



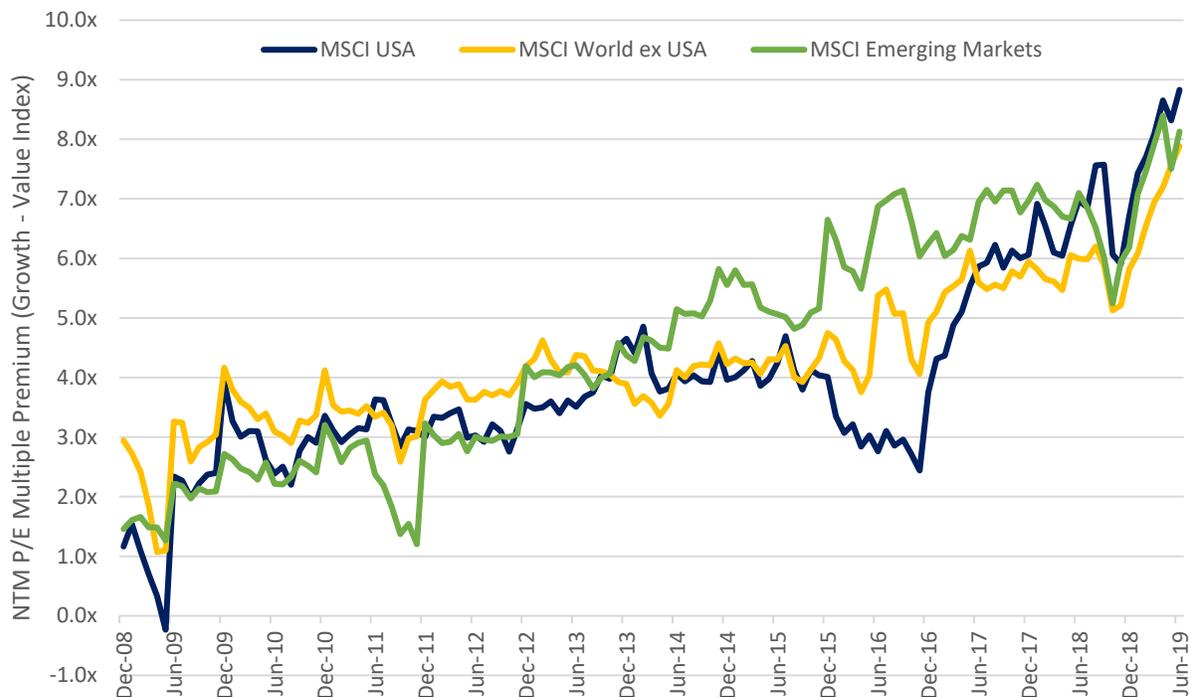
### Rationalizing the Irrational

Will the earnings of value stocks decline forever? Current market multiples for the MSCI Value indices appear extremely pessimistic, suggesting negative perpetuity growth for value stocks across all global geographies, even as the world economy is forecast to grow. It may surprise our readers that, since the market trough in 2009, value stocks have beaten growth stocks at their own game, having exhibited greater earnings growth. As the gap in implied earnings growth between value and growth stocks reaches new highs, we find the current value recession increasingly irrational.

It is no secret that value stocks have underperformed growth stocks in recent years, but under the surface there has been a more pervasive trend at work. The market has gradually determined that the earnings of value stocks are worth far less than those of growth stocks. This is reflected in their relative multiples. Exhibit 1 plots the difference in the next twelve months' price-to-earnings (NTM P/E) multiples between regional MSCI Growth and Value indices since December 2008, in the midst of the global financial crisis (GFC). Across all geographies, the gap has marched steadily wider over the last decade. And in the first half of 2019, we witnessed the spread increase sharply. As of June 30, 2019, the noted Growth indices traded at a 7-9x P/E premium to the Value indices.

#### *Growth stocks have steadily re-rated upward across geographies since the GFC.*

Exhibit 1. NTM P/E of each respective MSCI Growth Index minus that of the corresponding Value Index

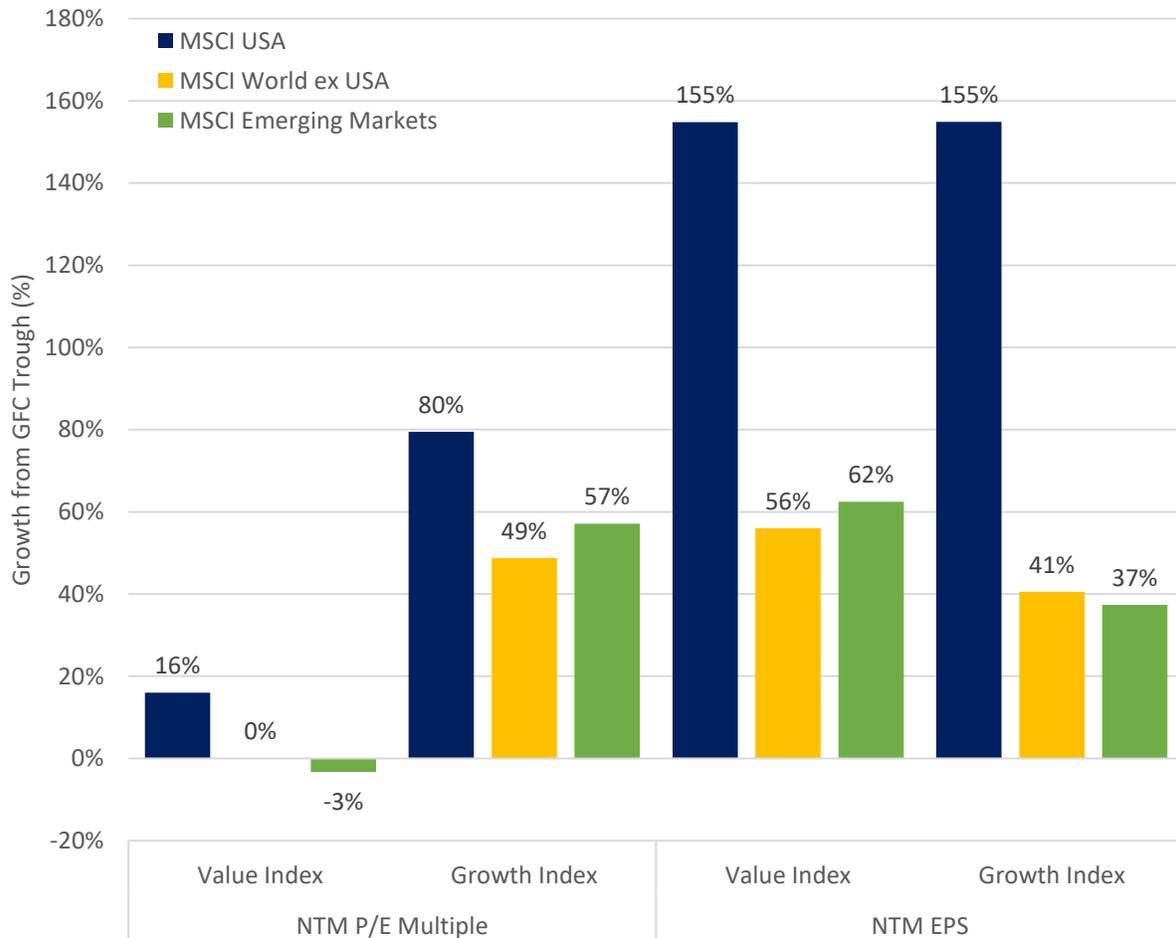


Note: Chart plots the monthly difference in next twelve month P/E multiple between the MSCI USA Growth Index and the MSCI USA Value Index, the MSCI World ex USA Growth Index and the MSCI World ex USA Value Index, and the MSCI Emerging Markets Growth Index and MSCI Emerging Markets Value Index from December 2008 (just before market trough in March 2009) through June 2019. Source: MSCI, FactSet, Causeway Analytics

What has caused such a divergence in appetite for these two styles? There are many potential explanations, but the reasons do not appear to be related to underlying earnings growth itself. Most investors naturally assume that “growth” stocks demonstrate greater earnings growth than “value” stocks, but that has not occurred, at least in aggregate, during the post-GFC bull market. Exhibit 2 compares the total percentage change in P/E multiples with the total percentage change in NTM earnings per share (EPS) estimates for the Value and Growth indices across geographies. The left side of the chart shows that, as we saw in Exhibit 1, P/E multiples for Growth indices have grown much more than Value multiples in the period since the GFC market trough (in March 2009). More surprising is what we find on the right side of the chart examining relative growth in EPS. Outside of the United States, value-stock earnings have ironically grown *more* than growth-stock earnings over the same time period. Even in the United States, value stocks have kept up with the earnings growth exhibited by growth stocks and yet have witnessed only one-fifth of the upward “re-rating” of US growth stocks (16% vs. 80%).

***Value earnings have largely outgrown growth earnings despite relative de-rating.***

**Exhibit 2. NTM P/E multiple growth vs. NTM EPS estimate growth since GFC trough for Value and Growth indices**

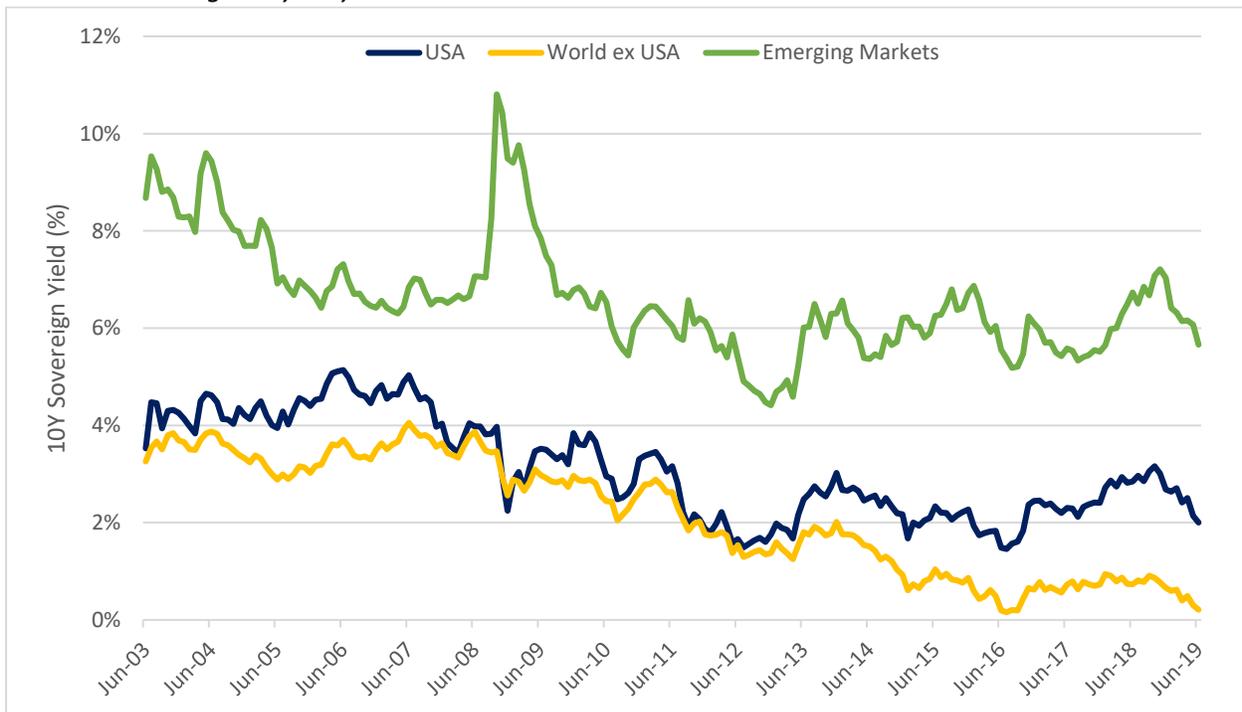


Note: Chart plots the total percentage growth in NTM P/E multiple and NTM EPS growth for the MSCI USA Value Index, the MSCI USA Growth Index, the MSCI World ex USA Value Index, the MSCI World ex USA Growth Index, the MSCI Emerging Markets Value Index, and the MSCI Emerging Markets Growth Index from March 31, 2009 (GFC trough) to June 30, 2019. Source: MSCI, FactSet, Causeway Analytics

Recent growth outperformance is therefore not attributable to superior earnings growth, but solely to the market's revaluation of those earnings. So what else might have caused this change in preference for growth stocks? Interest rates have undoubtedly played some role. Decreasing the discount rate applied to cash flows will necessarily increase their present value. Since growth stocks tend to have more of their cash flows expected in years far in the future (i.e., longer duration), lower interest rates should have a more positive impact on the present value of growth stocks relative to value stocks. Exhibit 3 charts the falling average 10-year yields in each geography. We use the Emerging Market Bond Index (EMBI) spread to US Treasuries as a proxy for average emerging markets sovereign rates.

*Falling interest rates have played some role in growth's re-rating.*

*Exhibit 3. Sovereign 10-year yields since June 2003*



Note: USA rates represent 10-year U.S. Treasury yields. World ex USA rates represent the equal-weighted average of Japan, UK, France, Canada, Switzerland, and Germany 10-year sovereign yields. Emerging markets rates represent the 10-year U.S. Treasury yield plus the Emerging Market Bond Index (EMBI) spread. Monthly data from June 2003 to June 2019. Source: FactSet, Bloomberg, Causeway Analytics

The enormous global wave of monetary liquidity has dragged down interest rates and inflated asset prices, but the impact on growth stocks appears to have been more pronounced. Given the changing interest rate regime, we need to incorporate interest rates and costs of equity when analyzing the disparity between current valuation multiples of value and growth indices. To do this, we can use the Gordon Growth Model framework, which equates the price of a stock ( $P$ ) to its growing stream of future earnings per share ( $E_{t+1}$  growing by  $g$ ), assuming all earnings are paid as dividends, discounted by its cost of equity ( $r_e$ ). Solving for  $g$ , the market-implied perpetuity growth rate is equal to the cost of equity minus the forward earnings yield.

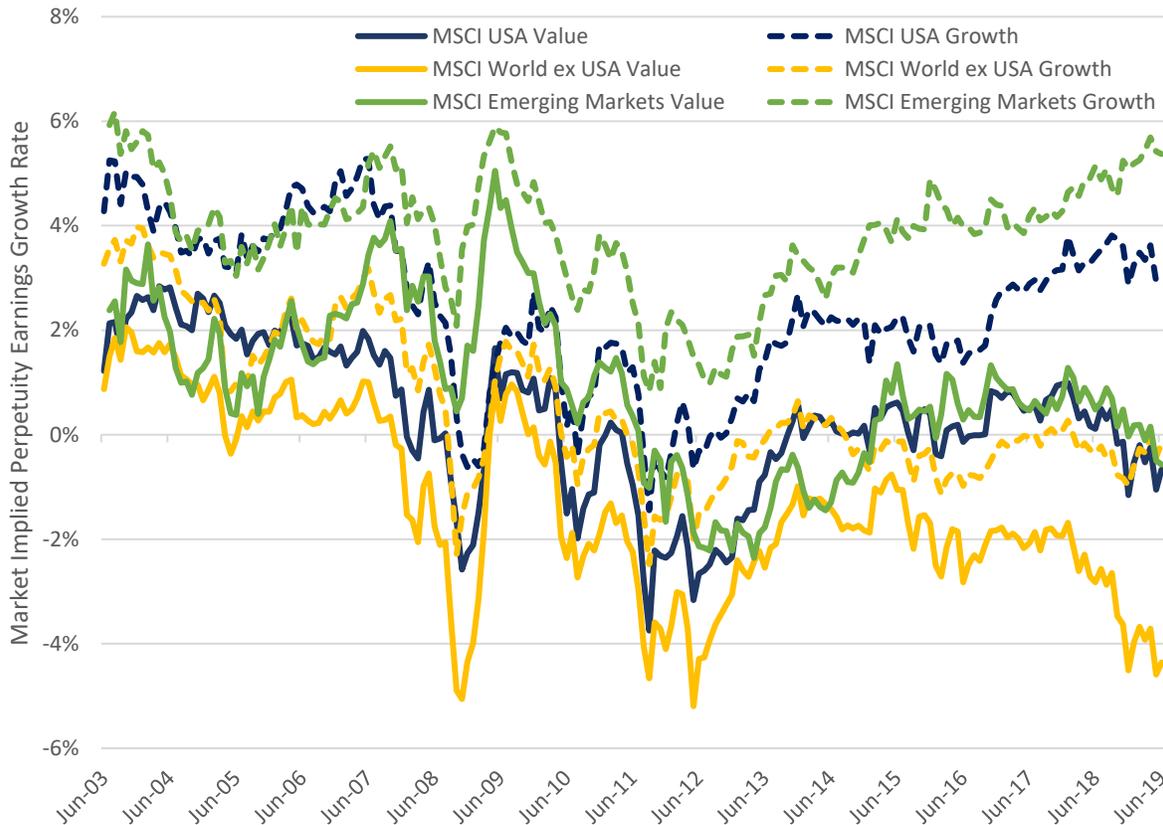
$$P = \frac{E_{t+1}}{r_e - g} \rightarrow \frac{P}{E_{t+1}} = \frac{1}{r_e - g} \rightarrow g = r_e - \frac{E_{t+1}}{P}$$

*Implied perpetuity earnings growth = Cost of equity – Forward earnings yield*

In order to calculate the cost of equity, we use the Capital Asset Pricing Model (CAPM) assuming a trailing 36-month beta of each style index to the relevant benchmark index and a fixed 5% equity risk premium (ERP). This framework should capture the impact of interest rates, and the higher beta (and cost of equity) of the growth indices. By solving for “g” we can observe what current market multiples imply about assumed future perpetuity earnings growth rates (see Exhibit 4). As the equation indicates, a higher implied perpetuity growth rate can result from a higher cost of equity and/or a lower forward earnings yield (higher P/E). The ERP assumption of 5% is admittedly subjective, however many academic studies suggest it may be lower, which would further depress the market-implied growth rates depicted below.

*The market is currently implying negative perpetuity growth for value stocks.*

Exhibit 4. Market-implied Perpetuity Growth Rates



Note: Gordon Growth Model framework assuming all earnings are paid as dividends. NTM P/E multiples from MSCI. Fixed 5% equity risk premium and respective 36-month betas to the MSCI USA Index, MSCI World ex USA Index, and MSCI Emerging Markets Index are used to calculate cost of equity. Risk-free rates determined as follows: USA rates represent 10-year U.S. Treasury yields. World ex USA rates represent the equal-weighted average of Japan, UK, France, Canada, Switzerland, and Germany 10-year sovereign yields. Emerging markets rates represent the 10-year U.S. Treasury yield plus the Emerging Market Bond Index (EMBI) spread. Monthly data from June 2003 (beginning of MSCI NTM P/E multiple data) to June 2019. Source: FactSet, Bloomberg, MSCI, Causeway Analytics

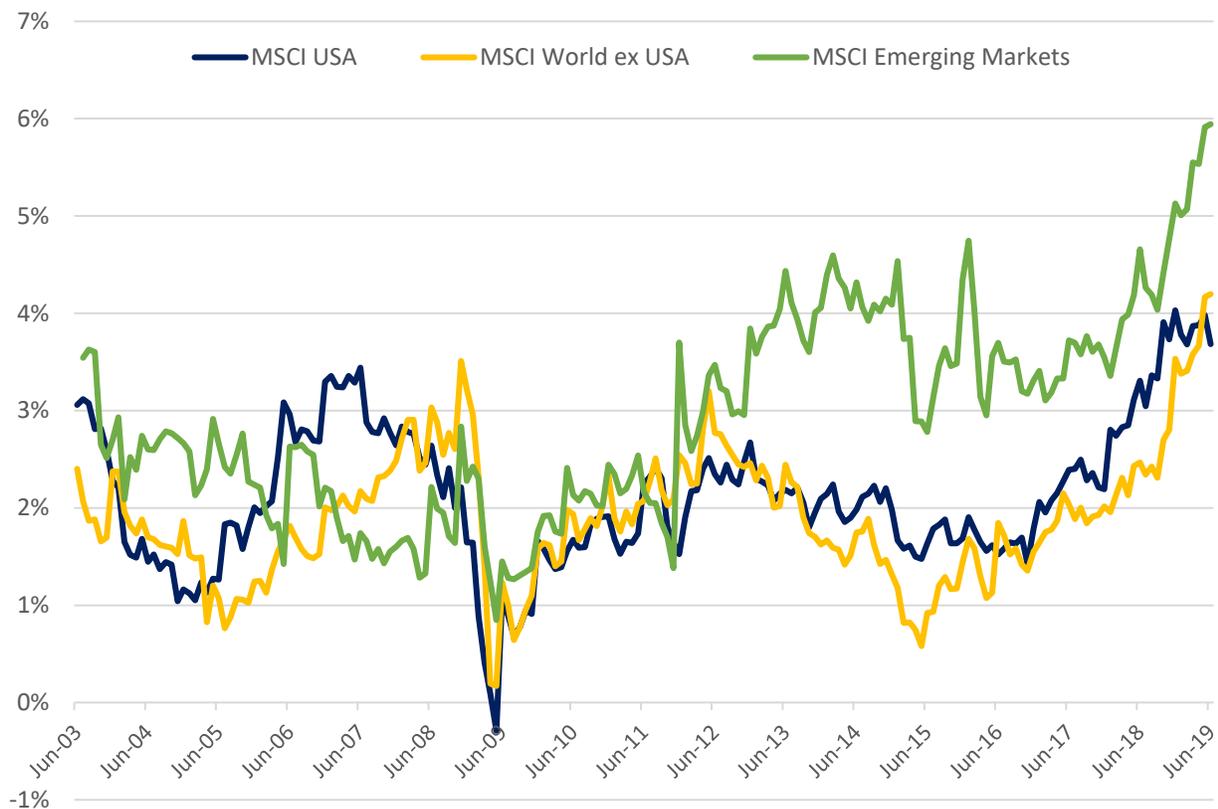
In the chart above, the solid lines represent the implied perpetuity growth for the Value indices and the dashed lines represent implied growth rates for the Growth indices. At current multiples, the market is assuming negative earnings growth in perpetuity for Value indices in all three regions. Only the MSCI USA Growth Index and Emerging Markets Growth Index exhibit meaningfully positive implied growth rates. The lowest implied growth rate belongs to the World ex USA Value Index. The market suggests that these international value stocks, in aggregate, will see their earnings shrink by over 4% per year into perpetuity.

This seems startlingly pessimistic. Assuming static profit margins, a 4% annual contraction in earnings translates into a 4% contraction in revenue. This negative implied earnings growth is substantially in conflict with current gross domestic product (GDP) growth forecasts. In its April 2019 World Economic Outlook, the International Monetary Fund (IMF) forecasts real GDP growth of 1.2% in Western Europe, 1% in Japan, and 1.5% in Canada. In nominal terms (to make them comparable to the Gordon Growth Model output), these would be even higher. The valuations of developed international stocks overall imply an excessively gloomy earnings outlook. Adding in the less bearish, but also negative, projected growth of international growth stocks (dotted yellow line) to the implied growth from international value stocks leaves earnings expectations well below international GDP forecasts.

What is also surprising about these results is not just the absolute levels, but the spread between implied growth for value and growth indices. Exhibit 5 plots these differences between the dashed and solid lines from Exhibit 4. Focusing on the differences in implied growth rates also removes the impact of any equity risk premium assumptions since this term will effectively cancel out. The gap in implied growth rates in Exhibit 5 is especially dramatic outside of the United States, and recall from Exhibit 2 that in both of these geographic regions (World ex USA and Emerging Markets), value stocks have actually grown earnings *faster* than growth stocks since the GFC trough in 2009. We see these results as further evidence that the market has become irrationally optimistic about growth stocks relative to value stocks, and a reversion to the mean appears inevitable, even if timing cannot be predicted.

***Implied earnings growth rate differentials have reached new highs.***

*Exhibit 5. Implied Perpetuity Growth Rate Differentials (Growth Index - Value Index)*



*Note: Lines represent the implied perpetuity earnings growth for each Growth Index minus the implied growth rate for the corresponding Value index. See Exhibit 4 footnote for methodology. Source: FactSet, Bloomberg, MSCI, Causeway Analytics*

## Summary

Have we truly reached peak earnings for value stocks into perpetuity? The market currently suggests that growth stocks represent breakthrough technologies with endless future profitability (even if elusive for now) and that value stocks are structurally broken. In reality, value stocks have demonstrated superior earnings growth since the GFC, and current market-implied negative perpetuity growth rates for value stocks are not consistent with more rational GDP growth estimates. Meanwhile, the current value recession, while painful in its length and depth, has continued to present Causeway many opportunities to invest in high-quality, out-of-favor value stocks at relative bargains.

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*International investing may involve risk of capital loss from unfavorable fluctuations in currency values, from differences in generally accepted accounting principles, or from economic or political instability in other nations.*

*The MSCI USA Index is a free float-adjusted market capitalization index, designed to measure the performance of the large and mid cap segments of the US market. The MSCI USA Value Index is a subset of the MSCI USA Index, and targets 50% coverage of the MSCI USA Index, with value investment style characteristics for index construction using three variables: book value to price, 12-month forward earnings to price, and dividend yield. The MSCI USA Growth Index is a subset of the MSCI USA Index, and targets the remaining 50% coverage.*

*The MSCI World ex USA Index is a free float-adjusted market capitalization index, designed to capture large and mid cap segments across 22 of 23 developed markets countries, excluding the United States. The MSCI World ex USA Value Index is a subset of the MSCI World ex USA Index, and targets 50% coverage of the MSCI World ex USA Index, with value investment style characteristics for index construction using three variables: book value to price, 12-month forward earnings to price, and dividend yield. The MSCI World ex USA Growth Index is a subset of the MSCI World ex USA Index, and targets the remaining 50% coverage.*

*The MSCI Emerging Markets Index is a free float-adjusted market capitalization index, designed to measure the performance of the large and mid cap segments of 26 emerging markets countries. The MSCI Emerging Markets Value Index is a subset of the MSCI Emerging Markets Index, and targets 50% coverage of the MSCI Emerging Markets Index, with value investment style characteristics for index construction using three variables: book value to price, 12-month forward earnings to price, and dividend yield. The MSCI Emerging Markets Growth Index is a subset of the MSCI Emerging Markets Index, and targets the remaining 50% coverage.*

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*"Gordon Growth Model" is used to determine the intrinsic value of a stock based on a future series of earnings (or dividends) that grow at a constant rate. Given an earnings per share (or dividend per share) that is payable in one year, and the assumption the earnings (or dividends) grow at a constant rate in perpetuity, the model seeks to solve for the present value of the infinite series of future earnings (or dividends).*