

**Morningstar Indices  
New Zealand**



Morningstar Australasia Pty Ltd  
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# What are Morningstar Indices?

The returns from Morningstar Indices are a simple average of the net returns of all funds that belong to a particular peer group. These peer groups are very distinct groups of funds, and are defined based on their investment style and structure. More specifically, the following criteria determine the peer groups:

- |                 |  |
|-----------------|--|
| 1) Universe     | e.g. Open-End, Closed-End                                |
| 2) Offering     | e.g. Listed, Unlisted                                    |
| 3) Product Type | e.g. Wholesale, Retail                                   |
| 4) Legal Type   | e.g. Investment Trust, Superannuation Fund               |
| 5) Category     | e.g. Equity Region World General, Multisector - Balanced |

## Naming Conventions

The criteria above are also reflected in the naming structure of the Morningstar Indices, which is very consistent and concise. The prefix 'Mstar NZ' refers to 'Morningstar New Zealand', which helps to ensure that there is a differentiation in the naming from the old Morningstar Indices. The prefix and acronyms listed below for the Universe, Offering, Product type and Legal type along with the Morningstar Category all make up the Morningstar Index names with the exception of the Open-End Unlisted universe where the acronyms for the Universe and Offering are not included in the names.

## Acronyms

Name	Acronyms	Meaning
Universe	O	Open-End
	C	Close-End
	D	Debentures
Offering	L	Listed
	U	Unlisted
Product Type	R	Retail
	W	Wholesale
Legal Type	GIF	Group Investment Fund
	IBd	Investment Bond
	ITr	Investment Trust
	Sup	Superannuation Fund

A complete list of the Morningstar Indices available at the time this document was published has been included at the end of this document.

## Calculation Methodology

Morningstar Indices are useful as they can be used as a benchmark to compare how a fund has performed against other funds with similar investment strategies. Each index requires only a minimum of one fund per peer group in order to be calculated. The index also begins at the first available one month return in the peer group. The index is calculated based only on funds that are active at the time. This implies that returns for finalised funds will still be included in the monthly averages which are generated for the Morningstar indices up to the termination date.

Morningstar does not update data on funds after their termination date. It is therefore possible that the return calculated for an unlisted managed investment by Morningstar up to the fund's termination date may be different from the investment return experienced by the investor who participates in the final distribution of remaining capital after termination. Returns past the termination date for a fund being wound up should not be compared with those of continuing funds (or group averages), as the fund manager's objectives for such funds are, in general, different to those for continuing funds. Note that suppressed funds are also excluded from the calculations. By doing this, Morningstar ensures that survivorship bias from historical returns is removed from the index values.

Standard deviations and a Sharpe index are also calculated for the Morningstar indices by using its total value index series. (For further details on Standard Deviation and Sharpe Ratio, refer to the Risk Calculation Methodology Paper). The average statistics can then be used as a benchmark for comparison with individual funds in the particular peer group.

In order to ensure transparency and consistency, the methodology for the Morningstar Indices calculation has been kept very straightforward. It is based on a simple (or arithmetic) average. Looking at one peer group for a particular month end, in order to determine the one month index return (R), we add up the one-month net returns for all funds ( $r_1$  to  $r_n$ ) within that peer group, and divide by the total number of funds (n). This return is then used to generate a one-month trailing return series for the index, from which returns for other periods can be calculated. Similarly to fund returns, index returns for periods greater than one year are annualised (For further details on annualising returns, refer to the Standard Performance Methodology paper).

$$R = \frac{\sum_{i=1}^n r}{n}$$

As an example, if there are three Retail Superannuation Funds that invest in NZ Diversified Bonds, on the basis of the calculated one-month returns of these funds as at 30 November 2005, the following index return is achieved:

<b>Fund</b>	<b>One-month return as at 30/11/2005 (%)</b>
Retail Super Diversified Bond Fund 1	$r_1 = 2.35$
Retail Super Diversified Bond Fund 2	$r_2 = 1.49$
Retail Super Diversified Bond Fund 3	$r_3 = 1.95$
Mstar NZ R Sup Bonds - NZ Divers Idx	$R = 1.93^*$

\*  $R = (2.35 + 1.49 + 1.95) / 3$

In order to generate the performance series over a number of months, we look at the available returns of the active funds at that point in time:

<b>Date</b>	<b>r<sub>1</sub></b>	<b>r<sub>2</sub></b>	<b>r<sub>3</sub></b>	<b>r<sub>4</sub></b>	<b>n</b>	<b>R</b>
30/06/2005	*	2.11	-0.59	1.54	3	1.02
31/07/2005	*	3.19	4.55	5.04	3	4.26
31/08/2005	-2.15	3.01	1.11	1.98	4	0.99
30/09/2005	-0.06	-1.59	-2.15	1.26	4	-0.64
31/10/2005	4.95	3.15	-0.26	#	3	2.61
30/11/2005	2.35	1.49	1.95	#	3	1.93

\* Fund r<sub>1</sub>'s first one-month return as at 31/08/2005. # Fund r<sub>4</sub> finalised on 14/10/2005.

## Morningstar Indices New Zealand Listing

<b>Index Code</b>	<b>Index Name</b>
90425	Mstar NZ R GIF Bonds - NZ Cash Idx
90423	Mstar NZ R GIF Bonds - NZ Decl Rate Idx
90422	Mstar NZ R GIF Bonds - NZ General Idx
90424	Mstar NZ R GIF Bonds - Wrld General Idx
90427	Mstar NZ R GIF Miscellaneous Idx
90426	Mstar NZ R GIF Mortgages Idx
90391	Mstar NZ R IBd Bonds - NZ Decl Rate Idx
90390	Mstar NZ R IBd Bonds - NZ General Idx
90393	Mstar NZ R IBd Bonds - NZ/Aust Cash Idx
90392	Mstar NZ R IBd Bonds - Wrld Cash/Bd Idx
90385	Mstar NZ R IBd Eqty Asia Pacific Idx
90389	Mstar NZ R IBd Eqty Australasia Idx
90384	Mstar NZ R IBd Eqty Australia Idx
90386	Mstar NZ R IBd Eqty Emerging Market Idx
90387	Mstar NZ R IBd Eqty Europe Idx
90441	Mstar NZ R IBd Eqty Global Real Est Idx
90388	Mstar NZ R IBd Eqty North America Idx
90381	Mstar NZ R IBd Eqty NZ General Idx
90382	Mstar NZ R IBd Eqty NZ Real Est Idx
90383	Mstar NZ R IBd Eqty World General Idx
90397	Mstar NZ R IBd Miscellaneous Idx
90395	Mstar NZ R IBd Mortgages Decl Rate Idx
90394	Mstar NZ R IBd Mortgages Idx
90379	Mstar NZ R IBd Msector - Aggressive Idx
90377	Mstar NZ R IBd Msector - Balanced Idx
90375	Mstar NZ R IBd Msector - Conserv Idx
90380	Mstar NZ R IBd Msector - Decl Rate Idx
90378	Mstar NZ R IBd Msector - Growth Idx
90376	Mstar NZ R IBd Msector - Moderate Idx
90396	Mstar NZ R IBd Unl and Dir Prop NZ Idx
90367	Mstar NZ R ITr Bonds - NZ General Idx
90369	Mstar NZ R ITr Bonds - NZ/Aust Cash Idx
90368	Mstar NZ R ITr Bonds - Wrld General Idx
90361	Mstar NZ R ITr Eqty Asia Pacific Idx
90365	Mstar NZ R ITr Eqty Australasia Idx
90360	Mstar NZ R ITr Eqty Australia Idx
90362	Mstar NZ R ITr Eqty Emerging Market Idx
90363	Mstar NZ R ITr Eqty Europe Idx
90359	Mstar NZ R ITr Eqty Global Real Est Idx
90364	Mstar NZ R ITr Eqty North America Idx
90352	Mstar NZ R ITr Eqty NZ General Idx
90356	Mstar NZ R ITr Eqty NZ Misc Idx
90353	Mstar NZ R ITr Eqty NZ Passive Idx
90354	Mstar NZ R ITr Eqty NZ Real Est Idx
90355	Mstar NZ R ITr Eqty NZ Real Est Rrl Idx
90357	Mstar NZ R ITr Eqty World General Idx

<b>Index Code</b>	<b>Index Name</b>
90366	Mstar NZ R ITr Eqty World Misc Idx
90358	Mstar NZ R ITr Eqty World Passive Idx
90374	Mstar NZ R ITr Miscellaneous Idx
90371	Mstar NZ R ITr Mortgages Decl Rate Idx
90370	Mstar NZ R ITr Mortgages Idx
90351	Mstar NZ R ITr Msector - Aggressive Idx
90349	Mstar NZ R ITr Msector - Balanced Idx
90347	Mstar NZ R ITr Msector - Conserv Idx
90350	Mstar NZ R ITr Msector - Growth Idx
90348	Mstar NZ R ITr Msector - Moderate Idx
90373	Mstar NZ R ITr Unl and Dir Prop Gbl Idx
90372	Mstar NZ R ITr Unl and Dir Prop NZ Idx
90416	Mstar NZ R Sup Bonds - NZ Decl Rate Idx
90415	Mstar NZ R Sup Bonds - NZ General Idx
90418	Mstar NZ R Sup Bonds - NZ/Aust Cash Idx
90417	Mstar NZ R Sup Bonds - Wrld Cash/Bd Idx
90443	Mstar NZ R Sup Bonds - Wrld General Idx
90410	Mstar NZ R Sup Eqty Asia Pacific Idx
90414	Mstar NZ R Sup Eqty Australasia Idx
90409	Mstar NZ R Sup Eqty Australia Idx
90411	Mstar NZ R Sup Eqty Emerging Market Idx
90412	Mstar NZ R Sup Eqty Europe Idx
90442	Mstar NZ R Sup Eqty Global Real Est Idx
90413	Mstar NZ R Sup Eqty North America Idx
90404	Mstar NZ R Sup Eqty NZ General Idx
90405	Mstar NZ R Sup Eqty NZ Passive Idx
90406	Mstar NZ R Sup Eqty NZ Real Est Idx
90407	Mstar NZ R Sup Eqty World General Idx
90444	Mstar NZ R Sup Eqty World Misc Idx
90408	Mstar NZ R Sup Eqty World Passive Idx
90421	Mstar NZ R Sup Miscellaneous Idx
90419	Mstar NZ R Sup Mortgages Idx
90402	Mstar NZ R Sup Msector - Aggressive Idx
90400	Mstar NZ R Sup Msector - Balanced Idx
90398	Mstar NZ R Sup Msector - Conserv Idx
90403	Mstar NZ R Sup Msector - Decl Rate Idx
90401	Mstar NZ R Sup Msector - Growth Idx
90399	Mstar NZ R Sup Msector - Moderate Idx
90420	Mstar NZ R Sup Unl and Dir Prop NZ Idx
90428	Mstar NZ W ITr Msector - Moderate Idx
90429	Mstar NZ W ITr Msector - Balanced Idx
90430	Mstar NZ W ITr Msector - Growth Idx
90431	Mstar NZ W ITr Eqty NZ General Idx
90432	Mstar NZ W ITr Eqty NZ Real Est Idx
90433	Mstar NZ W ITr Eqty World Misc Idx
90434	Mstar NZ W ITr Bonds - NZ General Idx
90436	Mstar NZ W ITr Bonds - NZ/Aust Cash Idx
90435	Mstar NZ W ITr Bonds - Wrld General Idx
90437	Mstar NZ W ITr Miscellaneous Idx
90438	Mstar NZ W Sup Msector - Balanced Idx
90439	Mstar NZ W Sup Bonds - NZ/Aust Cash Idx