Emerging Markets Equity Manager Analysis

June 30, 2019

Washoe County 457 & 401a Plans

Purpose for this Manager Evaluation Report

The search was designed to evaluate potential alternatives to the current emerging markets option.

Investment Options for this Manager Evaluation Report

Firm Name	Strategy Name	Vehicle	Management Fee	Investment Minimum
Harding Loevner	Harding Loevner Institutional Emerging Markets I (HLMEX)	MF	1.27%	$500,000
RBC Global Asset Management	RBC Emerging Markets Equity R6 (RREMX)	MF	0.88%	$250,000
Wells Fargo Funds Management	Wells Fargo Emerging Markets Equity R6 (EMGDX)	MF	1.16%	No Minimum
Lazard Asset Management	Lazard Emerging Markets Equity Open (LZOEX)	MF	1.32%	$2,500

Definition and Characteristics

The Emerging Market equity asset class is typically defined as the markets of all developing countries. Generally, developing countries can be defined as those that are experiencing accelerated economic growth with lower per capita income and less mature capital markets and political regimes than developed countries. These countries account for approximately 10% of the global equity exposure by market cap. The category blends both value and growth companies. The most often used benchmark for the category is the MSCI Emerging Market Index. China is the index's largest country exposure at over 25%. South Korea, Taiwan, India and Brazil also account for meaningful weights. The largest sectors are Financials, Information Technology, and the Consumer sectors.

Role within a Portfolio

The primary role of an Emerging Market equity strategy is to provide exposure to the equity securities of companies domiciled in developing market countries. In general, emerging economies are expected to grow faster in GDP terms and provide greater long-term opportunity for higher return in equity markets relative to those of developed economies. Emerging market equities are also expected to have higher risk and volatility. Specific attention should be paid to political and event risk. Companies in developing markets are less likely to be covered by Wall Street research analysts and the large opportunity set gives managers the ability to build portfolios substantially different from the benchmark, so tracking error can also be high.

Benchmark and Peer Group

This Emerging Markets search report will use the following benchmark and peer group:

Index – MSCI Emerging Markets: The MSCI Emerging Markets Index captures large and mid cap representation across 23 Emerging Markets (EM) countries. With 833 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Morningstar Category – Diversified Emerging Markets: Diversified emerging markets portfolios tend to divide their assets among 20 or more nations, although they tend to focus on the emerging markets of Asia and Latin America rather than on those of the Middle East, Africa, or Europe. These portfolios invest predominantly in emerging market equities, but some funds also invest in both equities and fixed income investments from emerging markets.

Investment Option Comparison

	Harding Loevner Instl Emerg Mkts I	RBC Emerging Markets Equity R6	Wells Fargo Emerging Markets Equity R6
Firm Information			
Year Founded	1/1/1989	1/1/1959	1/1/1971
US Headquarters Location	Bridgewater, NJ	Minneapolis, MN	San Francisco, CA
Number of Major Global Offices	2	8	6
Year Began Managing Ext. Funds	1/1/1989	1/1/1959	1/1/1971
Firm AUM ($ M)	68,802	330,000	476,500
Ownership Type	Affiliate	Subsidiary	Publicly Traded
Largest Owner (%)	62	100	100
Largest Owner (Name)	AMG Funds	Royal Bank of Canada	Wells Fargo & Co.
Employee Ownership (%)	38	0	0
Qualify as Emerging Manager?	No	No	No

Strategy Information			
Inception Date	11/30/1998	4/1/2010	1/1/1971
Open/Closed	Limited	Open	Open
Primary Benchmark	MSCI Emerging Markets	MSCI Emerging Markets	MSCI Emerging Markets
Secondary Benchmark	None	None	None
Peer Universe	International Emerging	International Emerging	International Emerging
Outperformance Estimate (%)	2-3	2-3	1-3
Tracking Error Estimate (%)	3-5	4-6	3-5
Strategy AUM ($ M)	18,004	6,900	8,734
Estimated Capacity ($ M)	18,000	10,000	13,000
Strategy AUM as % Firm Assets	26	2	2
Investment Approach - Primary	Bottom-up	Bottom-up	Bottom-up
Investment Approach - Secondary	Fundamental	Fundamental	Fundamental

The source of data and figures provided is generally the respective managers. Certain data represents AndCo's view and could differ from the manager's interpretation. The most current AUM of each strategy may therefore differ from what is currently stated.

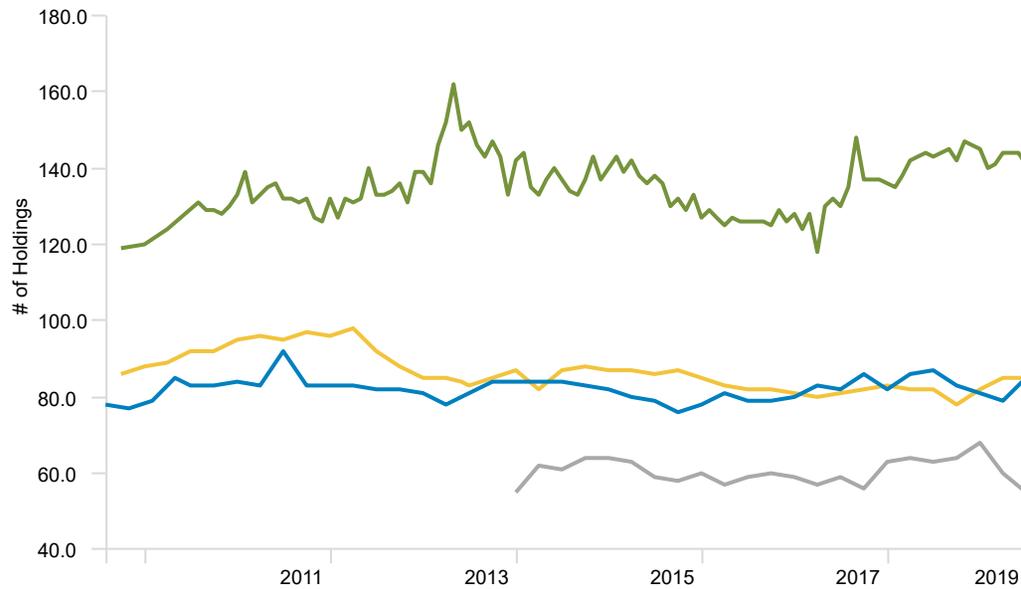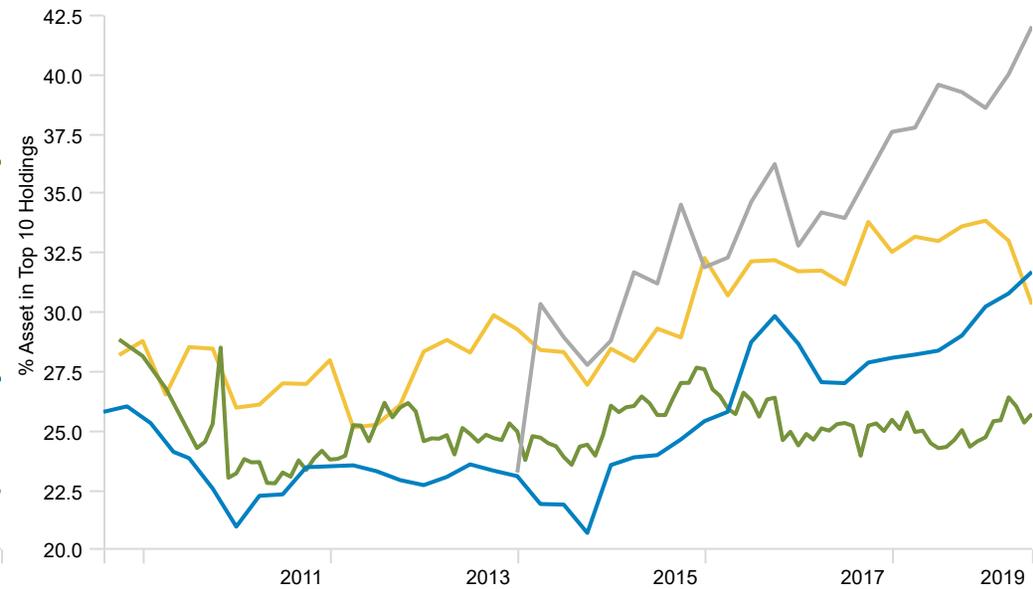|	Harding Loevner Instl Emerg Mkts I	RBC Emerging Markets Equity R6	Wells Fargo Emerging Markets Equity R6
Team Information			
Decision Making Structure	PM-Led	PM-Led	PM-Led
Number of Decision Makers	2	1	3
Names of Decision Makers	C. Shaw, S. Crawshaw	P. Langham	J. Zhang, D. Irwin, R. Peck
Date Began Managing Strategy	2005, 2018	2010	2006, 2011, 2014
Date Began with Firm	2001, 2014	2009	2004, 2005, 2010
Number of Products Managed by Team	1	3	3
Number of Investment Analysts	31	7	6
Investment Analyst Team Structure	Sector/Industry Specialists	Combination	Sector/Region
Portfolio Construction Information			
Broad Style Category	Growth	Growth	Core
Style Bias	GARP	GARP	Flexible
Country/Region Constraint Type	Absolute	Benchmark Relative	Benchmark Relative
Typical Country Constraints (%)	Varies (20-Larger Countries)	+/- 15	1.5x
Typical Region Constraints (%)	None		None
Typical Countries/Regions Overweight	None	India, South Africa	Mexico
Typical Countries/Regions Underweight	S. Korea, Taiwan	China, Russia, S. Korea	S. Korea, Taiwan
Maximum Emerging Market Exposure (%)	N/A	N/A	None
Sector Constraint Type	Absolute	Benchmark Relative	Benchmark Relative
Sector Constraints (%)	30, > 7 Sectors	+/- 15	1.5x
Typical Sector/s Overweight	Financials	Consumer Staples	Consumer Staples
Typical Sector/s Underweight	Materials	Energy, Materials	Materials, Financials
Typical Number of Holdings	70-90	50-60	90-130
Average Full Position Size (%)	1-3	1.5-2	No
Maximum Position Size (%)	6	7	5
Annual Typical Asset Turnover (%)	20-25	20-40	20
Annual Typical Name Turnover (%)	15-20	10-25	20
Maximum Cash Allocation (%)	10 (Typically~3)	15 (Typically < 5)	10
Currency Hedged?	No	No	No

The source of data and figures provided is generally the respective managers. Certain data represents AndCo's view and could differ from the manager's interpretation. The most current AUM of each strategy may therefore differ from what is currently stated.

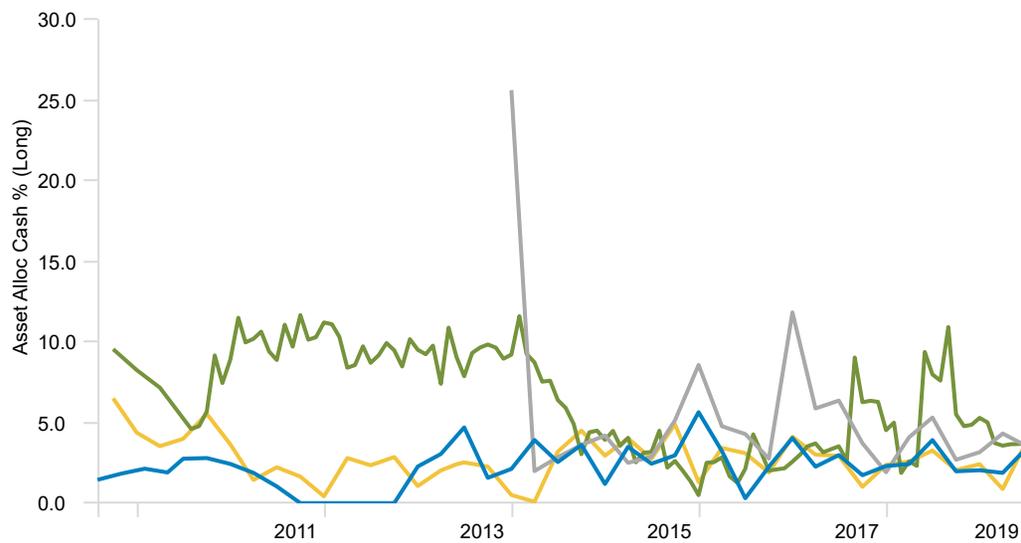|	Harding Loevner Instl Emerg Mkts I	RBC Emerging Markets Equity R6	Wells Fargo Emerging Markets Equity R6	Lazard Emerging Markets Equity Open	MSCI EM NR USD
COMPOSITION					
# of Holdings	85	55	141	85	1,192
% Asset in Top 10 Holdings	31.70	42.04	25.71	30.33	24.01
Asset Alloc Cash %	3.38	3.55	3.70	3.75	0.00
Asset Alloc Equity %	96.62	96.49	92.34	96.25	100.00
Asset Alloc Bond %	0.00	0.00	0.00	0.00	0.00
Asset Alloc Other %	0.00	0.00	3.96	0.00	0.00
CHARACTERISTICS					
Average Market Cap (mil)	39,562.34	30,404.18	24,675.31	25,318.24	31,150.92
P/E Ratio (TTM)	15.75	16.60	16.90	9.68	12.83
P/B Ratio (TTM)	2.55	2.44	2.12	1.47	1.57
LT Earn Growth	12.59	10.93	12.09	11.37	8.28
Dividend Yield	2.83	2.58	2.93	4.78	3.61
ROE % (TTM)	20.80	20.82	13.48	19.11	16.24
GICS SECTORS %					
Energy %	8.28	0.00	5.47	11.73	7.76
Materials %	0.84	4.81	2.12	6.58	7.21
Industrials %	7.39	4.87	3.20	5.49	5.30
Consumer Discretionary %	15.61	16.25	16.15	6.74	13.61
Consumer Staples %	9.20	15.74	19.27	6.66	6.74
Healthcare %	1.02	4.00	1.51	0.62	2.62
Financials %	30.58	34.82	19.12	29.41	24.79
Information Technology %	16.64	12.31	13.12	19.38	14.31
Communication Services %	8.09	5.85	18.04	12.41	11.88
Utilities %	2.07	0.00	0.00	0.97	2.83
Real Estate %	0.29	1.33	2.01	0.00	2.98
MARKET CAPITALIZATION					
Market Cap Giant %	60.49	56.02	42.05	54.65	51.70
Market Cap Large %	25.91	24.25	35.37	23.06	31.79
Market Cap Mid %	8.11	11.81	10.78	16.46	11.65
Market Cap Small %	0.49	2.97	1.51	1.05	0.70
Market Cap Micro %	0.00	0.00	0.53	0.17	0.00

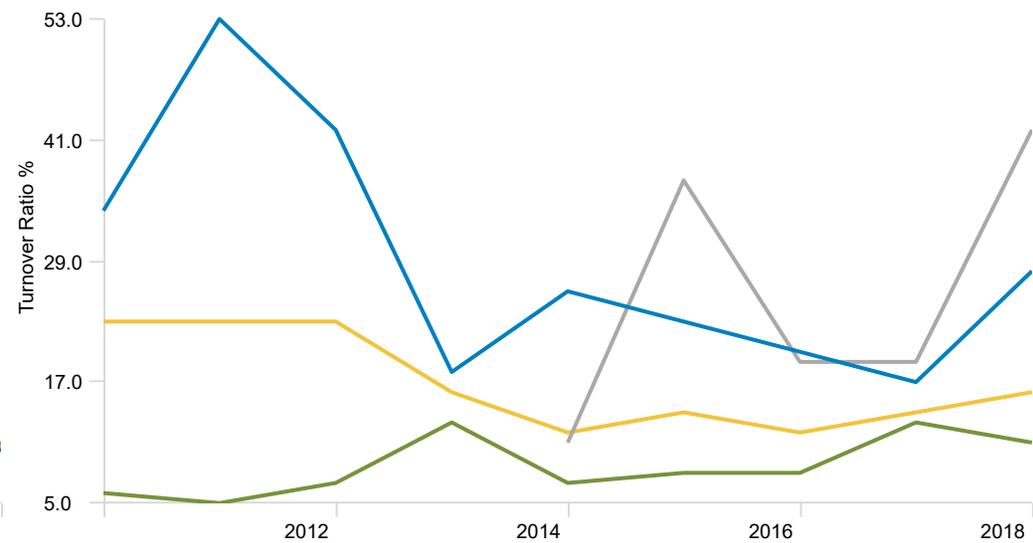## Historical Number of Holdings

Historical Percentage of Assets in Top 10 Holdings
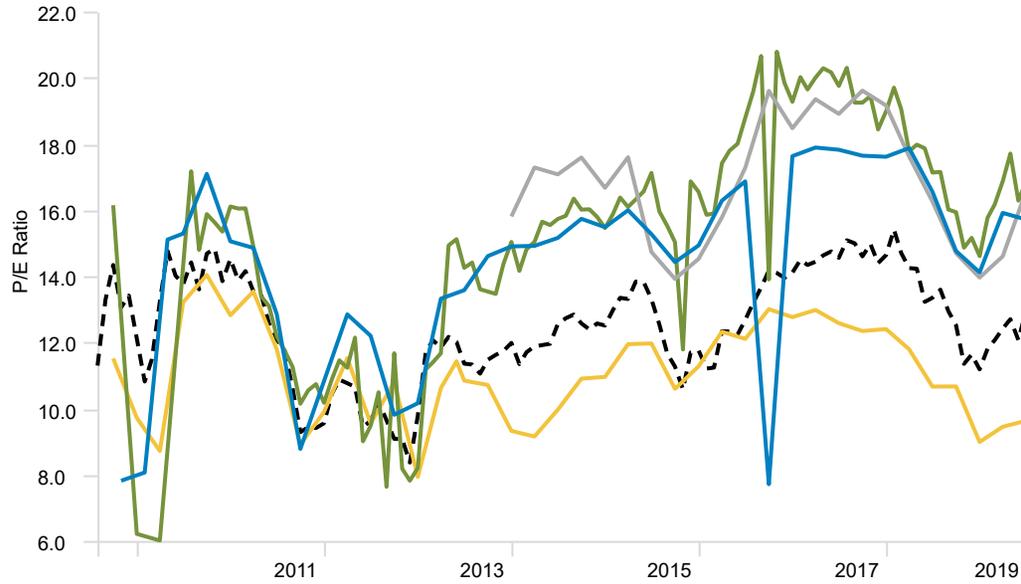

Historical Cash Allocation

Historical Portfolio Turnover
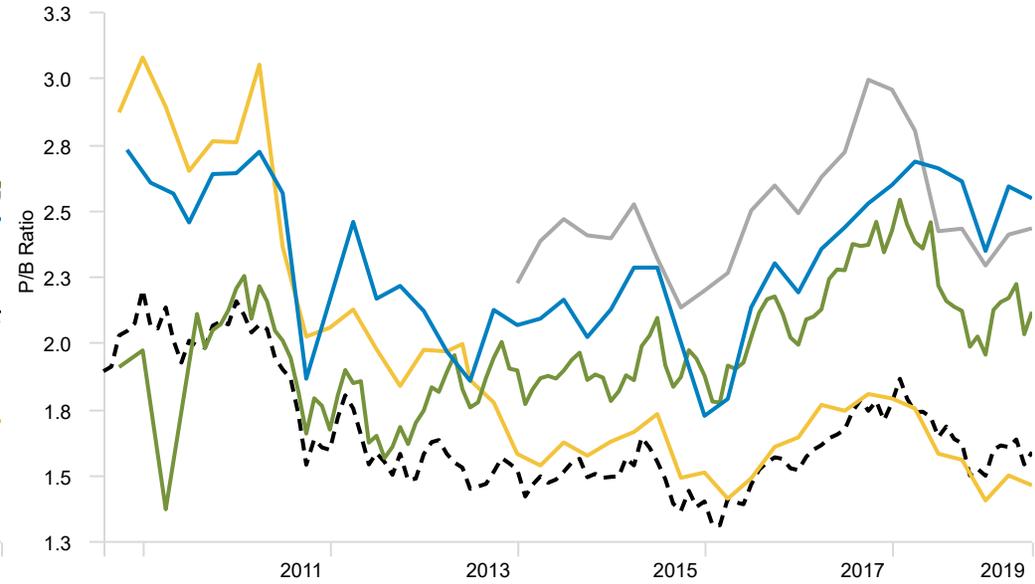

Legend:
- Harding Loevner Instl Emerg Mkts I
- RBC Emerging Markets Equity R6
- Wells Fargo Emerging Markets Equity R6
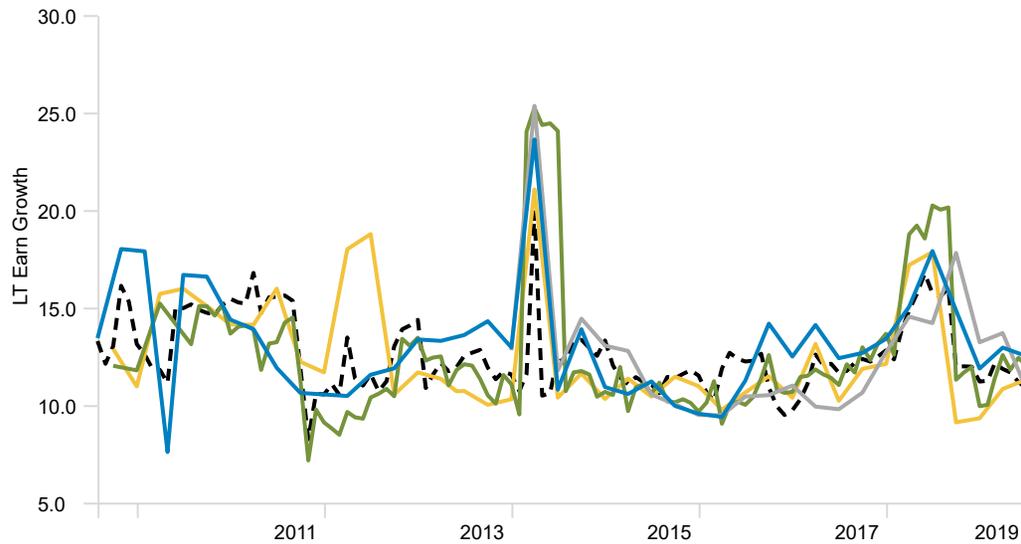- Lazard Emerging Markets Equity Open

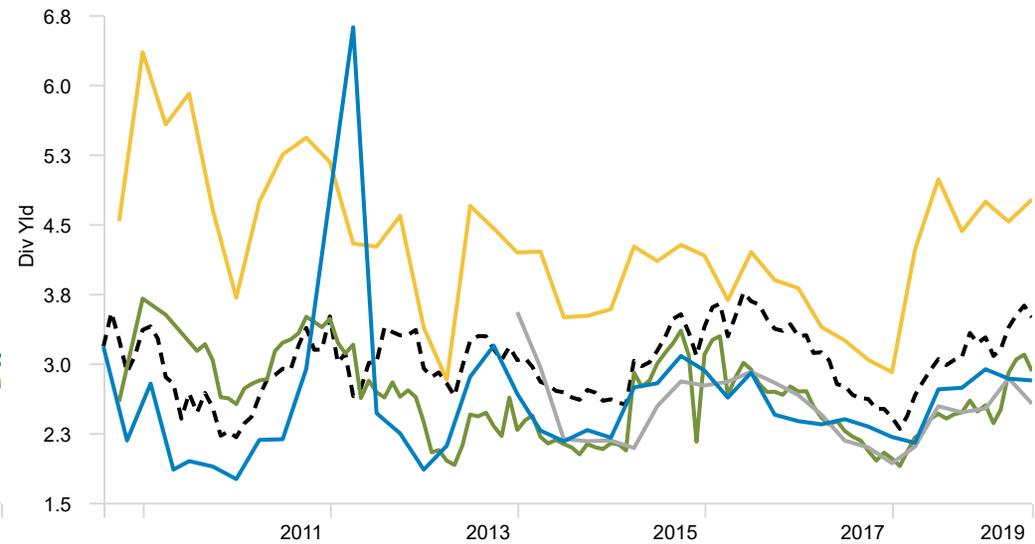## Historical P/E Ratio

Historical P/B Ratio

Historical Earnings Growth

Historical Dividend Yield

- Harding Loevner Instl Emerg Mkts I
- Lazard Emerging Markets Equity Open
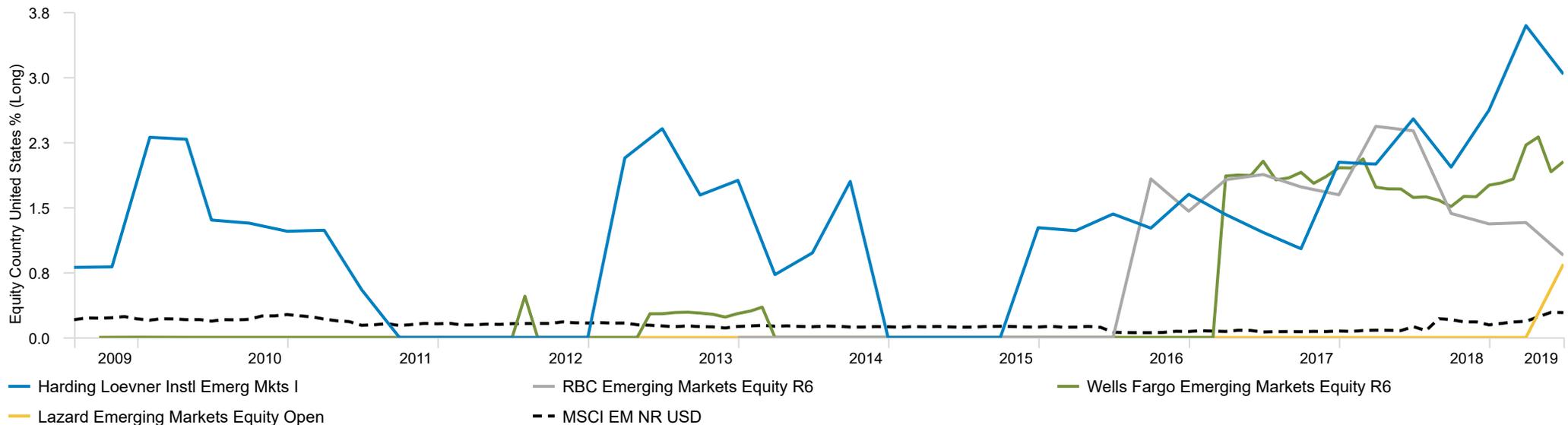- RBC Emerging Markets Equity R6
- MSCI EM NR USD
- Wells Fargo Emerging Markets Equity R6

Current Portfolio Region Allocation

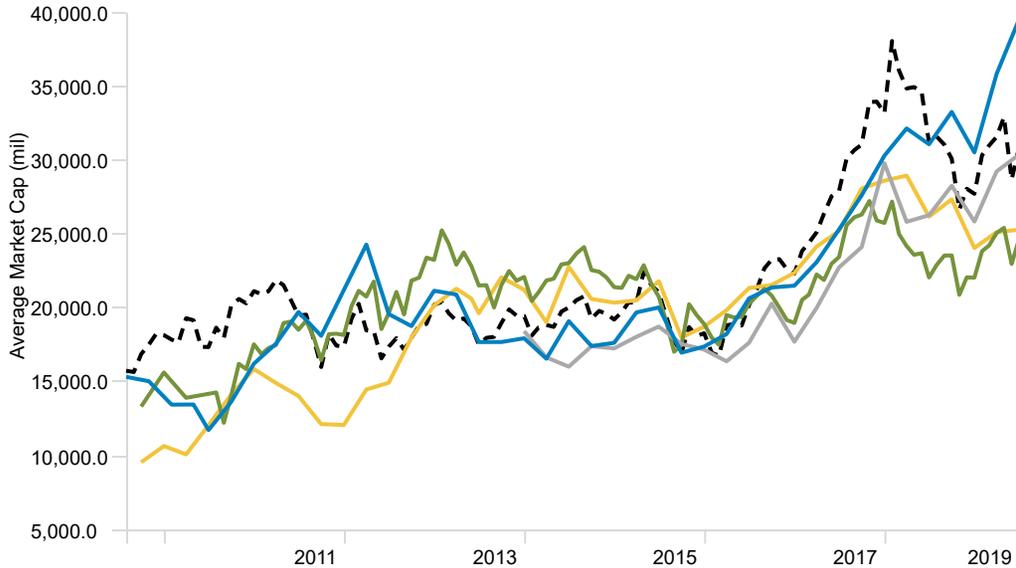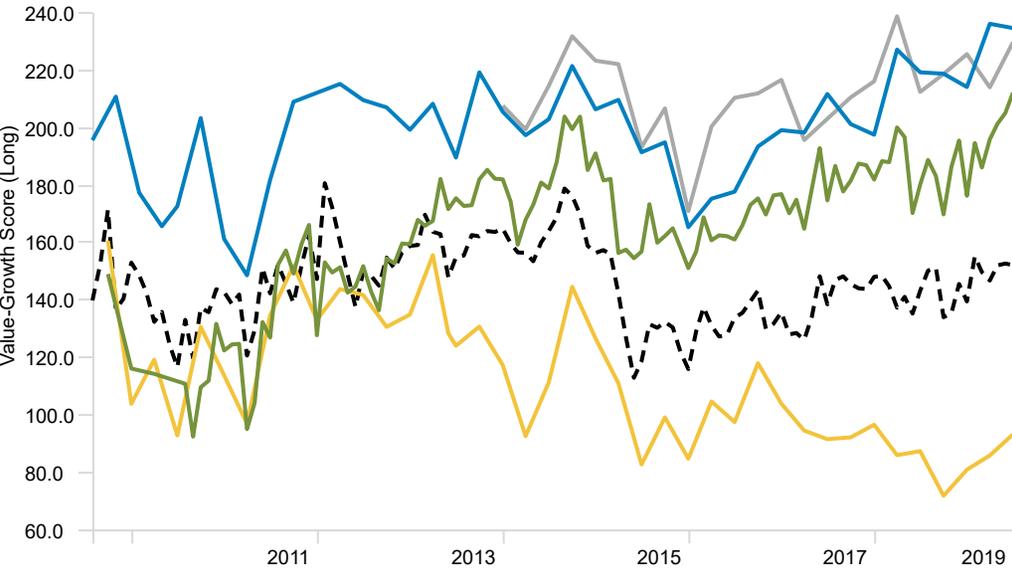|	Harding Loevner Instl Emerg Mkts I	RBC Emerging Markets Equity R6	Wells Fargo Emerging Markets Equity R6	Lazard Emerging Markets Equity Open	MSCI EM NR USD
Equity Country United States %	3.15	0.98	2.23	0.88	0.29
Equity Region North America %	3.15	0.98	2.23	0.88	0.29
Equity Region Latin America %	16.02	13.24	19.19	15.38	12.17
Equity Region United Kingdom %	0.27	7.26	0.69	0.00	0.08
Equity Region Europe dev %	5.60	0.00	1.13	1.59	0.99
Equity Region Europe emrg %	7.30	1.36	2.38	12.48	5.46
Equity Region Japan %	0.00	2.36	0.00	0.00	0.00
Equity Region Australasia %	0.00	0.00	0.00	0.00	0.00
Equity Region Asia dev %	25.39	26.96	24.59	20.63	24.09
Equity Region Asia emrg %	34.47	35.23	46.58	40.25	47.90
Equity Region Africa/Middle East %	7.82	12.61	3.22	8.78	9.03
Equity Region Developed %	35.56	37.56	28.69	23.10	27.12
Equity Region Emerging %	64.45	62.44	71.31	76.90	72.88

Historical US Portfolio Exposure

Style Allocation

	Harding Loevner Instl Emerg Mkts I	RBC Emerging Markets Equity R6	Wells Fargo Emerging Markets Equity R6	Lazard Emerging Markets Equity Open	MSCI EM NR USD
Equity Style Large Value %	9.74	12.76	15.97	29.35	24.27
Equity Style Large Core %	31.22	29.90	25.28	30.44	30.90
Equity Style Large Growth %	38.22	36.38	24.39	15.15	24.15
Equity Style Mid Value %	2.76	0.00	4.99	8.47	5.35
Equity Style Mid Core %	0.00	6.70	2.41	6.11	3.69
Equity Style Mid Growth %	5.35	5.11	1.53	1.13	2.37
Equity Style Small Value %	0.26	2.97	0.29	0.26	0.32
Equity Style Small Core %	0.23	0.00	0.10	0.36	0.24
Equity Style Small Growth %	0.00	0.00	0.42	0.60	0.12

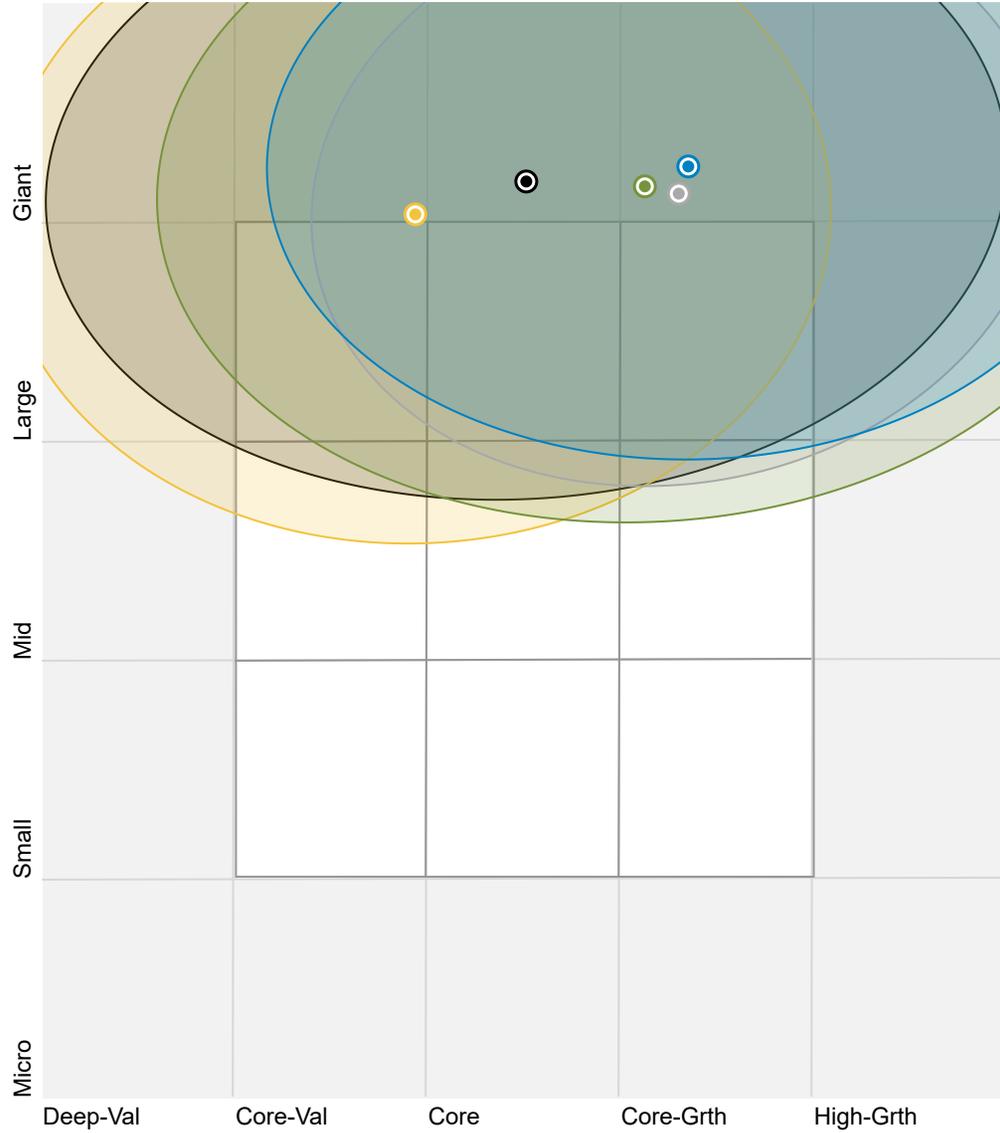**Historical Average Market Capitalization**

Historical Value - Growth Score

Legend:
- Harding Loevner Instl Emerg Mkts I
- RBC Emerging Markets Equity R6
- Wells Fargo Emerging Markets Equity R6
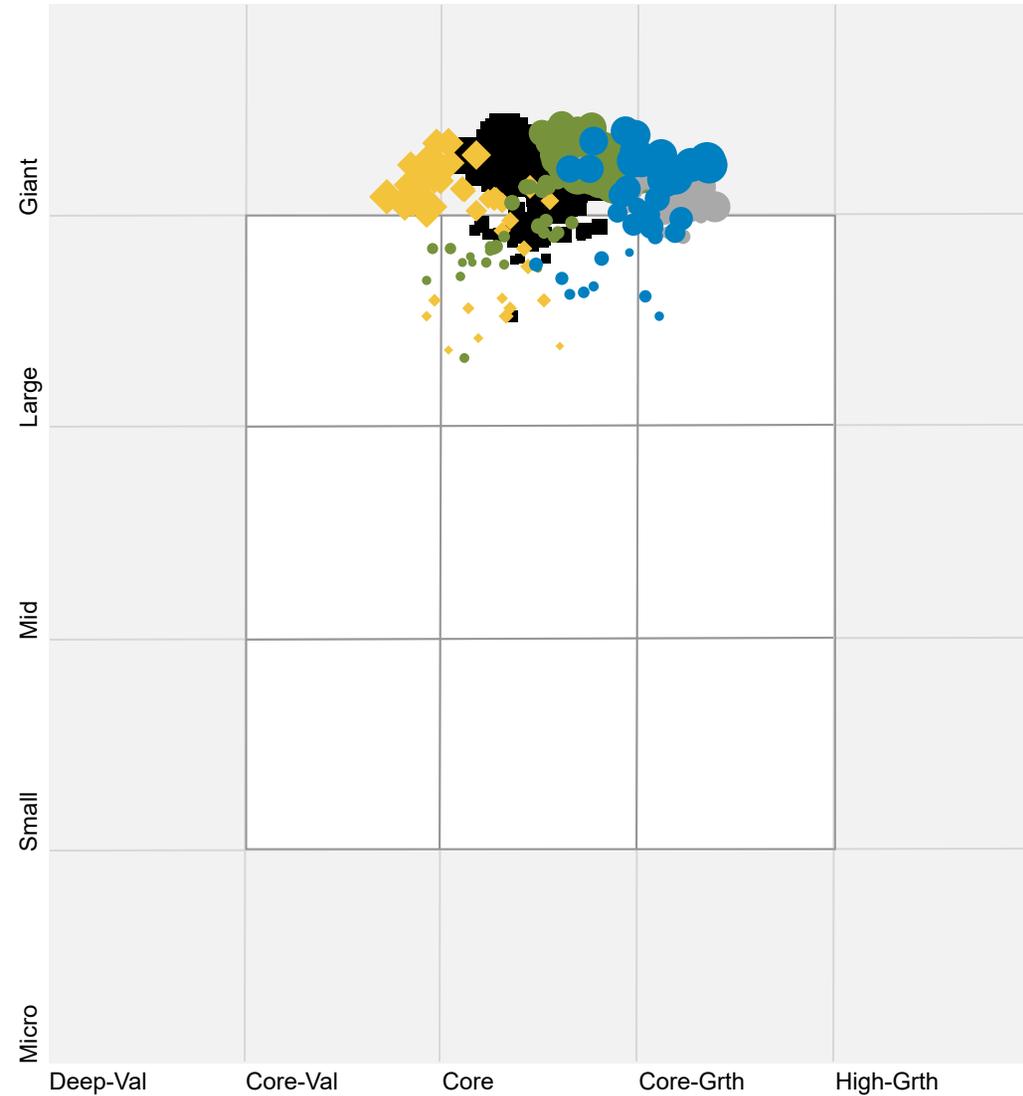- Lazard Emerging Markets Equity Open
- MSCI EM NR USD

Current Portfolio Holdings-Style Map

Historical Holdings-Based Style Trail

Time Period: 7/31/2009 to 6/30/2019

- 🔵 Harding Loevner Instl Emerg Mkts I
- 🔘 RBC Emerging Markets Equity R6
- 🟢 Wells Fargo Emerging Markets Equity R6
- 🔶 Lazard Emerging Markets Equity Open
- ⬛ MSCI EM NR USD

Quantitative Review

Peer Group (5-95%): Open End Funds - U.S. - Diversified Emerging Mkts
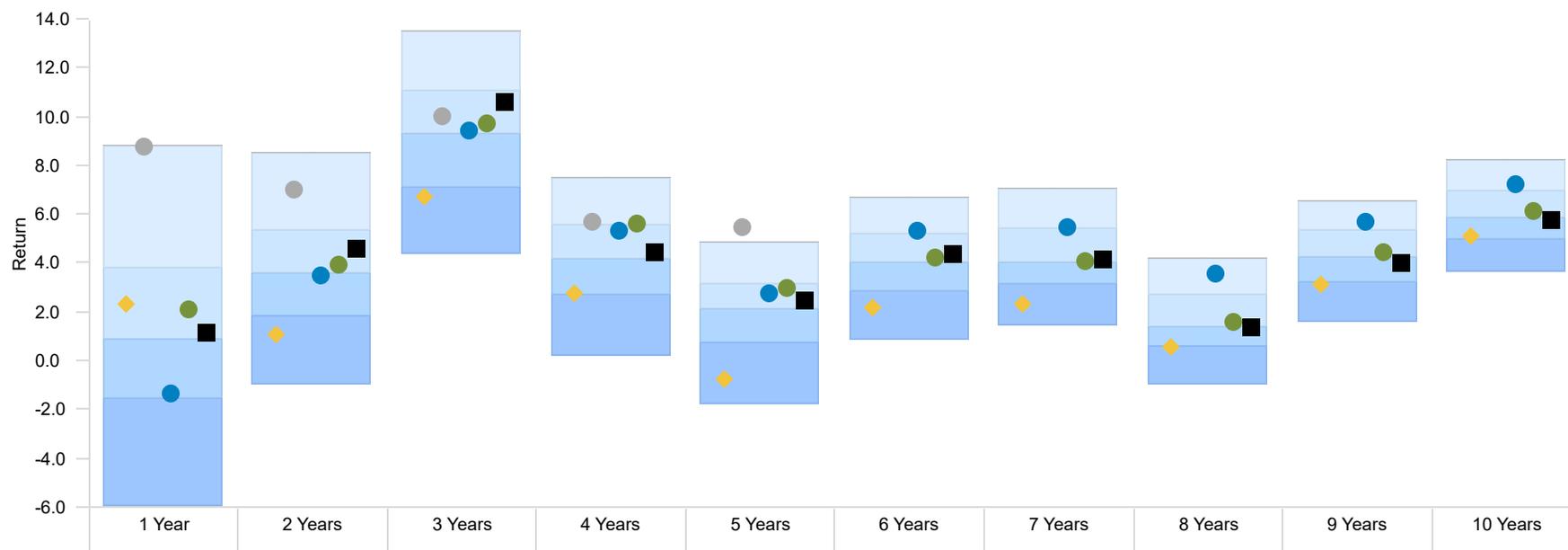
|	1 Year	Rank	2 Years	Rank	3 Years	Rank	4 Years	Rank	5 Years	Rank	6 Years	Rank	7 Years	Rank	8 Years	Rank	9 Years	Rank	10 Years	Rank
Harding Loevner Instl Emerg Mkts I	-1.31	72	3.49	51	9.47	48	5.36	28	2.77	32	5.36	22	5.52	24	3.59	11	5.73	17	7.28	19
RBC Emerging Markets Equity R6	8.76	6	7.00	16	10.03	41	5.69	23	5.47	2										
Wells Fargo Emerging Markets Equity R6	2.12	38	3.98	45	9.74	45	5.65	24	3.03	26	4.23	46	4.11	48	1.60	47	4.44	46	6.15	43
Lazard Emerging Markets Equity Open	2.36	36	1.08	83	6.72	79	2.76	74	-0.70	91	2.19	86	2.33	89	0.57	74	3.16	75	5.12	72
MSCI EM NR USD	1.21	47	4.65	32	10.66	32	4.48	44	2.49	40	4.37	42	4.15	48	1.40	50	4.04	54	5.81	51

- 🔵 Harding Loevner Instl Emerg Mkts I
- ⚫ RBC Emerging Markets Equity R6
- 🟢 Wells Fargo Emerging Markets Equity R6
- 🔶 Lazard Emerging Markets Equity Open
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Peer Group (5-95%): Open End Funds - U.S. - Diversified Emerging Mkts
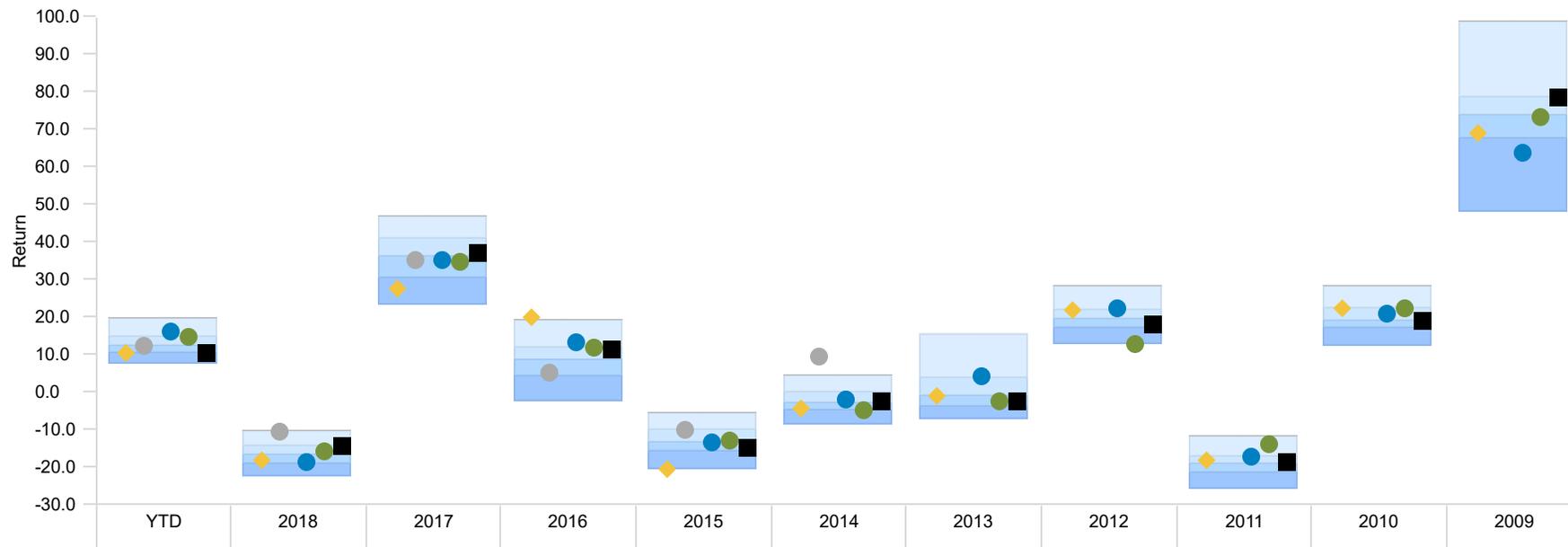
	YTD	Rank	2018	Rank	2017	Rank	2016	Rank	2015	Rank	2014	Rank	2013	Rank	2012	Rank	2011	Rank	2010	Rank	2009	Rank
Harding Loevner Instl Emerg Mkts I	16.08	17	-18.63	69	35.33	54	13.27	15	-13.47	50	-1.87	41	4.35	21	22.46	22	-16.97	20	20.80	34	63.97	85
RBC Emerging Markets Equity R6	12.57	50	-10.65	6	35.07	55	5.22	68	-10.19	27	9.29	1										
Wells Fargo Emerging Markets Equity R6	14.55	28	-15.74	40	34.96	56	12.10	22	-12.96	46	-4.73	73	-2.28	61	12.68	95	-14.00	8	22.52	25	73.25	52
Lazard Emerging Markets Equity Open	10.28	75	-18.32	66	27.73	85	20.17	4	-20.33	94	-4.39	70	-1.14	51	22.03	24	-18.02	35	22.43	26	69.14	68
MSCI EM NR USD	10.58	72	-14.57	25	37.28	45	11.19	29	-14.92	64	-2.19	43	-2.60	63	18.22	65	-18.42	41	18.88	50	78.51	26

● Harding Loevner Instl Emerg Mkts I

● RBC Emerging Markets Equity R6

● Wells Fargo Emerging Markets Equity R6

◆ Lazard Emerging Markets Equity Open
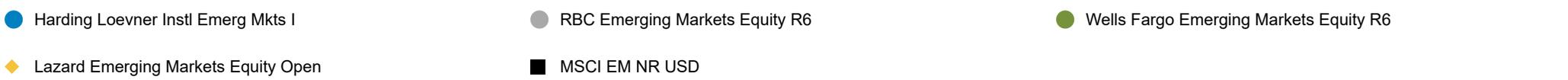
■ MSCI EM NR USD

Risk-Reward: 3-Year
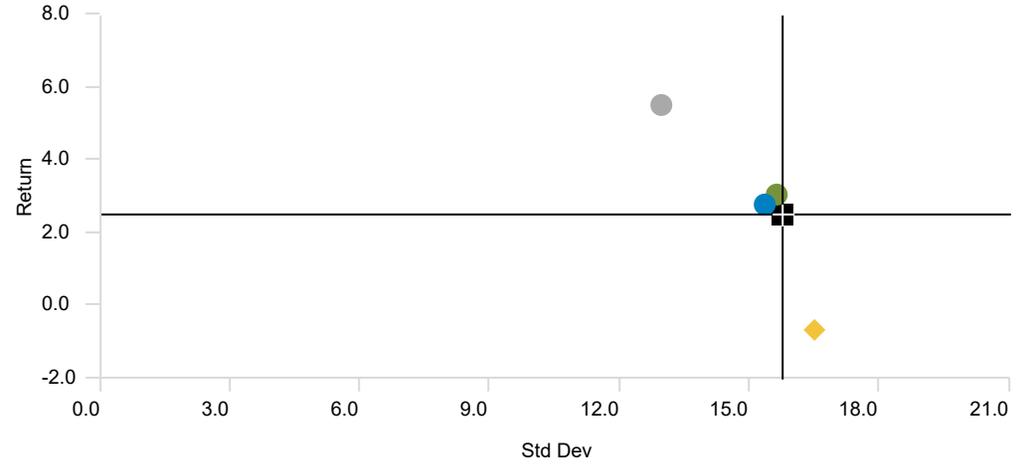
Time Period: 7/1/2016 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD
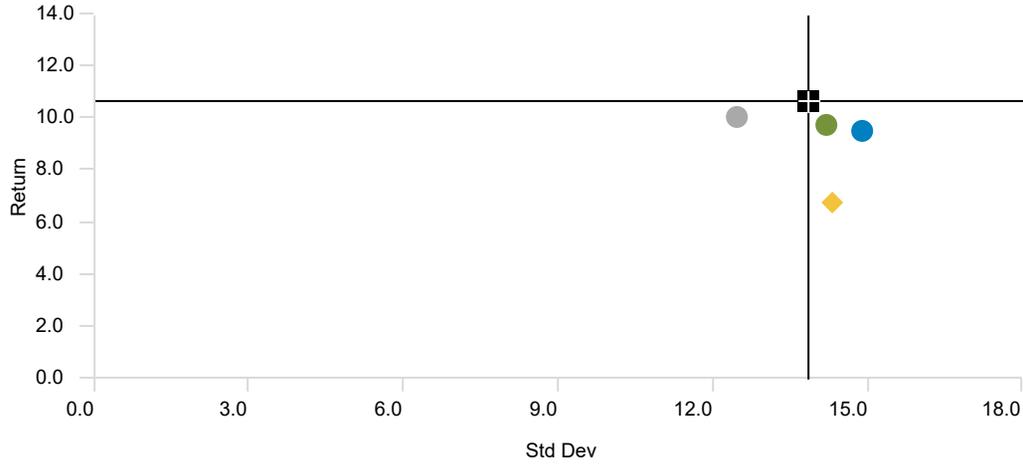
Risk-Reward: 5-Year

Time Period: 7/1/2014 to 6/30/2019

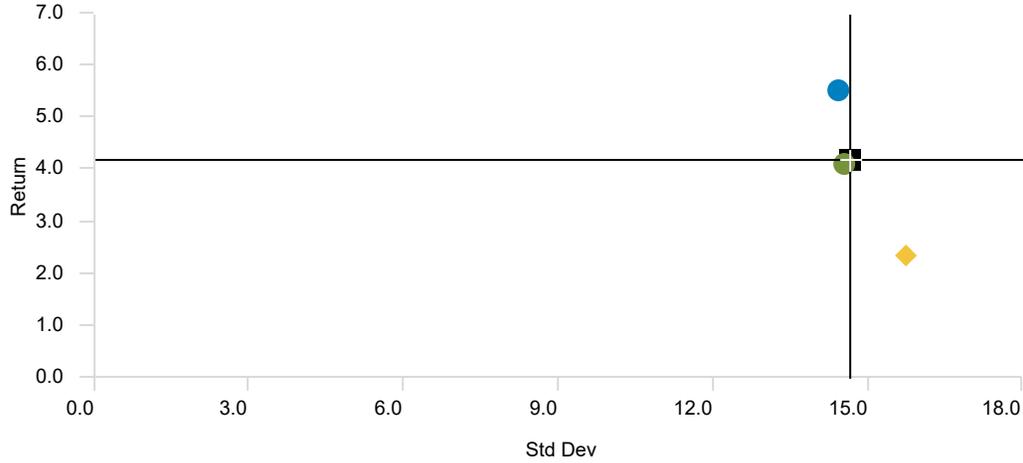Calculation Benchmark: MSCI EM NR USD

Risk-Reward: 7-Year

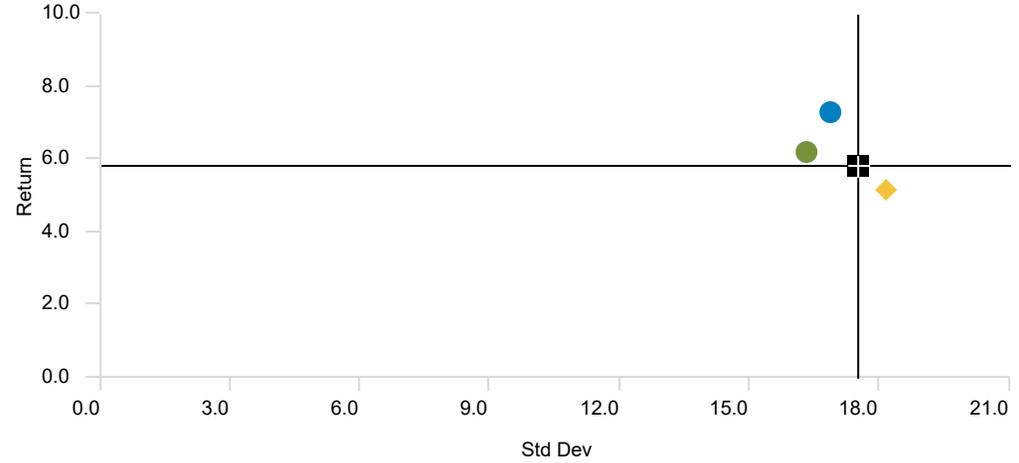Time Period: 7/1/2012 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD

Risk-Reward: 10-Year

Time Period: 7/1/2009 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD

● Harding Loevner Instl Emerg Mkts I

● RBC Emerging Markets Equity R6

● Wells Fargo Emerging Markets Equity R6

◆ Lazard Emerging Markets Equity Open

■ MSCI EM NR USD

Up and Down Market Capture: 3-Year

Time Period: 7/1/2016 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD
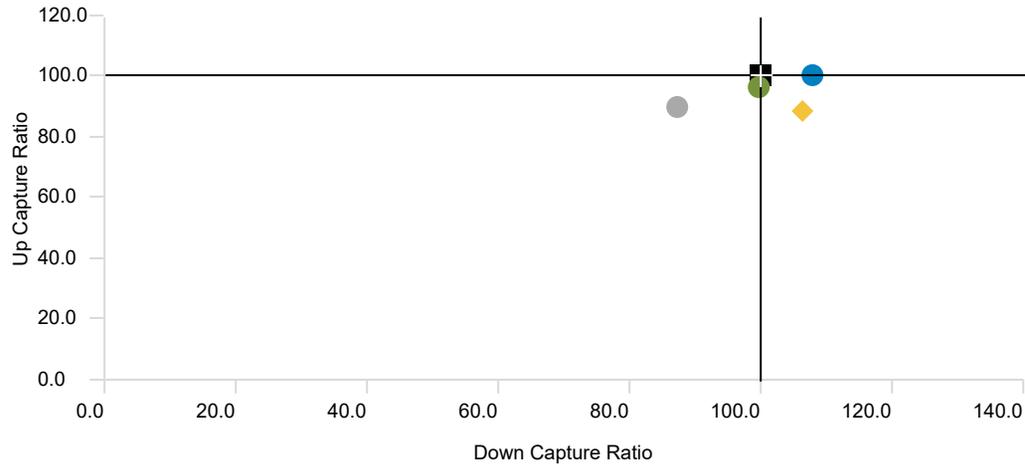
Up and Down Market Capture: 5-Year

Time Period: 7/1/2014 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD

Up and Down Market Capture: 7-Year

Time Period: 7/1/2012 to 6/30/2019

Calculation Benchmark: MSCI EM NR USD
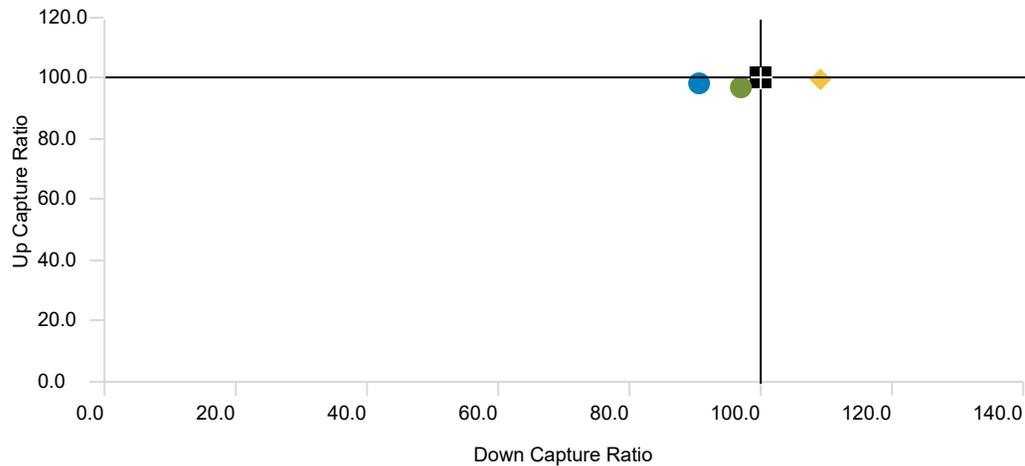
Up and Down Market Capture: 10-Year

Time Period: 7/1/2009 to 6/30/2019
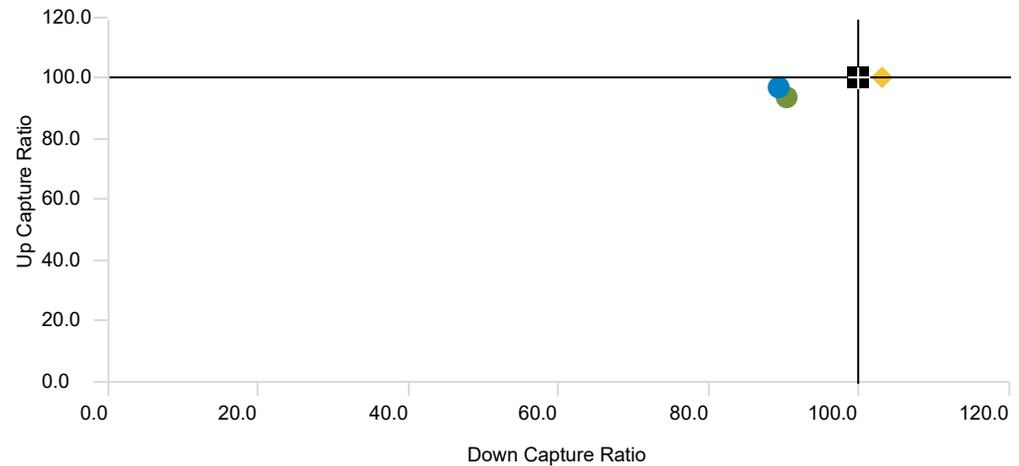
Calculation Benchmark: MSCI EM NR USD

- 🔵 Harding Loevner Instl Emerg Mkts I
- ⚪ RBC Emerging Markets Equity R6
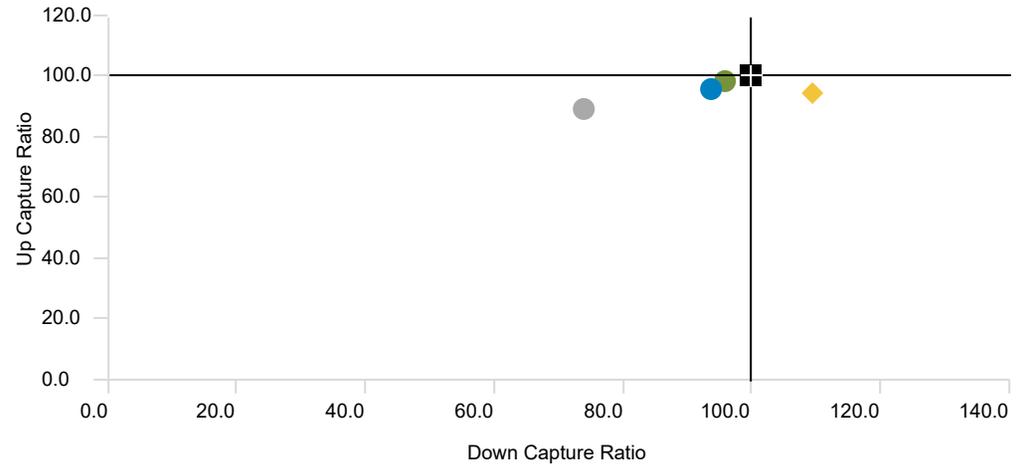- 🟢 Wells Fargo Emerging Markets Equity R6
- 🔶 Lazard Emerging Markets Equity Open
- ⬛ MSCI EM NR USD
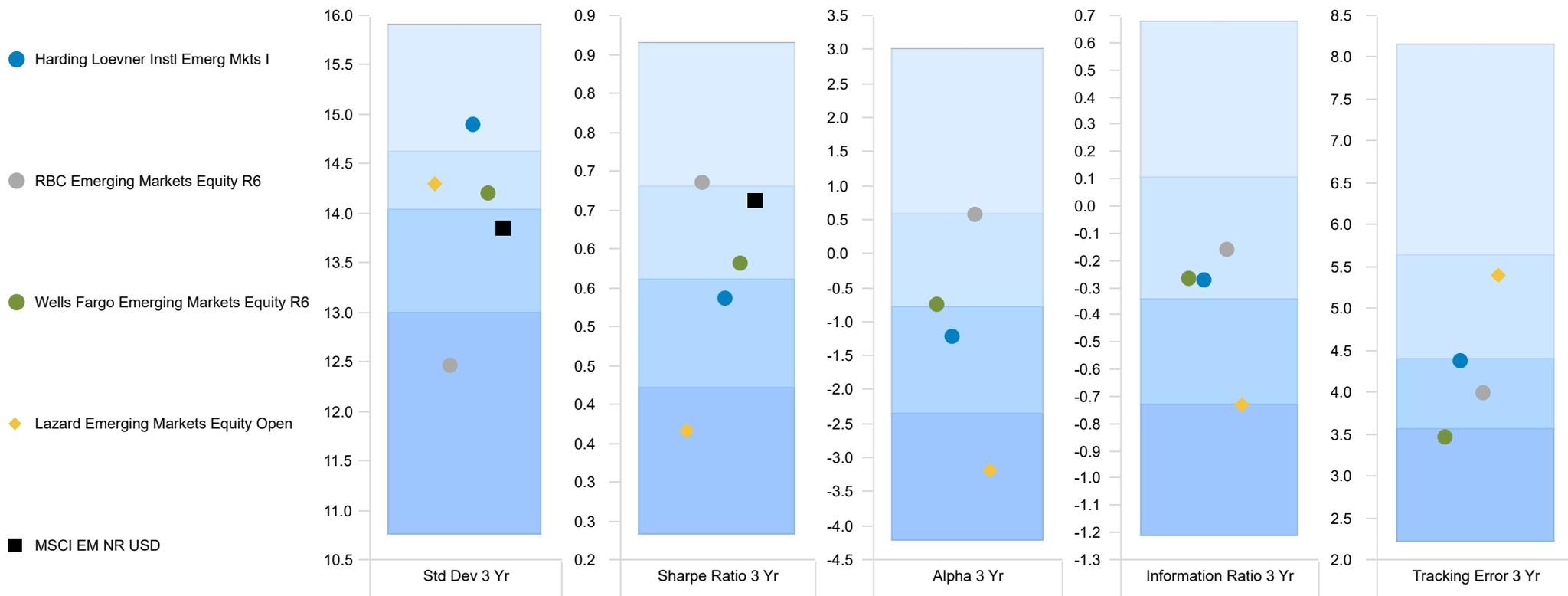
Time Period: 7/1/2016 to 6/30/2019

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
Harding Loevner Instl Emerg Mkts I	14.91	19	0.54	55	-1.21	58	-0.27	46	4.39	51
RBC Emerging Markets Equity R6	12.47	80	0.69	24	0.58	25	-0.16	39	4.00	61
Wells Fargo Emerging Markets Equity R6	14.21	43	0.58	46	-0.74	49	-0.27	46	3.48	77
Lazard Emerging Markets Equity Open	14.31	38	0.37	83	-3.19	86	-0.73	75	5.41	28
MSCI EM NR USD	13.85	56	0.66	28	0.00	36			0.00	100

Legend:
- 🔵 Harding Loevner Instl Emerg Mkts I
- ⚪ RBC Emerging Markets Equity R6
- 🟢 Wells Fargo Emerging Markets Equity R6
- 🔶 Lazard Emerging Markets Equity Open
- ⬛ MSCI EM NR USD

Charts: Std Dev 5 Yr | Sharpe Ratio 5 Yr | Alpha 5 Yr | Information Ratio 5 Yr | Tracking Error 5 Yr

Time Period: 7/1/2014 to 6/30/2019

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
Harding Loevner Instl Emerg Mkts I	15.38	39	0.12	34	0.40	34	0.06	31	4.44	62
RBC Emerging Markets Equity R6	12.98	84	0.35	1	3.08	2	0.58	1	5.14	44
Wells Fargo Emerging Markets Equity R6	15.65	33	0.13	29	0.60	28	0.15	23	3.58	80
Lazard Emerging Markets Equity Open	16.51	11	-0.10	90	-3.02	91	-0.58	89	5.47	35
MSCI EM NR USD	15.78	28	0.10	42	0.00	44			0.00	100

- 🔵 Harding Loevner Instl Emerg Mkts I
- ⚪ RBC Emerging Markets Equity R6
- 🟢 Wells Fargo Emerging Markets Equity R6
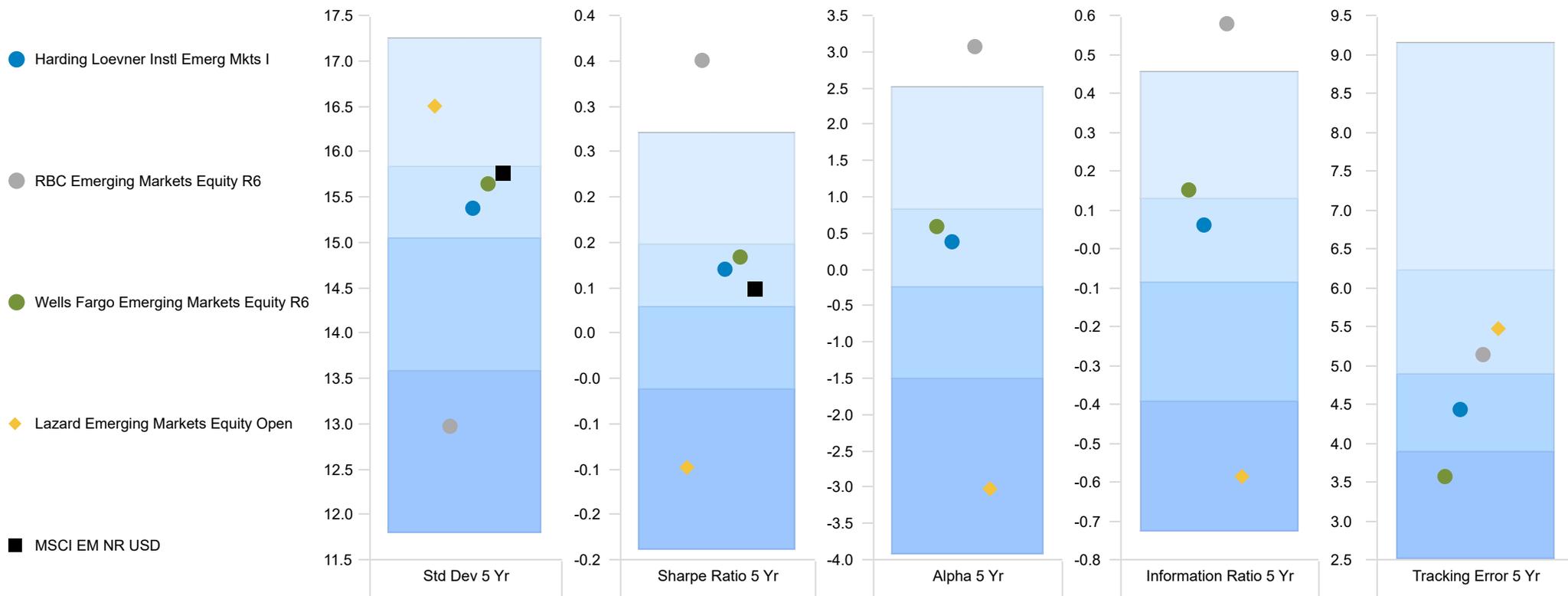- 🔶 Lazard Emerging Markets Equity Open
- ⬛ MSCI EM NR USD

Chart panels: Std Dev 7 Yr | Sharpe Ratio 7 Yr | Alpha 7 Yr | Information Ratio 7 Yr | Tracking Error 7 Yr
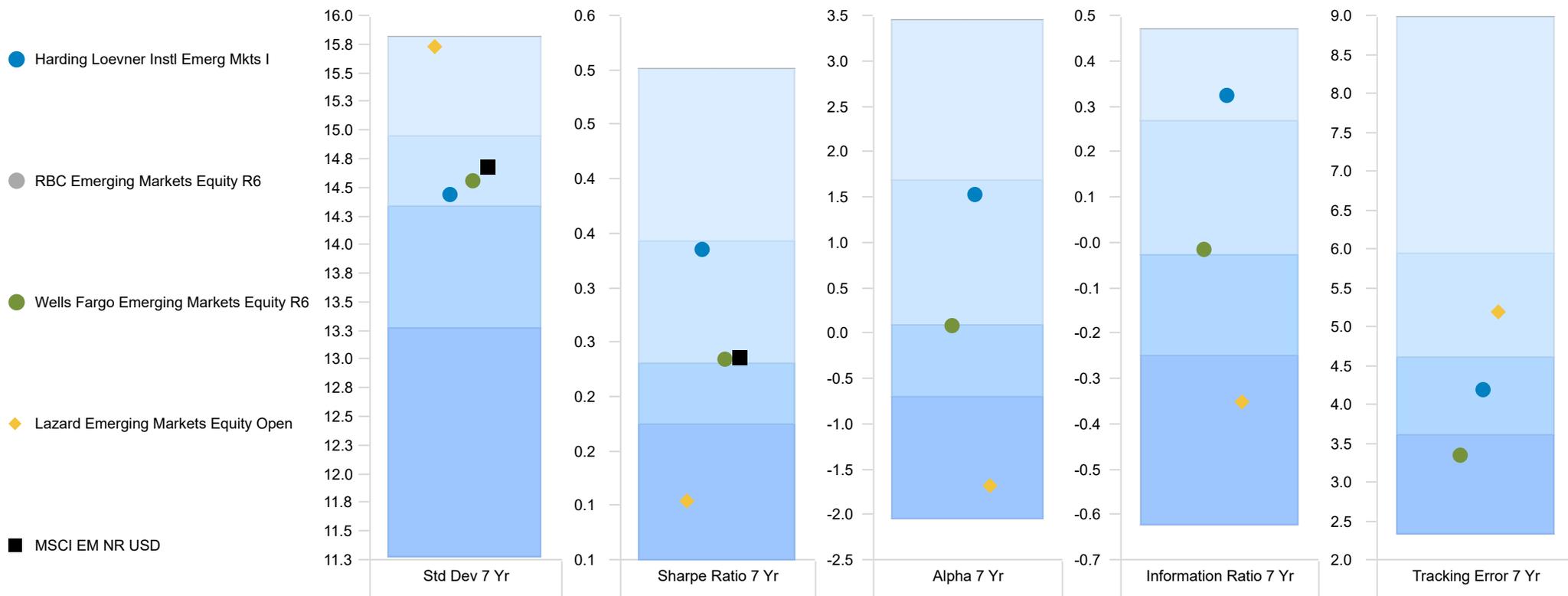
Time Period: 7/1/2012 to 6/30/2019

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
Harding Loevner Instl Emerg Mkts I	14.45	45	0.34	27	1.53	28	0.33	18	4.21	62
RBC Emerging Markets Equity R6										
Wells Fargo Emerging Markets Equity R6	14.56	42	0.24	48	0.09	50	-0.01	49	3.36	79
Lazard Emerging Markets Equity Open	15.73	6	0.11	90	-1.67	90	-0.35	83	5.19	36
MSCI EM NR USD	14.68	36	0.24	48	0.00	52			0.00	100

Chart legend:
- ● Harding Loevner Instl Emerg Mkts I
- ● RBC Emerging Markets Equity R6
- ● Wells Fargo Emerging Markets Equity R6
- ◆ Lazard Emerging Markets Equity Open
- ■ MSCI EM NR USD

Charts (left to right): Std Dev 10 Yr, Sharpe Ratio 10 Yr, Alpha 10 Yr, Information Ratio 10 Yr, Tracking Error 10 Yr
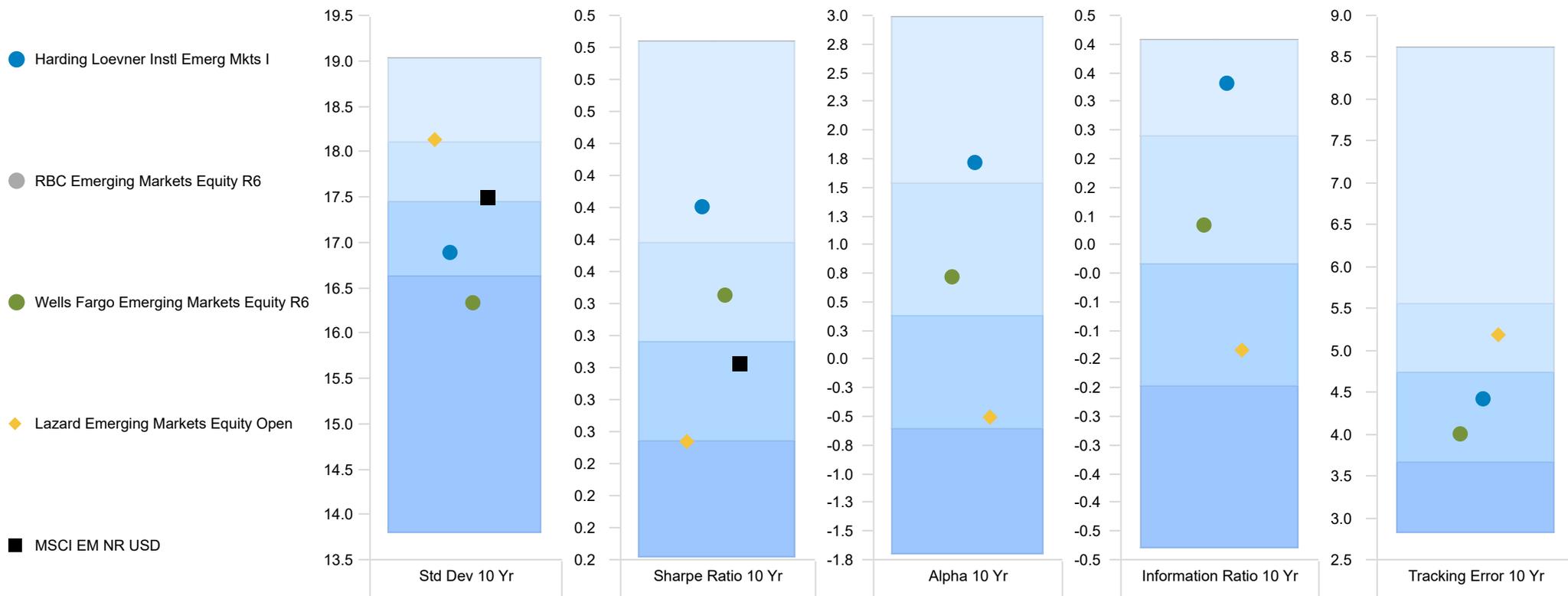
Time Period: 7/1/2009 to 6/30/2019

	Std Dev	Rank	Sharpe Ratio	Rank	Alpha	Rank	Information Ratio	Rank	Tracking Error	Rank
Harding Loevner Instl Emerg Mkts I	16.89	67	0.40	16	1.73	20	0.33	12	4.43	53
RBC Emerging Markets Equity R6										
Wells Fargo Emerging Markets Equity R6	16.34	77	0.35	38	0.73	42	0.09	42	4.00	69
Lazard Emerging Markets Equity Open	18.14	23	0.25	75	-0.50	72	-0.13	69	5.19	28
MSCI EM NR USD	17.50	49	0.30	55	0.00	59			0.00	100

Batting Average

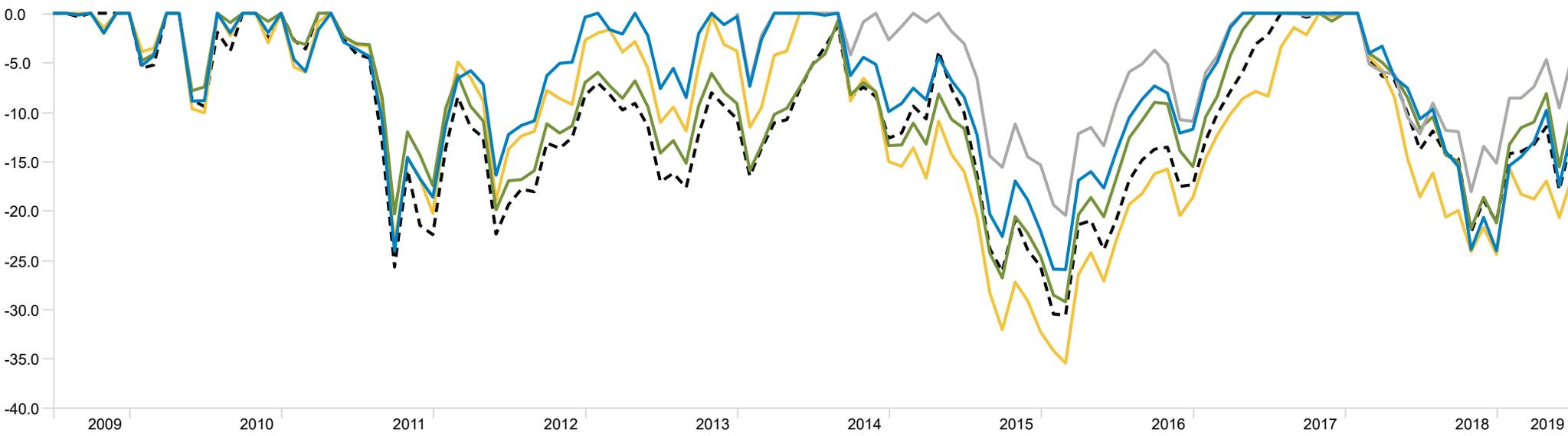Source Data: Monthly Return   Calculation Benchmark: MSCI EM NR USD
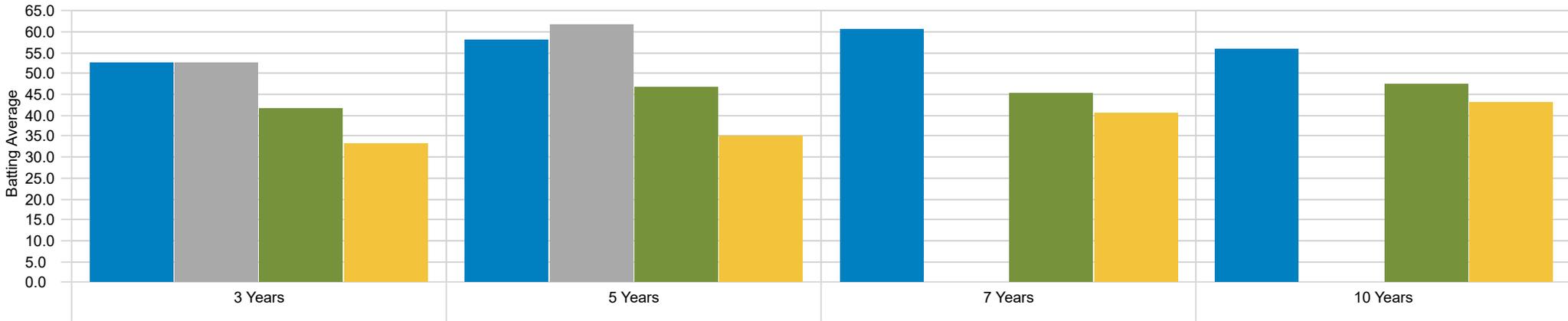
Drawdown

Time Period: 7/1/2009 to 6/30/2019

Source Data: Monthly Return

Legend:
- Harding Loevner Instl Emerg Mkts I
- RBC Emerging Markets Equity R6
- Wells Fargo Emerging Markets Equity R6
- Lazard Emerging Markets Equity Open
- MSCI EM NR USD

Investment Option Narratives

Firm Overview

Founded in 1989, Harding Loevner (HL) is headquartered in Bridgewater, New Jersey. David Loevner and Daniel Harding, former global investment managers at Rockefeller & Co., founded the firm. Harding retired in 2008. Today, the firm manages more than $60 billion in primarily institutional assets across several non-US equity strategies.

HL has been under the Affiliated Managers Group (AMG) umbrella since August 2009. AMG owns 62% of HL's equity stake, while 34 active employees own the remaining 38%. HL is led by a four-person Executive Committee made up of CEO David Loevner, Co-CIOs Simon Hallett and Ferrill Roll, as well as COO Ric Reiter.

Expectations

In general, we would expect HL EME's GARP-oriented approach to perform well on a relative basis when growth is in favor, as well as during market sell-offs, such as 2015, given the strategy's higher quality focus. The approach is more likely to underperform during lower quality rallies, or those led by value-oriented stocks.

We believe the strategy has the potential to outperform the benchmark by 2%-3% annually gross of fees over a fully market cycle, with modest, 3%-5% tracking error.

Team Overview

The Emerging Markets Equity (EME) strategy has a two-person portfolio management team - Craig Shaw and Scott Crawshaw. Shaw and Crawshaw construct their own individual portfolios, which are then combined in equal weightings to create the model portfolio. They have managed EME since 2011 and 2018, respectively. As part of long-term succession planning, HL established a structure whereby multiple PMs/analysts run their own paper portfolios for assigned HL strategies. Currently, Richard Schmidt, Pradipta Chakrabortty, and Rusty Johnson serve in this role for EME. A portion of their annual bonuses is determined by the success of the stock picks in the paper portfolios. The team utilizes HL's platform of over 30 global industry/region specialists.

Points to Consider

Long-time PM Rusty Johnson gave up his PM responsibilities in July 2018 due to a health-related issue. Crawshaw, who had been successfully managing an EME paper portfolio since he joined the firm in 2014, assumed co-PM responsibilities at the time. We remain confident in the strategy going forward. Johnson remains with the firm and continues to manage a paper portfolio for the strategy and Shaw has managed the strategy for more than a decade.

Capacity is very limited. After being soft-closed since 2016, HL chose to "soft open" the strategy in the first half of 2019 following the exit of one of the firm's larger client relationships. HL requires pre-approval of new client allocations. Given the low turnover approach, we are comfortable with new client allocations at current AUM levels but will be modestly flow activity closely.

Strategy Overview

HL's philosophy is simple: shares of high quality, growing companies, purchased at reasonable prices, will provide superior risk-adjusted returns over the long term. Following this philosophy, HL defines four quality growth criteria that a company must exhibit before it will be considered for investment: competitive advantage, quality management, financial strength, and sustainable growth.

The firm's idea-generation process begins with qualitative and quantitative screens. The quantitative variables analysts screen upon include returns on assets and equity, the variability of those returns over time, profit margins, cash flow generation capabilities, degree of leverage relative to book equity, and historical and anticipated growth in earnings, revenues, cash flows, and assets. The qualitative issues they consider include the global competitive structure of a company's industry, the sustainability of its competitive advantages, and the quality of its management. Analysts conduct in-depth research on the companies that pass the initial qualification stage via the firm's proprietary "Quality Assessment Framework (QA)". The QA promotes consistency in the process and encourages collaboration among team members. Valuation analysis is conducted on the back-end. Finally, the analysts prepare a detailed report and presents to the investment team for discussion. The analyst then assigns a rating of "buy", "hold", or "sell".

Portfolio construction is the responsibility of the two PMs as we mentioned above. PMs may purchase the same buy-rated stocks in their sub-portfolios. Final portfolios typically hold 70-90 stocks. Portfolio constraints are absolute with a maximum of 20% in any one industry (excluding banks) and geographic limitations set at the country level. Annual portfolio turnover is low, averaging less 25%.

Recommendation Summary

We recommend HL EME for both defined benefit and defined contribution clients looking for a low turnover, high-quality, and growth-oriented approach to emerging markets. The investment philosophy and process, which is consistent across the firm's global and non-U.S. suite of equity strategies, has added value in multiple market environments, while protecting better than the benchmark during market selloffs. We also like the firm's thoughtful approach to succession planning through its paper portfolio manager structure, which provides a forum for the firm's rising stars among the research analyst ranks to demonstrate their acumen in a portfolio management capacity.

We believe HL EME works best as either a complement to a value-focused emerging markets strategy or on a standalone basis for those clients comfortable with a modest growth-style tilt. Clients should expect the strategy to lag the index in periods where emerging equities are the best-performing asset class, as lower quality issues are often the biggest beneficiaries of large EM market rallies.

Firm Overview

RBC Global Asset Management (RBC-GAM) was founded in 1983 as the asset management division of Royal Bank of Canada. In addition to its headquarters in Toronto, Canada, RBC has offices in London, Minneapolis, Boston, Chicago, Hong Kong and Vancouver. Total firm assets under management are more $300 billion overseen by 21 specialist teams. The firm's strategies are diversified across multiple domestic and non-U.S. equity approaches, as well as fixed income and alternatives offerings.

RBC-GAM is the asset management division of Royal Bank of Canada (RBC), one of the largest banks in the world based on market capitalization. RBC is publicly-owned and traded on the New York Stock Exchange and Toronto Stock Exchange. RBC GAM comprises multiple affiliates, all of which are wholly-owned subsidiaries of RBC including: RBC GAM Inc. RBC GAM U.S., RBC GAM UK, RBC Investment Management Asia, BlueBay Asset Management LLP and BlueBay Asset Management Inc.

Team Overview

Phillippe (Phil) Langham serves as lead PM on RBC Emerging Markets Equity (EME) and heads RBC's eight-person EM Equity team, which is based in London. Prior to joining RBC GAM in 2009 to launch RBC EME, Langham was the head of emerging markets equity at Société Générale, as well as head of Asia and EM at Credit Suisse in Zurich. Langham is joined by Deputy Head Laurence Bensafi, who joined the firm in 2013 from Aviva Investors, where she was Head of their EM team. Additional team members include Head of Research Guido Giammattei (joined in 2010), PM Zeena Dahdaleh (2009), PM Richard Farrell (2013), PM Veronique Erb (2015), PM Chris Enemaerke (2013) and Associate PM Ashna Yarashi (2017). Research is organized by region with analysts also assigned global industry coverage. Final decision-making authority resides with Langham; however, the process is highly collaborative.

Strategy Overview

RBC Emerging Markets Equity follows a quality "growth-at-a-reasonable price" investment approach predicated on the belief that companies with sustainably high cash flow return on investment (CFROI) produce superior returns. The primarily bottom-up process emphasizes companies with strong management teams, sustainable franchises and organizations that benefit all stakeholders, including suppliers, employees, customers, shareholders, the environment and the local community. Top down, investable themes, such as digitization, deposit franchises, health & wellness guide the idea generation process. However, stock selection is expected to drive 60-80% of expected alpha. A quantitative screen, which emphasizes, Quality (45%), Value (35%) and Momentum (20%), helps narrow the investment universe from approximately 2,500 names to 400 for more rigorous due diligence. In-person meetings are required before purchase, along with a Portfolio Buy Note and a completed 75-question checklist which answers questions surrounding Strength and Sustainability (40%), Management Quality (30%) and Corporate Governance (20%). The final portfolio will typically hold 50-60 stocks and the team maintains long-term perspective, with annual turnover generally in the 20%-40% range.

Expectations

RBC EME employs a GARP-oriented investment approach that focuses on companies with strong balance sheets and higher returns on invested capital. As such, we expect the strategy to generally perform well in risk-off market environments. Additionally, EME should generally provide good up-market participation when the structural growth areas of the market are in favor. Conversely, the strategy will likely underperform when lower quality and/or deeper value stocks are in favor, often at the beginning of an economic recovery or momentum-oriented environments. Additionally, the strategy is persistently underweight China due to transparency issues, shorter CFROI track records and high state-owned enterprise representation. Given China represents close to one-third of the benchmark, EME's relative performance will certainly be impacted by its performance.

We believe RBC EME's high conviction approach has the potential to generate 2-3% gross of fee outperformance over a full market cycle. We expect tracking error to fall in the 4-6% range. While the portfolio is concentrated, the strategy is benchmark aware with country and sector weights typically falling within 10% of their representations in the benchmark.

Points to Consider

If Langham would become unable to manage EME, Guido Giammattei and Zeena Dahdaleh would assume the co-lead roles on the strategy, as opposed to Deputy Head Laurence Bensafi, who would head up the team, but remain focused on managing the EM Value strategy.

Strategy assets were $6.8B as of December 31, 2018. The team views capacity at $10B and would begin to soft close to new investors above $9B. Given the team's long-term investment horizon, we are comfortable with the portfolio's liquidity.

The team parted ways with junior research analyst Victor Ting at the end of 2018. Ting, fluent in Mandarin, was brought on board in August 2018 to assist with researching China A-shares companies.

The portfolio was approximately 11% uderweight China at the end of 2018, well within its 15% band. Should China's weight in the index continue to rise over time, the team would plan to request an exception to the 15% underweight rule for China, instead of arbitrarily increasing its China weight by purchasing stocks where the team has less conviction.

Recommendation Summary

RBC EME Lead PM Phil Langham has built a diverse and collaborative team, whose company and industry research rivals that of larger peers. The strategy's high conviction (50-60 stock), GARP-oriented investment approach, combines top-down thematic analysis and bottom-up research to invest in stocks benefiting from structural long-term growth opportunities. We found the team's 75-question company checklist, loaded with ESG questions, to be thorough and differentiating. Additionally, the team's global industry primers, which inform top-down views are impressive given the relatively small team size.

We expect RBC EME's focus on quality, as evidenced by companies with high and sustainable Cash Flow Return On Investment (CFROI) and strong balance sheets to continue to aid its ability to provide solid down-market protection with good up-market participation as well. This, in conjunction with reasonable, 4-6% tracking error, gives us the confidence to support the strategy as a core or complementary option in client portfolios.

Narratives presented for strategies Approved at AndCo. All data represents AndCo's view and may differ from the manager's interpretation.

Firm Overview

Wells Capital Management (WellsCap) is a wholly owned subsidiary of Wells Fargo Asset Management Holdings, LLC, which in turn is indirectly wholly owned by Wells Fargo & Company. WellsCap legal headquarters is in San Francisco, but the firm maintains satellite offices in Menomonee Falls, WI, Los Angeles, CA Boston, MA, Charlotte, NC and London, UK. The firm was formed in 1996 from existing investment management teams that have been in place since the early 1980s. WellsCap is a multi-boutique asset management firm focused on institutional clients. Its diverse and autonomous teams provide a broad range of investment solutions, including but not limited to: domestic equity, international equity, taxable and municipal fixed income, short duration, and quantitative products.

Team Overview

Wells' Berkeley Street EM team is led by PM Jerry Zhang, who joined the firm from Evergreen Investments in 2004 and has been managing the strategy since 2006. Co-PMs Derrick Irwin and Richard Peck joined Wells Cap in 2005 and 2010, respectively. A team of six analysts support the three PMs and the entire team is based in Boston.

Analyst coverage is split on a regional and sector basis with the materials and energy sectors covering globally and the rest the universe covered regionally. Zhang heads up the research efforts for companies based in Asia, while Irwin focuses on the Europe, Middle East and Africa and Peck specializes in Latin America. While the investment approach is collaborative, ultimate portfolio decision responsibility falls to Zhang.

Strategy Overview

The Berkeley Street Emerging Markets Equity team uses a bottom-up, fundamental research process to find quality companies selling at prices below their intrinsic value. They focus their research on those companies that are able to sustain high profitability over a long period of time which is expected to not only add value over a reasonable time frame, but protect investors from permanent capital loss.

The emerging equity universe is initially screened on quality (company that generates return on capital greater than its cost of capital), which results in a focus list of approximately 300 stocks. This pool of quality stocks is the source for the team's portfolio construction decisions, where valuation is the trigger for inclusion. In-depth fundamental research carried out by PMs/analysts concentrates on this short list of high quality stocks. The focus of this part of the process is on deepening and confirming the investment thesis through industry research, site visits, examination of competitors and supplies and exploration of the key macroeconomic heads or tailwinds the business model may face. Analysts develop base and stressed case scenarios for each stock to come up with a valuation range.

Portfolio construction is ultimately the responsibility of Zhang, however they consider all team members critical in providing input that leads to portfolio decisions. There is constant dialogue among all team members throughout the process. The final portfolio typically holds 90 to 130 stocks with a maximum position size at time of purchase of 5% (typically less than 3%). Countries and sectors are constrained depending on their weightings in the index. For those with an index weighting of greater than 15%, the portfolio is limited to 50% to 150% of the index weight. For index weightings between 5% and 15%, the portfolio is limited to 0% to 300% of the index weight. Finally, for index weightings below 5%, the portfolio can invest between 0% and 15% of portfolio value. Portfolio turnover averages less than 20% annually.

Expectations

We expect the strategy to outperform in down markets as the team's close attention to margin of safety at the individual portfolio holding level tends to provide a solid floor in a decline. In addition, markets where investors are focused on companies with stronger fundamentals, most notably those with higher profitability and strong competitive positions, should benefit relative performance. Conversely, we expect it to underperform in momentum-driven market environments. Additionally, when a particular style (value vs. growth) is the primary driver of overall returns, the strategy may lag the index due to its diversified, core approach.

Over a full market cycle, we believe WellsCap Berkeley St. EME has the potential to outperform the MSCI EM Index by 1%-3% annually gross of fees with modest, 3%-5%, tracking error.

Points to Consider

Being a wholly-owned entity of a global money center bank prohibits the ability to share equity amongst the individual teams. To combat this disincentive, WellsCap has established substantial bonus and deferred compensation practices to combat investment professional turnover. Regardless, with the plethora of competitor firms in the Boston area, turnover could be an issue. This team has experienced four departures in the past decade all of which were at the analyst level.

The recent turmoil that has befallen the parent bank may be a potential concern. However, in past interactions with WellsCap, we have been assured that the investment management division is given complete autonomy from the parent organization, so any concern here is probably more of a headline risk than a tangible issue for the investment teams.

The team launched an EM Small Cap strategy in 2018 which may present a distraction. While there is some overlap with the broader quality pool utilized for the all cap strategy (~100 of the 300 stocks possess market caps below $5B), the team will be looking at an expanded pool representing an additional 200 small cap stocks.

Recommendation Summary

We recommend Wells Capital Management Berkeley Street Emerging Markets Equity for both defined benefit and defined contribution clients looking for a diversified, all cap core emerging equity strategy. The strategy employs bottom-up, fundamental research to find quality companies selling at compelling prices. The team's philosophy is long-term in nature and benchmark aware. PM Jerry Zhang has been the key decision-maker since 2006 and is supported by a long-tenured, capable team of two co-PMs and six analysts. Risk management is a key focus of the team at multiple levels: at the company level by focusing on margin of safety and quality, diversification at the portfolio level (country, sector, stock, and type of company), and finally at the firm level with oversight from the independent Risk Management Oversight team.

In addition to the all cap strategy, Wells Cap offers the Berkeley Street Emerging Markets Large/Mid Cap Equity strategy that excludes the smaller market cap holdings. The overlap in holdings between the two strategies is typically close to 90%.

Narratives presented for strategies Approved at AndCo. All data represents AndCo's view and may differ from the manager's interpretation.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta.

Batting Average – A measure of a manager's ability to consistently beat the market. It is calculated by dividing the number of months in which the manager beat or matched an index by the total number of months in the period.

Best Quarter- This is the highest quarterly (3 month) return of the investment since its inception.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of the portfolio's systematic risk.

Down Period Percent - Number of months below 0 divided by the total number of months.

Downmarket Capture Ratio - The ratio of average portfolio performance over the designated benchmark during periods of negative returns. A lower value indicates better product performance.

Downside Std Dev - This measures only deviations below a specified benchmark.

Excess Return- This is a measure of an investment's return in excess of a benchmark.

Information Ratio - This calculates the value-added contribution of the manager and is derived by dividing the excess rate of return of the portfolio by the tracking error. The higher the Information Ratio, the more the manager has added value to the portfolio.

Longest Down-Streak Return - Return for the longest series of negative monthly returns.

Longest Down-Streak # of Periods - Longest series of negative monthly returns.

Longest Up-Streak Return - Return for the longest series of positive monthly returns.

Longest Up-Streak - Longest series of positive monthly returns.

Kurtosis - Kurtosis indicates the peakedness of a distribution. For normal distribution, Kurtosis is 3.

Max Drawdown - The peak to trough decline during a specific record period of an investment or fund. It is usually quoted as the percentage between the peak to the trough.

Max Drawdown # of Periods - This is the number of months that encompasses the max drawdown for an investment.

R-Squared - The percentage of a portfolio's performance that can be explained by the behavior of the appropriate benchmark. A high R-Squared means the portfolio's performance has historically moved in the same direction as the appropriate benchmark.

Return - Compounded rate of return for the period.

Sharpe Ratio - Represents the excess rate of return over the risk free return divided by the standard deviation of the excess return. The result is an absolute rate of return per unit of risk. A higher value demonstrates better historical risk-adjusted performance.

Skewness - Skewness reflects the degree of asymmetry of a distribution. If the distribution has a longer left tail, the function has negative skewness. Otherwise, it has positive skewness. A normal distribution is symmetric with skewness 0.

Sortino Ratio - The Sortino Ratio is similar to Sharpe Ratio except it uses downside risk (Downside Deviation) in the denominator. It was developed in early 1980's by Frank Sortino. Since upside variability is not necessarily a bad thing, Sortino ratio is sometimes more preferable than Sharpe ratio.

Standard Deviation - A statistical measure of the range of a portfolio's performance. It represents the variability of returns around the average return over a specified time period.

Tracking Error - This is a measure of the standard deviation of a portfolio's excess returns versus its designated market benchmark.

Treynor Ratio - Similar to Sharpe Ratio, Treynor Ratio is a measurement of efficiency utilizing the relationship between annualized risk-adjusted return and risk. Unlike Sharpe Ratio, Treynor Ratio utilizes "market" risk (beta) instead of total risk (standard deviation). Good performance efficiency is measured by a high ratio.

Up period Percent - Number of months above 0 divided by the total number of months.

Upmarket Capture Ratio - The ratio of average portfolio performance over the designated benchmark during periods of positive returns. A higher value indicates better product performance.

Value-Growth Score - Morningstar assigns an Overall Value score and an Overall Growth score to each stock within a fund. Morningstar then calculates a net value-core-growth score for each stock by subtracting the stock's Overall Value score from its Overall Growth score. Once this is done, these raw scores are rescaled to range between -100 to 400 in order to fit within the Morningstar Style Box. Scores below 67 are classified as value, scores above 233 are classified as growth, and scores between 67 and 233 fit within the core boundaries.

Worst Quarter - This is the lowest quarterly (3 month) return of the investment since its inception.

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