
January 2019
Australia & New Zealand

Morningstar Manager Research Overview

Morningstar Qualitative Manager Research

Morningstar is a leading global provider of independent investment research, with more than 117 manager research analysts based across North America, Europe, Australia, New Zealand and Asia. The 11 member Australasian manager research team has 15 years of average experience and has been producing qualitative manager research and ratings since 1999.

Morningstar's qualitative manager research aims to determine which investments deserve the attention of investors and which do not. Morningstar assesses investment managers based on how we believe they will perform in the future over an economic cycle, against both peers and accepted benchmarks. Our model rewards managers that are open and transparent, have a well-run investment process and, importantly, are good fiduciaries of investors' monies.

Morningstar operates an independent manager research model. This means that we determine our own coverage universe. Our coverage is organised across 19 sectors that span all major asset classes. We had full coverage on over 450 flagship strategies which mapped to about 3,500 underlying funds, ETFs and LICs at 31 January 2019.

There are three guiding principles that define the strategies Morningstar covers:

Investment Merit – As well as including some of the best-known strategies on offer globally, there is also scope for worthy but largely undiscovered strategies to fall within our review.

Client Demand – Given our user-pays philosophy, Morningstar responds to client demand to initiate strategy coverage. Correspondingly, we will cease coverage of funds and sectors where no substantial client demand exists.

Strategy Size – If there is a fund that has a large amount of assets, it is likely that coverage of the strategy will benefit a large number of investors and although there may not be current client demand, Morningstar may cover it in order to provide a view of the offering to existing investors.

Prior to any sector review Morningstar's category review committee meets to determine the category constituents. Funds considered for inclusion in the review include the following; analysts' best ideas, Morningstar Prospects, fund coverage request form submissions, client demand.

The Morningstar Analyst Rating™ is the final outcome of a collaborative process based on a site visit, manager questionnaire, quantitative and holdings-based analysis of the portfolio and an assessment of all the key issues outlined, as illustrated in the diagram below.

Morningstar Fund Review Process



Following the conclusion of the manager review process, the Morningstar Australasian Manager Research Ratings Committee convenes to determine which investments deserve the attention of investors and which do not. This committee is responsible for the governance and oversight of the rating outcomes and consists of senior members of the manager research team and can include senior members from the Morningstar global analyst group.

The entire Morningstar manager research team participates in the ratings process but voting is limited to the APAC directors of manager research, the sector lead and lead strategy analyst. The analyst rating does not express a view on a given asset class or peer group but seeks to evaluate each fund within the context of an appropriate benchmark and peer group given what it is trying to achieve. By giving a fund a rating, we are expressing an expectation about a strategy’s ability to outperform its relevant performance benchmark and/ or peers on a risk-adjusted basis over the long term (defined as a full market cycle). This long-term conviction is summarised through a five-point scale from Gold to Negative. These should be interpreted as follows:

Gold

These funds are our highest conviction recommendations and stand out as best of breed for their investment mandate. To earn a Gold rating, a fund must distinguish itself across the five pillars that form the basis of our analysis. That is, a Gold-rated fund should have a seasoned, talented and successful manager or management team; a sound, thoughtful process that has been executed skilfully and consistently; a portfolio that’s in harmony with the stated process and that’s capable of delivering a reward that compensates investors for the risks it takes; reasonable expenses; and a strong parent organisation that is focused on responsible stewardship of investor assets.

Silver

Funds in this category are high-conviction recommendations. They have notable advantages across several, but perhaps not all, of the five pillars. With those fundamental strengths, we expect these funds to beat their relevant performance benchmarks and/or peers on a risk-adjusted basis over the

long term (defined as a full market cycle of at least five years). While these are worthy funds with many positive features, they don't necessarily rise to the standard of best in breed. Funds rated Silver may be working their way up our list of recommended picks as we gain more familiarity and conviction in key pillars or working their way down on the basis of a degradation within specific pillars.

Bronze

These funds have advantages that clearly outweigh any disadvantages across the pillars, giving us the conviction to award them a positive rating. As is the case with any fund receiving a positive rating, we expect these funds to beat their relevant performance benchmarks and/or peers on a risk-adjusted basis over a full market cycle (defined as a full market cycle of at least five years). Funds rated Bronze may be working their way up our list of recommended picks as we gain more familiarity and conviction in key pillars or working their way down on the basis of a degradation within specific pillars.

Neutral

These are funds in which we do not have a strong positive or negative conviction. In our judgment, they are not likely to deliver standout returns but are not likely to seriously underperform either. A fund that is overly benchmark conscious could receive this rating so long as its fees are reasonable enough to give it a chance of keeping up with the average fund in the category or a competing index fund. Promising but unproven funds may also feature here until we see further evidence that the fund has the potential to outperform.

Negative

These funds possess at least one flaw that we believe is likely to significantly hamper future performance, such as high fees or an unstable management team. Because of these faults, we believe these funds are inferior to most competitors and will likely underperform their median peers and benchmark on a risk-adjusted basis in the long term. For example, a fund that combines an overly benchmark-conscious strategy with high fees is likely to get this rating because its strategy lends itself to underperformance.

Morningstar may also use two other designations in place of a rating:

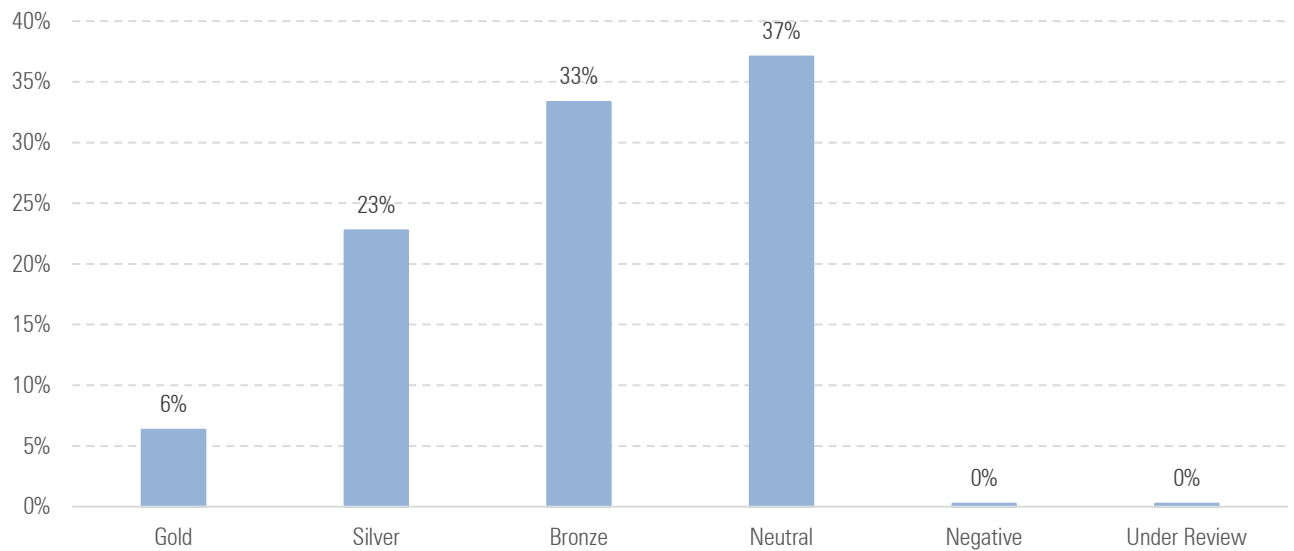
Under Review

This designation means that a change at a rated fund requires further review to determine the impact on the rating.

Not Ratable

This designation is used only where we are providing a report on a new strategy or on a strategy where there are no relevant comparators, but where investors require information as to suitability.

Morningstar Analyst Rating Distribution for Australasian Funds at 31 January 2018



Morningstar Prospects

The Morningstar Prospects list highlights strategies that the Manager Research believe are worthy of additional investor attention. Such investments likely have enduring competitive advantages and long-term appeal, but have so far not met our coverage criteria. Morningstar evaluates funds for inclusion based our standard 5P framework. Inclusion on the list does not guarantee that a strategy will be subject to full analyst coverage, and strategies can still move to full coverage without being on the Prospects list.

Annual Manager Research Schedule

Sector reviews form the basis of the Morningstar manager research process. Full reviews are conducted on annual 12-monthly cycles. The following schedule shows Morningstar Australasia's intended fund research schedule. Morningstar reserves the right to alter this schedule on the basis of developments or unforeseen circumstances.

Review Schedule

| Review Category | Sector Lead | Commencement Date | Completion Date |
|-------------------------------|----------------------------------|-------------------|-----------------|
| Global Listed Infrastructure | Sarah Fox | February 2019 | May 2019 |
| REITs | Alex Prineas | February 2019 | May 2019 |
| Multisector | Simon Scott | March 2019 | June 2019 |
| Australian Equities Small Cap | Michael Malseed | May 2019 | July 2019 |
| Australian Equities Large Cap | Ross Macmillan | June 2019 | September 2019 |
| Fixed Interest | Tim Wong | July 2019 | November 2019 |
| Global Equities | Michael Malseed / Andrew Miles | October 2019 | February 2020 |
| Asia & Emerging Markets | Michael Malseed / Matt Wilkinson | October 2019 | February 2020 |
| New Zealand Equities | Sarah Fox | November 2019 | March 2020 |
| Alternatives | Simon Scott | November 2019 | March 2020 |

Communication of Ratings:

Once ratings have been decided, they are communicated to subscribers through the publication of our fund reports. Subscribers are notified of ratings changes through a daily research update email.

No external parties are alerted to ratings changes prior to report publication.

Fund Coverage requests can be submitted to:

<http://corporate1.morningstar.com/forms/fundcoveragerequestau.aspx>

For any queries, please contact:

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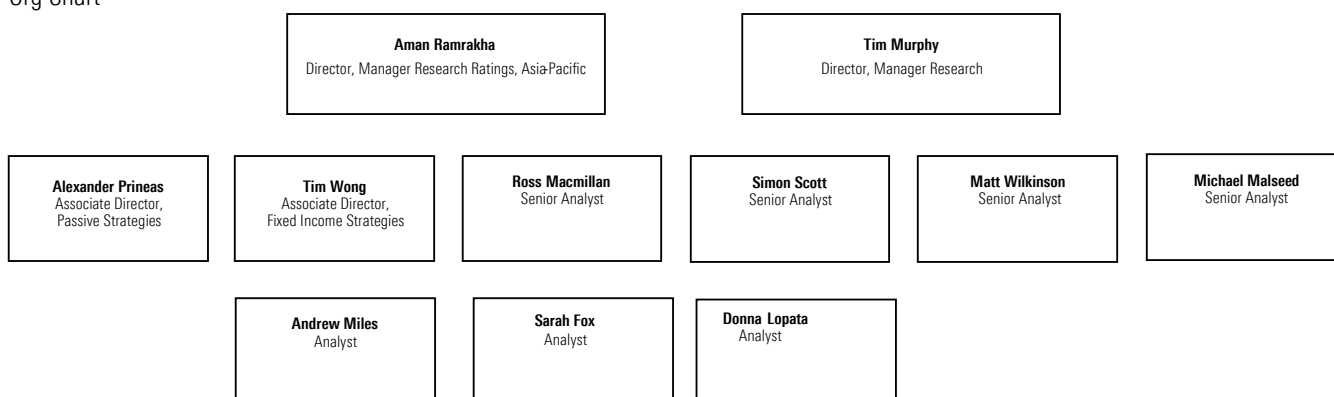
Morningstar Manager Research Team Qualifications, Tenure and Industry Experience

The average industry experience of the Australian analyst team is more than 15 years with about 5 years’ average tenure with Morningstar. Staff turnover is low, reflecting Morningstar’s status as an employer of choice where quality research is awarded above all else.

Morningstar Manager Research Team Qualifications, Tenure, Industry Experience

| Name | Title | Qualifications | Tenure with Morningstar (years) | Industry Experience (years) |
|-----------------|---|--|---------------------------------|-----------------------------|
| Tim Murphy | Director of Manager Research, APAC | CFA, CAIA, Masters of Applied Finance, Post Graduate Diploma Accounting, Bachelor of Applied Finance, FFin | 13 | 17 |
| Aman Ramrakha | Director, Manager Research Ratings, APAC | Bachelor of Commerce, Graduate Diploma of Applied Finance and Investments, Diploma of Financial Planning | <1 | 28 |
| Tim Wong | Associate Director, Fixed Income Strategies | CFA, Bachelor of Commerce | 10 | 15 |
| Alex Prineas | Associate Director, Passive Strategies | Bachelor of Commerce, Post Graduate Diploma in Applied Finance and Investments | 10 | 19 |
| Ross MacMillan | Senior Analyst | Bachelor of Commerce | 8 | 33 |
| Michael Malseed | Senior Analyst | Bachelor of Economics | 2 | 19 |
| Matt Wilkinson | Senior Analyst | Bachelor of Engineering Hons, Masters of Applied Finance | 3 | 9 |
| Simon Scott | Senior Analyst | Bachelor of Laws Hons, Master of Liberal Arts, Post Graduate Certificate in Business Administration, Graduate Certificate in Corporate Finance | <1 | 21 |
| Andrew Miles | Analyst | Bachelor of Mathematics Hons | 7 | 7 |
| Sarah Fox | Analyst | CFA, Bachelor of Law/Arts Hons | 2 | 6 |
| Donna Lopata | Analyst | Bachelor of Arts, Masters of Commerce | <1 | <1 |
| Average | | | 5 | 15 |

Org Chart



Morningstar Manager Research Team Biographies



Tim Murphy, CFA, CAIA

Director of Manager Research,
APAC, Manager Research
Morningstar

Tim Murphy is director of Asia-Pacific manager research for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for leading qualitative research on managed funds, exchange-traded funds, and listed investment companies, as well as managing Morningstar's model portfolios and relationships with consulting and adviser clients in the APAC region, including Australia, New Zealand, Korea and India.

Before joining Morningstar in 2005, Murphy worked in equity derivatives trading with Optiver Australia, and prior to that, in mortgage securitisation with Macquarie Bank, as well as in corporate credit analysis roles with HSBC and Commonwealth Bank. He worked on secondment to Morningstar's London office in 2007. He comments regularly about investing issues in the media.

Murphy holds bachelor's and master's degrees in applied finance and a postgraduate diploma in accounting, all from Macquarie University. He also holds the Chartered Financial Analyst® and Chartered Alternative Investment Analyst designations. He has completed the Investment Management Workshop at Harvard Business School, is a Fellow of Finsia, and has been a master's level guest lecturer on asset management at both Macquarie University and Western Sydney University.



Aman Ramrakha

Director, Manager Research
Ratings, APAC
Manager Research,
Morningstar

Aman Ramrakha is director of manager research ratings – Australia with Morningstar, a leading global provider of independent investment research. He is responsible for leading qualitative research on Asia-Pacific fund managers (excluding China, Hong Kong and Singapore) and their funds.

Before joining Morningstar in 2018, Ramrakha worked at the Commonwealth Bank of Australia as executive manager, research, where he led the research function for the wealth management and advice business. He has held technical, consulting and advisory roles at BT Financial Group, Colonial First State, KPMG and the Commonwealth Private Bank.

Ramrakha has a Bachelor of Commerce, Graduate Diploma of Applied Finance and Investments, Diploma of Financial Planning and is a Certified Investment Management Analyst®


Tim Wong, CFA

Associate Director, Fixed
Income Strategies, Manager
Research, Morningstar

Tim Wong is an associate director for fixed-income strategies at Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in 2008, Wong was a senior financial analyst at the New South Wales Treasury.

Wong holds a Bachelor of Commerce in finance and information systems from the University of New South Wales. He also holds the Chartered Financial Analyst® designation.

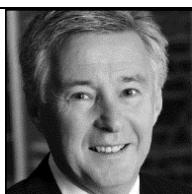

Alex Prineas

Associate Director, Manager
Research, Morningstar

Alex Prineas is an associate director for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Prineas worked as a research analyst for Morningstar in the United Kingdom from February 2009 to September 2011. Before that, he worked for OBSR, a London-based independent investment research and consulting firm, which is now a Morningstar company. He previously spent six years at ING Australia, working in funds management marketing and product development and in a research role for its financial-planning division.

Prineas has a Bachelor of Commerce from the University of New South Wales, majoring in accounting and finance, and a Graduate Diploma in Applied Finance and Investments from Finsia.


Ross Macmillan

Senior Analyst, Manager
Research, Morningstar

Ross Macmillan is a senior manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds. Until late 2015, Macmillan was the industrial equities sector head, managing analysts in Sydney, Hong Kong, Shenzhen, and Mumbai.

Before joining Morningstar in 2011, Macmillan was a senior equity analyst for Baillieu Holst Stockbroking and Commonwealth Securities, covering industrial equities in the Australian market.

Macmillan holds a Bachelor of Commerce (accounting, finance, and systems) from the University of New South Wales. He is a chartered accountant, a professional stockbroker, and a fellow of Finsia.



Michael Malseed
Senior Analyst, Manager
Research, Morningstar

Michael Malseed is a senior manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in June 2016, Malseed spent seven years as a senior investment analyst at Bennelong Australian Equity Partners and was responsible for fundamental stock research across a wide variety of sectors in the Australian share market. Prior to Bennelong, he worked for ING Investment Management as a large-cap equity analyst for four years, following a number of other various roles within the business.

Malseed holds a bachelor's degree in economics and finance from the University of Sydney.



Simon Scott
Senior Analyst, Manager
Research, Morningstar

Simon Scott is a senior manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in 2018, Scott worked for 5.5 years as a senior investment analyst for Macquarie Private Wealth, where he was responsible for delivering unlisted fund research, model portfolios, and asset-allocation advice. Prior to joining Macquarie, Scott spent 4.5 years with Standard & Poor's Fund Ratings, where he was an associate director and sector head for structured products and alternative investments. Prior to coming to Australia, Scott worked in the United Kingdom as a sales analyst within structured credit and alternative fixed income for a private investment and advisory firm. He started his career at Bankers Trust International, researching emerging-markets and convertible bonds.

Scott holds a Bachelor of Laws (Hons) from City, University of London. He also holds a Master of Liberal Arts, Extension Studies (finance) from Harvard University, a postgraduate certificate in business administration from Heriot-Watt University, and a graduate certificate in corporate finance from Harvard University Extension School.



Matthew Wilkinson
Senior Analyst, Manager
Research, Morningstar

Matthew Wilkinson is a senior manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in 2015, Wilkinson worked for Propex Derivatives in the fixed-interest and equity futures market as a trader analysing and managing exposures. Prior to that, he had a career in engineering, working on local and overseas projects, most recently in commercial management roles.

Wilkinson holds a master's degree in applied finance from Macquarie University and a bachelor's degree in civil engineering from the University of Sydney.

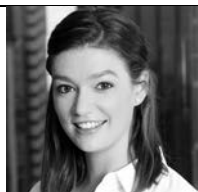


Andrew Miles
Analyst, Manager Research,
Morningstar

Andrew Miles is a manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. He is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Miles joined Morningstar in 2011. He initially worked in the institutional software division in London and Sydney before moving into research in 2015.

Miles has a bachelor's degree in mathematics from the University of Reading and holds the UK Investment Management Certificate.

**Sarah Fox, CFA**

Analyst, Manager Research,
Morningstar

Sarah Fox is a manager research analyst for Morningstar Australasia Pty Ltd, a wholly owned subsidiary of Morningstar, Inc. She is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in 2016, Fox worked as a national key account associate/analyst at Challenger and as a business-development manager at Rainmaker.

Fox holds bachelor's degrees with honours in law and arts from Macquarie University. She also holds the Chartered Financial Analyst® designation.

**Donna Lopata**

Analyst, Manager Research,
Morningstar

Donna Lopata is an analyst in the manager research team at Morningstar, a leading global provider of independent investment research. She is responsible for conducting qualitative research on Australian and New Zealand fund managers and their funds.

Before joining Morningstar in 2018, Lopata worked for the Samester Family Trust, analysing direct equities, property trusts and managed funds to invest in. Prior to that, she had a career as an interior designer which involved running a business and working with teams including engineers, builders and equipment suppliers to complete projects for clients.

Lopata has a Master of Commerce degree from the University of Sydney and a Bachelor of Arts from RMIT University, Melbourne.

About Morningstar

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. The company offers an extensive line of products and services for individual investors, financial advisors, asset managers, retirement plan providers and sponsors, and institutional investors in the private capital markets. Morningstar provides data and research insights on a wide range of investment offerings, including managed investment products, publicly listed companies, private capital markets, and real-time global market data. Morningstar also offers investment management services through its investment advisory subsidiaries, with more than \$207 billion in assets under advisement and management as of September 30, 2018. The company has operations in 27 countries. ■■