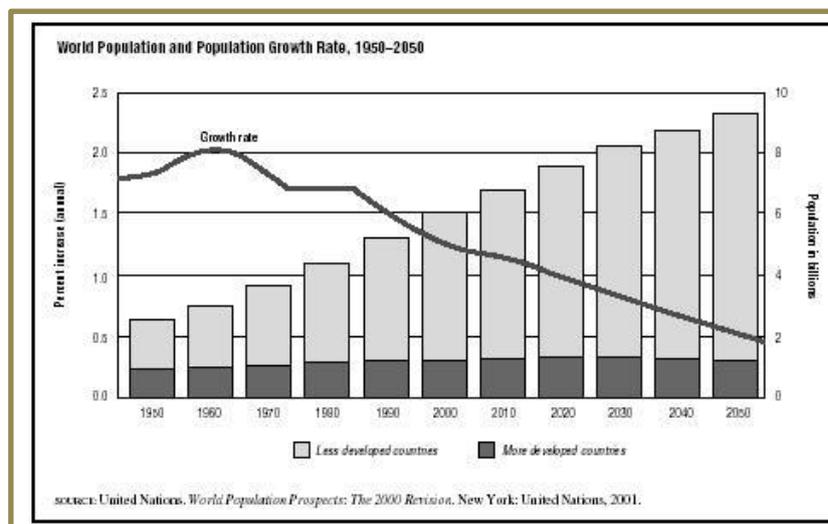
**No nation is immune- even China from a recalibration once markets sober up to the reality businesses face.**

## 4. Eleven Discoveries.... where Demographics go, GDP follows!

To understand the drivers of the structural down-shift, first consider factual reality in the globe's demographic make-up. Perhaps the most that the topic of demographics has been considered is the "Baby Boomer" phenomenon, a temporary bulge only. At least one of the below will challenge a long held belief!

**Discovery 1: World population will grow for the next 30 years** and there is little that can be done to stop this. Indeed it will grow to around 9 billion by 2050 and flattening to 10 billion by 2080 before declining. Its caused by current lives lasting longer, not new ones appearing. Presently population sits at 7.3 billion. This 1.7 billion gap is what is known as "**The Big Fill Up**" and it is already in unstoppable motion. Nothing short of a global pandemic or nuclear war will halt this growth.

**Discovery 2: World population will then decline** and there is little that can be done to stop this if societies behave as they have done for millennia. This presents a worse economic and more immediate problem than these numbers first suggest. Growth has already halved from 30 years ago.



**Action:** The simplest way to get one's head around the mathematics of the changes, again turn to Hans Rosling in a short video, utilising of all things Ikea Boxes to illustrate why. YouTube video.... "Religions and babies"

Above depicts global birth rates in systemic decline yet the population continues to grow. Why? Rising prosperity and health leading to fewer deaths and extended lives, and crucially, as less young people arrive on the planet by number (as birth rates decline) they occupy a lower share of the total population and lessen the number of future numbers of working populations.

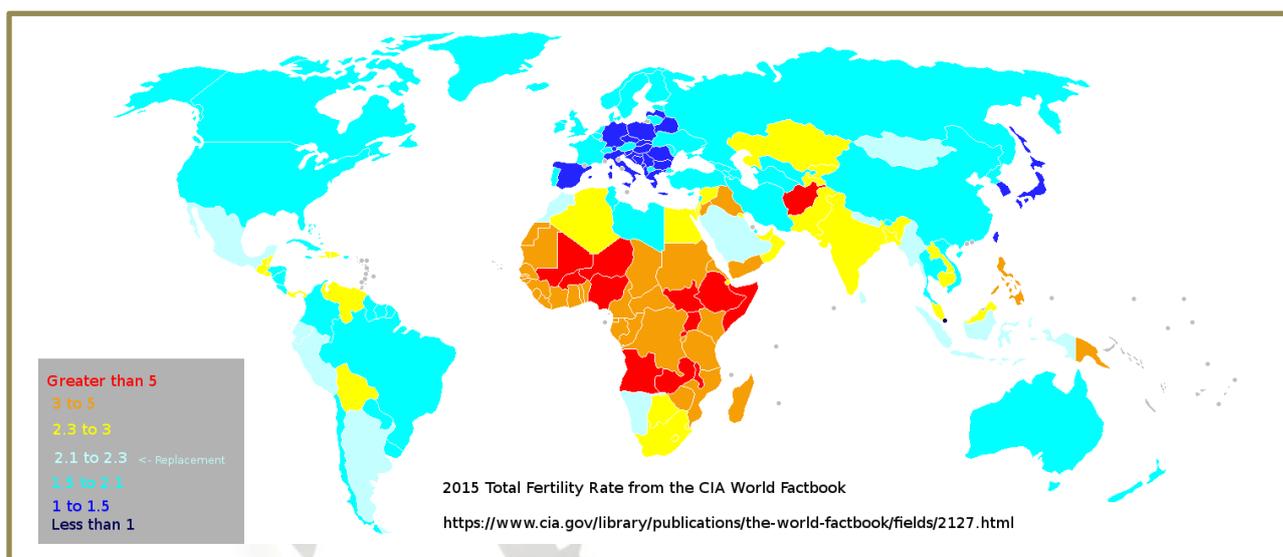
**Discovery 3: 'Peak Child' in 2011.** There will never be a year in our lifetimes where more children are born. This has profound economic growth implications. 1960 had 1 billion children below 15 years of age equalling 35% of world population. Now, we have 1.9 billion children, but they make up just 27% of world population.

In 2050 there will *still* be an estimated 1.9 billion (flat growth), but comprising only 20% of world population. The reason; 40% of the world families have less than 2 children per woman, thus compensating for the 18% that have more than 3 children per woman (most of these reside in Africa). Population replacement is 2.1 children per woman.

**Why this is a crucial statistic.....**from the early 1990's the number of new born children dropped markedly and as they reached working age, around the time of the GFC, the usual 'fill-up' of new workers into economies fell away. It wasn't noticed because all focus was on the GFC. It masked this important turning point. It also robbed the world of 1.4 billion extra workers for today that were never born. That's 1.4Bn less consumers and potential tax payers. From the USA to the Ukraine the trend is the same.

**Discovery 4: Women Rule.** When they enjoy greater social and economic opportunity, and power over their lives with improving health conditions, birth rates decline. Religion or cultural values have little impact. This may surprise many. As nations move into advanced economic status this trend continues. Improving child mortality in Africa is the key to obliterating the last bastion of remaining systemic severe world poverty declines. When this occurs families always have fewer babies.

**Discovery 5: The replacement rates below the replacement birth rate and falling.** In 1960 the birth rate globally was 4.9. In 2015 it stands at just 2.5. World population growth as a result- post war, averaged only 2%. Since 1990 it fell off a cliff to around just half of this amount. Had it not, there would now be an **additional 1.4 billion people on the planet today!** Half of all people on earth live in 83 countries where the birth rate is BELOW the replacement rate. All developed nations fit in this category.



Above we see Eastern and Mediterranean Europe along with Japan experiencing rapidly declining populations, and most others (ex-Africa) are also in decline or holding steady. This has a profound economic impact as we will see that neither government nor central bank policy initiatives can alter. It probably contributes to why they don't address it publicly.

**Some fall others rise up.** Whilst their population growth slows overall, emerging nations that dominate world population are rising out of poverty, creating new energy demands and evolving pollution problems. They also represent the world's only mega demographic driven opportunity in consumption and development. Greater focus here will be required for investors.

**Discovery 6: There is no longer an 'Us' and a 'Them'- the third world.** Demographics move at a pace that is not newsworthy and takes decades before the population acknowledges the change. This includes teachings in universities and the understanding of politicians, journalists and economists. The assumptions held by the First World are by and large out of date and by many decades. A simple example is to consider the birth rate in a country such as Bangladesh. 3.5, 4, or 4.5?

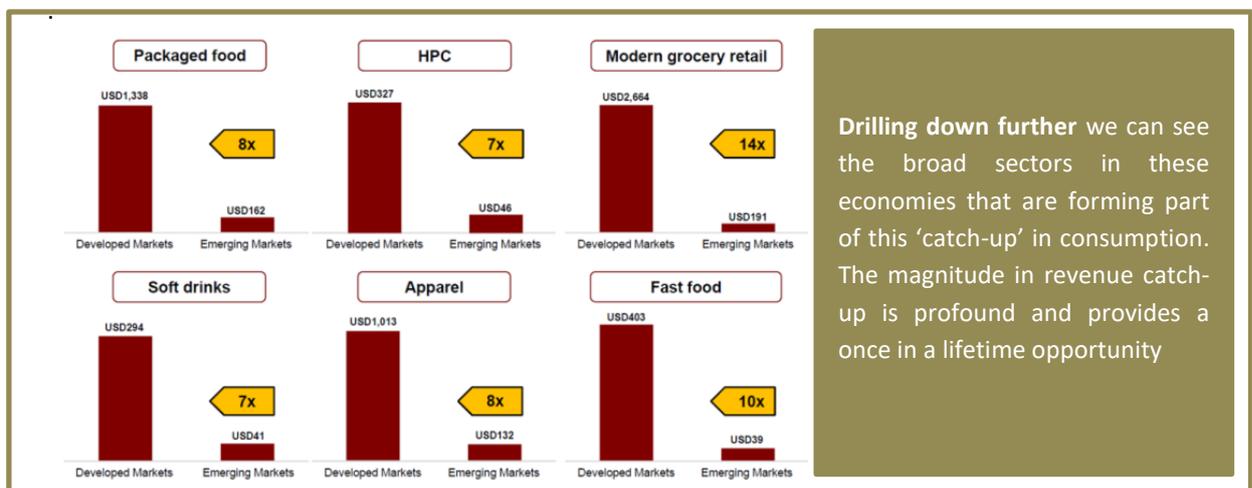
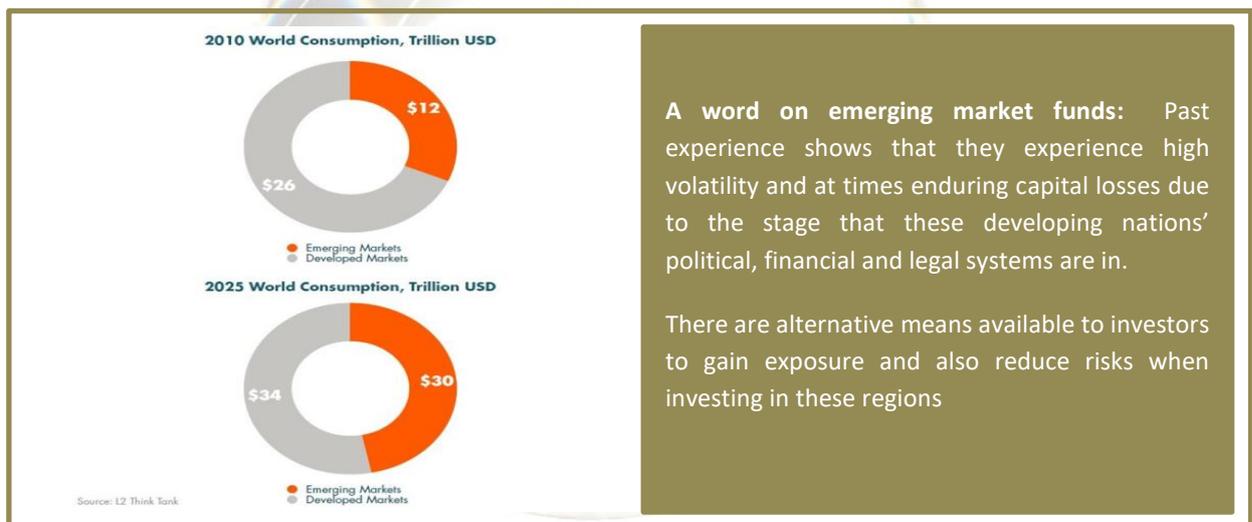
It stands at just 2.3 and slowing, just slightly above the required 2.1. This is repeated the world over in emerging economies. Girls are attending schools, families are getting smaller (e.g. even in large Muslim nations such as Bangladesh and Indonesia), and despite many negative aspects, daily life is well ahead compared to the pictures from our old text books and as background visuals on TV. Our views are still generally things were in the 70's and 80's, not 2016. Ignoring this will lead us into making capital allocations that miss out on this growth.

**Discovery 7: World severe poverty has halved** a magnificent achievement. This means billions are entering the world of consumption of goods and services, positively impacting on business positioned there. Most severe poverty exists now only in Africa. In Asia and South America it has almost been extinguished. Politicians and global financial system custodians deserve much greater acclaim than they are receiving. Never in history has this occurred before impacting returns positively for those with the foresight to be positioned to benefit.

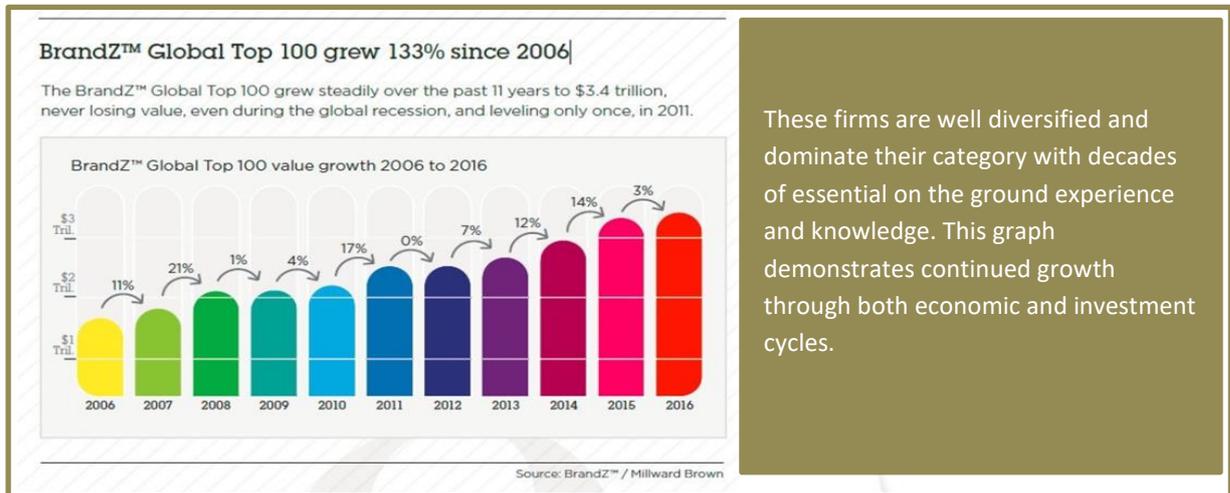
**Discovery 8: The Big Catch-Up – rising consumption outside the OECD.** The two charts below depict the economic prize awaiting investors in markets rising out from under the restraint of poverty (from a a minority position equal OECD nations) in just 15 years of change. A change we are already half way through experiencing.

**Our neighbour, Indonesia, is an excellent example** of this wonderful lifting up from poverty opportunity. Its middle income class exceeds the entire population of Australia and is growing fast. An examination of Australian business engagement of a nation of 200 million with 6+% p.a. GDP growth and a middle income class exceeding 30 million makes disappointing and feeble reading. The Australian investment community continually punishes business expanding globally (ex-resources) lacking patience and perseverance.

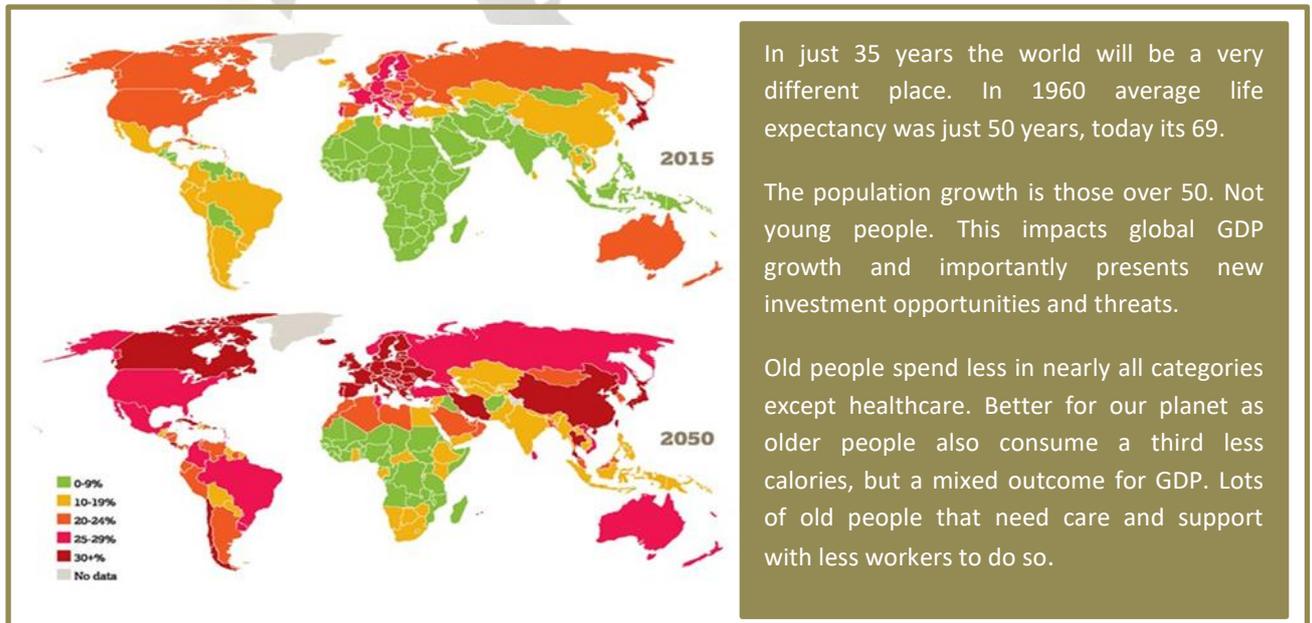
Generally Australian companies are not a worthwhile entry point to this opportunity that’s right our doorstep. New ways must be sort by investors to share in the returns these changes are generating. Remember Indonesia is just one example of opportunity investors can no longer afford to ignore.



It is the *global brands* that are well positioned to dominate large swaths of these economies and sectors. Most of these brands have been operating on the ground in these nations and allocating capital successfully for many decades. Nestle for example has been in India for more than 100 years. Politicised global trade wars may not impact their returns as much as before. Being on the ground with long periods of operating prowess is an essential requirement to lowering risk on capital deployed in what can be volatile economies. Local operations and relationships are essential when political events head south.

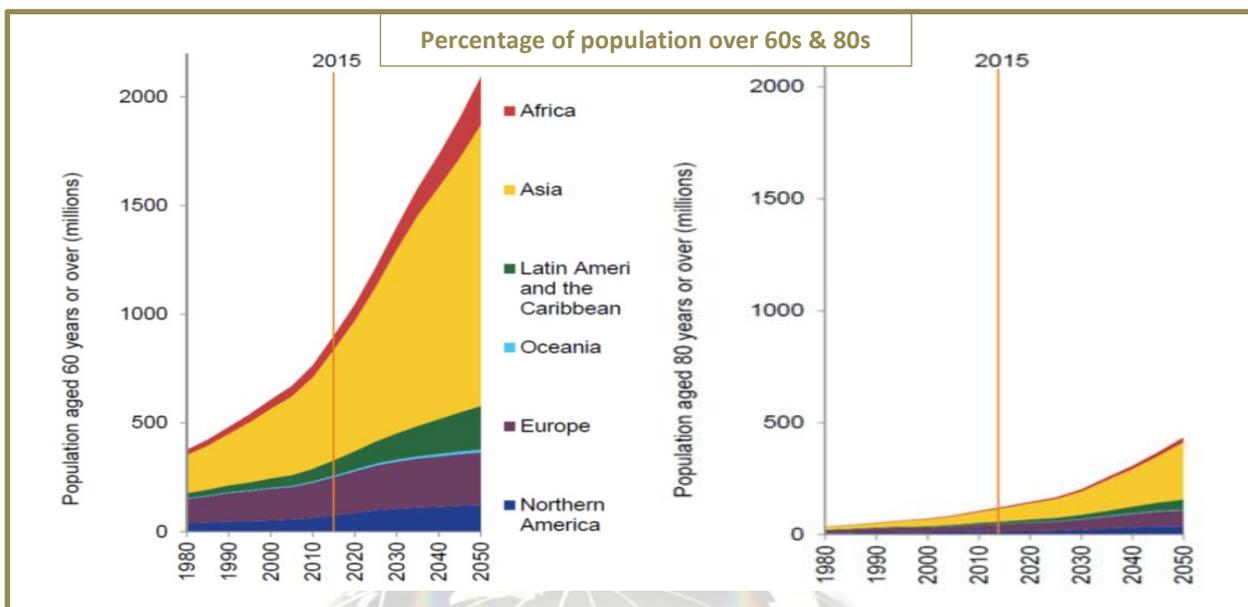


**Discovery 9: The world is rapidly aging!** No not a baby boomer issue, but one much larger and systemic as human endeavour progresses. Think about this fact for a moment. The world will never operate in quite the same way ever again. Taxation, politics, economics, workforces, cities and the industries that will experience growth, especially in developed nations has changed forever.



We can break this down further by age, today and into the decades ahead. Those aged 80 or over are depicted on the right in the next illustration. Japan now has 32,000 people above age 100- the highest rate globally doubling that of the USA, (whom has over 43,000). The next fastest aging group are the over 60's.

**We will need AI + robots.** Given the decrease in workers however, for those that fear robots and AI, it's likely we will need both! In the meantime workforce displacement is a probable negative outcome from this technology. Few governments have formed effective policies to handle these disruptive impacts on their populations.



**China surely isn't as hard hit with all this?** Unfortunately its worse. With one of the fastest rapidly aging populations on earth and a shrinking workforce, this is the core reason for the one-child policy reversal, but this will take at least 25 years to have an impact. It is not equipped to deal with its rate of age growth and the care and welfare support that will be required.

**Discovery 10: As Chopper Reid famously said..."get used to it princess"** We can't change these demographic drivers. Upheavals in proportions, and to an extent, we have never before faced. GDP growth 'norms', where growth will come from, and where power resides are shifting. Governments and central banks cannot reverse or alter it. Here's why; if you are not retired or a child, then you are primarily a worker.

Workers are the group that consumes, builds and funds the rest of the population and its number is in structural decline. It is being squeezed at either end. The majority of our population resides outside the old 'West' and they will corner the market on higher growth during their catch-up phase and beyond.

The lift in growth we can still feel is from;

- Emerging nations catching up with the West
- Temporary financial 'pump priming'

Globally this will be the net result which will inevitably impact all. Most emerging nations also have declining birth rates and an amazing lift in life expectancy, so will many decades from now, join the West's situation. **The downshift isn't going to happen. It HAS happened.**

Consumption of most things declines as a nation reaches economic maturity. Even those few smaller nations with a growing workforce (fuelled by positive immigration) will face head winds. Exports won't cure this as other key trading partners are in the same predicament- bar a few.

**Discovery 11: What would a nation need for 6+% GDP growth?** To consistently do so for more than just a few years; **3%+ productivity growth and at least the same in workforce growth.** China, the USA, India, Germany, Japan, France, Canada, Brazil, the UK etc. are well below this threshold on both counts. In the next section we will explore the reality of the global workforce, examine key countries - their situation and prospects, then discover why this is such an important issue for investment returns and portfolio construction.

## 5. Repercussions of productivity and demographics

**Bullish on Belarus, Georgia, Nigeria, Saudi Arabia, Portugal and the Philippines?** These are the only nations with one of the two key requirements for sustained high growth.

**5.1 The number of workers in the world:** Why is having less workers a problem economically even though we have more people on the planet? The answer is two-fold;

- Older people consume less and produce less in economic terms
- Less young people means less new people entering the work-force – the engine room of consumption.

From around the GFC the number of tax payers and consumers in the OECD tipped over a crest and into decline. It will continue to worsen over coming decades, with monetary and fiscal policy unable to reverse the lower growth that results. Resembling the force a glacier- no 'walls' built by man can halt its advance.

**Workers are stretched between these two circumstances**, fewer entering work and more leaving as the bulk of populations reach retirement and live longer. This explains the drop in real demand in nations such as the USA and the OECD overall. One bright spot are the emerging economies enjoying **'The Great Catch-Up'**. Not all will succeed and the volatile nature requires careful skill and creativity from investors

**5.2 Productivity is the second key driver of global growth** and it is currently in a state of stagnation. Productivity is either flat or in decline globally.

**GDP GROWTH = Workforce Growth + Productivity Growth**

**5.3 GDP growth is fuelled chiefly by these two addends;** Growth in both is relied upon by industries, banks, companies, academics and politicians to advance the world. When GDP growth is absent things go wrong and everyone worries. Bankers worry as they make less money and politicians worry as they tend not to get re-elected. Wealth creation slows. Companies struggle to maintain growing returns, dividends and share price. Short term they can cut costs and use debt to inflate their true position but this has a limited shelf-life.

**Since WWII the world has averaged around 3% p.a. real growth.** This has slowed since the end of the last decade. Post *Peak Child's* impact it stands less than 2%. A third of growth gone. Yet this growth rate is what drives the longer term returns retail investors have come to expect and indeed are relying on for a secure future. Advisers have these figures hard wired into base assumptions as if it hasn't changed that much. It has.

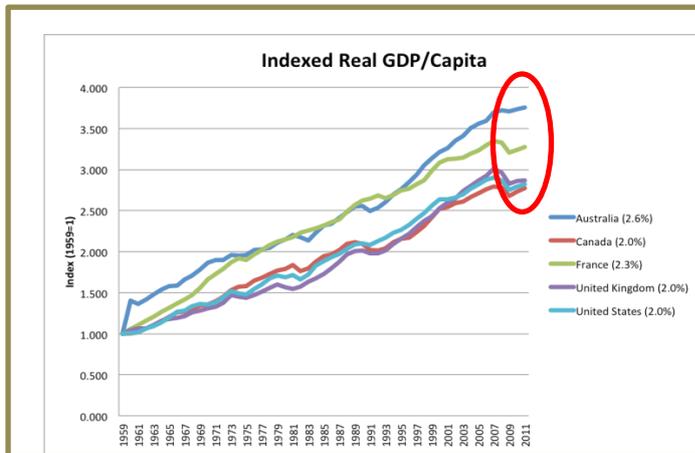
**5.4 The GFC cant be the sole cause of stagnation.....** An extra-long GFC 'hangover'? The usual arsenal of remedies is failing to move the needle all that much; and economies and markets remaining extremely fragile. The world's middle classes are in political revolt eschewing neo liberal government. Fear and frustration aside, a move to nationalism can only make things worse as the wrong issues are being targeted. Meanwhile policy makers continue to commentate, holding fast to entrenched beliefs and teachings in a vain search for solutions. Good solutions are being applied, but the other issue remains unaddressed!

**The GFC certainly caused catastrophic trouble for the world.** It was a close call with its own residual impact and issues still to fix. However, we put it to you if it was solely the GFC, what has been done would have mostly cured things by now. It is something more structural. It is not a short term cyclical occurrence. It's the next phase of our economic evolution. This is a structural down-shift.

Until it is recognised as such, one of the outputs will be increased price/market volatility as political and economic responses continue to fail. Investor portfolios are at risk if traditional asset allocation and investing processes are not revised to accommodate this structural change.

As the world adjusts not all players in the system will adjust well, right or at the same time. Threats but also opportunities arise from this. Investors do not however have to accept lower returns or heightened risk as investors.

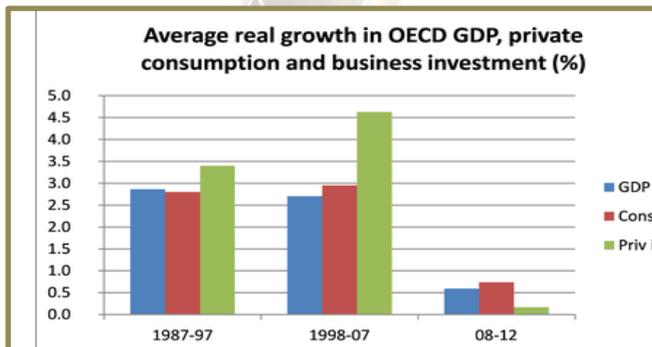
**5.5 GDP Growth trend changed for our lifetime and for client advice.** Below shows OECD key nations GDP, along with Australia for the period that most senior advisers and researchers have been operating. This twenty year period is similar to the long term trend since the end of WWII (They depict the type of trend we have grown accustomed to), but you can see the slowdown at the GFC point as worker populations plummeted.



China distorts the result upwards by 1/3rd.

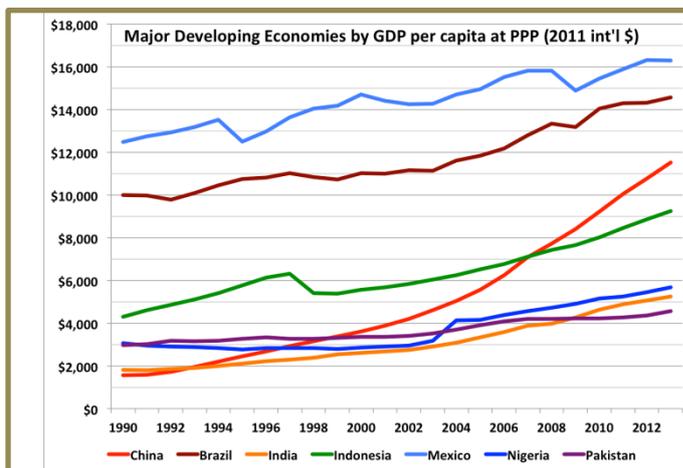
Most OECD nations post real GDP of only circa 2% also 1/3<sup>rd</sup> below long term trends.

As the contraction in global workforces began to be felt around 2008, we can see the emerging result in the next graph. This result is what has Central bankers and Governments trying to reverse. Wrongly assuming it is simply just the hangover from the GFC. Their chosen tools of use are classic responses (albeit dialled up to an intensity of unheralded proportions). They are not however working as GDP remains muted. Meanwhile our financial system is now grappling with what it means to hold the resulting gargantuan amounts of cash and debt created.



Business and personal expenditure, the story is the same. Business is not betting on a large or persistent upswing to old post WWII norms.

In developing countries we see better growth rates as their economies develop and catch up. They too will eventually hit the structural headwinds in productivity growth (as China is now in) and in aging demographics that is shrinking working populations as much as in OECD nations. Massive injections of foreign capital are supporting their catch-up, and thus is a major threat to this sectors' continuing growing prosperity. It tends to leave quickly at signs of bad news. Their success is helping to prop up those of us in developed OECD nations.



The emerging big nations do grow higher- as they should in their economic stage, but not at rates the world needs to return to return to past averages.

Note China's short term out-performance.

**5.7 Can we find another China- a 6%+ Giant Panda!** The world has been reliant on one to prop up the global result for 50 years. Since 1960 there have been 56 cases of a decade or more of economic growth at 6%+ for a singular nation. With further statistical examination we see several trends and prerequisites emerge.

**The data states that 2.7% is the minimum workforce number required for outsized GDP growth** (The average since 1960). **Brazil** in the 60's and 70's, **Malaysia** from the 60's until the 90's are prime examples. In three quarters of the 56 cases, working populations grew much higher than 2% suggesting that whilst it's not the only factor, it is a prerequisite. 17 of the largest emerging economies had rates of 2+% growth since the 1980's. In this decade just three, **Nigeria**, **Philippines** and **Saudi Arabia** do. A Giant Panda seems unlikely.

**Just 3 nations hold what's required for sustained high growth.  
None big enough, or stable enough to count.**

The other quarter of cases where 2%+ growth was not present were all attributable to one-off non enduring causes. **Chile** and **Ireland** in the 1990's experienced one-off massive reform and increased productivity at rates high enough to counter low workforce growth. **Japan**, **Portugal** and **Spain** benefited from a return to normal after reconstruction. **Russia** was similar as it emerged out of the USSR and aided by what was then high oil prices. **China's** one off event is drawing to a close succumbing to economic and demographic gravity! With relatively low commodity and energy prices set to continue it is unlikely we will see big exceptions in sufficient number or magnitude in big enough economies to return the globe to growth rates previously enjoyed.

Perhaps if **Indonesia** can keep its remarkable transformation in such a young country on track, its once-off catch-up to an open market economy may partly offset China's slowdown. **India** is less likely given its legal and cultural systems hobble a China-like transformation. Either way, Australian businesses are under prepared for this new world. It is over reliant on those at risk and under exposed to those that may lift us.

**5.8 Can an economy enjoy high rates of growth *without* a growing workforce?** From 1960 there are 698 periods where data exists on both GDP and workforce decade plus growth. 38 had working populations shrink. Their average GDP was a paltry 1.5%. 60% had working age growth rates above 2% but only a quarter of these led to booms in GDP above 6%.

**Only 3 bucked the 2.7%+ p.a. rule**, again due to one-off events bouncing back from political turmoil; **Belarus** and **Georgia** (2000-2010), and **Portugal** (1960's). Not nations we would look to for great hope or big enough for positive impact globally. As China accounts for around a third of global growth (double that of the USA), slowdowns here have big negative impacts on the rest of the world and especially Australia. China's workforce is declining and its productivity (like the USA and Australia) is flat. It has massive debt at 270%+ of GDP and growing, double its economic growth. Financial and real bubbles expanding, and excess export capacity and infrastructure abound. In other words.... **"The computer says no"**.

## Section 5. Summary

There is no nation in the world likely to take over Chinas' place in keeping world growth at a respectable 3%. This is especially so for OECD nations. China's growth will continue to slow and with it the world (and especially Australia).

Demographics and productivity numbers and environments simply aren't there to drive it, and they are crucial for growth to occur at rates investors have assumed to date.

## 6. Country by country game changers!

This will change assumptions for investors forever. Today's realities will surprise you.

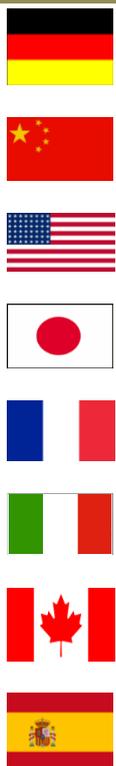
**6.1 Nations with the prerequisites of worker growth and big populations overall.** A country by country examination of *workforce growth* makes surprising reading. It goes a long way to explain why global GDP has fallen resisting all central bank and political actions to reinstate rates of growth the world has enjoyed before 2008. Since WWII worker growth stood at a 2% average. This has halved since 1990 and is still falling.



These are the ONLY larger countries with positive workforce growth at over 2% for the decade ahead. **Kenya, Philippines, Bangladesh and Nigeria.** Given the other important factors that these countries face on security, infrastructure and rule of law, it is unlikely we can look to them to help pull the world back up. Workforce growth alone is of course not enough to guarantee GDP growth, or for a boom, but it is *the* essential prerequisite. (e.g. **Nigeria's workforce** is growing at 3% but has many other challenges to master before it benefits and the risks for failure is high).

The Arab region is an example that even with worker growth, if nations fail in other key governance and social areas of reform, their populations will not enjoy the economic dividend deserved. Egypt should be THE most prosperous thriving nation of both the Middle East and North Africa, providing stability and an example to the region, yet its political elite continue to impede its natural position of prosperity.

**6.2 What about the big OECD powerhouses we look to for an uplift?** All have declining workforces. Yes, a disturbing fact. Consider this one example, Germany. In 2015/16 it accepted around one million immigrants due to the Syrian and North African conflicts. This influx stressed the social framework, infrastructure and politics of the nation. Yet the facts are clear, after these short term challenges pass, immigration is a positive booster of economic growth for nations that do so. Developed nations face massive hard times ahead.



**The USA** has witnessed its worker population decline from around 2% to 0.5% presently. A magnitude 4x downshift. No wonder it's nearing full employment. The **USA** is often lauded for success based on technological innovation over 30 years as the driver of its success. USA worker growth where rates were in excess of other major OECD nations being WAS the primary driver. Twice that of **France** and the **UK** and 5x that of **Germany**. Can it still achieve this when growth is forecast to fall to just 0.2% in 2020, 10x less than the previous 30 year period of domination?

**China's** workforce rate is falling fastest and is the most worrying to the world and particularly **Australia**. In 2015 it dropped below zero for the very first time this century. Its population is rapidly aging at rates well above the **USA** and other industrialised nations.

**Japan** is and has been for a long while, negative. **France** is static, whereas **Canada** and the **UK** join the **USA** at around 0.2%. **Italy, Germany and Japan** will contract at around 0.4% per annum for the decade ahead. **Spain's** is also shrinking.

**Australia** and **Singapore** are the only exceptions and at a rate of just 0.9% their size wont contribute a useful impact. They will still feel downside impact due to the falls experienced by the major nations decline they both trade with and depend on.

For **Germany** and **Japan** we will discuss next in more detail as they are important indicators of our potential future. **Italy** is in eternal disarray and crisis, **Spain** trying to limp out of one.

### 6.3 Germany: The OECD lead indicator of change in motion



German businesses are struggling to find skilled employees as its population ages. In 2015 their government accepted around 1 million refugees. The resulting turmoil created could see a change in government along with much social upheaval. What most are unaware of is that Germany's demographics mean it needs 1.5 million new immigrants every year until 2030 just to retain its current number of workers.

**Yes, 1.5 million immigrants EVERY YEAR just to stand still.** This illustrates the magnitude of the challenge all developed nations face. Even if it does succeed it is a ZERO SUM GAME globally. Those workers have to come from another country (robbing Peter to pay Paul). The fact is, when we begin to prosper we have less babies and we live longer. Those developed countries that do utilise immigration will enjoy benefits economically more than those that do not. But they won't be immune to a global slowdown. Shrewd management politically and by business is required.

**6.5 What about religion- the other "Us and Them"** In short, very little impact at all. In the old *western world* we grew up with and base our current understanding upon from how the world was in the 1970's (our educative years).

There is a prevailing assumption that nations must adopt Judeo Christian beliefs in order to address the factors holding them back. There is no facts supporting this view. Better health and equality will do this before wealth and without regard or influence of religion.

Today these facts have changed but our beliefs that drive our opinions and attitudes have not changed with them. There is no data to show divisions in economic prosperity based upon religion that have that much impact at all anymore. Again this may surprise many, especially in Christian nations.

**Action:** An excellent source of how things have changed since the 1960's is to view a video by [gapminder.org](http://gapminder.org) entitled 'Religion and Babies'. Find it on YouTube. It outlines the evidence to dispel any notion of religion impacting economic outcomes in today's world.

### 6.6 Perhaps the BRIC (ex-china) nations offer a way forward for the global economy?



**Indonesia, Brazil, India and Mexico**, all will see their worker populations' fall below 2% to around 1.5% in the next 5 years. **Poland, Russia and Thailand** and most eastern European countries have long been in decline with their working populations.

**Brazil** has failed in its governance and until it sorts this out its slide back down the slope will continue.

**India?** Many are now looking to talk it up as the new saviour but many massive obstacles are in front of it that its legal and political system will find hard to overcome. Massive headwinds China never faced.

Like China and the West its workforce is also declining.

More than just the big two prerequisites, BRIC nations will require almost all of the below issues to be/being properly addressed.

**Sound governance**

**Rule of law**

**Minimized corruption and nepotism**

**Growing prosperous middle class**

**Capable infrastructure**

**Robust tax base**

**Political stability**

**Female growing equality and workforce participation**

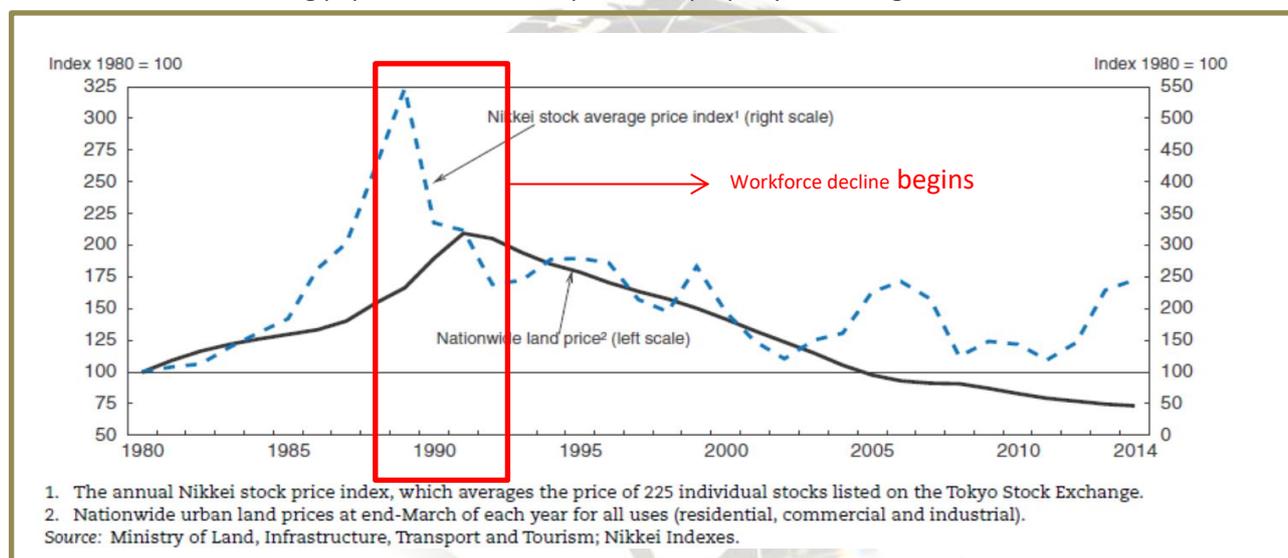
(But they have succeeded in the main with Health and Education)

## 6.7 A look into our future....Japan is already there!



In 1991 massive asset bubbles in property and equity assets burst. Pundits use Japan as a warning of the trap of large debt, zero inflation, declining asset prices and low growth. A 250% ratio debt/GDP, less than 1% GDP growth and negative real interest rates. It's a story we all know well at least in part. Nearly every metric used to look at both individual and collective well-being however places it near the top of the pile. Whilst income inequality has also increased it has not eroded living standards for the majority. 25 years on of successive poor growth and economists annual stated claims of impending doom..... Life goes on with prosperity and in defiance of conventional thinking.

**In 2015, Japan passed 32,000 centenarians.** This is the highest number per head of population on earth, the 46<sup>th</sup> straight year of records. Over 25% of Japans' population is already aged over 65. By 2060 this is likely to exceed 40%. Never has the world had to contemplate the ramifications of an aging population on this scale with a key global player. Their fertility rate is only 1.3% well below the 2.1 required just to keep its 125 million population static. How does rising life expectancy, falling births and virtually no immigration pan out for investment markets? The graph below links the inevitable fall in the working population and how equities and property trend longer term as a result.



As the declining workforce began in earnest in the late eighties we saw internal consumption and growth fall away. Markets collapsed soon after in 1991. The impact has been profound. Again government and central bank measures over almost 3 decades have failed to either deliver growth via other means or improve its birth rate. Culturally the nation has failed to entice women into the workforce in any significant and meaningful way, perhaps its only powerful solution beyond immigration left. Severe distortions are now the normal. For example the government is the biggest shareholder in most of their Top 20 listed corporations. The Nikkei has still not reached its last high over 25 years ago and still remains at around half of that level.

**Japan is now forced to focus on DE-GROWTH in a post growth world.....** A focus on well-being, not income and output. Essentially its people are secure, well fed, have access to the latest goods and services, are aspirational and happy. Excellent health care and education are open to all (UNHDI, OECD). In other words, prosperity continues. Could prosperity endure long term without growth for a nation? An export led economy with ever growing debt has certainly helped fend off a falling and rapidly aging domestic population- as has its culture. Its only real solution is immigration and a meaningful female workforce participation increase. Both are cultural anathemas and the politicians know it.

**For at least two decades economists and fund managers have been hailing the collapse of Japan;** that it's ballooning debt and falling demand for its goods both domestically and globally spells the end. Yet, it continues to move along. No one yet has studied why all the bankers and economists predictions based on orthodox understanding have not come to fruition. They continue to commentate but offer no conclusive view as to why Japan hasn't imploded. This would make good reading indeed. As the world third biggest economy in nominal GDP terms (fourth if you count the EU) what happens in Japan is very important to the world not just as a key contributor, but for its demographic situation as a lead indicator for the whole developed world for the decades ahead. Japan may well be our canary in the mine.

**6.8 Can individual countries inoculate themselves?** In short, yes they can in part and for short periods. This will not produce lasting or a different overall global result, but nations that recognise and adjust to demographic reality should do better than those that do not. Much of what can be done politically may well not be employed, such as boosting immigration.

**Immigration policies quietly rising:** In 2010 just 10 countries had announced plans to raise immigration. This has quietly ballooned to 22 just 3 years later. These countries recognise that this is their best option and were able to politically make this happen. The nationalistic wave being currently occurring in western nations is a dangerous threat to this crucial trend. This also happens to be the only way to lift the tax base to continue to fund post war social security we have grown accustomed to, and in combating the negative impact of ballooning aging populations. Case precedents exist to prove that immigration boosts prosperity for all (after a short initial period).

**Kangaroos and Kiwis: A tale of 'two cousins':** A recent example of the economic benefit is New Zealand. Recently its growth easily exceeds Australia even though its three main economic drivers of tourism, the Christchurch earthquake rebuild and the dairy industry posted subdued growth. Whilst consumer confidence was fragile and flat consumption per consumer, consumption overall still rose. This resulted in GDP growth being one of the highest of all OECD nations. Increased skilled immigration is the driver along with strong economic governance. Its dollar as a result is at a near parity to the Australian Dollar. Its future improving, Australia's worsening.

**Female workforce participation.** Efforts by Canada, Japan, Italy and Australia to boost birth rates have by and large failed. Italy announced its latest attempt at raising birth rates with a special day to 'get happy' to national outcry. Helping women remain in the workforce, better child assistance and positive targeted immigration as part of a phalanx of initiatives is needed but often politically unappetising. Female workforce participation rates flat lined around 1990 at 57%, since slipping back to only 55%. The OECD calculated if member states could close the gender gap in workforce participation it would raise their cumulative GDP by 12% in the next 15 years. Italy, Japan and South Korea would benefit most. Japan has created "Womenomics" as its latest attempt at raising female workforce participation and raising the birth rate. Both would be a massive boost to productivity and GDP.

### Section 6: Summary:

1. **No country of consequence has the minimum rate** of workforce growth to support a resumption in previous GDP average growth for the next 20 years
2. **We need workforce global growth above 2%** to maintain what investors are relying on and what drives our investor asset allocations. This no longer exists.
3. **The world will now require a new 'China' 6+% to maintain a global 3+% result.** None loom near.
4. **For an economy to experience 6%+ p.a. GDP growth** it nearly always requires workforce growth above 2.7% and growing productivity. No nation of consequence has this anymore – including China.
5. **Women are an essential key** to economic prosperity
6. **Without immigration** (and in most countries the dual need to boost the female workforce) it's virtually impossible for nations, to deliver GDP growth that the world has been used to beyond short term 'blips'.

**Conclusion:** As most nations struggle with either/or both immigration and female workforce participation, economic stagnation is almost certain. In turn, markets will remain subdued and real estate values ultimately decline. Japan is our 'canary'. Germany as an example of positive action. Canada, Singapore and New Zealand immigration responses provide the evidence and pointers to lift one's nation above the average. Failing this companies reliant on domestic demand for growth are facing strong headwinds (unless part of an oligopoly), which until now have been temporarily thwarted due to cheap debt. It would be a brave investor holding the bulk of their long term wealth in nations without the correct strategic response.

**The OECD is still crucial. Nations with the prerequisites have other major impediments holding them back and so but growth will be from elsewhere.....**

## 7. Productivity won't save the day

In the West and in the biggest emerging nations such as China, effort and efficiency has levelled off. Good for workers short term (maybe), but bad for economies and investors.

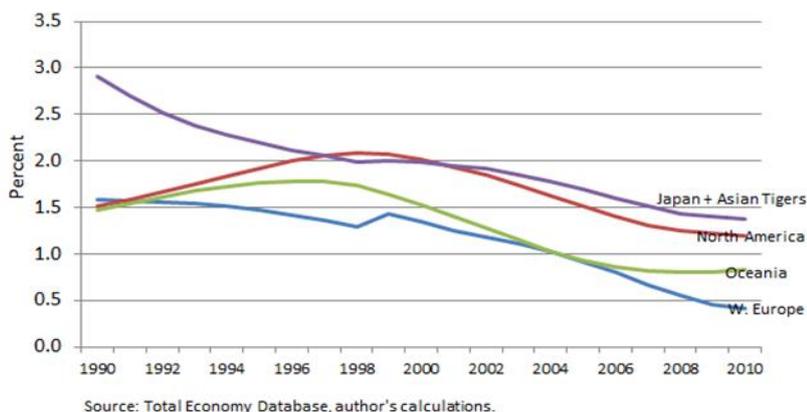
The second of the two key drivers of growth - productivity. The OECD, IMF, World Bank and the like have many publications that study this topic closely and there are various ways to calculate Productivity Growth. Nearly all methods however point to one fact and that is, it is slowing!

**7.1 Technology:** It has a big impact at times, but it can be a dual edged impact. On one hand the tools and processes it creates and replaces can improve productivity. On the other it can dislocate and reduce workforces, and alter the nature of employment to that of a less secure and casual nature. Much new job creation in advanced economies is not full time, secure or in well-paid positions. We continue to ignore this when we publish growth in the workforce yet this has consequences for the majority in developed nations and in the spending habits of workforces.

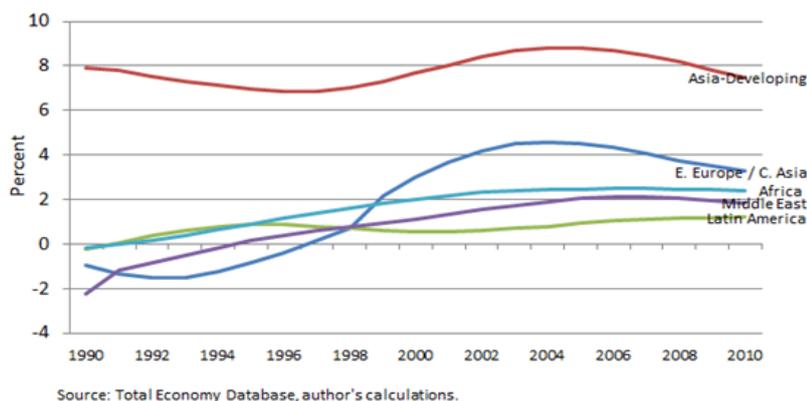
In the USA the powerhouse of technology, workforce growth in that industry stalled almost as soon as it boomed, employing a very small percentage of the overall population. Factual data supports that it is NOT globalisation that destroyed the vast bulk of manufacturing employment in the USA- but technology, poor training and public policy on wealth distribution, most of which entirely created in and by the USA.

**7.2: One bright spot is in emerging economies** as they gain access to capital and resources boosting poor historical productivity as it catches up to developed nations. Let's now take a look at regional rates of growth.

**Productivity growth**



**Productivity growth**



These charts depict year-to-year growth of labour productivity in OECD nations, the primary emerging nations and 'most others'. Each regional composite plot is constructed as the weighted average of country productivity growth, using as weightings the levels of real total GDP.

Not one region in the globe is increasing. At a country level not one significant or mature nation is increasing either.

Asian progress as the best in developing regions grew for its adjustment period but has since re-joined the trend.

Productivity has stalled. OECD nations are stalled below 1.5%.

The world is stuck in a circa 2% range. Not enough to compensate for lowering workforce growth

**7.3 In every advanced region productivity growth has been slowing** compared to previous decades falling well below historical averages. In sporadic shorter periods strong growth can be achieved in developing nations reflecting the position of their development. The most dramatic current example is China. There is no statistical evidence over long periods to point to any lasting growth occurring in these circumstances. Indeed a return to lower growth is all but assured. For now we are enjoying the oversized boost to global numbers (luckily).

**7.4 Remove productivity as a drag on growth.** Most productivity growth has been the result of profound demographic change or technological one-off inventions. As we have learnt, demographics will now mostly act as a drag on productivity. It's up to technology and the continued economic emergence of developing nations. Let us *assume* that the world invents another massive game-changing factor (propelling productivity upwards) for a multi decade period to reverse halt things at 2% p.a. It has happened before may hopefully again. It's prudent to note however that latest technological advances have not lifted productivity all that much (although the common view believes it has).

### Section 7: Summary

**2% productivity growth + sub 2% workforce growth isn't enough for a return to** post WWII trend rate of GDP growth beyond 3.5% for anything except short-lived exceptions. OECD nations struggle to hit 2% presently and that's with enormous cheap cash creation! The odd country exception will probably continue to occur, but the evidence that China will be the 'Giant Panda' lifting all others (Australia in particular) for the next decade, has no factual data based support. Hope makes for poor strategy.

**China is 'kicking the can down the road'** (with massive credit and subsidy injections) providing short term relief from the inevitable. Can India take over the mantle for a decade plus time frame? It has much less political power to effect the mass legal and structural changes to embark on industrialisation and urbanisation programmes that China's system achieved..

#### Conclusion:

- **Productivity growth is unlikely to be big enough to neither lift us out of the** slowdown nor lift investor returns. There is nothing brewing away to create the size of lift that would be required in any developed nation of consequence
- **Only China's GDP stands between our present global 3% and sub 2% growth.** It's already struggling in the OECD. Flat productivity in China is the new reality that hasn't yet been felt in GDP output- but it will.
- **Broad based company and asset allocation strategies** will find it harder over time to out-perform successful theme based and more targeted investment strategies – especially those that account for national demographic situations and policies in their formulation.
- **Index funds will fair worse** especially if bear markets eventuate at national levels. Index exposure means exposure to the entire market place of a country. In a declining economy 'balanced' and 'passive' asset allocations can do little to combat the negative impact such broad and low killed automated investment exposure produces long term.
- **Robo advice strategies will thus be exposed to a similar impact.** For both, retaining large exposure to this form of investing will require acute 'timing' and hence increased risk.
- **Having a low exposure to industries and countries** that suffer from low productivity and workforce growth will be crucial, unless very strong counter arguments, case by case, can be waged.
- **Emerging economies are the one sector likely to enjoy medium term gains in productivity.** When coupled with workforce growth they may (if supporting conditions are in place) produce above average returns.

Nations experiencing 'catch-up' and those industries exposed to them are likely to fair better than market averages. Investing in nations with positive workforce and productivity growth are a base criteria investors should carefully examine. Technology as mostly the sole creator of future productivity gains in OECD nations has far reaching negative consequences on workforces ability to prosper. Lower consumer spending and increased hoarding of leave are obvious examples that hurt economies and investors alike when this occurs.

## 8.0 The Dog that caught the moving Car!

Trump, many have argued, may not have truly believed he would actually win. Now that he has how will he govern? Markets believe in nothing and no one, taking headlines and extrapolating them into the news it wants to hear. To the advantage of market speculators and those taking a clip of other people's wealth.; Up or down, it doesn't matter so long as there is activity and trend. Policy by sound burst 'tweets' and dishonesty and dissaray. So far equity markets have backed him rising an additional \$1 trillion USD into equities in less than a month. Will it continue?

**8.1. A senior CIA retired officer described Trump....** *"The facts hurt, Trump won't like the truth, and he will without question seek to destroy those individuals or organizations that say or do anything that he thinks harm his precious grandiosity."* *".....Look, in my professional assessment as an intelligence officer, Trump has a reflexive, defensive, monumentally narcissistic personality, for whom the facts and national interest are irrelevant, and the only thing that counts is whatever gives personal advantage and directs attention to himself. He is about the juiciest intelligence target an intelligence office could imagine. He groans with vulnerabilities. He will only work with individuals or entities that agree with him and build him up, and he is a shockingly easy intelligence 'target' to manipulate. Were Trump an intelligence officer himself, Carle said, he would be removed and possibly charged with having accepted the clandestine support of a hostile power to the harm of the United States".* **Glenn Carle CIA Senior Analyst and Integrator.**

No wonder Putin (a grand master of manipulation) along with many other despots from Europe, Africa and Asia were the first to congratulate him, expressing joy of his appointees to key positions of global influence. They share a lot of the same aims and character traits, viewing his disruption and ignorance as opportunity. The next three years will be anything except boring! Dangerous yes and also volatile. No doubt a rollercoaster of high highs and very low lows.

**8.2 Markets so far are betting his one-liners** on tax, infrastructure, jobs, immigration, manufacturing, trade, religious intolerance (as a set up for war) and a massive pivot to fiscal expenditure are all that's required to produce a cure for all the USA's economic woes and security. Rolling back the safeguards in banking, Medicare and the environment and Wall Street can hardly contain itself.

**Deal making cannot trump policy and process, nor intelligence, nor fact.** Trump has not acknowledged the CORE factual realities creating USA decline. If it was as easy as *Trump trumpets* it would have been done. Sadly history and economics instructs that if he can deliver policies to match the headlines, they can work only for short time periods. An initial spike upwards in some key economic numbers could well result before declining overall.

**Not once has Trump conceded the positive trends already in place** in the USA's domestic performance across most major areas. This is worrying as exactly what is it he is trying to bolster and why? As USA GDP is already at the average long term run rate of 3% and employment near full; beyond bigotry, hatred, feeling threatened and mistrust, what is it he is trying to actually solve? Understanding a nations' motivation behind actions is crucial for investors.

**Factual realities already have USA incomes in the middle classes** rising for the first time in decades, unemployment at system lows and infrastructure decline is being addressed (without robbing tax payers as Trump intends)- although *Republican Congress* halved what Obama wanted, to just \$260 billion. The market has also forgotten that it is Republicans that have a hatred of large fiscal expenditure of any sort (war accepted). It was Republicans that thwarted its use for the last 2 presidential terms. Trump cannot override them all, all of the time, on all things. All past presidents will gladly attest to the reality that they have less power as President than one imagines. Trump is feeling this already!

**8.3 The Herd has not Heard..... Let alone thought!** Let's examine each major tweeted issue as perhaps the market *herd* has not really *heard* it all that well enough and pondered the reality behind the rhetoric.

1. **Taxation.** His outline so far will bring windfalls to a wealthy minority and little of any to the middle and working classes. The reduction of the company tax rate may be the only really useful outcome.
2. **Profit repatriation:** A one off tax amnesty may bring profits home to America, but what will be done with them? Building new plants, employing more people (by magic apparently as the workforce is in serious decline) and at higher wages to sell things at higher prices to less domestic consumers? More likely it will flow to the owners of capital via increased dividends and share buy backs.

The Wealthy save these windfalls, not spend them. Sell USA goods and services overseas perhaps? Trump's stance so far suggests trade wars, declining global stability and dismantling of global frameworks that have served well for 50 years.

3. **Infrastructure:** Assume new workers can be found (having sent a big lot of them home to Mexico in an industry that can't even meet current demand). Will spending bolster the domestic economy or at least stave off the decrepit state of affairs that US infrastructure is in that hampers productivity? Tax policy is likely to bias infrastructure activity that will not address the key areas of deficit and degradation. It will enrich a few transferring assets from taxpayers to a minority at bargain prices.
4. **Manufacturing and jobs:** Working class folks are losing their unskilled and semi-skilled roles. Why? Was it globalisation, trade agreements, poor government policy or technology? The facts are the majority of all manufacturing roles in the USA that have disappeared were due to technology advancement and the wrong educational skill base. Advanced manufacturing roles today are 50%+ unfilled, companies unwilling to build plants with no one to operate them - USA workers don't have the skills. The massive lay-offs in the energy industry (especially in coal & fracking) were due to lower commodity prices from falling demand. Still it's easier to blame foreigners and trade agreements.
5. **Immigration: The founding stone of America's success.** Slowing immigration compounds the issue. The 'blue-eyed' ones Trump and his cadre will accept tend to like high incomes too. For the upper middle class and wealthy with maids, gardeners and pool-boys...how will they respond when faced with cleaning their own toilets? People respond differently to rhetoric when personally confronted with its fallout.
6. **Globalisation.** The USA is a net beneficiary both short and long term of global trade harnessing its awesome innovative culture and business acumen. This applies culturally and economically. Nations that retreat, lose confidence in themselves and hide behind walls, leads to further economic decline not prosperity. As a result politicians blame others outside these walls; it's called misdirection (magicians would know this trick well), but all too often war results- the great distractor unnecessarily bringing misery to hundreds of millions.
7. **Trumps first 2 months in office have seen the foundations of its democracy and institutions savagely wrecked.** Some will take decades to repair, some never. Trust has been replaced with alternative facts and abuse. Competency is side lined or removed altogether in mass numbers. Global norms and systems that took 70 years to build carefully are under attack, not by old adversaries, but the USA government itself.

**The simple iphone illustrating reality.** Its components are nearly all made and sourced from raw materials and componentry outside the USA, transported around and outside the USA for assembly. Read the back of an iphone 'proudly designed in California'. Will people buy that phone now that it costs twice as much made inside the USA too? Will Apple retreat from its global customers, or risk plummeting revenues as people around the planet seek lower priced substitutes? No of course not. **America is at its best when confident, smart and open; not angry, scared or mean, and its brain in neutral.**

**8.0 Summary:** It's too early to tell much about anything Trump has said will actually eventuate. Watch what he *does* and *who he appoints*, not what he says. Watch carefully. Disruption is assured.

Equity markets have jumped ahead with exuberance (as they do in these moments). Paradoxically it has punished companies that grow dividends and profits with sound futures. They have over reached and jumped the gun, a dangerous position to be in. Bond markets are on average always smarter and take a longer more learned outlook. History proves this again and again. These markets saw \$1 trillion USD move immediately out of US debt as the longest US Bond Bull market came to an abrupt end.

**Conclusion:** Yes shareholders short term in US stocks with stored profits may enjoy a period of increased returns. This won't last. Unless some serious 'about faces' occur the conflict apparent in Trumps stated positions on the above issues will mean ultimate failure and golden rainbows will not appear. The saving grace may be that the US economy is not in as bad shape. Trump if he can refrain from inflicting serious damage may enjoy the fruits of a trend already in play- and claim them of course as his creation. A defensive measure would be to construct portfolios to anticipate a US economy pretty much like it is today- ok. Be wary of believing equity market pundits and reassess if something stupid like a trade war begins. The US is not a sure winner in this environment.

## 9.0 Outcomes for investors

Where are investors impacted on the upside, the risks and the volatility? This section takes a close look using examples and factual data as well as comparing alternatives and strategies for managing the downside.

**9.1 Outcome on GDP:** Below is the World Bank view on GDP. It does not properly factor in the future demographic slowdown on the working population and is thus overly optimistic in its future trend line. Indeed this is borne out with *actual results* being below forecast for many of the years post the GFC. Consistently for the last decade central banks have had to *revise down their forecasts* soon after making them. Like real estate agents, start high and bid down. Such an example is illustrated in the columns on the far right hand side of the below table from the World Bank.

What has been spoken about China, the USA, OECD nation and emerging ones can all be seen here in this table.

Global real GDP growth <sup>1</sup>							(Percentage point difference from June 2015 projections)		
(Percent)	2013	2014	2015e	2016f	2017f	2018f	2015e	2016f	2017f
<b>World</b>	2.4	2.6	2.4	2.9	3.1	3.1	-0.4	-0.4	-0.1
<b>High income<sup>2</sup></b>	1.2	1.7	1.6	2.1	2.1	2.1	-0.3	-0.2	-0.1
United States	1.5	2.0	2.5	2.7	2.4	2.2	-0.2	-0.1	0.0
Euro Area	-0.2	0.9	1.5	1.7	1.7	1.6	0.0	-0.1	0.1
Japan	1.6	-0.1	0.8	1.3	0.9	1.3	-0.3	-0.4	-0.3
United Kingdom	2.2	2.3	2.4	2.4	2.2	2.1	-0.2	-0.2	0.0
Russia	1.3	0.6	-3.8	-0.7	1.3	1.5	-1.1	-1.4	-1.2
<b>Developing countries<sup>2</sup></b>	5.3	4.9	4.3	4.8	5.3	5.3	-0.4	-0.6	-0.2
East Asia and Pacific	7.1	6.8	6.4	6.3	6.2	6.2	-0.3	-0.4	-0.4
China	7.7	7.3	6.9	6.7	6.5	6.5	-0.2	-0.3	-0.4
Indonesia	5.6	5.0	4.7	5.3	5.5	5.5	0.0	-0.2	0.0
Thailand	2.8	0.9	2.5	2.0	2.4	2.7	-1.0	-2.0	-1.6
Europe and Central Asia <sup>2</sup>	3.9	2.3	2.1	3.0	3.5	3.5	0.3	-0.4	-0.2
Kazakhstan	6.0	4.4	0.9	1.1	3.3	3.4	-0.8	-1.8	-0.8
Turkey	4.2	2.9	4.2	3.5	3.5	3.4	1.2	-0.4	-0.2
Romania	3.5	2.8	3.6	3.9	4.1	4.0	0.6	0.7	0.6
Latin America and the Caribbean <sup>2</sup>	3.0	1.5	-0.7	0.1	2.3	2.5	-1.5	-2.3	-0.6
Brazil	3.0	0.1	-3.7	-2.5	1.4	1.5	-2.4	-3.6	-0.6
Mexico	1.4	2.3	2.5	2.8	3.0	3.2	-0.1	-0.4	-0.5
Colombia	4.9	4.6	3.1	3.0	3.3	3.5	-0.4	-0.9	-0.9
Middle East and North Africa	0.6	2.5	2.5	5.1	5.8	5.1	0.1	1.4	2.0
Egypt, Arab Rep. <sup>3</sup>	2.1	2.2	4.2	3.8	4.4	4.8	0.0	-0.7	-0.4
Iran, Islamic Rep.	-1.9	4.3	1.9	5.8	6.7	6.0	0.9	3.8	4.7
Algeria	2.8	3.8	2.8	3.9	4.0	3.8	0.2	0.0	0.0
South Asia	6.2	6.8	7.0	7.3	7.5	7.5	-0.1	0.0	0.0
India <sup>3</sup>	6.9	7.3	7.3	7.8	7.9	7.9	-0.2	-0.1	-0.1
Pakistan <sup>3,4</sup>	4.4	4.7	5.5	5.5	5.4	5.4	-0.5	1.8	0.9
Bangladesh <sup>3</sup>	6.1	6.5	6.5	6.7	6.8	6.8	0.2	0.0	0.1
Sub-Saharan Africa <sup>2</sup>	4.9	4.6	3.4	4.2	4.7	4.7	-0.8	-0.3	-0.3
South Africa	2.2	1.5	1.3	1.4	1.6	1.6	-0.7	-0.7	-0.8
Nigeria	5.4	6.3	3.3	4.6	5.3	5.3	-1.2	-0.4	-0.2
Angola	6.8	3.9	3.0	3.3	3.8	3.8	-1.5	-0.6	-1.3

**9.2 Outcome on Australia:** It is not good. The services sector and industrial base cannot provide enough of the local demand for investment opportunities likely to benefit investors in delivering returns above the 'new normal' GDP growth rates medium to long term.

Reasons are both structural and cultural. Even though its worker population growth is still positive albeit a tepid 1% due to immigration, global forces are too great not to impact investors negatively that remain largely biased to companies transfixed with past operating assumptions. Our poor productivity for decades now is a major headwind facing business. As always there are exceptions (e.g. Oligopolies and miners by the nature) but they are not numerous or large enough to count all that much in the grand scheme of things.

**Politically our record run of 25 years of growth has been squandered** in not preparing the nation for a different future. Very little of our wealth and effort has been spent on repositioning our nation for continued prosperity in a changed world. We lack collective vision, the skill base, the support of industry and the banking system, and most essentially the collective realisation we live more and more on borrowed time. For investors this demands stronger risk management.

Not since the 80's have we witnessed government with a vision and galvanising cause to forge a new path. One will be needed to address our growing vulnerabilities and narrowing opportunities as will outward looking board rooms across key industries. None of this is likely of course and in its absence, investors need to let go of their home bias. Patriotism is for our sporting past times not investing.

## The Global Downshift- Preserving Equity Returns

Many Australian companies competing globally are valued at multiples double their global counterparts making them overly expensive propositions fuelled by nationalistic nepotism. This has never ended well for families or countries. Investors beware. Below are examples ;

Australia	2016 P/E Ratio	Global	2016 P/E Ratio
CSL	27.4x	Medtronic	18.5x
Cochlear	36.4x	Roche	17.7x
Ramsay Healthcare	31.1x	Sanofi	13.3x
Resmed	22.4x	Zimmer	15.5x

This example is health care. Here are recent PE valuations of listed companies of global renown and relative valuations to global players. By and large global firms have longer historical records of success, are larger, more powerful and more diverse often spending more on R&D than Australian businesses.

**Question: As an investor why would you wait twice as long to get your money back, and also be content with weaker smaller firms with less opportunity than others outside Australia?**

**Local equities have seen prices inflated due to ‘the weight of money’** pouring in from our national retirement savings and typical parochial bias to one’s own backyard. Index funds and index tracking active funds now exceed 75% of inflows and thus create a self-fulfilling increasing funds flow result...until it stops!

**Typical asset allocations mean investors are taking excessive risk** in retaining a high allocation to Australian equities. Indeed for retirees the tax argument for doing so is mostly null and void. Our corporations have found it challenging to globalise and thus seek growth outside our borders. This adds further risk in a future where growth will occur mostly outside our borders.

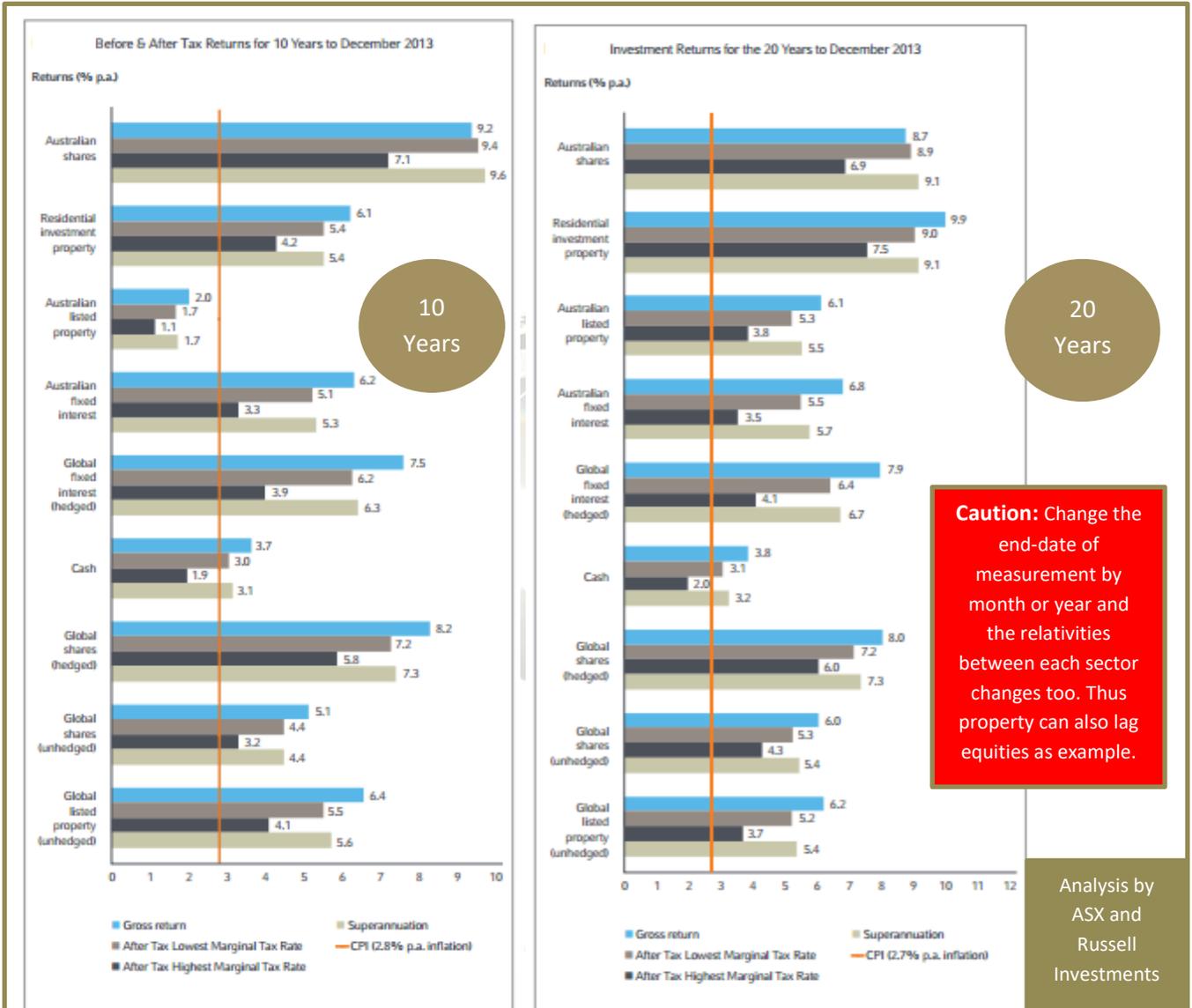
**Our continued reliance on cyclical sectors such as resources** further exposes Australia to the negative impact of demographics elsewhere amongst its main customers. China’s decisive move to an internally led consumption/ services based economy coupled with its demographic change mean the demand for extracting minerals from holes in the ground will not produce the boost we have been accustomed to. Commodity prices and trade reflects this. Our equity index also has *Financials* at an overly high and unhealthy share of value exceeding 40% of market cap (compared to less around 20% of the OECD average). The Financials are almost entirely dependent on domestic prosperity and a continued strong credit rating (that it almost lost in 2016). A further risk rarely accounted for in portfolio construction.

**Adjustments will be forced upon us and they will be hard and painful.** We won’t like it and so will likely vote in the then Opposition. By no means will the nation find itself having to respond anytime soon however even as it posts its worst GDP result since the mid-1990s. Trying to time this too finely presents increased risk. Instead watch for outdated industries cave in as we fail to adapt hanging onto the past (e.g. automotive, fruit and apparel manufacturing). Many new developments in energy, technology, agriculture and pharmaceuticals struggle to gain government and investor support. New Zealand has taken the lead on dairy as our struggles. Expect a slow decline in our fortunes propped up by short termism in economic and political responses and ‘hope’ for China. Death by a thousand cuts.

**9.3 Becoming an Investment Nomad.** This all sounds pessimistic and perhaps even unpatriotic. Australia has many strengths and positives going for it, however they will not make up for realities on the ground. The makeup of our industries, skill base, demographics and sagging productivity need to be addressed, if we as a nation are to continue to enjoy prosperity. Being lucky is no longer enough! Right now and in the years ahead, investors need returns with less of these risks and returns well above the forthcoming new lower averages.

**Our over reliance on residential real estate trading** (between Mums and Dads sponsored by bank executives) and investment in the Financials to prop up our lifestyles is both dangerous and unaffordable. We are trade dependent and global trade is falling, as politicians respond to populism and consumption declines. China is being relied upon to stop our falling growth. This is more about *hope and assumption* than what the facts on the ground and trends actually present. There is no room for either hope or patriotism in investing. We would encourage investors to become not *Grey Nomads* but *Investment Nomads*, seeking those nations and industries that are well placed to deliver results free from local bias wherever they reside.

**9.4 Residential Property- saviour for investors?** Is it a hedge to financial assets that's simply easier to do? Japan's experience says no. It is little wonder that mum and dad investors have turned to residential property, supported by overly generous tax subsidies to sustain lifestyles. The table below shows returns across assets with various personal tax rates and debt applied. After all when you are inside a large asset bubble it takes no skill to create a 'paper rise' in valuations, but income returns remain muted. We go back to data from 2013 as this is when neither equities nor property was in a 'bubble' type situation. Below are 10 and 20 years net returns after costs and taxes.



Changing the year-end date for comparison will usually alter the relativities between property and share outcomes as each enjoys periods of both over and under performance. Ignoring the increased risks of asset concentration an investor has with real property, returns are comparable with equities. Would residential property as an asset class make sense *assuming* liquidity demands can be met for a retiree investor and concentrated asset risk is acceptable? The answer is probably yes. It will also help counter overall portfolio volatility.

How much to invest beyond a person's own residence is the question however. Prudence would limit this investment for most to their own property until an investment portfolio perhaps exceeds 7 figures- assuming 50% of this was used to invest in a real property.

**9.5 Volatility will increase. Like climate change, the investment climate is becoming more erratic and subject to immense storms.** We are in uncharted waters economically (not just because of the new US president). Reports and analysis on a new fiscal world awash with trillions in extra money, derivatives and credit; with negative rates and lower prices of goods abound since the GFC. For every item of negative commentary you can easily find a positive one adding to the confusion.

In a world of heightened anxiety it only takes small key negative news/data to witness sharp price contractions. Things are moving up as they should but erratically. This doesn't mean we won't experience large moments of dips and rises based on overly exuberant wishful thinking or due to cycles. Trump's longer term impact on this trend is not yet determinable although his erratic, savage, dishonest and contradictory behaviour will more likely increase volatility.

**Markets detest uncertainty**, but it is the new normal. This began with the end of the Cold War, ensuing globalisation and the increase in technological disruption. The Russian debt crisis spread like a contagion globally aided by these. The GFC and the Tech bubble are further examples. More will, and are occurring.

**The world's geo political and economic environments have changed markedly** that don't always follow historical or cyclical norms that we have come to rely on over the last 5 decades. This will make market and economic forecasting even more difficult and prone to being plain wrong. Added to this are unexpected 'black swan' events that can also cause unexpected and catastrophic repercussions. The magnitude of the ups and down is increasing; their frequency is not just more frequent, but occurring in compressed time frames.

**Traditional 'balanced portfolio theory' has been found to fail** in delivering promised outcomes of smoothed returns and less loss. This is because bonds are NOT all that negatively correlated with equity in modern times anymore. Real property may well be, along with some types of alternative assets (but again, not always).

**For advisers with clients that retired just before the GFC** they know only too well what a disaster the lack of risk management strategy produced - retirement's vastly reduced!. Little has happened within Licensees to seriously prepare for the next catastrophe. A common response post the GFC was to give in to clients' demands, thus allowing a massive shift to Cash in the hope of at least commercially retaining their custom. This cost advisers credibility and reduced ongoing revenues. Recovery was hard and slow and many didn't ever get back their wealth.

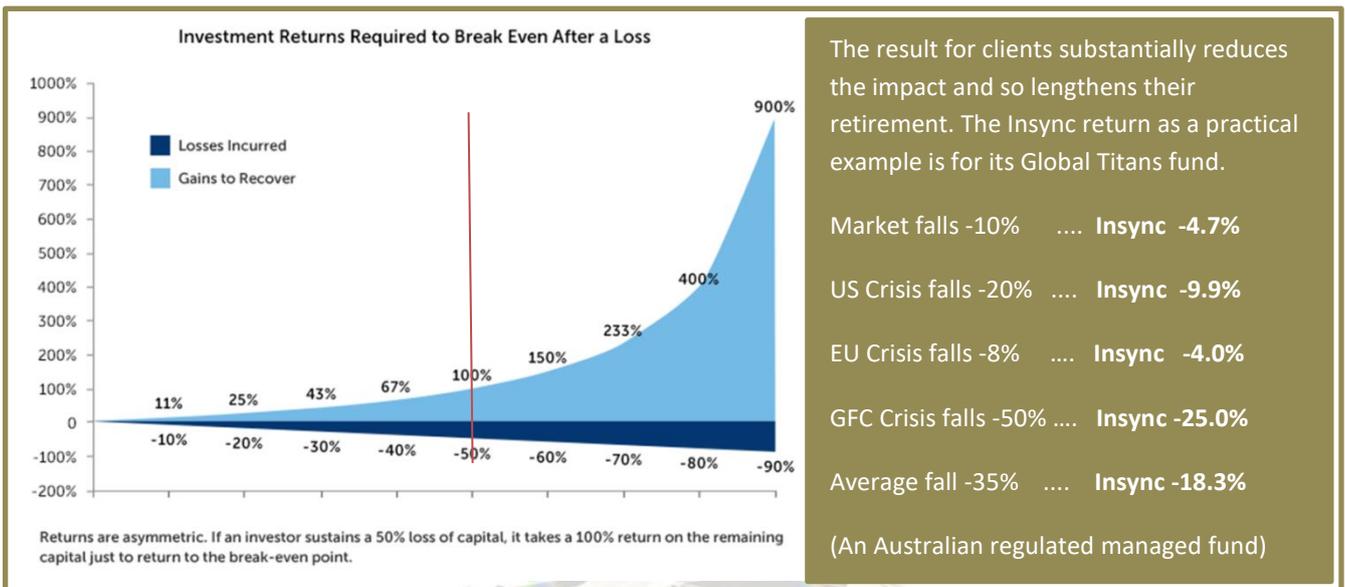
**9.6 Managing a big risk- capital Loss. Volatility of sub 20% in financial investments** is difficult to shield clients from without extracting a high premium and ironically, increased execution risk. Education and communication is thus the best tool an adviser has for this new world sub 20% volatility. When a 20%+ event lasts months or even years, several options are available. One is to regularly protect clients with Index Puts for falls of greater than 20%. The cost usually averages 1.5 to 2% p.a. deducted from returns (as 100% protection is rarely required).

For investors in accumulation, sub 20% volatility is mostly a positive wealth multiplier due to dollar cost averaging and an ideal risk management tool also for withdrawing savings for consumption as well. Investors however have little stomach for this level of volatility once it passes this.

**What about +20% catastrophes?** They have, and will continue to wreak havoc for investors easily destroying long term plans. We had the GFC, but also two other catastrophes post the GFC; The Great Recession in the USA and the first EU Crisis. In this more uncertain world with fragile subdued lower growth, more such events will occur in both developed *and* undeveloped regions. In coming pages we illustrate all falls since the Great Depression. It makes illuminating reading and the impact on retirees.

**The Licensee response is often lacking.** Should another GFC type correction occur, we expect similar fallout from a lack of defensive planning with disastrous impacts on Mum and Dad investors. Lessons do not appear to have been all that well learnt, and preparations for the next one appear absent.

**How much return do you need to make up for past losses?** This next graph provides the answer, plus an example of the positive impact from downside protection employed by a fund manager (using Insync’s Global Titans fund).



**Protection of capital for retirees is crucial!** This is because the impact of this multiplies when an investor is regularly drawing down on a portfolio. A retiree’s portfolio longevity for example vastly reduces when a catastrophe occurs.

**8x in 50Yrs = How many times a catastrophic event occurred.** Let us define a catastrophe in markets as a “fall that lasts longer than 3 months and a magnitude of greater than -20%.” This has occurred 8 times in the last 50 years for the S&P 500 and other leading indices. Around once every 6 years.

**Average loss of -35% every 6 years for last 50! It’s been 4 years since our last.**

**9.7 Actual impact on a Retiree is worse than the percentages even suggest.** This is due to the arithmetic dollar based impact of a loss when having to draw down an income. A ‘spiral down’ effect occurs, with each successive year generating a worse result. Yet simple and effective risk management tools can be employed by fund managers vastly reducing its impact if included in the investment mix. The result when utilised?

- **Longer lasting nest egg preserving the longevity of income**
- **More likely at the originally intended income level**

For example, Index Put options covering the portfolio at most times (except immediately after a catastrophe). This is not a panacea for all market falls of greater than 20%, but it will negate a large amount of pain for the adviser and client in most catastrophic events. Let’s take a look at a model of a theoretical portfolio with and without the down-side protection.

**The impact on valuation of catastrophe events:**

Utilising actual figures within Insync’s fund, we calculated the losses on the three catastrophe type events since 2008 (GFC, EU Crisis, US Crisis) and the hypothetical average over 50 years and one at a 10% loss.

Scenario 1 drop + normal vol	Scenario 2 US-crisis	Scenario 3 EU-crisis	Scenario 4 GFC	Scenario 5 Average over 50 yrs
Market drop: 10%	Market drop: 20%	Market drop: 8%	Market drop: 50%	Market drop: 35%
Volatility: 30%	Volatility: 40%	Volatility: 25%	Volatility: 60%	Volatility: 40%
Total protection (option price) \$ 1,705,328	\$ 3,227,030	\$ 1,277,426	\$ 7,985,059	\$ 5,330,437
Loss from market \$ 3,200,000	\$ 6,400,000	\$ 2,560,000	\$ 16,000,000	\$ 11,200,000
Loss with protection \$ 1,494,672	\$ 3,172,970	\$ 1,282,574	\$ 8,014,941	\$ 5,869,563
<b>Calculated performance Insync 4.67%</b>	<b>9.92%</b>	<b>4.01%</b>	<b>25.05%</b>	<b>18.34%</b>

## The Global Downshift- Preserving Equity Returns

The below table highlights falls (3+ months) since the Great Depression. We included *only those* in our modelling lasting longer than 3 months & greater than 20% fall. Thus the result for investors would actually be worse without protection.

### S&P 500 Corrections and Bear Markets since 1928

Keep this in mind when markets are rocketing upwards!

Peak Date	Trough Date	% Decline	Duration (Days)
5/14/1928	6/12/1928	-10.3	29
9/07/1929	11/13/1929	-44.7	67
4/10/1930	6/01/1932	-83.0	783
9/07/1932	2/27/1933	-40.6	173
7/18/1933	10/21/1933	-29.8	95
2/06/1934	3/14/1935	-31.8	401
4/06/1936	4/29/1936	-12.8	23
3/06/1937	3/31/1938	-54.5	390
11/09/1938	4/08/1939	-26.2	150
10/25/1939	6/10/1940	-31.9	229
11/09/1940	4/28/1942	-34.5	535
7/14/1943	11/29/1943	-13.1	138
5/29/1946	10/09/1946	-26.6	133
2/11/1947	5/19/1947	-14.7	97
7/24/1947	2/14/1948	-14.1	205
6/15/1948	6/13/1949	-20.6	363
6/12/1950	7/17/1950	-14.0	35
1/05/1953	9/14/1953	-14.8	252
8/02/1956	2/12/1957	-14.8	194
7/15/1957	10/22/1957	-20.7	99
8/03/1959	9/28/1960	-13.6	422
1/03/1962	6/26/1962	-26.4	174
8/22/1962	10/23/1962	-10.5	62
2/09/1966	10/07/1966	-22.2	240
9/25/1967	3/05/1968	-10.1	162
11/29/1968	5/26/1970	-36.1	543
4/28/1971	11/23/1971	-13.9	209
1/11/1973	10/03/1974	-48.2	630
11/07/1974	12/06/1974	-13.6	29
7/15/1975	9/16/1975	-14.1	63
9/21/1976	3/06/1978	-19.4	531
9/12/1978	11/14/1978	-13.6	63
10/05/1979	11/07/1979	-10.2	33
2/13/1980	3/27/1980	-17.1	43
11/28/1980	8/12/1982	-27.1	622
10/10/1983	7/24/1984	-14.4	288
8/25/1987	12/04/1987	-33.5	101
7/16/1990	10/11/1990	-19.9	87
7/17/1998	8/31/1998	-19.3	45
3/24/2000	10/09/2002	-49.1	929
11/27/2002	3/11/2003	-14.7	104
10/09/2007	3/09/2009	-56.8	517
4/23/2010	7/02/2010	-16.0	70
4/29/2011	10/03/2011	-19.4	157
5/21/2015	8/25/2015	-12.4	96
11/03/2015	2/11/2016	-13.3	100

Grey highlights periods of -20%+ longer than 3 months (Bear markets)

Our modelling counts data from this first period in 1966

We came close to a ninth time in 2011.

^Corrections are declines of 10% or more. Bear markets are declines of 20% or more  
Source: Standard & Poor's Corp, Haver Analytics and Yardeni Research.

**9.8 The impact of sequence risk- Income earthquakes for retirees** wreaks permanent devastation to anyone drawing an income from their investments. Like an earthquake, sequencing risk occurs without warning. It shakes the solid ground you thought was solid you were standing on, its unpredictable and it cannot be prevented. It's also totally random and they will always occur. You can however shore up the structure of your investment to withstand its impact.

**The first 5 years are crucial: It's the biggest risk income investors** (such as retirees) face when investing in the first five or so years. Sequencing Risk is defined as when you experience relatively poor returns (and a few potholes) in the early years for a retirement that perhaps has to span 25-30 years.

**Like an earthquake it can ruin a happy secure retirement** even if starting with the right amount saved. 2008 (the GFC) and 2011 (The Great Recession in the USA) were recent examples. For those unlucky enough to have retired on or just before either, the amount you could then live on had to be cut drastically, or face the likelihood of the money running out and living their last years in poverty or being forced to sell one's home. This doesn't have to happen.

**A Case study - 10 Couples retiring:** Each couple saved a nest egg of \$1 million, investing into the top 500 USA companies- The S&P 500 Index (a similar outcome applies investing in the Top 200 Australian businesses- ASX 200).

Rising life expectancy means 25-30 years income is required. Each withdraws \$100,000 p.a. increasing by 3% p.a. (countering inflation). Fees and taxes are removed as they don't alter the comparative outcome. Each couple retires one year after the other starting in 1977 (the last couple retiring in 1987). **How did each couple fare?**

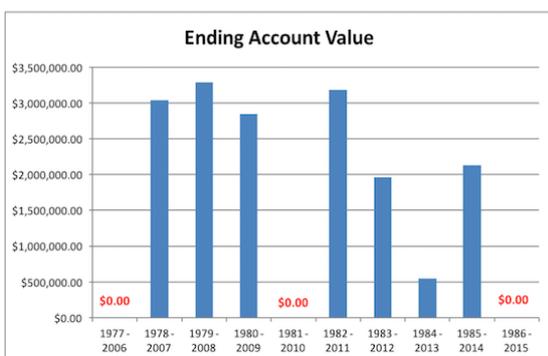
- **3 ran out of money** well before 30 years simply because they retired one year too early or too late in hindsight.
- **7 ended well** with balances from \$500,000 to \$3.2 million.

**How not to be one of the three.** The three that ran out of money retired in 1977, 1981, and 1986. Their 'average' returns were still respectable, and compared to those whom did not run out, sometimes achieved even better. So how could they have found themselves in this awful mess? The first *five to 10 years* of their investment, returns were subpar. Even though later they did well – better than others whose middle to back end of retirement experienced more mediocre returns.

**Insight 1: The perfect storm** is created when unexpected catastrophe type losses occur combined with sub-par returns in the early years. You get so far behind; it becomes impossible to catch up. It's known as "sequence of returns risk."

It's like an ever decreasing spiral that at each income payment point, more capital is required, which deprives one of that capital in the future to build more income- forever!

### The results for each couple



The numbers are reversed from what you would expect

Couple	Longevity of Retirement Nest Egg	Average Annual Return of S&P 500 for 30-Year Period	Average Annual Return of S&P 500 for First 5 Years of Retirement
1977 - 2006	\$0 after 20 years	12.48%	8.13%
1979 - 2008	\$3.2 million after 30 years	11.00%	17.36%

**When analysing the declines for in the S&P there were 15 random periods** of negative moments of **-10.2% to -56.8%** lasting from **33 to 929 days**. Yet overall returns were very healthy as we can see in the next table. There is no way to predict who would have been the unlucky 3 and who weren't. There is no pattern or warning bell. You cannot confidently avoid this from happening; but there are precautions one can take.

## The Global Downshift- Preserving Equity Returns

Although over the long term the S&P 500 returned 1.48% *more* per year for 1977 to 2006 (**the worst couple enjoyed a higher average overall return**) than the couple from 1979 to 2008 (the best resulting account couple of all 10), the former couple ran out of funds . It was the *first five or so years* of solid investment returns (and no big losses) that the best couple enjoyed, than the worst couple who retired in 1977.

**Insight 2: Be wary of chasing the highest returning investments** appearing on league tables. These results are too hard to sustain. What matters is that in the first period of retirement you don't fall below a reasonable return (not out performing it), and also not falling into catastrophic potholes. On average potholes lasting more than 3 months occur once every 6 years.

**No one can predict when falls will last more than a few months.** Since 1930 they struck **20 times, 9 lasting over 300 days - the longest 929 days** (Year 2000). Even though the rises over time will provide an average return outperforming other forms of investment, it is the retiree's need of constant drawdowns without periods of sub-par results in the early years, which interferes with a happy and secure future.

**Insight 3: Holding most of your savings in real property won't shield you** from this risk. At some point the rental income alone will not suffice and even though a large amount is not needed in any month you can't sell just a few bricks; and so the inevitable property sale will take place. At this point the whole sequential risk event begins for this portion of a nest egg all over again. Placing it all in cash creates an equivalent disaster.

**Having your cake and eating it too!** The reality facing retirees is the need for exposure to large amounts of *liquidable growth assets* even though their volatility can be damaging. Here is how to enjoy its benefits and reduce sequential risk.

- **Keep 2 years income** in a cash type account so you can ride out most periods of low/negative returns
- **Invest in equity** funds that aim to produce a growing portion of income
- **'Dollar cost average' your nest egg** into the retirement strategic asset allocation (if not already set up in this way)
- **Diversify in ways that smooth out** returns without giving up to much upside.
- **'Downside protect'** a good portion of your equity investment. Managed funds that deploy capital protection in equities are a good start.

**Finally, when retired, having the highest performers is not as important as smoothing out the inevitable 'potholes'** across your portfolio. Don't try, as it increases risks you don't need. Shielding a nest egg is as crucial as posting good above inflation returns. Stellar performers often experience stellar losses. Studies measuring the length of time that funds remain in the top quintile of return performance are few and far between. This means you have to become the Fund version of a stock-picker trading positions regularly.

As we can see from the above example a higher overall percentage return over time doesn't automatically equate to a longer lasting or bigger values in your account at the end of the day. Drawing down an income changes things. **Beware!**

**For those investing cash amounts into an investment such as super (not yet drawing an income)?** Volatility that trends up is by in large, during periods of volatility, generally a booster to the dollars and cents in an investors account. A study by GMO in the USA however concludes it still can impact rather hard similar to a retiree scenario. Making sure an investor remains on track without fiddling with the fund, contributions or timing..... when a fund they're invested in (or entire markets for that matter) are being hammered and alternatives are posting better numbers that year is hard!

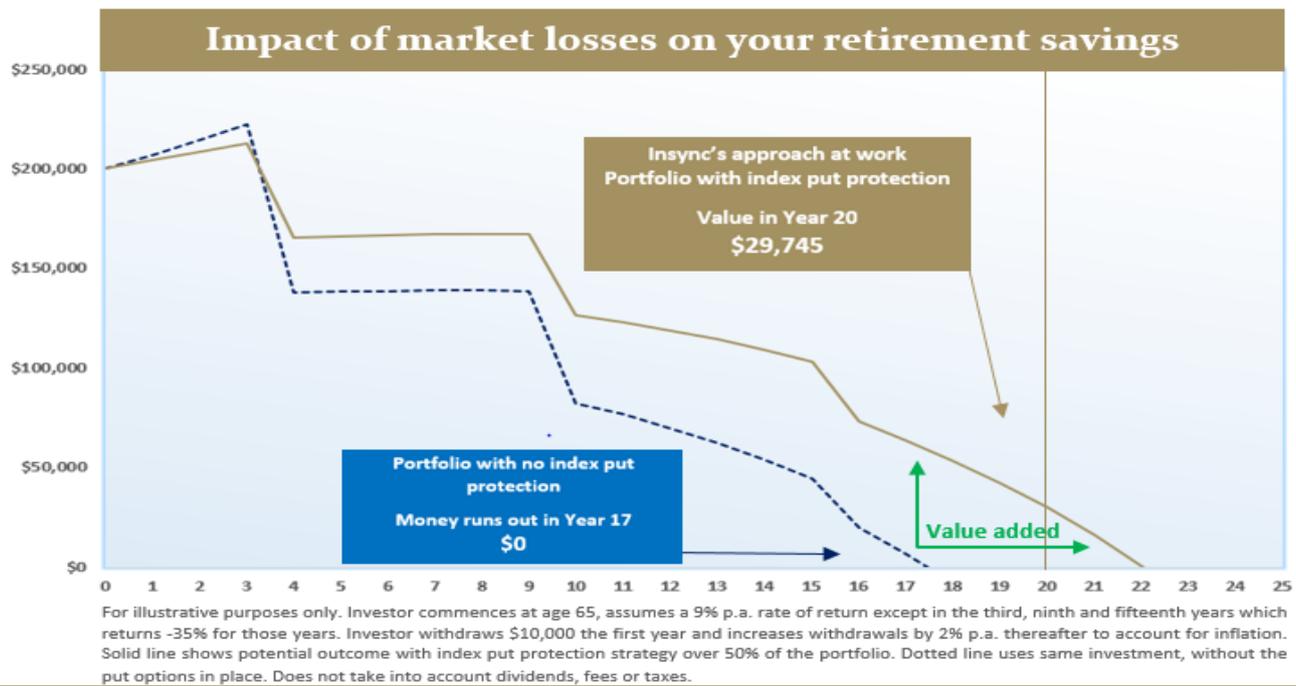
**Adding fund manager initiated risk management into equity portfolios along with initiatives at the plan level is sensible for those requiring their wealth to last a while.**

9.9 Demonstrating fund manager provided downside protection:

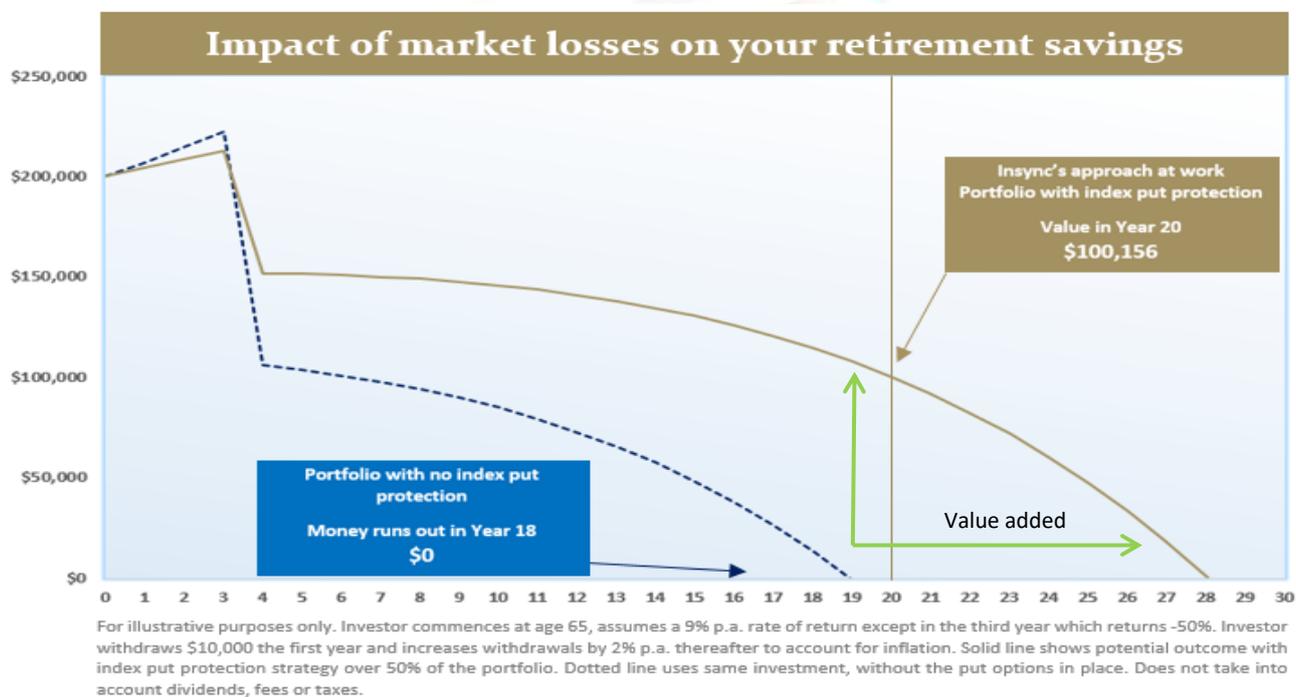
- A single retiree with \$200,000 in an allocated pension aged 65 on the minimum drawdown
- \$10,000 income in dollars indexed at 2% p.a. annual drawdown
- Assumes a 9% p.a. return on the investment Blue Line (7.5% for the Gold Line investor= cost of options)
- The Gold Line investor has protection in place, reducing returns by 1.5%p.a. (average cost)
- The Blue line Investor has no protection and enjoys an additional 1.5% p.a. (no protection expense)
- The first catastrophe occurs at Yr3.

**Illustration A: 3 Catastrophes over a retiree’s lifetime – protection is worth it**

Using 50 year average data (6 years frequency, 40% volatility, 35% magnitude averages of events)

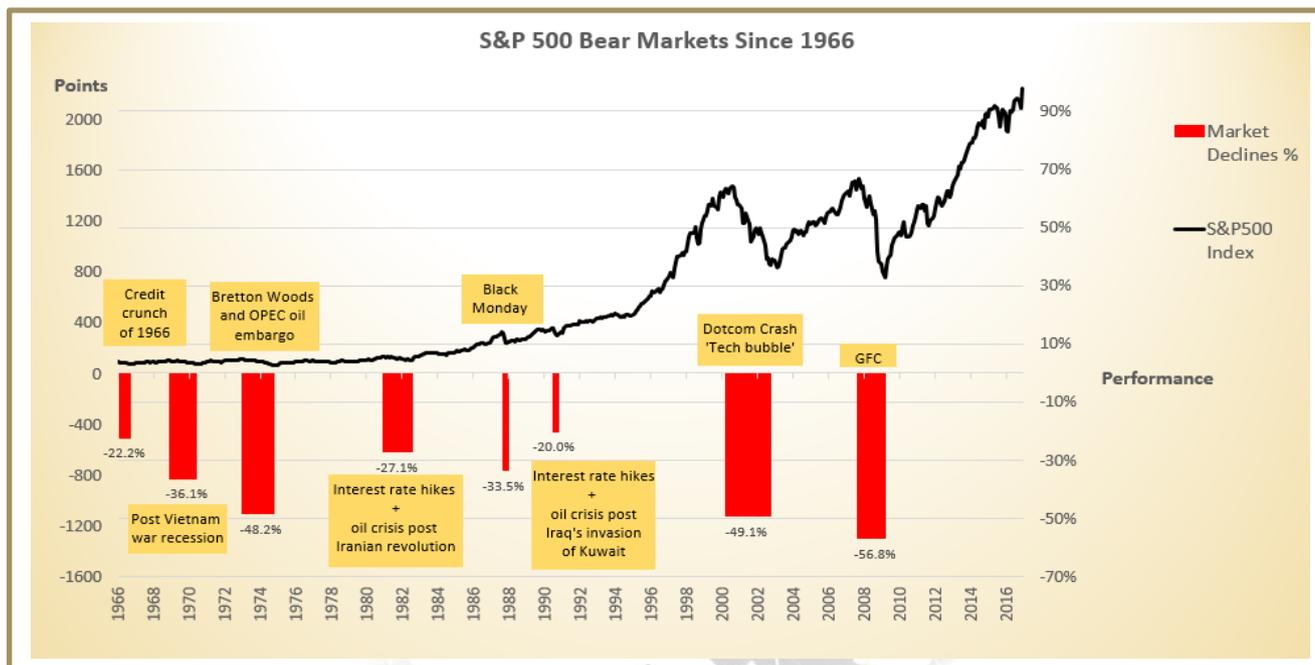


**Illustration B: The actual GFC Event. (Still going strong 9 years further)**



**A Paradox: Is the cost of protection say at a cost of 2% p.a. off the gross return worth it?** The previous illustrations using Put Options as the example would support an answer of yes, but how can that be? Surely going all out for the highest returns counters any losses? The answer not as obvious as one would intuitively conclude, yet this is what almost the entire advice industry believes and does - borne by what funds receive flow (Chasing the chart toppers). The modelling however says no, when its impact is calculated at the *client level* in dollar terms- and NOT at the fund level as a percentage.

**Dollars and Cents more important than Percentages!** Clients spend dollars not percentages. This is especially the view when devising income streams and a catastrophe occurs in the earlier years of retirement as we saw in the last section. This graph highlights the magnitude of losses often incurred after strong “everything is moving up” periods in markets. Behavioural science finds that a **person feels losses 4x harder and deeper** than a gain of the same magnitude. These are defining moments in building and maintaining an advice practice.



**9.11 A perfect storm of three. The trick of league tables, with licensee and researcher structures.** An unintended consequence of this mix has virtually all advisers chasing historical performance (and they do so with regular consistency and irrefutable proof); is that they will select funds mostly in the top of the equity league tables. When a fund manager is devoting some of the return to catastrophe ‘insurance’ they are unlikely to appear at the top of these tables until after a catastrophe (when it’s too late to help investors). This is because on average, protection can be expensive. For Insync as an example, this has removed circa 1.5% p.a. from investor’s year to year returns. Had this not happened there is little doubt that much greater adviser support by leaping up the league tables would have followed.

**A. Advisers follow the herd:** When measuring retail inflows/outflows across the active equity sector the flows move out of sync with performance; that is, after a rise inflows peak and after a fall they ebb. Overlay onto this the flows to the top 5 equity returning funds and they enjoy more than 75% of inflows. This indicates advisers follow yesterday’s results ignoring risk, individual managers’ objectives and so on. And why not! It seems logical to select the higher performers and ignore the reality of top managers being unable to stay in the top for more than a couple of years (also proven).

**B. Researchers view is limited and restrained:** Researchers analyse funds at the fund level. The researcher’s business model lends itself to managers with proven historical results over many years often skewed by who pays them and when. They are *unintended gate-keepers*. Their brief does not allow an actual client portfolio evaluation in assessing funds for approved lists and models. This means they work with esoteric numbers, not also in dollars and cents at a client level. This is important as the numerical modelling at the investor level shows a paradox.

### The paradox

Less return at the fund level *with* protection can = Greater dollars lasting longer at the client level.

**C. Licensees follow the researcher's output without much question** or considering other inputs. This is mainly due to a lack of skill in this area and the focus on compliance driving research. Commercial pressures have managers orientated to other areas of licensee operations. Vertically integrated firms generate resistance to assessing this input fully. The drivers behind the above are of course many and varied, but none of this helps the end investor. Yet, it is they we are all responsible and accountable to.

Interestingly learnings from the GFC resulted in no new proper risk planning at a client portfolio level (nor any manager or researcher held accountable). What is ignored is likely to be repeated, and so it's likely to happen again! The adviser is hit hard with lower revenue in those times, lost clients and a great deal of unnecessary hardship and stress with client retention issues. **Researchers and licensee managers won't be at their side facing real clients when it next happens nor taking a pay-cut. It will be the adviser alone.**

**The good news.....** there is nothing stopping an adviser altering course and engaging in an evaluation of the hard data and facts. To debate the findings and to welcome a new approach, then pressuring researchers and licensees to address this issue (or find ones that will) is simple and doable. Imagine the positive business building opportunity from posting PR after a catastrophe demonstrating the dollars saved and retirements secured - when the rest are silent and meek?

For advisers focused on generating returns meeting actual *individual* client goals (if they can resist the greed motivator of chasing the historical highest 'Fear Of Missing Out'), this will be both easy to do and lucrative.

**9.12 A shared responsibility in risk management between investors & fund managers.** Our core belief is that for investors to pursue the opportunities for strong returns in the new global down-shift with listed enterprises, it means exposure to volatility. Uncertainty in the short term is high, and the risk of capital losses are ever present if tempted or forced to cash-in. Given lower average returns are the new normal, the need for being highly selective as to which industries and players within them is also crucial.

**Always at the foremost of our thinking is how to provide the majority of the upside from equities that investors seek without jeopardising it all with the increasingly regular passage of market catastrophes?**

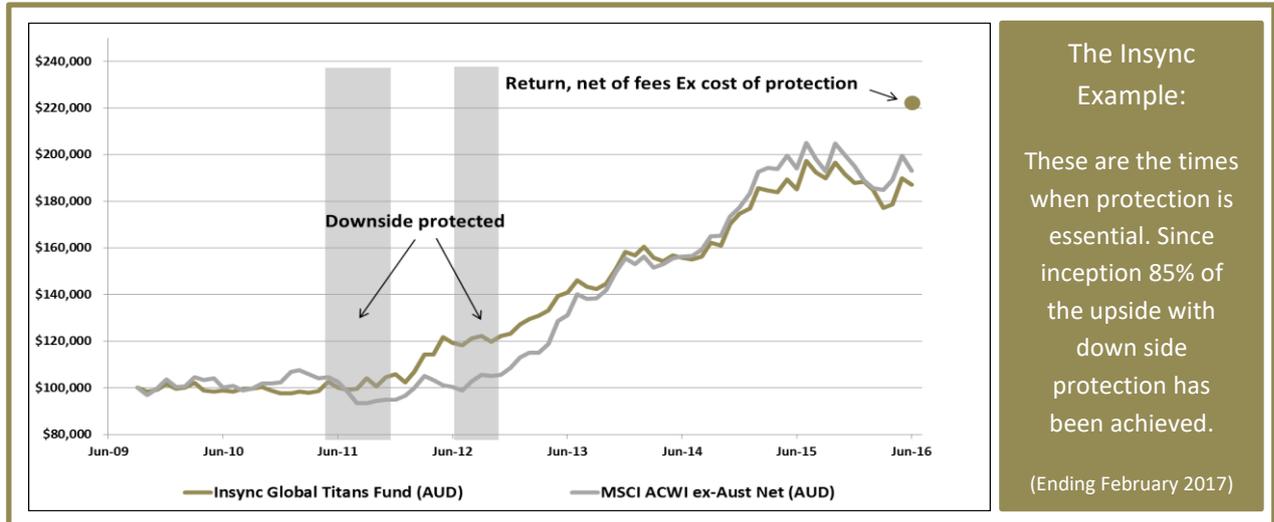
The industry has 'imported' risk management techniques, measures and descriptions that are mostly unsuited to mum and dad investors comprehension and benefit. We do know by sad experience that for them the main risk has always been "don't lose my money". As professionals we know of a far greater one 'don't let the money end before they do!'

Utilising a manager who adopts strong risk management techniques in each investor portfolio is a crucial ingredient to this and should sit beside long only managers. They include;

1. **Focus on large companies that are global brands** represented on the ground in the target regions and sectors demographics support. Further they are shareholder friendly, dominate their industries and have long records of consistent results.
2. **Ignore benchmark weightings.** This is because it limits investment to the past and to a too broad an exposure to nations where the winners and losers are about to be divided even further part in the future.
3. **Offer some form of capital protection.** For example index put options.

One outcome is that these managers can be performing below peers or even the index for periods. This is not a bad thing, especially when markets are broadly rising (the likelihood of short term under performance by such risk focused managers are likely). However as the graph below demonstrates when a global catastrophe does occur, their performance often rises (using Insync as an example) and above what were the performance leaders up to that point. In addition, the depth of the plunge in price will tend to be less than index and benchmark hugging active long only managers. The recovery in price also often faster. This has a profound positive impact on extending the life of retiree assets in drawdown mode.

**Investor Outcomes are more important than Fund Returns**  
(The highest fund return may not equate to the best outcome)



Note: During the two crises the added value to investors is large. Returns outside these periods however often trail those managers in top quintile performance The 'peace of mind' and safety factor by deploying a contrarian risk based approach has strong merit for retirees in addition to being a force multiplier in portfolio longevity.

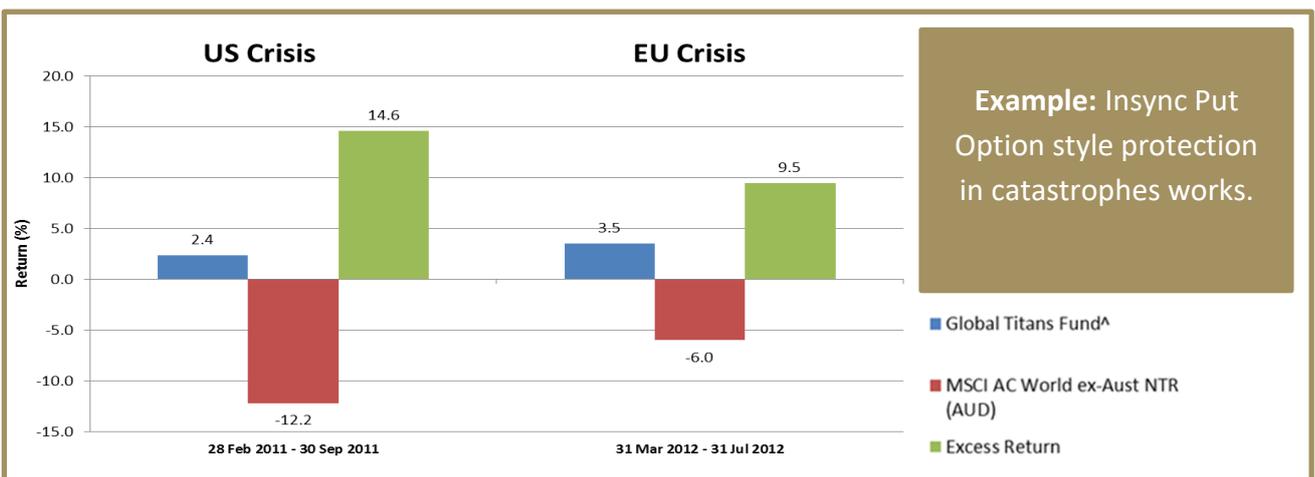
**A. Consider adopting a simple yet higher cost approach to delivering protection.** Index Put Options. This cost during good times in markets acts as a drag on returns. Thus *long only* funds without protection can outperform as they did in 2016 as a result.

We do not believe the **increased risk of determining when to place protection** over the fund is offset by the additional return delivered in the shorter term. One big market fall is enough to wipe out much of the previously enjoyed additional upside of *long only* equity funds (not to mention considerable panic and angst investors will endure).

**B. Accept and ride out sub-20% volatility;** manage any capital demands from holding cash like deposits for emergencies and 2 years income, and also view their returns from an overall portfolio (not specific funds). Thus initiate;

- Dollar cost averaging on lump-sum withdrawals from the fund
- Utilisation of a separate portfolio of capital secure investments for future capital use with a time horizon of less than 7 years.
- Exposure to only some index funds, replacing index 'hugging' active funds (as their additional expense means they struggle to outperform index funds on a net basis)
- Use stock and sector specific long funds that correlate with protected offerings for active equity management

**C. Manage for the likely event of an equity catastrophe.** Since the GFC we have experienced two. Brexit was too short in duration. By definition a catastrophe is when prices fall below 20% and remain there for many months. The result of this is illustrated below with our own fund. There are others out there!



**D). Currency management.** This helps both retain gains made from the underlying investments so that currency movement does not detract from them, and to also add to the overall return. Equity managers are not natural currency managers. Currency management presents an increased risk profile and set of issues when using it to produce additional returns. Thus, include managers that focus on it to preserve returns. Currency does however need to be managed - but not aggressively or for short lived fluctuations.

**E). Remove double ups in industry exposure where Australian exposure is high.** Given the asset allocation bias made by licensees to Australian firms, beware of being invested in Financials, Resources or Real estate globally as well as the usual overall overweight exposure you will have if investing in Australia. We believe it prudent to create diversification in asset allocation and opportunities not usually within Australia for investors.

**9.13 Protection + Performance:** In a mix of say 3 international managers, one alternate, one long only and one long with protection (alongside a small core containing an index fund), is the below statement in red appealing?

**Long term investors aim for enjoying 85% of the equities upside, (that's well above bond returns) but with down side catastrophe protection. A suitable reward for portfolio stabilisation? Moving away from higher cash and bond allocations that offer little diversification benefit and lower returns and building in some protection and removing cost from index huggers.**

It is perhaps worth modelling for and at least presenting the option to investors.

Over longer time periods, it is this protection that actually places the end investor head financially, even though its returns can be less along the way for many shorter time periods. Simply put it is the flattening out of the 'pot holes' a catastrophic event creates, is what matters to end investors as much in DOLLAR terms as seeking 'out-performance' in pure returns earned. It's the combination is what matters!

A few investment managers offer protection in various forms for both international and domestic offerings. Some are complex and hard for retail investors to understand, others like Insync's is relatively simple. Protection at the fund level works and greatly aids advisers in delivering outcomes retirees and risk adverse investors not only need but demand.

Our argument is that when investing in equities into a more volatile future and facing uncharted fiscal and monetary waters, it is beneficial to include such protection in portfolios and especially for those drawing down on their savings.

### Section 9 Summary:

Industry structures and approaches are not positioned well to address the new strategic Down Shift. As the world enters its next stage of economic development, the rules and methodologies for investing in equities need to be revised.

1. Income 'earthquakes' (sequencing risk) must be managed well
2. They happen without warning, randomly and will decimate wealth and security
3. Australia is not well placed to reap the upside from demographic change, indeed faces heightened risks- yet is an expensive market to access.

Lessons from the GFC have not resulted in improving client portfolio construction or investment selection and the industry is not focusing on the downside for its clients as much as it should.

**Conclusion:** Ensure a good portion of equity exposure is;

- Protection for risk has never been more important than now
- Add *downside protection* into portfolios within the managers, as well as at a plan level (its insurance)
- Revise approach to asset allocation, region, industry and firm.

**Beware of the paradox:** Focus on the investor portfolio *cash result*. It's often posting a lower percentage return than what the fund level returns will advertise (league tables).

## 10.0 What Investors can do. New ways to manage risks and seek out returns in new ways and places is what we have discovered in a world that changed under our very noses.

**10.1 What can investors do in response?** Assuming investors want to address the facts based on sound data, and acknowledge what the world is already experiencing economically and demographically; then there are many things to adjust and to take advantage of. It will necessitate a move from normally held assumptions on expectations and how their money is:

1. Allocated to industries positioned well to the global downshift
2. Allocated across countries accordingly and (not always directly or via EM Fund offerings)
3. Companies in industries that will benefit or weather the change the best
4. The role of fund managers in helping combat the ravages of excessive volatility
5. Use of strategies to dampen volatility's negative impacts on savings
6. Replace index hugging active funds with index funds and limit overall index fund exposure

Rewards should be felt in longer lasting and more enjoyable retirements than the average; less angst as world crisis occur; a less volatile investment portfolio and better than average returns. This means considering the issues below in constructing portfolios and selecting investments;

- **Sector by sector asset allocation is crucial.** Many will boom others will decline in return generation
- **Volatility of returns not just by company but by sector and political region will rise not reduce**
- **Many industries and companies that will benefit from change reside outside our borders** yet trade with brands we often purchase here. This is the new norm of the development of both technology and globalisation. Not being invested in them simply because they are not listed on the ASX and/or tax is a folly. This outdated approach will extract a high cost on retirees and investors generally.
- **Downside protection for those in retirement is more crucial than ever.** When volatility moves outside the range of 20% (As it has twice since the GFC and the GFC itself), retirees find themselves choosing between a shortened retirement, returning back to some form of work, or a more frugal one. Outcomes for the unprepared are full of pain and angst. Not a place to be in by choice and Australian investors *do* have a choice.

**10.2 Nomad Investing: A place to start.....** Don't assume the long held norms of growth, returns and industry dominance will continue in Australia and Western nations. Expect volatility and market disruptions such as the previous global crisis of the past 20 years to continue. As a result beware of holding most equity assets within Australia, especially for those building portfolios for and in retirement. The tax driver is not there in any great way anymore. Patriotism has no place in an investment portfolio. It served well in the past but the world is changing fast. Adapt.

Go where the growth and the opportunities lie. The term '**Grey Nomad**' should be extended to that of the '**Investor Nomad**'. Roaming to where the sunshine and fun times are to be had. Be calculating and hard headed not emotive. Present generations of Mum and Dad investors now have the access to go anywhere that better investments can be found at a reasonable price. **Use this wonderful privilege.**

### **We recommend investors consider including in their equity strategy;**

1. **Emerging economies** with 'middle income' growth and growing consumption and productivity
2. **Companies set to benefit from technologies and globalisation** in both first world and emerging economies with solid foundations and a long history of local operations in these nations
3. **Industries positioned for an aging population** globally with their exposure and product offer
4. **International equity managers** with active currency management
5. **Equity managers that pay more than lip-service** to downside protection with sound actions and tactics
6. **What bond market commentators are indicating about the future.** Bond markets are an excellent pointer of future prospects economically and their commentators better based in fact than those in equities.

This will not guarantee success of course as timing and company due-diligence will be crucial, however investment styles that do not offer flexibility in the above will likely create an increase in portfolio risk longer term

**Caution:** At the same time we caution Mum and Dad investors to beware of;

- **Illustrations for growth** using long term data from the past where GDP stood above 3.5% and at least one big region/country posting 6%+ growth. This is especially true in allocated pension assumptions in wide spread use within our industry. The Draw-Down Rule of 4% in retiree modelling is also flawed.
- **Asset allocations based on long term post war assumptions** only and no regard of the strategic down-shift
- **Assumption that things will 'spring-back'** because it always has before. (Hope)
- **Nations such as China and the USA** will somehow generate a result in defiance of demographic fact and productivity reality for more than short spurts.
- **Assuming that a government can invent 'anti-gravity boots'** against the unstoppable factual reality that the two drivers of higher growth are dead. Productivity and work force growth.
- **Equity managers** with broad market Index weight investment allocations to industries and countries - as many of the sectors they will remain exposed to will decline in return and thus act as a drag on portfolio returns.
- **More than minor exposure to index funds** for the same reason as above. Index funds have enjoyed parity with active managers in returns for the last 20 years; however this is likely to change in the future as future returns are more likely to be derived from only specific sectors and companies – not entire markets.
- **That the published research into active versus passive is statistically correctly analysed** and portrayed for retail investors' reality on the ground. It is not.

These will necessitate changes to local and international asset allocation. Fund managers will need to do more to assist advisers with risk management. It will require a fresh look at the use of long term historical data in assumptions and the argument of *active versus passive* management requires better analytical examination than its currently receiving.

## Section 10: Conclusion:

**Any change to an orthodoxy will meet with resistance.** People and institutions do not respond well to change or challenge. Indeed it's never the establishment that introduces challenge – why should it. The bigger and higher regarded, the more firmly entrenched in the status quo. This new phase of world economics moves us into a volatile downshift that is permanent. It will demand a fresh approach by advisers and investors alike.

**On one hand;** positioning portfolios for returns above the new lower average returns that will prevail.

**On the other;** employing new means in managing increasing and severe volatility.

Researchers and licensees are now inadvertently throttled by a few dominant players whose business models and scope of focus can hamper better outcomes for investors. The Retail Advice industry utilises portfolio models and approaches to risk management that are now potentially higher risk/ lower returning as a result of *not* responding to the the global down-shift.

**Lower growth, increased unpredictability and higher volatility mean;**

- **Enduring strong growth won't be broad market based** - more selectivity required than ever.
- **Benchmark hugging 'active' funds may continue to lose ground to non-aligned alternatives**
- **Index investing may also struggle** as whole sectors in an index act as a drag and the vol of the market increases.
- **Greater volatility can and will destroy the retirements** of many unless advisers act beyond the usual tactics
- **Fund Managers should play a *direct* role in helping mute the impact** of catastrophic events in markets.
- **Risk management should occupy as much effort and thought** as the greed of chasing the at- the- time, highest performers to extend or preserve longevity of people's savings and future security.

**And finally.....Good news:** Investors have both new choices and opportunities that abound from this strategic change that can easily combat the challenges we are now faced with.

The world will continue to generate opportunity and growth. Where, how much and how erratic this will be is what is what has changed - permanently so. Our industry however has not acknowledged this downshift; being preoccupied with other challenges, nor alert to one of the primary drivers causing it. Thus it unwittingly endangers investors whom are not prepared for its impact.

Effective responses will have to creatively adapt to this altered world that quietly changed right under our noses (utilising fund manager downside protection is just one example). An open mind is essential.

**“It is not the fittest that survive, but those that adapt the best!”** Charles Darwin

