NOVEMBER 2016

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EXPERT SERIES
STRATEGIC BETA IN EMERGING MARKETS

Highlights

- There is an opportunity for investors in EM to implement a rules-based investment process that reflects the systemization of alpha drivers in active management.
- Strategic beta exchange-traded funds (ETFs) in EM historically have had better alpha at a lower expense.
- Strategic beta could be used as a core, core complement or satellite strategy.

Strategic beta has become a widespread topic of discussion in asset management, illustrated by the fact it was the most searched term in Investopedia in 2015.[1] While this coverage may feel overdone, it has been warranted — the investment style combines features of traditional active and passive management, making it attractive to a variety of investors. Strategic beta adoption has not grown at the same rate among emerging market (EM) strategies as it has with developed market (DM) strategies, and we believe there is a growing opportunity for investors in emerging markets to implement factors reflecting the systemization of the alpha drivers in active management. Our analysis has shown that those investors who have embraced strategic beta in emerging markets historically have been rewarded with outperformance at a lower expense, illustrated by the Alpha Cost Efficiency Ratio (ACE Ratio), which we introduce below. This relationship between performance and expense continues to be a trade-off that investors balance. This Expert Series aims to make the case for strategic beta in emerging markets and outlines how investors could use a strategic beta emerging market fund as a core, core complement or satellite strategy in a portfolio.

What is strategic beta?

We define strategic beta (also known as "smart beta") as a category of beta strategies designed to outperform a market benchmark or provide a specialized exposure. This category of investment solutions incorporates attributes of traditional active and passive management (see Exhibit 1). Like active managers, strategic beta strategies should be informed by investment strategy; they can be built on macroeconomic investment themes, include fundamental metrics to evaluate company selections (such as profitability and dividend yield), or address portfolio objectives (such as a focus on a desired outcome and diversification parameters).

These themes, metrics and objectives are defined as the "rules" for the portfolio. Like conventional passive strategies, once the investment rules are determined for a specific investment objective, they are set, making them transparent and repeatable. In many ways, **strategic beta is effectively a rules-based investment process that reflects the systemization of alpha drivers in active management.**

Exhibit 1: Strategic Beta

[1] Investopedia, "Investopedia's Top 10 Terms in 2015," December 7, 2015.

Growth of strategic beta in emerging markets

Strategic beta has seen significant adoption and interest over the last several years. With that growth, the asset management product shelf is steadily evolving to three investment categories — active, passive and strategic beta. This trend can be seen in the adoption within international developed market ETFs. It represented 7% of funds in 2012, and that has grown to 18% in 2015 (see Exhibit 2a). Yet, strategic beta only represents 9% of emerging market funds. While there has been growth since 2012, it still drastically lags the 300% growth of strategic beta in international developed market funds (see Exhibit 2b). If strategic beta is acceptable in developed markets, why less so in emerging markets?

Exhibit 2a: International developed market ETF asset growth
(12/31/11 to 12/31/15)

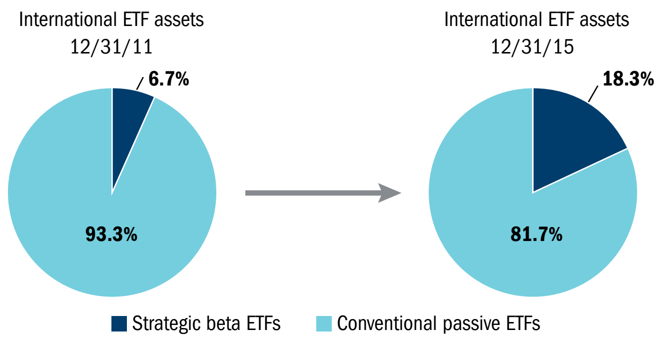
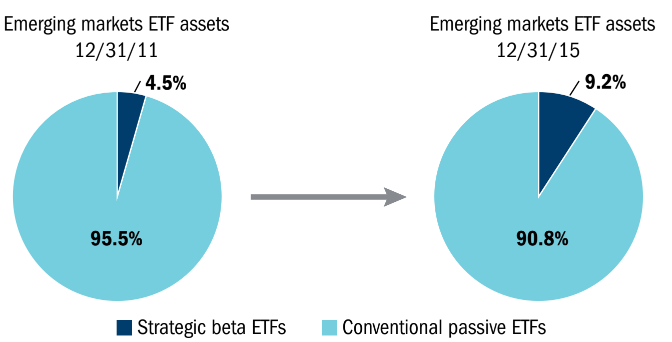


Exhibit 2b: Emerging market ETF asset growth
(12/31/11 to 12/31/15)



Source: Morningstar, as of 12/31/2015. International ETF assets includes all U.S. domiciled ETFs across Europe Stock, Foreign Large Blend, Foreign Large Growth, Foreign Large Value, Foreign Small/Mid Blend, Foreign Small/Mid Growth, Foreign Small/Mid Value and Japan Stock Morningstar categories. Emerging Market ETF assets includes all U.S. domiciled ETFs across Diversified Emerging Markets, India Equity, China Region, Pacific/Asia ex-Japan Stock, Latin America Stock and Miscellaneous Region Morningstar categories. Conventional Passive ETFs are any ETFs that use a capitalization weighted index and whose constituents are filtered by little more than cap size or country of domicile. Funds that currency hedge this exposure are also categorized as conventional. Strategic Beta ETFs are any ETFs that use an index designed to outperform (via return or risk) a conventional benchmark, or to provide specific exposure beyond country and/or cap.

Market (in)efficiency and benchmark slavery

Some emerging market investors seek active managers based on the assumption that these markets are inefficient and boots-on-the-ground analysts are necessary to effectively cover companies in the asset class. They believe that only active managers can generate alpha over the benchmark given these conditions.

However, the large quantity of funds and the number of investment professionals dedicated to securities analysis suggest an asset class that was once inefficient might have become more efficient with the passage of time. Morningstar covers over 300 emerging market strategies,[2] which demonstrates that a broad-based professional commitment to investing in the asset class might by now have made analyst coverage less of a performance differentiator. It is challenging for investment professionals to consistently outperform benchmarks, which is illustrated later in this piece in Exhibit 6.

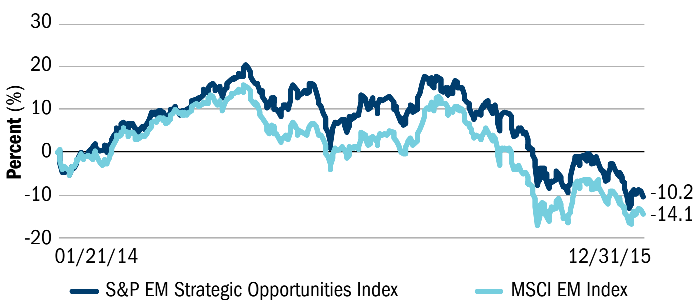
As the asset management industry has matured over time, the focus on comparative benchmarks has steadily increased. The introduction of low fee, benchmark-tracking funds has caused increased scrutiny on relative performance. Fund managers view risk not only in terms of volatility or capital loss, but also in terms of agency risk — deviation from the benchmark and the competition. Thus, many skilled and experienced fund managers are unable to take full advantage of their knowledge and insights to construct portfolios that are materially different from the benchmark. Many are deterred from taking significantly different country, sector or stock positions than the benchmark. In other words, their skill is diluted by benchmark considerations that are counter to the goal of generating alpha. In the words of economist John Maynard Keynes, "Worldly wisdom teaches that it is better to fail conventionally than to succeed unconventionally."[3]

[2] Morningstar as of 12/31/15. 307 Diversified EM Mutual Funds and ETFs, based on the oldest share class.
[3] Keynes, John Maynard, "The General Theory of Employment, Interest and Money," (1936).

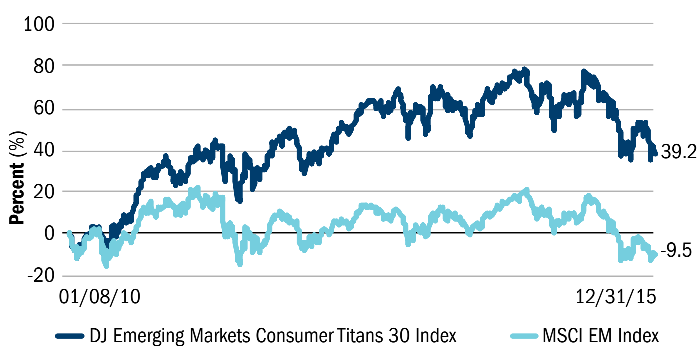
The role of strategic beta

The decision to either invest in a portfolio that tracks a conventional benchmark or to go beyond it by adopting a non-benchmark (or specific) exposure is an active one. Among wealth managers who do not believe active management is worth the expense, some default to conventional emerging market benchmarks as investment positions.[4] Whether this decision is driven by the belief that benchmark returns are optimal in emerging markets or by a lack of conviction toward any nonbenchmark strategy, choosing this approach represents an implied point of view. Abstention is a vote. **Accepting the conventional index as an investment is to give up on alpha, and we think there is a better solution for investors.**

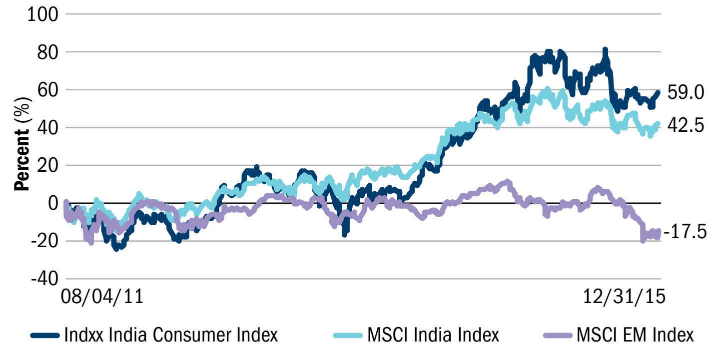
Exhibit 3: Strategic beta can be employed successfully in EM Core: S&P Emerging Markets Strategic Opportunities Index (01/21/14–12/31/15)



Core Complement: Dow Jones Emerging Markets Consumer Titans 30 Index (01/8/10–12/31/15)



Satellite: Indxx India Consumer Index (08/04/11–12/31/15)



Source: S&P Dow Jones Indices, Indxx, Bloomberg, as of 12/31/2015. The S&P Emerging Markets Strategic Opportunities Index was launched 1/21/2014, the Dow Jones Emerging Markets Consumer Titans 30 Index was launched 1/8/2010, and the Indxx India Consumer Index was launched 8/4/2011. Past performance does not guarantee future results.

For example, investors might choose to employ a strategic beta approach to capture the potential growth represented in certain thematic exposures, such as the growth of the emerging market consumer and domestic demand ("Driving Growth in Emerging Markets — Spotlight: The Emerging Asia Consumer," Columbia Management Investment Advisers, November 2016) or emerging market reform in countries such as India ("India: The Next Great Emerging Market," Columbia Management Investment Advisers, August 2016). These approaches have outperformed the broad benchmark (Exhibit 3). Such investment strategies are an attempt to outperform conventional capitalization-weighted indices by concentrating on certain areas of the market, which requires the deliberate assumption of higher active share[5] than associated with more benchmark-driven portfolios.

4 Emerging Global Advisors, "The Emerging Market Benchmark Bear Hug: Competitive Opportunity for Wealth Managers," (January 2014).

5 Active share is a measure of the percentage of the stock holdings in a portfolio that differ from the benchmark index. A higher active share indicates a larger percentage of the holdings are different than the benchmark. For example, if Stock A makes up 3% of a fund and is not held by the benchmark, then Stock A contributes 3 percentage points to the fund's active share score. Stock B also makes up 3% of the fund and is 1% of the benchmark. Stock B thus contributes 2% to the fund's active share – the 3% that the fund owns, minus the 1% of overlap with the index.

We see the manifestation of this by analyzing the attributes of the five largest conventional passive, strategic beta and active funds in the diversified emerging market universe in Morningstar (Exhibit 4). Not surprisingly, the average active share for the largest passive ETFs is relatively low, at 44.2%, with a low average annual turnover at 18.0% and over 1,200 holdings on average. Conversely, the average active share for the largest active funds is higher, at 76.8% with 36.2% average annual turnover, and only about 200 holdings on average.

Exhibit 4: Active share across the largest passive, strategic beta and active funds as of 12/31/15

Category of emerging markets funds	Average turnover ratio (%)	Average number of holdings	Average active share vs. MSCI EM Index (%)
Top 5 conventional passive ETFs	18.0	1,237	44.2
Top 5 active mutual funds	36.2	199	76.8
Top 5 strategic beta ETFs	29.4	293	85.7

Source: Morningstar, as of 12/31/2015. See Exhibit 2 for the definition of Conventional Passive and Strategic Beta ETFs. Active Mutual Funds represent mutual funds that employ individuals or teams to conduct fundamental and/or macroeconomic research to select individual companies that together make up these portfolios. "Top 5" includes the largest funds by assets under management in the Diversified Emerging Markets Morningstar category for each category.

Ironically, the five largest strategic beta emerging market funds have a higher active share than the average active funds, 85.7%, with an average annual turnover that is about a 20% lower, at 29.4%. They also have relatively more concentrated holdings than the largest conventional passive ETFs, about 300 on average, which helps to explain why they would likely have a higher active share.

Alpha efficiency

In addition to providing benchmark differentiation, strategic beta funds have provided performance in line (or slightly better) than active managers, but with an expense ratio more comparable to traditionally passive funds. As detailed in Exhibit 5, strategic beta ETFs on average have an expense ratio of 0.64%, which is in-line with traditional passive funds, and significantly less expensive than traditional active funds.

These costs are juxtaposed against performance: strategic beta ETFs on average have outperformed passive funds by 3.2% over three years. Active mutual funds have outperformed strategic beta ETFs by only 0.34% during that time, and at a much higher cost. To take cost into consideration with alpha, we have defined the ACE Ratio, a ratio that divides the alpha over the last five years by the prospectus net expense ratio. Of course, conventional passive ETFs have a negative ACE Ratio, which makes sense since a benchmark-based strategy provides no alpha by definition. On the other hand, strategic beta ETFs had an ACE Ratio that is more than twice that of active mutual funds, and have demonstrated a consistency of outperformance, with alphas of 2.67% over one year, 2.87% over three years and 2.60% over five years (Exhibit 5). This data illustrates that **strategic beta ETFs have been able to execute improved returns in a cost-efficient manner.**

Exhibit 5: Alpha Cost Efficiency Ratio as of 12/31/15

Category of emerging market funds	Prospectus net expense ratio	Alpha 1-year (%)	Alpha 3-year (%)	Alpha 5-year (%)	Alpha cost efficiency ratio (ACE ratio) 5-year
Conventional passive ETFs	0.64	1.63	-0.36	-1.00	-1.57
Active mutual funds	1.66	0.37	3.21	0.74	0.45
Strategic beta ETFs	0.64	2.67	2.87	2.60	4.05

Source: Morningstar, as of 12/31/15. See Figure 4 for category definitions. Past performance does not guarantee future results.

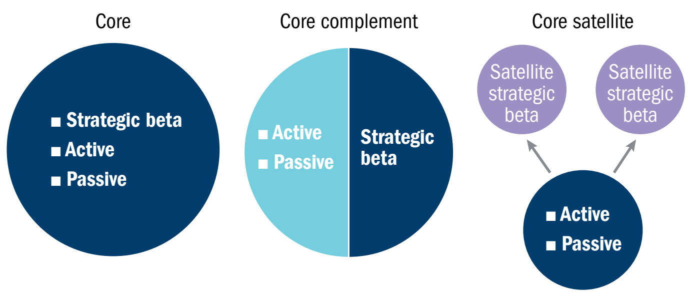
Implementing EM strategic beta in portfolios

Investors should implement strategic beta strategies in emerging markets based on their intended goal or outcome in portfolio construction (Exhibit 6). First, it can be the **Core** emerging market holding in a diversified asset allocation. Depending on the portfolio construction factors incorporated in the rules (e.g., diversification parameters, thematic exposure, weighting methodology, sell discipline, growth or value orientation, etc.), a strategic beta strategy could serve as the cornerstone emerging market holding from which other strategies are layers on for targeted exposure.

Strategic beta can also be used as a **Core Complement**, working in tandem with another investment to provide a diversified emerging market allocation. Investors may look to complement the underlying goal of a strategic beta strategy with a strategy that has a different approach, exposures, etc. In this manner, strategic beta can be paired with an active or benchmark passive strategy.

Lastly, strategic beta can be used as a **Satellite** vehicle to a core holding.

Exhibit 6: Implementing strategic beta in emerging markets



Conclusion

EM equity markets have become relatively more efficient with the passage of time, and a number of factors make it more difficult for active managers to outperform. However, investors can still target the themes, characteristics and styles they believe will deliver growth and diversification in emerging markets and do not have to default to investing in the conventional benchmark. By implementing a rules-based process that reflects the systemization of alpha drivers, strategic beta strategies can cost-efficiently add alpha. Investors can adopt a combination of active, passive and strategic beta investment strategies in their portfolios; the proportion dedicated to each will be a function of the investment objectives of the individual investor who can target the desired combination of return, risk and cost at the portfolio level. **We believe strategic beta in emerging markets will grow as investors become aware of its ability to provide distinguishing exposure and performance in a cost-efficient manner.**

Appendix I: Columbia Strategic Beta ETFs

<table>
<tr><th colspan="2">Core</th><th colspan="2">Core complement</th><th colspan="2">Satellite</th></tr>
<tr><td colspan="2">Columbia EM Strategic Opportunities ETF (EMDD)</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="2">Columbia Emerging Markets Core ETF (EMCR)</td><td colspan="2"></td><td colspan="2"></td></tr>
<tr><td colspan="3">Columbia EM Quality Dividend ETF (HILO)</td><td></td><td colspan="2"></td></tr>
<tr><td colspan="3">Columbia EM Core ex-China ETF (XCEM)</td><td></td><td colspan="2"></td></tr>
<tr><td colspan="2"></td><td colspan="4">Columbia Emerging Markets Consumer ETF (ECON)</td></tr>
<tr><td colspan="2"></td><td colspan="4">Columbia Beyond BRICs ETF (BBRC)</td></tr>
<tr><td colspan="2"></td><td></td><td colspan="3">Columbia India Consumer ETF (INCO)</td></tr>
<tr><td colspan="2"></td><td></td><td colspan="3">Columbia India Infrastructure ETF (INXX)</td></tr>
<tr><td colspan="2"></td><td></td><td colspan="3">Columbia India Small Cap ETF (SCIN)</td></tr>
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Definitions: Active share is a measure of the percentage of the stock holdings in a portfolio that differ from the benchmark index. Alpha is a statistic measuring that portion of a stock or fund's total return attributable to non-market (unsystematic) risk. **Alpha** measures non-market return and indicates how much value has been added or lost. A positive alpha indicates whether the stock or fund has performed better than its beta predicted (i.e., the manager has added value above the benchmark). A negative alpha indicates an underperformance given its beta. **Alpha Cost Efficiency Ratio (ACE Ratio)** is a ratio that divides the alpha by the prospectus net expense ratio. **Developed Markets (DM)** are countries that are most developed in terms of economy and capital markets; these countries generally have high per capita income or GDP, as well as openness to foreign ownership, ease of capital movement and efficiency of market institutions. **Dow Jones Emerging Markets Consumer Titans 30 Index** is a free-float market capitalization-weighted index that measures the performance of 30 leading emerging market companies in the Consumer Goods and Consumer Services Industries as defined by S&P Dow Jones Indexes. Emerging Markets (EM) are those countries with less advanced capital markets and less established stock markets than those in developed markets; these countries have embarked on economic development and reform programs as well as begun to open up their markets and emerge. **Indxx India Consumer Index** is a maximum 30-stock free-float adjusted market capitalization-weighted index designed to measure the market performance of companies in the consumer industry in India as defined by Indxx's proprietary methodology. The index consists of common stocks listed on the primary exchange of India. **MSCI Emerging Markets Index** is an index that is designed to measure the equity market performance in global emerging markets. **S&P Emerging Markets Strategic Opportunities Index** is a 50-stock free-float market capitalization-weighted index designed to measure the performance of companies in emerging markets that are tied to domestic demand, specifically those in consumer staples, consumer discretionary, telecommunications services, health care and the utilities sectors. **Strategic Beta** is a category of beta products designed to outperform a market benchmark or provide a specialized exposure.

Carefully consider the fund's investment objectives, risk factors and charges and expenses before investing. This and other information can be found in the fund's prospectus, which may be obtained by calling 888.800.4347 or by visiting the fund's website columbiathreadneedleetf.com to view or download a prospectus. Read the prospectus carefully before investing. Investing involves risk, including possible loss of principal.

Effective September 1, 2016, Emerging Global Advisors, LLC was acquired by Columbia Management Investment Advisers, LLC (CMIA). In connection with the acquisition, CMIA is the investment manager to EGShares Funds as of that date. On October 19, 2016, the EGShares Funds were renamed as Columbia Funds. The Funds are distributed by ALPS Distributors, Inc., which is not affiliated with CMIA. Columbia Threadneedle Investments is the global brand name of the Columbia and Threadneedle group of companies.

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Columbia ETFs seek investment results that correspond (before fees and expenses) to the price and yield performance of their respective underlying benchmark index

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