Recommended

Product Review
BlackRock Advantage International Equity Fund

ISSUE DATE 31-03-2023

About this Review

ASSET CLASS REVIEWED	GLOBAL EQUITIES
SECTOR REVIEWED	GLOBAL LARGE CAP
SUB SECTOR REVIEWED	QUANTITATIVE
TOTAL FUNDS RATED	25

About this Fund

ASIC RG240 CLASSIFIED	NO
FUND REVIEWED	BLACKROCK ADVANTAGE INTERNATIONAL EQUITY FUND
APIR CODE	BAR0817AU
PDS OBJECTIVE	TO OUTPERFORM THE BENCHMARK BY 2% P.A. OVER ROLLING THREE-YEAR PERIODS (NET), WHILE MAINTAINING A SIMILAR LEVEL OF INVESTMENT RISK TO THE BENCHMARK
INTERNAL OBJECTIVE	BENCHMARK +2% P.A. (NET) OVER ROLLING THREE YEARS
STATED RISK OBJECTIVE	TRACKING ERROR 2.5-3.0% P.A. OVER ROLLING THREE YEARS
DISTRIBUTION FREQUENCY	SEMI-ANNUALLY
FUND SIZE	A$265.1M (FEB. 2023)
FUND INCEPTION	31-12-1997
ANNUAL FEES AND COSTS (PDS)	0.5% P.A.
RESPONSIBLE ENTITY	BLACKROCK INVESTMENT MANAGEMENT (AUSTRALIA) LIMITED

About the Fund Manager

FUND MANAGER	BLACKROCK INVESTMENT MANAGEMENT (AUSTRALIA) LIMITED
OWNERSHIP	BLACKROCK INC. (NYSE: BLK)
ASSETS MANAGED IN THIS SECTOR	US$131BN IN SAE GLOBAL EQUITIES (DEC. 2022)
YEARS MANAGING THIS ASSET CLASS	28

Investment Team

PORTFOLIO MANAGER	KEVIN FRANKLIN
INVESTMENT TEAM SIZE	90
INVESTMENT TEAM TURNOVER	LOW-MOD
STRUCTURE / LOCATION	FUNCTIONAL/MULTIPLE

Investment process

STYLE	STYLE NEUTRAL
TYPICAL CAPITALISATION BIAS	ALL CAP
BENCHMARK	MSCI WORLD (EX AUST.) NET TR INDEX A$
TYPICAL STOCK NUMBERS	400-800
STOCK LIMITS	+/- 2% (SOFT)
SECTOR/INDUSTRY LIMITS	+/- 10% (SOFT)
COUNTRY/REGIONAL LIMITS	+/- 10% (SOFT)
EMERGING MARKETS LIMIT	NOT PERMITTED
CURRENCY EXPOSURE	UNHEDGED

Fund rating history

MARCH 2023	RECOMMENDED
APRIL 2022	RECOMMENDED
MARCH 2021	RECOMMENDED

What this Rating means

The **'Recommended'** rating indicates that Lonsec has strong conviction the financial product can generate risk adjusted returns in line with relevant objectives. The financial product is considered an appropriate entry point to this asset class or strategy.

Strengths

- BlackRock possesses a long history in managing quantitative strategies.
- The Fund is managed by a large and experienced team that is supported by the broader BlackRock network.
- The team displays a significant commitment with respect to the research and development of proprietary signals. The team refreshes a meaningful proportion of the strategy's signals on an on-going basis, to enhance model efficacy.
- The Fund is considered well-priced for the overall capability on offer.

Weaknesses

- The investment team are a collection of functional research and implementation specialists who have broader responsibilities beyond this Fund.
- Portfolio managers can exercise a degree of discretion over weights of signal groups, stocks and levels of active risk within the portfolio, which may deliver mixed results.
- Relative performance outcomes versus the benchmark have been lacklustre, with active risk being persistently below targeted levels.

Fund Risk Characteristics

	LOW		MODERATE		HIGH
BUSINESS SUSTAINABILITY RISK	●				
CAPITAL VOLATILITY					●
FOREIGN CURRENCY EXPOSURE				●	
SECURITY CONCENTRATION RISK	●				
SECURITY LIQUIDITY RISK		●			

Risk categories are based on Lonsec's qualitative opinion of the risks inherent in the financial product's asset class and the risks relative to other financial products in the relevant Lonsec sector universe.

BIOmetrics

Aggregated risks

	1	2	3	4	5	6	7
STD RISK MEASURE						●	

A Standard Risk Measure score of 6 equates to a Risk Label of 'High' and an estimated number of negative annual returns over any 20 year period of 4 to less than 6. This is a measure of expected frequency (not magnitude) of capital losses, calculated in accordance with ASFA/FSC guidelines.

ANALYST: LEON KHOO | APPROVED BY: MATTHEW FREEMAN

BlackRock Advantage International Equity Fund

	LOW		MODERATE		HIGH
RISK TO INCOME			●		

Features and benefits

	LOW		MODERATE		HIGH
COMPLEXITY		●			
ESG				●	

Fee profile

	LOW		MODERATE		HIGH
FEES VS. UNIVERSE	●				
FEES VS. ASSET CLASS	●				
FEES VS. SUB-SECTOR			●		

Fee BIOmetrics are a function of expected total fee as a percentage of expected total return.

What is this Fund?

- The BlackRock Advantage International Equity Fund ('the Fund') is an actively-managed, style-neutral, unhedged global equity product that utilises a quantitative investment approach. The Fund is a 'long only', benchmark-aware diversified strategy. The Fund aims to outperform the MSCI World (Ex Aust.) Net TR Index A$ ('the Benchmark') by 2% p.a. over rolling three-year periods (net) irrespective of market direction. Tracking Error is targeted at 2.5-3% p.a. over the same time period.
- The strategy is described by BlackRock Investment Management ('BlackRock' or 'the Manager') as 'Systematic Investing'. As a quantitative manager, BlackRock does not conduct company management meetings or other forms of qualitative analysis. Rather, the quantitative approach systematically calculates return forecasts across a large universe of stocks based on a number of value, quality, earnings and technical market-related measures. The portfolio is optimised based on the return forecasts, a proprietary risk model and expected trading costs.
- The Fund is a 'long only', benchmark-aware strategy, utilising a 'style neutral' investment approach, which means that there is unlikely to be any meaningful style or sector biases in the portfolio. The final portfolio has been deliberately constructed to be low Tracking Error through a large number of stock holdings ranging between 400-800, each with a small active overweight or underweight position relative to the Benchmark. Portfolio turnover is expected to range between 100-200% p.a. The Fund is restricted from investing in Emerging Markets stocks.
- The Fund's PDS dated 26 November 2022 disclosed Annual Fees and Costs ('AFC') totalling 0.50% p.a. This value comprises (1) Management Fees and Costs of 0.50% p.a., and; (2) Net Transaction Costs of 0.0% p.a. In line with RG97, some fees and costs have been estimated by the issuer on a reasonable basis. Actual fees and costs may vary to these estimates.
- The Fund charges buy/sell spreads set at 0.17%/0.17%. These spreads can be subject to change, most notably during periods of market volatility and can be sourced from the Manager's website.
- The Fund's investable universe excludes tobacco and controversial and nuclear weapons stocks using the MSCI category definitions from the MSCI World ex Australia ex Tobacco ex Controversial Weapons ex Nuclear Weapons Index. In addition, thermal coal companies were excluded from January 2020.
- The Fund is also available as a currency hedged product under the APIR code: BGL0109AU, which Lonsec also rates.

Using this Fund

This is General Advice only and should be read in conjunction with the Disclaimer, Disclosure and Warning on the final page.

- Lonsec notes that the Manager has produced a Target Market Determination ('TMD'), which forms part of the Responsible Entity's Design and Distribution Obligations ('DDO') for the Fund. Lonsec has collected the TMD that has been provided by the Manager and notes that this should be referred to for further details on the Target Market Summary, Description of Target Market and Review Triggers.
- The Fund provides investors exposure to global equity stock markets and accordingly may experience both positive and negative, at times sharp, movements in the value of capital invested.
- The Fund may be suitable for blending with most investment styles such as value and growth given its style neutral approach. Lonsec recommends that equity investments, given their volatility, are best suited for investors with an investment time horizon of at least five years.
- The style neutral, benchmark-aware manner in which the Fund is managed, in addition to the large number of stocks held, may make the Fund suitable as the standalone component of the growth portion of a diversified portfolio. The Fund is expected to exhibit low to moderate levels of Tracking Error relative to its Benchmark.

Suggested Lonsec risk profile suitability

SECURE	DEFENSIVE	CONSERVATIVE	BALANCED	GROWTH	HIGH GROWTH
	●	●	●	●	●

For guidance on appropriate asset allocations and risk profiles, refer to the latest Lonsec Strategic Asset Allocation Review and Risk Profile Definitions on our website.

Changes Since Previous Lonsec Review

- BlackRock continues to build on its existing research with the intention of model enhancements over time. Recent enhancements include the introduction of signals based on alternative data sources and predictive data points, amongst others. Signals with lower efficacy and shorter-term tactical signals were phased out.
- Lonsec has not been advised of any further firm, team or process changes since the previous review.

Lonsec Opinion of this Fund

People and resources

- BlackRock's Systematic Active Equity ('SAE') team is jointly led by Raffaele Savi and Jeff Shen, as Co-Heads of Investments, SAE. Lonsec considers Savi and Shen, to be suitably experienced and qualified to fulfil their leadership duties.
- Lonsec notes that BlackRock's SAE team is one of the largest in its global equities universe. The

SAE team is responsible for this strategy and has over 90 investment professionals ranging from researchers, portfolio managers and data scientists. Lonsec believes that a large team has the potential to provide BlackRock with an advantage, relative to its smaller-sized quantitative peers, considering the data and research intensiveness of quantitative strategies. Given BlackRock's team-based portfolio management approach, Lonsec notes that the responsible investment team are a collection of functional research and implementation specialists who have responsibilities beyond this Fund.

- Portfolio management is split across two regional teams with Savi being responsible for SAE's North America/Europe/Developed Cross-Border strategies and Shen responsible for SAE's Asia-Pac/Emerging Market strategies. The SAE team is organised into Portfolio Management, Research and Strategy divisions. Importantly, Lonsec views the team in aggregate as high quality, experienced investors.
- Lonsec considers Kevin Franklin, Portfolio Manager, who is directly responsible for the Fund, to be suitably experienced for the role. Franklin holds 22 years' industry experience across quantitative portfolio management and trading related roles with BlackRock and predecessor Barclays Global Investors (BGI). Lonsec considers Franklin to be a capable investor. Each regional team is responsible for research and portfolio management across their respective markets.
- The SAE investment team has been relatively stable over the past year with no significant departures reported. Further, the Manager advised that the firm has been able to attract and retain experienced talent through the offer of flexibility with work hours and location. Lonsec views this positively.
- BlackRock has been a keen adopter of 'big data' techniques and has committed significant resourcing in this area which is viewed positively. This includes both in personnel, systems and acquisition of data.
- The senior members of the Australian branch, which forms part of the Multi-Asset Strategies Group ('MAS'), are responsible for the management of client investment flows with respect to this strategy. Karsten Kumpf, Head of Portfolio Management, and his portfolio management team continue to be responsible for this aspect.
- Lonsec believes there is appropriate alignment of interests for a quantitative strategy. The investment team's bonuses are largely linked to Fund performance with only a small component linked to firm profitability. The investment team also co-invest their bonuses with investors in the strategy. At the senior management level, a significant percentage of the annual bonus is paid in the form of restricted stock awards that vest over three years.
- Lonsec believes key person risk to be low-to-moderate, largely reflecting the Manager's quantitative investment process. However, Lonsec notes that the high pace of process evolution and discretion over the quantitative model compared to peers elevates key person risk to a degree. Given this assessment, Lonsec considers there to be a degree of key person risk residing with the portfolio manager, key researchers and the co-CIOs. Lonsec also notes some mitigating factors including the depth and breadth of the team and substantial tenure of the existing senior investors.

Research and portfolio construction

- Lonsec considers the investment process to be logical and robust. The Fund is managed using a quantitative model which statistically ranks stocks in accordance with an 'alpha' score derived from three major components of varying time horizons: Fundamentals such as earnings quality and relative valuation, Sentiment and Macro Themes. BlackRock's research, consistent with quantitative peers, is focused on developing quantitative models or signals to exploit perceived market inefficiencies and systematically applying these models to a large universe of stocks. Portfolio construction is generally considered to be well-structured and repeatable, typical of many quantitative strategies.
- BlackRock's quantitative global model has approximately 100 different signals, which are grouped into three main components. There are typically 50-55 Fundamental and Sentiment signals combined and around 45 Macro Theme signals. In total, approximately 60-70% of signals try to capture information on the market's expectation of future fundamentals. Most signals have relatively short time horizons, varying between three-and-nine months. Lonsec considers the quantitative model to be logical but notes that there is a potential risk of data mining and overfitting less meaningful insights, particularly in shorter-dated signals.
- Lonsec considers the Manager to be more active in changing the underlying signals and their weights compared to other quantitative fund managers, aligning with its 15-20% p.a. signal turnover target. Lonsec believes the Manager's signal-refresh agenda is underpinned by an economically sound, rigorous research and validation process.
- Lonsec regards BlackRock's significant commitment to the research and development of proprietary signals positively. The research process sits within a robust peer review and governance framework with only meaningful research outcomes being approved for portfolio/strategy inclusion. The Manager recognises that sources of return embedded into signals decay over time and therefore constant innovation and research is essential in generating alpha-yielding signal outcomes. Current research themes include leveraging big-data resources, diversifying sources of potential alpha and dynamic risk budgeting. Differentiated data sources such as transaction led-indicators, natural language processing insights and social media sentiment have also been of focus. BlackRock's adaptiveness to updating signals to current market conditions, for example, central banks' tightening cycle and persistent inflationary pressures as further examples.
- Over the years, Lonsec has observed the evolution of the SAE model away from traditional signals such as valuation/earnings quality metrics, towards 'macro' signals and the use of esoteric data sources such as text analysis to determine sentiment or online job listings as a macro indicator with approximately 70% of the risk budget allocated to alternative data sources. In addition, some of the newly developed

themes have tended to be designed for a very specific environment or time setting. Lonsec considers this aspect as more opportunistic and a step away from the traditional long-term quantitative signal approach employed by BlackRock throughout its history. The explicit attempts by the Manager to reduce correlation of its new signals with generic long-term factors is viewed favourably albeit may result in somewhat potentially foregoing the capture of traditional market premias.

- Lonsec highlights that a common weakness of quantitative management is its vulnerability to breaks in trending markets and dealing with delayed signals. Whenever there is a break in a trending market the models can be slow to react which, in the event of sharp declines, can be costly. Lonsec notes that BlackRock has sought to address this general shortcoming by incorporating a diverse range of signals, including shorter-term signals and different types of signals such as 'macro' and 'cross border/ themes' and varied data sources such as 'big data'.
- All quantitative research enhancements require approval by the Equity Research Approval Board ('ERAB') during formal weekly meetings (or when required), previously monthly, chaired by Kahn. Prior to reaching the ERAB, each idea goes through a peer review and a referee report to be validated against four main factors being Sensibility, Predictability, Consistency and Additivity. Lonsec considers this to be a pragmatic approach for maintaining consistency across a large team. Lonsec notes that once a signal is approved, there is a relatively structured process in place for its weighting in the models.
- Fundamental, Sentiment and Macro Themes weights are managed to target allocations, with the portfolio management group given discretion to adjust these weights within set limits. Minor adjustments being 1-2% with no cumulative limit is common-place. Pleasingly, large changes, being generally greater than 5%, require Franklin to inform one of the co-Heads of Investments and changes above 10% require sign-off from the co-Head of Investments.
- Factor family target weights have been described by BlackRock as being stable, although Lonsec notes there have been three major changes to these in the history of the strategy (2010, 2015 and 2016). That said, the weights have remained stable since then. Lonsec believes BlackRock's re-weighting of signals may at times be more 'reactive' than 'proactive'. That is, the Manager will usually make changes if a signal hasn't performed to expectations. However, the Manager notes that re-weighting of an individual signal is undertaken based on forward-looking view of markets. Lonsec notes that some of these forward-looking views of markets may be well-founded and benefit the performance of the Fund eventually, however there is a degree of subjectivity associated with such level of discretion which contrasts with the repeatable nature of quantitative strategies.
- The Manager's portfolio construction process is mostly systematic and guided by the creation of security rankings within the model. Accordingly, 'buy' and 'sell' decisions tend to strongly reflect the output of the model. Additionally, Lonsec notes that the Manager regularly reviews performance attribution to measure the efficacy of signals and the quantitative model.
- That said, Lonsec notes that the portfolio management group are also able to exercise a degree of discretion over individual security selection and signal weightings within the portfolio for risk management purposes. Typically, this may be used to neutralise stock positions back to benchmark weight. For example, when the risk of the model's position is considered to be understated or to make adjustments to signal weightings within set limits. Overall, there appears to be a higher degree of discretion afforded to the portfolio management group to alter signal weights and to remove signals compared to peers.
- All trades are implemented using a proprietary trading platform, where all trading costs are regularly monitored and analysed. This information is then integrated systematically into the portfolio construction process, which influences position sizing. Lonsec considers BlackRock's integration of portfolio construction, risk management and portfolio implementation to be a strength of the process.

ESG Integration

- Lonsec's ESG integration assessment considers how rigorous, robust and structured the ESG process for the Fund is as well as how well it integrates into the overall investment process and the Manager's overall policy and reporting framework. The assessment is not intended to assess the underlying holdings of the Fund's portfolio or the Manager's adherence to any form of impact, green / sustainable or ethical standards.
- At the corporate level Lonsec views the Manager's overall ESG policy framework and disclosure as ahead of peers. The Manager has an articulated commitment to the integration of ESG within their investment process with clear public positioning and evidence of a strong policy framework. The ESG policy together with stewardship guidelines are freely available on the firm's website. The proxy voting policy and reporting on voting outcomes is stronger than peers with particular credit paid to the disclosure of voting rationale for controversial votes. The level of disclosure with respect to the Manager's engagement policies is high, particularly the firm's stewardship policies, however reporting on engagement outcomes lacks depth compared to industry-leading peers.
- The Manager has indicated that their Responsible Investment style is "ESG Integration" and as such that they take Environmental, Social and Governance factors into consideration when assessing investment opportunities. With a primary ESG style of "Best in Class" the Manager is using some form of ranking system to determine good and poor ESG companies within each industry and only investing in those above a certain threshold. Note that this may mean that a highly scoring ESG company in a very poor ESG industry may well be included in the portfolio. It is important to understand the nature and level of the Managers thresholds for this style of ESG integration. Note that such an approach does not automatically ensure that the resulting portfolio will adhere to any particular structure or provide any particular level of ethicalness, greenness or sustainability.

BlackRock Advantage International Equity Fund

- Within the management of this specific Fund Lonsec notes:
  - Lonsec considers the Manager sources ESG data within their investment process in a structured and thorough manner. Multiple data providers are accessed. Data to enable strong compliance checking is accessed and data collection and storage processes are robust.
  - The Manager's approach to ESG is reliant on extracting data and scores from external providers. However, ESG signals research is conducted by the team internally. Research is stored in a centralised dashboard facilitating sharing across analysts and portfolio managers.
  - There are clear links from the Manager's research to stock selection through their quantitative stock selection models. The Manager has indicated that the primary transmission is based on underlying ESG data.
  - While ESG risks are reflected at the point of investment decision making , there is no clear portfolio level ESG monitoring or management with all monitoring activity focused on individual stocks. There are no ESG based limits or targets in place for the fund.
  - The Manager demonstrated a strong engagement program and a structured approach driven by a materiality framework. Engagements are documented with clear objectives set and outcomes tracked. The Manager is able to demonstrate clear ESG based engagement outcomes.
  - There is no evidence that ESG factors form any component of the Manager's compliance framework and overall transparency to investors is light. Pleasingly voting is controlled by the portfolio manager for the Fund.

Risk management

- Lonsec considers the risk systems and processes at the Manager's disposal to be well-developed and high quality. Specifically, Lonsec has a high opinion of the 'BlackRock Aladdin' portfolio and order management platform, believing its functionality and depth of coverage is valuable.
- The Manager regularly reassesses its risk exposures between macro, sentiment and fundamental factors and will generally adjust underlying signal weights more frequently than peers. Lonsec considers the pace of change appropriate based on BlackRock's internal turnover guidelines but believes in some cases these can be somewhat reactionary.
- Similar to competing strategies that utilise a quantitatively-driven investment process, BlackRock constructs this portfolio with an optimisation model that ensures portfolio risk and ex-ante Tracking Error limits are adhered to. Lonsec notes that the Fund is managed to a strict maximum Tracking Error constraint of 3% p.a. This is one of the lowest ceilings of all Lonsec-rated quantitatively managed active global equities funds. BlackRock seeks to maintain a relatively low Tracking Error through holding a significantly large number of stocks which can be over 800 and modest active positioning in stocks consistent with the typical expectations for a quantitative approach.
- The investment team monitors, and is kept informed of, both absolute and relative risks via daily risk reports. These reports are prepared separately of the team by BlackRock's Risk and Quantitative Analysis Group, which Lonsec views positively.

Fees

- Lonsec considers the total fee load for the Fund (AFC of 0.50% p.a.) to be well-priced for the overall capability on offer, particularly given the highly active research agenda and model enhancements undertaken as well as the alpha and risk objectives. That said, the Fund's active risk profile has been below expectations and Lonsec would welcome better alignment between the AFC and the Fund's risk and return objectives.

Product

- The Fund is an uncomplicated long-only diversified global equity strategy. Hence, Lonsec does not consider it to be operationally challenging to implement. Additionally, the Manager employs high quality 'tier 1' service providers. However, Lonsec notes that the Fund uses a related party Responsible Entity ('RE') which may lead to conflicts which need to be managed. Lonsec notes this RE relationship has been stable since the inception of the Fund and there have been no issues. The buy/sell spread is 0.17%/0.17% and as net transaction costs disclosed under RG97 reporting regime are 0.0% p.a., the buy/sell spreads are appropriate.

Capacity management

- As at December 2022, assets under management (AUM) within BlackRock's SAE platform was US $131bn. This included US$119bn in benchmark-driven 'long only' strategies including this Fund, US$7bn long-short strategies and US$5bn absolute return products. This level of AUM makes BlackRock one of the larger managers in Lonsec's peer group and Lonsec believes this has the potential to constrain capacity. The Manager has not detailed a set capacity limit, but has advised that it does not view capacity as an issue for its 'long only' benchmark-aware strategies. Lonsec would appreciate firmer guidance around an indicative capacity limit.
- Lonsec believes, all else being equal, it is more difficult to generate outperformance with high levels of AUM versus lower levels. High levels of AUM can make it difficult for the Fund's strategy to be implemented efficiently, particularly due to the apparent momentum following model changes and high portfolio turnover of the strategy. That said, the Fund is highly diversified with modest active positions relative to the benchmark.

Performance

- The Fund aims to beat the MSCI World (ex-Australia) Index in A$ (net dividends reinvested) over rolling three-year periods by 2% (net). All figures below are to February 2023 (net) unless otherwise stated.
- Over the three and five years, the Fund delivered a net return of 7.9% p.a. and 9.3% p.a., essentially in line with the Benchmark's return over three years and marginally underperforming over five years. The

BlackRock Advantage International Equity Fund

Fund has therefore been unable to meet its internal investment objective as judged by its three-year excess return figure. Over these time horizons, the Fund has performed in line with sub-sector peers albeit with lower relative risk as measured by its tracking error.

- Over the one year, the Fund returned -0.03%, outperforming the Benchmark by 0.5% but underperforming the peer group median by 1.2%. Attribution supplied by BlackRock shows that in terms of factor groups, the main contributors were Sentiment signals over calendar 2022, whereas Earnings Quality and Macro signals detracted over the same time period. Lonsec considers that frequent changes to the Fund's quantitative model, its relative complexity and portfolio manager discretion over weights of signal groups and levels of active risk within the portfolio may deliver mixed performance outcomes.
- Lonsec notes that the Fund has generally produced benchmark-like performance over an extended period, suggesting that despite a robust signal refresh program, its implementation has not resulted in meaningful outperformance. That said, Lonsec acknowledges that the global market environment has been generally macro-driven over a period of time with stock-specific fundamentals playing a less meaningful role in determining stock prices.
- Notably, the Fund's ex-post Tracking Error (averaging 1.6%) has consistently been lower than its 2.5-3.0% p.a. target and that of the peer group median for an extended period of time. This is indicative of lower levels of active risk which may impede the potential for outperformance. Lonsec believes the Fund may need to assume higher levels of active risk to achieve its 2% net outperformance target.

Overall

- Lonsec has maintained the Fund's **'Recommended'** rating. Lonsec considers the Fund to be well-priced for the capability on offer. The Fund is managed by a large and experienced team with a long track record of managing quantitative strategies. The rating is further supported by the investment team's commitment in extensively developing proprietary signals and refreshing its quantitative model.
- However, Lonsec notes that performance outcomes have been weak relative to the Fund's objectives and its Benchmark, and improved outcomes are required for Lonsec to maintain its current level of conviction. Active risk levels have also been persistently below targeted levels. Lastly, the degree of discretion over the strategy's execution presents difficulty in linking strategy performance with model enhancements.

People and Resources

Corporate overview

BlackRock, Inc. is a provider of global investment management, risk management and advisory services to institutional and retail clients around the world. As at December 2022, BlackRock's AUM totalled US $8.6tr across equity, fixed income, cash management, alternative investment and real estate strategies.

BlackRock, Inc. is publicly listed on the New York Stock Exchange (NYSE). The company has a majority of independent directors. BlackRock Asset Management Australia Limited is a wholly owned subsidiary of BlackRock, Inc.

Size and experience

NAME	POSITION	EXPERIENCE INDUSTRY / FIRM
KEVIN FRANKLIN	PORTFOLIO MANAGER	22 / 12
RON KHAN	HEAD OF RESEARCH	39 / 24
RAFFAELE SAVI	CO-HEAD OF INVESTMENTS SAE (NORTH AMERICA/ EUROPE)	25 / 17
JEFF SHEN	CO-HEAD OF INVESTMENTS SAE (ASIA/EM)	26 / 19
SAE (TEAM = 90)	AVERAGE	12 / 10

Team structure

The Systematic Active Equity ('SAE') is jointly led by Raffaele Savi and Jeff Shen. The SAE team boasts a total of circa 90 investment professionals and the investment process is managed by teams based in San Francisco and London.

Kevin Franklin is directly responsible for the management of the Fund.

Remuneration/Alignment of interest

The remuneration structure for analysts depends on their role in the overall investment process. Remuneration for investment staff is based on a Total Compensation Philosophy, which aims to pay total remuneration packages in the top quartile for fund managers. These packages include a fixed compensation reward, a profit share and a variable incentive scheme. The variable compensation element of any package is driven by corporate and individual performance.

Research Approach

Overview

RESEARCH PHILOSOPHY	QUANTITATIVE
TARGET COMPANY	MODEL-DRIVEN
MINIMUM MARKET CAPITALISATION	MAX. OF 20% IN STOCKS SMALLER THAN US$500M
NO. STOCKS IN MANAGER'S UNIVERSE	ALL INDEX STOCKS
NO. STOCKS FULLY MODELLED/RESEARCHED	ALL INDEX STOCKS
RESEARCH INPUTS	POPULATES ITS MODELS WITH EXTERNALLY SOURCED DATA FOR OVER 70,000 FORECAST ITEMS, FOR ALL THE STOCKS IN THE INVESTIBLE UNIVERSE.
BROKER RESEARCH	MINOR CONSIDERATION
VALUATION OVERVIEW	VARIOUS METRICS

Universe filtering

Investable securities comprise the entire universe of securities in the countries that are included within the MSCI World ex Australia Index, excluding any thermal coal, tobacco, controversial weapons and nuclear weapons companies.

Research process

The research process is concentrated on identifying and testing the reliability and consistency of new 'signals' for possible substitution or addition to existing models. These signals are expected to draw upon aspects, such

BlackRock Advantage International Equity Fund

as behavioural finance, and all data are externally sourced.

Data are cleansed and standardised to facilitate effective analysis. The cleansing process is largely automated with human involvement through exceptions checking.

When a signal is deemed to be less effective, its weight in the stock selection model will either be reduced or completely removed – vice versa with 'new' signals. Signals are not built with any pre-determined life expectancy; this depends on their observed effectiveness over time. This also applies to models.

Valuation

BlackRock uses a range of valuation metrics within its valuation signals based on relative economic value. These measures take into account difference across industries.

Portfolio Construction

Overview

FUND BENCHMARK	MSCI WORLD EX AUSTRALIA INDEX A$ UNHEDGED NDR
EMERGING MARKETS PERMITTED	NO
INTERNAL RETURN OBJECTIVE	BENCHMARK +2% P.A. (NET) OVER ROLLING THREE-YEAR PERIODS
INTERNAL RISK OBJECTIVE	TRACKING ERROR 2.5-3.0% P.A. (EX-ANTE TARGET)
PORTFOLIO MANAGEMENT APPROACH	BENCHMARK-AWARE
INVESTMENT STYLE	STYLE NEUTRAL
PORTFOLIO DECISION-MAKING	MAINLY QUANTITATIVE, WITH SOME DISCRETION
STOCK SELECTION	QUANTITATIVE
TOP-DOWN INFLUENCE	MINOR CONSIDERATION
TYPICAL NUMBER OF HOLDINGS	400-800
MARKET CAPITALISATION BIAS	ALL CAP
EXPECTED PORTFOLIO TURNOVER	100-200% P.A.
OBSERVED ACTIVE SHARE	C.57% (FEB. 2023)
PORTFOLIO EXPOSURE IN TOP 10 HOLDINGS	20.2% (FEB. 2023)

Decision making

The Fund is managed using quantitative models which drive the decision-making process. In constructing the portfolio, BlackRock's explicit objective is to maximise the Information Ratio. The portfolio is also constructed to be benchmark neutral for a range of factors such as growth and value investment styles.

Stocks are automatically ranked by the models from highest to lowest on their 'alpha' score, derived from the following factors:

- **Fundamentals** – A combination of relative value and earnings quality measures. Valuation fundamentals based predominantly on Discounted Cash Flow, Cash Flow, Return on Equity, and Price to Earnings measures. Earnings quality involves examination of cash flow and income statements for discretionary accounting decisions.
- **Market Sentiment** – Captures implied sentiment by monitoring flows, investor actions and market trends.
- **Macro themes** – Identifies a collection of stocks based on common exogenous exposure or macro events.

Buy/sell drivers

Portfolio rebalancing varies by region and is impacted by the frequency of data updates. It is expected that the stock portfolio will be rebalanced four to six times per month on average.

Risk Management

Risk limits

SEPARATE RISK MONITORING	YES
STOCK LIMITS	+/- 2% (SOFT)
SECTOR/INDUSTRY LIMITS	+/- 10% (SOFT)
COUNTRY/REGION LIMITS	+/- 10% (SOFT)
EMERGING MARKETS LIMIT	N/A
CASH LIMIT	MAX. 5%

BlackRock utilises the Aladdin Risk multi-factor model. Factors assessed include variability in markets (beta), size, leverage, interest rate sensitivity, and active position and industry sizes. The performance attribution system is also a useful tool in risk management.

Risk monitoring

Positions are monitored daily by the portfolio managers to ensure positions are in line with expectations and in compliance with position limits and liquidity requirements.

In addition, the Fund is reviewed by BlackRock's separate Risk and Quantitative Analysis Group ('RQA'), which will work collaboratively with portfolio managers to provide risk management oversight, an understanding of risk factors and to perform scenario and sensitivity analysis.

Risks

An investment in the Fund carries a number of standard investment risks associated with domestic and international investment markets. These include economic, political, legal, tax and regulatory risks. These and other risks are outlined in the PDS and should be read in full and understood by investors. Lonsec considers major risks to be:

Market risk

Companies within emerging markets generally have greater market risk (i.e. Beta). Accordingly, investors should be mindful of the potential for sharper movements in market price of these investments.

Liquidity risk

In some cases, global equities may present low liquidity in particular regions relative to 'deep' markets like US. Moreover, small cap stocks may display low liquidity due to low volume and fewer market participants.

Currency risk

The Fund invests in assets that are denominated in non-A$ currencies. A rise in the relative value of the A$ vis-à-vis the currencies in which the assets are denominated will negatively impact the market value of the assets (and vice versa) from an Australian investor's perspective. The Fund's currency exposures are unhedged.

BlackRock Advantage International Equity Fund

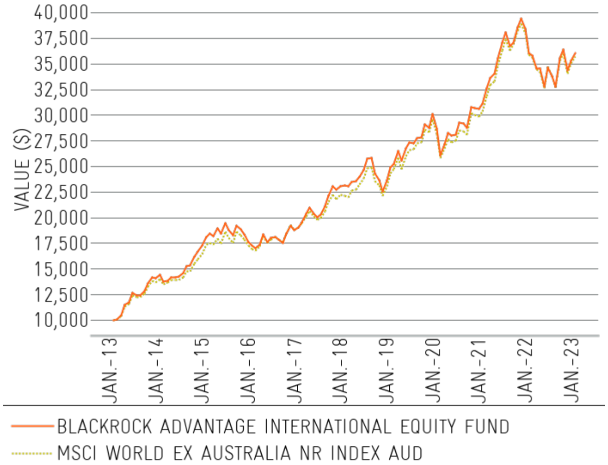
Quantitative Performance Analysis - annualised after-fee % returns (at 28-2-2023)

Performance metrics

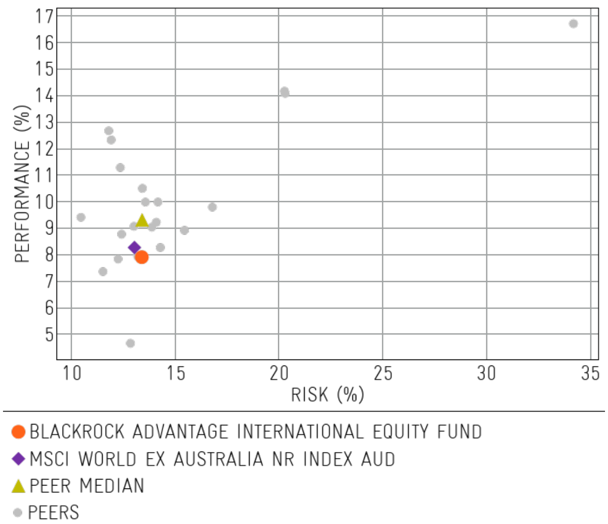
	1 YR		3 YR		5 YR		10 YR	
	FUND	PEER MEDIAN	FUND	PEER MEDIAN	FUND	PEER MEDIAN	FUND	PEER MEDIAN
PERFORMANCE (% PA)	-0.03	1.22	7.91	9.32	9.27	9.60	13.69	12.93
STANDARD DEVIATION (% PA)	14.79	14.72	13.40	13.42	12.64	12.58	11.90	11.72
EXCESS RETURN (% PA)	0.46	2.62	-0.36	1.66	-0.79	-0.23	0.10	-0.57
OUTPERFORMANCE RATIO (% PA)	66.67	66.67	52.78	56.94	46.67	50.83	52.50	50.83
WORST DRAWDOWN (%)	-9.14	-8.89	-16.84	-14.90	-16.84	-16.43	-16.84	-16.43
TIME TO RECOVERY (MTHS)	5	2	NR	NR	NR	NR	NR	NR
SHARPE RATIO	-0.12	-0.05	0.54	0.63	0.65	0.66	1.01	0.96
INFORMATION RATIO	0.32	0.73	-0.24	0.34	-0.51	-0.05	0.06	-0.14
TRACKING ERROR (% PA)	1.42	3.65	1.49	3.93	1.56	3.74	1.67	3.64

PRODUCT: BLACKROCK ADVANTAGE INTERNATIONAL EQUITY FUND
LONSEC PEER GROUP: GLOBAL EQUITIES - GLOBAL LARGE CAP - QUANTITATIVE
PRODUCT BENCHMARK: MSCI WORLD EX AUSTRALIA NR INDEX AUD
CASH BENCHMARK: BLOOMBERG AUSBOND BANK BILL INDEX AUD
TIME TO RECOVERY: NR - NOT RECOVERED, DASH - NO DRAWDOWN DURING PERIOD

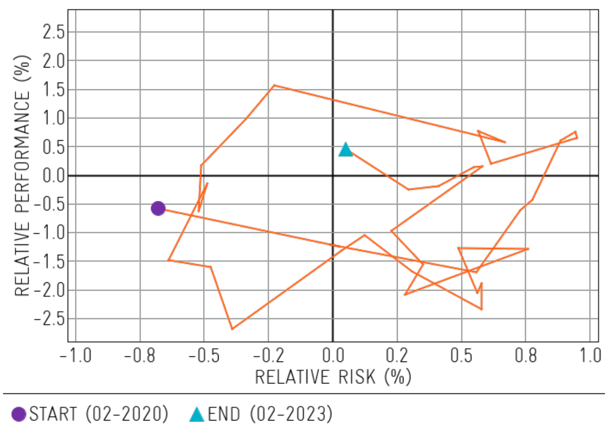
Growth of $10,000 over 10 years



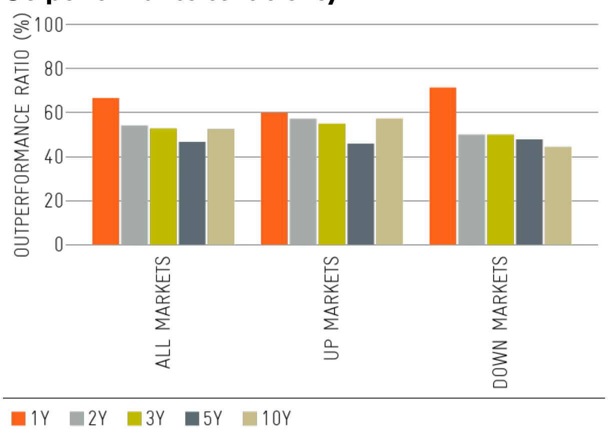
Risk-return chart over three years



Snail trail



Outperformance consistency



Lonsec

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BlackRock Advantage International Equity Fund

Glossary

Total return 'Top line' actual return, after fees

Excess return Return in excess of the benchmark return

Standard deviation Volatility of monthly Absolute Returns

Tracking error Volatility of monthly Excess Returns against the benchmark (the Standard Deviation of monthly Excess Returns)

Sharpe ratio Absolute reward for absolute risk taken (outperformance of the risk free return (Bank Bills) / Standard Deviation)

Information ratio Relative reward for relative risk taken (Excess Returns / Tracking Error)

Worst drawdown The worst cumulative loss ('peak to trough') experienced over the period assessed

Time to recovery The number of months taken to recover the Worst Drawdown

Snail Trail A trailing 12-month relative performance and relative risk measurement over the benchmark. The trail is generated using a 12-month rolling window over the specified period

About Lonsec

Lonsec Research Pty Ltd (Lonsec) is an investment research house with specialist areas of expertise, that was originally established in 1994 and the current entity was registered on 23 June 2011. From 1 July 2011, Lonsec became a fully owned subsidiary of Lonsec Fiscal Holdings Pty Ltd, a privately owned entity with a multi-brand strategy of providing leading financial services research and investment execution. Lonsec believes that professional financial advisers need informed opinions on the best investment strategies and financial products to provide real value for their clients. To meet this need, Lonsec has in place an experienced research team, which draws on a robust research process to undertake in-depth assessment of managed fund products.

Analyst Disclosure and Certification

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