

Russell Research

Title: Domestic versus global fixed interest allocations

Author: Martin Boulanger, Consulting Analyst

Date: June 2012

Synopsis: The question of how much to allocate between domestic and global markets is one faced by virtually every institutional investor. As is often the case, the arguments put forward in favour of allocations to the domestic alternative are intermingled with elements of tradition, social responsibility and (in the case of countries such as New Zealand) the perception of higher returns.

In this paper we examine the drivers of both domestic and global fixed interest market returns, the associated risks and we evaluate the perennial arguments commonly put forward in favour of allocations to New Zealand fixed interest over a purely global approach.

Domestic versus global fixed interest allocations

For New Zealand investors the domestic investment opportunity set in fixed income has long been composed of a relatively limited set of securities, both in number and in the types of securities offered. The value from expanding fixed interest allocations globally can be substantiated in terms of two key factors:

- the reduction in portfolio risk via diversification and greater liquidity; and
- return enhancement from having a vastly wider opportunity set from which active managers can generate added value more reliably.

The aim of this paper is to revisit and formalise our position regarding allocations to New Zealand versus global fixed interest. We begin by outlining the sources of returns for fixed interest securities, and present the past performance of the global and domestic fixed income asset classes. We then compare the risk and return characteristics of the domestic and global fixed income markets, from both total market and active management perspectives. We end with a summary of our analysis.

INVESTMENT RETURNS IN FIXED INTEREST MARKETS

Any fixed interest security is achieved by buying at a particular market yield, the so-called yield to maturity. This is the future expected return if the bond is held to maturity, assuming the income (the series of future coupon payments) is reinvested at this rate.

This market yield can be considered the sum of several components:

- The cash rate reflecting the cost of short-term funds.
- A premium for duration – investing in any security with a longer term to maturity normally requires a higher yield to compensate for the additional time commitment and reinvestment risk assumed by the investor.
- A premium for credit risk – securities vary according to the risk of the borrower defaulting on the obligation, which a security's credit rating aims to capture. In theory, investors demand yields which compensate them for default risk.
- A premium for illiquidity – if issues are not liquid, investors demand additional yield to counterbalance the risk of capital loss in the event of having to sell before the maturity date.

The total expected return from investing in a fixed interest market can be viewed as the aggregate of all the above factors.

In addition, a good fixed interest manager can generate returns over and above the market by choosing to position portfolios away from the market at various times. This is usually achieved by adopting tactical strategies such as adjusting duration, varying the level of credit, concentrating on different maturities along the yield curve, exploiting yield curve inefficiencies and arbitraging securities.

INVESTING IN GOVERNMENT SECURITIES

Restricting attention to government securities, the return from unhedged global fixed interest securities is the sum of the foreign cash and foreign duration components plus any returns from foreign currency.

$$\begin{aligned} \text{Global fixed income return, unhedged} = & \text{NZD depreciation} & (1) \\ & + \text{Foreign cash return} \\ & + \text{Foreign duration premium} \end{aligned}$$

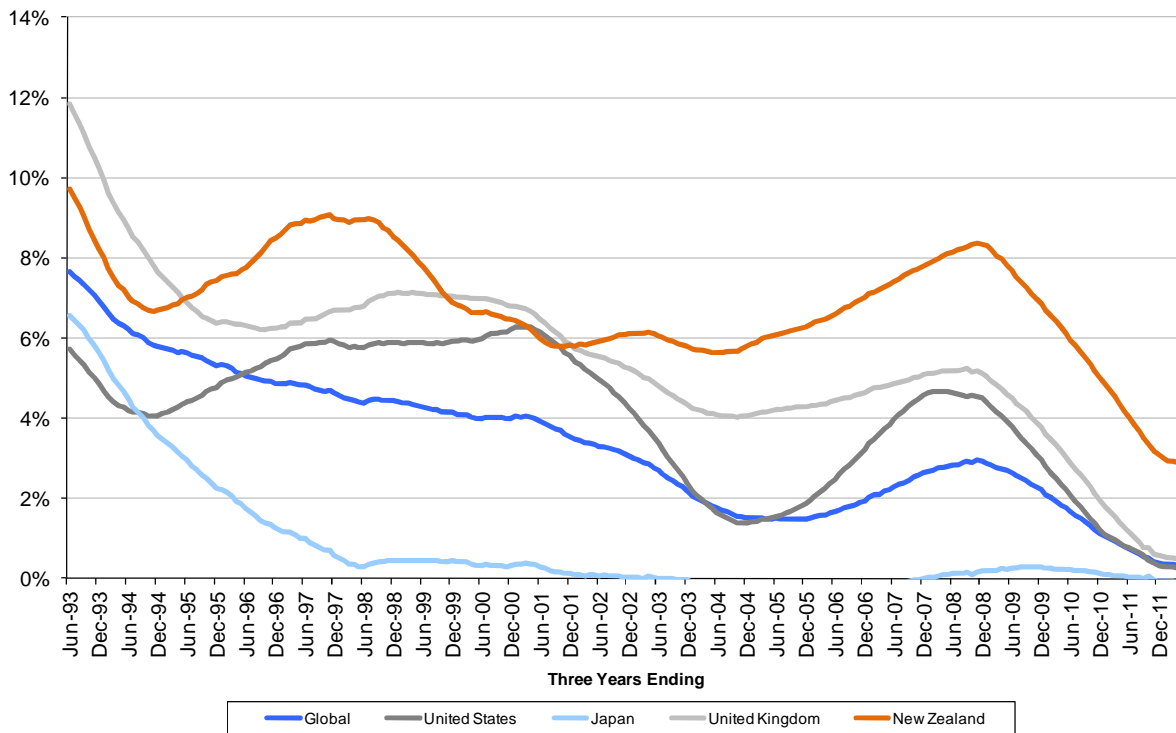
The return from the New Zealand market is the sum of the New Zealand cash and New Zealand duration components.

$$\begin{aligned} \text{New Zealand fixed income return} = & \text{New Zealand cash return} & (2) \\ & + \text{New Zealand duration premium} \end{aligned}$$

Assuming that the expected long-term currency movement is zero¹, the key determinants of whether unhedged global fixed interest securities are to be preferred over New Zealand fixed interest securities is the extent to which there is any difference between foreign and New Zealand cash rates, and also foreign and New Zealand duration premiums.

Figure 1 shows the cash returns available from investing in various markets from a local currency perspective (note that these are rolling three-year returns). New Zealand's cash rates have been consistently high relative to global rates.

Figure 1:
Rolling three year cash returns – domestic currencies (June 1993 – April 2012)



When global fixed interest is hedged to the New Zealand dollar, it is possible to obtain the higher New Zealand cash return plus the global duration premium. Volatility associated with changes in exchange rates is also largely eliminated. The reason for this is that hedging is, in effect, an investment in New Zealand cash using borrowed foreign cash. So, explained as an equation, we have:

$$\begin{aligned} \text{Global fixed income return, hedged} = & \text{New Zealand cash return} & (3) \\ & + \text{Global duration premium} \end{aligned}$$

¹ We note that the economic theory commonly referred to as 'Covered Interest Parity' suggests that relatively high yields reflect the expectation that a country's currency is expected to depreciate. However, for New Zealand this has proven historically not to be the case. Rather, research suggests that New Zealand's higher short-term rates reflect greater currency risk associated with the NZD as compared to other countries such as the United States and Australia (see, for example, Hawkesby, C. and Tether, C., Reserve Bank of New Zealand Bulletin Vol. 63, "New Zealand's Currency Risk Premium", September 2000.)

Figure 2 shows the rolling 5-year returns of foreign government bonds hedged to the New Zealand dollar and compares them to the New Zealand cash return. The global index employed is the Citigroup World Government Bond Index (CGWGBI).

Figure 2:
Government bonds hedged to NZD
Average annualised return
Rolling five year periods (June 1995 – April 2012)

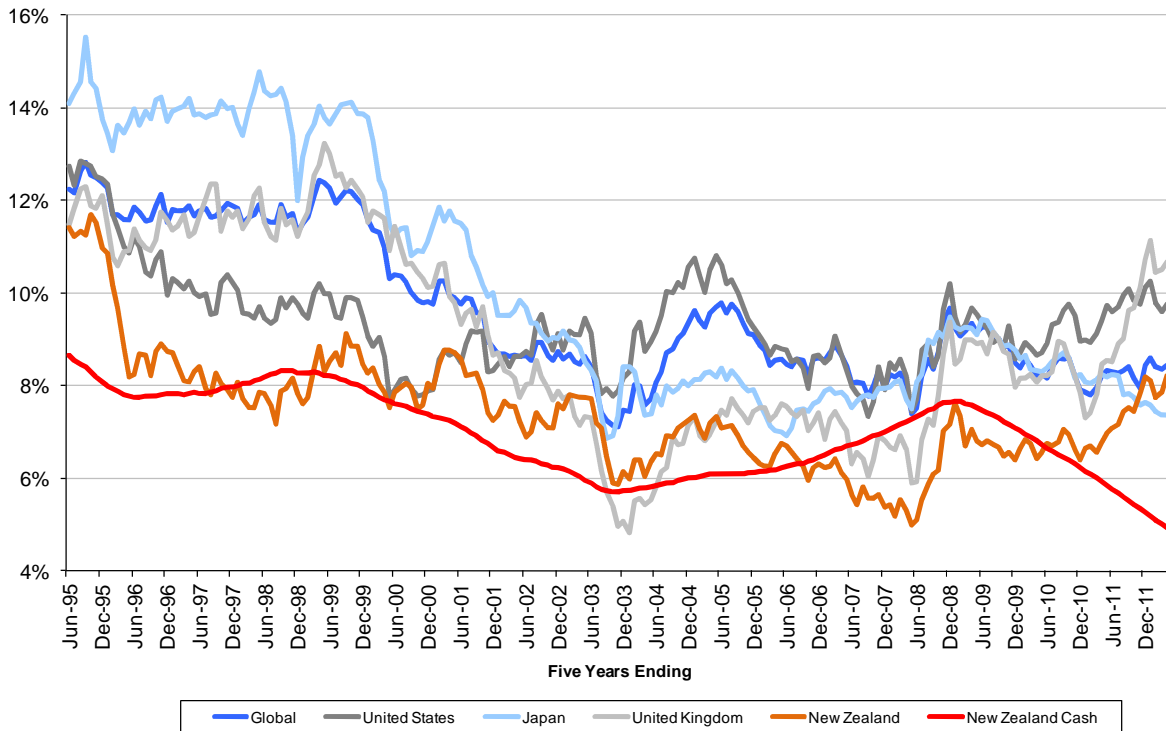


Figure 2 shows that the rolling five-year returns from the global hedged fixed interest market have consistently exceeded returns from the New Zealand fixed interest market. A major component of the higher returns has been the consistently higher overseas duration premium relative to that in New Zealand. Therefore, hedged global fixed interest returns (equation 3) have tended to be higher than unhedged global (equation 1) and New Zealand (equation 2) fixed interest returns due to:

- the New Zealand cash rate being higher than the foreign cash rate in the past; and
- the foreign duration premium being higher than the New Zealand duration premium in the past.

The higher yield on New Zealand fixed interest is often cited as a reason for favouring New Zealand over global fixed interest. However, trends shown above illustrate that this yield spread can usually be captured via the hedging of the foreign currency exposure within a global fixed interest portfolio, weakening this particular argument in favour of New Zealand fixed interest.

EXPANDING TO CREDIT

The above analysis is based on allocations to government fixed interest securities. When the opportunity set is expanded to include non-government securities (also referred to as 'credit') additional reasons for an allocation to global fixed over New Zealand fixed arise. The global (hedged) fixed interest sector has several features that give it significantly more appeal than the New Zealand fixed interest sector.

In particular, the global market offers far more opportunities than New Zealand to add value via the use of credit. There are thousands of high-quality, liquid, non-sovereign issues. The New Zealand credit market, by contrast, is thin and illiquid (see Table 1 below). Diversification among individual credit securities is more difficult to achieve with ease in New Zealand, exposing investors to greater security-specific risk.

OPPORTUNITIES FOR ACTIVE MANAGEMENT

In addition to the factors cited above, the opportunity for active global fixed interest *managers* to earn alpha is greater than for domestic managers. If we assume that domestic and offshore managers have similar skills and risk characteristics, then one with a wider opportunity set will have a greater chance of adding value. We elaborate below.

- In New Zealand, there is limited opportunity to add value through duration and yield curve trades. There is only one duration position (long or short), whereas in a global portfolio, the opportunity exists to go long and short duration in many countries. Similarly, there are only a small number of yield-curve trades possible in New Zealand. Offshore, there are a much larger number of issues, allowing a greater number of yield curve trades.
- In a global portfolio, the manager has discretion to allocate away from the benchmark in terms of country and currency. This presents many opportunities that are not available to a domestic bond manager.
- There are limited opportunities to generate excess returns through non-government bond management in New Zealand. Managers have tended to add value through an allocation to non-government bonds. When measured against a government-only benchmark, the non-government exposure is really market risk. By contrast, there is evidence that global managers can add value through active positions in non-government segments of the market, when measured against an appropriate benchmark.
- The range of securities available to global bond managers is also much greater, with security types such as asset-backed securities and mortgage-related obligations featuring prominently in offshore markets.

Given the structure of the domestic market, the opportunities for a skillful New Zealand fixed interest manager to add value are limited compared those available to a global fixed interest manager.

RISK REDUCTION

In addition to the potential for investors to enhance returns from expanding fixed interest allocations globally, there is considerable opportunity to reduce risk as well. In particular, investing globally allows investors to diversify holdings across a wider range of risks, and limit the impact of illiquidity on their portfolios.

Diversification

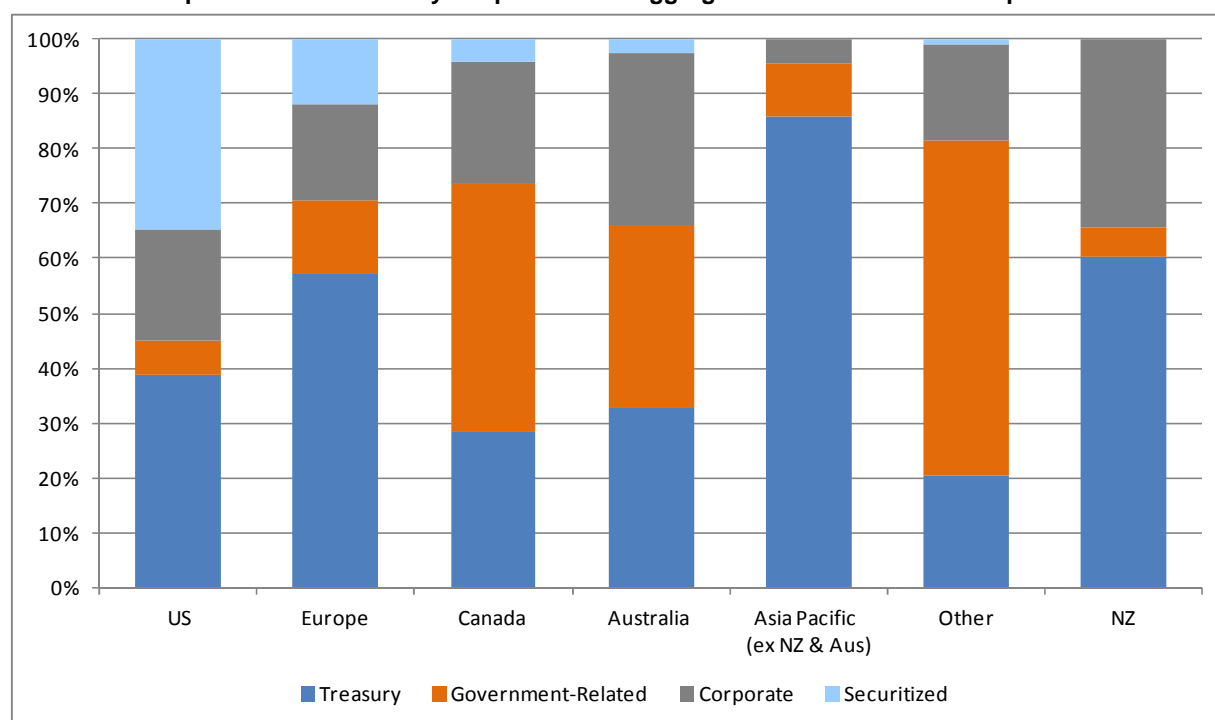
The Barclays Capital Global Aggregate Index (BCGAI) includes securities from 56 countries (although several are Euro-denominated) and over 13,000 issues. In contrast, the New Zealand market offers only 130 issues (72 captured in the BCGAI), and, clearly, a concentrated country exposure. In addition, the New Zealand market has fewer types of issues available.

Table 1 and Figure 3 below illustrate the composition of the BCGAI, compared to the New Zealand market and other regions.

Table 1:
Characteristics of the Barclays Capital Global Aggregate Bond Index as at 30 April 2012

Country	NZ	US	Europe	Asia Pacific (ex NZ)	Other	Global
Amount outstanding (NZ\$, billion)	72	18,925	17,071	12,460	3,893	52,420
Proportion of index	0.1%	36%	33%	24%	7%	100%
Number of issues	21	5,190	4,635	2,236	1,690	13,772
Option-adjusted duration (years)	4.9	5.1	6.2	7.0	6.3	6.0

**Figure 3:
Composition of the Barclays Capital Global Aggregate Bond Index as at 30 April 2012**



New Zealand data shown relate to the aggregate New Zealand market, not just issues within the BCGAI.

Liquidity

The huge number of available issues in the global fixed interest market provides a level of flexibility and liquidity that simply does not exist in the New Zealand market. As at 30 April 2012, the average BCGAI issue size was approximately NZ\$3.8 billion.

Harbour Asset Management recently conducted a survey² to investigate how transaction costs are impacted by trade size in the New Zealand fixed income market. This survey found that bid-offer spreads begin rising for trades exceeding very modest sizes, and the number of counterparties willing to transact falls significantly when trade sizes exceed \$10 million. Therefore, liquidity is likely to be further reduced for larger New Zealand fixed interest mandates.

We note that currency hedging requires its own form of liquidity management. Cash must be available to settle forward currency contracts as they expire. While relatively little cash is required under 'normal' market conditions, the requirement to find cash during volatile crisis periods may force investors to sell at undesirable times, if this potentiality is not adequately provided for.

OTHER MOTIVATIONS FOR NEW ZEALAND FIXED INTEREST ALLOCATIONS

The comprehensive list of arguments laid out above begs the question: Why invest in the New Zealand fixed interest market at all? Most of the rationale comes down to qualitative factors, such as:

- *Tradition* – It is only in the last 20 years or so that legislation was relaxed enabling superannuation funds to invest offshore. For many years these funds were required to invest up to 40% of their assets in New Zealand Government stock (the so-called Reserve Asset Ratio). The fund management industry has only really offered good global fixed interest solutions for New Zealand investors in the last 15 years.

² Harbour Asset Management: New Zealand Fixed Income Research, "Active NZ Fixed Interest Asset Management: Capacity and Mandate Design", May 2012.

-
- *Illusion of higher nominal yields* – There is an argument that the high nominal cash yields in the New Zealand market have clouded investors' judgement and tempered any enthusiasm to invest offshore. As we have shown, hedging to the NZD has allowed investors to capture higher short-term cash rates.
 - *Liability matching* – The need to match NZD liabilities on the part of some funds has justified higher allocations to New Zealand assets. Again, the ease with which foreign currency exposure can be hedged lends little weight to this argument. In addition, investors interested in matching liabilities find that in New Zealand few securities (whether physical or synthetic) meet their duration requirements.
 - *Inertia* – As with the equity and property markets, there are aspects of familiarity and inertia which have meant investors have been slow to embrace the global fixed interest market to the extent justified by investment analysis.
 - *Politics* – Although no longer part of legislation as during the period prior to 1984, investing in New Zealand financial markets is subject to a degree of social pressure. At the very least this has slowed the diversification into global fixed interest markets.

SUMMARY

Strategic allocations to New Zealand fixed interest offer little to no advantage relative to global diversification, from a risk and return viewpoint. Weaknesses in the arguments commonly put forward in favour of domestic fixed interest allocations are revealed upon careful examination, as demonstrated above.

Our comparison of domestic and global fixed interest markets has shown:

- The market for credit instruments in New Zealand offers much less opportunity to add value via the use of credit, due to its thin and illiquid nature. Domestic credit exposures are also potentially riskier, given the limited scope to diversify across securities, and exposure to country-specific risks.
- The opportunity set available for global managers to generate excess returns is also greater than for those confined only to New Zealand.
- The range of securities within the global fixed income universe offers far greater diversification of risk than the New Zealand market alone. Specifically, lower country-specific risk and the greatly expanded set of issues offer a much larger degree of diversification within the asset class.

Other arguments typically offered in favour of New Zealand-only fixed interest allocations are generally qualitative in nature, and, in our view, offer little appeal to most New Zealand investors seeking portfolio efficiency from a risk and return perspective.

In conclusion, Russell believes that most New Zealand investors will be best served by investing in global markets using carefully selected active managers. Please contact your Russell consultant if you would like to discuss this further.

Disclaimer

The information contained in this publication was prepared by Russell Investment Group Ltd on the basis of information available at the time of preparation. This publication provides general information only and should not be relied upon in making an investment decision. Investors should seek professional financial advice from an authorised financial adviser which takes into account their personal circumstances before making an investment decision. In particular, the information contained in this publication is not personalised financial advice for the purposes of the Financial Advisers Act 2008 (NZ). Russell Investment Management Ltd and its directors will

not be liable (to the maximum extent permitted by law) for any loss or damage arising as a result of reliance being placed on any of the information contained in this publication. None of Russell Investment Group Ltd, Russell Investment Management Ltd, any member of the Russell Group, their directors or any other person guarantees the investments or the returns on the investments in the Russell Funds Investment Programme. The Product Disclosure Statements or the Information Memorandum for the Russell Funds (as applicable) are available by contacting Russell Investment Group on 0800 357 6633. Copyright 2012 Russell Investment Group Ltd. All rights reserved

First used: June 2012

For more information
about Russell:

Call:
+64 9 357 6633

Visit:
www.russell.co.nz

ABOUT RUSSELL INVESTMENTS

Russell is a global asset manager with core capabilities that extend across capital markets research, manager research, portfolio construction, portfolio implementation and indexes. Clients get the best from Russell when these capabilities come together. Russell combines this expertise to deliver multi asset solutions that are outcome-oriented to meet the unique needs of institutional investors, financial advisers and individuals.

At the heart of Russell lies a vision – a world where everybody is intelligently invested. Russell works toward improving financial security for people every day, by helping investors of all sizes make better decisions using the best thinking from around the world.

Russell advises clients on more than NZ\$3 trillion in assets and works with 2,300 institutional clients, over 580 independent distribution partners and millions of individual investors globally.

Founded in 1936, Russell is headquartered in Seattle, Washington, USA and has offices in Amsterdam, Auckland, Chicago, London, Melbourne, Milan, New York, Paris, San Francisco, Beijing, Seoul, Singapore, Sydney, Tokyo and Toronto.

For more information about Russell visit www.russell.co.nz.