VINITY

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In a Nutshell

Stocks are supremely overvalued today. Even worse, we are in a global asset bubble with limited places to hide. Most egregious are US stocks, rivaling both September 1929 and December 1999. Across the globe, equities are expensive, albeit nowhere near the rich valuations of US stocks. After more than a decade of supreme performance followed by a spectacular encore over the past 18-months, we question how much gas US stocks have left in the tank, especially given the mixed backdrop involving higher inflation and moderate economic growth. Emerging markets are the only asset class we have a high conviction in; they are the most reasonably valued and poised to be the best performing asset class over the next decade.

Time for an Oil Change; Be Careful What You Find Under the Hood

Automobiles have a set useful life, and the more miles on a vehicle, the more likely it is to have problems. Upon reaching enough miles, the car will typically be disposed of or traded for a newer model. Similarly, as an asset class racks up miles in the form of returns then the useful life, or expected holding period, diminishes. When asset classes go through long stretches of price gains without the requisite earnings growth, they are more likely to experience problems and are subject to higher downside risk. As prices become further detached from the fundamentals due to returns outpacing earnings growth, it is time to start looking for a new vehicle and trade in the old one. The US stock market recorded phenomenal performance over the ten years from January 2011 through December 2020. The asset class has been a great vehicle but has also put on quite a few miles and has likely seen better days. Excluding dividends, the S&P 500 produced a cumulative return over the ten years of 199%. In dollars, a $1,000 investment at the beginning of the period was worth almost $3,000 at the end, triple its original value in ten years. International developed and emerging markets have much fewer miles, and we believe they will have a longer useful life moving forward than the US. Over the same ten-year period, international developed markets represented by the MSCI EAFE Index comprising 21 countries across Europe, Australasia, and the Far East returned a cumulative 30%, and the MSCI Emerging Markets Index produced a cumulative 12% return. So, $1,000 invested in both international developed and emerging markets was worth about $1,300 and $1,100, respectively, by the end of the ten years. And, unlike in the US, when you look under the hood of emerging markets, you may be surprised to find the economic growth of the asset class has outpaced its price growth.

To provide insight into how we look at valuations, we will take you through our process to show what it has historically meant and what we are seeing now. The Gross Domestic Product (GDP) is the value of all goods and services produced within a country and provides a high-level gauge of economic growth. Over time there is a link between GDP growth and broad stock index returns. Similar to the relationship of individual companies, in that earnings growth drives long-run stock returns, we find an analogous association between GDP growth and overall stock market returns.

Over the past 60 years, real GDP growth in the US has trended lower. For the 20-year periods beginning in 1960, 1980, and 2000, annual real GDP growth averaged 3.8%, 3.2%, and 2.1%, respectively. The US economy is mature, and slower GDP growth is normal the larger an economy becomes. Although, stocks are currently valued as if we will see an emerging markets style surge in GDP growth over the next decade. That cannot happen today; the economy is too big to generate that type of growth. Over the past ten years ending in 2020, US real GDP has grown at a compound annual growth rate of 1.7%, while the S&P 500, excluding reinvested dividends, returned 11.6% annualized. The S&P 500 returned 6.9 times (11.6% / 1.7% = 6.9) the economic growth in the US, meaning investors are paying an increasingly higher price for the growth produced by the US economy. On the other hand, emerging markets look quite attractive from a growth perspective. A composite of emerging-market countries' real GDP grew on average 4.1% over the ten years ending in 2020; whereas the MSCI Emerging Markets Index, not including reinvested dividends, only returned an annualized 1.2% over the same period. The MSCI Emerging Markets Index only returned 0.3 times (1.2% / 4.0% = 0.3) the economic growth generated by those countries. A composite of developed-markets countries outside the US experienced a ten-year real GDP compound annual growth rate of 0.7% through 2020. And the MSCI EAFE Index returned an annualized 2.6%, excluding reinvested dividends, over the same period. The MSCI EAFE Index returned 3.7 times (2.6% / 0.7% = 3.7) the economic growth of those countries. We call this valuation measure Price growth-to-GDP growth (P/GDP). To calculate the ratio, we take the annualized price growth of an index divided by the annualized real GDP growth of the country(s) represented by the index. Based on our research, using ten-year annualized data calculated on a rolling quarterly basis provides meaningful results in identifying overvalued and undervalued asset classes. The below table compares the trailing ten-year values to the preceding 20-year period, lending historical context for where we are today.

Figure 1.

	1990 - 2010			2011 - 2020		
	Annualized Price Return	Annualized Real GDP Growth	P/GDP	Annualized Price Return	Annualized Real GDP Growth	P/GDP
United States	6.2%	2.6%	2.4	11.6%	1.7%	6.9
Emerging Markets	8.3%	4.8%	1.7	1.2%	4.1%	0.3
Developed Markets ex-US	2.2%	1.8%	1.2	2.6%	0.7%	3.7

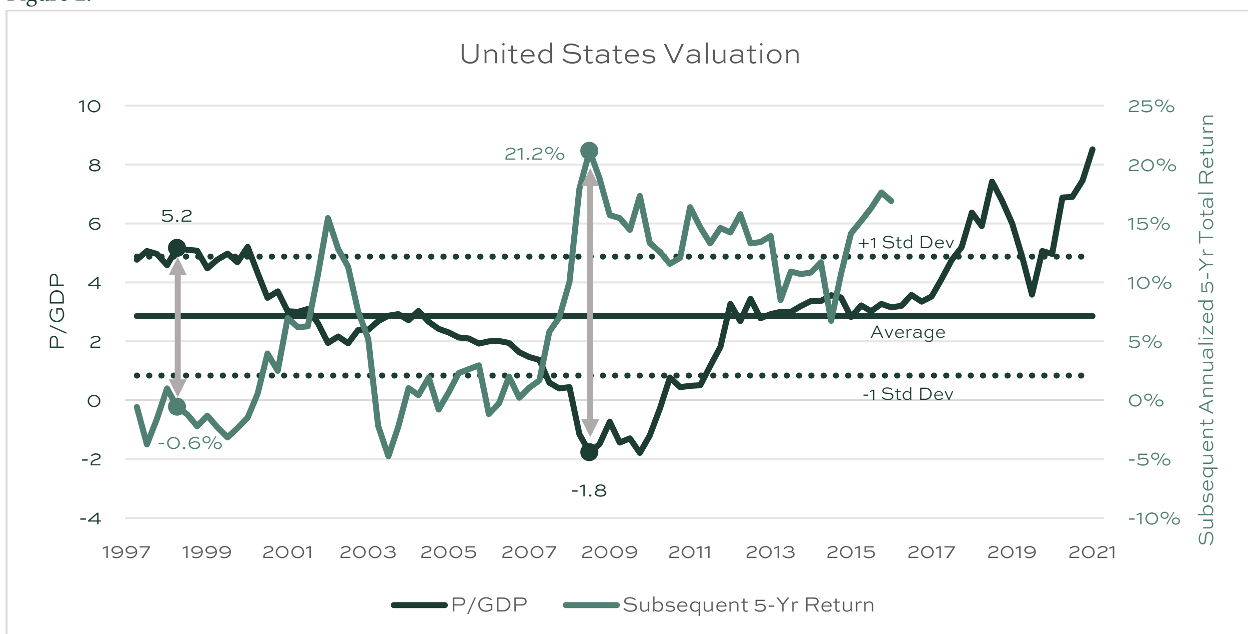
While a return that is many multiples of the economic output may sound nice, it is not. The historical relationship between the two variables implies it can be dangerous when the multiple is too high. Over time the valuation measure generally oscillates between one standard deviation above the long-term average and one standard deviation below the average, indicating when an asset class is overvalued or undervalued. A reading above the long-term average is considered overvalued, and vice versa. The P/GDP is best used to inform asset allocation decisions by increasing the weight to higher conviction asset classes and reducing allocations as they become overvalued. Assets can remain mispriced for extended periods, and market participants can be very irrational, so we prefer to implement changes over time rather than all at once. Remember, diversification works over time, not every time.

Using the statistical measure, correlation, we find the valuation metric shows greater significance in identifying mispriced asset classes when the P/GDP value exceeds one standard deviation above or below the historical average. To measure success in finding periods with mispriced assets, we will

compare the P/GDP value for a given period to the return realized over the ensuing five years. In the US, the correlation between P/GDP values above or below one standard deviation and the subsequent five-year annualized return for the S&P 500 is -0.96. Correlation measures the degree to which two variables move in relation to each other and can range from negative-one to positive-one. A correlation of positive-one means as one variable moves up or down; the other variable moves in lockstep in the same direction. A correlation of negative-one means the two variables move perfectly in opposite directions. And a correlation of zero means there is no relationship between the two variables. The -0.96 correlation for the US implies there is a distinct negative relationship between the P/GDP when above or below one standard deviation and the subsequent five-year total return. Put another way, when the P/GDP is very high (low), the total return realized over the following five years is typically low (high). The relationship for the other asset classes was not as strong but still produced meaningful results. The correlation for emerging markets and international developed markets is -0.81 and -0.61, respectively. The following charts depict the historical and current valuation in each region discussed. The subsequent annualized five-year total return line ends on 9/30/2016, capturing the most recent five-year return period from 10/1/2016 to 9/30/2021. The average, plus-one standard deviation, and minus-one standard deviation lines relate to the P/GDP valuation.

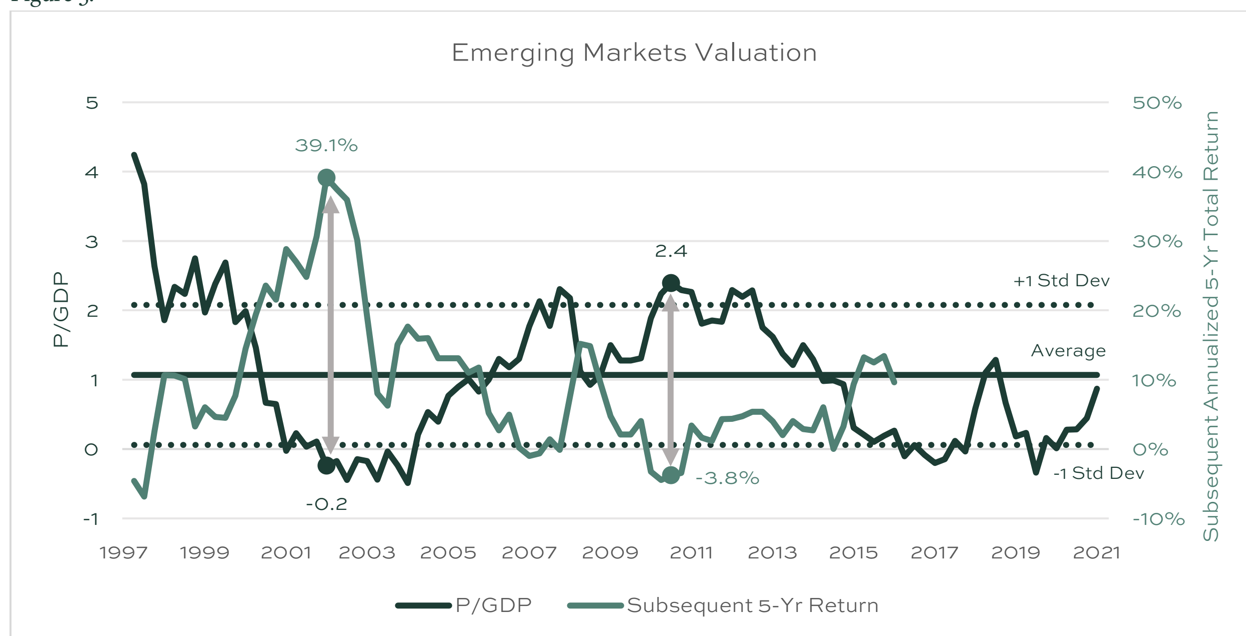
History suggests an asset class is undervalued when trading near the minus-one standard deviation mark and overvalued once in plus-one standard deviation territory. For example, at the end of 1998, the US P/GDP crossed over the plus-one standard deviation line resulting in a subsequent five-year annualized total return of -0.6%. And, in March 2009, the US was trading well below fair value, at a P/GDP of -1.8, resulting in a 21.2% annualized total return over the following five years. US stocks are in the danger zone today, more overpriced than at any other time in over 20 years. The current 8.5 P/GDP easily tops the previous high of 5.2 at the end of 1998 when the S&P 500 produced not only a disappointing five-year annualized total return of -0.6% but an even worse ten-year annualized total return of -1.4%. US stocks are the most overvalued asset class by far, compared to its historical average and the rest of the world.

Figure 2.



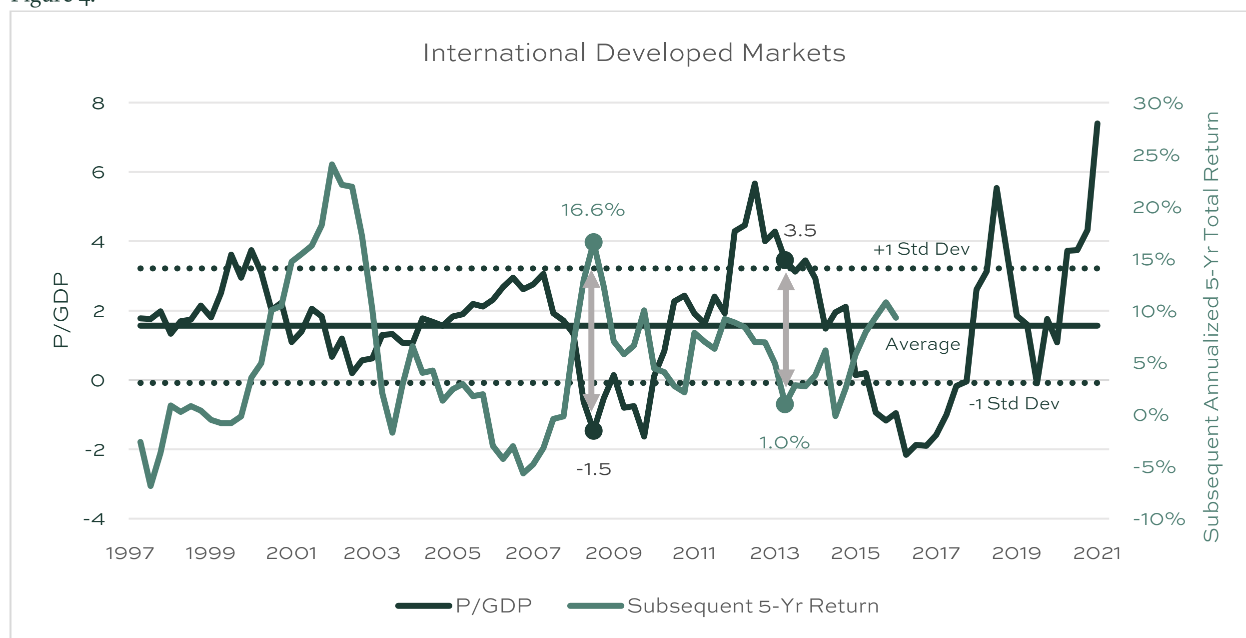
Within emerging markets, the P/GDP valuation identified several inflection points for the asset class. Two prominent points were identifying emerging markets as undervalued in September 2002 and overvalued in March 2011. The MSCI Emerging Markets Index five-year annualized total return beginning in October 2002 and April 2011 was 39.1% and -3.8%, respectively. Emerging markets are currently fairly valued, trading at a P/GDP of 0.9. The asset class reached peak undervalued in March 2020 during the global pandemic induced sell-off. Emerging markets have rebounded nicely off the March 2020 low, performing in line with international developed markets but nowhere near the high-flying US stock market. We believe there is still room to run for emerging markets as they are the only asset class trading near fair value and cheap compared to the rest of the world.

Figure 3.



Despite international developed markets having the lowest correlation of the three asset classes examined, our valuation measure still did a commendable job of pointing out times to either pare back or increase exposure. For example, in March 2009, the P/GDP metric fell to -1.5, identifying international developed markets as undervalued, and the MSCI EAFE Index generated a subsequent annualized five-year total return of 16.6%. Then at the end of 2013, the P/GDP was overvalued at 3.5, resulting in a 1.0% annualized total return over the next five years. International developed markets are expensive following the rally over the past 18-months, now trading at a 7.4 P/GDP, although still priced better than US stocks. The asset class is nowhere near as attractive as emerging markets, but it has historically exhibited less volatility which can help improve our portfolio's risk and return profile. Regardless of how high our conviction may be for emerging markets, we cannot put all our eggs in one basket.

Figure 4.



Stocks in developed markets across the globe are expensive, with the US in notably overvalued territory, well above the level at the end of 1998 leading up to the tech bubble. At this pace for US stocks, it would not be surprising to see a similar experience of a decade of lost returns. But not all hope is lost, as emerging markets are currently trading at an attractive valuation and represent the best opportunity moving forward. The opportunity, however, does not come without risk. Historically, emerging markets are more volatile than developed markets. This trait is likely to continue, but we believe patient investors will be generously rewarded.

Within the equity portion of our multi-asset portfolios, we are currently targeting 46% in international with just under half of that allocation in emerging markets. In the next couple of months, we will increase the international weight to over 50%, with at least half of the total international weight allocated to emerging markets. And we will look to lean further into this theme in 2022. The aggressive positioning will increase the expected volatility of our portfolios, but we have a high conviction the additional risk will be justified over the long run.

Figure 1. The annualized price return for each asset class is represented by the indexes as follows, United States: S&P 500; Emerging Markets: MSCI Emerging Markets Index; Developed Markets ex-US: MSCI EAFE Index. **Figure 3.** The counties represented in the real GDP growth calculation are those included in the MSCI Emerging Markets Index and weighted according to their annual real GDP values. **Figure 4.** The countries represented in the real GDP growth calculation are those included in the MSCI EAFE Index and weighted according to their annual real GDP values.

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Past performance is not indicative of future results. Indexes are unmanaged and you cannot invest directly in the index.

Diversification does not guarantee a profit or protect against loss.

S&P 500: Measures the performance of U.S. large-cap equities and is comprised of 500 companies across sectors and covers approximately 80% of available market capitalization. **MSCI EAFE Index:** Measures the performance of large- and mid-cap equities across 21 developed markets countries, excluding the U.S. and Canada, and covers approximately 85% of the free float-adjusted market capitalization in each country. **MSCI Emerging Markets Index:** Measures the performance of large- and mid-cap equities across 26 emerging markets countries and covers approximately 85% of the free float-adjusted market capitalization in each country.

Sources: The World Bank, YCharts.

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