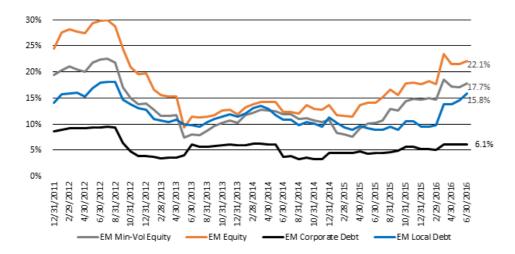
CONSTRUCTING A LOWER VOLATILITY EMERGING MARKET PORTFOLIO

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One of the key themes dominating the exchange-traded fund (ETF) industry flows over the last 12 months has been the meteoric rise in assets of minimum-volatility (min-vol) portfolios. Year-to-date, these strategies have pulled in over \$12.6 billion of new money. 1 Of the 34 strategies with "volatility" included in their respective fund name, 32 have attracted new money. While flows have largely been concentrated in U.S. and EAFE index benchmarked strategies, emerging markets have seen nearly \$1 billion of flows. From some investors' point of view, one size seems to fit all markets. While many debate if there is a "bubble" brewing in these approaches, another school of thought is that it's simply performance chasing. Being positioned in defensive vs. cyclical sectors has been a great trade across markets year-to-date! However, for emerging markets, the single largest driver of volatility over the last several years has been the dramatic decline of foreign currencies against the U.S. dollar. In my view, relying on a strategy that seeks to minimize the volatility of an asset class while not focusing on the root cause of that volatility is pointless. In the remainder of this piece, we'll argue that emerging market corporate bonds offer a compelling option for investors concerned about volatility in emerging markets. How Low Is "Min" One of the common critiques of minvol is that it doesn't actually mean low vol. Below, we compare the rolling 12-month standard deviations of emerging market equities (market capitalization-weighting² and min-vol³) and emerging market fixed income (locally denominated⁴ and U.S. dollardenominated corporates⁵). As you can see, the primary driver of volatility was not necessarily the geographic region but, rather, whether the approach contained currency risk or not. For EM min-vol, the strategy has been effective in reducing volatility relative to market capitalization-weighted EM equities. However, with standard deviations comparable to U.S. equity markets, "minimum" does not necessarily mean low in absolute terms. In fact, the EM min-vol standard deviation is more akin to EM local debt due to its exposure to currency risk. Again, positioning to more defensive, "bond-like" sectors of the equity market is what these approaches aim to do. In our view, a clear enhancement to an investment strategy would be to switch from stocks to bonds when concerns about volatility in EM rise. Emerging Markets Rolling 12-Month Standard Deviation 12/31/11-6/30/16

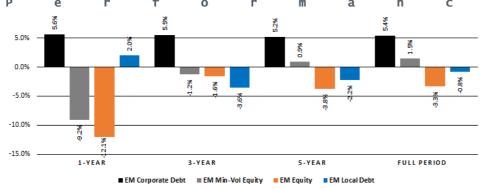




Source: Bloomberg, as of 6/30/16. You cannot invest directly in an index.

Performance,

Correlation and Return Drivers While investors appear to be buying these strategies for their purported volatility characteristics, what we think they should be focusing on is what those approaches have delivered in total returns. Over virtually every period we examined, min-vol equities were able to reduce volatility by approximately 4% per year compared to EM equities. However, switching to EM fixed income (local debt) netted an additional reduction of 2% compared to EM min-vol. Finally, by avoiding currency risk altogether, investors were able to not only reduce volatility but significantly boost returns as well. In fact, over the entire period, EM corporates outperformed min-vol equities by 3.9% per year with only 32% of the volatility. While correlation against EM equities was lower than other strategies with currency risk, EM corporate bonds averaged a respectable 0.83 over the available data history. Emerging Markets Annualized P e r f o r m a n c e 12/31/10-6/30/16



Source: WisdomTree, Zephyr StyleADVISOR, as of 6/30/16. Past performance is not indicative of future results. You cannot invest directly in an index. Index performance does not represent actual fund or portfolio performance. A fund or portfolio may differ significantly from the securities included in the index. Index performance assumes reinvestment of dividends but does not reflect any management fees, transaction costs or other expenses that would be incurred by a portfolio or fund, or brokerage commissions on transactions in fund shares. Such fees, expenses and commissions could reduce returns.

drivers of return for EM corporates and EM min-vol equity strategies are different. EM corporate bonds expose investors to U.S. <u>interest rate risk</u>, whereas EM equity performance will be impacted by currency fluctuations. Both will be impacted by the outlook for the financial performance of EM corporations. While EM markets have rebounded sharply so far in 2016, uncertainties about the strength of the global economy remain. In our view, by allocating to EM corporate debt, investors can maintain exposure to emerging markets, significantly reduce volatility and also boost income potential to power returns over market cycles. While the results are of course far from guaranteed, investors looking for a true low-vol approach to emerging markets should consider



allocations to EM fixed income.

¹Source: Bloomberg, as of 6/29/16. ²As proxied by the MSCI Emerging Markets Index. ³As proxied by the MSCI Emerging Markets Minimum Volatility Index. ⁴As proxied by the J.P. Morgan GBI-EM Global Diversified Index. ⁵As proxied by the J.P. Morgan CEMBI Broad Index.

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DEFINITIONS

<u>Volatility</u>: A measure of the dispersion of actual returns around a particular average level. .

MSCI EAFE Index: is a market cap-weighted index composed of companies representative of the developed market structure of developed countries in Europe, Australasia and Japan.

<u>Cyclical sectors</u>: Consumer Discretionary, Energy, Industrials, Materials, Financials and Information Technology sectors.

Corporate Bonds : a debt security issued by a corporation.

Standard deviation: measure of how widely an investment or investment strategy's returns move relative to its average returns for an observed period. A higher value implies more "risk", in that there is more of a chance the actual return observed is farther away from the average return.

<u>Market Capitalization</u>: Market cap = share prices x number of shares outstanding. Firms with the highest values receive the highest weights in approaches designed to weight firms by market cap.

<u>Correlation</u>: Statistical measure of how two sets of returns move in relation to each other. Correlation coefficients range from -1 to 1. A correlation of 1 means the two subjects of analysis move in lockstep with each other. A correlation of -1 means the two subjects of analysis have moved in exactly the opposite direction.

Interest rate risk : The risk that an investment's value will decline due to an
increase in interest rates.

MSCI Emerging Markets Index: a broad market cap-weighted Index showing performance of equities across 23 emerging market countries defined as "emerging markets" by MSCI.

MSCI Emerging Markets Minimum Volatility Index: An index with constituents selected from the MSCI Emerging Markets Index, with a focus on an optimization process subject to constraints, that attempts to generate lower volatility than the MSCI Emerging Markets Index.

JP Morgan GBI-EM Global Diversified Index: tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base. The index incorporates a constrained market-capitalization methodology in which individual issuer exposures are capped at 10%, (with the excess distributed to smaller issuers) for greater diversification among issuing governments.

<u>JP Morgan CEMBI Broad Index</u>: a market capitalization weighted index consisting of US dollar-denominated Emerging Market corporate bonds. The index serves as a global corporate benchmark representing Asia, Latin America, Europe and Middle East / Africa. US dollar-denominated corporate issues from index-eligible countries are narrowed further by only including issues with more than \$300m current face outstanding and at least five years to maturity (at the time of inclusion into the index).

