NZFUNDS

Investment Report 2H 2018

NZ Funds' research trip, New York _

Cover: In August this year, NZ Funds met with 26 New York and Boston based investment organisations who collectively oversee over US$800 billion. **See Appendix on page 12.**

NZ Funds celebrates its thirtieth anniversary

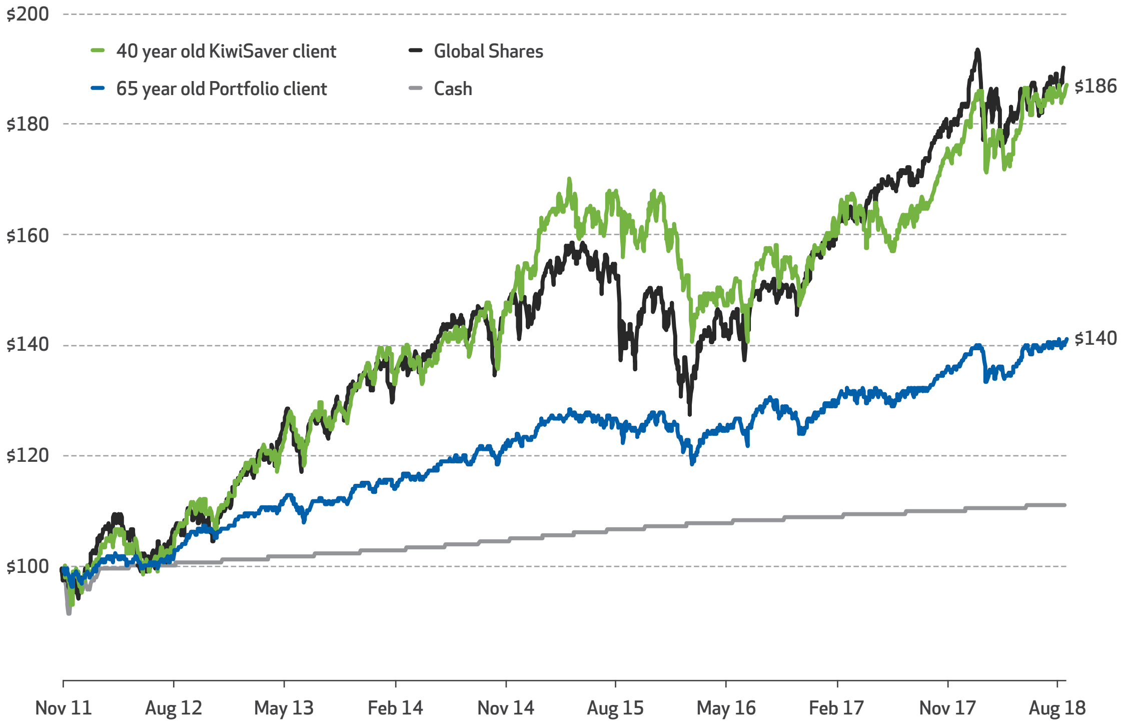
NZ Funds has enjoyed another year of solid returns across the board. We have received strong inflows into our Managed Portfolio, KiwiSaver and newly launched Superannuation schemes, which we opened to enable our clients to repatriate their United Kingdom based pension assets. Year-to-date we are pleased to welcome over 700 new clients as well as more than 70 new financial advisers.

Reflecting on the firm's success, NZ Funds did not start by trying to build a brand. We started with a philosophy which we applied to our personal savings alongside those of our clients. Our approach was to seek to make good financial decisions over a lifetime. In order to do this, we advocated building a well-diversified portfolio; saving (or withdrawing) regularly; and rebalancing regularly according to age and risk profile. It is a philosophy that did not initially sell well, but in spite of that NZ Funds has become one of New Zealand's largest privately-owned investment organisations.

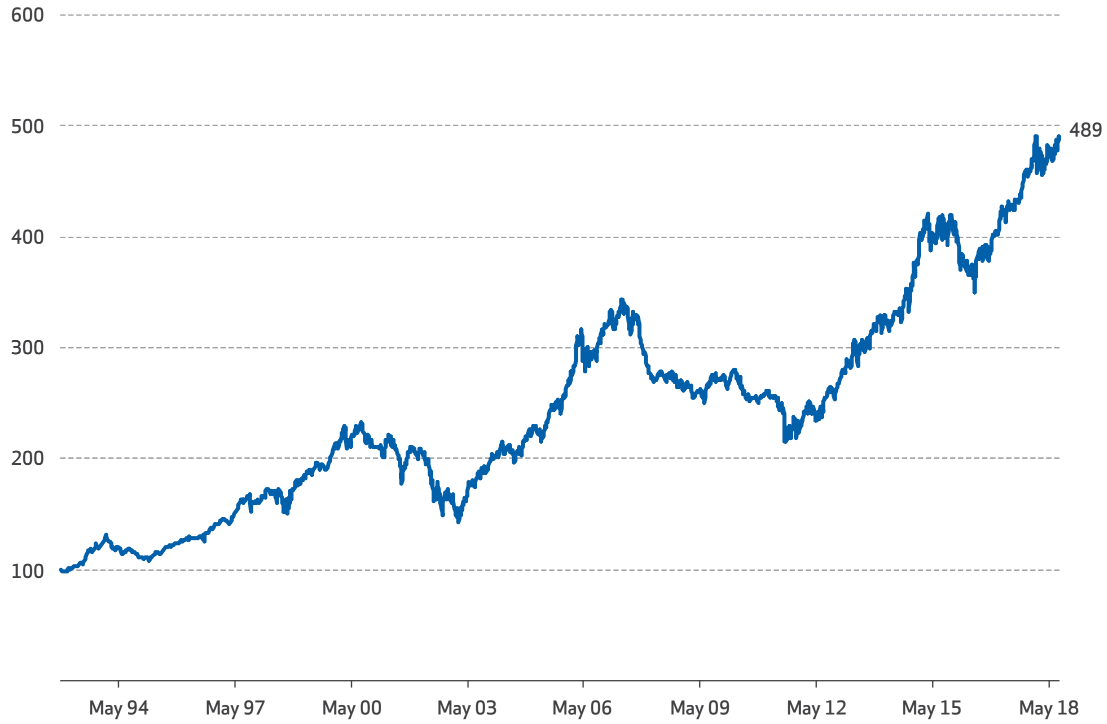
For growth-orientated clients, we have always aimed to deliver returns of around 7% per annum (after fees and taxes) thereby enabling a patient investor to double their wealth every 10 years. For some, this was not fast enough. However, for the Principals of our firm and the 14,000 clients whose wealth we manage, it has been a very successful formula. Overleaf is a graph of the performance of the last 26 years of our growth-orientated investments. Over this time, clients have enjoyed a near fourfold increase in their wealth. It is the best illustration we can provide of our organisation's focus on preserving and growing our clients' wealth, and our own wealth, over time.

Our long-term investment track record has earned us a reputation of being focused on wealth management, working with financial advisers, and being experts in partnering with global investment managers. And while NZ Funds and its clients have faced adversity over the years, we have never shied away from working through the issues when they arise. Which is why, three decades later, many of our early clients and their families remain invested with us today.

NZ Funds' medium-term composite returns after fees and tax at highest PIR (28%) [1]



NZ Funds' long-term growth composite returns after fees but before tax [2]



1. Source: S&P NZX Call Deposit Index, MSCI ACWI Total Return Index (local currency), KiwiSaver and MPS clients as per NZ Funds Portfolio Construction Guidelines, all data after tax at highest PIR (28%), a 1% (pre-tax) fee has been deducted from the equity market index. Performance to 30 August 2018. 2. Source: NZ Funds. After fees, before tax.

Returns after portfolio fees, but before clients' tax, to 31 August 2018

TERM DEPOSIT INDEX	RETURN 12 MTHS	2017 [1]	2016 [1]	2015 [1]	2014 [1]	2013 [1]	2012 [1]	SINCE INCEPTION [2]	INCEPTION DATE
Six month term	3.35%	3.34%	3.29%	4.17%	3.90%	3.98%	4.24%	35.07%	31 Oct 2010

NZ FUNDS MANAGED SUPERANNUATION SERVICE	RETURN 12 MTHS	2017 [3]	2016	2015	2014	2013	2012	SINCE INCEPTION [2]	INCEPTION DATE
Income Strategy	2.24%	3.75%	–	–	–	–	–	4.44%	25 Jan 2017
Inflation Strategy	9.85%	6.27%	–	–	–	–	–	9.65%	25 Jan 2017
Growth Strategy	14.57%	12.35%	–	–	–	–	–	18.52%	25 Jan 2017

NZ FUNDS KIWISAVER SCHEME	RETURN 12 MTHS	2017 [1]	2016 [1]	2015 [1]	2014 [1]	2013 [1]	2012 [1]	SINCE INCEPTION [2]	INCEPTION DATE
Income Strategy	2.32%	4.37%	5.94%	1.44%	4.52%	2.76%	7.89%	36.03%	31 Oct 2010
Inflation Strategy	9.93%	8.29%	1.98%	1.08%	11.57%	5.69%	9.92%	51.26%	31 Oct 2010
Growth Strategy	14.82%	16.96%	-2.93%	7.13%	11.79%	27.91%	16.42%	92.23%	31 Oct 2010

NZ FUNDS MANAGED PORTFOLIO SERVICE	RETURN 12 MTHS	2017 [1]	2016 [1]	2015 [1]	2014 [1]	2013 [1]	2012 [1]	SINCE INCEPTION [2]	INCEPTION DATE
Core Cash Portfolio	1.85%	1.78%	2.20%	3.25%	3.19%	2.55%	2.48%	36.03%	28 Feb 2008
Core Income Portfolio	4.39%	4.15%	4.93%	2.34%	5.44%	3.20%	8.30%	61.67%	23 Jul 2008
Global Income Portfolio [4]	-0.32%	3.71%	5.60%	1.03%	4.02%	2.19%	7.20%	44.41%	31 Oct 2008
Core Inflation Portfolio [4]	8.03%	9.53%	0.34%	-0.31%	9.83%	4.04%	8.15%	47.50%	31 Oct 2008
Property Inflation Portfolio	8.72%	6.42%	-1.74%	7.34%	14.21%	2.73%	18.84%	66.98%	31 Oct 2008
Equity Inflation Portfolio [4]	8.53%	6.27%	-0.72%	5.14%	13.30%	7.54%	4.79%	55.50%	31 Oct 2008
Core Growth Portfolio [6]	9.83%	12.46%	-5.61%	5.03%	7.55%	26.06%	13.68%	176.79%	01 May 2003
Global Equity Growth Portfolio [6]	11.09%	17.32%	-2.13%	8.08%	14.99%	22.74%	15.81%	275.95%	06 Mar 1996
Global Multi-Asset Growth Portfolio [5]	10.60%	-6.71%	16.88%	-16.54%	-13.96%	-2.02%	-3.30%	-28.16%	07 Nov 2011
Dividend and Growth Portfolio [6]	9.23%	18.38%	10.44%	13.00%	15.78%	5.69%	18.50%	774.04%	02 Dec 1992

1. Returns for each year are annualised. 2. Since inception returns are cumulative to 31 August 2018. 3. 2017 returns for NZ Funds Managed Superannuation Service are from inception 25 January 2017 (not annualised). 4. Performance is measured since the launch of the APS platform (now known as NZ Funds Managed Portfolio Service) on 31 October 2008. 5. The inception date shown is the inception date of the current investment strategy. 6. The since inception information represents a composite strategy (shown in the shaded area) is used to illustrate long-term performance of the investment approach used in managing the Portfolios. They do not represent the historic returns of the Portfolios, nor are they an indication of future returns. Pre-tax returns are stated after Portfolio/Strategy fees and expenses, but before advisory fees or investor tax. Past performance is not necessarily an indication of future returns.

Outlook

We wrote earlier in the year that investment markets were likely to continue their strong run but were getting closer to the end of the cycle. This has been the case. While the New Zealand economy is now showing signs of slowing, international markets continue to be driven by the United States and China. In the United States, economic growth is accelerating thanks to tax cuts, record low unemployment and secularly low interest rates. In China, economic growth continues to be driven by infrastructure investment, funded by borrowing and China's propensity to save.

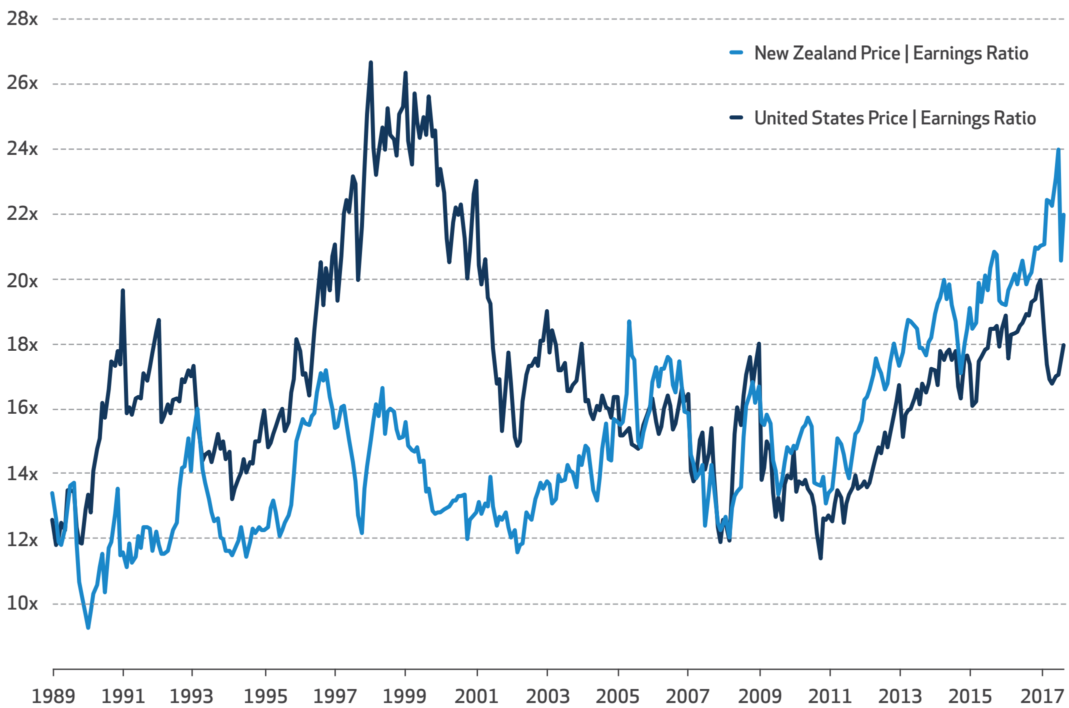
Share and bond valuations indicate that both asset classes are now around 1.3 and 2.4 standard deviations above their long-term average. Put simply, both shares and bonds are becoming expensive. The corollary of a decade of above average returns is that at some point in the future we will have to navigate a period of below average returns.

However, while valuation is a reliable predictor of long-term returns, it is of little use in timing markets or in predicting in what form future returns may come. Below average long-term returns can take two forms. Markets can deliver weak returns though a decade-long sideways movement, creating a war of attrition during which investors slowly lose faith and seek out alternative asset classes. Alternatively, markets may continue to rally, only to slump later, giving up some of their gains.

In the past, New Zealand shares have proven to be something of a safe haven. During the period 2000 to 2009 when global shares traded sideways, New Zealand shares outperformed most other developed countries, delivering an annualised return of 7.1%. This return was almost entirely due to the high dividends paid by New Zealand companies at that time.

New Zealand shares have continued to outperform. From 2010 to August 2018 New Zealand shares rose 222%, outpacing global shares which only rose by 94% over the same period. Today, New Zealand shares trade at a premium to global shares, implying the average New Zealand business will outperform the average American company. Even if this were to occur, which we would find surprising, overall valuations in both countries still imply lower returns in the coming decade.

Despite strong second quarter earnings, valuations remain elevated [3]



3. Source: Bloomberg, Forsyth Barr. NZSE40 (1989 - 2001) S&P NZX50 (2001 - 2018) and S&P500 price to earnings ratios.

In contrast to the global financial markets prognosis of lower returns and increased volatility, we believe NZ Funds is ideally positioned to grow clients' capital over the coming decade. Over the last thirty years we have had plenty of time to reflect on financial market volatility and to refine our investment approach. Our approach is simple; financial market downturns cannot be avoided, but they can be mitigated against, and just as importantly, capitalised on to clients' subsequent advantage. In order to do so, we first focus on understanding where pressure has built up in the financial system in order to avoid losses in selected asset types. Second, we prepare to deploy client capital into those areas of the market which fall sufficiently far enough to offer out-sized capital gains for patient investors. We have set out our current assessment of financial markets, and our proposed course of future action, in more detail below.

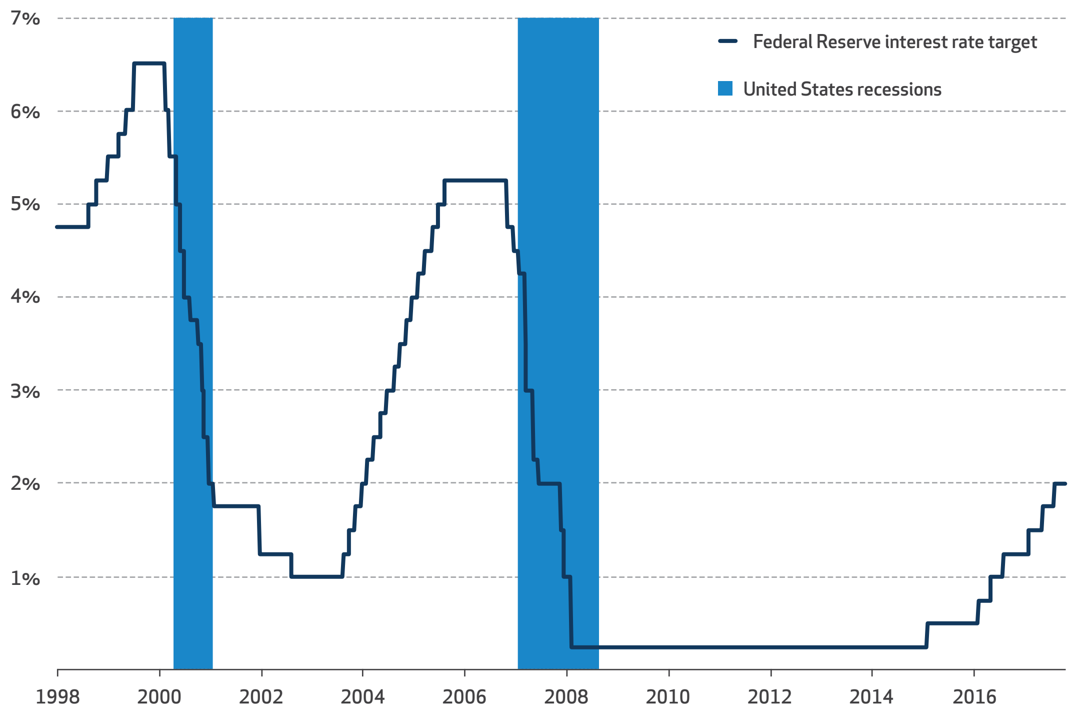
The importance of rising interest rates

All financial market upturns are eventually brought to an end by an increase in interest rates. If central banks did not raise interest rates, economic growth would quickly turn into rising inflation with disastrous consequences, as occurred in the United States in the late 1970s, New Zealand in the 1970s and 1980s, and Venezuela today. It is therefore imperative that central bankers raise interest rates. And as this has now begun, it clearly signals that the final stages of the bull market are underway.

The art of central banking lies in seeking to raise rates enough to suppress inflationary pressures and ultimately create an economic slowdown, but not so much that we suffer from either a sharp fall in financial markets or a deep and prolonged economic downturn. We correctly anticipated that this year the United States Federal Reserve would continue raising rates in the United States. We forecasted at least three rate rises in 2018, following the three in 2017 and one in 2016. Two of the 2018 rate rises have already occurred with the third expected this month.

However, the Federal Reserve now faces a flat yield curve with two-year interest rates at a similar level to ten-year rates. Following our meetings in August with leading New York and Boston based investment managers, we think the Federal Reserve will pause shortly to allow the long-end of the curve to rise further, before it resumes hiking interest rates. This should prolong the economic growth that we are currently enjoying and enable investment markets to continue to rise for some time yet.

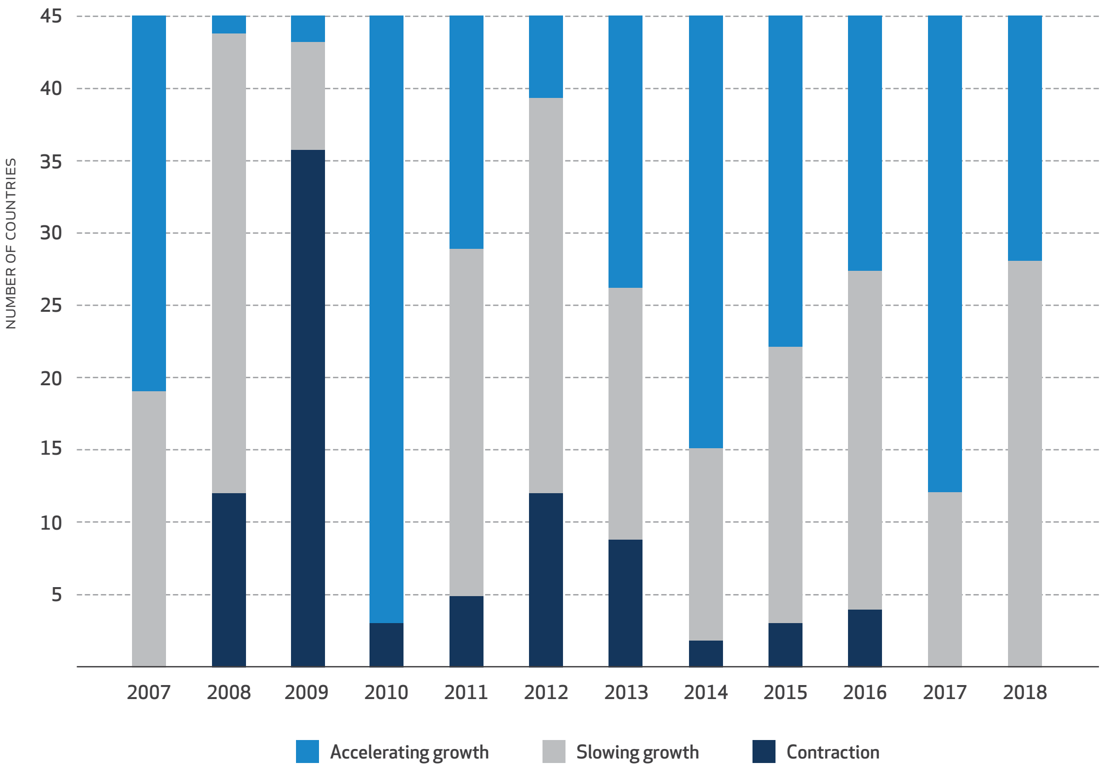
Federal Reserve tightening precedes recessions [4]



4. Source: Bloomberg, National Bureau of Economic Research.

Eventually, rising interest rates will lead to an economic slowdown as occurred in 2001 to 2002 and again in 2008 to 2009. We do not expect anything as severe as the Global Financial Crisis (2008 to 2009). The Global Financial Crisis was caused by excessive borrowing, predominately by United States households and excessive lending by banks and non-bank lenders such as finance companies. When the economy slowed and households were unable to repay their debts, this led to a collapse of the banking system, something not seen since the Great Depression of the 1930s. This time round, consumers have not borrowed excessively and banks' balance sheets are in excellent shape thanks to a myriad of new laws and regulations.

Eventually interest rate normalisation will slow global growth [5]



Ramifications of rising interest rates: negative fixed rate bond returns

It was widely anticipated that a decade of ultra-low interest rates would distort financial markets, but opinions differed as to where this would occur. Following discussions with 26 leading United States based investment organisations, who collectively oversee more than US$800 billion, we have identified two areas which we believe will be adversely affected by rising United States interest rates.

Firstly, there was always a risk that ultra-low interest rates would lead to excessive borrowing in one or more sectors. This business cycle does not appear to be an exception to that rule. And while banks and households nursed their balance sheets back into good health, a subset of globally listed companies, in particular lower quality BBB rated investment grade companies, have used the combination of strong economic growth and low interest rates to borrow aggressively to fund the purchase of their own shares.

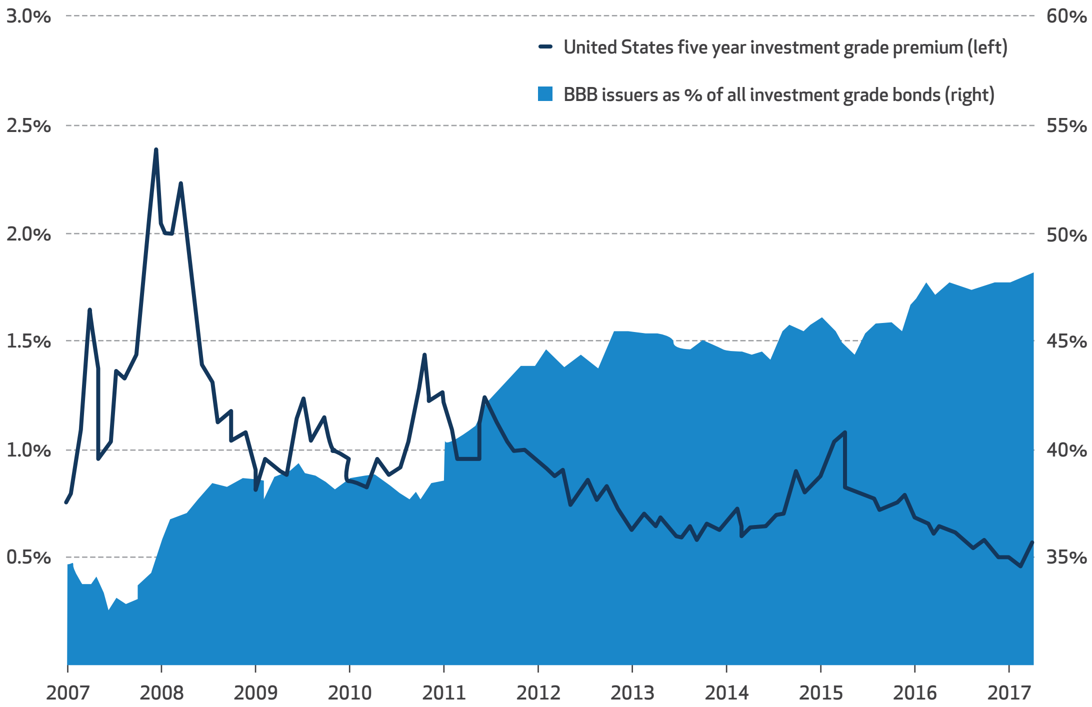
Of the US$9.2 trillion of bonds issued since 2013, around 90% has been used to either repay existing debt or fund share buybacks (financial engineering). Only 10% has been used to either purchase revenue producing assets or fund working capital.[6] The problem with share buybacks is that they are pure financial engineering. While they boost companies' short-term earnings per share, and therefore share prices, they do not generate additional revenue in the same way that using debt to purchase another company, or invest

5. Source: OECD & Wall Street Journal, September 2018. Note: 2018 is a forecast based off first and second quarter OECD data.
6. Source: Money Strong, Barclays Capital, NZ Funds' calculations.

in plant, property and equipment might. Excessive buybacks can leave a company with more debt to repay and no new sources of revenue with which to repay it.

The vast majority of these bonds have been issued by companies at the lower end of the investment grade spectrum: BBB rated bonds rather than A rated bonds (BB, B and CCC rated bonds are not considered investment grade). Unlike a share index, where the largest and most valuable companies are given the biggest weights in the index, a bond index allocates weights according to how much debt is issued. If a low quality company issues more debt than a high quality company, it receives a bigger weight in an index and therefore a bigger allocation in an index orientated fund. BBB rated bonds now account for over 48% of the United States investment grade bond index, up from 34% at their low 10 years ago.[7]

Leverage is concentrated in lower rated BBB corporates [8]



This business cycle's financial engineers have been funded by the record inflows into bond funds. Over the last couple of years alone, over US$600 billion has flowed into United States index tracking bond funds and exchange traded funds (ETFs). In contrast, over the same period approximately US$200 billion has flowed out of United States index tracking share funds.

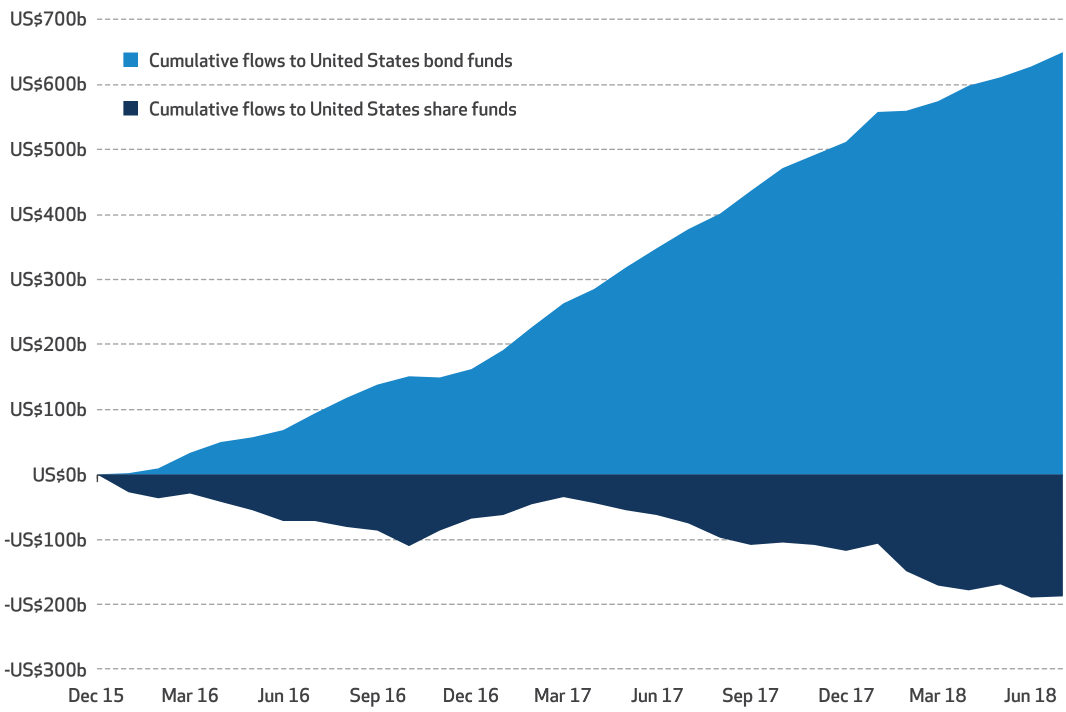
While much has been made of the growth in passive, index tracking share funds, it is passive index tracking bond funds which have ballooned in size. In an environment where interest rates fell, even as the economy recovered, investment grade bonds which lock in long-term interest rates appeared to make good sense.

What makes good sense early on in a business cycle can become dangerous late in the cycle. Today it is not unusual for individual bonds issued three or four years ago for US$100 to be "valued" at US$105. As a result, in contrast to global shares, bond valuations are now more than two standard deviations above their long-term average.

The strong demand for bonds has meant that the yield premium to government bonds has remained lower than has historically been the case at this point in a cycle. This premium reflects the additional yield an investor requires given the risk of a company defaulting. As more defaults occur during recessions, the premium tends to rise towards the end of a cycle. Since the United States is now overdue a downturn, we would expect this premium to be currently above, not below, its 20 year average.

7. Source: Barclays Capital. 8. Source: International Monetary Fund. Barclays Capital. Tse Capital.

Index tracking bond funds now vulnerable [9]



We anticipate that as rates rise and the risk of default increases, it will dampen the returns earned by index tracking bond funds and this will lead to redemptions. Unlike shares, the secondary market for bonds is limited. It is easy to buy large amounts of a bond when it is first issued, but much more difficult to sell the same bond before it matures, which in the United States can be more than 15 years away. We therefore anticipate fund outflows will lead to a dislocation in the bond market and that, this will have ramifications for global shares. In anticipation of this, we have substantially reduced clients' exposure to lower quality investment grade bonds and have invested in downside mitigation strategies that are designed to limit the impact of a downturn in investment grade bonds.

Ramifications of rising interest rates: emerging markets

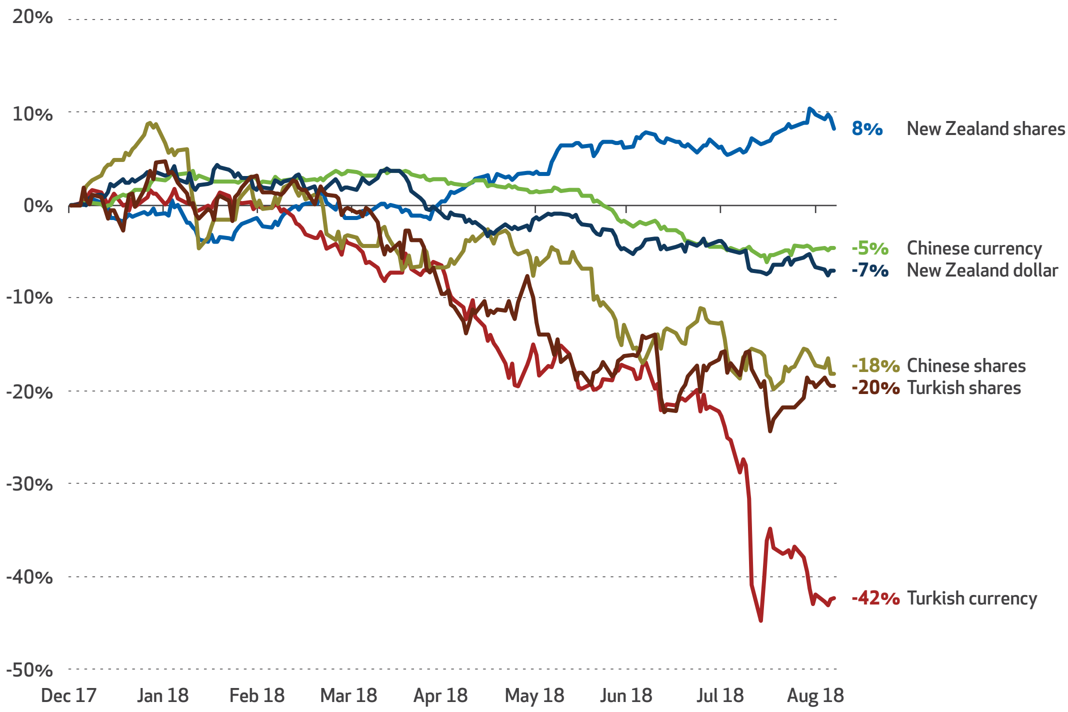
Few investors realise that rising interest rates in the United States pose a bigger threat to Chinese economic stability, and emerging markets in general, than the threat of a trade war. As United States rates rise, capital which had been invested in emerging market shares and bonds returns home, attracted by higher domestic interest rates. As this capital returns to the United States, emerging market shares, bonds and currencies collapse.

A falling currency may be good for exporters, but it also means import inflation and a loss of emerging market purchasing power. This typically leads to either an economic recession if interest rates are increased to offset the imported inflation, or rising inflation if rates are not increased. This is exactly what is occurring in Turkey at present. Unless Turkey sharply increases its interest rates, which will likely put its economy into recession, its currency will continue to fall and inflation will run rampant.

We expect at some stage over the next couple of years that China will face a similar conundrum. It has borrowed heavily to fund infrastructure investments. Unless those investments earn a strong enough return, it will be unable to repay the debt, which has typically been lent by China's households who are prolific savers.

9. Investment Company Research, net flows into mutual funds and ETFs.

Emerging market volatility set to rise [10]



Officials will then either have to write down the value of the debt, which could lead to a banking crisis in China similar to the one faced in the United States in 2008, or let inflation erode the value of the loans. This would mean higher inflation and a lower currency.

For now China's great central planning experiment continues. We expect China to continue to stimulate its economy by easing monetary policy and relaxing credit controls. We expect this stimulus to lead to a rebound in industrial commodity prices and metal and mining shares by the end of the first quarter next year. While trade negotiations between the United States and China will continue to make headlines, we ultimately expect a rational outcome as occurred in the negotiations with Europe, Canada and Mexico. There is a small and in our view unquantifiable risk that the two trade partners misread each other, and negotiations deteriorate into a full-blown trade war.

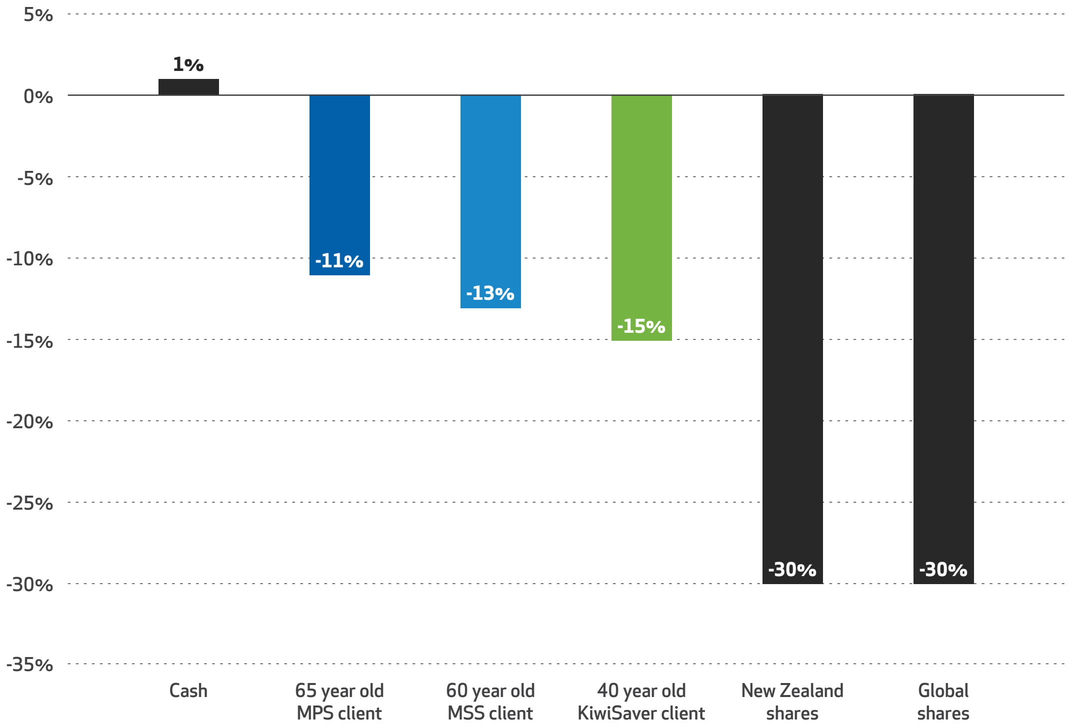
NZ Funds' downside mitigation

Over the last decade, we have not discussed our downside mitigation approach as frequently as we did in the months following the market's sharp fall in 2008. Given the market's current makeup it is worth reiterating. During the period 2008 to 2009 NZ Funds' hedging strategies mitigated 80% of the global share market decline. As a result, clients suffered a setback of only around 10% in their global growth orientated portfolios, as opposed to a peak to trough global share market decline of 55%.

Unfortunately for many clients, this good work was partially offset by losses in structured credit and finance company investments. As a consequence, this time round we have been extra vigilant in our bond selection and in ensuring that clients do not own long-term illiquid asset classes. In the event of a sharp market downturn of say 30%, we anticipate the following outcomes for our Managed Portfolio Service (MPS), KiwiSaver Scheme and Managed Superannuation Service (MSS) clients.

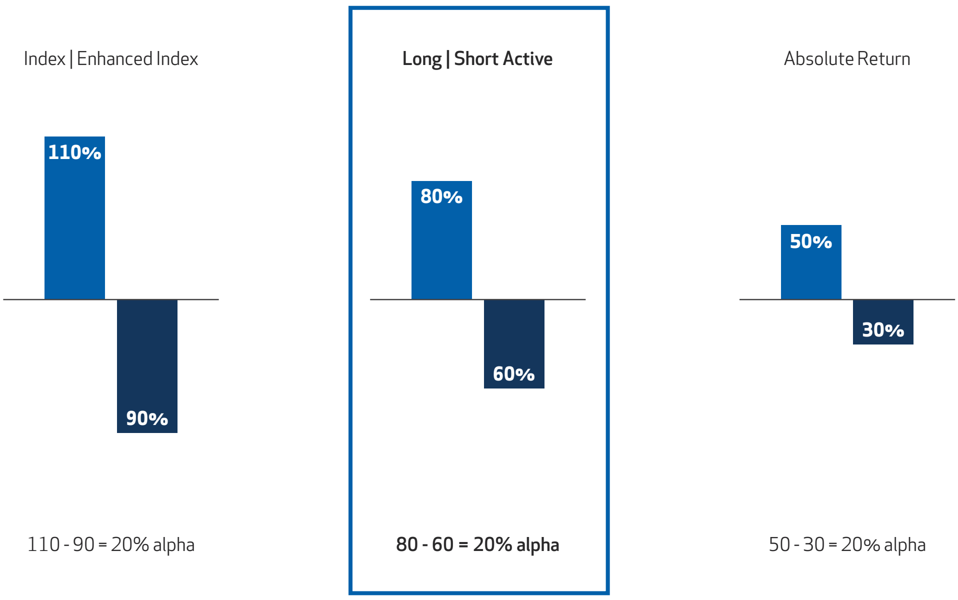
10. Source: Bloomberg New Zealand shares (S&P NZX50 Portfolio), Chinese shares (CSI300), Turkish shares (Borsa Istanbul 100). All currencies against the United States dollar.

NZ Funds forecast downside capture [11]



Irrespective of whether increased financial market volatility is caused by rising interest rates, which trigger bond ETF redemptions, or a flight of capital from emerging markets, or by another as yet unknown factor, there is likely to be a share market correction in the not too distant future. We cannot anticipate the exact timing, nor do we need to. We have been progressively reducing clients' exposure to the areas of the financial markets which we expect to be hardest hit in the coming years, including BBB rated investment grade bonds and emerging market bonds and shares, and will continue to hold a strong weight to downside mitigation strategies. In this way, we anticipate clients will enjoy much of the upside still on offer through investing in well-diversified portfolios of shares while mitigating the worst of the downside.

Rotation from Index to Long | Short active [12]



11. Client portfolios calculated using NZ Funds' Portfolio Construction Guidelines. This chart reflects NZ Funds' stress testing as at 31 August 2018. Please note this test makes a number of assumptions which may not prove to be an accurate estimation of future events. All returns are before tax and fees. 12. Source: NZ Funds' research, December 2017.

Summary

NZ Funds' approach to wealth management, which ensures clients' investment portfolios are diversified across four investment categories (cash, income, inflation and growth) with varying risk and return characteristics, and not solely dependent on the fortunes of the share market, should enable clients to invest with confidence.

Given the rising probability of a downturn at some point, it is tempting to accumulate cash, postpone investing, or pause a regular savings programme. But such decisions are likely to leave investors worse off over time. It is extraordinarily difficult, if not impossible, to time markets. Years out of the market can result in lower average returns than remaining invested and experiencing a downturn. We therefore recommend clients continue as usual. We anticipate that when a downturn occurs, it should be mitigated through our investment approach but, as in the past, should also be relatively short-lived.

We recommend clients continue to focus on the areas of the wealth management process that they are in control of, such as their level of regular savings or at what rate they draw down on their savings. By partnering with regulated and experienced financial advisers throughout New Zealand our clients can also share their thoughts with expert financial advisers whose job it is to ensure their clients make good financial decisions throughout the cycle.

Finally, we are pleased to announce the appointment of Michael Lang to Chief Executive. Michael, who has twenty years experience at NZ Funds, will be taking over from Richard James. Richard will continue to be involved in the day-to-day affairs and governance of NZ Funds. We also wanted to share with clients the appointment of two new Principals, who are NZ Funds' owners and partners: James Grigor, CFA who first joined NZ Funds eighteen years ago in 2000 and who has recently re-joined NZ Funds as a senior member of the investment team and Josh Wilson, CFA who joined NZ Funds in 2011 to oversee clients' Australasian share investments. Thank you for continuing to entrust us with your capital. We look forward to updating you again shortly.

Appendix

New York & Boston research trip: 30 years of relationships, over $800b in assets

FUND	US$ BILLION	BACKGROUND
Armistice	$0.66	Senator, York, SAB Capital
Black Snow	$0.02	Bridgewater, Lehman Brothers
Cadian	$1.50	Perry Capital
Castle Hook	$1.80	Soros, Point State, Duquesne
Deepbasin	$1.50	Citadel
Echo Capital	$3.10	Goldman Sachs
Emerson Point	$0.25	Conatus Capital, BCG
Engle	$0.40	Scout Capital, Salomon Smith Barney
Exelauno Capital	$0.02	Tudor
Front Light	$0.24	Convexity Capital, Harvard
Highline	$3.20	Gleacher & Co
Impala	$4.00	SAC Capital, Tiger
Kynikos	$4.00	Gilford Securities, Deutsche Bank
Loomis	$45.00	Evergreen
LSV	$110.00	Founded in 1994 by three academics
Margate Capital	$0.30	Goldman Sachs, Paulson & Co
MFS	$601.30	Founded in 1924
Newbrook	$1.80	Karsch Capital, Morgan Stanley, Blackstone
Paulson & Co	$8.00	BCG, Bear Stearns, Gruss Partners
Pzena	$33.50	Sanford C. Bernstein
Rubric	$ 1.00	SAC Capital, Blackstone
Samlyn	$4.40	Sigma, Goldman Sachs, Tiger
Steadfast	$6.35	Tiger
Sunriver	$ 0.50	Ziff Brothers
Suvretta	$4.10	Soros, SAC Capital
Tse Capital	$0.64	Goldman Sachs, Duquesne

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