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Frontier Markets
THE PATH TO TRANSFORMATION

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EXECUTIVE SUMMARY

- The cocktail of economic and political ingredients across many frontier markets is reminiscent of emerging markets of the late ’90s, suggesting that a long period of positive growth can ensue.
- Peace, improving politics, and a focus on economic management are attracting the investment necessary to help unlock frontier countries’ potential.
- With better economic backdrops comes capacity for well-run companies to potentially achieve higher levels of earnings growth.
- Over the past five years, frontier markets have provided better risk-adjusted returns than many other equity groups, including both developed and emerging markets.
- While volatility is to be expected, low correlations between frontier and global markets and extremely low intramarket correlations are strong arguments for an allocation to frontier markets.

THE PATH TO TRANSFORMATION—PEACE, POLITICS, INVESTMENT, AND GROWTH

When T. Rowe Price launched the Frontier Markets Equity Strategy in June 2014, we noted that many characteristics of the frontier countries were reminiscent of the emerging markets of the late ’90s—state of democracy, levels of investment, demographics, rising urbanization, nominal GDP levels, GDP per capita, and very low market capitalization (Figure 1, page 2). As we see improvements in these political and economic indicators, we should expect frontier markets to grow significantly in terms of market representation.

Starting with peace: Looking back to the mid-90s, there were close to 50 separate major conflicts going on between and in frontier markets (e.g., Sri Lanka’s civil war and conflict in the Niger Delta). That number has significantly reduced as of today, and the ending of these major conflicts has provided a foundation for political improvements. In many of the frontier countries, we have seen an embracing of the democratic process and several examples of peaceful handovers to political oppositions (e.g., Nigeria, Argentina, Sri Lanka, and Georgia). Notably, Pakistan’s government served its first full term without a coup in almost 70 years. The democratic process encourages governments to focus on economic improvements with the motivation of getting reelected and has led to completion of IMF programs, capital market liberalizations, and policies to attract investment.

Vietnam is one such case, where levels of foreign direct investment (FDI) have been rising year-on-year, with its booming electronics market attracting the lion's share of inflows as the country becomes a global manufacturing hub (Figure 2, page 3). Meanwhile, Argentina is playing catch-up as Mauricio Macri's administration continues to enact market-friendly reform, which has won praise and renewed the confidence of international investors.

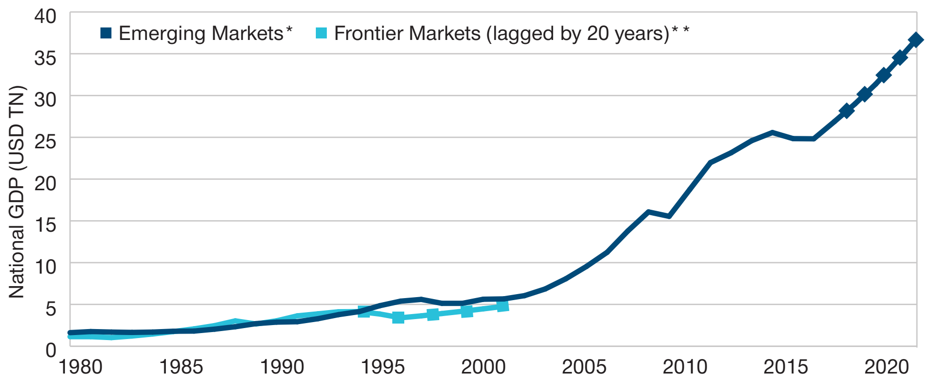
Many frontier countries also have debt and inflation under control. The combination is a powerful driver for growth, with frontier markets consisting of some of the fastest-growing economies globally. The group as a whole is expected to outpace emerging markets and significantly outpace developed markets in terms of GDP growth throughout the rest of this decade and likely beyond.

Our belief is that this favorable economic backdrop will translate into robust earnings growth for well-managed companies, in turn leading to better investment returns. We saw this in the last decade with the emerging markets equity asset class where country investment returns were highly correlated to nominal GDP growth. We have identified many companies that have the ability to generate positive and potentially sustainable double-digit earnings growth for many years to come. In fact, our bottom-up fundamental research shows that there are some companies with visible earnings growth that could potentially reach 100% over three years.

FIGURE 1: Frontier Markets' Growth Potential Is Similar to That of Emerging Markets in the Late '90s

Nominal GDP (USD Trillions)

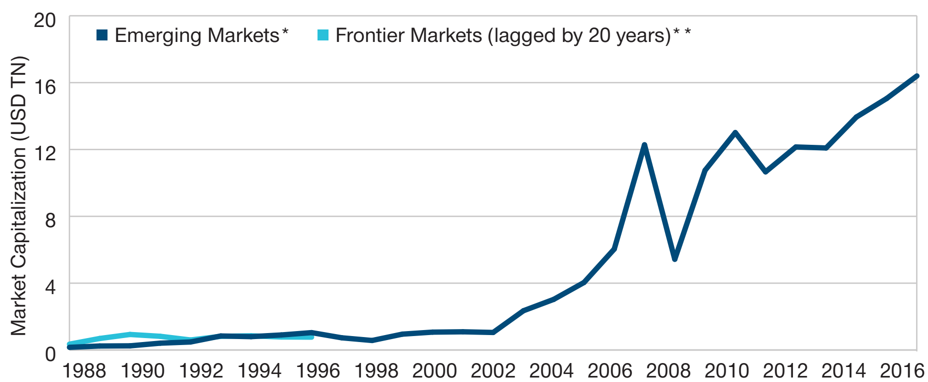
As of December 31, 2016



Source: HSBC

Total Market Cap (USD Trillions)

As of December 31, 2016



Source: HSBC

FRONTIER MARKETS IN A PORTFOLIO CONTEXT

Over the past five years, frontier markets significantly outperformed emerging markets and most developed market regions on a risk-adjusted basis, while exhibiting lower standard deviation than these asset classes (Figure 3, page 3). Efficient frontier analysis easily confirms the benefit of including an allocation to the asset class. Of course, we should still expect some volatility from frontier, markets but in a portfolio context, one of their key attributes is a very low level of correlation between other markets, and therefore, other asset classes, so, adding frontier market exposure to portfolios provides significant diversification benefits.

Frontier economies are at an earlier stage of development and, in most cases, are not tied into global manufacturing supply chains and are therefore less impacted by global cycles. Even though frontier's correlation with global stocks has increased over the last couple of years, it still remains very low at 0.44 (Figure 4, page 3). In the period in 2012 when correlations were higher, the UAE and Qatar were significant parts of the frontier asset class (since then reclassified to emerging market), and there was much higher participation from non-dedicated investors, a situation that tends to increase correlations as flows become more driven by global markets.

* Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, South Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Russia, South Africa, Taiwan, Thailand, Turkey, United Arab Emirates

** Argentina, Bahrain, Bangladesh, Bosnia and Herzegovina, Botswana, Bulgaria, Croatia, Estonia, Ghana, Jamaica, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Lithuania, Mauritius, Morocco, Nigeria, Oman, Pakistan, Romania, Serbia, Slovenia, Sri Lanka, Trinidad and Tobago, Tunisia, Ukraine, Vietnam, Zimbabwe, Saudi Arabia

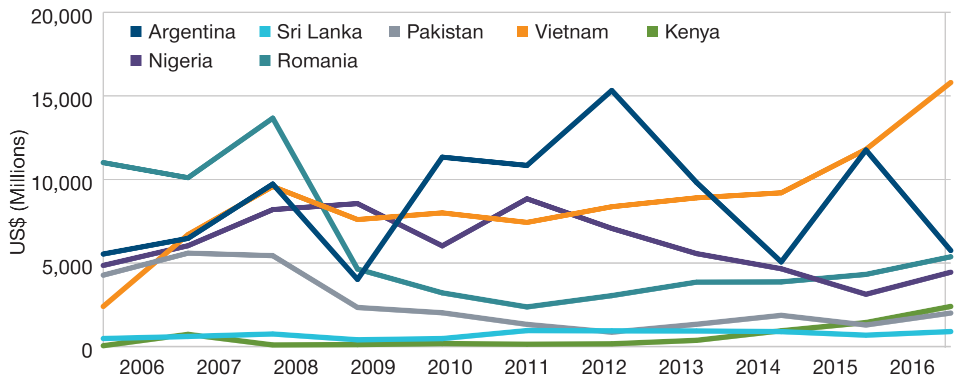
According to our research, the current level of this "crossover" or non-dedicated investment in frontier markets is extremely low, leaving us more comforted that the asset class should not be affected by their outflows (particularly the situation of non-dedicated investors cutting their "riskiest" or off-benchmark positions during tough times). Looking at the top 15 emerging market portfolios, only seven of them have any frontier market exposure, and typically, that consists of just one or two stock holdings (Figure 5, page 4). That leads us to advise that if you are seeking exposure you need a dedicated frontier portfolio to access the opportunity in these markets. Gaining exposure to a couple of holdings via your emerging market manager is not enough.

Another attractive feature of frontier markets is the heterogeneity of individual frontier countries, making correlations between the countries themselves extremely low. Frontier markets are effectively "dancing to their own tune" with intercorrelations of, on average, 0.05 for the top 10 frontier markets versus 0.45 for the top 10 emerging markets, resulting in much lower than expected correlations and volatility.

One area where there is correlation with global trends is in the oil and commodity space. While the sector allocation is low (energy and materials represent 12.3% of the MSCI Frontier Markets Index[1]), several of the large index countries are net oil exporters and oil can represent a significant portion of fiscal revenues and impact overall economic health. The large oil exporters, are Kuwait, Oman, Kazakhstan, and Nigeria, along with non-index Saudi Arabia. There are also several countries largely dependent on at least one other commodity, although typically, these tend to be the smaller African nations (e.g., Zambia's dependency on copper).

FIGURE 2: **Countries Like Vietnam Are Attracting Huge Levels of FDI**

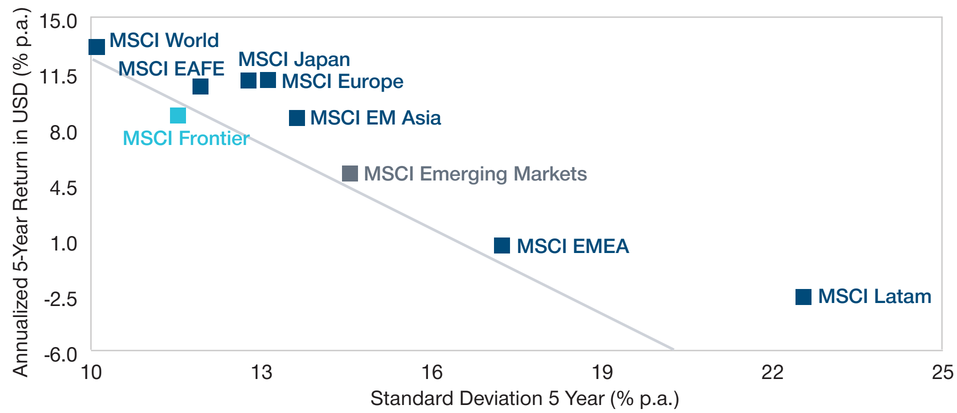
FDI inflows (USD millions, rolling 4Q) as of December 31, 2016



Sources: World Bank and Haver Analytics

FIGURE 3: **Frontier Markets Provided Attractive Risk-Adjusted Returns**

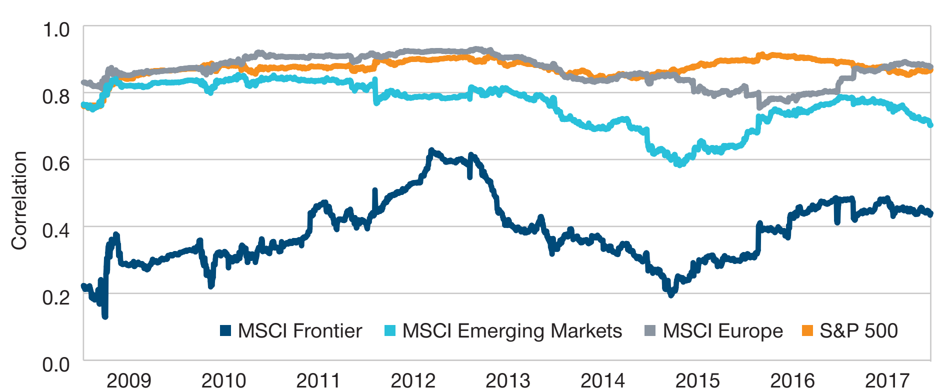
As of June 30, 2017



Sources: FactSet and MSCI

FIGURE 4: **Frontier Markets if You Are Looking for Diversity**

As of June 16, 2017



Sources: FactSet and MSCI

[1]As of June, 30 2017

Frontier markets as a whole have therefore not been immune to the downward shift in oil and other commodities. However, many of the frontier countries have adjusted to the new oil price reality by tweaking budgets and currencies and are now, in many cases, much better positioned to weather future volatility. Some economies, such as Saudi Arabia's, are also taking initiatives to diversify away from oil and commodity dependence by channeling investment across different sectors.

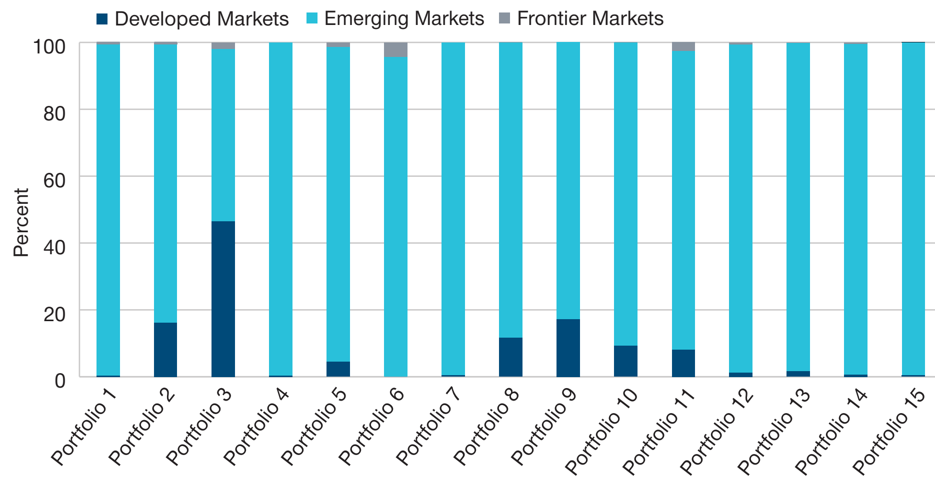
NOW COULD BE THE TIME TO INVEST IN FRONTIER

Now could potentially be a particularly good time to allocate to frontier markets in our opinion. Frontier investing is still in its formative stages with investment coverage relatively scarce, making the asset class much less efficient than its emerging and developed market counterparts. By making at least a small allocation to frontier today, and staying invested in what are predominantly long-term investment opportunities, clients can potentially achieve strong investment returns as companies and economies grow quickly from a very low base. While there may be pockets of volatility, the longer-term direction of travel is clear.

Supporting this argument are frontier markets' low valuations, which look relatively attractive when compared with other asset classes. Frontier market performance, as measured by the MSCI Frontier Markets Index, peaked in August 2014, from which point the market declined by 36%—amid sluggish global growth and the end of the commodities boom—to reach a trough in January 2016. Since then, frontier markets rebounded 25% as of the end of June, but the index still trails its peak levels by a significant margin. Corporate earnings have meanwhile outpaced these returns, resulting in cheap valuation levels on an array of metrics (Figure 6).

FIGURE 5: Largest Emerging Market Portfolios by Regional Exposure

As of June 30, 2017



Source: T. Rowe Price

FIGURE 6: Valuations Are Relatively Attractive Across Multiple Metrics

As of June 30, 2017

Valuation Metrics	MSCI Frontier Markets	MSCI Emerging Markets	MSCI World
Price-to-Earnings (NTM)	11.7x	12.4x	16.4x
Price-to-Book	1.7x	1.7x	2.3x
Return on Equity	11.8%	11.5%	11.2%
Dividend Yield	3.8%	2.0%	2.2%

Sources: FactSet and MSCI

Low valuations come in tandem with a continuation of positive macroeconomic change and resulting news flow. Recent examples include Argentina, which typifies the investment case for the asset class as we define it. President Mauricio Macri was elected in November 2015, and through his administration's focus on market-friendly reform, he has successfully renewed investor confidence in the country, attracting record levels of FDI. Necessary adjustments to the fiscal budget and currency have helped return Argentina to positive growth and have been supportive to local businesses.

Another good example of a country in the earlier stages of macroeconomic transformation is Sri Lanka, where we recently took an investment trip. The country has weathered a two-year period of relative inactivity and consequent underperformance, prompting participation in an IMF program that includes the formulation and oversight of proactive economic plans. The coalition government elected in 2015 is showing some seriousness in driving reforms, and we see a gradual adjustment playing out with support from a new wave of FDI led by China, a visible construction boom, and increasing tourism. While some risks remain, well-run companies have been performing strongly and are well positioned for future growth.

WHY T. ROWE PRICE FOR FRONTIER MARKETS?

With the frontier markets strategy having just reached its third anniversary with almost 800 basis points of alpha (annualized) under its belt, we would like to highlight the key differentiators that have driven the outperformance versus both the benchmark and peers:

- The dedicated nature of the six-member frontier markets equity team is a particularly unique characteristic among competitors' teams. Led by me, the team spends its time researching opportunities in frontier markets and spends much of this on the ground meeting with company management teams and industry experts in local frontier countries. The analysts and I apply the same high level of scrutiny and due diligence in our analysis as T. Rowe Price's research platform has long been known for.

- We also leverage an advantage via our broad definition of frontier markets, investing in countries beyond the MSCI Frontier Markets Index that have attractive characteristics, such as Saudi Arabia and Georgia. Our opportunity set is not limited by the index, and over 50% of the companies we invest in are not currently represented in the MSCI Frontier Markets Index.

- Unlike other managers, we employ a "pure-only" approach to avoid overlap with emerging markets, and therefore do not invest in smaller emerging countries or in stocks of countries that have transitioned to emerging status.

- Our fixed income team, which has been covering these markets for a number of years, also offers invaluable support. The top-down approach of the fixed income analysts' complements the bottom-up fundamental research of the equity analysts, providing them with the macroeconomic "weather forecast" that allows them to identify stocks with confidence.

- Finally, and linked to our first point, the team's ability to identify opportunities before they become a consensus overweight, as pertains to both individual stocks and countries, has been a great success. A prime example has been our long-term positive view of companies in Vietnam. We were early to invest, holding over twice the index weight in 2014 and 2015. Our overweight to Vietnam was a significant contributor to performance in calendar years 2015 and 2016 as the investment thesis played out, with support from the lifting of foreign ownership restrictions on listed companies, which improved liquidity and stock market functioning. The country is now a consensus overweight with competitors mainly focused on Vietnam's large-capitalization names.

OPPORTUNITIES TO ADD VALUE

To hit on the scarcity point, these markets remain vastly under-researched and under-owned, which makes it one of the least efficient global equity groups. T. Rowe Price is one of a small number of companies that manage a frontier markets strategy and, even more uniquely, one that has a dedicated team in place to manage the strategy rather than running it out of a preexisting emerging markets team as is typical of competitors. Sell-side coverage is light; the top 20 holdings of the MSCI Frontier Markets Index have an average of only five covering analysts compared with the 27 analysts covering the top 20 holdings of the MSCI Emerging Markets Index. This presents a huge opportunity for those managers willing to spend the time and resources to conduct the same due diligence in their research process as others would for more developed markets. By deploying a high-quality team to do just that, we have built a successful three-year track record with almost 800 basis points of alpha (annualized), driven primarily by stock selection (Figure 7, page 6).

NEAR-TERM RISKS TO CONSIDER

Given the infancy of many frontier economies, keeping a close watch on the potential risks is vital. We have identified a handful of near-term risks that, if navigated properly, could also present opportunities.

While frontier economies are moving away from commodity reliance, for many countries this is an ongoing adjustment, and low or volatile oil and commodity prices still weigh on both government and corporate balance sheets. One example is net oil exporter Nigeria, where businesses have yet to properly adjust for the fall in oil price and are, on average, assuming a US$139/barrel breakeven oil price for 2017, despite the current oil price being closer to the US$50 mark as of the end of June.

Being well tuned in to oil trends has worked well for the strategy. Despite most frontiers being oil importers versus exporters, the index is more heavily weighted toward exporters, making oil

FIGURE 7: **Focused Approach Allowed Us to Outperform**

As of June 30, 2017
Figures are Calculated in U.S. Dollars

				Annualized		
	Three Month	YTD	1 Year	2 Year	3 Year	Since Inception[1]
Frontier Markets Equity Composite (Gross)	9.60%	19.12%	26.82%	9.33%	4.91%	4.91%
Frontier Markets Equity Composite (Net)[2]	9.35	18.58	25.65	8.31	3.93	3.93
MSCI Frontier Markets Index[3]	6.27	15.89	19.70	2.82	-2.97	-2.97
Value Added (Gross Composite)[4]	**3.33**	**3.23**	**7.12**	**6.51**	**7.88**	**7.88**

Past performance cannot guarantee future results.

[1]Composite incepted June 30, 2014.

[2]Source for composite performance: T. Rowe Price. Net-of-fees performance reflects the deduction of the highest applicable management fee (Model Net Fee) that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints. Please be advised that the composite may include other investment products that are subject to management fees that are inapplicable to you but are in excess of the Model Net Fee. Therefore, the actual performance of all the portfolios in the composite on a net-fee basis will be different and may be lower than the Model Net Fee performance. However, such Model Net Fee performance is intended to provide the most appropriate example of the impact management fees would have by applying management fees relevant to you to the gross performance of the composite. Supplemental information. Please see the GIPS® Disclosure page for additional information on the composite.

[3]Source for MSCI data: MSCI. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any MSCI data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, reviewed, or produced by MSCI. Returns shown with gross dividends reinvested. Returns shown with gross dividends reinvested.

[4]The Value Added is shown as Frontier Markets Equity Composite (Gross of Fees) minus MSCI Frontier Market Index.

Other investment vehicles are available for the Frontier Markets Equity Strategy in jurisdictions where they are registered for sale.

price uncertainty a headline risk for the asset class. Understanding the drivers behind the occasional oil-related crisis or event has been key to outperformance, as evidenced by the strategy's ability to navigate the oil price collapse in 2015, while competitors and passive strategies ran into trouble.

For frontier Asian economies, China's investment in its smaller neighbors has been transformative. Chinese companies looking to build lower-cost capacity have turned to investment in Vietnam, Bangladesh, and Myanmar, which have benefited from the support to their manufacturing and processing industries and infrastructure projects. However, as a result, these countries are becoming more incorporated into China's supply chain, and a China slowdown therefore poses some risk to investment levels. For Vietnam, this risk could be considered less pressing, given that China is only the eighth top foreign investor. Meanwhile, government officials are also discussing limiting Chinese investment as so far much of this has been focused on exploiting Vietnam's natural resources.

Finally, impacting the asset class as a whole is the rate at which some frontier economies are improving and, as a result, transitioning to emerging market status. Pakistan, which was reclassified to the MSCI Emerging Markets Index in June, is one such country where improved economic management by a reform-minded, more peaceful government attracted significant investment in the form of the "China Pakistan Economic Corridor"—a project which led to an investment of US$46 billion from China.

By staying true to our pure definition of frontier, as adopted from inception, and by being an early mover into transitioning countries, the strategy has benefited significantly from the runup period prior to investments moving from the frontier to the emerging markets index.

While some of frontier's strongest economies will undoubtedly become emerging markets in due course, our broad investment universe, which includes all countries not classified as emerging, serves as a buffer. Countries in Africa are still a relatively untapped market, despite being home to the most favorable demographics and fastest rates of urbanization globally. We have been active in researching these vastly overlooked opportunities with recent investment trips to Botswana, Zambia, Uganda, and Tanzania.

GIPS® Disclosure

Frontier Markets Equity Composite

Period Ended June 30, 2017
Figures are Shown in U.S. Dollars

				YTD
	2014[2]	2015	2016	2017
Gross Annual Returns (%)	-1.60	-11.57	11.41	19.12
Net Annual Returns (%)[1]	-2.07	-12.42	10.36	18.58
MSCI Frontier Markets Index (%)	-11.06	-14.07	3.16	15.89
Composite 3-Yr St. Dev.	N/A	N/A	N/A	10.12
MSCI Frontier Markets Index 3-Yr St. Dev.	11.01	12.43	11.51	11.19
Composite Dispersion	N/A	N/A	N/A	N/A
Comp. Assets (Millions)	7.0	55.2	55.3	58.9
# of Accts. in Comp.	1	2	2	1
Total Firm Assets (Billions)	749.6	772.4	817.2	906.5

[1]Reflects deduction of highest applicable fee schedule without benefit of breakpoints. Investment return and principal value will vary. **Past performance cannot guarantee future results.** Monthly composite performance is available upon request. See below for further information related to net of fee calculations.
[2]June 30, 2014 through December 31, 2014.

T. Rowe Price (TRP) has prepared and presented this report in compliance with the Global Investment Performance Standards (GIPS®). TRP has been independently verified for the 20-year period ended June 30, 2016 by KPMG LLP. The verification report is available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

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Gross performance returns are presented before management and all other fees, where applicable, but after trading expenses. Net of fees performance reflects the deduction of the highest applicable management fee that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints. Gross and net performance returns are net of nonreclaimable withholding taxes on dividends, interest income, and capital gains. Effective June 30, 2013, portfolio valuation and assets under management are calculated based on the closing price of the security in its respective market. Previously portfolios holding international securities may have been adjusted for after-market events. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request. Dispersion is measured by the standard deviation across asset-weighted portfolio returns represented within a composite for the full year. Dispersion is not calculated for the composites in which there are five or fewer portfolios.

Some portfolios may trade futures, options, and other potentially high-risk derivatives which generally represent less than 10% of a portfolio.
Benchmarks are taken from published sources and may have different calculation methodologies, pricing times, and foreign exchange sources from the composite. Composite policy requires the temporary removal of any portfolio incurring a client initiated significant cash inflow or outflow greater than or equal to 15% of portfolio assets. The temporary removal of such an account occurs at the beginning of the measurement period in which the significant cash flow occurs and the account re-enters the composite on the last day of the current month after the cash flow. Additional information regarding the treatment of significant cash flows is available upon request.

The firm's list of composite descriptions and/or a presentation that adheres to the GIPS® standards are available upon request.

Fee Schedule

Frontier Markets Equity Composite. The Frontier Markets Equity Composite seeks long-term capital appreciation through investing in companies located, or with primary operations, in Frontier markets (defined as thosemarkets which are not in the MSCI AC World Index) which are experiencing sustainable, strong earnings growth and trading at reasonable valuations relative to market/sector averages. (Created June 2014)

First $50 million	95 basis points
Next $200 million	85 basis points
Above $250 million	80 basis points
Minimum separate account size	100 million USD

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