



Innovative Thinking + Smart Strategies

2016: The Year Ahead

Annual Market Outlook

MV Financial Research & Strategy Group

January 19, 2016

The Year Ahead: 2016 Annual Outlook

I.	The World in 2016: Economic Identity Disorder	3
	A. The Growth Challenge I: Secular Stagnation	3
	B. The Growth Challenge II: Developing Economies at a Crossroad	9
II.	2016 Investment Thesis: Uncertain Times	11
	A. Executive Summary	11
	B. State of the Global Economy	13
	C. State of the Capital Markets	19
III.	Conclusions: Our 2016 Action Plan	26
IV.	Important Disclosures	27

Note to our readers: On pages 11-12 you can find an executive summary presenting in bullet point form the key themes we discuss in more detail elsewhere in this report. On page 26 you will find our concluding thoughts and in particular our views on asset allocation for the year ahead. Of course, we invite you to read the full document for an understanding of the economic, capital market and other forces shaping our thought process.

www.mvfinancial.com

MV Financial Group, Inc. | MV Capital Management, Inc.
Investment Advisory Services offered through MV Capital Management, Inc., a Registered Investment Advisor.
MV Financial Group, Inc. and MV Capital Management, Inc. are independently owned and operated.

I. The World in 2016: Economic Identity Disorder

Door: "Why, it's simply impassable!"

Alice: "Why, don't you mean impossible?"

Door: "No, I do mean impassable. Nothing's impossible!"

--Lewis Carroll, "Alice in Wonderland"

Γνωθι σεαυτόν (Know thyself)

--Maxim inscribed at the Temple of Apollo at Delphi, later attributed to Socrates among others

In a capitalist system, economic growth is not supposed to be an existential controversy. Growth is unevenly distributed, to be sure. In any given calendar year there are likely to be isolated pockets of zero or negative growth, somewhere in the world. But as a whole, the global economy has grown every year since 1946. From the oil shocks and stagnation of the 1970s through to the various developing world debt crises of the 1980s, the Asian currency panic of the late 1990s and even the financial crisis and Great Recession of 2007-09, GDP growth in the world as a whole (at purchasing power parity) was net positive every year. What economists call the "long-term sustainable growth rate" is assumed to be a given, baked into each and every economic model.

Lately, though, growth has been the subject of a great deal of handwringing. We don't mean the usual foaming-at-the-mouth rants from the wild-eyed fringes of the blogosphere, but considered commentary from mainstream thinkers expressing their views in such establishment media as the *Economist* and the *Financial Times*. The growth challenge is causing the global economy to suffer an identity crisis. The question hangs over today's world and its capital markets. Because of its direct relevance to what is shaping up as a very uncertain year, we are going to spend these opening pages of our 2016 Annual Outlook delving into the essence of growth, its historical context, and why it seems so hard to find it in both developed and developing markets today. We also imagine what growth might look like when (or if) it reappears.

A. The Growth Challenge I: Secular Stagnation

A Journey Back to 1938

One of those "mainstream thinkers" we cited in the previous paragraph is Lawrence Summers, the Harvard professor and former Treasury Secretary. A key contribution by Summers to the growth debate is expressed in the concept of "secular stagnation". This is a worldview grounded in the idea that chronic weak demand – basically people spending less on personal consumption and businesses spending less on capital investment – can result in actual economic performance further and further away from historical trendline norms. If not remedied (Summers proposes stimulative fiscal policies such as infrastructure spending), this can lead to a vicious cycle in which lower capital formation begets reduced output, which begets reduced employment, which begets reduced aggregate consumption and so on. Left to its own devices, Summers argues, the economy is perfectly capable of delivering below-trend and declining growth for years on end.

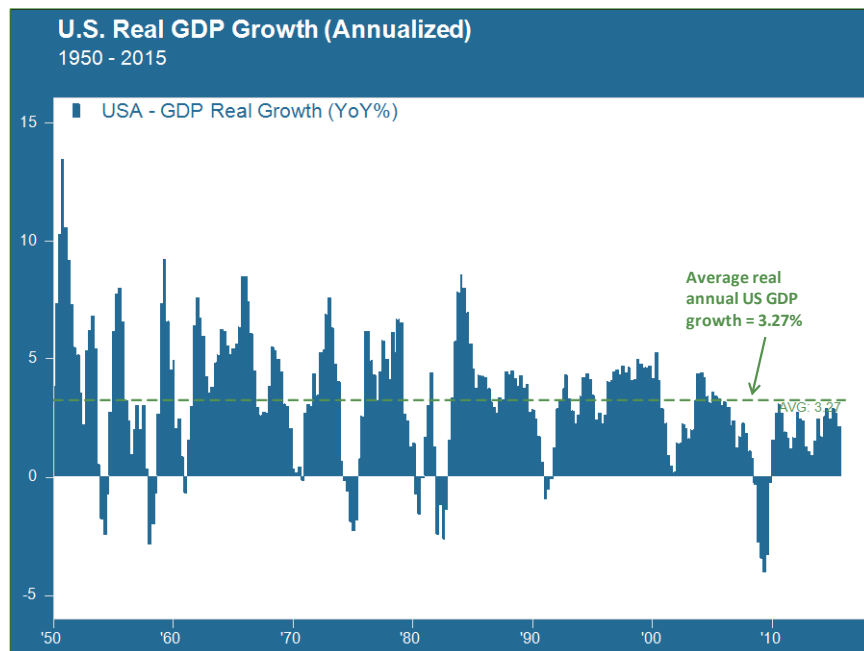
Secular stagnation is not a new concept, though. The term was first coined by Alvin Hansen, a widely respected US economist, in 1938. 1938 was an interesting year with some resonance for our world today in 2016. It was eight years after the Great Depression broke out. The US economy, which had grown strongly after hitting rock bottom in 1932, stalled out and went back into recession in 1937. The 1937-38 recession was not as deep as the peak depression of 1929-32, but it was severe nonetheless. Industrial production fell by 32 percent, and unemployment

reached 20 percent. US population growth was in steep decline. The world upon which Alvin Hansen gazed as he gave his secular stagnation speech to the American Economic Association was a bleak one indeed on both sides of the Atlantic.

Wrong...Or Just Early?

As we all know now, Hansen's grim prognostication proved to be wrong. The world went to war in 1939, and the US war effort sent production and employment soaring from 1942-45. At war's end the US was the sole economic superpower, on the cusp of a baby boom and a sustained era of economic growth. Measuring this growth was now possible, thanks to the pioneering work of Simon Kuznets, Vassily Leontief and others who had developed national income and production tables to help policymakers with their war planning efforts. Gross National Product, which later became Gross Domestic Product, became a scorecard of sorts to benchmark the trajectory of the country's material fortunes. Chart 1 below shows this trajectory from 1950-2015.

Chart 1: US Real GDP Growth, 1950-2015



Source: Bureau of Economic Analysis, MVF Research, FactSet

This chart brings us back to Alvin Hansen, Larry Summers and that notion of secular stagnation. Hansen was wrong because the population decline of the 1930s reverted to strong growth in the 1950s and 1960s, and because both the private sector and the public sector invested and spent like crazy in the postwar years. This was investment and consumption with a virtuous purpose: national highways on which middle class families could drive their newly-purchased automobiles to newly-constructed tourist meccas like Disneyland, where they could spend yet more of their incomes on all manner of consumer indulgences. Secular stagnation didn't happen, growth happened. But was Hansen wrong, or just – as Larry Summers appears to think – early?

Look at the trend line in Chart 1. The trend has been for multiple years of growth followed by shorter, though sometimes fairly deep, recessions. From the mid-1980s through the mid-2000s the growth spikes were of a smaller magnitude than they had been from the 1950s through the early 1970s. But the contractions were also milder. This was the “Great Moderation” so often referred to by, among others, former Fed Chairman Ben Bernanke – the supposed ability to quantitatively manage the business cycle. But the Great Moderation petered out and eventually fell into the Great Recession of 2008-09 – the deepest downturn since the 1930s. The following

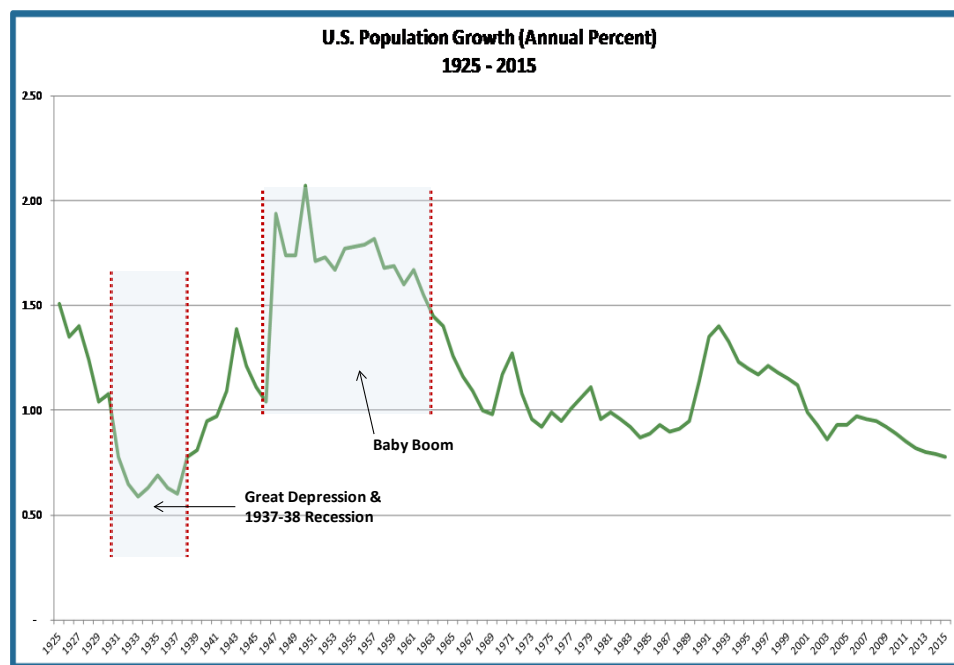
recovery has been tepid by historical comparison. During the entire span from 2009 to the present – and despite the energetic efforts of the Fed to stimulate the economy via zero-level interest rates and quantitative easing – real annualized GDP growth has failed to even once breach the 3.27 percent average for the 65-year period. What modern-day secular stagnation theorists like Summers ask is simply this: where are the growth drivers to get us back to trend? To deal effectively with this question, we must know what these drivers actually are.

Population, Labor and Productivity

Gross Domestic Product, our most common growth statistic, is a measurement of economic output. There are three ways for GDP to grow. The first is for the population to grow. The second is for a larger percentage of the population to join the work force – more people working means more things being produced. The third is for people to produce more things for each hour spent working. The formal term for that third variable is productivity. Let us look at each in turn.

We start with population. Recall that Alvin Hansen, from his 1938 vantage point, saw a decline in the rate of population growth as a trend likely to continue. In fact, the population growth rate had been in decline since before the Great Depression. The chart below shows the rate of change in total US population growth from 1925 to the present.

Chart 2: US Population Growth, 1925-2015



Source: US Census Bureau, MVF Research

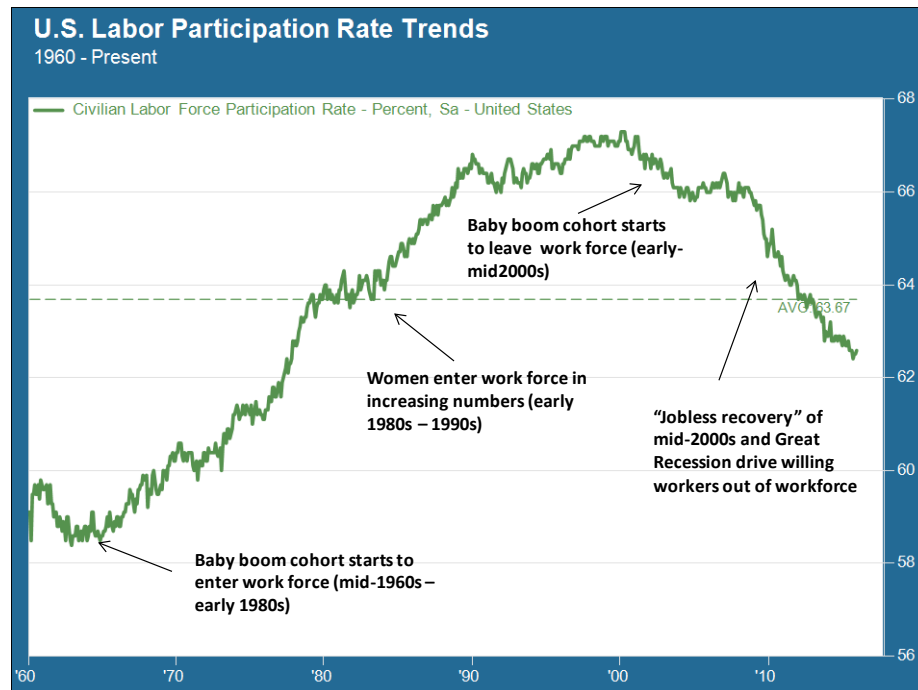
As Chart 2 shows, predicting population trends can be a tricky business. The phenomenal growth rate of the late 1940s and 1950s depended on the US going to war, winning the war, and setting the economic terms of the ensuing peace while returning GIs went into the work force, settled into their suburban homes and created families. None of these outcomes could have been predicted in 1938 by Alvin Hansen to present a rosier outlook for growth than his secular stagnation theory.

Likewise, we cannot say with any kind of certainty today that the growth rate will continue to decline as it has for the past quarter century (the spike of the late 1980s being largely attributable to the boomer cohort having its own children). Larry Summers, along with just about anyone else in the forecasting business, assumes for a whole host of rational reasons that economic growth is

not going to be driven by another population spurt. It could – but there are no compelling data out there to support that as a base case proposition.

This brings us to the second growth variable: labor force participation. A growing population implies economic growth only if the percentage of the population working in the labor force either stays the same or itself grows. Likewise, a country with zero population growth could still grow its economic output if the labor force participation rate were to increase. Unfortunately, though, the data here also do not paint an upbeat picture. Consider Chart 3 below.

Chart 3: US Labor Force Participation Rate (Percent), 1960 - Present



Source: Bureau of Labor Statistics, FactSet, MVF Research

From the mid-1960s through the 1980s, two major trends drove an aggressive rise in the participation rate from 58 percent to just under 68 percent. The first was the coming of age of the baby boomers, and the second was the increasing number of women entering the labor force. Both those trends leveled off during the late 1990s. Then the earliest wave of boomers started to retire. In 2001 the economy experienced a very shallow recession, but the ensuing recovery was relatively weak from the standpoint of job creation. Finally, the wrenching recession of 2008-09 threw millions of Americans out of the labor force and provided steep barriers for those seeking to return. Many did not, and resigned themselves to a life without work. The failure of the labor force participation rate to turn up at all during the post-2008 recovery is one of the conspicuous “yes, but...” asterisks to the headline performance numbers of this time period.

So demographic trends are a big fat loser in the quest for growth. The good news is that the third variable – productivity, is arguably much more important than either population or labor participation to the growth equation. The bad news – or at least the not-great news – is that the current data around productivity do not give us a clear sense of what to expect in the coming months or even years.

Scientific Theory, Meet Applied Economics

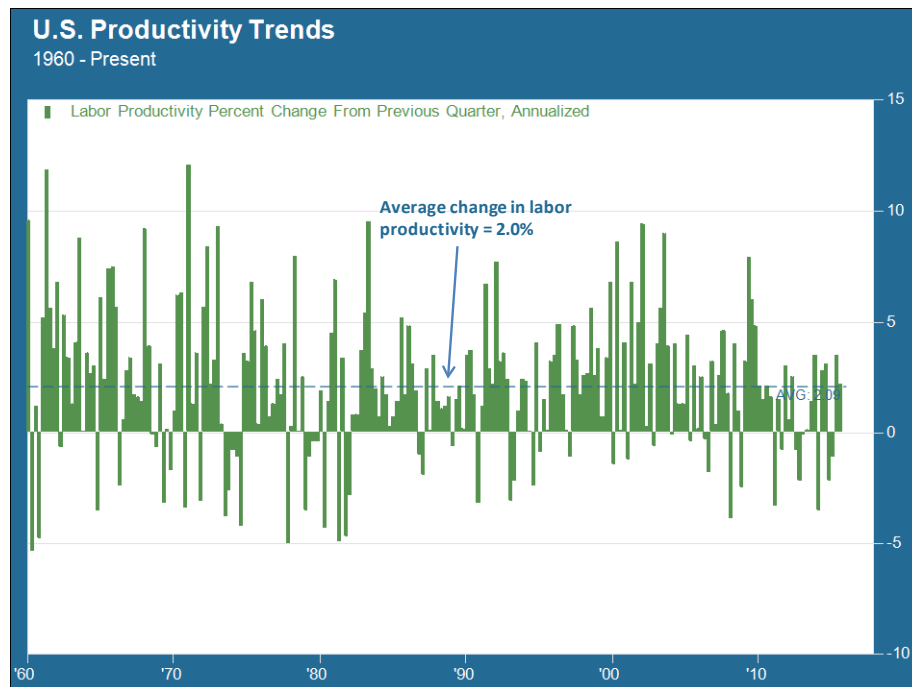
Productivity is simply a measurement of output per hour of labor. Yet literally the entire story of the modern economic era, from the patenting of the steam engine in 1776 to the advent of

railroads, factories, silicon chips and much else besides, is the story of productivity. The first industrial technologies accomplished what nothing else in prior history had – to arm human beings with the power to produce more than the sweat of their brows or those of their beasts of burden could perform on their own. More than one hundred years transpired between the birth of Isaac Newton and James Watt's steam engine. Without Newtonian physics there would have been no steam engine, no Manchester cotton mills displacing homestead spinning guilds, no railroad networks completely redefining supply chain economics. Fast forward to the 1920s, when scientists Niels Bohr, Erwin Schrödinger and Werner Heisenberg opened the curtain on the exceedingly weird world of quantum mechanics. A couple decades later, quantum equations powered the advances in electronics which put televisions in every home and, eventually, personal computers on every desk (and then in every palm and on a growing number of wrists...).

Technology-driven productivity facilitates growth in two ways, one on the supply side and one on the demand side. On the supply side, it augments human effort to produce more goods and services for each hour of labor employed. That's what the Bureau of Labor Statistics means when it releases its quarterly report on productivity. But there is an important demand aspect as well. The same applied science that improves supply chain efficiencies also lends itself to the creation of new things people want – those TVs and PCs and smartphones and wearable gadgets mentioned in the previous paragraph. Productivity is not just about operating leverage to produce more widgets; it is also about disrupting the widget market with some great new innovation that does 10,000 more things than the old widgets did, unleashing a torrent of new demand.

We thus expect productivity to be the key variable to drive continued growth even as population and demographic trends shift into reverse. The problem is that all the productivity gains we imagine we should be seeing are not yet showing up in the data, as shown in Chart 4 below.

Chart 4: US Labor Productivity Trends, 1960 - Present



Source: Bureau of Labor Statistics, FactSet, MVF Research

Chart 4 shows us, first, that productivity tends to be sporadic from quarter to quarter or year to year. But there are two discernable sustained periods of higher productivity growth. The first was in the 1960s, a time when the major postwar business investments in factories and distribution channels helped companies meet the growing consumer demand of the rapidly growing US

middle class. The second period of enhanced productivity ran from the mid-1990s to the early-mid 2000s. This was when the advances from information technology-driven automation moved from the periphery of economic activity to the mainstream. Most of the productivity-enabling technologies were themselves developed in the 1970s and 1980s. Scientific innovation does not necessarily produce immediate commercial application; a time lag is normal as individuals and enterprises discover where the benefits lie and how best to use them.

Not All Innovations Are Productive

The most recent time period shown in Chart 4 – basically from the mid-2000s to the present – is what has economists scratching their heads in Berkeley, Chicago and Cambridge. With all the innovations that have emerged – smartphones, cloud computing and all manner of business processes transformed by Big Data – where are the efficiencies? Where is the productivity that every new disruptive technology streaming out of Silicon Valley promises is about to break forth and usher in a glorious new dawn? Is the current wave of innovation somehow less productive, ultimately, than earlier waves? Or are we simply in one of those time lags between the time when innovation happens and the time when the benefits of those innovations show up in headline macroeconomic data?

Robert Gordon, an economist and author of the just-published book *The Rise and Fall of American Growth*, argues compellingly that yes, in fact, not all innovations pack the same punch when it comes to economic efficiencies. Gordon points in particular to the important innovations of the last quarter or so of the nineteenth century, notably electricity, running water and the internal combustion engine. These inventions transformed American life like nothing before (and, in his view, nothing since). Before 1870 there were no households with indoor plumbing or electric light or heat. While today's youth may find it inconceivable to imagine life without a smartphone, all but the most diehard technophiles would probably give up their Uber apps, games and cat videos rather than live without running hot and cold water.

Alternatives to Growth?

Robert Gordon's views about innovation and growth may not be the entire story. In particular, it is probably a fool's errand to aver with certainty that nothing as transformative as electricity or running water will ever appear again. The very nature of scientific innovation is that we cannot even fathom what its impact might be until it happens. Someone musing about the future back in the European seventeenth century would have lacked even a basic vocabulary with which to contemplate a world with electric lights and automobiles. It may well be that the ways of the world in two hundred or even one hundred years will be so utterly different from today that the words to describe them do not yet exist.

And here is the final point to make in regard to growth and secular stagnation. That future, whatever it may be, does not necessarily need to be premised on growth as defined by GDP. Economic growth came into being with industrial capitalism. Human civilization existed for thousands of years with essentially no economic growth at all. And even when mass production unleashed an unprecedented rise in annual output, the management of growth as a society's top economic imperative came about only as a result of the devastation of the Great Depression. Most of the measurements we use today, from gross domestic product to inflation and labor force participation, are products of that period. The first US president to articulate the importance of managed economic growth was John F. Kennedy, in 1960. Whoever is president in 2060 may express an entirely different goal to express the aspirations and dreams of our society in that age. Indeed, some of the new technologies coming into being today already hint at a purpose – or at least an ultimate outcome – of something other than the classical formulation of growth as the sum of economic output.

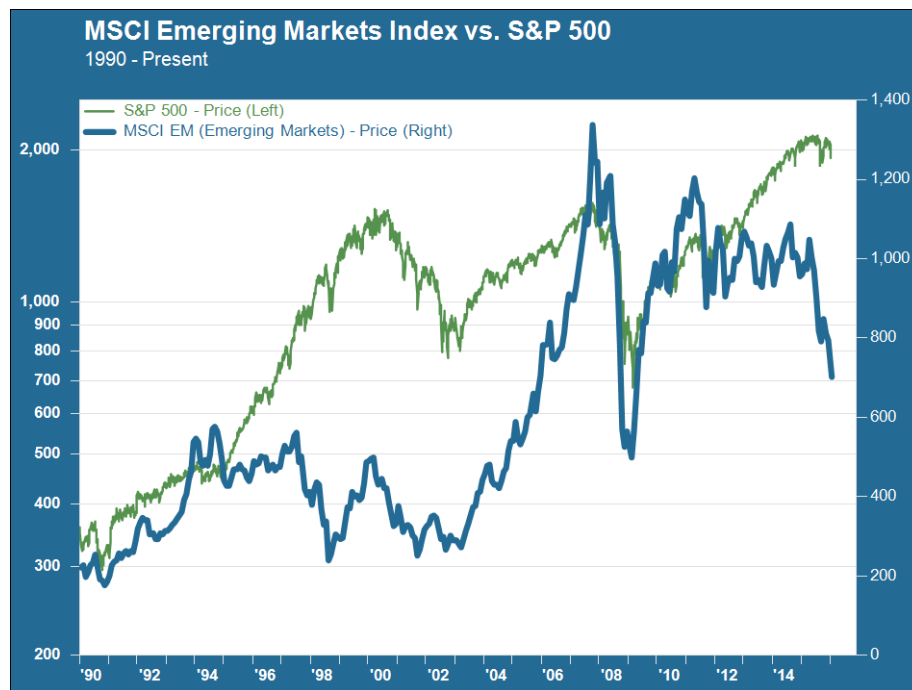
Meanwhile, we are left today to figure out the practical implications of a world of lower growth. There is another important piece of the puzzle: growth in the developing world.

B. The Growth Challenge II: Developing Economies at a Crossroad

That the developed economies of North America, Europe and Japan are growing more slowly than before is not a new revelation. Maturity, whether in terms of physical or economic development, means a slower rate of growth. A decade ago we were comfortable with the idea of slower growth domestically, because new opportunities beckoned from abroad. China, a country that had no modern economy to speak of at all in 1980, was on a growth tear the likes of which had never been seen, not even with Japan's miracle economy of the 1960s and 70s. Elsewhere in Asia, fears that the currency crisis of the late 1990s had dealt a mortal blow to those countries were erased as double-digit growth flourished in Malaysia, Thailand and South Korea. Brazil and Mexico were dues-paying members of the global club, sending their best and brightest to hobnob at Davos and promoting market-oriented, trade-friendly policies at home. Even Russia had cleaned up its act, built up its foreign exchange reserves and given its citizens unprecedented access to the accumulations of middle class existence: home ownership, new cars, foreign travel, dining out and other discretionary temptations.

The Great Recession hit emerging and developed markets alike, but the ability of emerging markets to recover and resume growth has been uneven. Slow top-line growth, debt and weak currencies have become endemic problems. These problems have shown up in share prices. In fact, a long view of emerging markets equities over the past quarter century reveals a distinct underperformance, as shown in Chart 5 below.

Chart 5: MSCI Emerging Markets Index, 1990 - Present



Source: MVF Research, FactSet

Emerging markets equities have performed well in certain time periods, particularly that “supercycle” era of China-led growth in the 2000s and early 2010s. Investors making tactical allocations during these periods did well. But the strategic rationale for long term portfolios to invest in the asset class is debatable, if not outright absent. Investing in emerging markets traditionally has been grounded in the understanding that volatility will likely be higher than developed market exposures, but in return for that higher risk, the investor should be

compensated with higher relative returns over the long term. Emerging markets have been accessible as a liquid asset class since around 1990, though, and for this first quarter century the strategic case is still up for discussion.

Simply put, investing in emerging markets makes little sense in the absence of a favorable growth climate. But in all key developing regions of the world – Asia, Latin America, Eastern Europe and the Middle East – growth is slow, flat or negative. There are exceptions. India, alone among the so-called BRIC countries (Brazil, Russia, India and China), is maintaining a brisk rate of GDP growth, faster now than China's. Argentina, long an outcast in the global economy due to the ill-advised, inward-looking policies of the administration of Peronist president Christina Kirchner, may be at the cusp of a new dawn with the recent victory of a more business and trade-friendly government under reformist Mauricio Macri. But they are the exceptions.

It may never have been realistic to assume – as so many did – that the developing world would have its own era of prosperity equal to that which the developed world enjoyed for the first three decades after the Second World War. It is not at all clear that the planet's ecosystem could even handle the impact of such widespread wealth creation, with all that would imply for resource depletion, accelerated climate change and attendant health risks.

Nor are emerging markets immune from the impact of other developed market growth challenges, such as the effect of technology on employment. Previous eras of massive technology disruption almost always wound up being net positives for employment, as demand for workers in the new fields more than compensated for the loss of the old skills. For every out of work buggy whip manufacturer there were ten jobs or more on offer on the gleaming new assembly lines of Ford and GM. Even the displacement by word processing and spreadsheets of the typing pools and tape library custodians of yore opened up opportunities for workers willing to acquire some basic new skill sets. Today's dynamic growth industries, by contrast, require less capital investment and fewer people to run the equipment. That is as true in Shanghai as it is in Seattle.

The global economy faces some definitional challenges in 2016, and the uncertainty is showing up in asset price markets. The growth question is at the center of these challenges. It is likely to be a theme to which we return again and again as the year progresses.

II. 2016 Investment Thesis: Uncertain Times

A. Executive Summary

- 2015 was a transitional year in capital markets. In the US the year signified the end of an era. From 2009 through 2014 US equity markets grew at an average annual rate of 12.6 percent largely due to the efforts of the central bank – the Federal Reserve – to stimulate markets through a combination of zero-level interest rates and outright open market purchases of fixed income securities. The Fed wound down QE (quantitative easing, the term for its bond-buying programs) in 2014. At the end of 2015 it raised interest rates for the first time since 2006, albeit very gently. With the training wheels of monetary policy stimulus coming off, US stock markets returned last year to a focus on fundamentals. For better or for worse, we expect that trend to continue in 2016.
- The economic backdrop in which US equities will perform this year is little different from the trend of the past couple years. The economy is growing, albeit modestly in comparison to historical norms. We are close to what economists would consider to be “full employment”, with the strongest consecutive periods of job creation since the late 1990s. Upward movement in wages is still elusive, though it bears mentioning that wage growth did slightly outpace inflation in 2015. Consumer spending, which makes up the lion’s share of US GDP, continues to grow although there was a general sense of disappointment with the 2015 holiday season. We see little reason to believe that GDP will grow by more than three percent this year or by less than one percent. Overall, US economic fundamentals should remain favorable this year.
- Elsewhere in the world the story is quite different. The European Central Bank launched an expanded monetary stimulus program early last year, extended the terms of the program yet again towards year-end, and is expected to do more again this year to lift Europe out of its economic funk. China is also contending with the realities of slowing growth and looking for ways to manage a very tricky economic rebalancing away from investment towards consumer activity. In essence, the global economy’s path is diverging, with the US on one track and the rest of the world on another. The related uncertainty suggests the potential for more volatility than we have seen in recent years.
- The aforementioned China rebalancing looms large as the year gets under way. The world’s second largest economy continues to grow, if not at the double-digit levels to which it was accustomed in the previous decade. Retail sales and other measures of activity are healthy. But slowing growth is a concern for a variety of reasons. China’s non-financial debt-to-GDP ratio is approximately 250 percent. A sharp growth contraction could have a negative knock-on effect among other Asian economies. And China has the potential to roil international credit markets if it feels compelled to sell off large amounts of FX reserves (mostly US Treasuries and other sovereign debt) to prevent a currency rout.
- At the same time, China’s shift away from the massive public and private investment programs which drove its earlier phase of growth has major implications that reach far beyond its own borders. In particular, the growth boom of 2000-14 powered a massive commodities supercycle. It will likely take a very long time for the energy and industrial commodities which rode the boom to approach anything close to their peak prices. In the meantime, stabilization at lower trading ranges is the most optimistic case for a wide range of commodities in 2016. Resource exporters from Brazil to Australia and Russia will feel the pain. And companies in the energy and mining sectors will continue to deal with downsizing, project cancellations and, in some cases, debt defaults.
- As headline-grabbing as China’s predicament is, the situation is more dour still in other emerging markets. Brazil and Russia, which alongside China and India make up the once-dynamic BRICs, are both in protracted economic and (in Brazil’s case) political crises. Other erstwhile engines of growth from Turkey to South Africa, Malaysia to Indonesia, have seen their currencies collapse by the largest

amount since the 1997 Asian currency crisis. Dollar-denominated debt obligations remain a potent overhang. And with weak demand seemingly a chronic feature just about everywhere, opportunities to export one's way out of debt trouble seem limited. Emerging markets as an asset class have disappointed for several years; we do not see that changing significantly this year.

- How will monetary policy divergence affect interest rates in 2016? The short end of the yield curve is probably more predictable. The spread between US and Eurozone yields, with the latter firmly ensconced in negative territory, could widen further still if the Fed sticks to its plan of gradual rate hikes. The intermediate/long end of the curve is subject to other variables, not least of which is the potential for foreign central bank sales of US Treasuries to support their beleaguered currencies. That could drive up yields; on the other hand, a climate of heightened volatility in riskier assets could keep intermediate and long rates low, implying a flattening curve. And inflationary expectations remain weak, which should also help keep nominal yields in check.
- Credit quality spreads are likely to be a continuing story in 2016. The sorry state of resource sectors like exploration & production and mining has taken a toll on the high yield market. But spreads continue to widen as well between higher-and lower-rated investment grade securities. Tightening credit markets could also have an effect on corporate decision-making. Stock buybacks and M&A, both of which rely heavily on debt financing, could feel the impact of more stringent credit conditions.
- X-factors – our shorthand for latent risks that could turn into live threats – abound in 2016. The Middle East, never the world's calmest region, looks less stable than ever. Europe faces a humanitarian crisis as refugees continue to arrive in droves. In the US, the Presidential election reflects a sharply divided and dissatisfied populace, with the potential to throw out the playbook on the usual rules of the game. Russia's foreign policy adventurism continues apace. These are just a few of the prominent potential threats we know; there almost certainly are others. Always remember, though, that X-factors can be both positive and negative. Market sentiment can change very quickly as new, unexpected developments surface.
- In summary, we believe 2016 will likely be a year of trend continuation rather than mean reversion, with dominant trends like monetary policy divergence, a strong dollar commodities prices and uncertainty about China shaping the narrative. We expect US equity markets to be strongly influenced by earnings. Rationally, that would imply the potential for price gains in the low single digits. However, as bull markets get old – the current one is in its seventh year – rationality often gives way to volatility. Volatility can work on both the upside and the downside – melt-ups are as common as melt-downs. We believe the right response to the uncertainty of this environment is to remain diversified across a spectrum of low-correlated asset exposures, and to avoid large concentrations in any given area.

B. State of the Global Economy

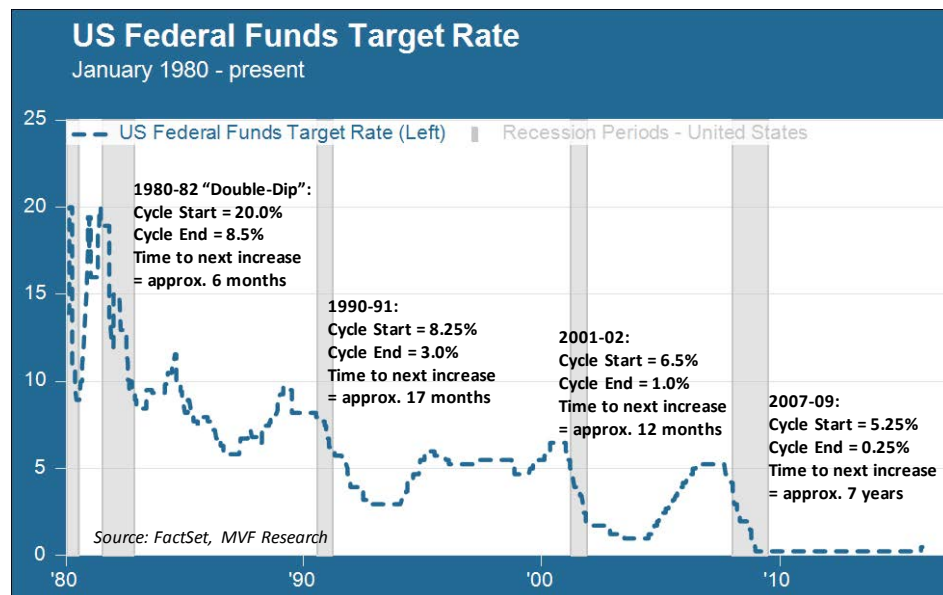
In some ways it is surprising how little has changed. One year ago we wrote that economic prospects in the US looked good, while the rest of the world appeared troubled. China's long-simmering slowdown boiled over last summer with the domestic stock market collapse followed by a surprise currency devaluation. That devaluation in particular sent shudders through world equity markets. The S&P 500 experienced a technical correction for the first time since 2011. Europe managed to (barely) beat growth and price expectations, neither falling into recession nor slipping into a deflation trap. An inelegant solution to the Greek financial crisis defused that issue, at least for now, but soon thereafter headlines were dominated by the magnitude of the Middle East refugee crisis. Emerging markets faltered from Rio to Johannesburg to Kuala Lumpur.

We see little evidence of these trends abating in 2016. The key question is whether the US recovery will continue to be strong enough to withstand these external pressures and deliver another year of solid performance. We believe there is a good chance it can, but there are higher than usual risks afoot that could have an impact on asset markets even if the economy remains strong. We believe the risk of recession in the US is quite low, with real GDP growth likely to fall somewhere within a relatively narrow 1--3 percent range. But X-factor market risks lean negative. To the extent that equity markets are driven by rational analysis (as opposed to animal spirits), the metric of focus is more likely to be corporate earnings than headline macroeconomic data.

i. They Finally Did It

It was a long wait, with repeated delays and deferments. But on December 16 Janet Yellen finally came out and told the world that the Fed was preparing to raise its Fed funds target from a range of zero to 0.25 percent, to a range of 0.25 – 0.50 percent. Given how long rates have been effectively at their lower bound, this was indeed big news. But to fully appreciate how strange the current environment is, the Fed's policy for the past seven years must be seen in the context of previous interest rate cycles. Chart 6 below illustrates the anomaly of the present situation.

Chart 6: US Fed Funds Target Rate Trends, 1980 - Present



Source: MVF Research, FactSet

Normal Fed policy is to bring down rates in response to (or in anticipation of) a recession (the vertical grey-shaded areas), and then to raise them again as the economy recovers in order to

forestall high inflation. In each of the recessions from 1980 through 2001, the longest period over which the Fed held rates at their floor was about one and a half years.

The post-Great Recession policy has been strikingly different on two counts. First, the absolute level of the target rate represents an historic low. Fed funds data on the Federal Reserve database goes back to 1954. Never in this time did the rate reach zero until 2009. The second stark anomaly is how far into the recovery the Fed kept rates at the floor. Looking at Chart 6 should help one understand the determination to follow through with the December rate hike. Even the slightest hint of a return to normal would signal confidence that better times are ahead.

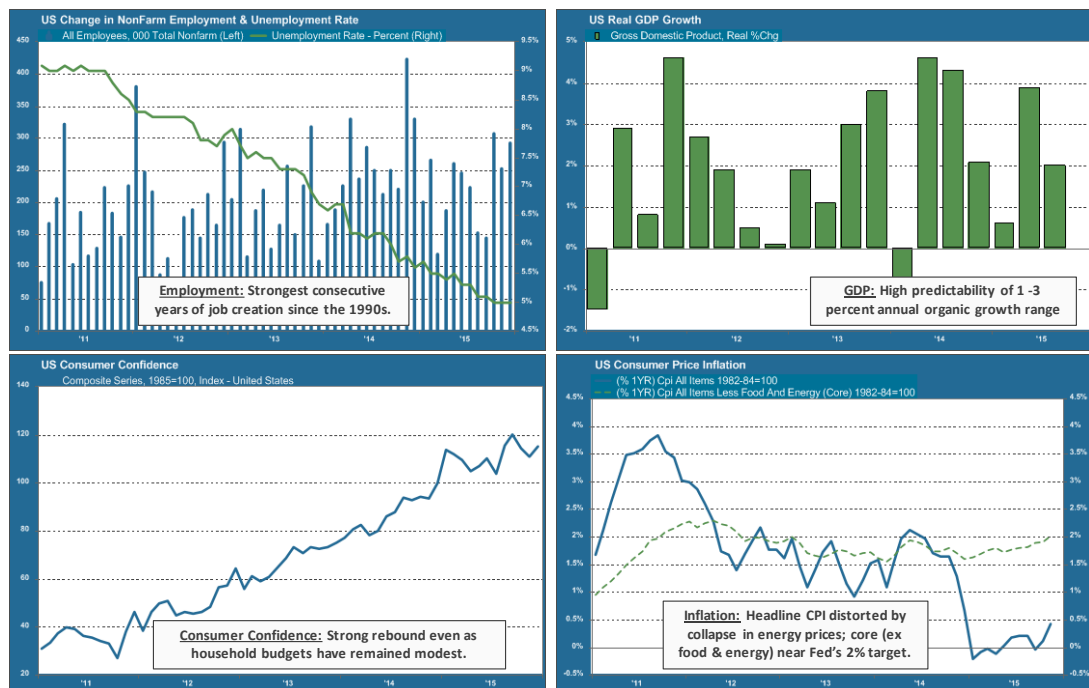
The consensus expectation is for a gradual series of rate hikes over 2016 and beyond. Fed funds futures prices indicate about a 70 percent probability that the target rate will be between 0.25 and 0.75 percent by the time the Fed meets at the end of July. That would imply, at most, just one more hike between now and then (from the current level to the 0.50 – 0.75 percent target range). This suggests that two possible outcomes are not priced into current market values: first, that the Fed sets out to raise rates at a brisker pace; and, second, that events elsewhere in the world force it to either hold at current levels or – worse still – recant and return to zero lower bound.

That latter outcome, in our opinion, would be the least desirable scenario. The economic recovery that began in 2009 is the fifth longest expansion – 79 months – since 1854. That's not a typo – it's the fifth longest recovery in more than 150 years. And yet, per Chart 6 above, interest rates have never been lower, for longer, than now. Rates, by all logic, should only go up from here. If they were to go into reverse before at least getting to a 1.0 percent target level, that would indicate a magnitude of problems beyond what the macro headline data tell us today.

ii. The US Growth Case

So what do the headline data say? Chart 7 below offers a broad view of the current economy using four key metrics: employment trends, real GDP growth, consumer confidence and inflation. This composite picture suggests a continuation of the recovery, at least for the near term.

Chart 7: US Headline Economic Data



Source: Bureau of Labor Statistics, Bureau of Economic Analysis, FactSet, MVF Research

The measure which we are following with particular interest is inflation. It is important to look both at the headline CPI number (the blue line in the bottom-right chart) and at core CPI (the green dotted line), which excludes the more volatile inputs of food and energy. Largely due to the commodities collapse, headline CPI is well below the 2 percent target sought by the Fed.

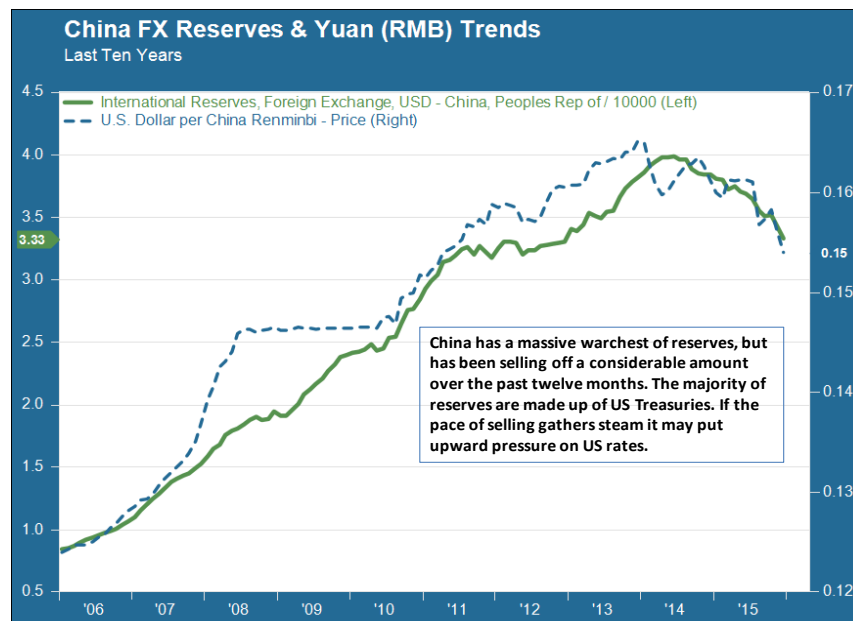
As we discuss elsewhere in this report, low commodities prices are likely to be a feature of the system rather than an anomaly over the near to intermediate term. But if core CPI stays close to current levels it should give the Fed confidence that its current rate policy is justified. Low prices at the gas pump in 2015 did not translate into additional household discretionary spending to the extent some anticipated. But that may be due in large part to expectations. If you think lower gas prices are just a temporary phenomenon, you are less likely to change your spending habits by much than you are if you see those low prices as sticking around for longer.

The other key area of focus is the relationship between employment and earnings. Chart 7 shows the dramatic decline in the unemployment rate along with the strongest sequential months of job creation since the late 1990s. Wage earnings grew by a more modest amount (though still better than inflation). At what point does the labor market become tight enough for wage growth more in line with historical norms? So far it has not happened. With an unemployment rate of 5.0 percent we are not far away from what economists consider to be “full” employment. What that means for wages, given all the other unusual features of this recovery, is not yet clear.

iii. The China Question

It was an unwelcome start to the year. A China purchasing managers’ report – a proxy for manufacturing activity – contracted for the fifth month in a row. Of greater concern was the fixing by Chinese monetary authorities of a lower set rate for the national currency (known both as the yuan and the renminbi). Domestic stock markets collapsed again. Is China’s economy slowing by more than we think? Official data releases from the Middle Kingdom are famously questionable – very few economists believe real GDP growth matches the official figure. One thing we do know, though, is that the People’s Bank of China, the central bank, has been selling foreign exchange reserves. Chart 8 below illustrates China’s reserve activity and attendant currency devaluation.

Chart 8: China Foreign Exchange Reserves and Currency Trends



Source: MVF Research, FactSet

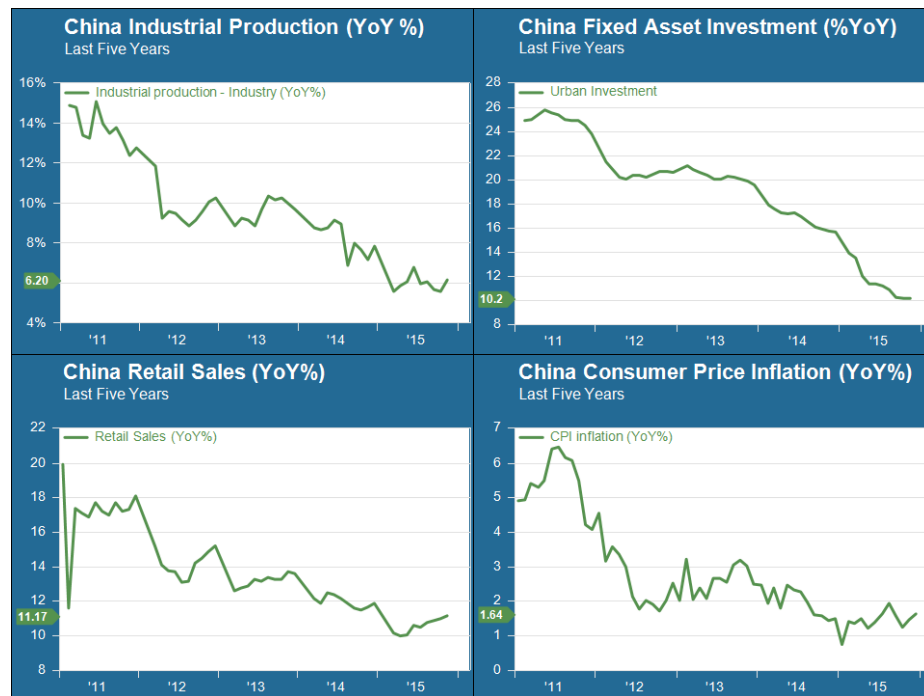
From the second half of the 2000s, China's foreign exchange reserves grew tremendously to top \$4 trillion by the middle of 2014. Since then, the central bank has sold about \$660 billion as part of various stabilization programs. To put that figure in perspective, China's total FX reserve holdings amounted to just \$850 billion at the beginning of 2006.

"FX reserves" is a rather benign-sounding term, but it is anything but a bookkeeping abstraction. FX reserves are made up of foreign securities, principally sovereign debt obligation, and primary among those are US Treasury securities. To say "China sells billions of dollars of foreign reserve holdings" is to say "China sells billions of dollars of Treasuries". Most of the recent selling – during the devaluation last August and that of this month – has been in shorter-dated issues. Further selling waves, though, could move further out the yield curve to long-dated Treasuries and even high investment grade corporate debt, which also make up a portion of total reserves.

So why is the PBOC selling reserves? The move is counterintuitive to the popular belief that China's main goal is to make its currency competitive to bolster exports – in other words to maintain an undervalued yuan. Selling FX reserves, all else being equal, has the effect of strengthening, not weakening, the home currency. But this is not about currency wars. The government's overriding economic objective is to rebalance the Chinese economy away from the double-digit investment binge of the last decade towards more robust domestic consumption. A super-weak currency that reduces domestic purchasing power does not accomplish this goal. In this regard, supporting the yuan with reserve sales is understandable. The fear – and the likely cause of the contagion effect China appears to have on foreign asset markets – is that the reserve selling activity masks deeper economic concerns that are not seen in the headline data.

Those headline data points indicate a gradually slowing economy with most of the growth deceleration coming from the fixed asset investment sector – exactly what Beijing desires. Chart 9 below shows a composite picture of four key metrics: industrial production, fixed investment, retail sales and consumer inflation.

Chart 9: China Headline Macroeconomic Metrics



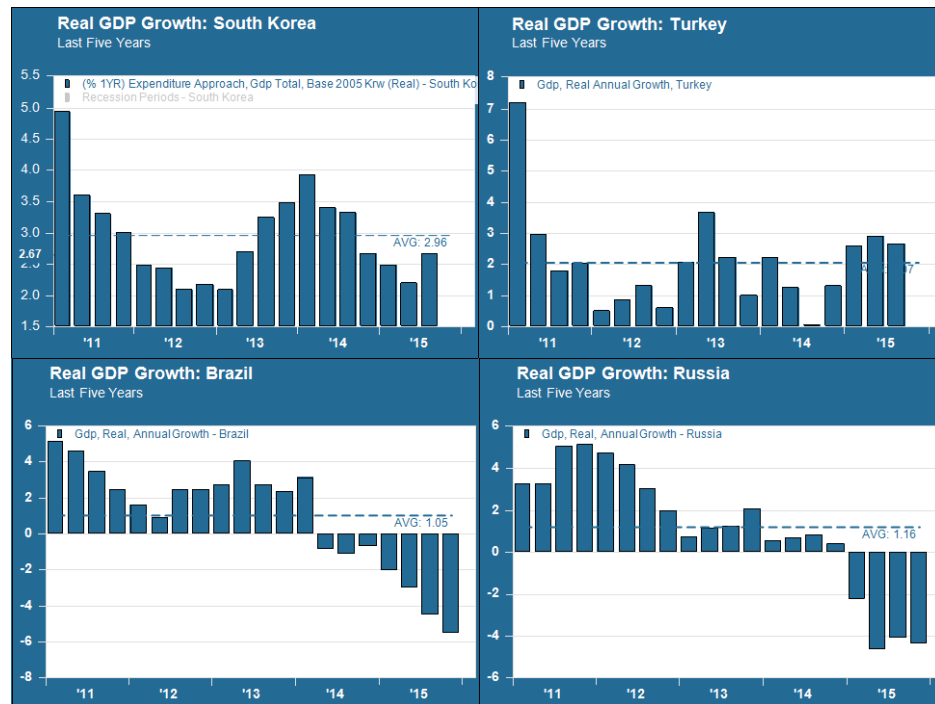
Source: MVF Research, FactSet

Again, bear in mind that these are reported figures, which may be less than accurate. But the trend probably does conform more or less to reality. China is producing less, exporting less and investing less. But retail sales remain in double digits. There is little evidence to suggest that the economy is in outright decline. The question – one widely debated with little agreement among experts – is whether slower growth is enough for an economy that, while large in aggregate, is still relatively poor on a per capita basis. Until recently the going assumption was the “eight percent threshold” – the need for more than eight percent growth to manage China’s transition to a more developed economy. Those days are over. In their place is uncertainty.

iv. Other Emerging Markets: The Diversity of Pain

While the focus on China is warranted, it is important not to forget that there are other emerging markets, a great many of which are even more deeply troubled than China. Of the original BRICs – Brazil, Russia, India and China, only India’s star appears to still be on an upward trajectory. Growth has slowed to low single digits in former high-flyers like South Korea and Turkey, and is outright negative in heavy resource exporters, including Russia and Brazil. Chart 10 below shows real GDP trends over the past five years for these four representative EM countries.

Chart 10: Real GDP Growth in Selected Emerging Markets



Source: FactSet, MVF Research

While there is a tendency to treat emerging markets as a single asset class, individual countries and regions are in fact quite different. Chart 10 illustrates this. Starting with the two worst performers, Russia and Brazil are both dominated by their energy sectors and their resource exports. The collapse in commodities prices has been particularly hard on them.

Turkey, by contrast, is troubled mostly by its dollar-denominated debt obligations. With the Turkish new lira down more than 20 percent against the dollar, that debt has become increasingly expensive to service. And weak demand makes exporting its way out of trouble problematic. Export weakness is an even bigger problem for South Korea. Exports make up close to half the country’s total GDP, much of it comprised of value-added goods in sectors such as electronics and

personal computing. Korea's biggest export market by far is China. In 2015 total exports suffered a double digit decline, far surpassing even the pessimistic end of the consensus range.

Then there is the variable of interest rates. Emerging markets benefitted from yield-seeking capital flows with rates in the US and Europe at all-time lows. They are still low in Europe, but expectations of rising interest rates in the US started reversing EM capital flows as long ago as 2014. Portfolio capital continues to exit these markets. Foreign direct investment, a more stable form of capital, is significantly lower than it was back in the mid-2000s, when the likes of GE, Microsoft and Cisco Systems were investing in giant research, production and selling facilities.

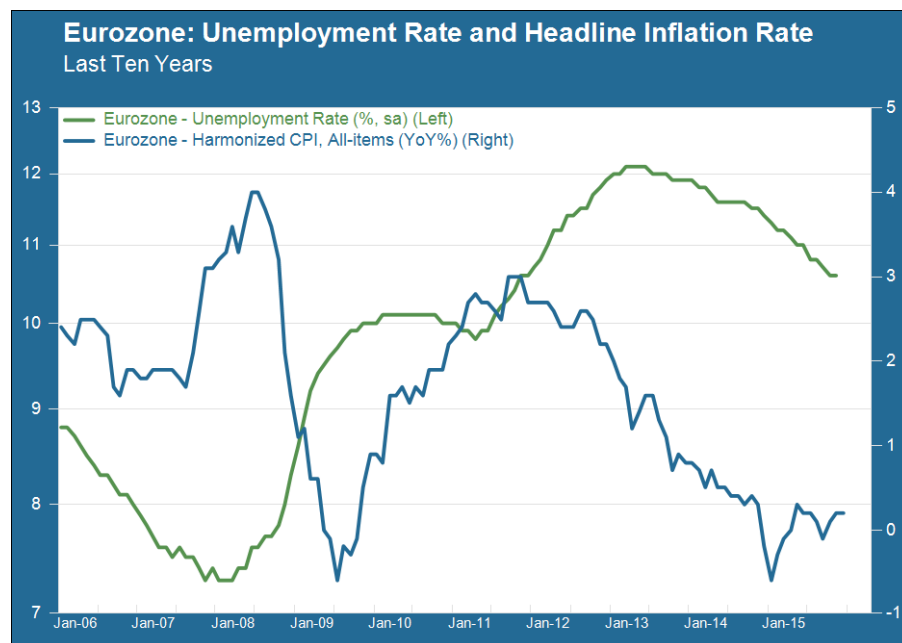
In summary, the problems besetting emerging market economies appear more structural than cyclical. It may be some time before these current negative trends reverse themselves. In the meantime, there is always the potential for economic woes to spill over into political turmoil; this phenomenon is already underway in Brazil. Troubled times remain ahead.

v. Europe: One Crisis Averted, Another Ahead

In 2015 we were treated to the third act of the Greek financial crisis. The crisis reached a boiling point in July with a loan payment coming due, a defiant stance by the government in Athens, and intransigence on the part of the creditors. For a few days that month it did appear as if Greece might be tossed out of the currency area and left to an uncertain fate denominated in drachmas. But, this being Europe, policymakers worked through the final climactic weekend and produced an ungainly agreement early enough on Monday morning to becalm world asset markets.

The resolution of the Greek drama defused the imminent crisis, but another one of a very different flavor was already coming ashore. Coming to Greece, in fact, on their way north to Germany and Scandinavia were droves of refugees from war-torn Syria and Iraq. The humanitarian crisis has sorely tested Europe's democratic principles and helped fan the flames of nationalist, populist and anti-immigrant sentiment already gathering strength. And it comes at a time when the Eurozone economy remains stagnant. Chart 11 below illustrates two chronic woes on the Continent – anemic price growth and stubbornly high unemployment.

Chart 11: Eurozone Unemployment and Inflation Trends



Source: MVF Research, FactSet

Employment is improving, but remains more than twice as high as the US unemployment rate. The influx of young, working-age refugees is likely to exacerbate employment tensions, although in the long run their presence should be a net positive for an ageing population. Inflation, meanwhile, remains defiantly non-existent. Fears of deflation finally prompted the European Central Bank to launch a quantitative easing program in the first quarter of 2015, pledging to purchase €1.7 trillion worth of outstanding debt through September 2016 (it extended this term to March 2017 last December). QE gave at least a gentle tailwind to European equities throughout most of 2015, but it had a spectacularly perverse effect on credit markets. We will describe the bizarre world of negative interest rates in further detail in Section C below.

Our recurring theme this year of trend continuation as opposed to mean reversion informs our outlook on Europe: continuing low growth, low inflation in the context of a fraught political environment. While unexciting, these trends are not the worst case. We expect QE to be successful in its efforts to avoid a deflation trap and/or recession. Compared to the problems in China and elsewhere, Europe appears relatively stable.

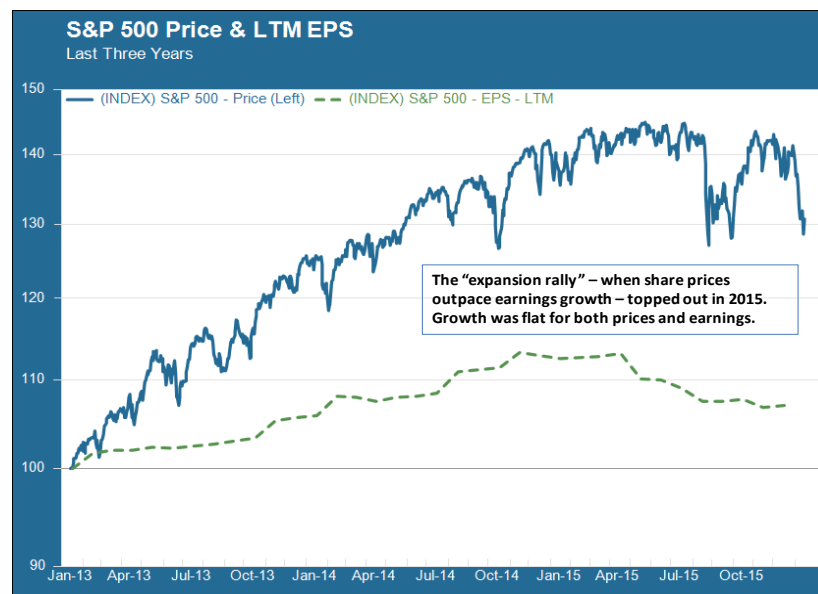
C. State of the Capital Markets

2016 has opened on a very negative note. Bear market conditions prevail in most commodities markets as well as some equity styles, geographic regions and industry sectors. Interest rates are negative all across Europe. The S&P 500 reached its last all-time high on May 21 last year, and subsequent rallies have fallen steadily short of that mark. Earnings growth is challenged by the strength of the dollar and weak global demand. And a variety of X-factors abound. We expect the ride this year to be very bumpy. Our views have coalesced over the past couple months to a more defensive position vis a vis our risk asset exposures.

i. As Go Earnings, So Go Stocks

One year ago we opined in these pages that “earnings growth [will be] a key influencing factor in how much more stock prices can grow”. We were on target with that prediction. Chart 12 below shows that, while S&P 500 earnings per share grew steadily in 2013-14, they topped out in 2015.

Chart 12: S&P 500 Price and Earnings Trends

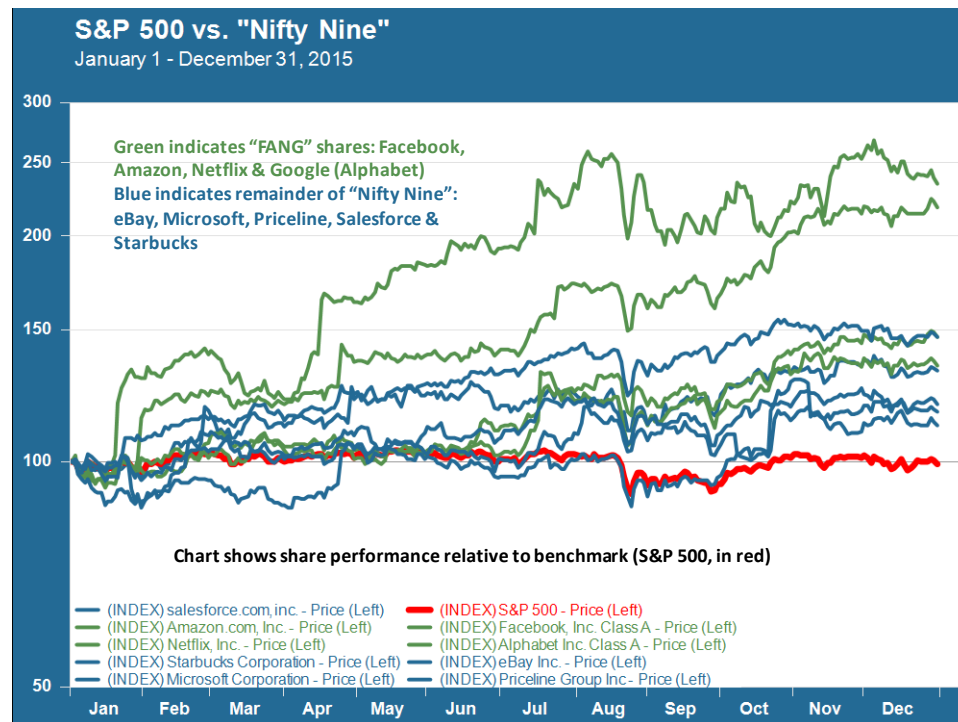


Source: MVF Research, FactSet

While earnings were growing over that 2013-14 period, stock prices grew even faster. The P/E ratio (based on trailing twelve months earnings) for the S&P 500 surged from just over 13 times at the end of 2012 to more than 17 times by year end 2014. But the Fed wound down its final quantitative easing program in 2014 and prepared to raise interest rates in 2015. Suddenly, earnings mattered again. Almost comically, the benchmark price index wound up falling by 0.7 percent for the full year, while the current consensus estimate for full calendar year earnings growth (with the fourth quarter season currently underway) is minus 0.8 percent.

But not all stocks finished flat. Because earnings mattered again, investors put a premium on those companies with a capability to deliver strong revenue growth and profit margins against the headwinds. As the year progressed, the number of earnings darlings dwindled. By the end of the year two new acronyms were added to the Wall Street lexicon. “FANG”, refers to Facebook, Amazon, Netflix and Google (now called Alphabet). The FANG companies, together with another five – eBay, Microsoft, Priceline, Salesforce and Starbucks – collectively became the “Nifty Nine”. Chart 13 below shows the 2015 performance of the Nifty Nine relative to the benchmark.

Chart 13: S&P 500 versus the “Nifty Nine”



Source: MVF Research, FactSet

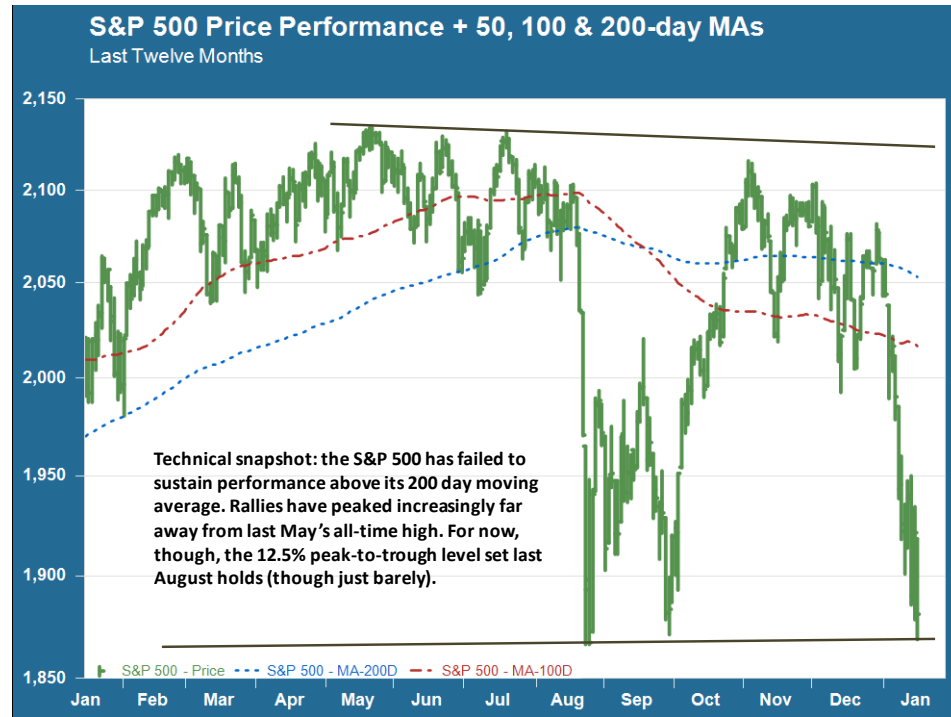
When outperformance is highly concentrated among a small number of names it tends to be interpreted as a negative signal; what it implies, after all, is that most companies are having trouble posting strong sales and earnings data. The “Nifty Nine effect” had an impact on that heavy sell-off on the first trading day of 2016. Investors often rebalance their portfolios by selling off winners early in the New Year so as to delay paying the capital gains for another year. The FANG stocks were all down by more than the broader market after the sell-off.

The Nifty Nine may or may not be market leaders in 2016, but the theme of “earnings matter” should be an even more important determinant of performance this year. This potentially sets the scene for a “quality rally”, with pockets of strong outperformance among generally flat or negative trends in the broader market.

ii. Uphill Climb for the Technicals

We always caution against overthinking technical market indicators like moving averages, 52-week peaks and troughs, or intraday spreads. Technicals are notably poor indicators for market timing; nonetheless, key figures like the 200 day moving average do frequently serve as triggers for active trading algorithms, so they are worth some attention. With that said, the technical structure of US large cap stocks today is quite weak. It is weaker still for riskier areas like small caps or emerging markets. Chart 14 below shows the technical structure of the S&P 500, which has deteriorated considerably in the first ten trading days of 2016.

Chart 14: S&P 500 Key Technical Indicators



Source: MVF Research, FactSet

From a technical standpoint, the market appears weaker than at any time since the summer of 2011. The magnitude of the pullback (as of this writing) is smaller than the 2011 trough: 12.5 percent to the August 25 trough versus almost 19 percent peak-to-trough in 2011. The handful of pullbacks we have seen between 2011 and today – generally one or two events annually of a five percent or greater magnitude – were by contrast fairly brief in duration. It is now nearly eight months since the S&P 500 set an all-time high on May 21. After the sharp pullback in August the index quickly regained most of the lost ground, but failed to reach the trendline set by the two previous highs (see the line connecting the May and July highs in Chart 14). The index has also been unable to sustain a level above its 200 day moving average, another signal of weakness. The next domino to fall would be the trough support line set on August 25 (see the line connecting the August and January lows in Chart 14).

None of this discussion of technical signals is intended to suggest that we are in a secular bear market. But it does suggest that negative sentiment has the upper hand for now. We expect to see more volatility, with potentially large swings in both directions. We continue to stand by the rational base case argument we articulated in Section C(i) above: moderate to flat gains for the market overall with pockets of outperformance by quality stocks. But the bull market is already in its seventh year. As bulls age they can become driven more by emotion and speculation than by

rationality. We still believe the market will have a final rally, perhaps a giddy melt-up, before the bears take over. But market patterns are never the same, and uncertainty is the only sure thing.

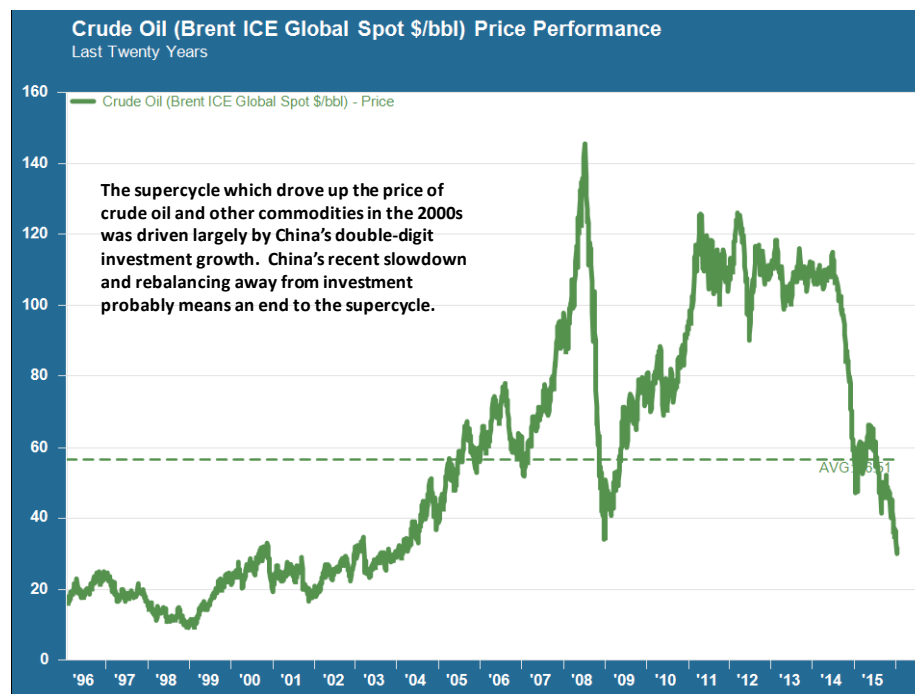
iii. Goodbye Supercycle: The Commodities Collapse

It took barely a decade for China to become the world's leading consumer and importer of a broad spectrum of energy and industrial commodities. The country's aggressive investment in infrastructure, manufacturing, commercial real estate and residential housing required massive amounts of copper, nickel, aluminum, coal and petroleum products among other raw materials. As we have discussed elsewhere in this report, the pace of investment growth over the first twelve or so years of this century was not sustainable. So China has been attempting to rebalance its economy towards a more durable model of activity led by domestic consumer spending and away from reliance on exports and property development.

The turn away from investment has helped bring an end to the commodities supercycle which attended the growth years. Prices collapsed in 2015. We do not expect a collapse of a similar magnitude in 2016, but we do expect prices to trade for the next few years at lower levels, once they do stabilize. As of now, that stabilization has not happened. Crude oil is already down more than 20 percent from where it ended 2015, just two weeks into the new year.

China is not the only factor at play. As noted in Section B above, demand is weak globally. And supply factors figure prominently into the price collapse, particularly that of crude oil. The rapid growth in US production, spurred by nonconventional drilling in sites such as North Dakota's Bakken field and the Permian Basin in the Southwest, unleashed a torrent of new supply onto the market (at the same time diminishing US dependence on foreign oil). Saudi Arabia shaped the OPEC policy decision to not cut production levels with the aim of gaining market share. Chart 15 below shows the impact of this confluence of events on the price of crude oil.

Chart 15: Crude Oil Price Trends



We provide a twenty year perspective in Chart 15 in order to provide context on either side of the 2003-14 commodities supercycle. In the late 1990s the price of oil rarely got above \$20 per

barrel. Recall that the late '90s was a time of strong economic growth around the world. Strong growth and \$20 oil were entirely compatible. Prices then traded in a relatively narrow range with \$20 as an intermediate support floor until the supercycle really got underway in late 2003 and early 2004. The market collapsed along with most other risk assets in 2008, but quickly regained its footing. Recall that the Great Recession did not hit China as hard as it hit the US and Europe. The investment growth plan resumed and so did the upward trajectory of commodities prices.

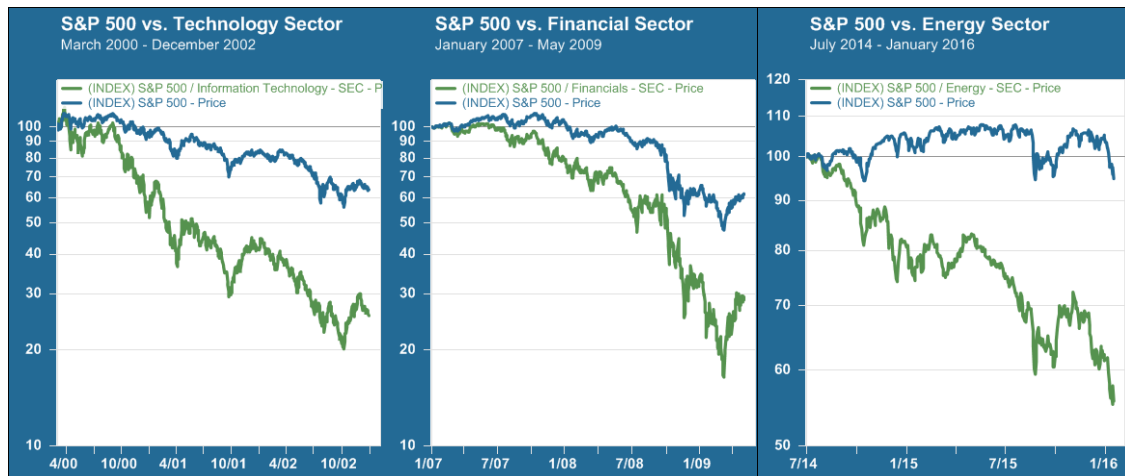
What should we expect now? Prices are back quite close to where they were at the beginning of the supercycle. The conventional wisdom among analysts covering the sector, at least up until recently, is that oil prices would find their way back towards \$60 or so by the end of this year or early next. The International Energy Agency released a forecast this past fall calling for prices to slowly trend back towards \$80 per barrel by 2020. On the other side, the early 2016 freefall has teased some more negative views out into the open. Goldman Sachs sees \$20 oil as a distinct possibility. A recent article in the Financial Times cited another pundit making a case for \$10.

We believe it would take something close to an all-out worst case economic scenario to keep prices that low for any sustainable amount of time. Over the near to intermediate term, through the first half of 2017 or so, we see the potential for prices to trend to a trading range between \$40 and \$50 per barrel. The current supply and demand imbalances should work themselves out over this time period. But any estimate is subject to a wide range of other variables, including political problems in major producing states from Saudi Arabia to Russia, Iran, Venezuela and Brazil.

iv. Commodities and Industry Sectors

We featured Chart 16 below in our Annual Outlook last year, and we re-introduce it because downward leadership in the energy sector is very much a fresh topic of discussion today.

Chart 16: Examples of Sector-Driven Downward Leadership



Source: MVF Research, FactSet

We know from various client discussions we have had over the course of the past twelve months that this chart can cause concern. And we believe very strongly that falling commodities prices have contributed to higher volatility and greater overall uncertainty about asset price trends. That being said, we do not necessarily see the current situation as being the same kind of singular negative event driver that wildly overpriced technology stocks were in 2000, or that financial institutions with highly leveraged exposure to worthless collateralized debt obligations and credit default swaps were in 2007. There was no economic upside to the dot-com bust and the credit market collapse. Weak commodity prices have both winners and losers, by contrast. Energy firms and resource export-dependent countries lose, while consumers, raw materials-intensive businesses and net energy importers like Japan and Singapore gain.

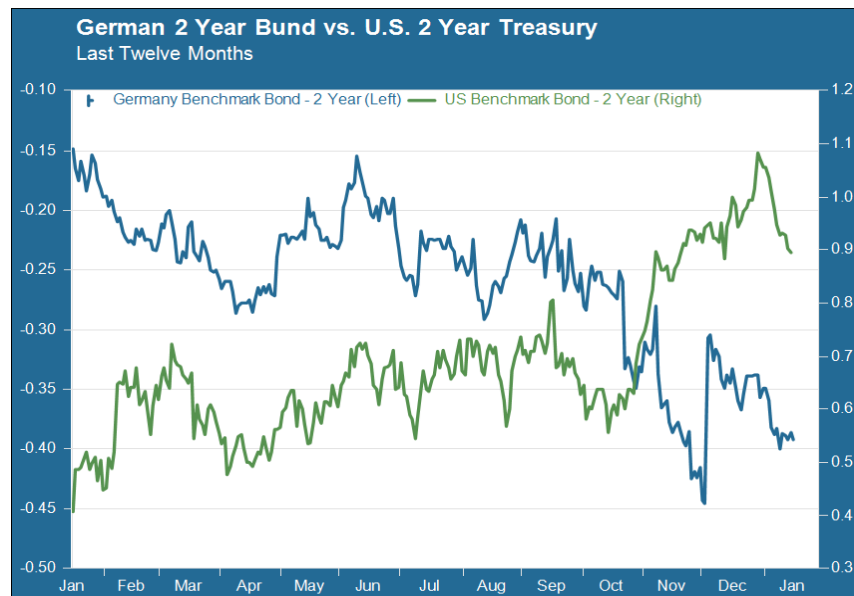
Energy and mining companies have contributed the lion's share of negative earnings among S&P 500 companies so far this year; research company FactSet estimates that energy sector earnings per share (EPS) will lose sixty percent for fiscal year 2015 and another twenty percent or so in 2016. But at least for now it is the only sector where fiscal year '16 EPS are expected to be negative. Bear in mind as well that the energy sector comprises less than nine percent of the total market capitalization of the S&P 500. The financial sector made up more than twenty percent when it fell in 2007, and so did tech at the peak of the Internet bubble.

Is there a chance that the energy sector will bottom out at some point this year if the price stabilization at lower levels we discussed above takes place? We think that could happen at some point. "Sell on the rumor, buy on the news" has merit as an investment strategy. But we would refrain from a bullish stance on the sector for some time to come. 2016, in fact, may be a poor environment in which to make any kind of concentrated sector bet.

v. Bonds in Wonderland: The Strange Case of Negative Rates

In college economics we learn that interest rates have a "zero lower bound", because the idea that a rational lender would actually pay for the "privilege" of lending to a borrower is absurd. If savings rates are negative, wouldn't the rational person simply keep her money under the proverbial mattress? The answer was yes – until now. Chart 17 below illustrates the remarkable trajectory of the German 2 year Bund as it diverged from the US 2 year Treasury last year. Bund yields for issues up to seven years have been negative for at least a portion of the last year.

Chart 17: 2 Year US Treasury vs. German Bund



Source: MVF Research, FactSet

We know that Eurozone bond yields tumbled last year in anticipation of, and then reaction to, the ECB's announcement of a quantitative easing program. But why did rates go negative? After all, the US Federal Reserve ran three successive QE programs from 2009-14, yet Treasury yields remained positive across the board. Japanese government bond yields have been near zero for the better part of the last couple decades but not in negative rate Wonderland. And it wasn't just Germany. Italy, a shakier economy at the center of the 2011-12 storm, also issued two year debt at negative rates in the latter part of last year. In fact, just ahead of the ECB's decision in December to extend the current QE program to at least 2017, over €3 trillion – about 40 percent of the total volume of outstanding Eurozone sovereign debt – carried a negative yield.

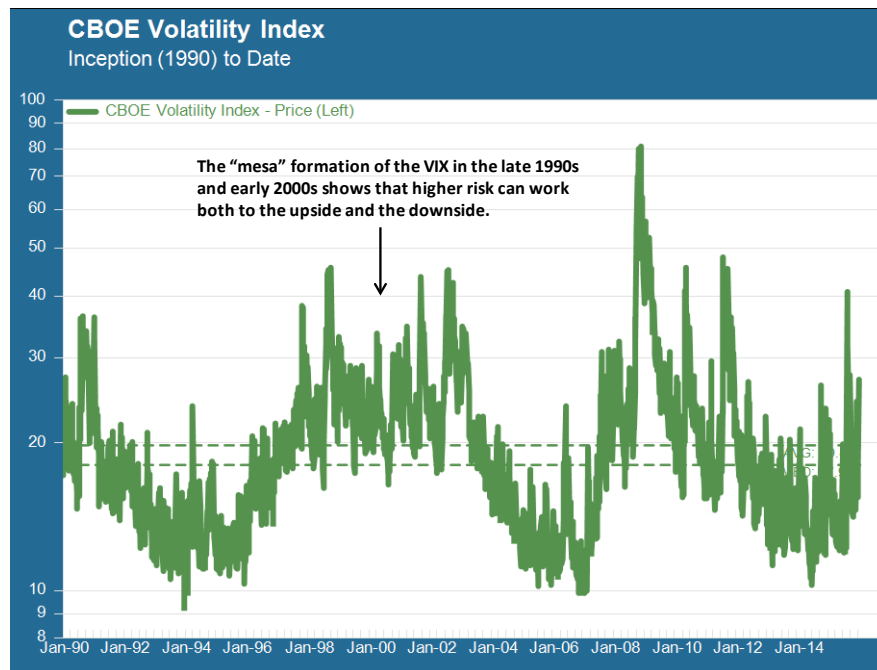
There is not a single consensus view on why negative rates are a European fashion. When rates turned negative early last year, concerns were high that Europe would fall into a protracted period of deflation. In a chronically deflationary environment, there is theoretical justification for negative rates. Deflation turns the usual notions about present and future value on their heads. If future purchasing power is expected to be less than present purchasing power, then interest rates can be seen, not as a source of return, but as a form of insurance or holding cost.

Deflationary concerns are somewhat less pointed than they were a year ago. Economic growth picked up slightly ahead of expectations in 2015, and results in some countries such as Spain were considerably more upbeat than earlier. It is more likely that, alongside economic concerns, negative rates took hold due to supply and demand issues. The issuance pace of new Eurozone debt abated in 2015 even with the ECB as an aggressive net purchaser. Other investors such as pension systems and insurance companies also have allocation policies mandating exposure to Euro sovereign debt. We believe the combination of negative sentiment, increased demand and reduced supply created the conditions for negative yields.

vi. Volatility: Out of the Valley, Back to the Mesa?

In a year framed by uncertain macroeconomic, corporate and geopolitical developments we expect to see higher than usual levels of asset volatility. Chart 18 below shows the performance of the CBOE VIX index – the market’s so-called “fear gauge” – from 1990 to the present.

Chart 18: Trends in the CBOE VIX Index



Source: MVF Research, FactSet

The VIX normally trades in a series of peaks – short bursts of high volatility – and calmer, extended “valleys” of lower risk. But consider the trend from the late 1990s through the early 2000s. Over this period the VIX looked more like an elevated-altitude mesa than a peak or a valley. This is a good illustration that risk cuts both ways. Volatility was high in the late 1990s bull market and it was high in the early 2000s bear market. The VIX recently has trended up from its most recent (2012-15) valley. We could be talking about mesas again in 2016, whether in the context of an up market or a down market.

III. Conclusions: Our 2016 Action Plan

The overall flavor of this year's Annual Outlook is uncertainty, with a risk bias to the downside. Such conditions place a premium on risk management. This means: (i) avoiding where possible too much concentration in any single equity or other higher-risk asset class, (ii) minimizing exposure to all but the highest quality fixed income assets, and (iii) obtaining exposure to other asset classes which tend to have low levels of correlation to both equities and fixed income. These are the three planks of our asset allocation strategy for 2016.

We still consider large cap US equities to offer a more attractive risk-adjusted performance opportunity than other equity asset classes. US shares have broadly outperformed the rest of the world for most of the duration of the post-recession recovery. At some point they are probably due for a reversion to mean. But to make a strong case against US equities, one must make a strong case for something else. Fundamentally we do not see what that something else might be. We are comfortable maintaining exposure to Europe and other developed market equities, though at underweight levels. Given our views on emerging markets, shared extensively in this report, we have eliminated exposure to that asset class.

One interesting feature of this seven year bull market is the absence of outperformance either by small cap stocks over large cap, or by value stocks over growth. The so-called "value effect", in particular, has been widely studied over very long time periods. In principle, investing in stocks with lower valuation multiples such as price to book value or price to cash flow should pay off over time. But the sectors which tend to make up value portfolios, such as financial institutions and energy, have been out of favor more than they have been in favor. To repeat, though, our style decisions are cautious this year, balancing exposures close to or below neutral weights.

Fixed income for 2016 means a balanced mix of cash, short term floating rate debt, and high quality intermediate term government and corporate securities. Credit quality remains a concern: we have no deliberate strategic exposure to high yield debt or to non-US bond sectors. A higher than average cash allocation reflects our defensive positioning against uncertainty and volatility.

Finally, we see merit in certain types of hedge strategies with risk characteristics more similar to bonds than to equities, but with typically low correlation to both. Diversification into these types of assets can be a drag on performance during strong growth market environments. But they can be very useful risk management tools in choppy times like the ones we potentially see ahead.

Anything can happen over the course of any given twelve month time interval. The negative sentiment which has dominated market trends in early 2016 could give way to a more positive outlook at any time. When expressing our views for the year ahead, we always try as much as possible to separate ourselves from whatever emotions are swirling around the markets as we write. We try instead to make a case based on a considered assessment of the data relating to what we see as the key influencing factors at play, and how these factors could – not *will*, but *could* – shape portfolio performance in the months ahead. The more defensive position we have taken for 2016 relative to 2015 is based on the themes discussed in the pages above: the deep uncertainty about global growth, the ability of the US to go it alone, heightened risks in China in particular and emerging markets in general, an already expensive market by most valuation measures, and a host of geopolitical and other X-factors that skew negative. We are always prepared to change our thinking- but only as and when the data support it.

IV. Important Disclosures

Please remember that past performance may not be indicative of future results. Different types of investments involve varying degrees of risk, and there can be no assurance that the future performance of any specific investment, investment strategy, or product (including the investments and/or investment strategies recommended or undertaken by MV Capital Management, Inc.), or any non-investment related content, made reference to directly or indirectly in this newsletter will be profitable, equal any corresponding indicated historical performance level(s), be suitable for your portfolio or individual situation, or prove successful.

Due to various factors, including changing market conditions and/or applicable laws, the content may no longer be reflective of current opinions or positions. Moreover, you should not assume that any discussion or information contained in this newsletter serves as the receipt of, or as a substitute for, personalized investment advice from MV Capital Management, Inc. All charts and graphs used above are for illustrative purposes only as they relate to the context of the discussion and do not represent a recommendation to buy or sell any specific investment or strategy. To the extent that a reader has any questions regarding the applicability of any specific issue discussed above to his/her individual situation, he/she is encouraged to consult with the professional advisor of his/her choosing.

MV Capital Management, Inc. is neither a law firm nor a certified public accounting firm and no portion of the newsletter content should be construed as legal or accounting advice.

A copy of the MV Capital Management, Inc.'s current written disclosure statement discussing our advisory services and fees is available for review upon request.



www.mvfinancial.com