2018 Year in Review

2018 has been a tumultuous year in the markets, punctuated by a fourth quarter decline that bordered on bear market status. Equities took on a schizophrenic quality during the year combining the largest PE contraction since just after the technology bubble with the 2nd highest earnings growth rate in over 30 years.

Investors found fear in three main areas. First and foremost, late cycle dynamics began to accelerate, increasing the chances that an economic slowdown is near. Leading indicators such as housing statistics and Purchasing Manager Indices (PMIs) worldwide declined from peak levels since the beginning of the year. As these fears grew in the fourth quarter, credit spreads finally began to echo their concerns.

Related to the economic changes are their influence on interest rates. With weaker economic data weighing on the long end of the yield curve, and regular hikes in the Fed Funds rate elevating the short end, the full yield curve headed toward inversion, a signal investors associate with an impending recession. Markets regarded the December rate hike as an out and out mistake, selling off sharply in the following sessions.

The last and potentially most unpredictable factor affecting equities is the looming trade war between the US, China and other nations. Always the most worrying aspect of Donald Trump's platform, the President has followed through on his pledge to fight for fair terms in trade agreements. Volatility in the market has grown as China and the United States take turns exchanging tariff broadsides, interwoven with attempts at diplomatic resolution. While the dollar amounts so far have not been significant, continued escalation will put pressure on markets.

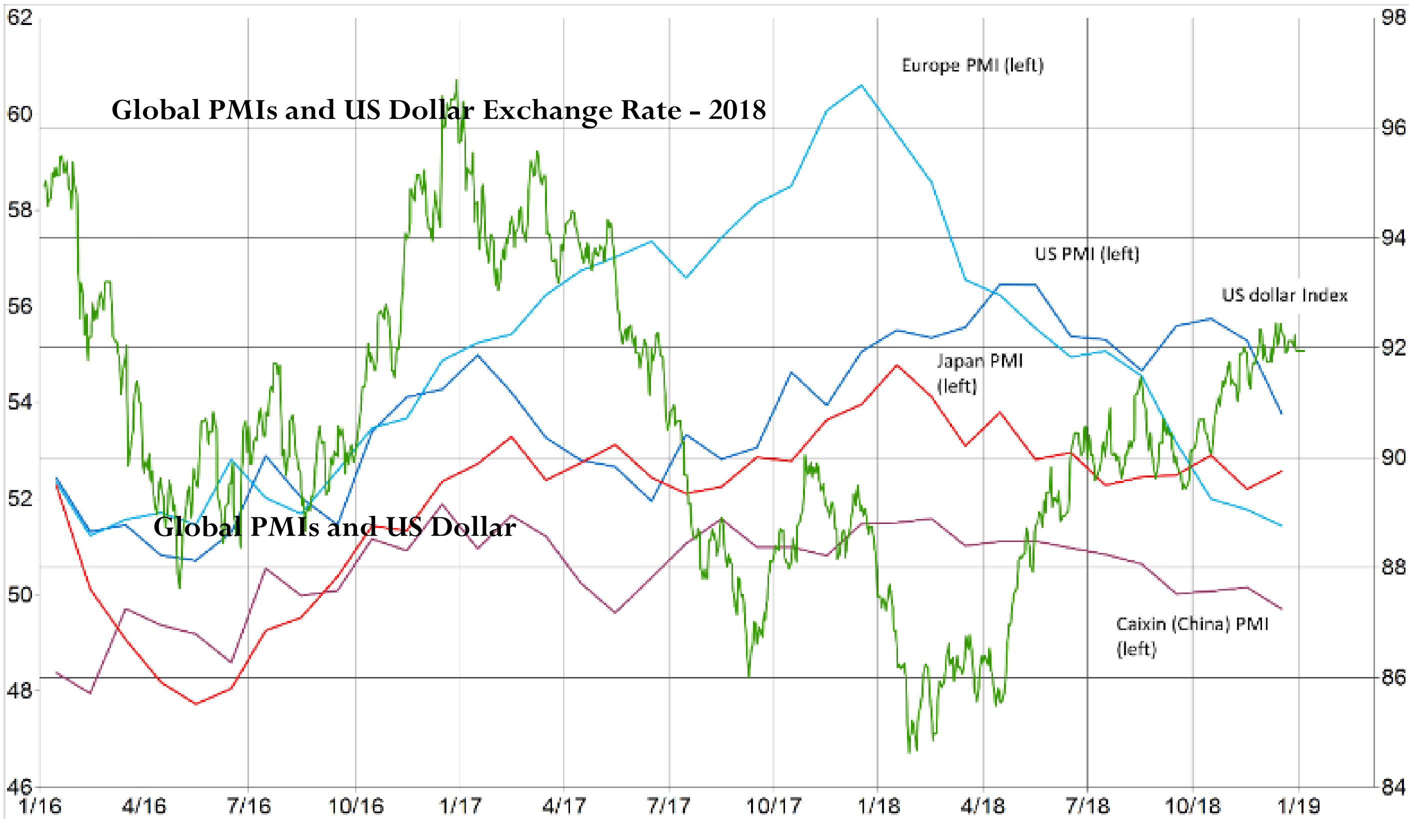
Returns to different investment styles reflected the macro-economic environment. The first 9 months of the year was a helping of momentum with a side order of growth. Value had its worst year in recent history. These trends abated in the fourth quarter, but they did not reverse. Much of the factor trend activity can be attributed to the slope of the yield curve. As short-term rates rose, and long term remained stable (a 'bear flattener'), growth companies with solid futures, such as the FANG stocks, performed well at the expense of value stocks with more dubious futures. In the fourth quarter, these growth stocks could no longer hold up in the face of growing economic pressures and joined the sell-off.

Small Cap Equities in 2018

Small cap stocks fell by -11% in 2018. In the fourth quarter they suffered through a bear market of their own in the fourth quarter alone, falling by just over 20%. Small caps underperformed large caps by about 7%. Half way through the year however, small caps were *leading* large caps by 4%.

Relative Return – Russell 2000 vs. Russell Top 200

Two of the characteristics of small cap stocks (among many…) relative to large cap is their more economically cyclical nature, and the higher share of their revenues that come from domestic sources. These two factors



contributed to the large swing in relative performance during 2018.

During the late stage of the economic cycle, small caps typically sell off relative to large. The reason that small caps held up during the first half was their higher domestic sales exposure.

While the US Manufacturing PMI peaked in April and rebounded in September, international PMIs peaked earlier: December of 2017 (Europe), January of 2018 (Japan) and February of 2018 (China). Given their higher domestic share of revenues, these trends bolstered small cap stocks, but ultimately, economic sensitivity overwhelmed domestic sales share and small caps led the fourth quarter equity downturn.

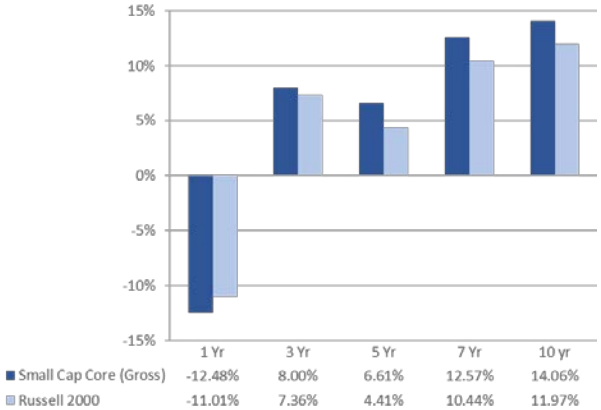
Small Cap Core Performance 2018

The Vitruvian Small Cap Core Strategy struggled in 2018, underperforming the Russell 2000 by 1.46%. It was our first year of underperformance since 2009. Most of the investment criteria we focus on – management signals, investor sentiment and our upside potential model, had mixed success throughout the year. In general, if you were not holding high-growth momentum stocks, even in small caps, returns were hard to come by no matter what your strategy.

We also observed risks in momentum stocks earlier than necessary. Volatility in momentum stocks began to rise in April and May, and in combination with high valuations among those stocks, the team felt it prudent to pare back momentum positions. We were a little early. Momentum continued to generate performance during the summer, and it was only until credit spreads began to agree with volatility in October did momentum begin to underperform. We do not regret our positioning in the spring – when momentum turns, the shift can be dramatic, and prudence is always the better choice. Such prudence helped us in the fourth quarter, when momentum stocks did begin to underperform in earnest.

The last time our process was challenged in this manner was the 2nd quarter of 2015. That year we recovered all our performance in the following quarter, and we hope that we will revisit that pattern this year as well.

Small Cap Core Performance as of 12/31/2018



2018 Milestones

Our first year of independent operations brought with it a series of accomplishments including:

- Build out of our research and operational infrastructure.
- Initial research into the relationships between Economic, Social and Governance (ESG) data and business sustainability.
- Addition of a new team member.
- Launch of our small-cap focused market-neutral strategy on October 1st.
- Continued development of multi-cap long/short strategy.

2019 Outlook

It is apparent that the US economy is in the late stage of the economic cycle. Leading indicators have continued to weaken. China's PMI fell below 50 in December, indicating flat to down growth. The December ISM was 3 points below expected. The critical question is whether the economy enters a recession, or simply another shallow downturn similar to 2011 and 2015.

Hence the focus on interest rates. In the two previous slowdowns, the Fed was lowering rates instead of raising them. Inverted yield curves have a strong record for predicting recessions in the US, but mixed elsewhere. The small sample size, and the unknown long-term effects of the unwinding of the Fed balance sheet precludes us from relying on this indicator by itself. Market-based indicators of future Fed activity indicate that the Fed will likely pause on rate hikes, and may even enter a lowering cycle. While credit spreads and PMIs agree with the yield curve, the market reaction to these measures indicates they are already priced in.

All of this bears watching as we move into 2019. The market internals and economic variables may reach levels where risks are worth taking, but we are not there yet.

Investment styles are certainly prepared for a slowdown, as described in the earlier section. In this area we do not seeing any convincing signs yet either. The spreads between expensive stocks and cheap stocks is widening, but not to levels usually associated with a bottom in the cycle. The volatility of momentum stocks continues to rise, indicating that poor performance for this style is likely to continue.

When looking for what may lead us toward or away from those levels, all eyes turn towards Washington. Markets disagree whether current policy is beneficial or harmful to markets but agree that it breeds uncertainty and a lack of confidence. The Mueller probe, relations with China, the government shutdown, and a new Fed chairman stir together a potent recipe for unpredictable changes, either up or down. As this is written, comment by Jerome Powell during a panel of Fed chairman has driven a 3%+ rally.

The prudent course of action is to pay less attention to the headlines and more attention to where you are being paid to take risk. Arguably we are on the precipice of greater weakness or a rebound, but the range of outcomes is not rewarding one side or the other.

Small Cap Investing in 2019

Small cap stocks are a pawn in this larger chess game. Their cyclical nature and higher risk levels dictate that they stand to continue to underperform as long as the current cycle persists. Their characteristics can serve as a signal however.

Relative valuations of small cap stocks have been in a downtrend since mid-2011. The reasons for this secular trend are beyond the scope of this commentary, but using recent years as a guide, they have reached the levels last found during the downturn of 2015. At this level they could fall further if economic weakness accelerates.

While not necessarily a screaming buy at this point, they are certainly more attractive than they were after the 2016 recovery, or the 2012-13 rally. One other factor favors the class.

In the presence of a full-blown trade war, the higher domestic revenue share of small caps would be beneficial, and the same support they found in the first half of 2018 could return.

Despite the beta concerns for small caps, the alpha benefit remains. The late stage of the economic cycle is a good time to consider adding to a small cap allocation as it combines the alpha generating power of small caps with the potential for a future cycle turn providing a beta tailwind.

Relative Valuation Measures – S&P 600 (Small Cap) vs. S&P 500 (Large Cap)