

Economic and Market Perspective

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Some 2017 Impressions



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Welcome to the New Year! The current economic recovery turns nine this summer making it the third longest in U.S. history. However, this calendar-old recovery still appears young at heart. It has not yet sustained a real growth rate above 3%, has never been driven by excessive borrowing or lending nor produced a significant capital spending or housing cycle. Moreover, because it has only recently returned to some semblance of full employment, it has yet to seriously aggravate inflation. Yields about the globe remain near all-time records lows and the Federal Reserve is only now beginning to finally normalize monetary policy. Finally, despite an almost three-and-a-half fold increase in the U.S. stock market from its 2009 low, this bull market has never generated a broad-based public run into equities.

Perhaps for the first time in this recovery, we expect animal spirit behaviors; those originating from confident businesses, consumers and investors, to increasingly characterize both the economy and the financial markets in 2017. Essentially, this furthers trends already evident during the last few months of 2016. After almost a two-year hiatus, economic growth recently accelerated and broadened about the globe. This rare synchronization in the economic recovery comes just as the U.S. has finally returned to full employment. Consequently, improved economic growth is also aggravating inflation and interest rate concerns.

Although broader economic growth, a restart of the earnings cycle and the election of a pro-business U.S. president have recently combined to boost confidence and awaken the animal spirit throughout the private sector, it also represents a quandary for the financial markets. The stock market begins the year surging to new highs as confidence in the durability of the economic recovery improves. However, the bond market is

being battered by rising inflation expectations and recognition that the artificially low yield structure orchestrated about the globe during this recovery may finally be ending.

Here are some specific impressions for the economy and the financial markets in 2017.

Economic growth

The 2017 economic outlook is shaped by many important factors including a synchronization of economic policies about the globe, an economic recovery which is broadening both globally and within the U.S., a refresh and restart of the profits cycle, an end to the global manufacturing recession and collapse in commodity prices, the potential for awakening animal spirits and the increasing likelihood that a recession is still multiple years away.

Synchronized global economic policies

Not only has global economic growth been persistently subpar, it has never been synchronized. Economic policies typically conflicted during this expansion and economic boats around the globe have seldom risen together. While the U.S. has persistently employed stimulus, other developed and emerging economic policies have often been restrictive. While Japanese policy officials were hesitant earlier in this recovery, today, similar to the U.S., they are implementing full-out central bank balance sheet stimulus. Likewise, the eurozone, which earlier adopted fiscal tightening, is now also fully embracing monetary stimulus. Moreover, the oil crisis has forced energy-based economies like Canada and Australia, which earlier felt sheltered from many ongoing global struggles, to also boost accommodation.

Consequently, as illustrated in Charts 1 and 2, in the last couple years, policy officials everywhere have simultaneously attempted to improve the economic recovery. Already, signs of a synchronized global economic bounce are materializing and we suspect this will become more obvious as the year progresses.

Chart 1

Global 10-year sovereign bond yield

*Average of U.K., eurozone, China, Japan and U.S. 10-year government bond yields.



Chart 2

Global annual money supply growth*

*Average of U.K. (M3), China (M1), Japan (M2) and U.S. (M2) annual money supply growth rates.

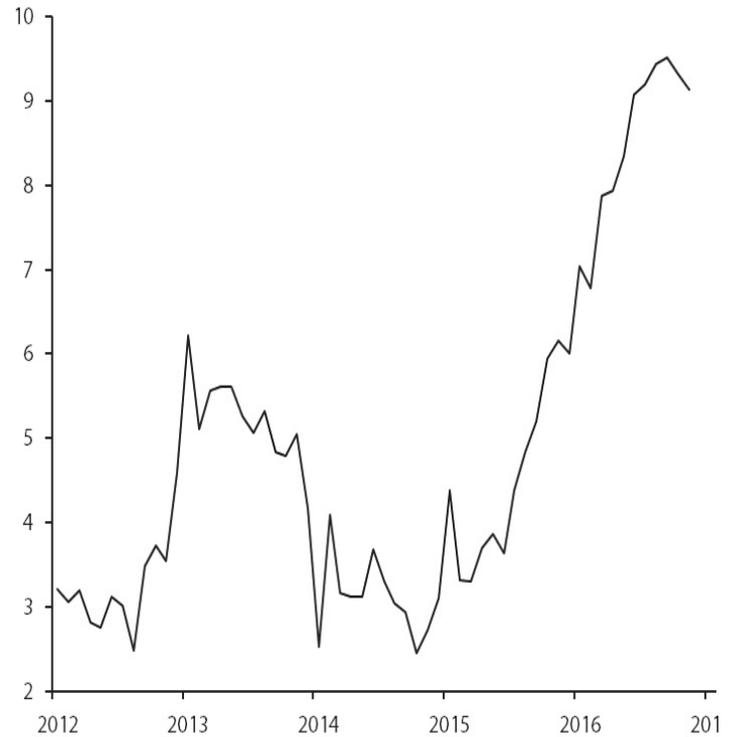


Chart 3

Annualized quarterly U.S. real GDP growth rates

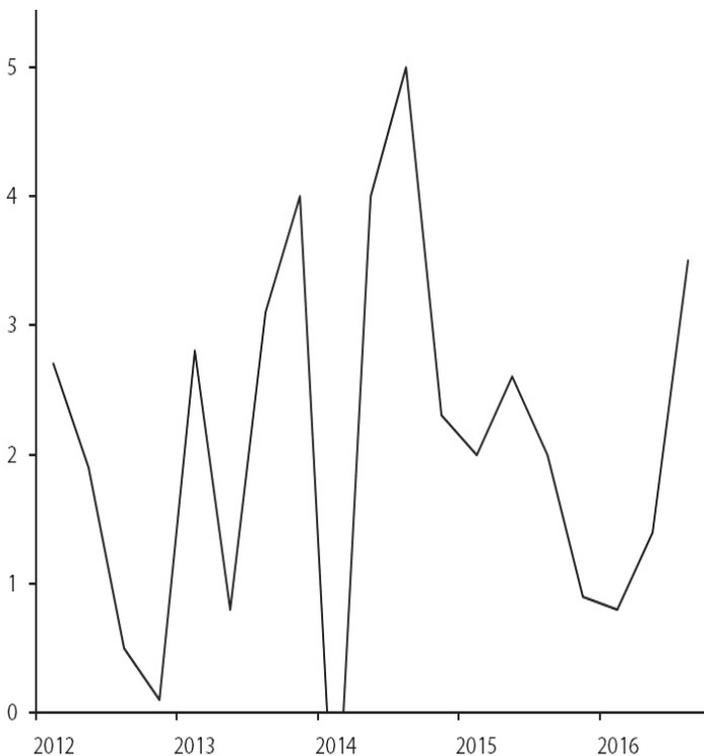
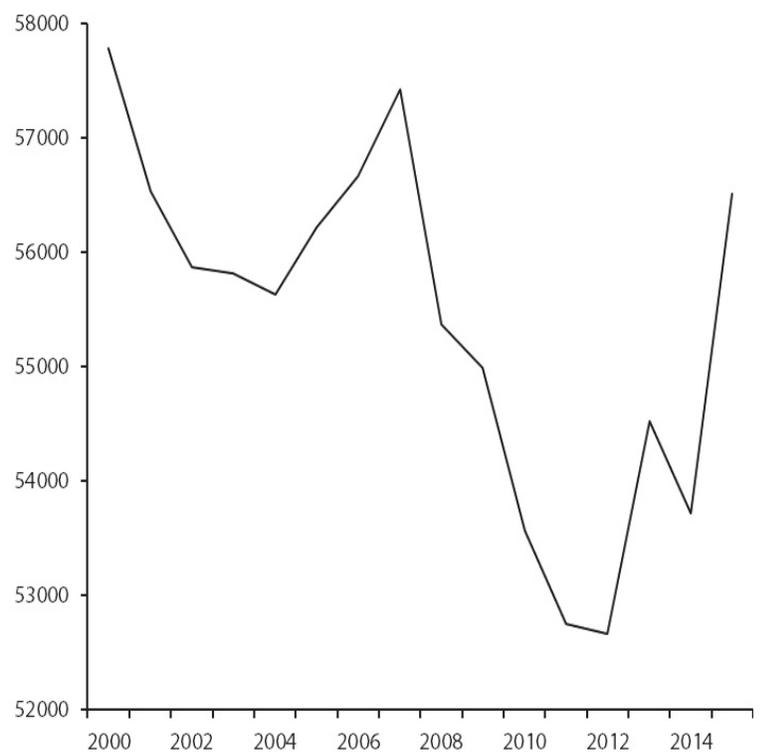


Chart 4

U.S. real median personal income



Broader U.S. and global economic growth

As shown in Chart 3, after nearly one year of sub-2% growth and almost two years below 3%, U.S. real GDP growth spurted to 3.5% in the third quarter. The U.S. recovery also broadened. After declining until 2012 and remaining weak until 2015, U.S. real median personal income (Chart 4) has recently spurted to within about 1.5% of its peak during the last recovery in 2007. That is, for the first time, this recovery has finally made it to Main Street and Middle America!

The economic recovery has also quickened and broadened about the globe. Positive global economic surprises (Chart 5) have increased significantly in the last year to some of the strongest readings of the entire recovery. Indeed, the 52-week moving average of this index has risen to its highest level since 2011 and has exhibited substantial and persistent upside momentum since last spring!

While overall economic growth has accelerated at various times in this recovery, never has the global economy both quickened and broadened as much as it has recently. Could the combination of both faster and broader economic growth about the globe finally awaken animal spirits? Indeed, is this already being reflected by the December jump in the Conference Board's Consumer Confidence Index to its highest level in more than 15 years?

An Earnings per Share (EPS) refresh

Corporate earnings have been difficult since they peaked in 2014. However, as shown in Chart 6, the earnings cycle seems to have been refreshed and restarted. Annualized quarterly operating earnings per share (EPS) for the S&P 500 Index declined between the end of 2014 and the end of 2015 and still remained slightly below recovery peak levels in the third quarter of 2016. However, S&P 500 EPS have been rising again since the fourth quarter of 2015 and estimates suggest a healthy gain in 2017.

Corporate earnings should benefit from a couple major changes in the coming year. First, although corporate profit margins peaked at all-time record highs a couple of years ago, they have since declined between 1% to 1.5% and could therefore rise again in the next couple of years. In this sense, the profit cycle has been "refreshed" during the cyclical slowdown of the last couple of years. Second, we expect overall sales growth to accelerate this year as a broader recovery leads to faster nominal GDP growth rates and improved sales trends across the globe. In this sense, the profit cycle may be "restarted" by a broadening global economic recovery.

Chart 5

Westpac Global Positive Surprise Index*

*Solid line is weekly index and dotted line is a trailing 52-week average of the index.

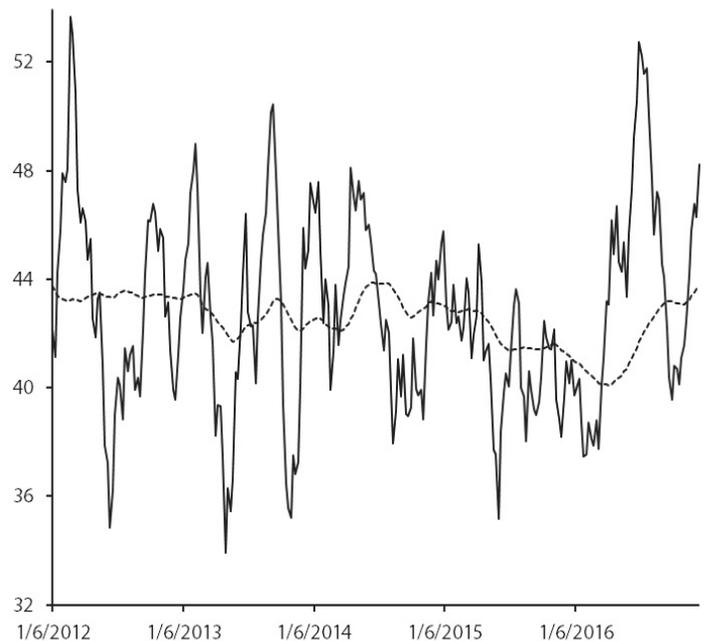
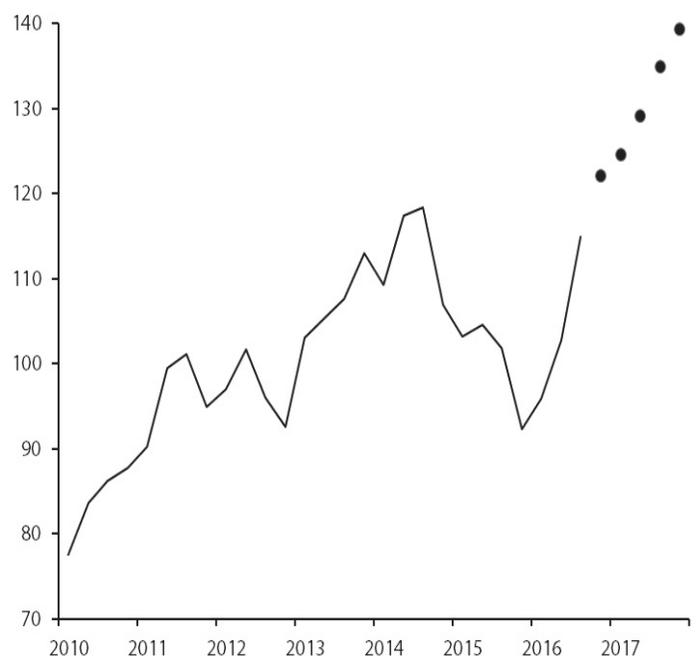


Chart 6

S&P 500 Index annualized quarterly operating earnings per share*

*Last data point on line chart is 2016 3rd quarter. Bold dots are consensus bottom-up estimates for 2016 4th quarter and all four quarters of 2017.



Manufacturing / commodity price revivals

As illustrated in Charts 7 and 8, world economic momentum and global confidence was severely curtailed and shaken by the collapse in oil and other commodity prices and the ensuing global manufacturing recession which commenced in the last half of 2014. The significant slowdown in both U.S. and global economic growth, declining corporate profitability, worsening fears of a global deflationary abyss and the escalating use of negative sovereign bond yields resulted from the global collapse in commodity prices and related activities in the manufacturing sector.

As we enter 2017, both commodity prices and manufacturing activity are improving. The price of WTI crude oil bottomed in the first quarter of 2016 just below \$30 and has since risen to almost \$55. Similarly, industrial commodity prices (those most sensitive to economic activities) have risen by about 30% from first quarter lows. As shown, both oil and industrial commodity prices have been flat for the last two years effectively ending the deflationary (i.e., falling prices) undertow evident since 2014.. Similarly, as shown in Chart 8, global manufacturing has recovered along with commodity prices and for the first year since 2013, the U.S. and global economic recovery should be boosted by rising industrial activity.

Will animal spirits awaken in 2017?

Animal spirit behavior represents actions originating from highly confident businesses, consumers or investors. The collective economic decisions of private sector players reflect the degree of animal spirits on a scale of fear to greed. This recovery has never stimulated significant animal spirit behaviors. Indeed, almost uniquely to the post-war experience, it has been driven mostly by lingering fears. Is this finally about to change?

Chart 9 illustrates an estimate of animal spirit behavior. It calculates the proportion of total nominal GDP comprised by spending tied primarily to strong private player confidence. Specifically, it is the sum of household big-ticket spending (i.e., personal consumption on durable goods and housing outlays) and business capital spending as a percent of nominal GDP. Consumers do not buy expensive and often debt-financed big-ticket items unless they are confident. Likewise, businesses do not invest to expand operations unless it foresees a profitable future.

Post-war, "confidence spending" has ranged from about 20% to 29% of nominal GDP. When fear dominates this ratio is low while a high ratio represents periods when animal spirit behaviors are prevalent. The 2008 crisis effectively suspended animal spirits as confidence spending relative to GDP declined to near 20% in 2009, almost 2% lower than at any other point in the post-war era! Although confidence spending has since recovered, it remains close to levels associated with past recessions and is still lower than about 80% of the time since 1947.

Chart 7

Oil prices and industrial commodity prices*

Solid (left scale) — WTI crude oil prices
Dotted (right scale) — JOC - ECRI Industrial Commodity Price Index

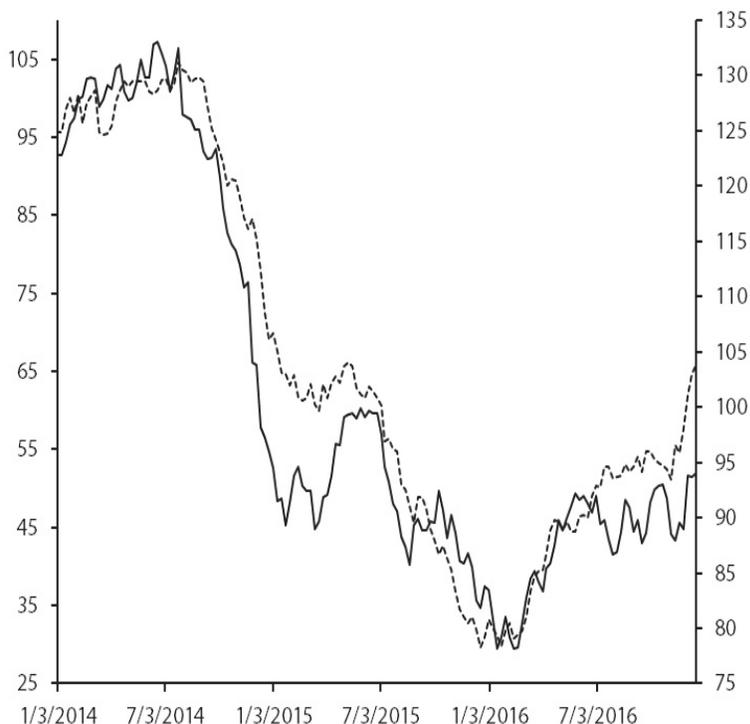


Chart 8

U.S. and Global Manufacturing PMI Indexes*

Solid (left scale) — U.S. ISM Manufacturing PMI Index
Dotted (right scale) — JP Morgan Global Manufacturing PMI Index

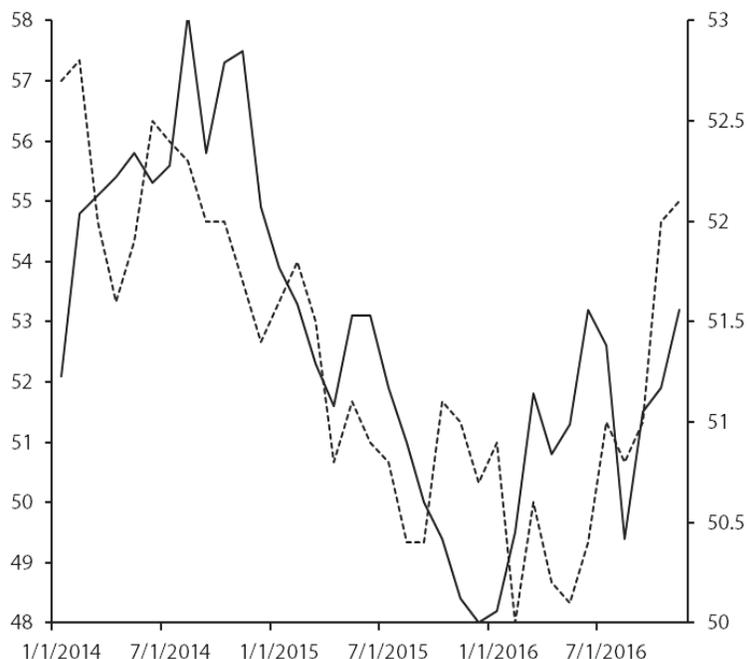
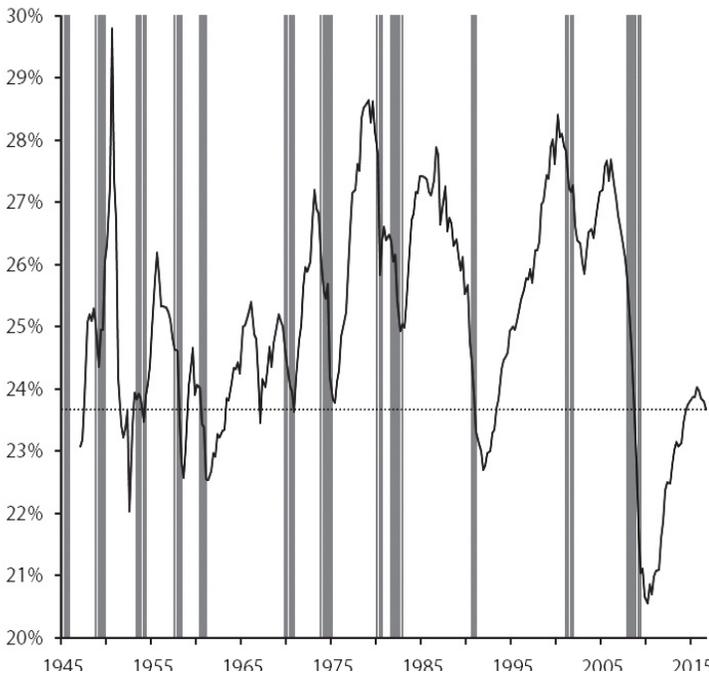


Chart 9

Confidence spending* as a percent of nominal GDP

*Sum of personal consumption expenditures on durable goods plus gross private domestic fixed investment as a percentage of nominal GDP.



The inability of this recovery to generate confidence and arouse animal spirit behaviors has been disappointing. However, as the chart shows, there is ample room for confidence spending to play a bigger role yet in the balance of this recovery. So, will the animal spirit continue to slumber or is it poised to soon awaken?

Recently, several forces appear to be arousing animal spirits. First, both U.S. and most foreign economic recoveries have recently quickened again after about a two-year hiatus. Second, the profit cycle has been refreshed and recently restarted. Third, the U.S. has returned to full employment and for the first time Middle America seems to be participating in the recovery. Similarly, a synchronization of economic policies around the world has led to the first harmonized global economic bounce of this recovery. Fourth, global deflation and widespread fears of a deflationary abyss are finally showing signs of ending (e.g., both U.S. wage and core consumer price inflation has recently accelerated and oil and other commodity prices have bottomed). Fifth, yields about the globe are finally lifting away from zero and the U.S. Fed is finally beginning to normalize monetary policy producing a feeling of leaving an era of crises management. Finally, the U.S. has just elected a new pro-biz leader promising less regulations and lower corporate tax rates.

In the last half of 2016, animal spirits were already becoming more evident. Consumer confidence rose to its highest level in more than 15 years in December and real consumer durable goods spending rose by strong rates in the last two quarters. In addition, investment behaviors became much more aggressive in the latter part of 2016. Equity fund flows turned positive and cyclical sectors of the stock market dominated while risk-off sectors including bond surrogates underperformed.

Expect animal spirits to be more evident in both the economy and in the financial markets during 2017. In addition to rising business and consumer confidence measures, both business investment spending and housing activity may improve. Could there be a drawdown in household savings rates and/or corporate cash flow? Finally, animal spirits may become more evident in the lending and borrowing markets. Will the much-improved balance sheets in the banking, corporate and household sectors finally be taken out for a leverage test drive?

Is recession still a ways off?

Despite the fact the current recovery is old by calendar standards, most indicators we watch suggest the next recession is still a ways off. First, leading economic indicators in both the U.S. and globally have yet to roll over suggesting near-term recession risk remains low.

Second, economic policies typically turn restrictive (e.g., higher yields, slower money supply growth, a flatter yield curve and a fiscal contraction) multiple years before the next recession. Currently, despite a relatively long economic recovery, policy officials nearly everywhere remain remarkably and universally accommodative.

Third, "excesses" resulting from aggressive and confident private sector behaviors often raise the risk of recession. However, despite being a very old calendar recovery, excesses are difficult to find today. There has never been an overzealous housing cycle or an impulsive business capital spending spree. Companies have never overstaffed, overbuilt or over-inventoried. Likewise, households have never gone on a massive borrowing binge, run savings rates negative or plunged head long into the stock market.

Rather, this economic recovery and the financial markets have been dominated throughout by risk-averse behaviors. It began with the country's primary leaders advising everyone to be cautious in the high-risk world most perceived in 2009. It has persisted with rolling country-wide panics over shifting fashionable crises. Essentially, this recovery has been dominated by a bunch of church mice (fully prepared for the next crisis every leader says is coming) engaged only in their best and most conservative economic and investment behaviors. Does a recession or bear market ever really happen when most players are fully prepared and waiting for it? Indeed, this recovery may need to be monopolized by widespread animal spirit behaviors for a period before the next recession becomes a serious risk.

Finally, bad balance sheets are often at the epicenter of most recessions. Today, however, U.S. balance sheets remain remarkably healthy. The U.S. household debt-to-asset ratio has improved by one-third in this recovery and resides at its best level almost since the 1980s. Total household net worth is more than 30% higher than it was at its peak during the last recovery and household debt service burdens are near record lows. The U.S. corporate debt-to-profit ratio is almost as low today as it was in the late-1960s and corporate liquidity remains immense. Finally, after a period of dramatic financial regulatory changes since the last recession, the U.S. banking industry may be better capitalized today than ever in the history of U.S. banking.

We do not expect the U.S. recovery to be hampered by recession this year. Indeed, our guess is this recovery will last several more years and prove to be the longest in U.S. history.

2017 economic growth summary

We expect U.S. real GDP growth of about 3% this year. More importantly, the economic recovery is likely to be "broader" in 2017 as the synchronized policies recently employed around the world results in a harmonized bounce in global economic growth. Combined with a U.S. recovery which has finally reached the middle class, a restart of the corporate earnings cycle and a revival in manufacturing and commodity prices, animal spirits should awaken and become more evident throughout the year.

Inflation to rise in 2017

Although we do not foresee runaway inflation in this recovery, we do expect it to get much more attention among both investors and policy officials this year. The global economy appears poised to experience its first cyclical acceleration

since the U.S. has returned to full employment. Therefore, the inflation rate may breach important psychological levels (e.g., wage or core consumer price inflation rising above 3%) and significantly agitate inflation anxieties.

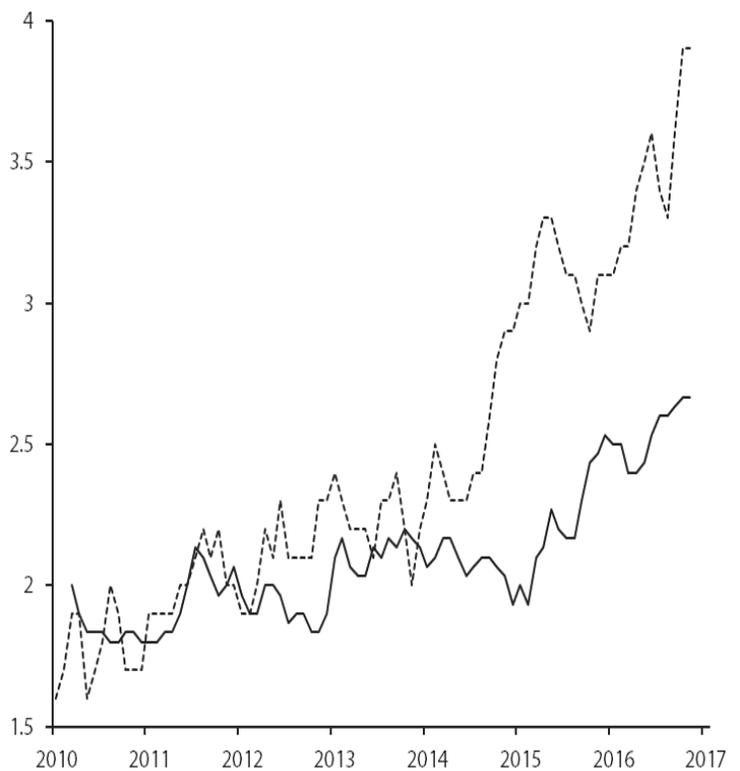
Wage inflation (Chart 10) appears likely to rise toward 3.5% to 4% this year. After spending most of this recovery at or below 2%, the annual rate of wage inflation has recently risen above 2.5%. As the unemployment rate heads toward 4% this year, wage pressures are likely to escalate. Indeed, the Atlanta Fed wage tracker suggests wage growth was already near 4% at the end of last year.

Chart 10

Annual wage inflation and Fed wage growth tracker*

Solid — Annual growth in average annual earnings, 3-month moving average.

Dotted — Atlanta Fed overall wage growth tracker (annual growth estimate of wages).



Industrial commodity prices (Chart 11) rose by 25% last year and will likely increase again this year. So far, the revival in commodity prices has been perceived as evidence that manufacturing is finally improving and it has helped reduce fears of a global deflationary abyss. However, in the coming year, a continued rise in commodity prices combined with strong wage and consumer price gains may simply escalate inflation anxieties.

Core consumer price inflation has not yet risen significantly in this recovery but it has started to accelerate (Chart 12). While below 2% during most of this recovery, core consumer price inflation reached a recovery high of 2.3% last year. We anticipate the annual core and headline consumer price inflation rates to reach or perhaps breach 3% this year.

Most important for the financial markets is to what degree growing evidence of rising inflation will impact investor inflation expectations (Chart 13). Last year, inflation expectations rose from a low of 1.2% to about 2%. As wage inflation surges above 3.5% and core consumer price inflation nears 3%, inflation expectations are likely to reach new recovery higher above 2.5% this year.

Chart 12

Annual core consumer and producer price inflation*

Solid — Annual growth in core consumer price index.
Dotted — Annual growth in core producer price index.



Chart 11

CRB Raw Industrial Commodity Price Index

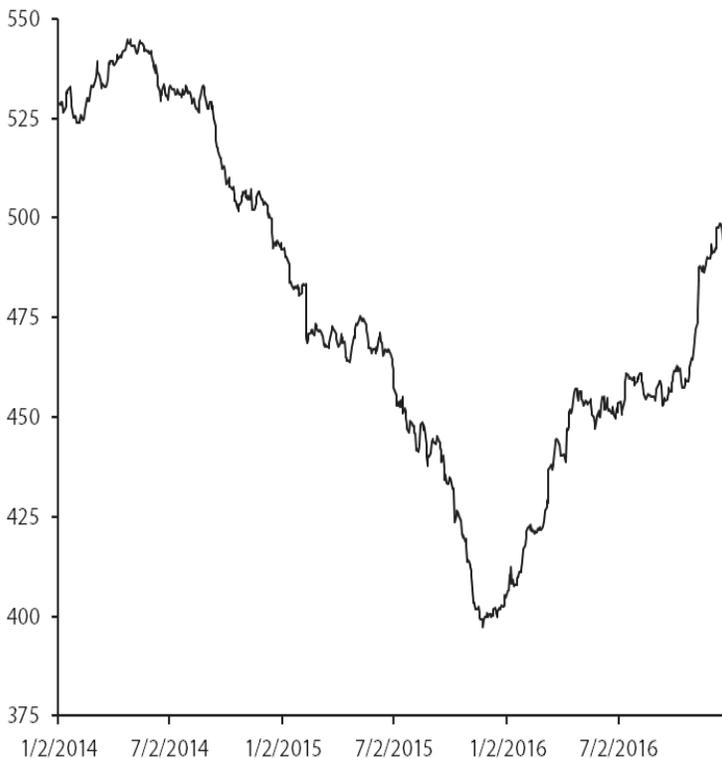
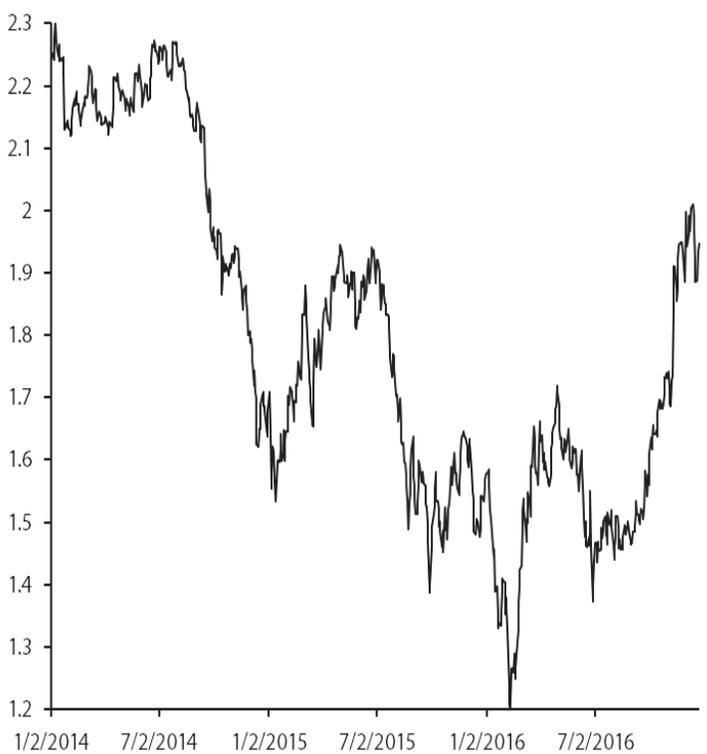


Chart 13

Inflation expectation embedded in 10-year TIP bond



Since the U.S. economy has returned to full employment, inflationary pressures will likely persist until the next recession. A big question surrounding inflation in 2017 is how it will be perceived? In a culture which has been persistently worried about deflation, is evidence the economic recovery is finally strong enough to boost the inflation rate initially good news? Certainly, higher commodity prices have recently helped improve optimism about the manufacturing industry and the oil sector. Improved top-line pricing prowess for the first time in this recovery may also boost corporate confidence and similarly worker confidence may be enhanced by stronger wage gains. Finally, financial markets have thus far reacted well to rising yields because it suggest the economic recovery is finally moving away from crisis and normalizing monetary policy.

However, at what point does evidence of rising inflation, higher yields and the need for the Fed to accelerate its exit strategy become a negative for the financial markets?

Has the U.S. dollar paused or peaked?

The broad trade-weighted U.S. Dollar Index has risen by about 8% from the end of September but is still only about 3% above the upper end of a trading range it has been in since early 2015. Against emerging currencies, the U.S. dollar is little changed from where it was a year ago. The U.S. dollar has essentially been in a trading range against developed currencies for about two years and against emerging country currencies in the last year. The question for 2017 is whether this trading range is simply a pause in an ongoing advance or whether it represents a peaking of the U.S. dollar after its strong advance mostly in 2014? Our guess is the U.S. dollar is likely to surprise the consensus this year by moving lower.

Primarily because the Federal Reserve has finally begun to raise interest rates, nearly everyone expects the U.S. dollar to rise in 2017. Generally, higher interest rates attract foreign investment increasing the demand for and the value of the U.S. dollar. However, since 1970, the dollar has typically declined when the federal funds rate has been increased. Often, what has moved the U.S. dollar is not interest rates per se but rather the “reason” interest rates were being lifted.

The Fed does not hike interest rates in isolation. Usually they are increased because of heightened inflationary concerns. And this is precisely why the Fed started last month to reset interest rates higher. In the last 12 to 18 months, commodity prices, wage and consumer price inflation and inflation expectations have all increased.

Therefore, even though interest rates do finally appear to be trending higher, investors should be cautious about joining a crowded consensus expecting further U.S. dollar strength.

Chart 14 illustrates the relationship between the U.S. dollar and the federal funds rate since 1970. In contrast to the consensus view, examination reveals that most major hikes in the funds rate have been associated with a weaker U.S. dollar. The surge in the funds rate during both the first half and again in the second half of the 1970s was associated with sustained and significant declines in the dollar. The dollar also declined meaningfully when the funds rate rose in the last half of the 1980s, during the mid-1990s and during the mid-2000s. The strong and consistent inverse relationship illustrated in Chart 14 is difficult to reconcile with the widely held consensus view expecting U.S. dollar strength this year.

Chart 14

U.S. dollar vs. Fed funds rate

Solid (left scale) — U.S. Trade-weighted Dollar Index.
Dotted (right scale) — Fed funds interest rate.

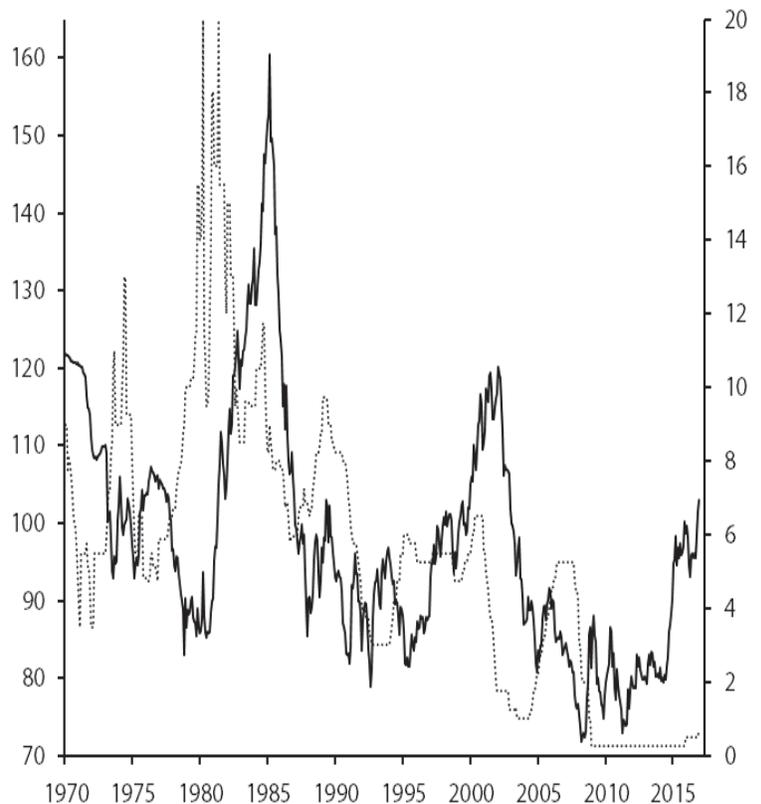


Chart 15 provides a rationale for why a rising federal funds interest rate is often associated with a weaker U.S. dollar. It overlays the U.S. dollar index with investor inflation expectations (dotted line shown on an inverse scale). As shown, in this recovery, major U.S. dollar movements have been closely correlated (inversely) with changes in expected inflation. Higher inflation erodes the real purchasing value of the U.S. dollar. Often, when the Fed raises interest rates, because inflation accelerates the real rate of interest declines causing the U.S. dollar to weaken.

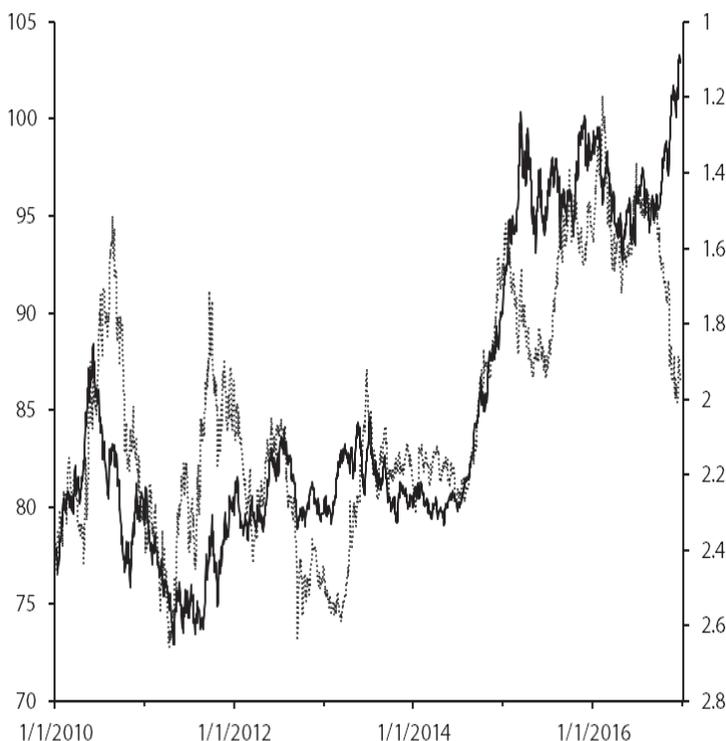
As shown in Chart 15, when the U.S. dollar surged in 2014, it was not because the Fed raised the funds rate (it was unchanged over this period). Rather, it was due to a significant decline in inflation expectations from about 2.5% to about 1.5% (which substantially raised the real dollar interest rate). Since late last year, the U.S. dollar has continued to climb even though inflation expectations have worsened resulting in the large gap shown in Chart 15. U.S. inflation expectations should rise even further this year and the U.S. dollar should eventually decline catching up with rising inflationary concerns.

Chart 15

U.S. dollar and inflation expectation

Solid (left scale) — U.S. Dollar Major World Currency Index (DXY Index).

Dotted (inverted right scale) — Embedded inflation expectation in 10-year U.S. Treasury TIP bond.



Commodity prices poised to continue rising in 2017

Several positive forces argue for a continued recovery in commodity prices this year including a broader and quicker overall global economic growth rate, a continued recovery in the manufacturing sector, economic improvement in the more commodity centric emerging markets, heightened inflation anxieties and the likelihood of a weaker U.S. dollar.

Chart 16 illustrates how important the U.S. dollar is for commodity prices. Since at least 2000, the dollar and commodity prices have been moving (inversely) in almost perfect harmony. Recently, as shown, a rare divergence has opened up as commodity prices have been rising even though the U.S. dollar has continued to also rise. Ultimately, the direction of commodity prices probably depends mostly on whether the U.S. dollar follows the consensus view of strengthening or whether it surprises and declines.

Chart 16

U.S. commodity prices versus U.S. Dollar Index

Solid (left scale) — S&P GCSI Spot Commodity Price Index, natural log scale.

Dotted (inverted right scale) — U.S. Real Broad Trade-weighted Dollar Index, inverted natural log scale.



Chart 17 provides a longer-term view of the commodity market. Over most of the post-war era, commodity prices have typically experienced long periods of well defined trading ranges interrupted by shorter periods of extreme advances. We think commodity markets remain in a broad-based trading range established since they peaked at the end of the last recovery. And although we do not expect commodity prices to break to new all-time record highs in this recovery, we do expect them to rise irregularly back toward the current trading range highs before the next recession.

Much of this recovery has been dominated by chronic disinflation and even deflation. However, we suspect the balance of this recovery will have a more inflationary undertone and consequently investors may want to consider adding some exposure to real assets.

Unwinding the “Great Yield Peg” era?

Free-market established pricing driven by the invisible hand and based on true underlying demand and supply is central to the operation of capitalism. If instead, prices are simply decreed by an authoritative power and pegged artificially at a random level, resources are miss-allocated, private sector economic and investment decisions lose their gyroscope and dangerous excesses typically result.

While prices are typically allowed to freely find their unique equilibrium, from time to time the U.S. has pegged certain prices. For example, for an extended period, the U.S. dollar was effectively pegged, the price of gold was established at \$35 an ounce and the Federal Reserve regularly pegs the funds rate in order to implement monetary policy. However, perhaps never before in the history of the republic has the U.S. engaged in artificial pegging as massively and as pervasively as it has in this recovery. Because of quantitative easing operations, it is not just that the short-term Fed funds rate has been pegged. Rather, the entire Treasury bond yield curve, from cash to 30-year yields, has artificially been kept below free market levels. And since policy officials about the globe have employed quantitative easing techniques, sovereign yield curves nearly everywhere have been pegged away from free market equilibrium levels. This is the mother of all pegs and it appears the “Great Unwind” may finally have begun!

Why now?

For some time, many prognosticators (author included) have anticipated an imminent rise in bond yields. Although the 10-year Treasury yield has already risen aggressively in recent months, we expect it to rise significantly more this year. As we enter 2017, several factors have together making the “Great Unwind” increasing likely.

Chart 17

Thomson Reuters Equal-weighted U.S. Commodity Price Index*

*The continuous Commodity Futures Price Index is an equal-weighted geometric average of commodity price levels relative to the base year average price. This index is the old CRB Commodity Price Index.



First, economic growth is experiencing its first cyclical acceleration since the U.S. has returned to full employment. Until recently, economic growth did little to aggravate wages or consumer prices nor did it pressure the Fed to stop easing. Rather, even though yields have constantly been below equilibrium levels, growth simply soaked up unemployed resources and had little consequence for bond yields. Now, because the economy is at full employment, growth is aggravating wages, commodity prices, consumer prices and is forcing the Fed to respond. That is, a continued recovery from full employment should force an unwind of the artificial bond peg.

Second, evidence of inflation is currently more prevalent than at any other time in this recovery. Both the pace of wage and core consumer price inflation reached recovery highs in the last year, the S&P GSCI commodity price index has risen by almost 50% from its low last January and the bond market’s 10-year inflation expectation increased from about 1.2% to about 2% since last February. Essentially, until recently, the cultural focus during this expansion has surrounded the potential for a deflationary abyss. Increasingly however, inflation is replacing deflation as

the primary focus among investors and as this new mindset solidifies, pressure to eliminate the yield peg should intensify.

Third, for the first time in this recovery, global policy officials have been aligned in pushing upward on the recovery. The pressure on bond yields has never been that intense in this recovery in part because the U.S. has typically been one of the few world economies illustrating consistent growth. However, even though most have given up expecting much from the global recovery, policy officials in a rare show of solidarity are simultaneously attempting to quicken and broaden the economic recovery. How will the bond market react if they surprisingly succeed in producing a synchronized global economic bounce?

Fourth, divergences in the relationship between bond yields and important economic factors have become extreme. The level of bond yields relative to the current rates of wage inflation, core consumer price inflation, commodity prices, bank loan growth and nominal GDP growth are way below historic norms. For example, does the current 2.5% 10-year bond yield makes sense in an economy with 2.6% wage inflation, 5% third quarter nominal GDP growth and 7% annual bank loan growth? Relative to the character of the ongoing economic recovery, bond yields appear significantly below equilibrium levels.

Finally, the widely accepted mantra of “lower for longer” last year was probably an indication that a generational bottom for yields was nearing. Even the Fed adopted this mantra suggesting only a few months ago that it may increase the funds rate only once a year. For us, the “lower for longer” mantra reflected a consensus which finally accepted that bond yields would never rise significantly again. So now they will!

How much could yields rise?

If the yield peg was lifted where might the 10-year government bond yield settle? Chart 18 illustrates a simple valuation model for the 10-year bond yield based on the inflation rate. It examines the real 10-year bond yield (i.e., the nominal 10-year yield less the annual core consumer price inflation rate) since 1960. On average, the 10-year bond yield has historically traded about 2.5% above the annual rate of core inflation representing an equilibrium rate relative to the underlying economy.

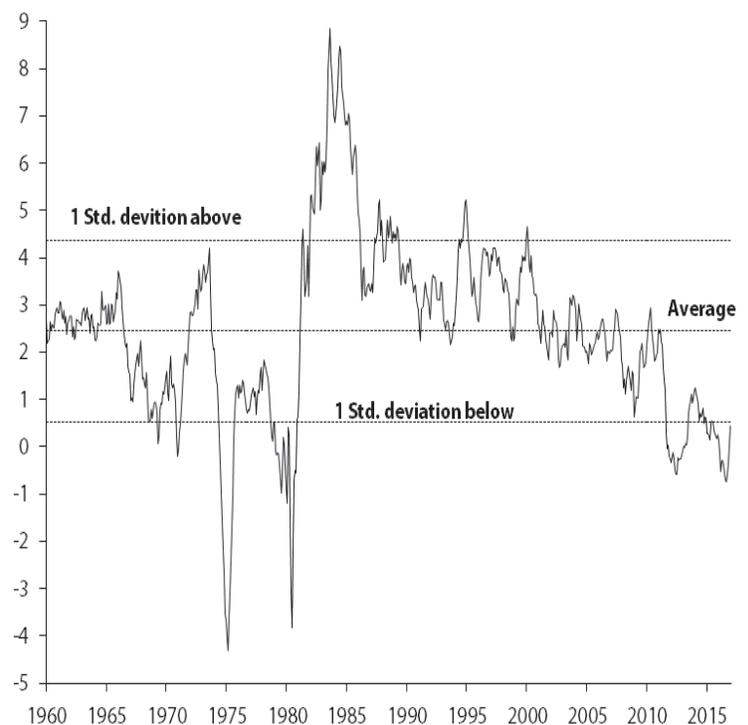
Currently, however, the 10-year bond yield at about 2.5% is only 0.4% above the core rate of inflation. As shown, even though the 10-year yield surged by about 1% since last summer, it is still almost 1 standard deviation below its historic equilibrium yield level. To reach historic equilibrium currently, the 10-year yield would need to rise to 4.6%.

Since the economy has returned to full employment, the rate of inflation is not likely to decline again until the next recession. Indeed, we suspect the annual core consumer price inflation rate will likely peak between 3% and 4% during this recovery. Consequently, the simple valuation model in Chart 18 suggests the 10-year bond yield may reach about 5% before this recovery ends. That is, reversing the “Great Yield Peg” may result in a doubling of the current 10-year bond yield before the next recession.

Chart 18

Real 10-year Treasury bond yield

*10-year bond yield less core CPI inflation rate.



2017 bond market outlook

We think the recent rise in bond yields will continue this year. So far, the rise in yields appears mostly tied to renewed confidence. Renewed confidence that economic growth is accelerating, that growth is broadening globally, that the Fed is finally normalizing monetary policy, that the world is finally moving away from the deflationary abyss and zero interest rates and that the incoming U.S. president is promising a pro-biz agenda. That is, the interest rate reset is so far mostly a good thing.

However, we expect the catalyst for higher yields to shift this year at some point away from being based on a good renewal of confidence and towards rising anxieties about higher inflation and whether the Federal Reserve and bond vigilantes have fallen behind the curve. We expect wage inflation to rise above 3% this year and for consumer inflation to near 3%. Therefore, expect increasing panic in the bond market perhaps pushing the 10-year bond yield briefly to 3.75% sometime this year.

Investors should position to withstand another significant reset higher in bond yields. First, we recommend maintaining or moving toward minimal fixed-income parameters in balanced portfolios. Stocks, real assets and alternative investments probably offer less downside risk this year. Second, bond investors should maintain a below average duration moderating exposure to rising yields.

Third, we would initially position the portfolio for a steepening yield curve (i.e., a “bullet” allocation) until interest rates get closer to an interim peak perhaps later this year. The rise in yields this year is likely to be led by the bond vigilante with the Fed raising short-term interest rates only with a lag. Thus, until bond yields peak and pause, the yield curve is likely to steepen. Later this year, however, the Fed may catch up raising short-term rates and investors may want to move toward a barbell position.

Fourth, investors should focus on boosting their yield buffer. Focus on a premium portfolio yield either by over-weighting credit or structure. As Chart 19 illustrates, even though junk bond yield spreads have recently tightened, they could still tighten significantly more yet this year. Currently, junk spreads are about 470 basis points but during both the 1990s and early 2000s recoveries they declined to about 250 to 300 basis points. Lower grade investment quality spreads also still have room to tighten.

Finally, investors may consider substituting inflation protected TIP bonds for some of their nominal high quality bond holdings. TIP bonds typically outperform nominal treasuries when the embedded inflation expectation rises. Currently, the inflation expectation in the 10-year TIP (Treasury inflation-protected) is about 2%. If wage inflation rises above 3% this year and consumer inflation heads toward 3%, TIPs are likely to outperform nominal Treasury bonds.

Stock market perceptions

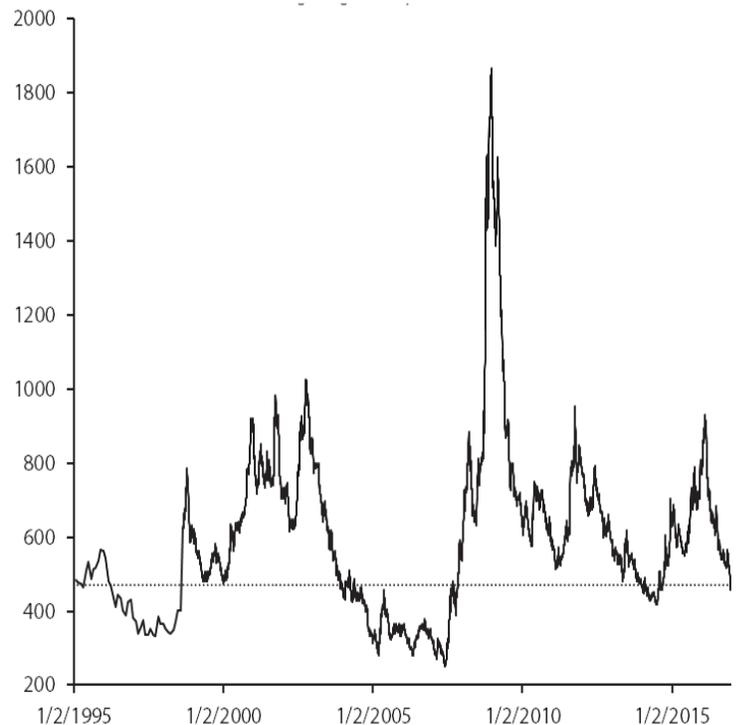
Although we expect only a modest overall advance in the U.S. stock market this year, investors may face a fairly volatile ride adjusting to rising yields and higher inflation. Indeed, at some point during the year, investors may need to embrace a switch from risk-on to risk-off positioning.

In accessing the outlook for stocks, a few questions seem most pertinent. Are stocks in a bunny market? What is reasonable to expect from buy and hold in the balance of this recovery? Has a major sector leadership change commenced? How will unwinding the “Great Yield Peg” impact stocks? Finally, will the 2017 stock market rhyme with 1987?

Chart 19

U.S. junk bond yield spread*

*JP Morgan high yield spread to worst.



Neither Bear nor Bull

Last Spring we suggested the current stock market cycle had entered a “bunny market”, a “tweener” between a bear and a bull. While a bunny market tends to be hoppy it doesn’t typically suffer a bear market collapse nor does it rise as fast as during a bull market. We expect the bunny to dominate the balance of this recovery cycle.

A bear market is not likely this year or for the next few years primarily because recession will likely be avoided. Historically, while 10% to 20% corrections can occur at any time, sustainable bear markets are usually associated with an economic recession. Recession indicators currently remain mild and the next recession appears to be years away. While normal caution is always warranted, because recession risk is still low, investors should not be overly concerned about a bear market in 2017.

However, much of the foundation for an enduring solid bull market has dissipated. First, in an eight-year old recovery, the U.S. earnings cycle is mature. It no longer is recovering from the previous recession and most companies already have exploited the ability to expand profit margins. While earnings can and likely will continue to grow, they are unlikely to grow nearly as fast as they did earlier in this recovery. Second, stocks are no longer cheap. The bull market can no longer be fueled by lifting price-earnings multiples since valuations are now closer to post-war cycle highs. Third, perpetually declining interest rates seems to have ended. Fourth, persistent disinflation is probably also over since the U.S. has returned to full employment. Finally, for the first time in this recovery, the Federal Reserve can no longer remain constantly supportive for the financial markets.

No Bear. No Bull. So, what can investors expect in the next few years from this Bunny?

Buy and hold expectations

Chart 20 compares the S&P 500 price-earnings (PE) multiple to the “Rule of 20” valuation estimate based on the inflation rate (i.e., 20 less the annual rate of consumer price inflation). Clearly, the rate of inflation is a significant determinant of PE multiples. Although the PE has tended to be much more volatile than suggested by the rule of 20, this indicator has provided a good central tendency for the valuation of the stock market since at least 1960.

While the average PE multiple since 1960 has been 16.5, it has really only been below average on a sustained basis during the high inflation 1970s and its immediate aftermath during the early-1980s. The PE multiple was at or above its average most of the time between 1960 and the early-1970s and again since the late-1980s. So although the stock market today trades at a PE multiple which is “above average”, unless the inflation rate really spins out of control, the PE multiple might at worst sustain near average in the next few years.

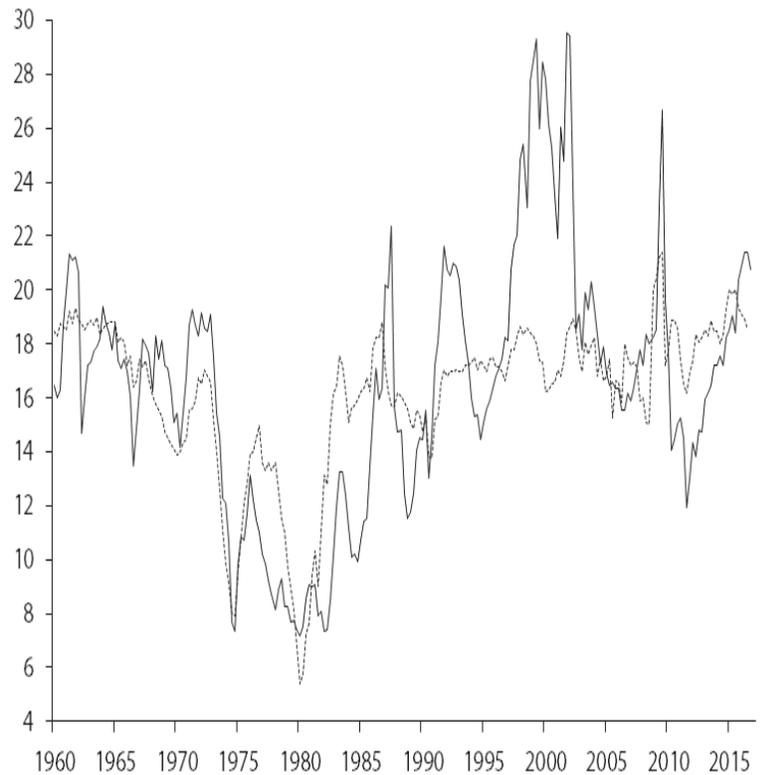
Our best guess is inflation may average about 3% in the balance of this recovery (much higher than earlier in this recovery but still relatively modest) suggesting from the rule of 20 that a 17 PE multiple would be sustainable. S&P 500 earnings per share annualized at slightly more than \$120 in the third quarter of last year. Just as an exercise, assume the current economic recovery last five more years and share earnings grow at a relatively modest 6% annual rate suggesting S&P earnings of about \$160 in five years. This implies the S&P 500 could reach 2720 yet in this recovery (i.e., a 17 PE multiple times \$160 share earnings) providing investors with a buy and hold return of about 6% per annum.

This “bunny-like” buy & hold return is of course just an example of what could be anticipated should the current economic recovery prove to be the longest in U.S. history. It is based on a PE multiple about 2.5 points lower than it is today and on only modest earnings growth. It also assumes faster inflation and higher interest rates over the balance of this recovery. Essentially, although far less than the bull market returns they have thus far enjoyed, this bunny market could still generate better returns than expected from bonds, cash or certainly from a bear market.

Chart 20

Valuation rule of 20*

*S&P 500 trailing PE multiple (solid) versus 20 less annual CPI inflation rate (dotted).



A change in leadership

Most of this bull market has been led by three central themes – American stocks, large-cap stocks and defensive consumer stocks or bond surrogates. This has been a bull market dominated by fear. Investors, chronically worried about the future, have not ventured far away from the U.S., have bought mainly stable large company stocks and have focused on low-vol consumer stocks and stocks with a yield buffer. Recently, we think leadership within the stock market is undergoing a major shift which will likely persist during the balance of this recovery.

Chart 21 illustrates that this shift in stock market leadership probably reflects an underlying change in the character of the economic recovery. Until recently, the economic recovery has been governed by disinflation, falling yields, constant Fed accommodation and persistent fears. This backdrop has been ideal for the defensive leadership evident most of the time since this recovery began.

However, a return to full employment has already begun to produce an inflationary undertow in this recovery. As commodity prices, wage inflation and consumer and producer inflation all begin to trend higher, yields are also trending up again, the Fed has begun the process of normalizing monetary policy and animal spirit behaviors are starting to awaken. In our view, as the recovery takes on new character, stock market leadership is responding. We expect foreign stocks, small and mid-cap stocks and capital goods/industrial stock market sectors to lead more frequently in the balance of this recovery.

Inflation is probably the key. Disinflation tends to benefit consumer-oriented enterprises much more than industrial, capital goods or commodity pursuits. The revenue of consumer businesses is tied closely to consumer prices whereas costs are often tied to producer or commodity prices. During periods of disinflation, higher stage consumer prices tend to hold up better than lower stage producer or commodity prices. Consequently, the profit margins of consumer businesses are often enhanced (as the gap between consumer and producer prices widens) while the operating results of industrial companies are pressured. In this fashion, disinflation is often associated with consumer stock leadership while industrial stocks perform better during periods of rising inflation.

Disinflation also tends to benefit large companies more than small companies. Large companies operate with more fluff and consequently have more opportunities to cut costs when disinflation intensifies selling price competition. Conversely, small companies tend to be more entrepreneurial and always run more lean and mean. Therefore, disinflation, by magnifying the need to reduce cost, often cuts more disproportionately into small company bottom lines. In a similar fashion, smaller company profitability tends to be much more sensitive in a positive way to accelerating inflation and improved pricing flexibility.

Finally, the U.S. represents the quintessential consumer-based economy relative to almost any other economy in the world. This is why the U.S. stock market has dominated most of the time since disinflation began in the early 1980s (excepting the commodity boom which stoked the emerging world story in the 2000s).

Looking forward, however, expect a trend of reflation to help foreign stocks to begin to outpace U.S. stocks. Indeed, rising U.S. inflation is also likely to result in a weaker U.S. dollar adding to the leadership story of foreign stocks.

Impact of unwinding the “Great Yield Peg”?

The great yield peg has undoubtedly impacted the stock market in numerous ways. However, now that interest rates are rising and the likelihood that the balance of this recovery will be focused on unwinding the yield peg, a couple of observations for stock investors are noteworthy.

First, interest rates have been held way below equilibrium levels and despite their recent spurt, are still much lower than justified by the economic recovery. Consequently, yields should be expected to rise further yet this year. So far, however, higher interest rates have not yet hurt the stock market. Perhaps, as illustrated in Chart 22, they may have to rise considerably more before they begin to bite. Since 1950, the stock market has typically done well even when yields were rising provided the earnings yield on the stock market exceeded the bond yield.

Currently, the earnings yield on the S&P 500 index is around 5%. Even though the 10-year bond yield already spurted by more than 1% from its lows last year, the earnings yield is still almost twice as great as the current 10-year bond yield. Perhaps when interest rates are pegged so far below equilibrium levels (as they have been in this recovery), once the peg is finally removed, they need to rise much more than investors anticipate before they have their normal restrictive impact on economic activity or on the stock market. Although a rising 10-year bond yield might eventually result in a stock market correction this year, it may be from a yield much higher than most currently anticipate.

“Risk-on” to lower risk?

Typically, by the eighth year of an economic recovery, yields would have risen significantly, the Fed would have long been into tightening mode and cyclical, risk-on stocks would have been solidly outpacing defensive stocks and bond surrogates. Today, however, because yields have been artificially kept so low, investors face a unique quandary. Should portfolios move increasingly away from a stock market whose valuation level is significantly elevated, from an economic recovery which is old by calendar standards and from cyclical, risk-on stocks that typically face the greatest risk in an aging cycle? And should investors move toward more defensive assets like cash, bonds and low-vol consumer stocks even though most of these investments still represent the most expensive parts of the market?

Normally, as yields rise and the Fed tightens, defensive investments are increasingly avoided leaving them cheaply-priced and more attractive relative to cyclicals as the recovery ages. Today though, yield pegging has left investors with an uncomfortable choice. Risk-on, cyclical investments in an old recovery or risk-off assets which are artificially much too popular and significantly overpriced?

Because of this unique contemporary quandary, we think investors may best keep risk exposure tolerable in the next few years by maintaining an over-weight toward risk-on assets. At least until the great peg is lifted and yields return to market equilibrium, risk-on may be the best path to lower risk?

Chart 21

Stock market themes shifting with character of recovery

<p>Economic recovery</p> <p><u>Was</u></p> <p>Disinflation</p> <p>Falling yields</p> <p>Fed accommodation</p> <p>Fear</p>	<p>➔</p>	<p>Stock market leadership</p> <p><u>Was</u></p> <p>Buy American</p> <p>Buy large caps</p> <p>Buy consumer / bond surrogates</p>
<p><u>Now</u></p> <p>Inflationary</p> <p>Rising yield trend</p> <p>Fed tightening</p> <p>Animal spirits</p>	<p>➔</p>	<p><u>Now</u></p> <p>Foreign stocks</p> <p>Small / mid-cap stocks</p> <p>Capital goods / industrials</p>

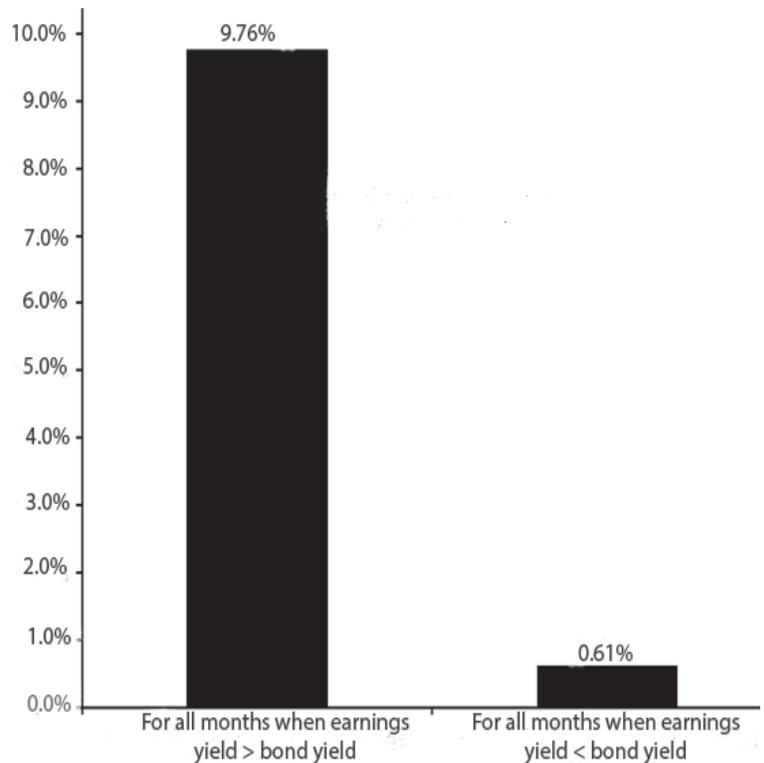
2017 stock market guess ... An echo of 1987?

Thirty years ago at the start of 1987, investors were wary the Reagan economic recovery may be stalling. The pace of real GDP growth had slowed dramatically between 1985 and 1986, the rate of consumer price inflation declined to near 1% and the 10-year Treasury yield had collapsed to its lowest level in more than a decade. Suddenly, at the start of 1987, the stock market took off despite an equally impressive surge in bond yields. Indeed, by the fall, the Dow Jones Industrial Average had risen by more than 40% while the 10-year Treasury bond yield advanced by more than 300 basis points to above 10%! Then of course, the stock market suffered its biggest single day collapse in U.S. history.

Chart 22

Stock market and rising yields

*Annualized S&P 500 Index price gain since 1950 when 10-year Treasury bond yield rises



What drove both stock prices and bond yields significantly higher in 1987 was a outbreak of widespread optimism about the future of the recovery. It was the first time in the Reagan recovery that “animal spirits” awakened. Quickly, anxieties about weak economic growth and recession gave way to renewed excitement that the recovery was headed for a secondary leg of activity.

In a much less dramatic fashion, we suspect 2017 may rhyme a bit with 1987. Until late last year, the stock market had been essentially flat for the previous two years, the pace of real GDP growth was running regularly below 2% and corporate profits had been declining. Economic growth across the globe had stalled, deflation was evident in many places and the world became increasingly characterized by negative interest rates. The result was widespread pessimism and escalating concerns surrounding the durability of this economic recovery and the bull market.

Since last year’s third quarter, however, many favorable fundamentals have come together renewing optimism about the potential for a secondary leg of activity. Recently, confidence has

been boosted by improved and broader economic growth both in the U.S. and about the globe, by a revitalization of corporate earnings growth, by a move away from zero interest rates around the globe, by a U.S. Federal Reserve which is finally beginning to normalize monetary policy, by evidence that inflation is rising again moving the world further away from the deflationary abyss and finally by a new U.S. administration which appears to be more pro-business and offers the hope of less regulation and lower corporate taxes.

Perhaps as a result of these favorable factors, animal spirit behaviors are increasingly noticeable among investors. In recent months, there have been positive net new cash flows into equity mutual funds and leadership within the stock market has been dominated by cyclical sectors. Are these early signs the investment public may finally be embracing risk-on attitudes?

Our guess is the current rally continues and renewed optimism about the economic recovery will carry both stock prices and bond yields significantly higher yet this year before both perhaps suffer a correction. In this fashion, 2017 may prove similar in character (but not the magnitude) to 1987 when animal spirits first emerged in the Reagan recovery.

There is room from a valuation standpoint. Bond yields remain far below equilibrium levels and could rise significantly more as the great peg is reversed. In the stock market, although valuations are currently high, they are not excessive. Many bull markets in the post-war era have peaked near 20 times earnings. Indeed, the 1987 stock market top was at a 20 price-earnings ratio (PE). The consensus estimate for S&P 500 earnings per share in 2017 is currently about \$130. A 20 PE on this earnings number implies that a level as high as 2600 would not be out of line with history.

Most of Wall Street expects a mild advance this year in the stock market and for the 10-year bond yield to perhaps reach 3%. Our guess is that both the stock market and bond yields rise much more aggressively this year than most think likely before correcting back to levels which may be fairly close to overall expectations for the full year. Specifically, the S&P 500 may reach as high as 2600 this year as the 10-year bond yield surges toward 3.75%. Then later, in a mini-*à la* 1987 style reversal, perhaps the S&P 500 pulls back under pressure from higher bond yields to end the year near 2350.

When to go risk-off again?

If we are roughly correct (a big assumption?), there is going to be a major trade this year in the financial markets. If both stock prices and bond yields initially run higher, investors will want to be positioned primarily in over-weighted risk-on investments. Indeed,

we recommend starting this year emphasizing international stocks (both developed and emerging stocks), small and mid-cap stocks and the materials, energy, industrials, financials and technology sectors. However, we expect a correction from higher levels and investors will want to be positioned in more defensive sectors if that commences. Timing this trade will of course be extremely difficult. Maybe like last year, the stock market will defy consensus expectations and correct early this year and rally later? Or maybe, the stock market will simply meander higher this year and will not suffer a correction until 2018?

The key in our view is how investors perceive rising inflation and higher interest rates. We will be monitoring this perception as the year progresses. Thus far, evidence that inflation is rising and that the Fed is being forced to finally raise the Fed funds rate is actually boosting confidence in the future of this recovery. That is, bond yields and stock prices are both rising because both are boosting confidence and awakening animal spirits.

Eventually, however, the perception surrounding stronger inflation and rising interest rates will likely change. As investors start to worry that inflation is rising too aggressively, that the Fed is falling behind the curve and that higher yields and inflation are becoming a sizable hurdle for PE multiples, the risk of a correction will increase. In attempting to time the “big trade” of 2017 — at some point moving from risk-on to risk-off investments — we will rely primarily on accessing the market’s perception of whether rising inflation is good for the recovery or bad for financial markets.

Thanks for wading through this lengthy colloquy. We hope there were a few nuggets to be found.

We wish you the Best of Luck in 2017!



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