

VERTEX PLANNING PARTNERS

LLC

2018

2018 Annual Market Review



2018 Annual Market Review

This report features world capital market performance for the last year.

Overview:

Market Summary

World Asset Classes

US Stocks

International Developed Stocks

Emerging Markets Stocks

Select Country Performance

Select Currency Performance vs. US Dollar

Real Estate Investment Trusts (REITs)

Commodities

Impact of Diversification



Vertex Planning Partners 2018 Market Review

January 2018 began the year with one of the strongest performances for major equity markets (5%+ for the month the S&P 500, EAFA, and Emerging Markets), and ended with one of the worst Decembers in recent memory. During this time, the shift in market sentiment was swift, changing from a rosy outlook of global synchronized growth to growing pessimism for economic prospects, both domestically and overseas.

What changed? Part of the shift could be attributed to a Federal Reserve focused on raising short term interest rates to a more normalized level at a time of low unemployment, rising incomes, and moderate inflation numbers. However rising short term rates due to positive economic conditions generally don't have immediate market impacts, and historically have a lagging effect on economic growth.

Market sentiment was also affected by the escalated trade dispute between the world two largest economies, US and China, throughout the year. With a rather benign beginnings in February, the initial salvo by the US was initiated through trade tariffs placed on solar panels. This shortly grew tit-for-tat to include both commodity products as well as finished goods, with US threatening \$250 billion in tariffs and China threatening \$110 billion in response (1). To put these numbers in context, the tariffs represent around 1% of total GDP between the two countries based on 2018 IMF estimates (2). Not an insignificant numbers, but small on a relative basis.

Which brings to us to the major culprit of the 2018 market selloffs in the opinion of the author; changed expectations. Although EPS and GDP growth have remained intact (although perhaps slightly weaker internationally), the market has dropped the price its willing to pay for future earnings and growth. PE ratios (Price = Earnings X Multiple) took a significant hit in 2018, after years of expansion. The positive news for investors, if the fundamentals have not changed, this is the equivalent to a after Christmas sale as future returns are both a part of future earnings as well as the price paid. Although storm clouds might be on the horizon, we still feel a prudent investor should retain exposure to risk assets, while taking the opportunity to upgrade the quality of their holdings both in the equity market as well as fixed income holdings.

The impact of our outlook is expressed in the following themes carried through to our portfolios:

- Broad global diversification utilizing low-cost investments
- Active management to focus on the quality of the underlying business and management
- Index strategies investing in lower volatility portfolios
- Exposure to Real Estate / Infrastructure that historically have been an effective hedge against rising prices and declining currency values
- Alternative managers that combine strategies aiming to take advantage of increased volatility in rates, currencies and public equity and bond markets
- Pursue high risk/reward performance through actively managed fixed income investing in lower credit risk strategies

- 1. China Briefing <u>www.china-briefing.com/news/the-us-china-trade-war-a-timeline/</u>
- 2. World Economic Outlook Interanationl Monetary Fund. http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. All performance referenced is historical and is no guarantee of future results. All indices are unmanaged and may not be invested into directly. The economic forecasts set forth may not develop as predicted.

No strategy assures success or protects against loss and there is no guarantee that their objectives will be met.

Alternative investments may not be suitable for all investors and should be considered as an investment for the risk capital portion of the investor's portfolio. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses



Market Summary

Index Returns

	US Stock Market	International Developed Stocks	Emerging Markets Stocks	Global Real Estate	US Bond Market	Global Bond Market ex US
2018		STO	CKS		ВО	NDS
	-5.24%	-14.09%	-14.58%	-5.90%	0.01%	3.17%

Since Jan. 2001						
Avg. Annual Return	7.6%	5.8%	13.1%	10.1%	4.5%	4.4%
Best	33.6%	39.4%	78.5%	37.4%	10.3%	8.8%
Year	2013	2003	2009	2006	2002	2014
Worst	-37.3%	-43.6%	-53.3%	-45.7%	-2.0%	1.2%
Year	2008	2008	2008	2008	2013	2013

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg Barclays US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2019, all rights reserved. Bloomberg Barclays data provided by Bloomberg.



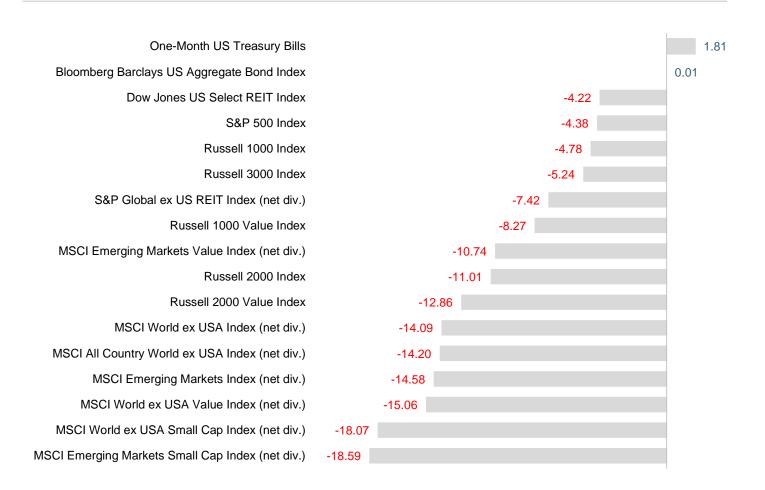
World Asset Classes

2018 Index Returns (%)

Equity markets around the world posted negative returns for 2018. Looking at broad market indices, the US outperformed non-US developed and emerging markets.

Value stocks were positive vs. growth stocks in emerging markets but negative in the US and non-US developed markets. Small caps underperformed large caps in the US, non-US developed, and emerging markets.

REIT indices outperformed equity market indices in both the US and non-US developed markets.



US Stocks

2018 Index Returns

US equities outperformed both non-US developed and emerging markets.

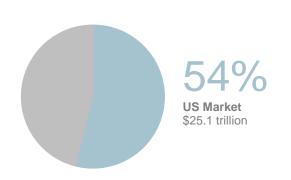
Value underperformed growth in the US across large and small cap stocks.

Small caps underperformed large caps in the US.

Ranked Returns for 2018 (%)



World Market Capitalization—US



Period Returns (%)

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Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Large Growth	-1.51	11.15	10.40	15.29
Large Cap	-4.78	9.09	8.21	13.28
Marketwide	-5.24	8.97	7.91	13.18
Large Value	-8.27	6.95	5.95	11.18
Small Growth	-9.31	7.24	5.13	13.52
Small Cap	-11.01	7.36	4.41	11.97
Small Value	-12.86	7.37	3.61	10.40

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Marketwide (Russell 3000 Index), Large Cap (Russell 1000 Index), Large Cap (Russell 1000 Value Index), Large Cap Growth (Russell 1000 Growth Index), Small Cap (Russell 2000 Index), Small Cap Value (Russell 2000 Value Index), and Small Cap Growth (Russell 2000 Growth Index). World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. Russell 3000 Index is used as the proxy for the US market. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2019,



International Developed Stocks

2018 Index Returns

In US dollar terms, developed markets outside the US outperformed emerging markets but underperformed the US during 2018.

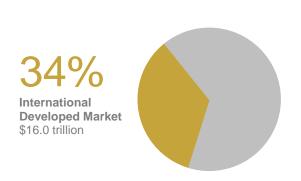
Value underperformed growth across large and small cap stocks in non-US developed markets.

Small caps underperformed large caps in non-US developed markets.

Ranked Returns for 2018 (%)



World Market Capitalization—International Developed



Period Returns (%)	* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Growth	-13.14	2.84	1.36	6.74
Large Cap	-14.09	3.11	0.34	6.24
Value	-15.06	3.36	-0.73	5.69
Small Cap	-18.07	3.85	2.25	10.06



Emerging Markets Stocks

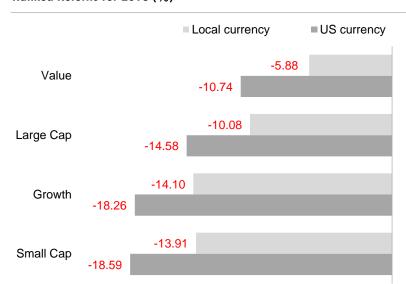
2018 Index Returns

In US dollar terms, emerging markets underperformed developed markets, including the US.

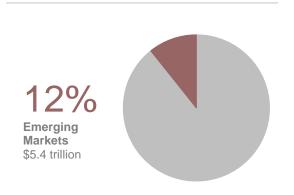
Value outperformed growth across large and small cap stocks in emerging markets.

Small caps underperformed large caps in emerging markets.

Ranked Returns for 2018 (%)



World Market Capitalization— Emerging Markets



Period Returns (%) * Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
Value	-10.74	9.52	0.51	6.99
Large Cap	-14.58	9.25	1.65	8.02
Growth	-18.26	8.89	2.67	8.97
Small Cap	-18.59	3.68	0.95	9.87

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: Large Cap (MSCI Emerging Markets Index), Small Cap (MSCI Emerging Markets Small Cap Index), Value (MSCI Emerging Markets Value Index), and Growth (MSCI Emerging Markets Growth Index). All index returns are net of withholding tax on dividends. World Market Cap represented by Russell 3000 Index, MSCI World ex USA IMI Index, and MSCI Emerging Markets IMI Index. MSCI Emerging Markets IMI Index used as the proxy for the emerging market portion of the market. MSCI data © MSCI 2019, all rights reserved.



Select Country Performance

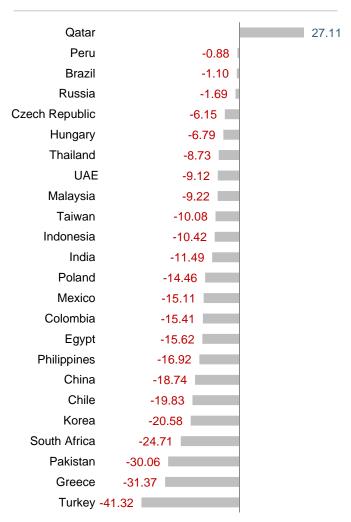
2018 Index Returns

Most non-US developed and emerging markets countries posted negative returns in US dollar terms in 2018, with wider dispersion for emerging markets countries.

Ranked Developed Markets Returns (%)

New Zealand -0.02 Israel -3.62 US -5.72 Finland -6.87 Norway -8.76 Singapore -9.38 Hong Kong -9.69 Switzerland -10.63 Portugal -12.65 Australia -12.73 Sweden -13.33Japan -13.46 France -13.81 Netherlands -14.09 Denmark -14.93 UK -15.04 Spain -16.48 Canada -17.62 Italy -18.21 Ireland -21.37 Germany Austria Belgium

Ranked Emerging Markets Returns (%)



Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated



Select Currency Performance vs. US Dollar

2018 Index Returns

Most currencies depreciated against the US dollar in developed and emerging markets, notably the Australian dollar in developed markets and the Turkish lira in emerging markets. One exception was the Japanese yen, which appreciated vs. the US dollar.



Ranked Emerging Markets Returns (%)

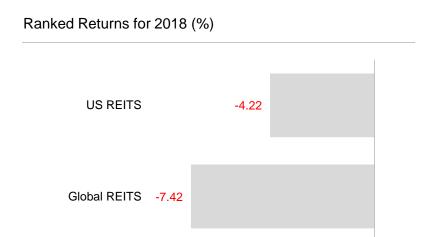
Thailand baht (THB)		0.09
Mexican peso (MXN)	-0.65	
Egyptian pound (EGP)	-0.78	
Malaysian ringgit (MYR)	-2.07	
Taiwanese NT dollar (TWD)	-3.18	
South Korean won (KRW)	-4.06	
Peru sol (PEN)	-4.08	
Philippine peso (PHP)	-5.07	
Chinese yuan (CNY)	-5.15	
Czech koruna (CZK)	-5.57	
Indonesia rupiah (IDR)	-5.65	
Poland zloty (PLN)	-7.51	
Hungary forint (HUF)	-7.95	
Colombian peso (COP)	-8.10	
Indian rupee (INR)	-8.58	
Chilean peso (CLP)	-11.39	
South African rand (ZAR)	-13.94	
Brazilian real (BRL)	-14.41	
Russian ruble (RUB)	-17.01	
Pakistani rupee (PKR)	-20.50	
Turkish lira (TRY)	-28.73	
	'	



Real Estate Investment Trusts (REITs)

2018 Index Returns

US real estate investment trusts outperformed non-US REITs in US dollar terms.



Total Value of REIT Stocks 42% World ex US \$436 billion 245 REITs (22 other countries) 58% us \$601 billion

97 REITs

Period Returns (%)	* Annualized			
Asset Class	1 Year	3 Years*	5 Years*	10 Years*
US REITS	-4.22	1.97	7.89	12.05
Global REITS	-7.42	3.35	3.39	8.94

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Number of REIT stocks and total value based on the two indices. All index returns are net of withholding tax on dividends. Total value of REIT stocks represented by Dow Jones US Select REIT Index and the S&P Global ex US REIT Index. Dow Jones US Select REIT Index used as proxy for the US market, and S&P Global ex US REIT Index used as proxy for the World ex US market. Dow Jones and S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.



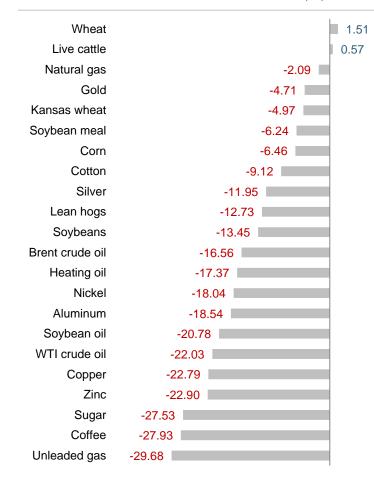
Commodities

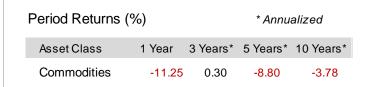
2018 Index Returns

The Bloomberg Commodity Index Total Return declined 11.25% in 2018.

Wheat (Chicago) was the strongest performer, gaining 1.51%. Unleaded gas was the weakest performer, falling 29.68%. Coffee lost 27.93%, while sugar declined 27.53%.

Ranked Returns for Individual Commodities (%)





Fixed Income

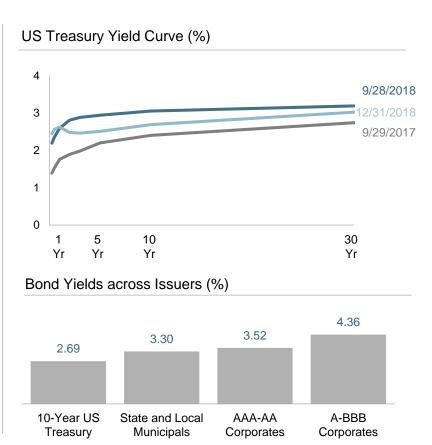
2018 Index Returns

For 2018, yields on the 10-year Treasury note and 30-year Treasury bond increased 29 basis points (bps) and 28 bps, respectively.

The short end of the yield curve experienced the greatest increases. The yield on the 1-year Treasury bill increased 87 bps to end at 2.63%, while the 2-year Treasury note finished with a yield of 2.48% after an increase of 59 bps.

In terms of total returns, short-term corporate bonds increased 1.57% for the year. Intermediate-term corporate bonds declined 0.23%.

The total returns for short-term municipal bonds were 1.77%. Intermediate-term municipal bonds returned 1.57%. General obligation bonds outperformed revenue bonds.



Period Returns (%)

* Annualized

Asset Class	1 Year	3 Years*	5 Years*	10 Years*
FTSE World Government Bond Index 1-5 Years (hedged to USD)	2.12	1.58	1.53	1.69
ICE BofAML US 3-Month Treasury Bill Index	1.87	1.02	0.63	0.37
ICE BofAML 1-Year US Treasury Note Index	1.86	1.06	0.70	0.62
Bloomberg Barclays Municipal Bond Index	1.28	2.30	3.82	4.85
Bloomberg Barclays US Aggregate Bond Index	0.01	2.06	2.52	3.48
FTSE World Government Bond Index 1-5 Years	-0.76	1.56	-0.82	0.29
Bloomberg Barclays US TIPS Index	-1.26	2.11	1.69	3.64
Bloomberg Barclays US Government Bond Index Long	-1.79	2.63	5.90	4.15
Bloomberg Barclays US High Yield Corporate Bond Index	-2.08	7.23	3.83	11.12

One basis point equals 0.01%. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Yield curve data from Federal Reserve. State and local bonds are from the S&P National AMT-Free Municipal Bond Index. AAA-AA Corporates represent the ICE BofAML US Corporates, AA-AAA rated. A-BBB Corporates represent the ICE BofAML US Corporates, BBB-A rated. Bloomberg Barclays data provided by Bloomberg. US long-term bonds, bills, inflation, and fixed income factor data © Stocks, Bonds, Bills, and Inflation (SBBI) Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefield). FTSE fixed income indices © 2019 FTSE Fixed Income LLC, all rights reserved. ICE BofAML index data © 2019 ICE Data Indices, LLC. S&P data © 2019 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Important Risk Disclosures

The fast price swings in commodities and currencies will result in significant volatility in an investor's holdings. Currency Risk -because the security invests in stocks denominated in foreign currencies, changes in currency exchange rates may negatively impact the securities return. The values of the foreign currencies may be subject to a high degree of fluctuation due to changes in interest rates, the TS-8 effects of monetary policies issued by the United States, foreign governments, central banks or supranational entities, the imposition of currency controls or other national or global political or economic developments. International and emerging market investing involves special risks such as currency fluctuation and political instability and may not be suitable for all investors. Investing in Real Estate Investment Trusts (REITs) involves special risks such as potential illiquidity and may not be suitable for all investors. There is no assurance that the investment objectives of this program will be attained. Small Cap stocks may be subject to a higher degree of risk than more established companies' securities. The illiquidity of the Small Cap market may adversely affect the value of these investments. Value investments can perform differently from the market as a whole. They can remain undervalued by the market for long periods of time. Municipal bonds are subject to availability, price, and to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rate rise. Interest income may be subject to the alternative minimum tax. Federally tax-free but other state and local taxes may apply. Government bonds and Treasury Bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price

Index Definition:

An index is a statistical measure that shows changes in the economy or financial markets and serves as a benchmark against which economic and financial performance is measured. Indices are not available for direct investment; its performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is no guarantee of future results.

Bank of America Merrill Lynch US Corporate Bond Index

Tracks the performance of US dollar denominated investment grade rated corporate debt publicly issued in the US domestic market.

Bloomberg Barclays U.S. Aggregate Bond Index

The Bloomberg Barclays U.S. Aggregate Bond Index is an index of the U.S. investment-grade fixed-rate bond market, including both government and corporate bonds. Bloomberg Barclays U.S Corporate High-Yield Bond Index

The Bloomberg Barclays U.S Corporate High-Yield Bond Index is an unmanaged market value weighted index composed of fixed-rate, publicly issued, non-investment grade debt.

Citi World Government Bond Index (WGBI) ex US

Measures the performance of fixed-rate, local currency, investment-grade sovereign bonds, not including those of the United States.

Dow Jones US Select REIT Index

Is comprised of all publicly traded real estate investment trusts in the Dow Jones U.S. stock universe (i.e. real estate investment trusts (REITs) and real estate operating companies (REOCs) traded in the U.S). The indexes are designed to serve as proxies for direct real estate investment, in part by excluding companies whose performance may be driven by factors other than the value of real estate. Date of introduction Total Return: January 30, 1987; Price Return: December 31, 1998

The MSCI ACWI (All Country World Index)

The MSCI ACWI (All Country World Index) Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The MSCI All Country World Index includes 48 markets. The index has been calculated since 1995

MSCI ACWI Ex USA Growth Index

The MSCI ACWI ex USA Growth Index captures large and mid cap securities exhibiting overall growth style characteristics across 22 Developed Markets (DM) countries and 23 Emerging Markets (EM) countries. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI World Ex USA Index

Captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries--excluding the United States. With 1,024 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI World Ex USA Value Index

Captures large and mid cap securities exhibiting overall value style characteristics across 22 of 23 Developed Markets countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI World Ex USA Small Cap Index

Captures small cap representation across 22 of 23 Developed Markets (DM) countries (excluding the United States). With 2,454 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country.

MSCI US Broad Market Index

The MSCI US Broad Market Index captures broad US equity coverage. The index includes 3,204 constituents across large, mid, small and micro capitalizations, representing about 99% of the US equity universe.

MSCI Emerging Markets Index

The MSCI Emerging Markets Index has a base date of December 31, 1987. It is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

MSCI Emerging Markets Growth Index

Captures large and mid cap securities exhibiting overall growth style characteristics across 23 Emerging Markets (EM) countries. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.

MSCI Emerging Markets Value Index

Captures large and mid cap securities exhibiting overall value style characteristics across 23 Emerging Markets (EM) countries. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.

MSCI Emerging Markets Small Cap Index

Includes small cap representation across 23 Emerging Markets countries. With 1,840 constituents, the index covers approximately 14% of the free float-adjusted market capitalization in each country.

Russell 1000 Index

The Russell 1000 Index consists of the 1,000 largest securities in the Russell 3000 Index, which represents approximately 90% of the total market capitalization of the Russell 3000 Index. It is a large-cap, market-oriented index and is highly correlated with the S&P 500 Index.

Russell 1000 Value Index

The Russell 1000 Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower expected growth values. The index is a subset of the much larger Russell 3000 Index It is reconstituted annually.

Russell 2000 Index

The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. It is reconstituted annually and was launched in 1984.

Russell 2000 Growth Index

Measures the performance of those Russell 2000 companies with higher price-to book ratios and higher forecasted growth values.

Russell 2000 Value Index

Measures the performance of those Russell 2000 companies with lower price-to book ratios and lower forecasted growth values.

Russell 3000 Index

The Russell 3000 Index measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market. The U.S.-based requirement disqualifies many large international firms from inclusion into the index. It is reconstituted annually and was started in 1984. The Russell indices are owned and maintained by Russell Investments.

Standard & Poor's 500 Index

The Standard & Poor's 500 Index is a capitalization weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

S&P Global REIT Index

The index consists of all real estate investment trusts in both developed and emerging markets. S&P Global REIT ex-US Index The index consists of all real estate investment trusts in both developed and emerging markets, not including the United States.

<u>S&P National AMT-Free Municipal Bond Index</u>

The S&P National AMT-Free Municipal Bond Index is a broad, comprehensive, market value-weighted index designed to measure the performance of the investment-grade tax-exempt U.S. municipal bond market.