

2016 Mid-Year Update

Choppy Waters Continue



At the beginning of the year in our Annual Outlook, we noted that subdued economic growth, low inflation and easy monetary policy were likely to continue for the foreseeable future. Additionally, divergent policies across the globe would create volatility and investment opportunity for flexible investors unbound by traditional investment constraints. The primary questions for investors at that time

centered on problems in the energy sector, which some speculated might precipitate a general recession in the U.S. economy, and the potential devaluation of the Chinese currency, resulting in an associated capital flight. Today, those concerns have been replaced by Brexit, other threats stemming from populist policies and rising incidents of terrorism. While the near-term concerns are different, the long-term challenges and elevated volatility remain the same.

At the moment, capital markets are enjoying a temporary calm, with U.S. equity markets reaching all-time highs, U.S. interest rates reaching historic lows, and much of the developed world sovereign debt trading at negative yields. Capital markets have been buoyed by beliefs that the U.S. Federal Reserve and other central banks need to retain their accommodative stance in the wake of Brexit, and that the underlying economy may be stronger than it appears.

However, we continue to caution investors that the market tailwinds of the post-financial crisis era have ended and a more opportunistic approach is required to generate positive investment outcomes. Volatility will return, possibly even before you receive this piece, and the sideways market pattern we have seen over the last few years is likely to continue for some time.

Summary

Positive year-to-date equity and fixed income returns do not adequately convey the tumultuous world that investors experienced during the first half of the year. Most would find it difficult to believe where we ended the first half if told that the UK voted to leave the EU and terrorism events had dramatically escalated around the world. Yet, here we are with capital markets exhibiting relatively sanguine results and reaching new highs across multiple asset classes. We are likely to live in this uncertain world for some time and while markets will not necessarily head lower, the range of possible outcomes is wider.

In the U.S., economic growth appears to be muddling along after a slower growth period at the end of last year, which was partially induced by the layoffs in the energy sector. More recently, consumer spending, wage growth and employment data appear healthier, leading most economists to believe GDP growth will resume its uninspiring, but positive pace of growth in the near future. In contrast, optimism about European economic growth, in the wake of Brexit, is fading and further stimulus measures will likely be required. In emerging markets, optimism is growing in some countries. Recent data from China suggest growth is stabilizing at healthy but lower levels, albeit with significant ongoing government support.

Volatility continues to bring opportunity. During the first quarter, the rebound in oil and gas prices, largely due to production declines in U.S. shale basins, created a corresponding bounce in energy sector asset values, which had suffered significant losses in the latter half of 2015. Those investors flexible (and courageous) enough to make allocations to this area during the late fourth quarter and early first quarter have likely fared well. Similarly, a rebound in Brazilian equity markets allowed nimble investors who took advantage of significant selling over the last few years to realize recent profits, while Brexit briefly gave investors an opportunity to acquire fundamentally sound companies at suddenly discounted values.

We expect this type of volatility will continue into the future and managers with flexible mandates may be able to exploit these divergences to generate additional

returns in a world where baseline returns will likely be underwhelming. Patience is required for this type of investing, as favorable outcomes are not required to meet a specific schedule and good values often become even better values before they are recognized by the broader markets.

While investors have been on a bit of a rollercoaster ride over the first half of the year, many asset classes and sectors ended the second quarter with modest gains. Unfortunately, that means the valuations of many areas of the capital markets remain elevated and investors should maintain reduced expectations for future returns. Additionally, many of our secular investment themes remain unchanged, but we learned a few things and captured a few opportunities through this recent volatile period.

- Fixed income allocations should remain underweighted in investment portfolios given the historically low level of interest rates. While we do not believe interest rates will be rising soon or quickly, the current risk/reward proposition is clearly uninspiring for investors.
- U.S. equity market valuations remain well above their long-term averages, which historically implies reduced returns going forward. While it's possible that increases in corporate earnings will allow the market to perform well, we believe earnings growth will continue to disappoint and investors should maintain muted return expectations from simply "owning the market".
- We believe we have moved further into a stock-pickers market, where opportunistic investing is more important to the generation of returns than during the market-driven period after the global financial crisis. Elevated volatility will continue to provide opportunities for flexible and opportunistic managers in affected sectors and geographies, as we have seen over the last few quarters.
- International developed markets are more attractively priced than the U.S. market, partially due to declines in European markets on Brexit-related fears.
- We remain attracted to emerging markets due to

generally lower valuations and the potential for higher earnings growth of selected companies. We strongly favor local and regional managers with informational advantages to better capitalize on inefficiencies that are so prevalent in these markets.

- Hedge funds experienced arguably their worst relative performance ever in the first quarter. We believe crowding (i.e., too many managers in the same or similar ideas) will make investing in this area even more difficult in the future. While getting to the best managers has always been critical to successful hedge fund investing, increasingly crowded trades require investors to look further afield for compelling managers and strategies.

Capital Markets in Review

In the second quarter, stocks staged a strong recovery from February lows, shaking off fears of a global recession, an oil price collapse and further Chinese currency devaluation. Equity markets tumbled yet again in the wake of the UK's Brexit vote, but have now recovered to reach record highs. Whether you are an equity bear or bull, the recent resiliency of equity markets, particularly in the U.S., has been quite remarkable in the face of two significant market corrections over the last few quarters, several

consecutive declines in quarterly corporate earnings, increasing terrorism around the globe, all topped-off by a Brexit vote.

World equity markets increased 0.7% during the first half of the year as shown in Chart 1, paced by U.S. markets, which rose 3.8% largely by avoiding most of June's Brexit swoon. Not as fortunate were International equity markets, which declined 1% during the first half. Surprisingly, emerging market equities performed very well, increasing 6.4% during the first half of the year. This is a clear reversal of the risk-off pattern of the last several years, in which emerging market equities would suffer disproportionately large losses whenever a market shock occurred. Whether or not this becomes a recognized turning point for these markets or merely a short-term aberration is yet to be seen. However, it is becoming clear that there is limited ability to further decrease emerging market exposures in many institutional portfolios. Perhaps we have reached a point of capitulation for emerging markets?

These relatively muted equity performance numbers do not adequately convey the volatility we experienced during the first half of the year. For example, the S&P 500 energy sector, after falling over 21% last year, rebounded over

Chart 1. Performance and Valuations

Market	Index	1st Half 2016	Performance		Valuations	
			Annualized 3 Year	5 Year	Forward P/E June 2016	Dec. 2015
World Equity	MSCI World	0.7%	7.0%	6.6%	15.7x	15.8x
U.S. Equity	S&P 500	3.8%	11.7%	12.1%	16.6x	16.2x
International Equity	MSCI AC World ex U.S.	-1.0%	1.2%	0.1%	13.6x	13.8x
Emerging Market Equity	MSCI Emerging Markets	6.4%	-1.6%	3.8%	11.8x	11.0x
Spreads vs. Treasuries						
10-Year Treasury	Citi Treasury Benchmark 10-Year	8.0%	5.3%	5.6%	-	-
Municipal Bonds	Barclays Mgd Money Short/Int	2.9%	3.8%	3.4%	60bps	67bps
U.S. High-Yield Bonds	Barclays High Yield Corporate Bond	9.1%	4.2%	5.8%	621bps	694bps
Emerging Market Bonds	JP Morgan Emerging Market Bond	10.9%	6.4%	6.2%	360bps	406bps
Hedge Funds	HFRI Fund Weighted	1.2%	2.9%	2.4%		
Conservative Hedge Funds	HFRI FOF Conservative	1.5%	2.0%	1.9%		
Commodities	Bloomberg Commodity Index	13.9%	-10.6%	-10.8%		
Gold	Spot Price of Gold	24.6%	2.3%	-3.3%		

Source: Bloomberg, MSCI, JP Morgan

32% from its January lows. European bank stocks, one of the focal points of investors' Brexit-related concerns, declined nearly 30% and the Chinese A-share market declined nearly 19% on concerns about slowing growth and currency devaluation. On the other hand, the Brazilian equity market climbed nearly 90% from the January lows reached after falling 80% cumulatively (including currency effects) over the prior five years. In this highly divergent world, stock picking and a contrarian sensitivity to valuation can provide return opportunities when broad equity markets have run out of steam, as we have experienced over the last 18 months.

Fixed income markets also reached record highs. Long-dated U.S. Treasury bonds increased 15% during the first half of the year and the 10-year Treasury traded down to an all-time low yield of 1.35%, before normalizing near 1.50%. A combination of a desire for safety in the face of increased terrorism, growing global uncertainty linked to Brexit and the unknowable outcomes of other populist movements around the globe continue to drive demand for safer, income-producing assets despite their already inflated levels.

Other fixed income assets also performed well during the first half of the year, somewhat in sympathy with the declining yields of U.S. Treasury bonds. Municipal bonds increased 2.9%, while investment-grade corporate bonds increased 7.6%. High-yield bonds, which climbed over 9%, were a bit of a surprise performer during the first half, given lagging corporate profits and the uncertainty of the current environment. However, much of this performance can be attributed to regaining some lost ground after a disappointing year in 2015, particularly in the energy sector, which appears to be partially healing following a rebound in oil and gas prices.

Hedge funds experienced a difficult first half of the year, highlighted by one of the worst, if not the worst, relative "alpha" quarters on record in the first quarter. Hedge Funds, as measured by the HFRI Fund Weighted Index, were up a meager 1.2% through the first half of the year, recovering the 0.6% loss during the first quarter. We believe the hedge fund space has become increasingly crowded and susceptible to strong unwinding or deleveraging behavior by weak hedge fund investors.

This selling leads to additional selling by hedge funds, creating a negative self-reinforcing cycle that exacerbates short-term losses. Long-short equity hedge funds are the most susceptible to deleveraging behavior. They were down 5% during the first two months of year, and remain down 0.5% through the first half of the year.

Global Economy and Inflation

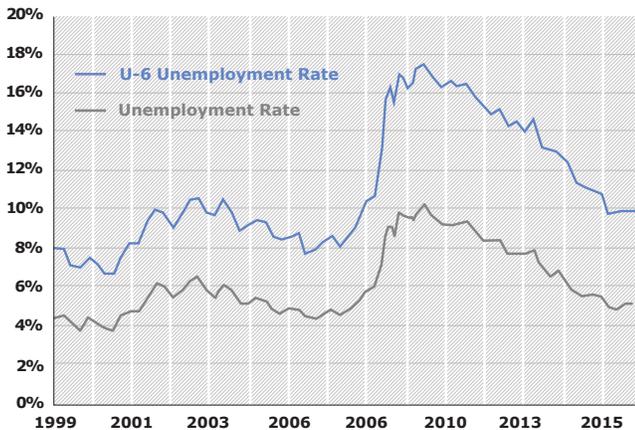
The global economy continues to limp along. As we mentioned in our Annual Outlook, secular challenges continue to create headwinds for global growth. Aging populations, low birth rates and high debt levels in the developed world and China will continue to dampen global economic growth rates.

Since the beginning of the year, economic data has been mixed. Recent consumer spending data in the U.S. are encouraging, as June retail sales suggest increases in personal consumption expenditures may have exceeded 4%. Additionally, reports from China also indicate that growth may have been a bit stronger than expected. On the other hand, most economists feel that a UK exit will likely slow growth across the Eurozone, with some calling for outright recession in the UK. "Muddle along" global economic growth, as uninspiring as it sounds, seems to be the most likely scenario for the foreseeable future.

While economic growth remains muted, it is worth noting that we are well into one of the longer economic recoveries on record. The persistence of growth, however uninspiring in its magnitude, is beginning to cause areas of tightening that typically point to increasing inflationary pressures. We are not suggesting that rampant inflation is just around the corner, but investors should be aware that such tightening typically causes increasing pricing pressures that strongly influence Federal Reserve policy in the direction of tighter monetary policy and a less favorable environment for risk assets.

The pace of the employment recovery after the global financial crisis has been the slowest on record, but U.S. employment numbers continue to inch higher. The U.S. economy has now added jobs for a record 66 consecutive months and the unemployment rate remains near its current cycle low below 5%, which is the lowest since 2007, as shown in Chart 2. In this year's Annual Outlook

Chart 2. Unemployment Picture Improves



Source: Bureau of Labor Statistics

and prior such reports, we have documented why the unemployment rate may be misleading and the U.S. economy still suffers from underemployment, as also shown in Chart 2 by the “U6” unemployment numbers that adjust for underemployed and part-time employment. However, many of these underemployed people are older and may simply decide to retire early and never re-enter the workforce, further dampening the long-term economic growth potential of the U.S. and making labor markets tighter than what we anticipated in earlier reports.

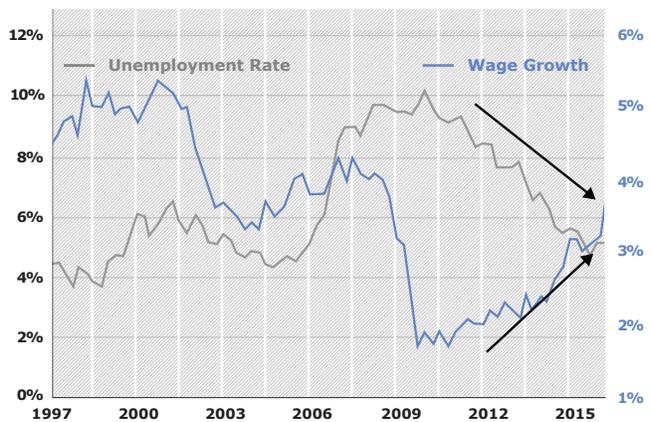
Historically, tight labor markets lead to wage inflation, as shown in Chart 3. A key wage indicator, the Atlanta Fed Wage Growth Tracker, suggests that wage growth increased 3.6% year-over-year in June and wage growth of those individuals who switched jobs increased 4.3% over the same period. This is a sign of a healthier labor market. The critical question is whether this will lead to broader inflationary pressures.

It is worth noting that the hurdle for generating headline inflation (not core inflation, which excludes food and energy) will move lower in the second half of 2016. Over the last six months, we have witnessed a significant rebound in oil prices, making year-over-year comparisons of headline consumer prices increasingly easy to beat. One analyst estimates that if core energy prices just stay at current levels, headline U.S. inflation will approach 2.5%.

Over the last few decades, globalization and rapid technological change, such as automation and “asset-

Chart 3. Wages are Rising as Unemployment Falls

(Wage Growth: Median YOY Change in Matched Individuals' Wages.)



Source: Bureau of Labor Statistics, Federal Reserve Bank of Atlanta

lite” business models like Uber and Airbnb, have been suppressing inflation. While these deflationary forces are still prevalent, inflationary pressures appear to be closing in. This risk appears to be growing as the anti-globalization pendulum swings back towards protectionist policies. Inflation is always an important factor when diagnosing economic and capital markets landscapes, but it is a particularly important consideration at the moment for the U.S. Fed and other central banks around the world.

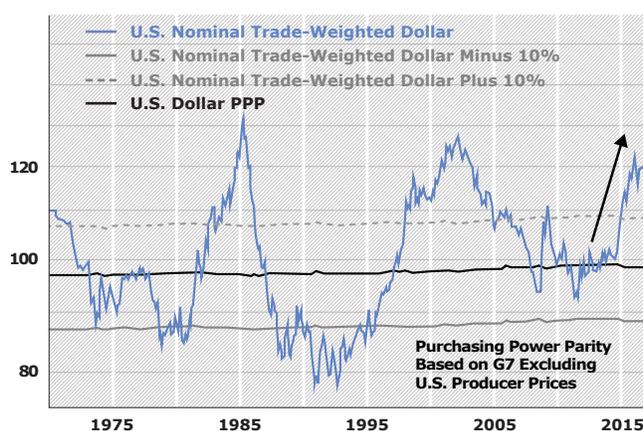
Fed Policy: Reaching Limits?

For the last seven years, central banks in the developed world have been trying to encourage growth and lift inflation from depressed levels. Unfortunately, current economic headwinds are secular rather than cyclical and their efforts have been less effective than hoped. While these stubborn structural challenges have hampered economic growth, they have also provided the latitude for central banks to implement unprecedented interest rate policies. Increasing inflationary pressure could create a difficult choice between allowing higher inflation and dampening an already lackluster economic growth, by raising rates

Unlike the U.S., many areas of the global economy continue to suffer from excess capacity, which limits the willingness of other central banks to engage in a tightening cycle, creating further divergence among global central banks. One undesirable consequence of the Fed tightening U.S. rates when the rest of the world remains highly accommodative, is the potential for further appreciation

of the U.S. dollar, which would add another headwind to U.S. economic growth. The U.S. experienced these challenges during the “taper tantrum” in 2013, when the mere idea of Fed tightening caused capital markets to panic and the dollar to begin to appreciate as shown in Chart 4. Eventually, the relative strength of the U.S. economy forced an actual 0.25% increase in short-term rates in December of last year, which caused the dollar to soar in one of its sharpest rallies in history. We believe the dollar is already above fair value and further tightening and dollar appreciation could push fragile U.S. growth rates down to recessionary levels.

Chart 4. Relative U.S. Economic Strength has Led to Dollar Appreciation



Source: BCA Research

The era of monetary policy as the primary tool for impacting the economy is coming to a close in the U.S. Fiscal stimulus and structural reforms need to take over for monetary policy to foster growth. Absent the political will and leadership to implement such reforms, a real conundrum appears to be on the horizon.

Brexit and the Rise of Populism

We will not rehash our views on Brexit, which we published the day after the event, as most people have already been inundated with dozens of “insights” from everyone who now feels the need to add ex-post commentary. Nor will we attempt to summarize the invocation process contained in Article 50 of the Treaty of Lisbon and the 80,000 pages of agreements that need to be renegotiated. However, we believe that the path forward is not urgent and is far less clear than many expect, and that the more important implication is broader than this single vote.

We appear to have reached an inflection point in which we face a world of increased polarization, populism and politicization. While Brexit is the most visible recent evidence of this, the U.S. presidential election cycle, with the rise of non-traditional candidates Bernie Sanders and Donald Trump, provides some additional evidence of the dissatisfaction with the current political elites.

As part of this movement, there has been a clear shift in attitudes against the free trade of goods and the globalization of labor markets. Economic growth in the major economies has not only been disappointing, it also has been unevenly distributed along multiple dimensions. Politicians will feel increasing pressure to placate the dissatisfied masses. It is no longer acceptable to do nothing, as we witnessed on June 23rd with the resignation of British Prime Minister David Cameron. While the specific policies are difficult to predict, there will be a rise in nationalistic tendencies and a rejection of globalization trends of the last few decades.

This direction will reverse to some degree the disinflationary and growth benefits that the world has enjoyed during this period, with the timing, magnitude and specific impacts of that reversal being significant unknowns. Note that this is distinctly different from implying that outcomes will be negative, but rather it is to say that the range of possible outcomes has become significantly wider.

Global Capital Markets and Valuations

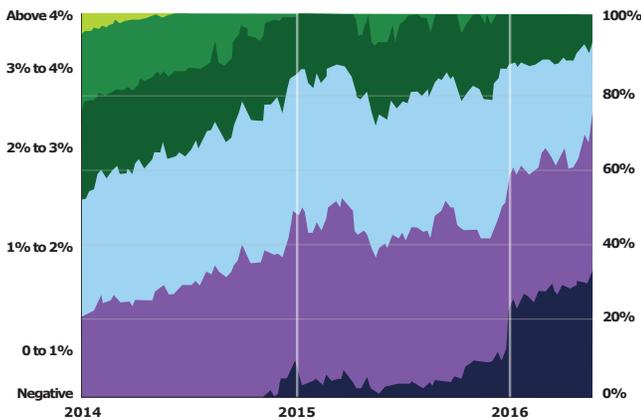
Bargains are hard to come by in capital markets today with valuations ranging from fair to very expensive. Investors should lower their return expectations, as the historical correlation between high, current valuations and low, future returns is quite high. We offer a few thoughts below on assets classes where markets have evolved since our Annual Outlook at the beginning of the year.

Fixed Income

Investors’ insatiable appetite for yield continues and the search is becoming more challenging. Government bonds are very expensive compared with their history, as an ever larger part of that universe offers negative yields. In the U.S., 10-year Treasury yields reached an all-time low of 1.35% in the immediate aftermath of Brexit. While this seems rather paltry by most standards,

Chart 5. Nearly 40% of Sovereign Debt is at Negative Yields

Global Government Bonds by Yield 2014–2016



Note: "Areas show the proportion of bonds in the J.P. Morgan Global Developed Government Bond Index within yields in each range."

Source: BlackRock Investment Institute, J.P. Morgan and Thomson Reuters

international sovereign debt, where the prospects for economic growth are far worse than in the U.S., have yields that are even lower. Over 70% of government bonds in the developed world, including the U.S., are trading at yields below 1%, as shown in Chart 5. Further, nearly 40% of all government debt is currently trading at negative yields! We continue to believe that significantly higher interest rates are not an imminent threat, but it's very difficult to be enthusiastic about sovereign bonds at current interest rates.

As has been the case for the last few years, investors must increasingly take more risk in search of higher returns. In some cases, this means investing in riskier bonds, such as high-yield debt. In more extreme cases, this means moving from fixed income into entirely different asset classes, such as dividend paying equities. As a result, high-yield bonds (those rated below investment grade) have become an oxymoron. Chart 6 shows that the reward for investing in the debt of risky companies remains uninspiring after a brief spike during the recent scare in energy markets.

In our Annual Outlook, we also cautioned that an emerging risk in fixed income markets is the lack of liquidity created by regulatory changes, which have severely restricted bank fixed income trading activities. While reduced liquidity and wider bid/ask spreads have negative impacts in normal markets, a significant risk exists that when

Chart 6. Investors Increasing Risk to Enhance Their Yield

U.S. High-Yield Spreads ex Energy



Source: Barclays

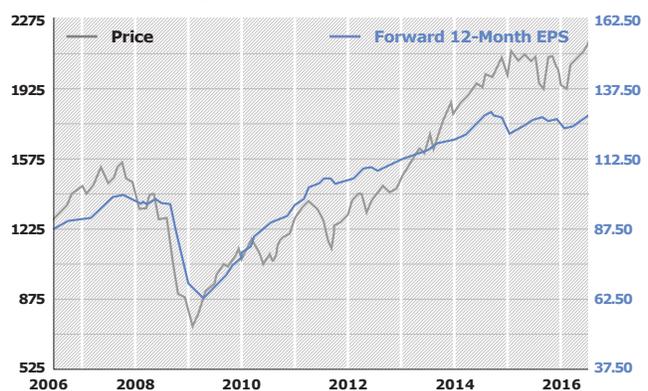
market conditions worsen due to adverse economic, political or other developments, the volume of sellers, particularly from the now massive ETF and mutual fund holdings, will dwarf the much more limited capacity of the remaining market participants.

U.S. Equities

U.S. equity markets have far outpaced economic fundamentals since the global financial crisis, yet we know that over time equity prices tend to follow earnings. The S&P 500 has returned roughly 60% since its pre-crisis peak in 2007, which is roughly three times more than corporate earnings growth over the same period. The gap between earnings growth and share price appreciation is noticeable. Over the last few years, as shown in Chart 7, U.S. equity returns over the last two years have mostly

Chart 7. Stocks Rising While Earnings are Flat

S&P 500 Price vs. Change in Forward 12-Month EPS



Source: FactSet

been driven by expanding multiples, reaching a current valuation of 17x forward earnings for the S&P 500, which is well above the long-term average.

Further, some of the recent appreciation has been driven by equity repurchases, which make earnings-per-share data appear to have increased while overall fundamentals have been much less robust. Share repurchases are up again this year, increasing more than 30% year-over-year and have totaled over \$2 trillion since 2009. These share repurchases mask the fact that GAAP earnings of S&P 500 companies are roughly flat over the last four years. While repurchases are supportive of share prices in the short run and may persist in the current era of cheap financing, they do not have a positive impact on long-term earnings growth.

Future returns are likely to be more dependent on a resumption of earnings growth, given the headwinds created by current high valuations. The good news is that the earnings growth path is possible. The bad news is that we are not headed down that path at the moment. Second quarter earnings for the S&P 500 are estimated to decline over 5%, which would mark the first time we have experienced five consecutive quarterly year-over-year earnings declines since the global financial crisis. Unfortunately, the challenge ahead is not isolated to earnings, as revenue growth is set to experience its sixth such consecutive quarterly decline, providing a higher hurdle to create positive momentum.

As noted above, the S&P 500 is trading around 17x forward four-quarter earnings, well above average by most historical comparisons as shown in Chart 8. This is quite impressive given the challenges equity markets have faced over the last few years. At this point, we do not interpret the resiliency of the equity markets, particularly in the U.S., as a reflection of optimism about the economic outlook or corporate profit growth. Rather, years of monetary policy stimulus and artificially low interest rates have successfully encouraged investor risk taking, which has undoubtedly supported equity markets.

One indicator of this risk-taking impetus is illustrated in margin debt levels. Historically, margin debt balances

Chart 8. U.S. Equity Valuations are Elevated

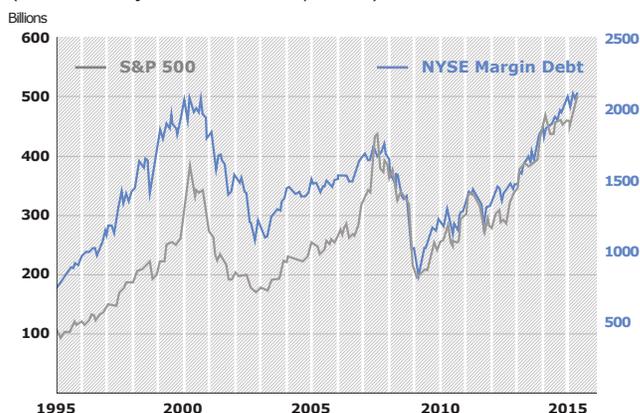
U.S. S&P 500 Forward P/E



Source: BCA Research

Chart 9. Risk Seeking Behavior Making Prices Rise

(Real Values Adjusted to Present-Day Dollars)



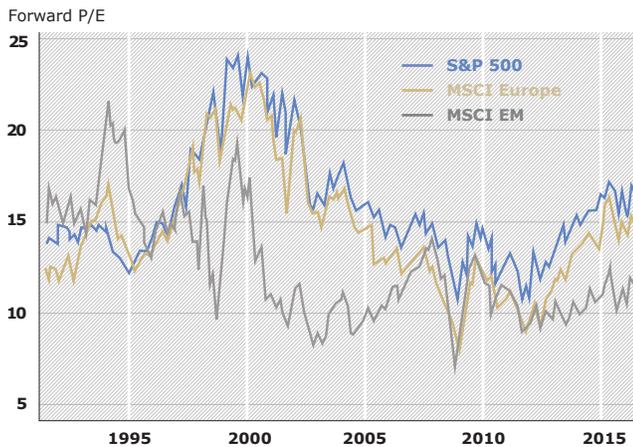
Source: Bloomberg

are highly correlated with equity returns, as shown in Chart 9 and the post-financial crisis era has not been an exception. We do not believe it is coincidence that NYSE margin balances are reaching all-time highs at the same time the S&P 500 is also reaching unprecedented levels. This trend will not end well, unless economic fundamentals and corporate earnings improve enough to justify current valuations. We are not suggesting that equity markets are due for an immediate or monumental correction, but lower return expectations should be the norm until conditions improve.

International and Emerging Market Equities

International equity markets continue to trade at a discount to U.S. equity markets, as shown in Chart 10.

Chart 10. International Equities are More Attractively Valued



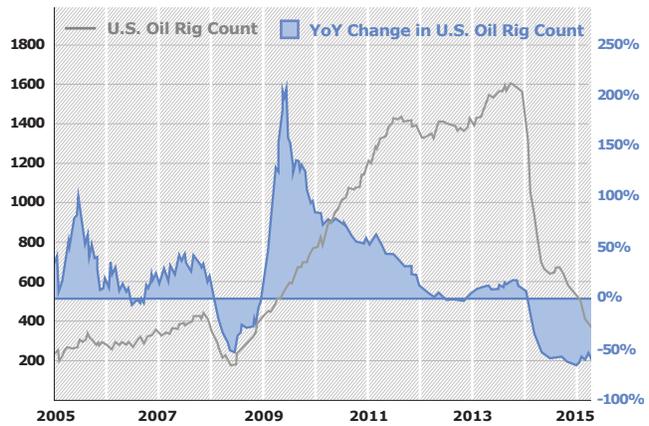
Source: Bloomberg

As we discussed in our Annual Outlook, margins of companies in these markets are also not nearly as stretched as their U.S. counterparts, providing an additional way for investors to win. We do not believe that the valuation gap between developed international and U.S. equity markets is wide enough to make a significant and dedicated allocation tilt toward these markets, but we have seen clear evidence from our managers, through their rotation of individual portfolio holdings, that more attractive opportunities are beginning to appear in European markets, particularly in the wake of Brexit.

In the latter part of 2015 and the first half of 2016, emerging markets indices slightly outpaced developed equity markets and were surprisingly robust during the Brexit crisis. Today, as also shown in Chart 10, emerging market equities are trading at a forward P/E ratio of roughly 12, about 30% cheaper than U.S. markets. Additionally, many of the local currencies in these markets are now trading below fair value against the U.S. dollar, giving investors another potential value driver.

Our usual caveat on emerging market equity investing applies once again. Divergence across emerging markets remains high from an economic, currency, asset valuation and opportunity perspectives. Consequently, caution should be used when making generalizations about these markets and local market expertise is critical when investing in smaller, non-benchmark names where greater inefficiencies exist.

Chart 11. Oil Drilling Slashed After Supply Buildup



Source: Baker Hughes

Hedge Funds

Hedge funds continue to face challenges in 2016, possibly experiencing their worst period of aggregate relative performance ever. This poor performance was particularly concentrated in long/short equity funds that disproportionately suffered losses during the equity market declines in January and February. Instead of providing some measure of downside protection during this period, many hedge funds actually lost more than the markets.

Historically, the poor performing hedge fund universe is populated with less-talented, less-experienced managers who simply can't compete with the best talent in the industry. Interestingly, during the first quarter, the poor performers included some of the most talented and accomplished managers in the industry. It should not be surprising that these managers also tend to manage larger asset bases and be the most widely followed and imitated managers.

Our belief is that the industry is suffering from excessive crowding in the most popular hedge fund securities. Collectively, hedge funds control over \$3 trillion of assets, but the effective asset base is far larger. First, many managers employ leverage, so that the assets controlled by these funds is larger than the equity capital base their investors provide. Additionally, these funds are now required to provide transparency of their long holdings through regulatory filings. These positions, particularly those of the most successful managers in the industry, are rapidly imitated by tracker funds, compounding the

crowded nature of these holdings. As funds begin to reduce their exposure to protect capital, it causes a ripple effect across the industry, which creates a self-reinforcing cycle of additional selling across numerous funds.

Goldman Sachs publishes a list of the most popular hedge fund long and short positions and then tracks their respective performance. While world equity markets increased 0.7% in the first half of the year, the most popular (i.e. crowded) hedge fund stocks declined 4.4%. Further exacerbating their problems, popular hedge fund shorts increased 8.2%. Long positions performing worse than the market and short positions performing better than the market is a very poor recipe for hedge fund investment success.

While we have noticed this crowdedness increasing over the last few years, the magnitude of hedge fund underperformance due to forced selling of overcrowded positions in the first quarter was surprising, even to us. Hedge fund crowding seems to be an increasing and likely permanent risk factor that investors need to understand when making allocations to this area. As a result, investors must look further afield to less crowded areas for continued success. However, moving away from investments that present higher crowding risk likely increases currency, liquidity, volatility, business and other risks, which need to be evaluated carefully. We believe this dynamic changes the risk/reward proposition for investors and raises the hurdle for investment success.

Real Assets

The most important development in real assets during the first half of the year was the rebound in oil and natural gas prices. Oil rebounded to around \$50 per barrel at the end of the first half of the year from a low of nearly \$26 just six months earlier, before declining to \$40. Similarly, natural gas prices recovered from a March low of \$1.6/MMBtu to \$2.9/MMBtu at the end of June. As the old saying goes: "The best cure for low commodity prices is low commodity prices!"

Rational economic producers will cut production when the cost of production creates insufficient or negative economic profits. Chart 11 shows the decline in the total

number of drilling rigs deployed in the U.S. and the related year-over-year percentage change. As a result, U.S. shale production is beginning to decline as few new wells are being drilled and the existing well volume begins to decline through natural depletion.

Long-term, we believe the more important development for oil and gas production is that U.S. shale producers appear to have become the marginal producer so that future production and capital investment decisions will be based on rational economic motivations. The ability of OPEC to keep prices artificially high may also be a thing of the past. Longer-term, this likely means that oil prices will cycle around the breakeven cost of U.S. shale extraction, which most analysts believe is currently around \$50 to \$60 per barrel and will likely fall in the future due to ongoing technological innovation.

In the near-term, caution is still warranted as excess oil supply is difficult to measure, but likely remains at historically high levels. As a result, price volatility and near-term risk of price declines will remain. We continue to evaluate compelling investment opportunities in this area which have reasonable downside protection and do not require an accurate forecast or upward price movements of commodity prices for success, just a resumption of rational economic pricing.

Investment Themes

The dominant theme for today's market environment is uncertainty. Mario Draghi, President of the European Central Bank, recently used the word "uncertain" in some form 13 times during a brief speech. Central bank minutes, including those of the U.S. Federal Reserve, are littered with references to the uncertain environment, particularly on the heels of Brexit and the U.S. political conventions. It is important to remember that "uncertain" in an economic or capital markets context simply means a wide range of possible outcomes, both positive and negative.

Much of the recent post-Brexit rally and the longer-term rally over the last few years has been built on the expectation that central banks will maintain their accommodative interest rate policies. While we believe this is likely true, with the possible developing exception of the U.S. Fed as

we described earlier, the important question for investors is what happens when this view changes?

The answer is not likely to be positive for risk assets, particularly those trading at extreme valuations. Accordingly, it is particularly important to be selective in this environment to ensure portfolios are tilted away from the most extreme areas of high valuation and toward those areas that are more attractively priced. This will require a contrarian perspective and the patient discipline of a long-term investor. For example, stretching for yield in a market where valuations for yield-oriented investments are already stretched is not likely to end well.

There are no simple solutions for investing in this increasingly challenging market, but here is our current guidance for our clients and other long-term investors:

- Cash continues to offer poor long-term returns, essentially guaranteeing an erosion of the purchasing power of assets. However, the opportunity cost of maintaining higher-than-normal cash balances is much lower than normal, since the expected returns of other asset classes have also come down, so investors may want to modestly increase cash balances to protect capital and also be able to play offense by investing in lower-priced assets should we experience a significant correction.
- Bond markets offer an even worse proposition for investors due to low interest rates. While interest rates do not appear to face an eminent increase, much of the world's government bond market currently trades at negative yields. Further, investors should avoid taking additional risk to invest in corporate and high-yield debt as they appear to be undercompensating for the risks inherent in these investments.
- Currency exposure will remain central for international investments, as we saw recently with the UK pound, which declined by nearly 10% in the wake of Brexit. Once again, while currency volatility presents a clear investment risk, it also can be an opportunity. For example, most emerging market currencies are trading at or below fair value on a purchasing power parity basis relative to the U.S. dollar. We do not recommend speculating in notoriously fickle currency markets, but for savvy investors these markets can create a positive tailwind for otherwise attractive investments in non-U.S. markets.
- Global equity markets remain fully valued, especially those in the U.S., so should investors lower their forward-looking return expectations for such investments. While headline returns are likely to be muted, opportunities exist within the global equity markets given the high dispersion of returns being generated by divergent economic cycles. Specifically, we believe some international equities are now more attractive in the wake of Brexit and emerging markets continue to offer more compelling valuations and inefficiencies.
- Recent hedge fund underperformance and the growing crowdedness of many of their trades appear to have increased the risks for investors in this area. Manager selection remains critically important and even more so in the wake of the first quarter challenges caused by increasingly crowded trades. Investors in this area should be prepared to explore less crowded, less efficient areas to find investment success.
- In real assets, real estate values remain quite elevated as investors' insatiable demand for income has driven values in some areas back to levels experienced at the pre-crisis peak. On the other hand, we believe good investment opportunities can be found in the mining and energy sectors, particularly now that oil and gas prices have begun to rationalize. We do expect continued volatility in these prices and believe some risk to the downside exists, so careful underwriting of investments in the energy sector is more important than ever.
- Private equity will continue to be a productive allocation for investors, but the typical caveats apply. Some areas of the market appear expensive, particularly larger buy-out investments, late-stage venture investments and many income-oriented strategies, and will likely generate lower returns in the future. Investors should be cautious when considering investments in these areas.

Concluding Thoughts

With all of these words of caution, why not simply sell and go to cash? It is tempting, but also risky and it's important to remember that success requires not one, but two high-risk decisions. First, it is difficult to "time" markets and exit at the correct moment. Further, it is equally difficult to reenter at the appropriate moment. Human nature would have us behave in precisely the opposite manner than needed in this regard, having us sell when asset values are down and investors feel fear and then buy when asset values are up and investors are confident. How many investors do you know who had the foresight to sell stocks in the middle of 2007, when sub-prime mortgages were still a small isolated problem and commodities were soaring, and then reenter the market in March of 2009 when things seemed bleakest?

Additionally, there is still upside potential for risk assets. While some assets are trading at high levels compared with historical precedent, we are clearly in a market with unprecedented policies, risks and opportunities. Further, there are areas of the capital markets where valuations are not extreme and opportunities exist. Being careful to avoid highly overvalued areas while still remaining diversified and nibbling at out-of-favor areas is the best way to navigate these challenging markets.

About Gresham

Gresham Partners, LLC is an independent investment and wealth management firm that serves its clients as an outsourced chief investment officer and a multi-family office. Gresham has been serving select families, family offices, foundations and endowments since the firm was established in 1997. Today, we advise on over \$5 billion for about 85 clients, many of whom have been Gresham clients since the firm's inception.

We seek to utilize difficult-to-access managers located globally across the full range of asset classes. We make these managers available to our clients in a flexible format well suited to achieving a broad spectrum of investor goals. As a multi-family office, we integrate this investment approach with client-specific wealth planning strategies and other personalized wealth management services.

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