MELVILLE JESSUP WEAVER CONSULTING ACTUARIES

Towers Watson Alliance Partner

# Investment Survey December 2010 – NZ Bonds

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### Section 1 – Investment returns

Index returns for the quarter and the year to 31 December 2010 were:

Asset Class	Quarter	Year
NZ Shares	4.4%	3.7%
Australian shares in A\$	4.4%	1.6%
Global Shares:		
<ul> <li>local currency</li> </ul>	8.4%	10.6%
<ul> <li>unhedged</li> </ul>	2.6%	4.1%
<ul> <li>hedged</li> </ul>	8.8%	11.1%
Property		
<ul> <li>NZ Property</li> </ul>	3.0%	3.4%
<ul> <li>Global Property</li> </ul>	6.6%	22.4%
NZ Bonds		
<ul> <li>Govt Bonds</li> </ul>	-1.3%	7.0%
<ul> <li>Corporate A</li> </ul>	0.6%	8.7%
<ul> <li>All Swaps</li> </ul>	-0.7%	8.6%
Global Bonds		
<ul> <li>World Govt Bonds</li> </ul>	-1.5%	6.3%
<ul> <li>Global Aggregate</li> </ul>	-0.9%	7.6%
Cash	0.8%	3.0%
NZ\$ against US\$	6.2%	7.4%
NZ\$ against A\$	0.3%	-5.8%

#### Section 2 - Comment on results

#### 21 **Overall results**

Share markets rallied over the December guarter with the MSCI World rising 8.3% in local currency terms for the month. It was led by Austria, Germany, Norway and the USA, all recording double-digit returns for the month. At the other end of the spectrum Greece and Spain fell significantly, while Portugal, Italy and Belgium saw their markets stagnate.

For the calendar year, the World index rose 10.0%. However there was a clear divergence in fortunes. Hong Kong and Sweden saw their markets rise over 20%, and Denmark rose 40%. However the PIIGS of peripheral Europe fell substantially with Portugal down 5%, Italy down 9%, Ireland down 12%, Spain down 17% and Greece down over 40%.

Global bond markets were weak as yields continued to rise. US 5 year Treasuries ended the year yielding 2.01% while 10 year Treasuries rose to end the year at 3.30%. Similarly, locally 5 year government bond rates rose to 4.81% in December, but have since fallen back somewhat.

The NZ dollar rose over the guarter against the US dollar. It has now risen 17% since its 2010 low of 65.8 US cents in June. Against the Australian dollar, the Kiwi bounced back from a December low of 74.1 Australian cents to end the guarter at 76.2 Australian cents. Nevertheless, this is 6.1% lower than its position at the start of 2010.

#### 2.2 Fund manager quarterly results

Milford was the top performing NZ share fund with 6.1% while BTFM topped the Australasian share sector with 6.2%. The top Australian fund was OnePath, returning 5.1%. Of interest the SMS NZ top 10 index fund achieved a return of 7.2% showing how the large stocks outperformed.

For NZ listed property BTFM continued to perform well with a return of 3.8%, while AMP Capital had a solid 3.5% in the NZ direct sector. For global property AMP Capital achieved top spot with 8.9%.

For global shares the AXAGI Fund achieved 5.8% while Wellington was top for both the value and growth sectors with 3.3% and 5.6% respectively. The emerging markets index for the quarter returned 4% compared to the World Index of 2.6% illustrating how developing markets continue to outperform the developed markets.

In the NZ bond sector the top manager was OnePath with -0.2% compared to index of -1.3%. On a 1 year basis their return of 9.1% was considerably above the median manager return of 7.5%. In global bonds AMP Capital achieved top spot with -0.6%. The top cash fund was the AMP Capital Enhanced Yield Fund with 1.2%.

#### 2.3 **KiwiSaver results**

For the quarter with shares performing strongly the Aggressive funds did well with a median return of 4.4% while the Conservative funds achieved a median return of 1.0%. However over the 3 year period we have the reverse with the Conservative funds the top performers while the Aggressive funds posted negative returns. Looking at the manager results for the quarter we see the top Aggressive fund was the AMP Aggressive fund with 6.3%. For the Balanced fund category. Westpac is top with 3.7%. For the Moderate funds we have the SIL Balanced fund with 2.4% and for the Conservative funds the AMP Default fund with 1.9%. this last rest was driven by the fund's high cash exposure.

### Section 3 – NZ Bonds

#### 3.1 Introduction

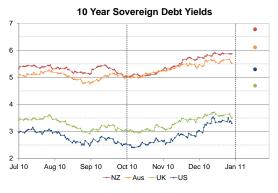
The last 3 months has seen bond investors The NZX NZ experience negative returns. Government Stock Index has fallen in October and November, and eked out only a small positive return for December. Its 12 month return is still a healthy 7%, however this may well fall in coming months. The prospect for poorer returns from this sector in the near term means it is now a good time to review what investing in bonds is all about.

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While this article principally considers NZ bonds we have include limited comments on global bonds.

#### 2 **Interest rates**

The principal reason for the poor recent results has been the general rise in interest rates. After starting the year at 6.1%, 10 year NZ Government Bonds fell away to 5.0% at the end of September providing strong returns. However since then vields have risen, ending the calendar year at 5.9%. This mirrors a global trend, as we illustrate below. The chart shows the last two quarters' movements in 10 year sovereign bond yields. The large dots on the right indicate the 20 year average for each series.



Yields rose 0.84% in NZ, 0.55% in Australia, 0.45% in UK and 0.77% in the US over the December However, all are below their 20 year quarter. average.

Since 31 December, yields on NZ bonds have fallen back.

#### 3 What an investor receives when buying a bond

Bond holders are creditors to the firm. Unlike shares, their dividend payments are known in advance and fixed. So the bond holder will not see any growth in dividends should the company grow. The flipside however is that debt holders will be paid before equity holders meaning that their income Additionally debt holders stream is more stable. rank ahead of shareholders in the event of a windup of the company.

Bonds have varying degrees of security. Bond investors can invest in government debt (which is viewed as risk-free) right down to high yield bonds.

#### 4 **Differing bond strategies**

Many direct investors in the bond market will look to pursue a strategy of buying and holding a bond to maturity. In contrast a bond manager will look to add value through:

- Duration
- Yield curve
- Stock/Sector selection.

Global managers have additional sources of value from:

- Macro-economic/country selection .
- Currency strategies
- NZ hedging premium.

We will explore later the extent to which we consider the bond managers are adding value after allowance for fees and the level of risk they take.

#### 5 NZ marketplace

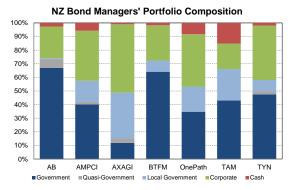
The NZ marketplace comprises the following categories of securities with an indication of the amount on issue:

- Government bonds \$45 billion
- Treasury bills \$8 billion
- Local authority debt (includes bank debt)
- \$5 billion Kauri bonds \$11 billion •
- \$18 billion
- Investment grade corporate Mortgaged backed securities \$1 billion.

The NZ market is heavily dominated by government bonds and treasury bills. In contrast to the NZ market, with just \$1 billion the US has US\$9 trillion in US mortgage-related securities.

#### 6 Make-up of the managers' current portfolios

The chart below compares the portfolios of the seven funds in our core NZ Bonds table.



The chart shows a wide variation in the holdings of each manager.

#### 7 **Benchmarking issues**

The basic market benchmark is the NZX NZ Government Stock Index Any manager who then consistently invests significant levels in corporate bonds will automatically pick up the credit spread and the value add will vary in line with the movements in the credit spreads. In a steady and stable market a manager will consistently outperform the NZX index.

The ideal benchmark is one which reflects how the manager expects to invest the portfolio over time and so this would ideally include some corporate However in practice the bond exposure. benchmark is set with a margin over the index to allow for the credit exposure.

Other benchmarks to consider are:

- NZX All Swaps Index
- NZX Corporate A Index.

#### Current factors driving the market 8 including strategies to counter rising interest rates

The managers are confident that short term rates will remain low for certainly the 1<sup>st</sup> 6 months of 2011. Besides the slow grow in the economy the RBNZ also has the luxury that with 80% of mortgages on floating rate it knows that when it does act the impact will flow through into the economy quickly.

Longer term rates rose reasonably steeply in the 2<sup>nd</sup> half of 2009 and accordingly with a steep yield curve there is less to be concerned about at the longer end of the curve.

A rising interest rate market is indicative of a growing economy and this is positive for non-Government bonds and managers tend to hold more of these when the economy is recovering. There is also data that shows managers by and large add more value in a rising interest rate environment which protects investors' capital.

## 9 Providers

The current NZ bond manager marketplace is fairly limited. The major players and brief comments on them are:

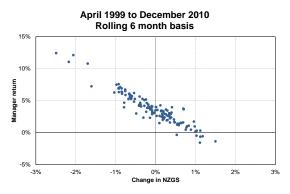
- AB Now servicing market from Australia
- AMPCI The largest player in the market
- AXAGI A manager of manager, currently employing AMPCI
- BTFM Have re-entered the wholesale market
- OnePath Now part of ANZ Wealth
- TAM All relocated in Auckland with a new team
- Tyndall Owned by Nikko Asset Management.

A new market entrant is Harbour Asset A new market entrant is Harbour Asset Management. All these players provide funds which are benchmarks against the NZX NZ Government Index.

Fortunately some managers, namely BTFM, OnePath and Tyndall have chosen to market funds which specialise on the credit sector which gives investors more options.

### 10 Analytics

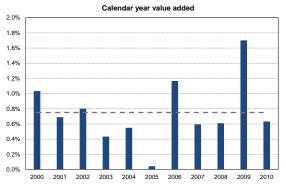
The survey itself includes results for the managers. In this section we explore the performance of bonds over an 11 year period looking at managers who have exposure to both Government and credit. For this we have chosen to review the combined results for AMP Capital and Tyndall. The chart below shows the managers 6 monthly returns compared to the change in 5 year Government rates over the period.



As expected the results show that the greater the fall in interest rates the higher the increase in return over the next 6 months. Of more interest where the interest rates rise by up to 1% in all except one case the managers achieved a positive return over the next 6 months.

The chart below shows the value added (over the NZX NZ Government Stock Index) on an annual

basis over since 2000. The dashed horizontal line shows the average for the period.



11 Do the NZ managers add value?

Some funds choose to manage their own bond portfolios taking the view that a buy and hold strategy is better value that employing a fund manager. Summarising the evidence we see:

- Over the last 10 years the managers have on average added 75 bps per annum
- The cost of management will reduce this return by say 25 bps. This will vary depending on the size of the portfolio
- In stable times the credit spread for good quality bonds has been worth 100 bps.

To these we need to add the issues of liquidity and diversification of a portfolio both of which investing with a manager provides. Diversification is very important as a buy and hold strategy is unlikely to achieve this, instead being concentrated holding a few securities.

A buy and hold strategy would seem to be worth 100 bps on the index. Investing with a manager is Are the liquidity gains, and worth 50 bps. diversification benefits and comfort level from employing a manager worth the 50 bps? There will also be some costs involved in implementing the decisions when managing one's own bond portfolio. There is also the question of whether one wants a 100% credit portfolio. As soon as one includes owning government stock in the portfolio the return naturally reduces. A further argument is that in times of stress a manager is probably better able to make better long term decisions for the portfolio, ie less likelihood that they will sell to readily.

Our view would be that employing a manager is the best approach but clearly some investors take a different view.

### 12 Conclusion

It is not a question of if interest rates will rise it is a question of when they will. When this does occur, bond investors will be hit by some capital losses. The managers will employ strategies to reduce the impact of the rise.

It is probably a good time to consider whether employing a fund manager is the best strategy or just to adopt a buy and hold strategy. The numbers suggest that in normal conditions the latter will produce the greater returns but this ignores the risks involved and the lower liquidity arising. Evidence also suggests that in a rising interest rate environment the managers have more opportunities to add value.

# Section 4 – Wholesale Sector Funds

# Table 4.1 – NZ and Australian Share Funds

Manager		Size (\$m)	3 moi %	n <b>ths</b> Rank	1 ye %	<b>ar</b> Rank	<b>3 ye</b> a % pa l		<b>5 ye</b> a % pa		<b>10 ye</b> % pa			<b>3 years</b> Info Ratio	Rank
NZ															
BTFM	Dividend Share	47.9	4.7	(2)	6.1	(1)	n.a		n.a		n.a		n.a	n.a	
DEV	NZ Shares	72.3	3.8	(3)	4.2	(3)	2.7	(1)	8.0	(1)	n.a		5.4	1.4	(2)
MAM	NZ Shares	90.0	6.1	(1)	6.1	(2)	2.3	(2)	6.5	(2)	n.a		4.1	1.8	(1)
TAM	NZ Shares	193.5	2.8	(4)	4.2	(4)	-2.7	(3)	3.3	(3)	9.9	(1)	2.9	0.8	(3)
TYN	Core Share	50.7	2.0	(5)	2.4	(5)	-3.2	(4)	2.4	(4)	9.1	(2)	3.1	0.6	(4)
Australasia	in														
AB	Hi Growth	n.a	4.3	(9)	4.6	(4)	-0.9	(3)	5.1	(3)	n.a		3.5	1.2	(2)
AMPCI	Active	293.6	5.2	(3)	6.5	(2)	-2.2	(7)	4.7	(4)	10.1	(4)	2.8	1.0	(4)
AMPCI	Strategic	519.1	4.4	(8)	6.0	(3)	-1.2	(5)	6.8	(2)	n.a		5.5	0.7	(7)
AXAGI	Multi-manager	426.5	5.1	(4)	3.8	(5)	-1.2	(4)	4.6	(5)	n.a		4.1	0.9	(5)
BAM	Australasian Equities	58.5	4.8	(6)	1.9	(9)	-1.7	(6)	4.2	(6)	11.0	(3)	3.2	1.1	(3)
BTFM	NZ Share Plus	194.8	6.2	(1)	3.6	(6)	-2.8	(8)	2.9	(7)	9.2	(5)	3.0	0.8	(6)
DEV	Trans-Tasman	87.3	3.5	(10)	3.5	(7)	-0.3	(2)	7.6	(1)	12.4	(1)	7.2	0.7	(8)
HAM	Australasian Eq	704.0	5.7	(2)	n.a		n.a		n.a		n.a		n.a	n.a	
MAM	Peak Fund	30.0	4.7	(7)	6.5	(1)	8.0	(1)	n.a		n.a		6.2	2.1	(1)
ONEPATH	Aust Share	540.0	5.0	(5)	2.9	(8)	-3.6	(9)	2.8	(8)	11.2	(2)	3.0	0.5	(9)
Median			4.9		3.8		n.a		4.6		11.0		3.5	0.9	
Non core															
BAM	Alpha	40.3	5.6		-2.0		9.5		15.7		18.0		9.2	1.6	
BAM	Tasman Wholesale	5.5	6.0		0.8		5.1		9.8		14.2		7.3	1.4	
BAM	Mid Cap	32.1	1.9		5.6		1.5		n.a		n.a		8.3	0.8	
BTFM	Focus Share	45.3	7.6		4.7		4.3		n.a		n.a		6.0	1.6	
DEV	Alpha	31.7	3.2		n.a		n.a		n.a		n.a		n.a	n.a	
FIS	NZ Growth	n.a	6.9		3.3		-6.8		5.5		11.4		10.1	-0.2	
MNT	Trans-Tasman	4.2	6.3		8.5		2.6		n.a		n.a		6.5	1.2	
ONEPATH	ESF	118.2	4.4		-0.6		-3.2		3.7		n.a		6.5	0.3	
PIE	Australasian Growth	10.8	17.4		33.8		20.2		n.a		n.a		16.0	1.6	
TYN	Aggressive	146.6	1.6		5.1		4.1		14.7		n.a		7.6	1.2	
TYN	Small Companies	21.3	4.5		12.9		2.7		9.8		n.a		13.7	0.6	
Indexed															
SMS	NZ Top 10	57.2	7.2		8.9		-5.1		-1.5		5.2		6.1	0.0	
SMS	NZ Top 50	81.9	2.1		4.6		-4.0		2.2		n.a		10.3	0.1	
SMS	NZ Mid Cap	37.0	-0.2		-5.4		-9.6		0.9		5.3		12.2	-0.4	
SMS	Aus Mid Cap	57.6	5.2		5.0		-6.9		4.0		n.a		17.3	-0.1	
SMS	Aus Top 20	106.8	3.9		6.1		2.6		11.0		8.1		15.8	0.5	
Australian															
AMPCI	Australian	36.7	3.9	(2)	7.1	(2)	0.9	(2)	10.0	(1)	9.0	(1)	13.2	0.4	(2)
DEV	Australian	19.2	3.6	(2)	n.a	(~)	0.9 n.a	(~)	n.a	(1)	n.a	(9	n.a	n.a	(~)
ONEPATH	Australian	87.9	5.1	(1)	8.6	(1)	4.9	(1)	n.a		n.a		14.9	0.7	(1)
TAM	Australian	67.5	3.1	(4)	4.2	(3)	n.a	(1)	n.a		n.a		n.a	n.a	(1)
Indexes															
NZX 50 incl			4.4		3.7		-5.1		1.2		7.8				
NZX 50 Port	folio		3.7		4.3		-3.9		3.1		9.1				
ASX200			4.4		1.6		-5.0		4.3		8.4				
90 day BB -	+ 5% pa		2.1		8.2		10.4		11.6		11.6				

# Table 4.2 – Property Funds

Manager		Size (\$m)	3 mo %	n <b>ths</b> Rank	1 ye %	<b>ar</b> Rank	<b>3 ye</b> a % pa		<b>5 ye</b> a % pa		<b>10 ye</b> % pa		3 Tr Error li	<b>years</b> nfo Ratio	Rank
NZ Listed															
AB	NZ Listed	31.6	2.5	(6)	3.1	(4)	-2.6	(1)	2.6	(3)	n.a		1.6	0.2	(2)
AMPCI	NZ Listed	7.8	3.1	(4)	7.1	(2)	n.a		n.a		n.a		n.a	n.a	
AXAGI	Australasian	40.3	2.7	(5)	3.0	(5)	-5.5	(5)	n.a		n.a		3.9	-0.7	(5)
BTFM	NZ Listed	119.3	3.8	(1)	7.6	(1)	-3.1	(4)	3.3	(2)	9.8	(2)	2.7	0.4	(1)
MNT	Australasian	33.4	2.1	(7)	2.8	(6)	-3.0	(3)	n.a		n.a		3.1	-0.1	(4)
ONEPATH	Prop Securities	177.8	3.7	(2)	4.6	(3)	-2.8	(2)	3.3	(1)	10.5	(1)	2.5	0.0	(3)
TYN	Property Securities	7.9	3.4	(3)	n.a		n.a		n.a		n.a		n.a	n.a	
Median			3.1		3.9		-3.0		3.3		10.1		2.7	0.0	
NZ Direct															
AMPCI	AIF P	261.4	3.5	(1)	-10.3	(2)	-10.9	(2)	1.8	(2)	6.8	(2)	12.5	-0.6	(2)
ТАМ		259.7	2.2	(2)	8.6	(1)	1.1	(1)	9.6	(1)	11.9	(1)	7.1	0.7	(1)
Median			2.8		-0.8	. ,	-4.9		5.7	. ,	9.4		9.8	0.1	
Global															
AMPCI	GPSF	154.9	8.9	(1)	23.8	(2)	-3.4	(1)	3.8	(1)	n.a		6.9	0.1	(1)
AXAGI	Global Prop	94.2	4.7	(5)	21.1	(3)	-4.0	(2)	n.a	(-)	n.a		12.9	0.0	(2)
IBB	Int'l Prop	97.2	6.3	(3)	19.6	(5)	-4.1	(3)	n.a		n.a		3.4	0.0	(3)
ONEPATH	Ex Australia	181.0	8.1	(2)	24.9	(1)	-4.7	(4)	1.1	(2)	n.a		5.3	-0.1	(4)
RUS	Global RE	n.a	4.9	(4)	16.4	(6)	-6.4	(5)	n.a		n.a		7.1	-0.3	(5)
TYN		3.0	3.8	(6)	20.0	(4)	-10.5	(6)	-1.8	(3)	n.a		4.1	-1.4	(6)
Median			5.6		20.5		-4.4	~ /	1.1		n.a		6.1	-0.1	. /
Indexes															
NZX Proper	ty		3.0		3.4		-2.9		1.8		8.3				
UBS Global			6.6		22.4		-4.1		1.6		n.a				

Manager		3 months % Rank	<b>1 year</b> % Rank	<b>3 years</b> % pa Rank	<b>5 years</b> % pa Rank	<b>10 years</b> % pa Rank	3 Tr Error	<b>years</b> Info Ratio	Rank
Core									
AB	Style Blend	2.4 (10)	0.6 (15)	-11.2 (14)	-3.8 (14)	n.a	4.6	-1.3	(14)
AMPCI	FDF Core Int'l Share	1.8 (14)	3.3 (14)	-6.8 (12)	-1.0 (12)	n.a	3.5	-0.4	(12)
AXAGI	Multi-manager	5.8 (1)	4.9 (11)	-4.4 (9)	1.5 (7)	n.a	5.5	0.2	(9)
BNP	Global Eq	3.2 (5)	8.0 (4)	0.5 (2)	4.5 (2)	1.1 (2)	3.8	1.5	(1)
IBB	Int'l Shares	3.4 (4)	9.0 (3)	-4.1 (7)	0.0 (10)	-2.8 (5)	2.9	0.4	(8)
JANA	Core Global	3.1 (7)	3.6 (13)	-9.1 (13)	-2.1 (13)	n.a	4.4	-0.9	(13)
MLC	NCIT	1.9 (12)	5.8 (7)	-5.1 (10)	0.3 (9)	-2.0 (4)	3.9	0.1	(10)
ONEPATH	Int'l Eq	1.9 (13)	5.4 (10)	-2.0 (3)	2.5 (4)	-3.0 (7)	2.7	1.2	(3)
RUS	ISF	3.2 (6)	5.5 (9)	-6.0 (11)	-0.7 (11)	n.a	2.1	-0.3	(11)
RUS	GOF	3.6 (2)	6.8 (5)	-2.6 (5)	2.3 (5)	n.a	2.7	1.0	(4)
TAM	International	2.6 (9)	6.4 (6)	-3.4 (6)	1.8 (6)	-0.3 (3)	2.3	0.8	(5)
TAM	Marathon/Alliance Capital	1.5 (15)	17.1 (1)	1.3 (1)	5.8 (1)	4.2 (1)	5.1	1.3	(2)
TYN	Capital Int'l	3.4 (3)	4.2 (12)	-4.1 (8)	0.4 (8)	-2.8 (6)	2.7	0.4	(7)
TYN	Multi-Manager	2.2 (11)	5.5 (8)	n.a	n.a	n.a	n.a	n.a	
WEL	Opportunities	3.0 (8)	9.4 (2)	-2.5 (4)	3.8 (3)	n.a	4.5	0.6	(6)
Median		3.0	5.5	-4.1	0.9	-2.0	3.7	0.4	
Value AB	Value	3.1 (2)	0.0 (6)	-10.6 (5)	-3.2 (5)	-0.6 (3)	5.6	-0.9	(5)
		- ()	(-)	(-)	· · · · ·	(-)			
DFA	Value	2.9 (3)	5.8 (4)	-5.5 (4)	-0.2 (3)	0.7 (2)	7.7	0.0	(4)
ELE	Value	1.7 (4)	10.5 (2)	n.a	n.a	n.a	n.a	n.a	
GMO	Equity Trust	1.5 (5)	3.9 (5)	-5.2 (3)	-0.4 (4)	-0.7 (4)	2.1	0.1	(3)
TAM	Marathon	1.4 (6)	16.5 (1)	0.5 (1)	5.3 (1)	3.9 (1)	5.2	1.1	(2)
WEL	Value	3.3 (1)	7.4 (3)	-1.4 (2)	3.8 (2)	n.a	3.1	1.3	(1)
Median		2.3	6.6	-5.2	-0.2	0.1	5.2	0.1	
Growth AB	Research	2.8 (3)	2.1 (3)	-11.9 (3)	-4.3 (3)	-3.7 (2)	5.8	-1.1	(3)
BNP	Growth	4.5 (2)	7.4 (1)	-0.1 (1)	3.7 (1)	n.a	3.4	1.5	(1)
WEL	Growth	5.6 (1)	7.1 (2)	-9.4 (2)	-1.0 (2)	-3.3 (1)	7.9	-0.5	(2)
Median	Cloud	4.5	7.1	-9.4	-1.0	-3.5	5.8	-0.5	(=)
Indexed									
AMPCI	WiNZ	3.7	6.1	-3.8	0.2	-3.4	2.0	0.8	
VAN		2.6	4.2	-5.2	-0.3	-3.3	0.5	0.3	
Other AMPCI	Extended	5.0	12.6	0.0	4.0	0.0	13.4	0.0	
AMPCI		5.0 2.8	7.6	0.0 -1.1		n.a	3.8	0.0	
	Socially Responsible				n.a	n.a			
GMO JANA	Emerging High Alpha	1.7 1.3	13.2 6.4	-2.3	8.2 -0.3	n.a	9.1	-0.2	
LMI	High Alpha	5.4		-5.5		n.a	6.7	0.0	
TYN	Emerging SRI	3.9	8.1 6.1	-1.0 n.a	10.3 n.a	10.6 n.a	4.4 n.a	-0.1 n.a	
Indexes									
MSCI 0% h	edged	2.6	4.1	-5.3	-0.3	-3.3			
MSCI 100%	hedged	8.8	11.1	-4.3	1.9	2.2			
	ging 0% hedged	4.0	9.2	-0.4	10.1	9.4			

Note: The results above are on an unhedged basis. In some instances hedging the currency is integral to the management of the fund and the client will not experience the results shown above.

## Table 4.4 – Other Funds

Manager		Size (\$m)	Hedge %	3 months %	<b>1 year</b> % pa	<b>3 years</b> % pa	<b>5 years</b> % pa	<b>3 years</b> Volatility
AAML		86.4	n.a	11.9	20.1	13.4	n.a	12.9
CIP	Equity	n.a	n.a	2.6	4.6	n.a	n.a	n.a
ELE	Multi-Strategy	n.a	n.a	2.7	15.0	-3.9	n.a	13.1
MAM	Aggressive	143.0	n.a	3.0	7.3	11.6	n.a	6.7
MGH		20.3	n.a	-0.4	8.3	1.5	2.5	14.0
PFAM	Commodities	22.6	n.a	8.5	0.7	n.a	n.a	n.a
TCO	Commodity	n.a	70.0	15.5	20.1	-0.8	3.2	24.8
TYN	JPMAAM	15.0	100.0	3.4	12.8	4.5	8.3	6.6
TYN	Options	134.8	n.a	2.9	10.6	13.3	13.9	15.5
WEL	Commodity	7,912.3	n.a	7.6	14.3	5.7	n.a	17.1
Index								
HFR FoF	Hedged NZD			4.3	8.4	1.0	5.7	7.3

### Table 4.5 – New Zealand Bonds

Manager		Size (\$m)	3 moi %	n <b>ths</b> Rank	<b>1 ye</b> %	<b>ar</b> Rank	<b>3 ye</b> a % pa		<b>5 ye</b> a % pa		<b>10 ye</b> % pa			<b>years</b> nfo Ratio	Rank
NZ Bonds															
AB	Fixed Income	374.0	-1.4	(7)	7.1	(6)	9.8	(2)	7.5	(3)	n.a		1.5	1.2	(3)
AMPCI	AIF F	859.4	-1.2	(5)	7.2	(5)	10.5	(1)	8.0	(1)	7.4	(1)	1.8	1.4	(1)
AXAGI		220.2	-0.7	(3)	7.7	(3)	8.7	(4)	7.0	(4)	n.a		3.4	0.2	(4)
BTFM	Bond Fund	256.6	-0.3	(2)	7.0	(7)	8.2	(5)	6.9	(5)	6.7	(5)	1.3	0.2	(5)
ONEPATH	NZ Fixed Plus	647.1	-0.2	(1)	9.1	(1)	6.8	(7)	6.3	(7)	6.9	(4)	3.2	-0.4	(7)
TAM		468.9	-0.8	(4)	7.5	(4)	9.2	(3)	7.5	(2)	7.0	(3)	0.9	1.3	(2)
TYN		333.1	-1.2	(6)	8.1	(2)	7.6	(6)	6.7	(6)	7.0	(2)	1.7	-0.2	(6)
Median			-0.8	(-)	7.5	(-/	8.7	(-)	7.0	(-)	7.0	(-/	1.7	0.2	(-)
Other															
BTFM	Corporate Bonds	107.2	0.3		7.9		n.a		n.a		n.a		n.a	n.a	
ONEPATH	Sovereign	282.3	-1.0		6.8		8.3		7.4		n.a		0.6	0.5	
ONEPATH	High Grade	310.5	0.2		11.0		5.0		5.0		n.a		6.2	-0.5	
ONEPATH	High Yield	54.2	1.0		9.5		9.5		8.2		n.a		3.6	0.4	
TYN	Corporate	28.8	0.3		9.2		n.a		n.a		n.a		n.a	n.a	
Indexes															
NZ Govt Sto	ock		-1.3		7.0		8.0		6.4		6.4				
NZ All Swa	os		-0.7		8.6		10.5		n.a		n.a				

### Table 4.6 – Global Bonds (hedged)

Manager		<b>3 months</b> % Rank	<b>1 year</b> % Rank	<b>3 years</b> % pa Rank	<b>5 years</b> % pa Rank	<b>10 years</b> % pa Rank	<b>3 year</b> Tr Error Info R	
AB	Global Plus (sim)	-0.8 (5)	11.0 (4)	9.0 (3)	8.5 (3)	n.a	5.3 0	.0 (3)
AMPCI	AIF Q	-0.6 (1)	10.3 (5)	8.7 (6)	7.5 (9)	8.1 (5)	6.2 0	0 (7)
AMPCI	AIF HQ	-1.2 (10)	8.4 (9)	n.a	n.a	n.a	n.a n	a
AXAGI	Multi-manager	-0.8 (4)	9.8 (6)	8.3 (8)	8.1 (6)	n.a	3.7 0	0 (5)
BLK	Global Diversified	-0.8 (3)	8.5 (8)	n.a	n.a	n.a	n.a n	a
DFA	5 year	-0.7 (2)	7.6 (10)	7.7 (9)	7.7 (8)	n.a	2.0 -0.	.5 (9)
ONEPATH	Int'l Fixed Int.	-1.3 (11)	6.9 (11)	8.9 (5)	8.4 (4)	8.6 (4)	1.9 0.	
PIMCO		-0.9 (7)	12.8 (2)	10.8 (1)	9.4 (1)	n.a	5.8 0	3 (2)
RUS	Global Bond	-1.1 (9)	11.4 (3)	10.7 (2)	8.9 (2)	9.4 (1)	3.5 <b>0</b>	.5 (1)
TAM	PIMCO	-1.1 (8)	13.7 (1)	9.0 (4)	8.1 (5)	8.9 (2)	5.2 0	0 (4)
TYN	FFTW	-0.8 (6)	9.4 (7)	8.6 (7)	7.9 (7)	8.6 (3)	2.2 -0.	
Median		-0.9	10.1	8.9	8.2	8.7	4.5 0	.0
A\$ Hedged								
IBB		-0.9	12.3	7.9	n.a	n.a		
WEL		-0.9	9.7	9.5	7.7	8.1		
Indexes								
Barclays GI	obal Agg	-0.9	7.6	8.8	8.2	8.7		
Citigroup W	GBI	-1.5	6.3	8.2	7.8	8.4		

### Table 4.7 – Cash

Manager		Size (\$m)	3 moi %	n <b>ths</b> Rank	<b>1 ye</b> %	<b>ar</b> Rank	<b>3 ye</b> a % pa l		<b>5 ye</b> a % pa		<b>10 ye</b> : % pa			<b>years</b> nfo Ratio	Rank
AB	NZ Cash	318.0	1.0	(6)	3.7	(7)	5.5	(6)	6.5	(7)	n.a		0.3	1.4	(5)
AMPCI	AIF Cash	1,355.4	1.1	(3)	4.2	(4)	5.9	(3)	6.8	(4)	6.5	(3)	0.2	5.4	(1)
AMPCI	Enh Yield	37.5	1.2	(1)	6.4	(1)	7.1	(1)	7.7	(1)	n.a		1.8	1.1	(6)
AXAGI	Cash	443.0	1.0	(7)	3.9	(5)	5.4	(7)	6.5	(6)	n.a		0.6	0.7	(7)
BTFM		178.7	1.0	(5)	4.2	(3)	5.0	(8)	6.2	(8)	6.3	(5)	2.0	0.0	(8)
ONEPATH	Cash Plus	1,038.4	1.1	(4)	3.8	(6)	5.7	(4)	6.9	(3)	6.9	(1)	0.3	2.5	(4)
TAM		872.3	0.9	(8)	3.6	(8)	5.5	(5)	6.5	(5)	6.3	(4)	0.1	4.5	(2)
TYN		209.9	1.2	(2)	4.5	(2)	6.2	(2)	7.1	(2)	6.8	(2)	0.4	3.2	(3)
Median			1.0		4.0		5.6		6.7		6.5		0.4	2.0	
Index 90 day Banl	k Bill		0.8		3.0		5.0		6.2		6.2				

#### Notes:

1. Excess return is defined as gross return less benchmark return, i.e. value added.

- 2. Tracking error is the standard deviation of value added. The index applied may not in all cases be the benchmark adopted by the manager for the fund.
- 3. Information Ratio is value added divided by tracking error, i.e. risk adjusted performance.
- 4. The numbers shown are in some cases gross equivalents of the net returns achieved by the manager. Accordingly, for a gross investor the returns realised may be different from those shown above.
- 5. Relative out performance may be due to the nature of the fund rather than to superior performance.
- 6. The index share funds are benchmarked against the standard share index and not against their own index.
- 7. AB simulated returns were constructed by combining the actual returns with a simulated monthly hedge rate based on the index.

### Section 5 – Wholesale Diversified Funds

### Table 5.1 – Diversified Funds

Manager		3 mor %	n <b>ths</b> Rank	1 ye %	<b>ar</b> Rank	3 yea %	<b>ars</b> Rank	5 yea %	<b>ars</b> Rank	10 ye %	<b>ars</b> Rank	Asset Growth	Alloc Income	Currency %
Balanced														
AMPCI	AIF B	3.5	(3)	7.2	(5)	2.0	(4)	5.6	(2)	5.5	(5)	0.0	0.0	20.0
ASB		2.6	(4)	8.0	(3)	0.8	(6)	n.a	(-/	n.a	(0)	60.1	39.9	n.a
AXAGI		4.0	(1)	7.2	(6)	1.0	(5)	5.3	(4)	7.1	(1)	71.3	28.7	22.4
ONEPATH		3.7	(2)	9.1	(1)	2.7	(2)	5.4	(3)	6.0	(3)	65.2	34.8	16.2
TAM		2.1	(5)	8.7	(2)	2.8	(1)	6.4	(1)	7.0	(2)	55.4	44.6	22.5
TYN		1.8	(6)	7.7	(4)	2.2	(3)	5.1	(5)	5.8	(4)	56.2	43.8	19.5
Median		3.0	(0)	7.8	(.,	2.1	(0)	5.4	(0)	6.0	(.)	58.2	37.3	
SRI Baland	her													
AMPCI	SRI Fund	3.3		8.5		n.a		n.a		n.a		n.a	n.a	
TYN		1.6		7.8		n.a		n.a		n.a		n.a	n.a	
Median		2.5		8.1		n.a		n.a		n.a		n.a	n.a	
		2.0		0.1		n.u		n.u		n.u		11.0	n.u	
Conservati	ve	10	$\langle 0 \rangle$	0.7	( <b>0</b> )		(4)	7.0			(4)	0.0	0.0	
AMPCI		1.3	(3)	6.7	(3)	6.4	(1)	7.2	(1)	6.6	(1)	0.0	0.0	
ASB		1.5	(2)	7.5	(1)	3.2	(2)	n.a		n.a		40.4	59.6	
AXAGI		2.5	(1)	7.2	(2)	2.9	(3)	5.4	(2)	5.8	(2)	51.2	48.8	
Median		1.5		7.2		3.2		6.3		6.2		40.4	48.8	
Growth														
AMPCI		5.9	(1)	7.7	(2)	-2.3	(3)	3.8	(2)	3.6	(2)	0.0	0.0	
ASB		3.8	(3)	8.1	(1)	-1.5	(2)	n.a		n.a		79.7	20.3	
AXAGI		5.2	(2)	7.1	(3)	-0.3	(1)	4.7	(1)	4.9	(1)	85.9	14.1	
Median		5.2		7.7		-1.5		4.2		4.2		79.7	14.1	

## Section 6 – Additional information

(Funds under management relate to the total organisation)

Acronym	Manager	FUM (\$m)	Acronym	Manager	FUM (\$m)
AAML	Aspiring Asset Management Ltd	n.a	Jana	Jana	n.a
AB	Alliance Bernstein	n.a	LMI	Legg Mason Inc	n.a
AMPCI	AMP Capital Investors	11,878	MAM	Milford Asset Management	n.a
ASB	ASB Group Investments	n.a	MGH	MGH Asset Management Ltd	n.a
AXAGI	AXA Global Investors	n.a	MLC	MLC	n.a
BAM	Brook Asset Management	n.a	MNT	Mint Asset Management	n.a
BLK	BlackRock Investment Management	n.a	ONEPATH	OnePath	7,657
BNP	BNP Paribas Investment Management	n.a	PFAM	Pathfinder Funds	n.a
BTFM	BT Funds Management	n.a	PIE	Pie Funds	n.a
CIP	Craigs	n.a	RUS	Russell Investment Group	n.a
DEV	Devon Funds Management Ltd	431	SMS	SmartShares	n.a
DFA	Dimensional Fund Advisors	n.a	TAM	Tower Asset Management	n.a
ELE	Elevation Capital	n.a	TCO	Tower Commodities	n.a
FIS	Fisher Funds Management	n.a	TYN	Tyndall Investment Management	3,617
GMO	GMO	n.a	VAN	Vanguard Investments Australia	104,650
HAM	Harbour Asset Management	n.a	WEL	Wellington Management Company	831,794
IBB	Ibbotson Associates	n.a			

#### ABOUT MELVILLE JESSUP WEAVER

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#### Asset consulting services:

- Establish investment objectives.
- Determine long-term investment strategies.
- Determine the optimum investment manager configuration.
- Provide quantitative and qualitative analysis of investment performance.
- Asset/Liability modelling.
- Performance monitoring against investment objectives and competitors.
- Manager selection exercises utilising Towers Watson's expertise.

## Section 7 – KiwiSaver Diversified Funds

# Table 7.1 – KiwiSaver Diversified Funds Investment Results

Desident	Free d Nie we		Grwth		onths		ear	2 ye			ars	Risk
Provider	Fund Name	(\$m)	BM%	% I	Rank	%	Rank	% pa I	Kank	% pa I	Kank	%pa
Aggressiv	e Funds											
AMP	Aggressive	88.1	90.0	6.3	(1)	7.1	(4)	11.4	(5)	-3.3	(7)	15.2
AMP	Growth	99.6	77.0	5.2	(3)	7.0	(5)	10.4	(6)	-1.7	(5)	12.7
ASB	Growth	143.8	80.0	3.7	(7)	7.7	(2)	11.6	(4)	-1.2	(3)	13.6
AXA	Growth	56.1	85.0	5.2	(2)	6.9	(6)	14.9	(1)	-1.7	(6)	15.0
SIL	Growth	82.0	80.0	4.2	(5)	7.7	(3)	12.6	(2)	-0.4	(2)	12.5
Tower	Growth	41.0	77.5	3.8	(6)	7.9	(1)	12.5	(3)	-1.5	(4)	13.4
Westpac	Growth	105.7	77.5	4.4	(4)	5.3	(7)	9.0	(7)	-0.2	(1)	9.9
Median				4.4		7.1		11.6		-1.4		13.2
Balanced	Funds											
AMP	Balanced	111.3	60.0	3.6	(2)	6.6	(6)	9.1	(6)	1.3	(3)	9.1
AMP	Moderate Balanced	104.5	51.0	3.3	(4)	6.5	(7)	8.3	(7)	2.0	(1)	7.6
AMP	Tyndall Balanced	5.1	55.0	2.0	(8)	7.0	(5)	10.6	(3)	0.5	(8)	9.4
ASB	Balanced	148.9	60.0	2.5	(6)	7.6	(1)	10.2	(4)	1.0	(7)	10.4
AXA	Balanced	71.5	60.0	3.4	(3)	7.3	(4)	13.2	(1)	1.1	(6)	10.8
SIL	Balanced Growth	111.1	65.0	3.3	(5)	7.4	(3)	11.1	(2)	1.2	(5)	10.1
Tower	Balanced	131.0	55.0	2.2	(7)	7.6	(2)	9.8	(5)	1.8	(2)	8.6
Westpac	Balanced	164.4	63.0	3.7	(1)	5.6	(8)	8.3	(8)	1.3	(4)	8.2
Median			60.0	3.3		7.3		10.2		1.3		9.3
Moderate	Funds											
AMP	Moderate	71.8	38.0	2.3	(2)	6.2	(4)	7.2	(4)	3.5	(2)	5.1
ASB	Moderate	183.5	40.0	1.4	(4)	7.2	(1)	8.5	(2)	3.1	(3)	7.0
SIL	Balanced	116.4	50.0	2.4	(1)	7.1	(2)	9.6	(1)	2.6	(4)	7.5
SIL	Cons Balanced	45.6	35.0	1.5	(3)	6.8	(3)	8.2	(3)	3.9	(1)	5.2
Median			39.0	1.9		6.9		8.3		3.3		6.2
Conserva	tive Funds											
AMP	Conservative	31.8	25.0	1.3	(3)	6.0	(5)	6.2	(6)	5.8	(1)	3.0
AMP	Default	331.5	20.0	1.9	(1)	4.9	(9)	5.9	(9)	4.3	(5)	3.0
ASB	Conservative	798.7	20.0	0.5	(9)	5.7	(6)	6.1	(8)	4.7	(3)	3.2
AXA	Conservative	11.3	25.0	1.3	(4)	7.0	(1)	9.3	(1)	n.a	(-)	n.a
AXA	Income Plus	407.8	20.0	1.0	(6)	6.1	(3)	8.4	(3)	4.3	(4)	4.3
SIL	Conservative	135.5	20.0	0.6	(8)	6.1	(4)	6.4	(4)	5.0	(2)	2.9
Tower	Conservative	21.6	30.0	0.8	(7)	7.0	(2)	8.7	(2)	3.9	(7)	5.3
Tower	Default	321.2	20.0	1.0	(5)	5.0	(8)	6.3	(5)	4.2	(6)	3.1
Westpac	Conservative	361.1	25.0	1.4	(2)	5.3	(7)	6.2	(7)	3.5	(8)	3.4
Median			20.0	1.0	(/	6.0	(- )	6.3	(.,)	4.5	(-)	3.5
			20.0			0.0		0.0				0.0

Note: Returns shown are gross of tax, net of fees.

Provider	Fund Name			NZ/Aus Property		Alt Assets	Grwth	NZ Bonds	Global	Cash	Income Assets
FIOVILLEI	i unu name	Shales	Shares	Flopenty	Flop	A33613	A33013	Donus	Donus	Cash	A33013
Aggressiv	ve Funds										
AMP	Aggressive	19.8		12.6			90.4	3.0		6.6	9.6
AMP	Growth	17.0	49.7	10.9			77.6	8.4	3.5	10.4	22.4
ASB	Growth	24.7	45.0		9.9		79.6	5.8	11.7	2.8	20.4
AXA	Growth	21.9	51.6	1.5	5.2	9.8	90.0	2.5	2.5	5.0	10.0
SIL	Growth	23.8	43.3	6.4	6.5		80.0	6.3	10.5	3.2	20.0
Tower	Growth	20.5	50.7	5.0			76.3	4.6	9.2	9.9	23.7
Westpac	Growth	28.3	40.0	10.2		0.2	78.7	11.0	6.5	3.9	21.4
Average		22.3	48.4	6.7	3.1	1.4	81.8	6.0	6.3	6.0	18.2
Balanced	d Funds										
AMP	Balanced	15.1	38.6	9.7			63.3	19.6	12.7	4.4	36.7
AMP	Moderate Balanced	11.5	33.1	7.5			52.2	19.2	10.5	18.1	47.8
AMP	Tyndall Balanced	20.0	26.0			20.0	66.0	16.8	17.2		34.0
ASB	Balanced	19.9	30.3		10.0		60.2	15.6	18.8	5.4	39.9
AXA	Balanced	15.4	38.2	1.5	2.6	7.2	64.8	6.0	24.2	5.0	35.2
SIL	Balanced Growth	19.0	34.8	5.3	5.3		64.4	11.4	18.7	5.4	35.6
Tower	Balanced	13.3	32.6	9.5			55.4	11.0	19.3	14.4	44.6
Westpac	Balanced	24.5	36.8	5.0		0.2	66.5	20.0	12.0	1.5	33.5
Average		17.3	33.8	4.8	2.2	3.4	61.6	15.0	16.7	6.8	38.4
Moderate	e Funds										
AMP	Moderate	8.8	24.8	5.8			39.4	24.6	14.0	22.0	60.6
ASB	Moderate	14.0	17.3		9.0		40.3	20.7	26.7	12.2	59.6
SIL	Balanced	14.3	26.6	4.2	4.2		49.3	14.4	26.8	9.5	50.7
SIL	Cons Balanced	9.8	18.5	3.1	3.1		34.5	18.3	32.7	14.5	65.5
Average		12.7	20.8	2.4	5.5		41.4	17.8	28.7	12.1	58.6
Conserva	tive Funds										
AMP	Conservative	6.1	16.5	4.1			26.7	30.0	17.6	25.8	73.3
AMP	Default	5.1	13.1	3.3			21.5	6.7	4.3	67.5	78.5
ASB	Conservative	9.1	11.2				20.3	24.8	30.1	24.8	79.7
AXA	Conservative	6.0	16.3	0.5	2.1	5.1	29.9	18.0	32.1	19.9	70.1
AXA	Income Plus	6.1	14.0		2.0		22.1	15.0	30.0	32.9	77.9
SIL	Conservative	6.1	10.3	1.5	1.6		19.5	21.1	39.4	19.9	80.5
Tower	Conservative	5.6	17.7	6.0			29.3	14.3	28.4	28.0	70.7
Tower	Default	3.9	12.2	4.2			20.3	7.5	14.7	57.6	79.7
Westpac	Conservative	11.9	11.6	5.0		0.2	28.7	29.9	15.0	26.4	71.3
Average		6.6	13.7	2.7	0.6	0.6	24.3	18.6	23.5	33.7	75.7

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