

# Pax MSCI International ESG Index Fund:

## ESG Factors Drive Stronger Returns with Lower Risk Over Its First 4 Years

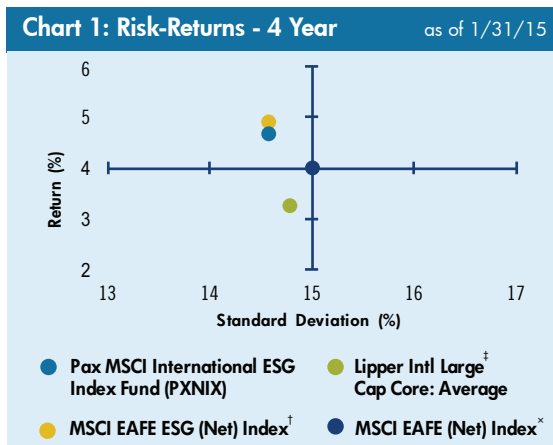
In January 2011, Pax World was an early mover in launching a strategy designed to provide U.S. investors with market exposure to international equities while integrating environmental, social and governance (ESG) factors into index design and portfolio construction. Originally launched as an ETF and converted to a mutual fund in 2014, the Pax MSCI International ESG Index Fund (the Fund) seeks to closely replicate the performance of the MSCI EAFE ESG Index (EAFE ESG Index)<sup>†</sup>, in the belief that investing in companies with better ESG profiles relative to the MSCI EAFE Index (EAFE)<sup>x</sup> has the potential to yield strong risk-adjusted returns. In its first four years the Fund has done just that, delivering an increment of excess return above MSCI EAFE Index, with less risk, and ranking in the top quintile of the Lipper International Large Cap Core peer group.<sup>‡</sup> It has proved to be a solid, cost-effective option for core exposure to international equities.

Chart 1 provides a visualization of the long-term results that the Fund has achieved, delivering better returns than EAFE with lower risk. Over its first four years, the Fund delivered a return

### KEY TAKEAWAYS

- In its first four years, the Pax MSCI International ESG Index Fund has proved to be a solid cost-effective option for core exposure to international equities.
- The Fund has delivered better returns with lower risk than the MSCI EAFE Index.
- Our analysis indicates that the Fund's strategy of investing in companies with strong ESG profiles positively contributed to performance.

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**Table 1: Risk-Returns - 4 Year** as of 1/31/15

Returns (%) <sup>o</sup>	4-Year Return	Standard Deviation (%)
<b>Pax MSCI International ESG Index Fund (PXNIX)</b>	<b>5.13</b>	<b>14.48</b>
MSCI EAFE (Net) Index	4.26	14.89
Lipper Intl Large Cap Core Average	3.61	14.69
MSCI EAFE ESG (Net) Index	5.40	14.48

<sup>o</sup>Average annual returns for the Institutional Class. Figures include reinvested dividends, capital gains distributions, and changes in principal value. Risk statistics are calculated using the closest month-end date since the calculations are based on monthly returns. Therefore, risk statistics for the 4 year anniversary period were used in this analysis.

RETURNS (%)<sup>\*</sup> as of January 31, 2015

Average Annual Return (%)

	1-year	3-year	Since Inception
Pax MSCI International ESG Index Fund <sup>1</sup>			
Institutional Class (PXNIX) (Inception Date: 1/27/11)	0.47	10.35	4.77
MSCI EAFE (Net) Index <sup>x</sup>	-0.43	9.33	3.95
Lipper Intl Large Cap Core Average <sup>‡</sup>	0.48	8.39	3.29
MSCI EAFE ESG (Net) Index <sup>†</sup>	1.42	10.47	5.12

The returns for the Pax MSCI International ESG Index Fund - Institutional Class (PXNIX) as of 6/30/2016 were: 1 year: -9.15%, 3 year: 2.33%, Inception (01/27/2011): 2.66%.

Performance data quoted represent past performance, which does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data quoted. For most recent month-end performance information visit [paxworld.com](http://paxworld.com).

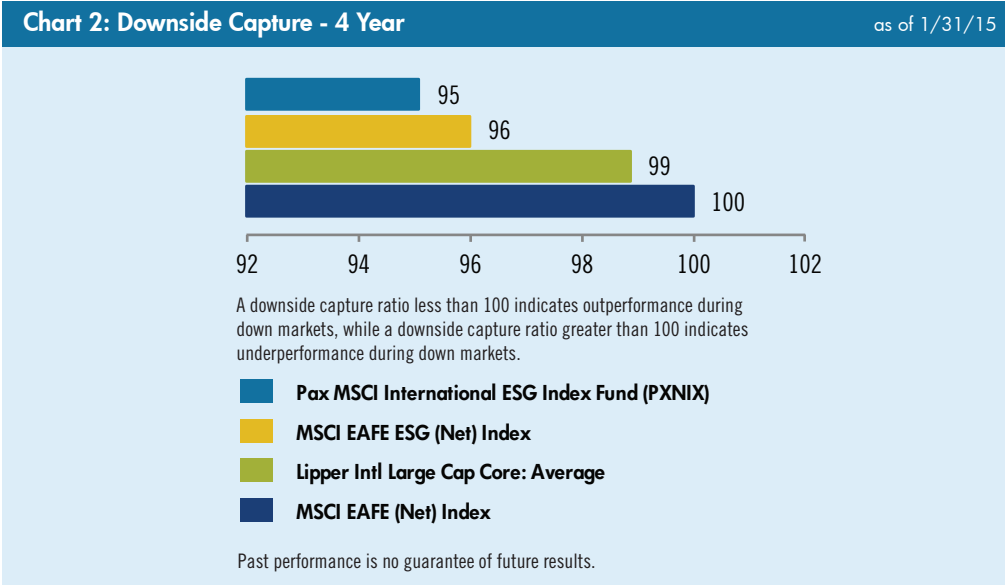
<sup>\*</sup>Figures include reinvested dividends, capital gains distributions, and changes in principal value.

As of 4/1/16 prospectus, total annual Pax MSCI International ESG Index Fund operating expenses, gross of any fee waivers or reimbursements, for Individual Investor Class and Institutional Class shares are 0.80% and 0.55%, respectively.

<sup>1</sup>The fair value pricing adjustment is the difference between PXNIX performance including fair value pricing versus PXNIX performance excluding fair value pricing. Fair value pricing performance adjustments for PXNIX as of 01/31/2015 were: 1 year: -0.50%, 3 year: -0.19%, 4 year: -0.13% and Inception: -0.13%. PXNIX returns excluding fair value pricing as of 01/31/2015 were: 1 year: 0.97%, 3 year: 10.54%, 4 year: 5.26% and Inception: 4.90%.

of 5.13% with a standard deviation of 14.48% vs. EAFE's return of 4.26% with a standard deviation of 14.89%. The Fund also significantly outperformed its Lipper international peer group average, which returned only 3.61% with a higher standard deviation of 14.69%.

Chart 2 provides another perspective on risk using the downside capture ratio, a measure of how a portfolio performs in down markets. Over the Fund's initial 4 years it produced a 95% downside capture ratio, better preserving value during down markets relative to the EAFE Index and Lipper peers. These risk statistics provide some support for the growing belief among investors that integration of ESG factors may help reduce risk<sup>1</sup>.



Given that the key differentiator of the Fund relative to EAFE is its focus on companies with higher ESG scores, a closer examination of its performance provides insights into the key role that ESG factors have in fact played in the strong performance. While four years is admittedly a modest time frame, we are nonetheless encouraged by our analysis, which identifies the positive contribution that strong ESG companies made to performance.

Before we focus on a further analysis of performance, let's first look at index and portfolio construction to provide some context.

**Index Construction and ESG Considerations**

The EAFE ESG Index is a capitalization weighted index that provides exposure to companies organized or operating in 21 developed market countries (excluding the U.S. and Canada) around the world with better environmental, social and governance (ESG) profiles relative to their peers in EAFE. Each company in the Index has been assigned an Intangible Value Assessment (IVA) rating by MSCI ESG Research. The IVA rating, which uses a seven point scale from AAA to CCC, expresses how well a company manages its most material ESG risks and opportunities. In addition, companies are assigned an Impact Monitor (IM) score (0-10), which captures the severity of company-specific ESG-related controversies. Companies must have an IVA rating of 'BB' or above and an IM score of 3 or above to be eligible for addition to the Index.

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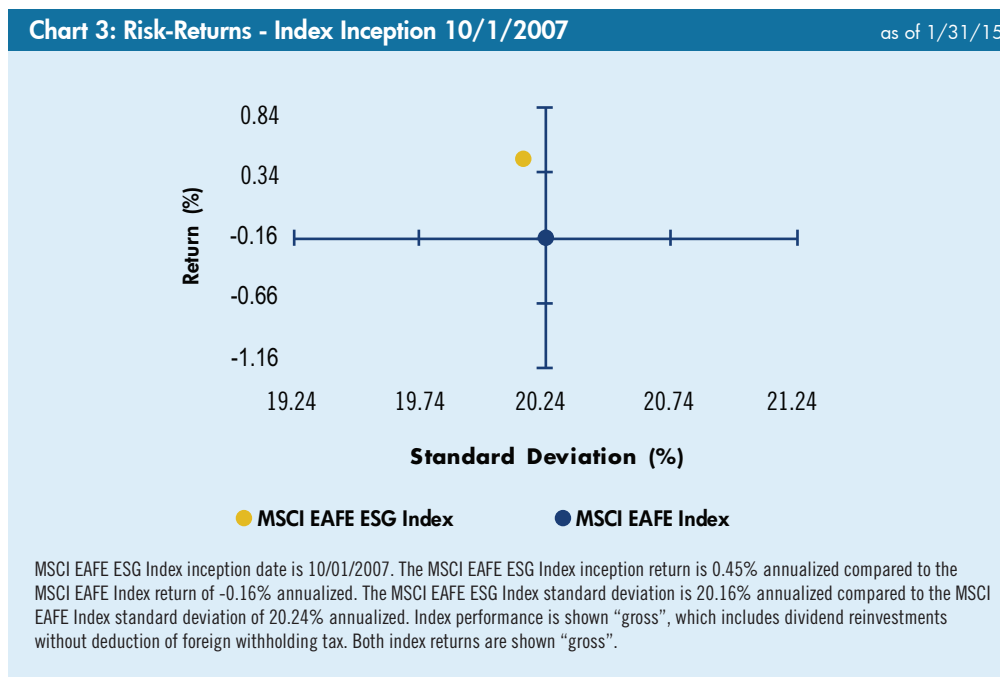
Past performance is no guarantee of future results.

## Portfolio Management

The Fund management team uses an optimization process to control portfolio risk with the objectives of minimizing tracking error relative to the EAFE ESG Index and managing the total number of holdings in an effort to reduce trading costs and other fund-related expenses.

The optimized portfolio is intended to closely replicate the EAFE ESG Index with the objective of delivering returns that are competitive with EAFE. The optimization process has a preference for higher-ranked ESG companies when trying to solve for risk constraints. At Fund inception and through much of the first three years, the Fund's size limited its ability to fully replicate the EAFE ESG Index. Through optimization, the tracking error of the Fund to the EAFE ESG Index was maintained in an approximate range of 1.00 to 1.50%. In 2014, as the Fund approached a size that facilitated fuller replication, we were able to reduce tracking error to 0.25%.

The tracking error of the Fund to EAFE is largely indicative of the ESG bias that the Fund has relative to EAFE. As the Fund grew in size and we were able to more closely replicate the ESG EAFE Index, the resulting tracking error of the Fund to the EAFE Index has come down from approximately 2.30 to 1.32. Nevertheless, we believe that by maintaining tracking error to EAFE in a modest range around current levels, the ESG influence in the Fund will remain sufficient enough to have the opportunity to continue to generate positive risk adjusted returns. This belief is supported by the longer term risk/reward of the EAFE ESG Index relative to the EAFE Index as demonstrated in Chart 3.



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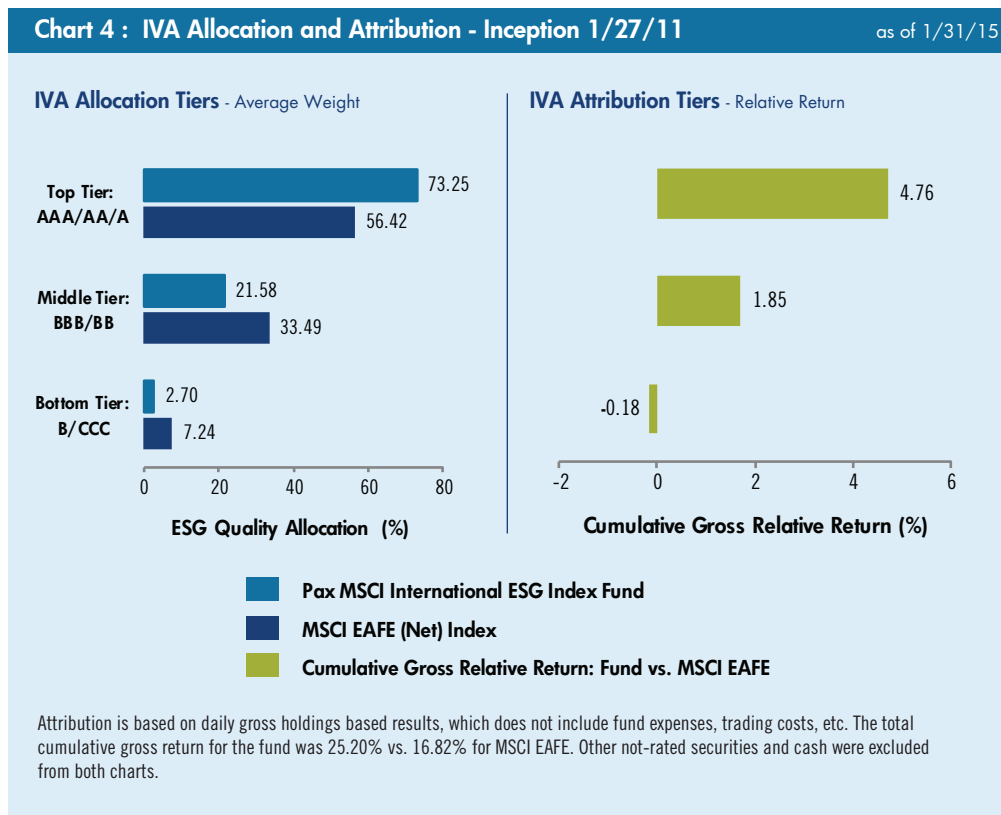
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## Measuring the ESG Performance of the Fund

The IVA rating, which ranks companies' overall ESG profiles relative to peers, is a key factor in the EAFE ESG Index and therefore the Fund's stock selection process. To better understand the ESG profile of the Fund and examine the ESG contribution to performance relative to EAFE, we delineated the Fund's holdings into the three IVA tiers:

- **Top Tier - AAA /AA/A rated companies – highest rated companies**
- **Middle Tier - BBB/BB rated companies – average rated companies**
- **Bottom Tier - B/CCC rated companies – lowest rated companies**

Chart 4 depicts the weight of each of these tiers and their contribution to performance since inception. The Fund's Top Tier allocation has averaged 73% over the since inception period compared to EAFE's allocation of 56%. The Fund has averaged a lower allocation to both the average and lowest rated companies relative to EAFE. The large overweight to Top Tier companies had the largest positive contribution to relative performance, providing further evidence to our belief of the materiality of ESG factors on the performance since the Fund's inception. Middle Tier companies also contributed positively to performance, with benefits attributable to both the underweight to Middle Tier companies and stock selection among this group. The Bottom Tier companies had a negative and negligible impact on relative performance.



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Past performance is no guarantee of future results.

When we review attribution results at the sector level, 7 out of the 10 sectors provided positive contribution to relative performance vs. EAFE (see Table 2 below). The relative contribution at the total fund level is split approximately 50/50 between the Fund's sector variation relative to EAFE and stock selection. The sector contribution is largely due to the modest difference in sector weights between the Fund and EAFE (the active weight), with individual sector allocation impacts on relative return in a range of 0.99% to -0.04%.

Table 2: Sectors		as of 1/31/15	
Sector	Active Weight (%)	Relative Contribution vs. EAFE (%)	Relative Contribution IVA Tier
Financials	1.63	2.41	Top Tier
Industrials	-0.43	2.32	Top Tier
Materials	-1.59	1.71	Top Tier
Health Care	1.73	1.26	Top Tier
Consumer Discretionary	1.30	1.25	Middle Tier
Telecomm. Services	1.06	0.89	Top Tier
Utilities	-1.47	0.43	Middle Tier
Energy	-2.20	-0.22	Bottom Tier
Information Technology	-0.50	-0.51	Bottom Tier
Consumer Staples	-0.30	-1.81	Bottom Tier

Subject to change.

Active weight is the difference in sector weights between the Fund and EAFE.

IVA Tiers: Top Tier - AAA/AA/A rated companies – highest rated companies, Middle Tier - BBB/BB rated companies – average rated companies and Bottom Tier - B/CCC rated companies – lowest rated companies.

Attribution is based on daily gross holdings based results, which does not include fund expenses, trading costs, etc. The total cumulative gross return for the fund was 25.20% vs. 16.82% for MSCI EAFE. Other not rated securities and cash were excluded from both tables.

When we drill down deeper, focusing on each sector's underlying ESG performance impact utilizing the three tiers described above, we see that in 5 out of the 7 positive contributing sectors the Top Tier group (which is made up of the highest-rated ESG companies) contributed the most to performance. Three sectors with negative relative contributions had the greatest contribution from Bottom Tier companies.

This raises some interesting questions about the impact of ESG factors within sectors. While beyond the scope of our current analysis, it is just one example of the fertile ground for further research exploring the possible reasons for differing performance across sectors.

## Conclusion

We are encouraged that since the Fund's inception, it has delivered better returns with lower risk than the MSCI EAFE Index. We are particularly encouraged by the contribution of the companies with high ESG ratings, which had a positive impact on relative performance over this period at the

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aggregate fund level and in the majority of the underlying sectors. We believe that four years is a long enough period to support the notion that incorporating ESG factors can be additive to building international equity portfolios that potentially deliver stronger performance with lower risk over time. We look forward to continuing to analyze performance and build upon this initial work to garner additional confirmation and new insights.

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## Pax World Management LLC

Pax World Management LLC, investment adviser to Pax World Funds, is a pioneer in the field of sustainable investing. Pax World integrates environmental, social and governance (ESG) research into its investment process to better manage risk and deliver competitive long-term investment performance. For over 45 years, Pax World has made it possible for investors to align their investments with their values and have a positive social and environmental impact. Today, its platform of sustainable investing solutions includes a family of mutual funds, as well as separately managed accounts. For more information, visit [paxworld.com](http://paxworld.com).

## Disclosures

<sup>1</sup>The MSCI EAFE ESG (Net) Index is designed to measure the performance of equity securities of issuers organized or operating in Europe, Australasia and the Far East that have high environmental, social and governance (ESG) ratings relative to their sector and industry group peers, as rated by MSCI ESG Research annually. The MSCI EAFE ESG Index includes or utilizes data, ratings, analysis, reports, analytics or other information or materials from MSCI's ESG Research Group within Institutional Shareholder Services Inc., an indirect wholly-owned subsidiary of MSCI. Performance for the MSCI EAFE ESG Index is shown "net," which includes dividend reinvestments after deduction of foreign withholding tax. One cannot invest directly in an index.

<sup>2</sup>The MSCI EAFE (Europe, Australasia, Far East) (Net) Index is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. The MSCI EAFE Index consists of the following 21 developed market country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. Performance for the MSCI EAFE Index is shown "net," which includes dividend reinvestments after deduction of foreign withholding tax. One cannot invest directly in an index.

<sup>3</sup>Lipper International Large-Cap Core classification tracks the results of funds that, by portfolio practice, invest at least 75% of their equity assets in companies strictly outside of the U.S. with market capitalizations (on a three-year weighted basis) above Lipper's international large-cap floor. International large-cap core funds typically have an average price-to-cash flow ratio, price-to-book ratio, and three-year sales-per-share growth value compared to their large-cap specific subset of the S&P/Citigroup World ex-U.S. BMI. This classification includes both ETFs and active retail mutual funds. Lipper International Large-Cap Core Average is the average return of the entire Lipper International Large-Cap Core classification. One cannot invest directly in index. The Pax MSCI International ESG Index Fund Institutional Class (PXNIX) had a percentile rank of top 13%, ranking 13 out of 99 in the Lipper International Large-Cap Core category since inception as of 1/31/15.

Price-to-cash flow ratio represents the amount an investor is willing to pay for a dollar generated from a particular company's operations. It shows the ability of a business to generate cash and act as a gauge of liquidity and solvency.

Price-to-book ratio represents equity securities within the Fund's portfolio, and is not intended to demonstrate Fund growth, income earned by the Fund, or distributions made by the Fund.

Sales-per-share growth is a ratio that computes the total revenue earned per share over a 12-month period. It is calculated by dividing total revenue earned in a fiscal year by the weighted average of shares outstanding for that fiscal year.

Standard Deviation measures a Fund's variation around its mean performance; a high standard deviation implies greater volatility.

Downside capture - measures an investment manager's overall performance in down-markets and is used to evaluate how well or poorly an investment manager performed relative to an index during periods when that index has dropped. A downside capture ratio less than 100 indicates that the investment manager has outperformed its index during down-markets, while downside capture ratio greater than 100 indicates that the investment manager has underperformed its index during down-markets.

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## Disclosures, continued

Tracking Error: A divergence between the price behavior of Fund and the price behavior of a benchmark.

<sup>1</sup>Fair-Valuation Pricing: International stocks and index values are calculated using closing prices on underlying securities in their local markets. However, many local markets close before U.S. markets so a local price of an international stock is stale when a U.S. Fund's Net Asset Value (NAV) is calculated at 4pm eastern standard time (EST). This is influential since price-affecting market information continues to enter the marketplace after the local markets close. Therefore, applying fair-valuation pricing provides an estimation of the international stock's value at the 4pm EST. NAV calculation. Fair value pricing may require subjective determinations about the value of a security or other asset, and fair values used to determine a Fund's NAV may differ from quoted or published prices, or from prices that are used by others, for the same investments. Also, the use of fair value pricing may not always result in adjustments to the prices of securities or other assets held by a Fund.

<sup>1</sup>Fair Valuation Impact on Tracking Error: Tracking error is caused by many factors such as fund expenses, trading costs and other fees associated with trading, while the inclusion of fair-valuation pricing can be just as impactful. Pax World Management LLC (PWM) implements a fair-valuation pricing policy since it discourages market timing, which benefits long-term shareholders since market-timer actions can increase costs to other shareholders.

MSCI ESG Research evaluates companies' ESG characteristics and derives corresponding ESG scores and ratings. Companies are ranked by ESG score against their sector peers to determine their eligibility for the MSCI ESG indices. MSCI ESG Research identifies the highest-rated companies in each peer group to meet the float-adjusted market capitalization sector targets. The rating system is based on general and industry-specific ESG criteria, assigning ratings on a 7-point scale from AAA (highest) to CCC (lowest).

<sup>1</sup>Two examples are recent surveys by investment consultants, Callan and Mercer. Callan in a 2013 piece entitled "*Are U.S. Investors Warming Up to ESG?*", found 60% of survey respondents believe by incorporating ESG factors they expect to achieve better risk adjusted returns over the long run. Mercer in a March 24, 2015 press release highlighted results of a survey they performed which showed that 57% of respondents believe that incorporating ESG criteria has a positive impact on risk adjusted returns.

*The statements and opinions expressed are those of the authors of this report. All information is historical and not indicative of future results and subject to change. This information is not a recommendation to buy or sell any security.*



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**You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. For this and other important information, please obtain a fund prospectus by calling 800.767.1729 or visiting [www.paxworld.com](http://www.paxworld.com). Please read it carefully before investing. An investment in the Pax World Funds involves risk, including loss of principal.**

**RISKS: Equity investments are subject to market fluctuations, the fund's share price can fall because of weakness in the broad market, a particular industry, or specific holdings. Emerging market and international investments involve risk of capital loss from unfavorable fluctuations in currency values, differences in generally accepted accounting principles, economic or political instability in other nations or increased volatility and lower trading volume.**

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