BostonPartners

White Paper | October 2020

Emerging Markets: A Buy and Hold Approach

Summary

It is well known that investors favor lower volatility, all else equal; it is perhaps less known that volatility diminishes compounded returns compared to average returns. In other words, two return series with identical average returns but different volatility levels will have different compounded returns; the series with higher volatility will generate a lower compounded return. This is simply the mathematics of compounded returns, and the pitfalls of volatility are often summarized with the axiom, "a portfolio that declines 50% must gain 100% to break even." Further, increased volatility typically increases the likelihood that investors fall victim to behavioral pitfalls by selling low and/or buying high. Nowhere is this more apparent than emerging markets ("EM") equities; although the MSCI EM Index has materially outperformed the S&P 500 Index over the last 20 years, many investors endeavor to navigate the relatively higher volatility by attempting to time their EM equity allocation or by maintaining only minimal exposure due to risk aversion. We believe there is potential in EM equities and a long/short approach may reduce the asset class's inherent volatility and transform a tactical allocation into a strategic one.

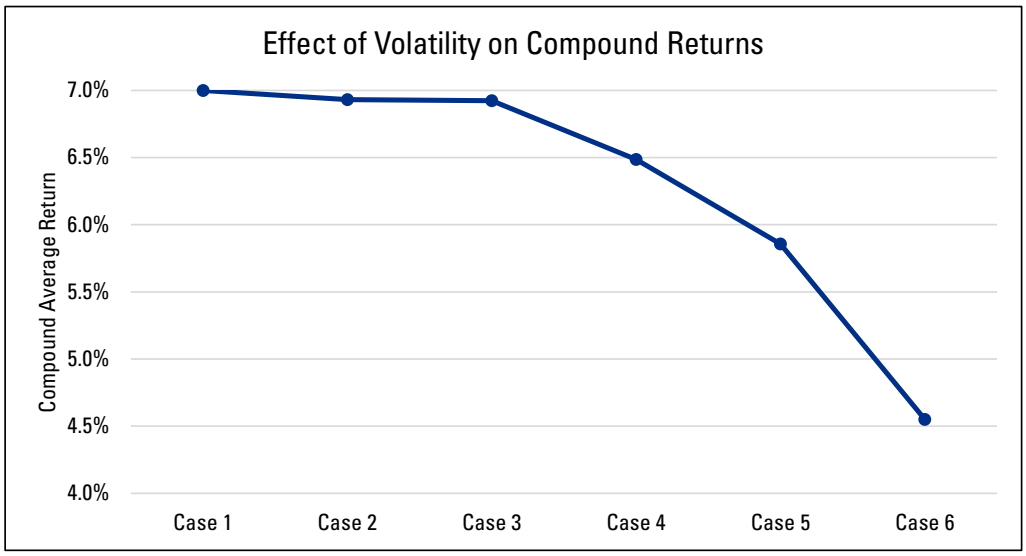
The Importance of Volatility Reduction.

Volatility will eat away at a compounded return series. Consider the simple hypothetical illustration below and on the next page:

Exhibit 1a:

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Year 1	7%	1%	12%	15%	25%	35%
Year 2	7%	6%	11%	-10%	-20%	-30%
Year 3	7%	7%	7%	18%	14%	2%
Year 4	7%	8%	3%	11%	10%	20%
Year 5	7%	13%	2%	1%	6%	8%
Simple Average Return	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Compound Average Return	**7.0%**	**6.9%**	**6.9%**	**6.5%**	**5.9%**	**4.6%**
Annualized Volatility	**0.0%**	**4.3%**	**4.5%**	**11.5%**	**16.7%**	**24.2%**

Exhibit 1b:



The returns are for illustrative purposes only – none of the returns are actual performance. Volatility is a statistical measure of the dispersion of returns for a given security or market index. Volatility can either be measured by using the standard deviation or variance between returns from that same security or market index. Commonly, the higher the volatility, the riskier the security. A simple average return differs from compound average return in that simple average does not take into account the year-over-year cumulative effect of a return series on the initial investment, while compound return does. For volatile return streams, the two measures can significantly differ. Past performance is not an indication of future results. Please refer to the last pages for other important disclosures.

All six return streams have identical simple average returns but increasing levels of volatility as you move from left to right. As you can see, the greater the level of volatility around the mean return, the lower the compounded return.

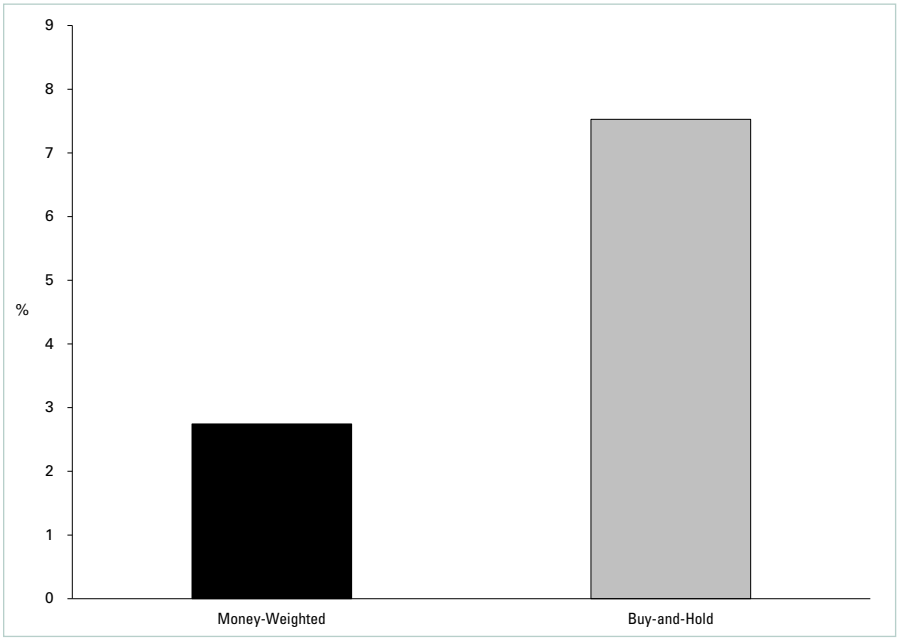
Although this simple example only illustrates the mathematical importance of volatility, there can be behavioral consequences as well. Study after study has shown that retail fund flows can be a contrarian indicator, meaning investors typically sell low and buy high; this applies to all equity assets but is particularly germane when assessing the risk/return profile of the MSCI EM Index. Given that EM equities have exhibited higher volatility compared to developed market equities, it appears that many investors attempt to time their allocation – which in our opinion has extremely low odds of success – or remain under allocated due to risk aversion. While these approaches may or may not be successful in limiting volatility, they are almost certain to preclude one from potentially benefitting from the compelling long term returns generated by EM equities. The chart on the following page (Exhibit 2) illustrates the buy-and-hold returns compared to the money-weighted returns of several major EM ETFs; by selling low and buying high, the EM ETF investor in aggregate has forfeited approximately 480 basis points in annualized returns by unsuccessfully attempting to time the market in lieu of maintaining a consistent EM allocation.

"Study after study has shown that retail fund flows can be a contrarian indicator, meaning investors typically sell low and buy high."

Exhibit 2:

Major Emerging Markets ETFs[1]: Annual Money-Weighted and Buy-and-Hold Nominal Returns

2009 Through August 2020



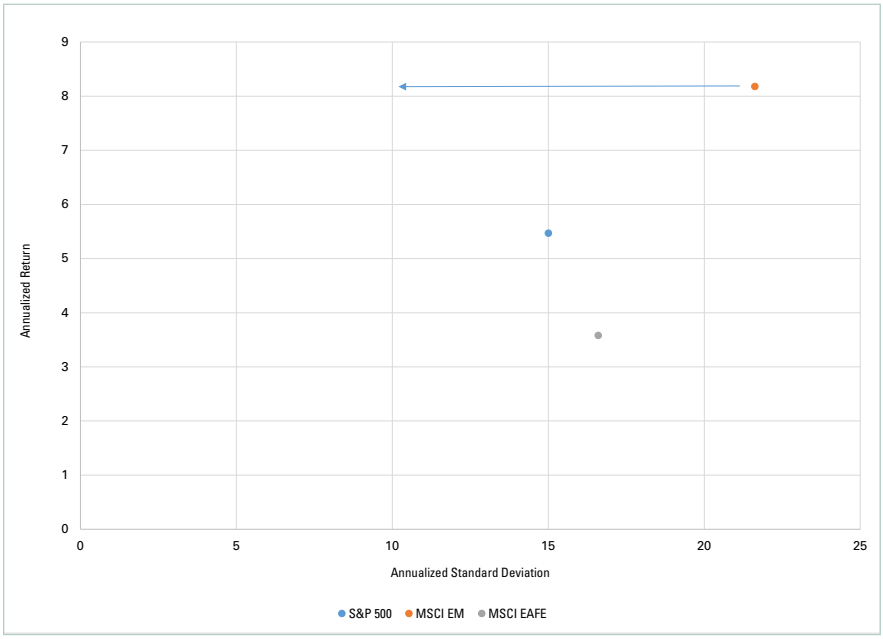
Source: Strategic Insight Simfund, Empirical Research Partners Analysis.
[1] Includes VWO, EEM, and IEMG. Aggregate return is weighted by start-of-quarter assets under management. The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. IEMG was incepted on October 18, 2012 and is not included in the return stream until that time. VWO, EEM, and IEMG collectively account for approximately 85% of emerging market ETF assets as of 2020. Money-weighted return differs from a buy and hold return in that it accounts for intra period cash flows by calculating the rate of return that will set the present values of all cash flows equal to the value of the initial investment. Buy and hold return does not account for intra period cash flows and may differ from the actual return experienced by investors. Past performance is not an indication of future results.

As can be seen in the chart below, EM equities have materially outperformed both the S&P 500 and the MSCI EAFE Indices but with more volatility. What if one were able to generate an "EM-like" return or better but with reduced volatility? The Boston Partners Emerging Markets Dynamic Equity Fund could allow investors to transform their position in EM equities from a tactical allocation to a strategic allocation.

Exhibit 3:

What if one could capture EM's Return with reduced volatility

20 Year Risk Return as of September 30, 2020



Source: Morningstar Direct.
Past performance is not an indication of future results.

The Opportunity in EM Equities

Data from the International Monetary Fund shows that since 1980, GDP for advanced economies has increased annually by 2.4% on average, while emerging and developing economies have grown by 4.5%; consequently, EM's share of global GDP growth has grown from 24% in 1980 to 40% in 2019. Currently, the International Monetary Fund is forecasting an average annual GDP growth rate of 1.9% for developed economies through 2023 versus a 5.1% annualized pace for EM economies. Given that potential GDP growth approximates working age population growth plus productivity growth, the trend of EM growing faster than developed markets appears poised to continue.

Exhibit 4:
Average Annual Working Age Population Growth
2019 to 2030

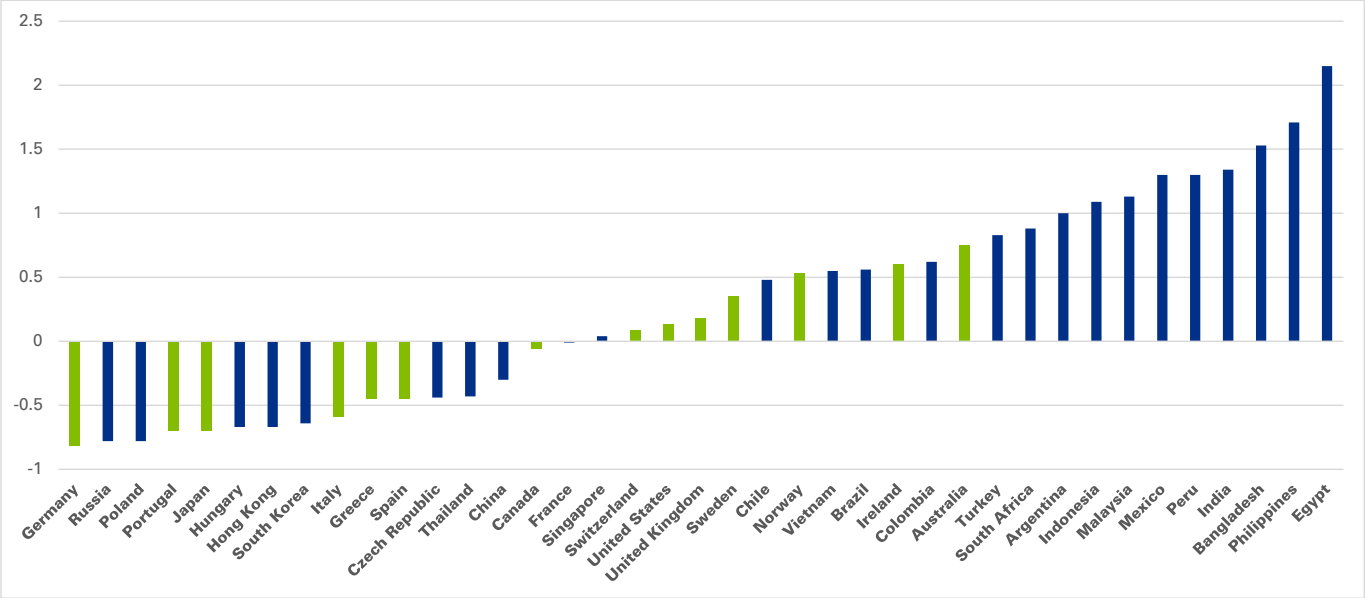
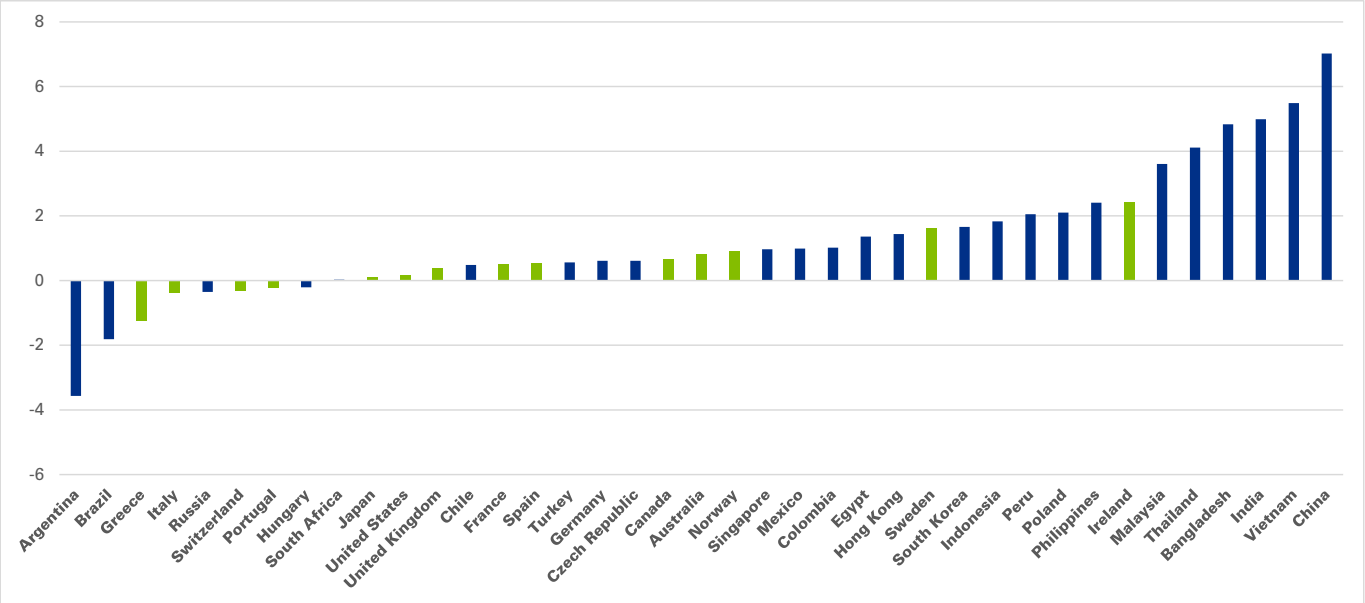


Exhibit 5:
Productivity Growth per Person Employed (%):
Year 2019



Source: International Monetary Fund.
Estimates reflect subjective judgments and assumptions. There can be no assurance that developments will transpire as forecasted and that the estimates are accurate.

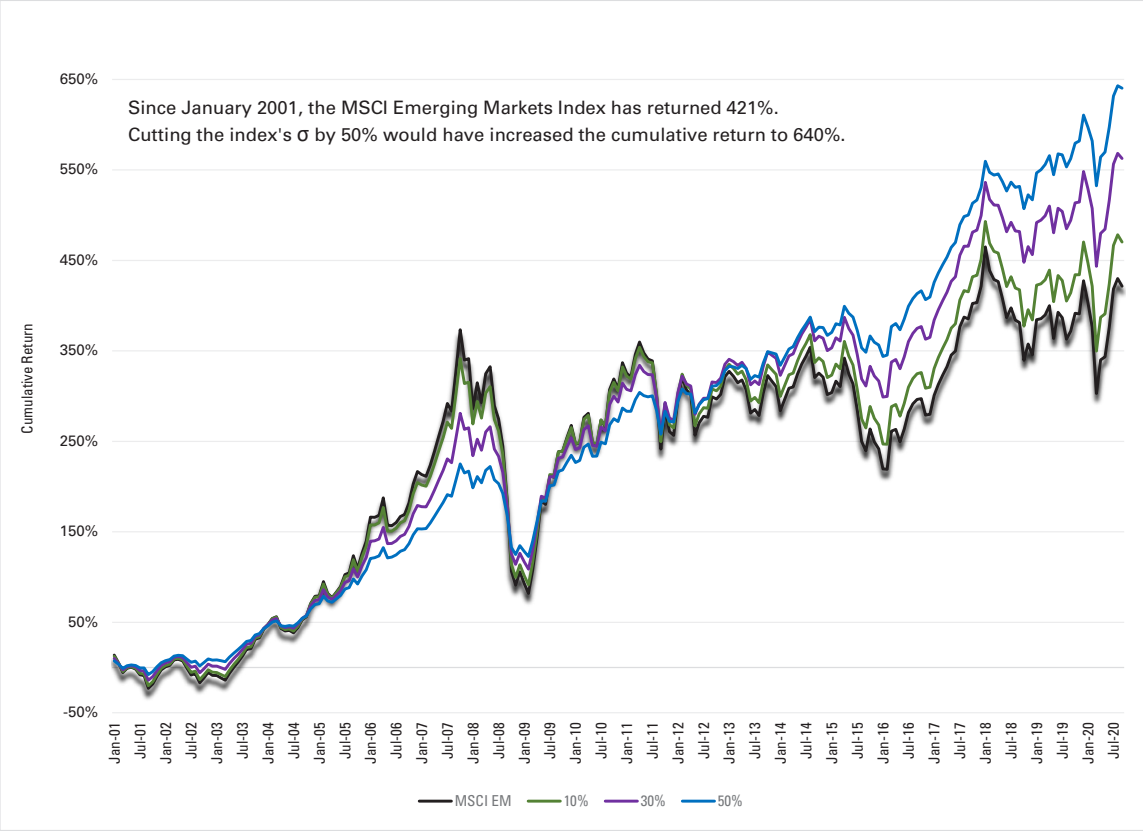
Additionally, as EM capital markets continue to evolve, deepen, and mature, investors may find increased avenues to participate in GDP growth. Although EM represents approximately 40% of global GDP, it represents only 14% of the world's stock market capitalization; one would expect a better balance between the two data points to develop over time, perhaps a gap more akin to the data for the European Union which contributes 21% to global GDP and represents 21% of global stock market capitalization.

EM equities appear to offer potential and we argue they warrant inclusion in a diversified portfolio; however, the volatility associated with the asset class has precluded many investors from maintaining consistent allocations, an impediment which the Boston Partners Emerging Markets Dynamic Equity Fund ("the Fund") was designed to overcome.

The Benefits of Lower Volatility EM Equity Exposure

As seen in Exhibit 3, EM equities have outperformed U.S. and non-U.S. developed equities over a long time horizon, but it was a volatile ride. What if that volatility could have been reduced? The chart below (Exhibit 6) illustrates the importance of reducing volatility. We took the MSCI EM Index monthly return data and created three additional return series: MSCI EM Index with 10%, 30%, and 50% less volatility. The actual return series as well as our three theoretical return series all have the same average monthly return, similar to the illustration in Exhibit 1. However, we reduced the volatility around the mean return by 10%, 30%, and 50% and plotted those return series. As you can see below, reducing the MSCI EM Index's volatility by 50% would have increased the cumulative return over the period from 421% to 640%.

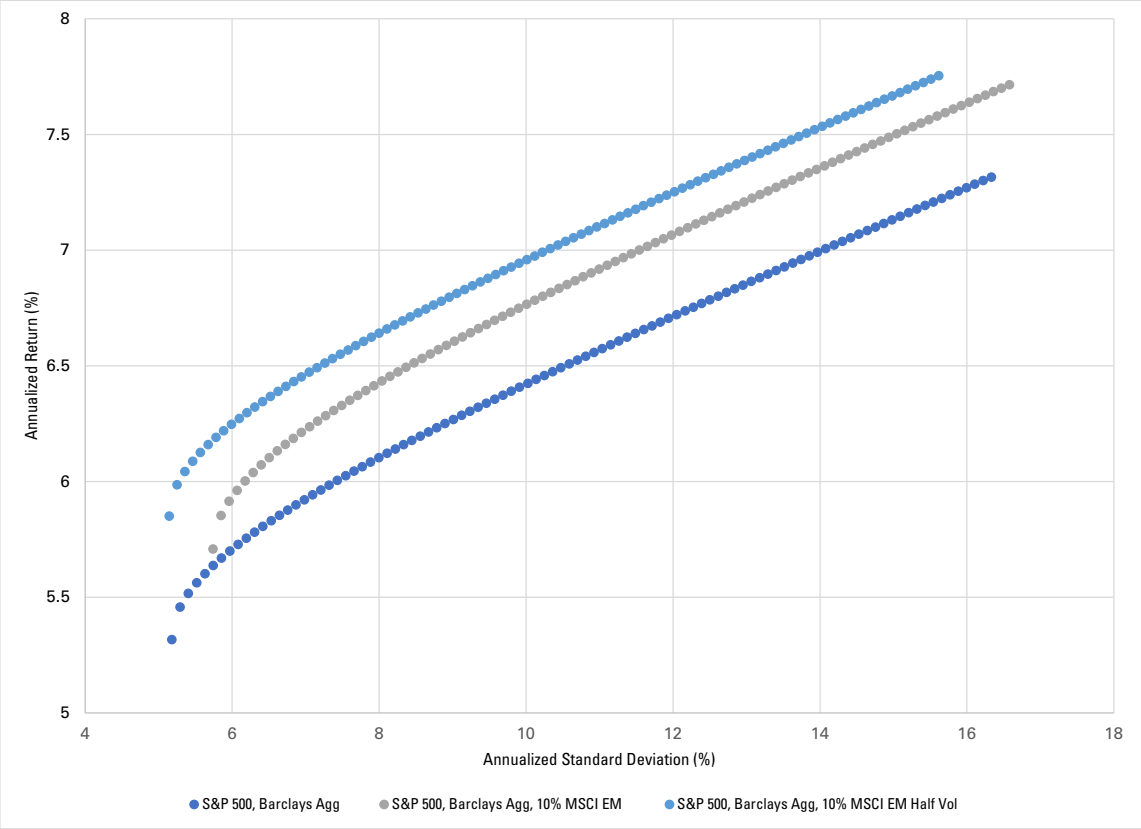
Exhibit 6:
Cumulative Return of the MSCI Emerging Markets Index and the MSCI Emerging Markets Index with decreasing Alpha
January 2001 through September 2020



Source: Bloomberg.
The purpose of the graph is to illustrate how volatility hurts returns. The methodology starts with the monthly returns of the MSCI EM Index. The average return and standard deviation of the monthly returns are calculated. A z-score is then calculated for each monthly return. Then hypothetical return series are calculated using the same average return, z-score of the monthly return, and standard deviation reduced by 10%, 30%, and 50%. Past performance is not an indication of future results. You cannot invest directly in an index.

On a standalone basis, the benefits of volatility reduction within the EM equity asset class are very clear. We also assessed the addition of EM equities and lower volatility EM equities to a traditional stock and bond portfolio. The efficient frontier below was produced by Morningstar's mean/variance optimizer. As you can see, over the last 20 years adding a 10% allocation to the MSCI EM Index improved the return per unit of risk as compared to a portfolio consisting solely of the S&P 500 and the Barclays Aggregate Indices. The improvement was greater when adding a 10% allocation to the theoretical MSCI EM Index with 50% reduced volatility.

Exhibit 7:
Enhancing Return per Unit of Risk with Lower Volatility EM Exposure
20 years as of Q3 2020



Source: Morningstar Direct.
Past performance is not an indication of future results. An efficient frontier is generated by a mean/variance optimizer which generates a set of optimal portfolios that offer the highest expected return for a defined level of risk, or said differently, the lowest risk for a given level of expected return. Portfolios that lie below the efficient frontier are viewed as sub-optimal because they do not provide enough return for the level of risk (in this context, risk is measured as annualized standard deviation).

Boston Partners' Dynamic Approach to EM

The Boston Partners Emerging Markets Dynamic Equity Fund is a natural extension of Boston Partners' capabilities. We have been managing equity mutual funds with long and short individual stock positions for over twenty years, and our empirical evidence suggests there are greater opportunities for excess security selection – both long and short – in EM equities compared to developed market equities.

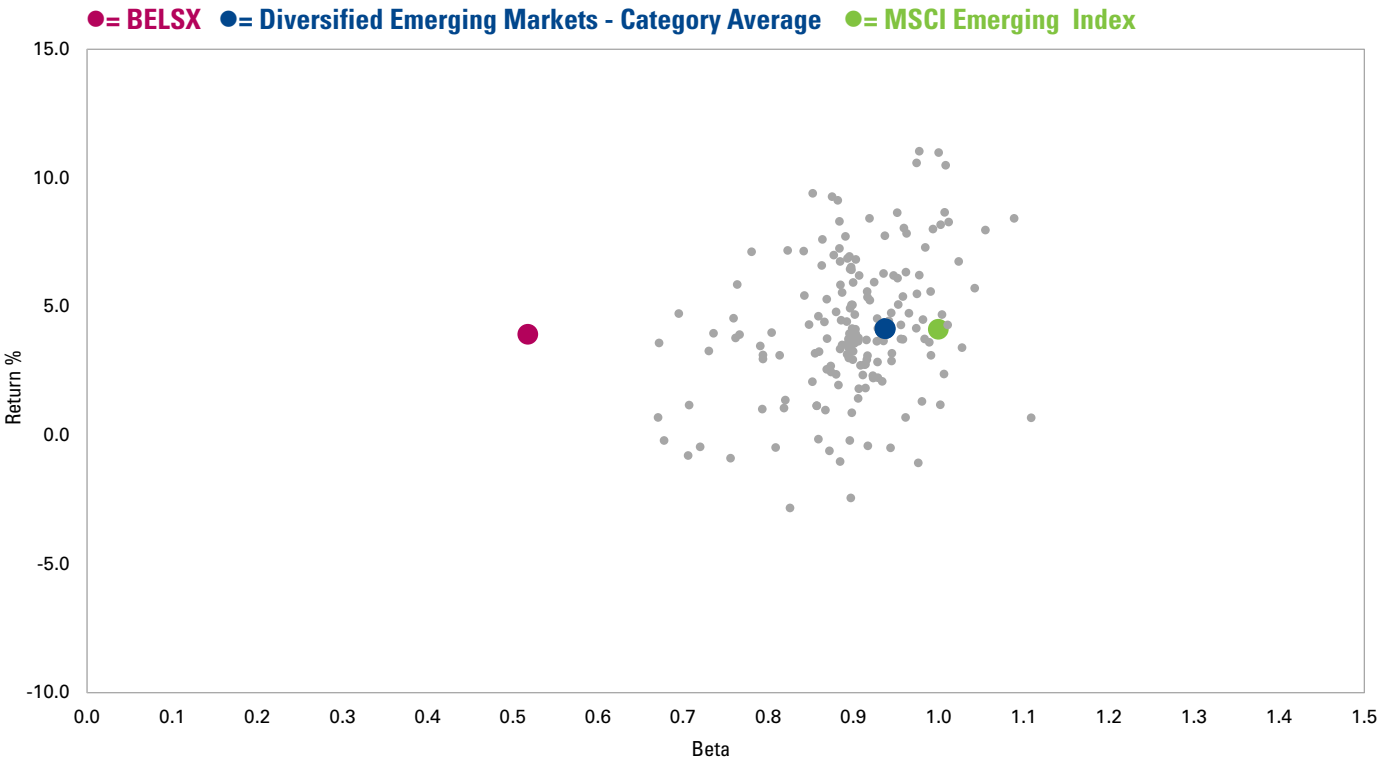
We intend to manage a variable portfolio with a roughly fully invested long portfolio (typically 95-100% of invested capital) and a short portfolio usually consisting of 30-70% of invested capital, which will result in typical net long exposure ranging from 30-70% net long and averaging approximately 50% net long. By striving to generate excess returns via security selection from individual company investments and utilizing a number of liquid investment tools, we believe we may be able to achieve an EM equity return or better but with reduced volatility and beta as compared to the Index and other active EM equity managers. The chart in Exhibit 9 illustrates the Fund's beta and annualized return since inception over five years ago relative to the MSCI EM Index and the Morningstar peer group:

Exhibit 9:

Emerging Markets Dynamic Equity Fund

Risk/Reward: Relative to Emerging Market (long-only)

Mutual Fund Universe of 172 Funds



Since Inception[1] Performance Statistics as of September 30, 2020	Beta	Return
Boston Partners Emerging Markets Dynamic Equity (BELSX)	0.52%	3.93%
Diversified Emerging Markets - Category Average	0.94%	4.15%
MSCI Emerging Markets Index - Net[2]	1.00%	4.11%

Source: Morningstar Direct.
Beta equals correlation with the MSCI EM Index times our relative standard deviation. Fund returns are net of fees Institutional Class, and are calculated on a monthly basis. Past performance is not an indication of future results. Please refer to the last pages for other important disclosures. [1] Inception date is March 1, 2015. [2] Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

Since Fund Inception[1]

	Risk Measurement Statistics						
	Standard Deviation (Annualized)	Downside Deviation	Beta	Long/Short Spread[2]	Sharpe Ratio	Alpha	Sortino
Emerging Markets Dynamic Equity Fund (BELSX)	10.51%	7.24%	0.52%	5.61%	0.27%	1.52%	0.40%
MSCI EM Index (Net)	17.75%	11.94%	1.00%	—	0.17%	—	0.26%

[1] Inception date is March 1, 2015. Inception date includes Prior Account performance. The BP Emerging Markets Dynamic Equity Fund commenced operations as a series of The RBB Fund, Inc. on December 15, 2015. For more important information on the Fund's Prior Account's performance, please refer to the last pages for Performance Disclosures. [2] The long/short spread is the difference between long performance and short performance since inception. **The performance data quoted represents past performance and does not guarantee future results. Current performance may be lower or higher. Performance data current to the most recent month-end may be obtained at www.boston-partners.com. The investment return and principal value of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original cost.** Please refer to the last pages of this booklet for other important disclosures. Returns are historical and include changes in share price and reinvestment of dividends and capital gains. Returns are shown net of fees and expenses and in USD. March 1, 2015 thorough December 31, 2015: returns are calculated by applying a fee of 2.10% to gross returns of the Prior Account. Performance for periods over one year is annualized; less than one year is not annualized.

Emerging Markets Dynamic Equity Fund (BELSX):

Investment performance — Institutional Class through September 30, 2020

Investment Performance (%)

	3Q 2020	YTD 2020	1 Year	3 Year	5 Year	2019	2018	2017	2016	Since Inception[1]
EM Dynamic Equity Fund - Net of Fees	**3.35**	**1.37**	**9.00**	**0.01**	**5.65**	**17.46**	**-18.30**	**24.78**	**7.91**	**3.93**
MSCI EM Index – Net[2]	9.56	-1.16	10.54	2.42	8.97	18.42	-14.57	37.28	11.19	4.11
HFRI Equity Hedge (Total) Index[3]	5.78	2.24	8.04	3.72	5.58	13.71	-7.14	13.29	5.47	4.17
Diversified Emerging Markets - Category Average	8.83	-1.96	8.16	1.32	7.49	19.07	-16.14	34.69	8.08	3.24

Supplemental Performance (%)

	3Q 2020	YTD 2020	1 Year	3 Year	5 Year	2019	2018	2017	2016	Since Inception[1]
EM Long Portfolio - Gross of Fees	**5.47**	**-2.48**	**10.74**	**2.10**	**10.70**	**30.19**	**-21.20**	**43.48**	**11.70**	**5.16**
EM Short Portfolio - Gross of Fees	**-3.49**	**0.70**	**-12.38**	**-2.82**	**-6.36**	**-21.06**	**16.44**	**-35.25**	**2.30**	**0.45**
MSCI EM Index – Net[2]	9.56	-1.16	10.54	2.42	8.97	18.42	-14.57	37.28	11.19	4.11
HFRI Equity Hedge (Total) Index[3]	5.78	2.24	8.04	3.72	5.58	13.71	-7.14	13.29	5.47	4.17
Diversified Emerging Markets - Category Average	8.83	-1.96	8.16	1.32	7.49	19.07	-16.14	34.69	8.08	3.24

[1] Inception date is March 1, 2015. Inception date includes Prior Account performance. The BP Emerging Markets Dynamic Equity Fund commenced operations as a series of The RBB Fund, Inc on December 15, 2015. For more important information on the Fund's Prior Account's performance, please refer to the last pages for Performance Disclosures.
[2] Net total return indices reinvest dividends after the deduction of withholding taxes, using (for international indices) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
[3] HFRI Equity Hedge Index data cannot be shared or distributed without written consent.
[4] There are additional costs associated with the use of short sales. Short-sale dividends generally reduce the market value of the securities by the amount of the dividend declared; thus increasing the Fund's unrealized gain or reducing the Fund's unrealized loss on the securities sold short.
[5] The adviser has contractually agreed to forgo all or a portion of its advisory fee and/or reimburse expenses in an aggregate amount equal to the amount by which the Total Annual Fund operating expenses (other than short sale dividend expenses, brokerage commissions, extraordinary items, interest or taxes) exceeds 1.40% of the average daily net assets. Because short sale dividend expenses, brokerage commissions, extraordinary items interest and taxes are excluded from the expense limitation, Total Annual Fund Operating Expenses (after fee waivers and expense reimbursement) are expected to exceed 1.40%. The contractual limitation is in effect until February 28, 2021 and may not be terminated without Board approval. [6] Net expenses are as of the most recent prospectus and are applicable to investors. **The performance data quoted represents past performance and does not guarantee future results. Current performance may be lower or higher. Performance data current to the most recent month-end may be obtained at www.boston-partners.com. The investment return and principal value of an investment will fluctuate so that shares, when redeemed, may be worth more or less than their original cost.** Please refer to the last pages for other important disclosures. Returns are historical and include changes in share price and reinvestment of dividends and capital gains. Returns are shown in USD. March 1, 2015 through December 31, 2015: returns are calculated by applying a fee of 2.10% to gross returns of the Prior Account.
Performance for periods over one year is annualized; less than one year is not annualized.

Operating Expenses

Management Fee	1.25%
Operating and Other Expenses	0.59%
Investment Related Expenses[4]	0.06%
Gross Expenses	**1.90%**
Waived Operating Expenses[5]	(0.50%)
Net Expense Ratio[6]	**1.40%**

About Boston Partners

Boston Partners is a premier provider of value equity investment strategies that are firmly rooted in fundamental research and are based on a disciplined and repeatable investment philosophy and process. Boston Partners is focused on investing in companies with attractive value characteristics, strong business fundamentals, and positive business momentum and shorting companies whose stocks exhibit value risk, earnings risk, and balance sheet risk. While rooted in fundamental research, the process is heavily aided by quantitative tools to narrow the investment universe and ensure portfolios are consistently tilted towards attractive value, quality, and momentum characteristics on the long side and the inverse on the short side. The firm, founded in 1995, has a longstanding reputation for superior client service.

Important Disclosure Information

You should consider the investment objectives, risks, charges and expenses of the Boston Partners Investment Funds carefully before investing. Call (888) 261-4073 to obtain a prospectus with this and other information about the Funds or visit boston-partners.com. Read the prospectus carefully before investing. Securities offered through Boston Partners Securities, LLC, member FINRA, SiPC, an affiliate of Boston Partners Global Investors, Inc., the investment adviser to the Boston Partners Investment Funds. Quasar Distributors, LLC is the Distributor of the Funds and is not affiliated with the adviser.

The views expressed in this commentary reflect those of the author as of September 30, 2020. Any such views are subject to change at any time based on market and other conditions and Boston Partners disclaims any responsibility to update such views. Discussions of securities, market returns and trends are not intended to be a forecast of future events or returns.

Investments involve risk. Principal loss is possible. The Fund will engage in short sales which theoretically involves unlimited loss potential since the market price of securities sold short may continuously increase. This may have the effect of increased leverage with risk of loss and cause fluctuations in the market value of the Fund's portfolio to have disproportionately large effects or cause the NAV of the Fund generally to decline faster than it would otherwise. Investments made in small or mid capitalization companies may be more volatile and less liquid due to limited resources or product lines and more sensitive to economic factors. The Fund may invest in more aggressive investments such as foreign securities including those in emerging markets which may expose the fund to currency and exchange rate fluctuations, derivatives (futures, options, swaps), REITS (affected by economic factors related to the real estate industry), illiquid and convertible securities, all of which may cause greater volatility and less liquidity. Derivatives may be more sensitive to changes in market conditions. The fund has limited operating history upon which to evaluate its performance.

Emerging Markets Dynamic Equity Fund (BELSX) Prior Account Performance Information The Fund commenced operations as a series of The RBB Fund, Inc. on December 15, 2015, when substantially all of the assets of Boston Partners Emerging Markets Dynamic Equity (the "Prior Account") transferred to the Fund. The Fund will be managed in all material respects in a manner equivalent to the management of the Prior Account. The Fund's objectives, policies, guidelines and restrictions are in all material respects equivalent to the Prior Account. The Fund is managed by Joseph F. Feeney, Jr. and Paul Korngiebel, the same Prior Account co-portfolio managers that managed the Prior Account since its inception March 1, 2015. The Prior Account was not registered under the Investment Company Act of 1940, as amended ("1940 Act"), and thus was not subject to certain investment and operational restrictions that are imposed by the 1940 Act. If the Prior Account had been registered under the 1940 Act, its performance may have been adversely affected. Accordingly, future Fund performance may be different than the Prior Account's restated past performance. The Prior Account's performance has been restated to reflect estimated expenses of the Fund. After-tax performance returns are not included for the Prior Account. The Prior Account was not a regulated investment company under Subchapter M of the Internal Revenue Code and therefore did not distribute current or accumulated earnings and profits and was not subject to the diversification and source of income requirements applicable to regulated investment companies.

Definitions:

Bloomberg Barclays US Aggregate Index – The Bloomberg Barclays US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

MSCI Emerging Markets (EM) Index – The MSCI Emerging Markets indices are designed to measure the type of returns foreign portfolio investors might receive from investing in emerging market stocks that are legally and practically available to them. Constituents for the MSCI series are drawn from the MSCI stock universe based on size, liquidity, and their legal and practical availability to foreign institutional investors.

MSCI EAFE Index – The MSCI EAFE Index is broadly recognized as the pre-eminent benchmark for U.S. investors to measure international equity performance. It comprises the MSCI country indexes capturing large and mid-cap equities across developed markets in Europe, Australasia and the Far East, excluding the U.S. and Canada.

S&P 500 Index – The S&P 500 Index is an unmanaged index of the common stocks of 500 widely held U.S. companies

Alpha - used in finance as a measure of performance, indicating when a strategy, trader, or portfolio manager has managed to beat the market return over some period.

Basis Point (bps) – one hundredth of one percent, used chiefly in expressing differences of interest rates.

Beta – a numeric value that measures the fluctuations of a stock to changes in the overall stock market.

Downside Deviation – measures to what extent an investment falls short of your minimum acceptable return by calculating the negative differences from the MAR, squaring the sums, and dividing by the number of periods, and taking the square root.

Efficient Frontier - is the set of optimal portfolios that offer the highest expected return for a defined level of risk or the lowest risk for a given level of expected return. Portfolios that lie below the efficient frontier are sub-optimal because they do not provide enough return for the level of risk.

Exchanged Traded Fund (ETF) – a type of investment fund that is traded on a stock exchange.

Gross Domestic Product (GDP) – The total value of goods produced, and services provided in a country during one year.

Money Weighted Return – a measure of the performance of an investment. The money-weighted rate of return is calculated by finding the rate of return that will set the present values of all cash flows equal to the value of the initial investment.

Sharpe Ratio - The Sharpe ratio was developed by Nobel laureate William F. Sharpe and is used to help investors understand the return of an investment compared to its risk. The ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk.

Sortino Ratio - The Sortino ratio is a variation of the Sharpe ratio that differentiates harmful volatility from total overall volatility by using the asset's standard deviation of negative portfolio returns—downside deviation—instead of the total standard deviation of portfolio returns. The Sortino ratio takes an asset or portfolio's return and subtracts the risk-free rate, and then divides that amount by the asset's downside deviation.

Standard Deviation - The standard deviation is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance.

Variance - is a measurement of the spread between numbers in a data set. That is, it measures how far each number in the set is from the mean and therefore from every other number in the set.

Z-score - score is a numerical measurement that describes a value's relationship to the mean of a group of values. Z-score is measured in terms of standard deviations from the mean. If a Z-score is 0, it indicates that the data point's score is identical to the mean score. A Z-score of 1.0 would indicate a value that is one standard deviation from the mean. Z-scores may be positive or negative, with a positive value indicating the score is above the mean and a negative score indicating it is below the mean.