

INCEPTION:
May 2018

BENCHMARK:
MSCI Emerging Markets Index

STRATEGY ASSETS:
US\$170 million

LEAD PORTFOLIO MANAGER:
Arup Datta, MBA, CFA

STRATEGY OVERVIEW

We seek to provide long-term capital appreciation by applying a quantitative, bottom-up stock selection investment process, based on fundamental insights, to a broad emerging market universe.

- Focus on Stock Selection
- Core focus that aims to add value across a variety of market conditions, both growth and value
- Nimble – incorporating daily changes in stock alpha rankings
- Daily rebalancing & trading, predictive transaction cost modelling, focus on capacity
- Large and mid cap focus

APPROACH

- Bottom-up, quantitative stock selection process applied to a broad investable universe of over 6,000 securities from 26 emerging markets countries and a select number of frontier countries.
- Stocks are analyzed through a region/sector relative model framework.
- Individual stock weights are assigned based upon sub-factors, which are grouped into the four super factors, Value, Revisions, Quality and Informed Investor.
 - **Value:** focuses on value metrics, consisting of cash flow, dividend, book, revenue and earnings based sub-factors.
 - **Revisions:** focuses on analyst revisions in forecasts.
 - **Quality:** incorporates sub-factors based upon capital allocation, operating efficiency and the application of accounting principles.
 - **Informed Investor:** analyzes informed market participant activity, such as short interest in and option pricing on securities.
- Contextual modeling is utilized to further refine the weights of factors assigned to stocks.
- The priority in executing the investment process is to remain nimble in seeking to generate alpha for clients. To retain this advantage, the team uses a proprietary transaction cost model, rebalances daily and maintains a strict focus on capacity.

INVESTMENT PROCESS

Universe



- Proprietary data warehouse
- Investable universe of 6,000 securities
- Emerging Markets
- Select Frontier Markets

Stock selection



- Bottom-up
- Region and sector relative
- Alpha Factors
- Contextual

Portfolio construction



- Return Forecast
- Constraint-based optimization
- Proprietary risk models
- PM review

Implementation

- Transaction cost estimates
- Pre/Post trade analysis
- Capacity limits
- CIO/Compliance review

Investing involves risk. Please read the important disclosures under "Disclaimer" which contain more information about the significance and the limitations of the information on this page.

SECTOR ALLOCATION (Ex. Cash & Equivalents)

SECTOR	PORTFOLIO	BENCHMARK
Information Technology	21.93%	20.42%
Financials	16.71%	17.78%
Consumer Discretionary	16.30%	17.58%
Materials	10.03%	8.42%
Communication Serv.	9.90%	11.26%
Energy	6.62%	5.03%
Industrials	6.47%	4.89%
Consumer Staples	4.24%	5.62%
Health Care	3.71%	5.04%
Real Estate	2.37%	2.01%
Utilities	1.72%	1.94%
	100.00%	100.00%

GEOGRAPHIC ALLOCATION (Ex. Cash & Equivalents)

COUNTRY	PORTFOLIO	BENCHMARK
China	40.90%	37.50%
Taiwan	17.12%	13.95%
South Korea	15.70%	13.22%
India	7.96%	9.90%
Brazil	5.16%	5.21%
Russia	3.50%	3.34%
South Africa	2.95%	3.53%
Malaysia	1.55%	1.23%
Philippines	1.15%	0.61%
Saudi Arabia	0.92%	2.87%
Chile	0.90%	0.44%
Thailand	0.83%	1.60%
Turkey	0.51%	0.23%
Mexico	0.39%	1.74%
Pakistan	0.27%	0.02%
Egypt	0.11%	0.06%
Argentina	0.08%	0.12%
Other	0.00%	4.42%
Nigeria	0.08%	0.00%
Philippines	0.06%	0.65%
Other	0.00%	3.15%
	100.00%	100.00%

WEIGHTINGS RELATIVE TO BENCHMARK

OVERWEIGHT	SECTOR	COUNTRY	ACTIVE WEIGHT
Evergreen Marine Corp Taiwan Ltd	Industrials	Taiwan	+1.92%
Contemporary Amperex Technology Co Ltd	Industrials	China	+1.91%
MTN Group	Comm. Services	South Africa	+1.59%
LG Electronics Inc	Cons. Disc.	South Korea	+1.57%
Innolux Corp	Info. Tech.	Taiwan	+1.57%
UNDERWEIGHT	SECTOR	COUNTRY	ACTIVE WEIGHT
Tencent Holdings Ltd	Comm. Services	China	-1.17%
Alibaba Group Holding Ltd	Cons. Disc.	China	-0.96%
Reliance Industries Ltd	Energy	India	-0.94%
Meituan Dianping	Cons. Disc.	China	-0.94%
Naspers Ltd	Cons. Disc.	South Africa	-0.88%

TOP TEN HOLDINGS (Ex. Cash & Equivalents)

HOLDING	SECTOR	COUNTRY	WEIGHT
Taiwan Semiconductor Manufacturing Co Ltd	Info. Tech.	Taiwan	5.7%
Samsung Electronics Co Ltd	Info. Tech.	South Korea	4.0%
Alibaba Group Holding Ltd	Cons. Disc.	China	4.0%
Tencent Holdings Ltd	Comm. Services	China	3.9%
China Construction Bank Corp	Financials	China	2.3%
Evergreen Marine Corp Taiwan Ltd	Industrials	Taiwan	2.1%
Contemporary Amperex Technology Co Ltd	Industrials	China	2.0%
Sberbank of Russia PJSC	Financials	Russia	1.9%
Vale SA	Materials	Brazil	1.9%
POSCO	Materials	South Korea	1.8%
Total:			29.6%
Cash & Equivalents			1.6%

CHARACTERISTICS

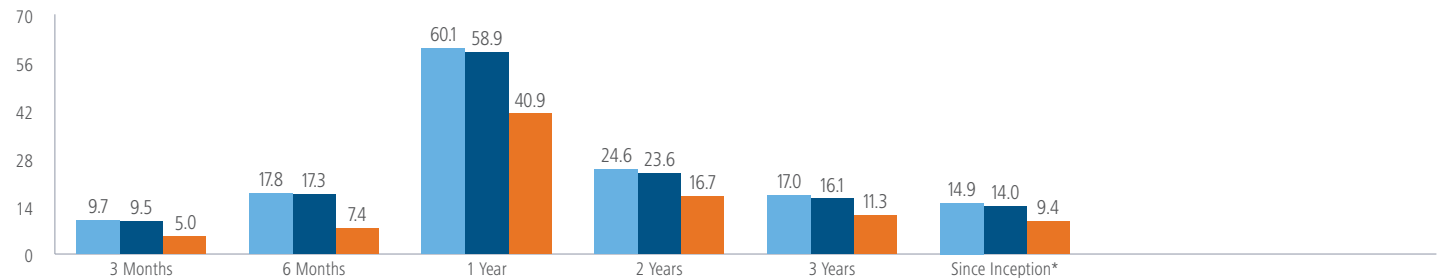
	PORTFOLIO	BENCHMARK
Forward Price/Earnings	7.9	13.3
Price/Tangible Book	1.4	2.4
Price/Cash Flow	4.4	8.3
Price/Sales	0.8	1.8
% Net Earnings Revisions (3M)	36.3%	7.6%
% Net Sales Revisions (3M)	33.0%	21.9%
Predicted Beta	1.0	1.0
Dividend Yield	3.0	1.9
Turnover (1 year to December)	176.85%	N/A
Median Market Cap (US\$ millions)	12,957	7,807
Weighted Market Cap (US\$ millions)	137,121	165,752

RISK

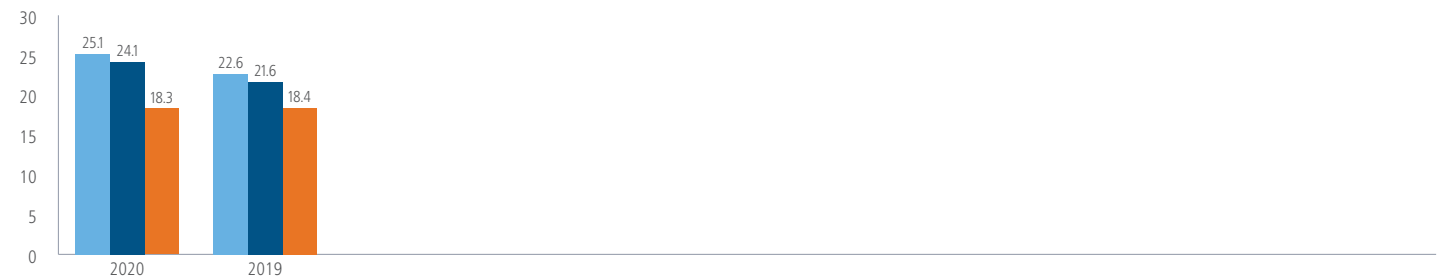
	PORTFOLIO	BENCHMARK
Standard Dev. (3-yr Trailing)	18.9	18.8
Alpha (3-yr Trailing)	6.0	N/A
Beta (3-yr Trailing)	1.0	N/A
Sharpe Ratio (3-yr Trailing)	0.8	0.5
Tracking Error (3-yr Trailing)	4.7	N/A
Information Ratio (3-yr Trailing)	1.2	N/A

COMPOSITE PERFORMANCE (US\$)

COMPOUND ANNUAL RETURNS (%)



CALENDAR YEAR RETURNS (%)



■ Mackenzie Emerging Markets Large Cap Equity (Gross) ■ Mackenzie Emerging Markets Large Cap Equity (Net) ■ MSCI Emerging Markets Index

*Since Composite Inception on June 1, 2018

Past performance does not guarantee or indicate future results. Mackenzie Portfolio Analytics Group is responsible for calculating the non-benchmark information shown above. That information, which does not constitute formal investment guidelines/restrictions, is subject to change from time to time and over time.

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Gross and net returns do not include the deduction of custody fees. The returns assume the reinvestment of dividends, interest, and realized and unrealized capital gains and losses. Gross performance results also do not reflect the deduction of management fees and other fees and expenses. Net performance results reflect the deduction of the maximum standard fee 0.75% from January 1, 2020 and 0.80% until December 31, 2019 charged to institutional clients without considering breakpoints, calculated daily and invoiced quarterly, as well as the transaction costs and other fees and expenses, including certain taxes. Index returns do not reflect transaction costs or the deduction of other fees and expenses and it is not possible to invest directly in an index.

COMPLIANCE STATEMENT

Mackenzie Investments claims compliance with the Global Investment Performance Standards (GIPS®).

COMPOSITE DESCRIPTION

The Emerging Markets Large Cap Composite seeks to provide long-term capital appreciation and outperform its benchmark. The strategy applies a quantitative, bottom-up stock selection investment process, based on fundamental insights, to emerging and selected frontier markets across large and mid-cap stocks. The investment process focuses on a succinct, high conviction set of factors, which are applied within the context of a region/sector/industry relative model. The composite was created on June 1, 2018.

BENCHMARK DESCRIPTION

The benchmark is the MSCI Emerging Markets Index, net of withholding taxes. The MSCI Emerging Markets Index is a free float adjusted, market capitalization weighted index that is designed to measure the large and mid cap equity market performance of emerging markets. It consists of 26 emerging market country indices.

REPORTING CURRENCY

Valuations and composite performance are reported in U.S. dollars. The composite includes Canadian dollar portfolios that have been converted to U.S. dollars. Returns were converted at the end of each month based on the 4:00 PM spot rate on the last business day of the month as reported by StatPro to our system vendor CGI StarSource.

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