Emerging Markets Multi-Factor Fundamental Currency Strategy

Case For
Currency Management

June 2019

- State Street Global Advisors' EM Multi-Factor Fundamental Currency Strategy may offer superior returns at lower risk than the J.P Morgan GBI EM local debt index and an equally weighted basket of EM currencies.
- The outperformance and risk reduction relative to the equally weighted EM portfolio, per our backtested results, highlights the power of focusing on the long run quality growth factor.

Introduction

Over the past 20+ years, rapid economic and financial development across emerging markets (EM) has attracted significant foreign investment. Most investors that we meet have dedicated allocations to long-only EM equity and local debt strategies, usually to capture the generally higher country risk premium and yields as well as the positive secular growth dynamic. While those investments will usually include exposure to EM currencies, we believe that a pure EM currency exposure can capture much of the risk premium and yield advantage, as well as appreciation due to growth. However, the advantages of a pure currency investment typically include lower transition and administrative costs as well as improved liquidity and lower stock-specific risk.

The State Street Global Advisors Emerging Markets Multi-Factor Fundamental Currency Strategy (the Strategy) is a systematic long-only EM currency strategy funded by a basket of US Dollar, euro, Japanese Yen, and British Pound (the G4 currencies).

The Strategy seeks to avoid some of the potential pitfalls of investing in EM markets — in particular merely chasing markets which currently offer the highest yield and growth: yields may be high because political or credit risks are high and growth may be high due to temporary factors such as fiscal stimulus or excessive credit growth to finance current consumption rather than productive investment. Therefore, the strategy seeks to tilt toward the currencies of countries State Street Global Advisors believes will experience long-term quality sustainable growth which will justify higher yield and persistent appreciation.

Focus on Quality Growth

While the strategy looks at the realized level and trajectory of productivity and expected GDP growth, it seeks to focus on the underlying determinants of those factors. First and foremost, investment drives productivity and technological progress. Here we consider factors such as the level of fixed investment but also include foreign direct investment as it tends to imbed a higher level of technical knowledge and better business processes. High levels of investment are fantastic, but often fail to result in meaningful productivity gains due to poor governance or outright corruption. To capture this, we rank countries on a variety of ESG factors such as government effectiveness and corruption. Next, we consider exports which are an important source of investment financing and outright growth. Demographics are also an important driver, including overall population growth and the age distribution of the population. Finally, because the currency of a country with strong and improving potential growth is still not very attractive when it is wildly overvalued, we add an adjustment for value relative to our estimates of the long run purchasing power parity equilibrium exchange rate.

Portfolio Construction and Implementation

A transparent mean-variance optimization process balances the factor scores with expected risk, diversification guidelines, and overall investment objectives of the Strategy to determine its final portfolio. The management of transaction costs is an important component of the implementation approach and is a key focus of the specialist Currency team. The Currency team believes that its optimization methodology, trading process, and the collective experience of its members in transacting in foreign currency across both the emerging and developed markets universe constitute a key comparative advantage.

The Strategy is available as an unfunded currency overlay requiring only a small cash balance required to fund collateral on non-deliverable forward contracts or on a fully funded basis. As an unfunded overlay, the Strategy is fully portable onto any asset base — for example, the Strategy could be combined with an emerging or developed markets debt or equity strategy without having to divest from the underlying assets. Current investors in the Strategy have chosen to implement it on a fully funded basis in US Dollars with 3 times leverage. Thus, for every $1 invested the fund holds $1 in USD cash and equivalents plus a portfolio which targets a long $3 emerging markets position against a $3 short position across the G4 resulting in an expected annual risk of approximately 12%. The leverage of 3 times increases capital efficiency by reducing the amount of cash investors have to dedicate to the strategy to achieve the 12% risk target.

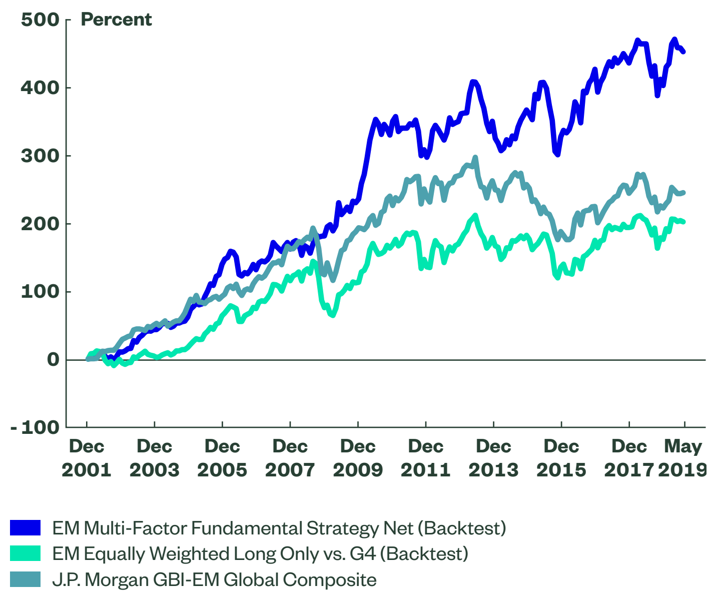
The above targets are estimates based on certain assumptions and analysis made by State Street Global Advisors. There is no guarantee that the estimates will be achieved.

Performance

The EM Multi-Factor Fundamental Currency Strategy can offer superior returns at lower risk than the J.P. Morgan GBI EM local debt index as well as an equally weighted basket of EM currencies. The outperformance and risk reduction relative to the equally weighted EM portfolio highlights the power of focusing on the long run quality growth factor. Performance is shown as the excess return over cash, in this case US 3 month T-bills; therefore, it is applicable to investors from any base currency.

Figure 1 **Excess Returns**

	EM Multi-Factor Fundamental Strategy Net (Backtest)	**EM Equally Weighted Long Only vs. G4 (Backtest)**	**J.P. Morgan GBI-EM Global Composite**
Annual Return (%)	13.16	9.96	7.33
Annual Volatility (%)	12.31	14.74	12.03
Return/Risk	1.07	0.68	0.61
Annual VaR (95%)	-10.56	-16.70	-15.04
Maximum Drawdown (%)	-21.15	-32.74	-30.61



Source: State Street Global Advisors/Bloomberg.
Backtested performance is not indicative of the past or future performance of any State Street Global Advisors offering. The portion of results from December 31, 2001 to May 31, 2019, represents a back-test of the EM Multi-Factor fundamental model, which means that those results were achieved by means of the retroactive application of the model which was developed with the benefit of hindsight. All data shown above does not represent the results of actual trading, and in fact, actual results could differ substantially, and there is the potential for loss as well as profit. The performance does reflect management fees, transaction costs, and other fees and expenses a client would have to pay, which reduce returns. Please reference the Backtested Methodology Disclosure for a description of the methodology used as well as an important discussion of the inherent limitations of backtested results.

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Abu Dhabi: State Street Global Advisors Limited, Middle East Branch, 42801, 28, Al Khatem Tower, Abu Dhabi Global Market Square, Al Mayah Island, Abu Dhabi, United Arab Emirates. Regulated by ADGM Financial Services Regulatory Authority. T: +971 2 245 9000. **Australia:** State Street Global Advisors, Australia, Limited (ABN 42 003 914 225) is the holder of an Australian Financial Services Licence (AFSL Number 238276). Registered office: Level 17, 420 George Street, Sydney, NSW 2000, Australia T: +612 9240 7600. F: +612 9240 7611. **Belgium:** State Street Global Advisors Belgium, Chaussée de La Hulpe 120, 1000 Brussels, Belgium. T: 32 2 663 2036, F: 32 2 672 2077. SSGA Belgium is a branch office of State Street Global Advisors Limited. 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T: +971 (0)4 4372800, F: +971 (0)4 4372818. **France:** State Street Global Advisors Ireland Limited, Paris branch is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. State Street Global Advisors Ireland Limited, Paris Branch, is registered in France with company number RCS Nanterre 832 734 602 and whose office is at Immeuble Défense Plaza, 23-25 rue Delarivière-Lefoullon, 92064 Paris La Défense Cedex, France. T: (+33) 1 44 45 40 00. F: (+33) 1 44 45 41 92. **Germany:** State Street Global Advisors GmbH, Brienner Strasse 59, D-80333 Munich. Authorized and regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht ("BaFin"). Registered with the Register of Commerce Munich HRB 121381. T: +49 (0)89 55878 400. F: +49 (0)89 55878 440. **Hong Kong:** State Street Global Advisors Asia Limited, 68/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. T: +852 2103-0288. F: +852 2103 0200. **Ireland:** State Street Global Advisors Ireland Limited is regulated by the Central Bank of Ireland. Registered office address 78 Sir John Rogerson's Quay, Dublin 2. Registered number 145221. T: +353 (0)1 776 3000. F: +353 (0)1 776 3300. **Italy:** State Street Global Advisors Ireland Limited, Milan Branch (Sede Secondaria di Milano) is a branch of State Street Global Advisors Ireland Limited, registered in Ireland with company number 145221, authorized and regulated by the Central Bank of Ireland, and whose registered office is at 78 Sir John Rogerson's Quay, Dublin 2. 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Registered office: 20 Churchill Place, Canary Wharf, London, E14 5HJ. T: 020 3395 6000. F: 020 3395 6350. **United States:** State Street Global Advisors, One Iron Street, Boston MA 02210. T: +1 617 786 3000.

Emerging Markets Multi-Factor Currency Strategy Backtest Methodology

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The model portfolio performance shown was created by SSGA Currency Group. The hypothetical performance shown is based upon the performance of SSGA's EM Currency Multi Factor Fundamental Strategy. That strategy consists of a long only EM portfolio funded with a short portfolio comprised of EUR, USD, JPY, and GBP and levered 3 times. Leverage of 3 times means that the total EM target currency exposure is 3 times the amount invested in the strategy. The backtest assumes that the strategy invests exclusively in a long/short basket of forward foreign exchange contracts around an assumed fixed benchmark of 0%. These results are net of management fees in the form of an assumed 39 basis point annual fee and transaction costs in the form of an assumed bid/ask spread of 4 basis points on developed markets currencies and 14 basis points on emerging markets currencies, but net of an assumed transaction cost in the form of a bid/ask spread of 14 bps. The back-tested performance shown is not indicative of actual future performance, which could differ substantially. The model portfolio performance does not reflect actual trading and does not reflect the impact that material economic and market factors may have had on SSGA's decision-making. The results shown were achieved by means of a mathematical formula. The model performance shown is not indicative of actual future performance, which could differ substantially.

The results shown do not represent the results of actual trading using client assets but were achieved by means of the retroactive application of an investment process that was designed with the benefit of hindsight, otherwise known as back-testing. Thus, the performance results noted above should not be considered indicative of the skill of the advisor or its investment professionals. The back-tested performance was compiled after the end of the period depicted and does not represent the actual investment decisions of the advisor. These results do not reflect the effect of material economic and market factors on decision making. In addition, back-tested performance results do not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risks associated with actual investing.

No representation is being made that any client will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently significant differences between back-tested performance results subsequently achieved by following a particular strategy.

A complete list of the firm's composites and their descriptions is available upon request.

Important Disclosures

Investing involves risk including the risk of loss of principal.

Investments in issuers in different countries are often denominated in different currencies. Changes in the values of those currencies relative to the Portfolio's base currency may have a positive or negative effect on the values of the Portfolio's investments denominated in those currencies. The Portfolio may, but will not necessarily, invest in currency exchange contracts or other currency-related transactions (including derivatives transactions) to reduce exposure to different currencies. These contracts may reduce, take or eliminate some or all of the benefit that the Portfolio may experience from favorable currency fluctuations.

Diversification does not ensure a profit or guarantee against loss.

Currency Hedging involves taking offsetting positions intended to substantially offset currency losses on the hedged instrument. If the hedging position behaves differently than expected, the volatility of the strategy as a whole may increase and even exceed the volatility of the asset being hedged. There can be no assurance that the Fund's hedging strategies will be effective.

SSGA uses quantitative models in an effort to enhance returns and manage risk. While SSGA expects these models to perform as expected, deviation between the forecasts and the actual events can result in either no advantage or in results opposite to those desired by SSGA. In particular, these models may draw from unique historical data that may not predict future trades or market performance adequately. There can be no assurance that the models will behave as expected in all market conditions. In addition, computer programming used to create quantitative models, or the data on which such models operate, might contain one or more errors. Such errors might never be detected, or might be detected only after the Portfolio has sustained a loss (or reduced performance) related to such errors. Availability of third-party models could be reduced or eliminated in the future.

In the context of hedging equity investments against currency risk, these materials use the term "100% Hedging" to refer to portion of the nominal amount that is hedged at the beginning of a hedging period. After hedging 100% of the beginning nominal amount, the nominal amount may vary with time due to market forces, and the hedge will not be reset until the beginning of the next hedging period. In the interim, the hedge may vary from the 100% level. As such, a "100% Hedge" does not guarantee perfect hedging.

Currency Risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged. Investing in forwards is highly risky. Forward contracts are not standardized, nor are they traded on an index. Rather, they are negotiated privately between the counterparties and are not settled by a centralized clearing-house. Additionally, Forward contracts might not be marked-to-market and may subject a party to significant counterparty risk. Forward positions are considered highly leveraged because the initial margins are significantly smaller than the cash value of the contracts. The smaller the value of the margin in comparison to the cash value of the forward contract, the higher the leverage. There are a number of risks associated with forward investing including but not limited to counterparty credit risk, basis risk, currency risk, derivatives risk, foreign issuer exposure risk, sector concentration risk, leveraging and liquidity risks.

Derivative investments may involve risks such as potential illiquidity of the markets and additional risk of loss of principal.

These investments may have difficulty in liquidating an investment position without taking a significant discount from current market value, which can be a significant problem with certain lightly traded securities.

Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates raise, bond prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

A Factor strategy does not seek to replicate the performance of a specified cap-weighted index and as such may underperform such an index. The factors to which a Factor strategy seeks to deliver exposure may themselves undergo cyclical performance. As such, a Factor strategy may underperform the market or other Smart Beta strategies exposed to similar or other targeted factors. In fact, we believe that factor premia accrue over the long-term (5–10 years), and investors must keep that long time horizon in mind when investing. While diversification does not ensure a profit or guarantee against loss, investors in Smart Beta may diversify across a mix of factors to address cyclical changes in factor performance. However, factors may have high or increasing correlation to each other.

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The views expressed in this material are the views of Aaron Hurd, SSGA Currency Group through the period ended May 31, 2019, and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

This document provides summary information regarding the Strategy. This document should be read in conjunction with the Strategy's Disclosure Document, which is available from SSGA. The Strategy Disclosure Document contains important information about the Strategy, including a description of a number of risks.

ID22720-2624787.1.1.GBL.INST 0719
Exp. Date: 07/31/2020