2019 Outlook – June Assessment

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2019 Outlook - June Update:

The gloomy mood at the beginning of 2019 gave way to renewed optimism during February, March and April that global economic activity would improve as 2019 progresses. Stock prices rose to an all-time high on the last day of April. This sentiment shift was prompted by easing of U.S. monetary policy, easier financial conditions and Chinese policy stimulus.

As we approach the summer months, business and consumer optimism remains at a high level achieved only at previous cyclical peaks in economic activity.

Investor sentiment, however, was dampened by the collapse of the U.S.-China trade negotiations in early May. Stock prices fell 6.6 percent during May as investors worried about slowing global growth and potentially nasty consequences of the escalating trade war. But unlike the firestorm that erupted in last year’s fourth quarter, investors did not panic. By June 11th, stock prices had recovered 70 percent of May’s losses.

But not all investors appear to think alike. While stock investors’ worries diminished, bond investors’ worries about slowing global growth and declining inflation did not. The yield on the 10-year Treasury note fell 37 basis points during May to 2.14 percent, contrary to the forecasts of nearly every professional analyst. Bond investors believe that slower economic growth will force the Fed to cut short-term interest rates and this accounted for 22 basis points of the decline. However, the remaining decline of 15 basis points stemmed from investors’ belief that long-term inflation will decline by that amount. As of June 10th, the 5-year, 5-year forward inflation expectation rate was 1.86 percent. Since this measure is tied to the consumer price index (CPI), it needs to be converted to its consumer price expenditures index (CPE) equivalent for a reasonable comparison to the Fed’s 2.0 percent inflation objective, which is based on the CPE inflation measure. Since CPI has averaged 30 points higher than CPE over the past 20 years, the implied inflation expectation rate is 1.56 percent, considerably below the Fed’s 2.0 objective.

This apparent divergence between stock and bond investors raises the question of whether one or the other is smoking something and out of touch with reality. While this is a possibility, a case can be made that the apparent divergence of views is not what it appears to be. Bond investors are convinced that the Fed will have to cut
short-term interest rates to counter the slowdown in growth. Stock investors believe that this would be bullish for the economy, thus they are willing to bid up stock prices. In fact, both sets of investors are in agreement – the Fed must cut interest rates to sustain the economic expansion.

But this raises another question. Won't additional monetary stimulus be inflationary given that the economy is already operating above full capacity and the labor market is exceptionally tight? The decline in the inflation expectation rate runs counter to this traditional positive relationship between inflation and monetary stimulus. Perhaps what bond investors realize is that global deflationary forces are so powerful that they will swamp the stimulative effects of easier monetary policy.

One can look to the price of oil as an indicator of global deflationary forces. West Texas Intermediate oil prices peaked at $67 per barrel in late April, but have fallen to about $53 in early June. Many expected the collapse of Venezuelan oil production and Iranian sanctions to blow the price of oil sky high. That hasn't happened obviously. Increased Saudi Arabia oil production probably isn't an offsetting factor, because Saudi Arabia needs a price of oil higher than $53 to balance its budget.

So, whether the Fed likes it or not, and despite hand wringing about President Trump’s bullying, the Fed will have to comply with the market's expectations and cut rates.

Underlying this short-term drama is a longer-term trend of slowing global growth. This is particularly evident in Europe and Japan, which are mature economies with awful demographics. This is also the case for China, whose rapid growth in recent years has been driving high global growth. As China’s economy has matured, the days of easy investment in infrastructure driven growth are coming to an end. The growth impetus is transitioning slowly to a consumer-driven economy and that growth impetus will be lower as it is in all developed economies. Emerging economies, which have benefited from China’s surge, and, thus, have contributed to high rates of global growth, won't be able on their own to replace the growth that China fueled. The Trump Administration’s trade policies intended to bring production back to American will make growth prospects even worse for emerging economies.

In a world in which trade is shrinking, nations, such as Japan and Germany, whose economic models are based upon exports, will fare poorly. Germany has an additional problem. For years its banks have financed its gargantuan trade surplus by loaning countries the money to buy German exports. Many of its banks are in perilous financial condition with Deutsche Bank heading the list.

The significant risks I listed at the beginning of 2019 and which are articulated below along with updates have not gone away. Whether they precipitate recession sooner
or later remains to be seen. But it is a matter of when and not if. Global imbalances
are significant. Policies by and large are aimed at sustaining the good times. They
are not aimed at dealing with global imbalances. If the Fed cuts rates as it is now
expected to do it will be a policy that conforms to sustaining the good times for a
while longer.

2019 Outlook – Beginning of the Year: (The paragraphs that follow were drafted at
the beginning of 2019 and have not been edited for subsequent developments.)

As 2019 commenced, what economists refer to as “tail risk," which is large
deviations from generally anticipated outcomes, was unusually. While the consensus
does not expect recession to occur during 2019, “tail risk” is significant and the
possibility of recession occurring in the U.S., and some other countries, has risen.

Specific outcome projections in this “Outlook” were set at the beginning of 2019
and were tied to an overall assumption that growth would slow gradually from 2018’s
significantly above potential pace but that no recession would occur. However, if
recession does begin before the end of 2019, actual outcomes by the end of 2019
will differ considerably, and negatively, from the projections.

At the beginning of 2019, in the case of the U.S., unemployment was significantly
below the natural rate and this gap is expected to widen during the course of 2019
and will add to wage and inflation pressures. However, increasing labor scarcity will
result in slower employment growth and that will have knock on impacts resulting in
slower spending, investment and GDP growth. In addition, the benefits of fiscal
stimulus will wain during 2019 and turn negative by the end of the year.

We are in the mature phase of the business cycle. Best to enjoy the good times now
because we know from history that strong economic momentum, when the economy
is operating above full capacity, usually eventually leads to recession and correction
of the imbalances that built up during the euphoric period of strong growth.

Recession risks are rising but the timing of onset of recession is uncertain. In the
best case, growth will slow to a sustainable level and economic imbalances will
moderate without recession. Such a benign “soft landing,” based on history, is not a
high probability outcome.

Views about timing of a recession and its severity differ. A recession could
commence as soon as sometime during 2019, although most view this as a low
probability. As time passes it is likely, although not assured, that the probability of
recession will increase. Political developments, policy errors, or sharp declines in
consumer, business, and investor sentiment could accelerate the timing of recession
and its severity.
At the beginning of 2019, several significant risks faced the U.S. and global economies: (Updates to discussion of significant risks articulated at the beginning of the year are in blue bold italicized print.)

- **The U.S. economy is operating above full capacity.** Based upon Congressional Budget Office (CBO) analysis, the U.S. economy entered 2019 operating about 0.30% above capacity on a four-quarter moving average basis. This is expected to grow to approximately 0.8% to 1.0% by the end of the year. In the past the economy has rarely operated at full capacity for very long before recession occurred. Soft landings don’t usually occur. *Economic expansions don’t die of old age, they die when the economy operates above capacity and overheats.* In early 2019, most forecasters lowered their expectations for U.S. real GDP growth in 2019, but all forecasts remained well above estimates of long-term potential growth. Q1 real GDP growth of 3.1% was stronger than expected, but fundamental growth was actually quite weak (1.1%) when the effects of inventory building, net exports and government spending are purged. Reflecting accommodative U.S. monetary policy and a reacceleration in China’s growth following its recent slowdown, prior to the escalation in the U.S.-China trade war, U.S. economic growth had been expected to strengthen during the remainder of 2019. During April, Goldman Sachs and other forecasters upgraded the outlook for U.S. GDP growth. The recent failure of U.S.-Chinese trade negotiations and the implementation of new and higher tariffs by both countries is now expected to slow GDP growth in both countries in coming quarters. This risk remains and has escalated to some degree since early May. Monetary policy actions, Chinese stimulus, strong business and consumer confidence in the U.S. lessen this risk in the near term, but the renewal and escalation of the U.S.-China trade war seem likely to reverse springtime’s more favorable developments.

- **Excessive corporate debt.** GS published an analysis of corporate debt on May 4, 2019, in which it concluded that even though corporate debt as a share of GDP is at an all-time high, it is below previous peaks as a share of corporate cash flows and corporate assets, which are more salient measures of risk. Other developments also lessen the risk posed by the high level of corporate debt. These include lower interest rates, more stable cash flows, a shift toward longer maturities, and reduced dependence of capital expenditures on external financing. GS concluded that if the economy enters recession, “…defaults would rise, spreads would widen, and capital spending would decline substantially.” But, risks posed by corporate are no greater than those
which preceded previous recessions. This is a longer-term risk, which is escalating gradually.

- Leveraged loans and collateralized debt obligations (CLOs). This is a longer-term risk, which is worsening gradually.

- Deteriorating residential loan credit standards. Over the past two years the GSEs have liberalized residential loan credit standards for debt service coverage and loan-to-value ratios, which elevate the potential for significant losses should recession occur and be accompanied by home price depreciation. There is emerging data that indicates that the GSEs are tightening credit standards since the new director of the Federal Housing Finance Agency was confirmed by the Senate. This risk remains, but it is limited in scope.

- Trade war – this risk will depend upon the outcome of U.S.-China negotiations and whether the U.S. decides to impose tariffs on automobiles and auto parts. This risk escalated sharply in early May with the failure of U.S.-Chinese trade negotiations and the implementation of higher and additional tariffs on imports of goods by both countries. In addition, the Trump Administration has been noticeably silent about the possibility of implementing auto tariffs and has not released the Commerce Department’s report. If new tariffs are imposed on imported European goods, the European Union is expected to retaliate in kind. This risk has increased and threatens to slow global economic growth.

- Tight monetary policy – the FOMC’s change to a neutral monetary policy in January lessened this risk. FOMC monetary policy review could result in a revised inflation target in an attempt to assure that inflation averages 2% over the entire cycle – this would result in keeping rates low until inflation rises well above 2%. In addition, FOMC policy will end quantitative tightening in September, which will reduce the risk of tighter market liquidity. Financial markets expect the Fed will need to reduce the federal funds rate by 50 basis points by the end of 2019 and another 25 basis points in early 2020. The slightly inverted yield curve suggests that monetary policy may be too tight. Financial conditions in the U.S. have eased considerably since the beginning of the year which has diminished this risk, but tighten somewhat in May in response to the failed U.S.-Chinese trade negotiations. Chinese fiscal policy has diminished this risk by improving global growth prospects; however, monetary policy remains tight in Europe and relatively ineffective in Japan.

- Tightening financial conditions – since the beginning of the year this risk has lessened, but greater than expected deceleration in global growth could
Financial conditions in the U.S. eased considerably in the first quarter but tightened somewhat in May in response to the failed U.S.-Chinese trade negotiations. They remain slightly tighter than they were prior to 2018 Q4’s financial market correction. This risk has diminished in the short run, but could quickly return if U.S. and global economic activity weakens more than expected.

- Declining consumer, business, and investor sentiment. Consumer and investor sentiment have improved since the beginning of the year; some measures of business confidence have softened. This risk has diminished in the short run, but could worsen quickly, if financial market volatility returns. Accommodative monetary policy will be important in maintaining positive investor sentiment.

- Escalating political uncertainty. Sparring between President Trump and Congress has not had any apparent impact on economic activity. However, the next bout of political uncertainty that is certain to occur involves the need for Congress to raise the federal debt ceiling and pass a budget resolution for fiscal 2020 not later than September 30, 2019. Failure to pass a budget resolution would result in the implementation of sequestration, a legacy of the Budget Control Act, which would result in substantial spending cuts. The risk of political uncertainty in the U.S. has diminished in the short run, but could escalate at any time and probably will in September. Political uncertainty is rising in the U.K. and Europe and could be amplified by the recent EU parliamentary elections. These risks are slow moving and the extent of the risks won’t be visible for several months.

- Rise of populism and nationalism. This is a long-term risk, which is evolving slowly.

- Brexit and the European Union – the risk of “no deal” is rising and if realized would have negative consequences for economic activity in the U.K., but also in Europe. The U.K. and the EU kicked the can down the road by extending the deadline for a deal from March 29th to October 31st; this risk remains; uncertainty is depressing U.K. economic activity. U.K. political uncertainty has escalated with the decision of Prime Minister Theresa May to resign. There is a reasonable chance that a hard-Brexiter could succeed her, which would probably amplify political fragmentation and discord in the U.K.

- Slowing growth – Italy, France and Germany – Italy is in recession and if it deepens this could strengthen populist and nationalist political movements, which could threaten the euro and trigger an existential crisis for the EU. This risk is escalating – Italy in recession; growth has slowed in Germany.
and it may soon join Italy in recession; ECB’s monetary policy has been ineffective in preventing substantial deceleration in EU economic growth. Italy and the EU averted a budgetary crisis a few months ago, but once post-EU-election politics resolves, this crisis could erupt anew since Italy’s economic malaise remains and probably is worsening. Another risk that could be triggered by slowing growth is a European banking crisis, and if it occurs, German banks could be the focal point.

- **Slowing growth – China, emerging markets** – economic conditions are expected to improve in China during the second half of 2019; if this does not occur as expect, global growth will decelerate more than expected. China’s stock markets were up 33% through mid-April, reflecting investor optimism that policy will end the growth slowdown and that U.S.-Chinese trade negotiations would conclude amicably. Much of the growth optimism about a better 2019 second half in the U.S. and many global economies hinges on growth reacceleration in China. Current Chinese policies support, but do not guarantee, such an outcome. With the failure of U.S.-Chinese trade negotiations in early May, Chinese stock markets sold off sharply, but did not give all of their 2019 gains. The renewal and escalation of the U.S.-China trade war threatens to have adverse spillover effects on growth in China and emerging markets. This is a significant risk. It is too soon to determine whether Chinese policy actions will be effective in boosting global growth and, unfortunately, the trade war with the U.S. adds to downside risks. Data reported in the last month are not encouraging.

- **Turmoil in U.S. financial markets** (this risk was not included in the original list, but it is significant enough to add to the list) – trading in financial instruments has increasingly migrated to indexed products otherwise referred to as ETFs (exchange traded funds). The market share of ETFs continues to increase. The risk posed by ETFs could be severe if a substantial decline in stock markets leads to substantial selling of ETFs and a flight to cash. The underlying liquidity of many ETFs has not been tested under extremely adverse market conditions. If it turns out that many of these products lack liquidity, attempts to liquidate them could have adverse contagion effects on other segments of financial markets and deepen the severity of a market downturn. And, because the Dodd-Frank Act limited the Fed’s ability to act as lender of last resort by providing liquidity to specific market segments, the Fed’s ability to derail a financial panic limits or precludes some of the actions it took to arrest the downward spiral unleashed by the Great Financial Crisis.

Recession risks were very much on the minds of many as the stock market plunged in December 2018.
Almost half of CEO’s attending a Yale C.E.O. summit in December expected the U.S. economy to be in recession by the end of 2018 (that is not a misprint), which obviously did not happen.

Corporate CFO’s were also gloomy in December – according to the Duke University/CFO Global Business Outlook survey, 48.6% expect the U.S. economy to be in recession by the end of 2019.

Each month the Conference Board asks CEOs to rank their concerns. In January 2018, recession risk ranked 19th out of 19 choices. In January 2019, recession risk ranked first. This ranking, however, has probably declined since January.

Over half of the economists polled by the Wall Street Journal expect recession to begin in 2020; 10% expect recession to begin in 2019.

In December, Goldman Sachs pegged recession odds at 15% in 2019, but noted that the market’s probability was 50%. In January, GS calculated the odds of a recession beginning in the next 12 months as 14%, but that probability would rise to 20% if the global growth rate declines by 1%. **GS reduced recession odds in the next 12 months to 10% in early April and boosted its outlook for growth in the U.S. over the next two years.**

Bank of America/Merrill Lynch recession model indicated a 21% chance of recession (updated Feb. 12th), but an alternative recession model, based upon financial markets measures, placed the odds of recession in 2019 at approximately 40% (this probability has probably declined with the market’s improvement in January and February).

However, economic activity data in the first quarter, while weak, did not validate December’s extreme pessimism. In addition, the FOMC’s moderation of monetary policy in late January from a tightening bias to neutral contributed to a lessening of fear that recession might be imminent. Optimism re-emerged. Neither the extreme pessimism in December nor the renewed optimism in the first quarter appear to be consistent with evolving trends in global economic activity. Data clearly indicate that global growth is slowing gradually and the preponderance of risks to the outlook continue to be negative, although short-term risks have diminished somewhat.

What we know from past experience is that forecasting a recession’s onset is notoriously difficult. The fact is that we are usually well into recession before the consensus acknowledges it. What we do know from history is that when risks are unusually high, as they are at the beginning of 2019, the economy is especially vulnerable to unexpected shocks. Consumer, business and investor sentiment can plunge quickly and propel the economy into a downward spiral. Trying to forecast the pivotal shock and perhaps more importantly, its timing, is a crap shoot. The best policy is to be prepared for disaster while hoping for benign outcomes.
*The information contained in this newsletter does not constitute legal advice. This newsletter is intended for educational and informational purposes only. Bill Longbrake is an Executive in Residence at the Robert H. Smith School of Business, University of Maryland.*
Observations about the 2019 U.S. and global economic outlook and risks to the outlook are listed below. As events unfold during 2019, this will enable the reader to track my analytical prowess. Observations which are on track are denoted by “+”; observations not on track are denoted by “-”; indeterminate observations are denoted by “?” and general observations are denoted by “√”.

Forecasting accuracy, which is always difficult, becomes much more so when the economy is strong and above the long-term sustainable trend level, and when significant economic imbalances have accumulated, which is the situation in which the U.S. economy finds itself at the beginning of 2019. The difficulty in forecasting involves pinpointing the turning point. Almost no one does this well. Recession forecasting models are relatively crude and reliable forecast lead times have been very short. What we know from experience is that recessions occur when the economy becomes overheated and the Fed is tightening. Both of these phenomena are in place. The timing of recession onset, however, depends upon human psychology. And, when human psychology is highly positive, it tends to feed upon itself and sustain momentum, often for longer than seems possible. While consumer sentiment was at a very high level at the beginning of 2019, business and investor confidence had deteriorated from peak levels reached in 2018. Strong consumer optimism based on rising employment and incomes could outweigh business and investor anxieties. Alternatively, investor driven financial market volatility could erode consumer confidence and slow spending growth with the consequence of hastening recession onset.

In any event, 2019 looks set to be a volatile year with a higher than normal chance that outcomes by the end of the year will be significantly different and worse than outcomes expected at the beginning of the year.

1. **U.S. – Outlook – June Update**: (The paragraphs that follow provide a summarized snapshot of the economy’s performance month-by-month)

Calm returned to financial markets in *January and February* as investors realized that economic growth remains strong and the threat of recession is not imminent. The reversal in sentiment was helped by soothing words from Federal Reserve officials and reinforced by the FOMC’s monetary policy change from a tightening bias, foreshadowing two rate hikes during 2019, to a neutral bias, indicating a pause in rate changes and a data-dependent patience in determining
whether the next rate change is an increase or decrease. The partial government shutdown in January will reduce 2019 Q1 GDP growth but about 75% of the loss will be recouped in Q2. All employment indicators remain very strong and the labor market is operating above full capacity; however, inflationary pressures remain quiescent. Real GDP growth is in a slowing trend but remains well above full potential. Measures of business, consumer, and investor sentiment weakened some in January but remain near cyclical highs.

Data reported in March, particularly for the months of December and January, were very weak, reflecting the consequences of 2018’s year-end stock market correction and the partial government shutdown. 2019 Q1 GDP growth is likely to be less than 1% and could be negative, reflecting a slowdown in consumer spending and decreases in inventories, which outgrew demand in 2018 Q3 and Q4. Bad weather and the partial government shutdown will also depress 2019 Q1 GDP growth. Preliminary March data support the story of slowing U.S. growth but do not suggest that recession is imminent. Most forecasters believe that 2019 Q1 weakness will be temporary and not a precursor of recession. The consensus expects that more accommodative monetary policy and reacceleration of Chinese growth during 2019 will boost the pace of U.S. GDP growth modestly above the long-term potential level.

Data reported in April and early May mostly covering March were stronger and benefitted from easier monetary policy and strong stock market performance. Surprisingly, the “Advance Estimate” of 2019 Q1 GDP came in at a very strong 3.18%, although the “Private Domestic” estimate of GDP, which eliminates inventories, net exports and government and is a better GDP measure of trend growth, was a very weak 1.09%. Payroll employment grew strongly in March and April, but household employment declined in both months. This divergence makes no sense and is most likely due to sampling error. The likely interpretation is that the labor market is not as strong as it appears from March and April data and the decline in the U-3 unemployment rate to 3.58% in April to a 50-year low probably artificially depressed by statistical noise. Wages continue to edge up but to a lesser extent than implied by employment growth and the low unemployment rate. The core inflation rate declined, perhaps due to transitory factors as suggested by Federal Reserve Chair Jerome Powell, but the failure of inflation to rise seems more fundamentally based. On April 30th, the S&P 500 stock average hit an all-time high, completely recovering from the 2018 Q4 nearly 20% drop in stock prices. Consumer confidence recovered to cyclical highs in April, reflecting the stock market’s stellar performance. However, the ISM manufacturing and services indices weakened in April. The major event in early May was the collapse in U.S.-China trade negotiations and the reciprocal implementation of
higher tariffs. The sense of optimism that rebuilt during Q1 and April is now threatened and is a reminder that major risks still bedevil the U.S. and global economies. While the Fed’s monetary policy has resulted in easier financial conditions and reduced the likelihood of recession in the near term, recession risk remains elevated.

Data reported in **June** covering April and May reflected continued strong consumer and business sentiment. However, survey measures of business activity are weakening and business activity, which has been above potential, is moderating. Stock prices recovered about 70% of May’s decline; however, interest rates continued to fall. The bond market now expects the Fed to cut the federal funds rate at least 50 basis points in 2019 and another 25 basis points in early 2020, beginning as soon as the FOMC meeting in July. May’s employment report was extremely disappointing, but employment growth, averaging over the first five months of the year, remains above long-term potential. Growth in wages continues to trend up gradually, but remains at a moderate level. Inflation measures continue to be soft. However, tariffs will boost inflation temporarily later this year, but as indicated by falling inflation expectations, this development is not expected to a permanent impact on inflation. Global growth continues to slow, with weakness particularly apparent in Europe, Japan and emerging economies.

✓ The Treasury yield curve inverted slightly from March 22\(^{nd}\) to March 28\(^{th}\); research indicates that the spread between the yields on the 3-month Treasury bill and the 10-year Treasury note is the most reliable indicator of impending recession when it turns negative – yield curve inversions have preceded every recession by approximately 12 months, but not every yield curve inversion has been followed by recession; however, as optimism rose about stronger U.S. growth, this spread turned modestly positive, averaging +9 basis points between March 29\(^{th}\) and May 10\(^{th}\), but inverted again on May 13\(^{th}\), as markets reacted to the failure of U.S. – China trade negotiations and both countries lifted tariffs substantially, and has remained inverted through June 10\(^{th}\), averaging -10 basis points
✓ Duke CFO survey 2019 Q1: 38% expect recession to begin by 2020 Q1, down from 49% in 2018 Q4; 67% expect recession to commence before 2020 presidential election; 84% expect recession to begin by 2021 Q1
✓ LEI: flat in January; +0.1% in February; +0.4% in March to 111.9, +0.2% in April to 112.1, a mildly favorably signal that suggests U.S.
growth is likely to decelerate in coming months to its potential long-term trend level
✓ 2019 Q1 Fed Financial Stability Report stated that investor appetite for risk is elevated; corporate debt is at historically high levels, but risk is limited by low leverage limited funding risk; household debt is modest and well supported by income

2019 real GDP Y/Y growth projections range from 2.4% to 2.6%, still well above the long-term potential growth rate of 1.6% to 2.0%. The FOMC’s central tendency Q4/Q4 projections range from 2.3% to 2.5%. (Q4/Q4 projections are highly dependent upon potential anomalies in Q4 data; therefore, Y/Y estimates, which average all four quarters, usually are more stable estimates.) Risks are tilted to the downside because of slowing international growth, tightening monetary policy and financial conditions, elevated political uncertainty, a heightened potential for declines in consumer, business, and investor optimism.

✓ 2018 Q4 “Final Estimate” = 2.2%; 2018 = 2.9%
✓ B of A 2019 original real GDP forecast = 2.7%, revised = 2.4%; GS original = 2.4%; revised = 2.4%; Bill's original BASE scenario = 2.47%, revised = 2.62%; Bill’s original STRONG GROWTH scenario = 2.53%, revised = 2.63%
+ Preliminary Q1 GDP estimate = 3.1% (downgraded slightly from Advance estimate of 3.2%); however, netting out growth in inventories and slowing growth in imports reduced the preliminary estimate of GDP to 1.5%, which is a more reliable indicator of the fundamental trend in GDP growth
- 2019 Q2 estimate: GS = 1.2%, forecast reduced because of weaker business and residential housing investment and expectation that inventory levels are excessive and correction will depress Q2 growth; B of A = 1.9%, boosted by more favorable trade balance and stronger construction
✓ GS’s U.S. Current Activity Indicator (CAI), which is a proxy for real GDP growth, was 1.8% in December 2018, above GS’s long-term potential level of 1.6%, but below its forecast 2019 GDP growth rate; January = 1.3%; February = 2.3%; March = 2.3%; April = 1.9%; May = 1.5%

- Chicago Fed National Activity monthly Index (3-month trend) indicates that economic activity is decelerating to a below trend pace: December = .00; January = -.21 (-.01); February = -.57 (-.26); March = .05 (-.24); April = -.45 (-.32) (positive values indicate above trend growth and vice versa for negative values)

- LEI was flat in January; +0.1% in February; +0.4% in March to 111.9; +.2% in April to 112.1, a mildly favorably signal that suggests U.S. growth is likely to decelerate in coming months to its potential long-term trend level
• **Real GDP output gap**, which moved from negative to positive (overheated) during 2018, will become even more positive, which means the economy will overheat to an even greater extent during 2019. By the end of 2019 the positive output gap should be in a range of 0.9% to 1.1%. (CBO will revise its estimates of potential real GDP growth sometime during 2019, which could change the end of the year forecast output gap.)

  ✓ 2018 output gap = 0.30%, indicating the economy was operating slightly above its potential
  ✓ CBO revised 10-year economic projections lowered the forecast year end 2019 output gap from 1.08% to 0.87%
  ✓ Original year-end 2019 output gap in Bill’s BASE scenario = 1.16%; revised = .93%
  ✓ 2019 Q1 gap = .57%

• **Potential structural rate of real GDP growth** will remain well below actual real GDP growth during 2019 in a range of 1.5% to 1.6%. Long-term potential real GDP growth will edge up in coming years to between 1.7% and 2.0%, based upon improving productivity.

  ✓ CBO original 2019 potential growth = 2.10%; revised = 2.13%
  ✓ Bill’s 2019 original estimate of potential growth was between 1.5% and 1.6%; revised estimate of 2019 potential growth increased to 1.8% to 1.9% because of strong employment and productivity growth
✓ Long-term potential GDP growth: CBO = 1.75%; B of A = 1.70%; GS = 1.75%; FOMC = 1.80% to 2.00%; Bill’s BASE scenario = 1.85%; Bill’s STRONG GROWTH scenario = 2.05%

- **Productivity** should remain relatively stable in 2019 in a range of 1.2% to 1.4% compared to an expected 1.3% gain in 2018; it will continue to fall well short of the historical 2.1% average.
  ✓ 2018 = 1.34% (4-quarter moving average); 1.68% YoY
  ✓ Bill’s 2019 original forecast = 1.37%; revised = 1.99% (4-quarter moving average)
  ✓ B of A 2019 original forecast = .88%; revised = 1.84% (4-quarter moving average)
  - 2019 Q1 annualized productivity = 3.4%; four-quarter moving average = 1.67%; YoY = 2.37%

*Nonfarm Business Productivity (Seven-Year Rate of Change)*

Payroll and household employment growth should slow during 2019 because employment is well above its long-term natural level and should converge closer to the natural rate of growth in the labor force which is about 80,000 to 100,000 new entrants monthly; however, given the strength in expected economic activity during 2019, payroll and household employment growth should average between 160,000 and 190,000 per month; risks are tilted to the downside
✓ Payroll employment grew 222,833 (219,833 before annual benchmarking adjustments) monthly during 2018
✓ BLS benchmarked payroll employment in February but the impact on 2018 payroll employment was negligible – average 2018 monthly payroll employment increased 3,000
✓ GS 2019 monthly payroll original forecast = 156,000, revised = 171,000; B of A original = 178,000, revised = 122,000; Bill’s BASE original = 177,500, revised = 145,833
- January 2019 payroll = 312,000; February = 56,000; March = 153,000; April = 224,000; May = 75,000; YTD monthly average = 164,000
✓ Census Bureau updated population controls in February which reduced the number of people eligible to work by 800,000, the number in the labor force by 506,000, the number employed by 488,000, and the number unemployed by 18,000 – the adjustments did not impact the employment participation ratio or the unemployment rate
✓ Household employment grew 199,500 monthly during 2018 (240,167 monthly excluding a downward adjustment of 488,000 for 2018 stemming from updating of population controls)
- Household employment: January = 236,000; February = 255,000; March = -200,000; April = -103,000; May = 112,000; YTD monthly average = 60,000
The Conference Board’s difference between jobs plentiful and jobs hard to get was 33.3% in December 2018; it is likely to fall, perhaps substantially in 2019; January = 33.7%; February = 34.3%; March = 28.3%; April = 33.2%; May = 36.3% (cycle high)

Evercore ISI employee placement (average of temporary and permanent) index = 61.3 in December (a value above 50 indicates expansion); January = 59.6; February = 60.3; March = 61.5; April = 62.5; May = 62.6; June 7th = 61.3

- **Employment participation** should edge down slightly from its December 2018 level during 2019 in a range of 62.75% to 63.05%, as strong employment growth offsets the longer-term declining trend in participation due to demographically-embedded retirements of baby boomers.

- **Unemployment rate** should edge down slightly from 3.9% to between 3.2% and 3.6%.
✓ January = 4.0%; the increase in the unemployment rate in January occurred because the increase in the participation rate caused the labor force (495,000) to increase much more than the number employed (236,000); February = 3.8%, reflecting a 300,000 decreased in the number unemployed; March = 3.8%; April and May = 3.6%

+ The 4-week moving average of unemployment claims hit a new multi-decade low of 206,000 in late-April; this is all the more indicative of a very tight labor market considering that total employment has growth considerably since the previous low mark in claims in 1969; the 4-week moving average edged up to 215,000 in the week ending June 1st
- **Wage rate** growth, reported by BLS for all employees and non-supervisory and production workers, should edge up slightly during 2018 to a range of 3.2% to 3.6%.
✓ Hourly wage growth for all employees (12-month moving average) was 2.88% in December 2018; January = 2.92%; February = 2.99%; March = 3.05%; April = 3.11%; May = 3.16%

**Hourly & Weekly Wage Rate Growth – All Workers**
(annual year over year and 12-month moving average rates of change)

![Graph showing hourly and weekly wage rate growth for all workers](image1)

**Hourly Wage Rate Growth – ECI, All Workers and Production and Nonsupervisory Workers**
(annual year over year and 12-month moving average rates of change)

![Graph showing hourly wage rate growth for ECI, all workers, and production and nonsupervisory workers](image2)

Source: Bureau of Labor Statistics
✓ Hourly wage growth for production and nonsupervisory employees (12-month moving average) was 2.85% in December 2018; January = 2.94%; February = 3.03%; March = 3.10%; April = 3.17%; May = 3.24%

**Hourly Wage Rate Forecasts**
(annual percentage change for production & nonsupervisory workers)

Evercore ISI employee pricing power (average of temporary and permanent) index = 68.6 in December (a value above 50 indicates increasing pricing power); January = 69.0; February = 68.9; March = 68.1; April = 68.4; May = 69.0; June 7th = 69.2

✓ GS’s wage tracker was 3.04% in Q4 2018; January = 3.2%; February = 3.4%; March = 3.0%; April = 2.8%; May = 2.7%

✓ The Atlanta Federal Reserve Bank wage tracker was 3.8% in December 2018; January = 3.7%; February = 3.4%; March = 3.5%; April = 3.6%

✓ 2018 Q4 employment cost index increase: total = 2.89%; wages and salaries = 3.00%; benefits = 2.75%

- 2019 Q1 employment cost index YoY increase: total = 2.79%; wages and salaries = 2.82%; benefits = 2.65%

✓ Evercore ISI’s April survey of CFOs indicated that growth rates in wages are expected to increase in a net of 30% of companies compared to 54% in the previous survey conducted in October 2018;
84% of companies expect to increase employee wages over the next 12 months compared to 86% in October

- **Nominal consumer disposable income** growth, measured on a 12-month moving average basis should increase during 2019 primarily because of rising wage rates; growth should be in a range of 5.0% to 5.5%.
  - Nominal disposable income grew 4.90% in 2018
  - January = 4.84%; February = 4.78%; March = 4.67%; April = 4.58% (12-month moving average); data revisions reduced growth; trend is decelerating

### Nominal Disposable Income and Consumption Growth

(2014-2019: annual percentage change)

- **Nominal consumer spending** growth on a 12-month moving average basis should slow during 2019 because of slower employment growth, much slower growth in wealth (financial assets and housing), moderating levels of optimism; growth should be in a range of 4.25% to 4.75%.
  - Nominal consumer spending grew 4.89% in 2018
  - January = 4.86%; February = 4.84%; March = 4.86%; April = 4.84% (12-month moving average); spending growth is steady, but above income growth, which means the saving rate is declining
• **Auto sales** should decline during 2019
  ✓ Auto sales averaged 17.19 million units during 2018; January = 16.69 million units; February = 16.38 million; March = 17.35 million; April = 16.34 million; May = 17.31; average YTD = 16.81
  ✓ Domestic auto production is forecast to decrease 15% in 2019 Q1 from 2018 Q4 to 11.1 million units, which is still above the January sales rate; preliminary 2019 Q2 production estimate = 11.3 million units

• **Retail sales** growth should be stable or slightly slower during 2019
  ✓ Retail sales grew 3.1% in 2018 (quarterly average YoY), after peaking at 6.1% in July 2018
  + Retail sales declined 1.8% in the month of December, reflecting adverse impacts of financial market volatility, rebounded 0.8% in January, fell 0.4% in February, adversely impacted by delays in tax refunds; rose 1.8% in March, and fell 0.2% in April
  + The quarterly YoY average annual growth rate: January = 2.6%; February = 1.9%; March and April = 2.7%; financial market turmoil in 2018 Q4 and its impact on consumer confidence were major factors in the spending slowdown in Q1; financial markets improved in January and February and this helped boost spending growth in March
Retailers reported in mid-April that inventories were a little too high; this combined with slower employment and income growth could depress economic activity in coming months.

- **Consumer confidence** in 2019 should decline from historically high levels in 2018.
  - Conference Board = 126.6 in December 2018; January = 121.7, almost all the decline was in expectations sub-index, possibly influenced by the partial government shutdown, while the current conditions index was stable; February = 131.4, reflecting a strong rebound in the expectations component; March = 124.2, reflecting a sharp decline in the present economic conditions index; April = 129.2; May = 134.1, reflecting improvements in both the current conditions and expectations components.
  - University of Michigan = 95.3 in December 2018; January = 91.2, which was worse than expected and a two-year low; February = 93.8; March = 98.4; April = 97.2; May = 100.0
  - Bloomberg = 59.6 in December 2018; January = 58.2; February = 61.0; March 2\textsuperscript{nd} = 62.1 (highest since 2000); April = 60.4; May = 60.8; June 1\textsuperscript{st} = 61.7
  - Evercore ISI = 54.5 in December 2018; January = 54.2; February = 53.2; March and April = 54.2; May = 53.4; June 7\textsuperscript{th} = 53.9
  - A CNN consumer 2019 Q1 poll found that 71% of Americans believe that economic conditions are good; the peak rating for this poll was 89% in 1999; in 2008 only 8% agreed that economic conditions were good.

- **Consumer credit growth** should slow during 2019; however revolving credit growth could rebound from 2018’s depressed level which was caused primarily by cuts in personal income taxes.
  - Total consumer credit 12-month moving average: December 2018 = 4.8%; January and February = 4.8%; March = 4.9%; April = 5.1%
  - Revolving consumer credit 12-month moving average: December 2018 = 3.5%; January and February = 3.2%; March = 3.3% (possible rebound in growth did not occur in 2019 Q1, but rebounded in April); April = 3.8%
  - Non-revolving credit 12-month moving average: December 2018 = 5.3%; January = 5.3%; February = 5.4%; March and April = 5.5%
  - Federal Reserve Senior Loan Officer Opinion Survey: residential mortgage underwriting standards were unchanged in 2019 Q1, but
demand weakened; underwriting standards tightened on credit cards but were unchanged for other types of consumer loans, but demand weakened moderately for all categories

- **Household personal saving rate** will rise as growth in disposable income exceeds growth in consumer spending; the saving rate should improve to a range of 6.5% to 7.5%.
  - The average consumer saving rate in 2018 = 6.68%
  - January = 6.88%; February = 7.02%; March = 6.07%; April = 6.21%; YTD = 6.54%

![Saving Rate Graph](image)

- **Stock prices**, as measured by the S&P 500 average, should be between 5% higher or 15% lower: on the downside reflecting pressure on profit margins, slower revenue growth, rising labor costs and higher short-term interest rates; on the upside reflecting growth friendly fiscal policy and investor optimism.
  - Analysts expect S&P 500 earnings per share to increase 3% (revised down from 4%) from $162 in 2018 to $167 (revised down from $168) in 2019; analyst forecasts for 2019 are edging lower
  - NFIB earnings trend weakening (% higher - % lower): peak May 2018 = +3%; December = -7%; January = -5%; February = -9%; March = -8%; April = -3%
  - Stock prices YTD: January = 7.9%; February = 11.1%; March = 13.1%; April = 17.5%; May = 9.8%; June 10th = 15.2%
**Business activity** will weaken slightly but remain positive with both the PMI manufacturing and service indices averaging above 50.

+ PMI manufacturing index = 54.3 in December 2018; January = 56.6, reflecting increases in the orders and production sub-indices; February = 54.2; March = 55.3; April = 52.8 (pulled down by weaker new orders, production and employment); May = 52.1 (increase in new orders and employment; decrease in production); IHS Markit Flash PMI fell from 52.6 in April to 50.6 in May

+ PMI non-manufacturing (services) index = 58.0 in December 2018; January = 56.7; February = 59.7, which was contrary survey evidence to the “slowing growth” story; March = 56.1; April = 55.5 (worse than expected); May = 56.9 (business activity, orders and employment increased from April)

+ NFIB optimism index = 104.4 in December; January = 101.2; February = 101.7; March = 101.8; April = 103.5; May = 105.0

+ GS analyst index = 61.3 in December; January = 67.9; February = 59.0; March = 53.2; April = 53.5; May = 49.2 (contraction – extreme weakness in new orders and shipments)

✓ Manufacturers “very” or “somewhat” upbeat about their company’s outlook: 2018 Q4 = 88.7%; 2019 Q1 = 89.5%; (average past 9 quarters = 91.8%)

+ Duke CFO Optimism Index declined in Q1 to 64.6 from 66.4 in 2018 Q4, but remains at an elevated level (50 dividing line between expansion and contraction

**Industrial production** will increase in 2019 but at a slower rate than in 2018.

✓ The industrial production index was 110.6 in December 2018, up 4.0% over December 2017; January = 110.1, up 3.8%; February = 109.6, up 3.4%; March = 109.7, up 2.9%; April = 109.2, up 2.0%

**Capacity utilization** will be stable to slightly higher, but will remain below 80%, which is traditionally considered to be a capacity level that stimulates investment spending.

✓ Capacity utilization = 79.5% in December 2018; January = 79.0%; February and March = 78.5%; April = 77.9%

**Business investment** inflation-adjusted spending growth should decrease as U.S. economic growth slows; growth in 2019 is expected to be in a range of 3.0% to 3.5% (the average for the past 20 years = 3.24%).
✓ 2018 = 6.92%
- 2019 Q1 = 2.3%
✓ GS original 2019 forecast = 3.3%; revised = 2.6%; (May forecast update reduced because of expected impacts of the trade war with China)
✓ B of A original 2019 forecast = 3.5%; revised = 2.4%

**Real Private Investment Growth**
(average annual rate)

Evercore ISI capital goods index was 64.3 in December (acceleration above 50; deceleration below 50); January = 62.4; February = 60.9; March = 60.3; April = 59.9; May = 57.6 (expansion continues, but at a decelerating rate)
✓ NFIB net percentage planning to increase capital spending:
  December 2018 = 25%; January = 25%; February, March and April = 27%
✓ NFIB percentage reporting making capital outlays: December 2018 = 61%; January = 60%; February = 58%; March = 60%; April = 58%
✓ According to an Evercore ISI survey, the negative impact of failed U.S. China trade talks could be substantial
✓ Favorable tax changes have had limited impact on business investment spending; expectations for economic growth are the principal driver and falling expectations are leading to lower business investment spending
• **Business credit** growth should continue to expand near levels experienced in 2018, but credit spreads should widen.
  - Federal Reserve Senior Loan Officer Opinion Survey: underwriting standards for business loans were unchanged in 2019 Q1 and demand weakened, despite lower interest rates and tighter pricing spreads; underwriting standards tightened on commercial real estate loans and demand weakened, particularly for construction loans
  + BAA and high yield bond credit spreads blew out during December’s severe market correction; by early June spreads had tightened but not to the level preceding December’s blow out

• **Residential housing investment** should decline in 2019 in a range of 0% to -3%; housing starts should grow in a range of -6.5% to +3.0%.
  ✓ 2018 residential housing investment = -0.31%
  - 2019 Q1 housing investment = -3.5%
  + GS 2019 original housing investment forecast = -2.1%; revised = -2.2% with improvement in the second half of 2019 to a growth rate of 4.0% by Q3 due to lower interest rates and demographic trends favoring increased home ownership
  + B of A 2019 original housing investment forecast = -1.3%; revised = -2.1%
  ✓ 2018 housing starts = 3.2% (single family = 2.3%; multi-family = 5.4%)
  + GS housing starts 2019 original forecast = -0.7%; revised = 1.7%
  + B of A housing starts 2019 original forecast = 2.9%; revised = 2.3%
  + Bill’s BASE housing starts 2019 original scenario = -6.4%; revised = -1.5%
  + 12-month moving average change in housing starts: April = -1.8%
  ✓ The NAHB December 2018 housing index = 56 (value greater than 50 means is favorable); January = 58; February and March = 62; April = 63; May = 66; signaling stabilization in housing after a rough 2018 Q4
  ✓ Evercore ISI’s homebuilder index = 50.3 in December; January = 49.9, February = 52.1; March = 53.6; April = 55.9; May = 56.1; June 7th = 57.8 (50 is the dividing line between expansion and contraction)
  + Existing home sales peaked in November 2017, but higher interest rates and higher housing prices depressed affordability and caused sales to decline during 2018 (most adversely affected were investor, vacation and second homes); sales fell further in January, but rebounded strongly in February, but declined again in March and April; over the past 12 months sales of existing homes have declined 4.4%
- New home sales increased in December 2018 after bottoming in October and increased in March to the highest level since November 2017, but declined 6.9% in April; however, sales are up 7.0% over the last 12 months
- Household formation continues to rise gradually – the five-year annual average = 1.27 million in 2019 Q1; 2018 Q4 = 1.23 million; most recent four-quarter average = 1.58 million
- Home ownership rate was 64.3 in 2019 Q1 compared to 64.6% in 2018 Q4, reversing slightly the modest improvement that had occurred over the past two years

- **Residential housing prices** should rise more slowly in 2019 in a range of 2% to 4%.
  - S&P Core Logic Case Shiller national housing price index 2018 = 4.5%; 20-city index = 4.1%
  - FHFA housing purchase-only price index 2018 = 5.9%; YoY increase fell to 5.0% in March
  - GS 2019 housing price *original* 2019 forecast = 3.1%; *revised* = 3.3%
  - B of A 2019 *original* housing price 2019 forecast = 3.2%; *revised* 2019 = 3.2%
  - Bill’s BASE scenario 2019 housing price forecast *original* = 2.2%; *revised* = 1.8%
- S&P Core Logic Case Shiller national housing price index: January = 4.2%; February = 3.9%; March = 3.7%
  - S&P Core Logic Case Shiller 20-city housing price index: January = 3.5%; February = 2.9%; March = 2.6%
• **Trade deficit** should rise in 2019 in a range of 3.0% to 3.5%.
  - December 2018 trade deficit = 3.01%
  - January = 2.98%; February = 2.97%; March = 2.99%; April = 2.97%
  - Annual growth rates in both goods imports (9.7%) and exports (9.2%) peaked in October; annual growth in imports slowed to 5.6%, in April and growth in exports slowed to 5.2%, reflecting the impact of tariffs on prices; further declines in growth of goods imports and exports are expected
  - Evercore ISI reported in January slightly diminished concern about the impact of tariffs: of businesses surveyed negative = 30% and positive = 9%, compared to 39% and 4%, respectively, in October
  - In ISM’s semi-annual survey, released in May, 59% of manufacturers reported that tariffs have led to increases in the prices of goods produced and one-third indicated that tariffs have resulted in disruptions of supply chains

• The **dollar’s value** on a trade-weighted basis should be stable to slightly stronger as U.S. economic growth exceeds global growth, in a range of 0.0 to 3.0%.
  - 2018 dollar change = 3.7%
  + 12-month change: January = 5.5%; February = 6.6%; March = 6.5%; April = 6.8%; May = 4.4%; May 2019 YTD change = 0.6%
• **Oil prices** are likely to remain in the long-term range of $40 to $55 that balances global supply and demand because weaker global growth and abundant and flexible supply in the U.S. which will continue to constrain prices.
  ✓ West Texas Intermediate oil prices averaged $49.52 per barrel in December 2018
  + WTI: January = $51; February = $55; March = $58; April = $64; May = $61; early June = $53

• **Monetary policy** – the Federal Reserve might raise the federal funds rate twice during 2019 in 25 basis point increments or it might decrease rates once.
  + Original FOMC – 2 increases; Revised FOMC – 0 increases; January FOMC meeting changed policy to neutral – data dependent, March meeting dot plot indicated no increases in 2019 and only one increase in 2021
  - Market forward yield curve – one decrease in 2019 and two decreases in 2020
  + Original GS – pause early in the year followed by 2 increases; revised GS – no increases until 2020 Q4
  + Original B of A – 2 increases in Q1 and Q2; revised B of A – 2 decreases in Q3 and Q4 and a third decrease in early 2020

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**Federal Funds Rate Forecasts**

![Federal Funds Rate Forecasts](image-url)
✓ The Fed’s May Beige Book, which surveys economic conditions in the 12 Federal Reserve districts, covered the period April 8 to May 24 and indicated economic activity proceeding at a modest to moderate pace, a slight improvement from the April Beige Book, which, in turn, was slightly better than the March Beige Book and considerably better than the January Beige Book; uncertainty about trade rose as did anxiety about the potential consequences of tariffs; manufacturing activity was positive but signs of slowing activity were mentioned; consumer spending was positive but modest; most districts reported modest or moderate job growth but continued to cite scarcity of skilled labor, but wage pressures remained modest or moderate; price increases were modest; pressures on input costs eased a bit for materials and construction; retail prices were flat to slightly higher (Fed nomenclature: flat, slight, modest, moderate, strong, in ascending order)

✓ The May FOMC meeting policy statement continued to emphasize the theme of “patience;” growth was upgraded to “solid,” but noted that consumer spending slowed in Q1; but the core inflation statement was downgraded to recognizing that core inflation has “declined” and is “running below” the 2 percent target, although Chairman Powell in the press conference following the meeting observed that the weakness in inflation was due to “transitory” factors; on balance, the May FOMC statement was viewed as “dovish”

✓ The FOMC will meet on June 18 and 19; there is a small possibility that the FOMC will cut the federal funds rate 25 basis points at this meeting; however, President Trump’s criticism of the Fed makes this outcome unlikely; both Chairman Powell and Vice Chairman Clarida have acknowledged trade risks to economic growth and have reiterated that monetary policy is data dependent; the meeting policy statement and dot plot will give some guidance; markets peg an 84% probability that the FOMC will cut the federal funds rate at its end of July meeting

- **Total inflation** measures (CPI and CPE) will rise in 2019 as the impacts of the 2018 rise in energy prices fall out of the indices: total CPI will rise 1.6% to 1.8% and total CPE will rise 1.7% to 1.9%.

✓ **December 2018 total CPI = 1.95%**; **January = 1.52%; February = 1.50%; March = 1.86%; April = 2.00%** (weaker increase in energy prices than expected)
- December 2018 total CPE = 1.76%; January = 1.34%; February = 1.28%; March = 1.44%; April = 1.51% (weaker than expected)

✓ GS total 2019 CPI original forecast = 1.6%; revised = 1.8%
✓ B of A total 2019 original CPI forecast = 1.5% (average for year), revised = 1.7%; total original PCE forecast = 1.6%; revised = 1.5%
✓ FOMC total 2019 original PCE forecast = 1.8% to 2.1%; revised = 1.8% to 1.9%
✓ Market expected long-term CPI inflation rate, embedded in TIPS (Treasury Inflation Protected Securities) = 2.02% (approximately 1.72% CPE) in December 2018; June 7th = 1.87% (CPE equivalent = 1.57%)
✓ Consumer long-term expected CPI (University of Michigan Survey): December 2018 = 2.6%; January = 2.6%; February = 2.3%; March = 2.5%; April = 2.3%; May = 2.6% (this survey consistently reports higher inflation expectations than TIPS, so what is important to watch is directional changes in consumer expectations)
✓ Markit’s PMI diffusion index of output prices plummeted to 48.9 in May, which was the weakest level in over a decade and indicates deflation

- Core inflation (CPI and CPE) will rise slightly from 2018’s level in response to an economy operating above full capacity: core CPI will rise 2.2% to 2.4% and core CPE will rise 1.9% to 2.1%.

✓ December core CPI = 2.21%; January = 2.15%; February = 2.08%; March = 2.04%; April = 2.07% (core CPI is weaker than expected but should return to the forecast range by the end of the year)
✓ December core CPE = 1.95%; January = 1.75%; February = 1.62%; March = 1.49%; April = 1.57%
✓ GS original core 2019 CPI forecast = 2.3%, revised = 2.2%; original core PCE = 2.0%; revised core PCE = 1.7%
✓ B of A core 2019 CPI original forecast = 2.2%, revised = 2.2%; core PCE original = 2.0%, revised = 1.7%
✓ FOMC core 2019 PCE original forecast = 2.0% to 2.1%; revised = 1.9% to 2.0%
• The 10-year Treasury rate is likely to remain relatively stable during 2019 and fluctuate during the year in a range between 2.00% and 3.00%. Strong real GDP and employment growth would push the rate toward the top end of the range; soft inflation and/or heightened financial instability would push the rate toward the bottom end of the range.

✓ The 10-year Treasury Note yield was 2.69% on the last trading day of 2018

+ The 10-year Treasury Note yield was 2.15% on June 10th

✓ The Treasury yield curve inverted slightly from March 22nd to March 28th; research indicates that the spread between the yields on the 3-month Treasury bill and the 10-year Treasury note is the most reliable indicator of impending recession when it turns negative – yield curve inversions have preceded every recession by approximately 12 months, but not every yield curve inversion has been followed by recession; however, as optimism rose about stronger U.S. growth, this spread turned modestly positive, averaging +9 basis points between March 29th and May 10th, but inverted again on May 13th, as markets reacted to the failure of U.S. - China trade negotiations and both countries lifted tariffs substantially, and has remained inverted through June 10th, averaging -10 basis points
• **State and local investment spending** growth will be modest within a real growth rate of 1.0% to 1.5%.
  ✓ State and local investment spending rose 0.8% in 2018
  ✓ Original GS 2019 forecast = 1.4%; revised forecast = 1.8%
  - State and local investment spending grew 4.0% in 2019 Q1
  ✓ State and local tax receipts stopped growing in January, but increased slightly in February and more strongly in March and April, then revenue growth slowed slightly in May: Evercore ISI diffusion index: December = 57.2; January = 50.0; February = 51.6 – softening driven primarily by declines in estimated income tax payments and weakening sales tax revenues; 25% of states reported increases in revenue and 19% reported decreases in February; March = 54.5; April = 63.1 (sharp improvement driven primarily by increases in estimated personal income taxes, stemming from changes in the Tax Cuts and Jobs Act and strong financial market performance); May = 61.7 (personal income tax receipts softened and sales tax revenues strengthened)
- The federal budget deficit as a percentage of nominal GDP will increase from fiscal year 2018’s level of 3.77% to a range of 4.5% to 5.0%. Stronger than expected growth would push the deficit toward the lower end of the range.
  ✓ CBO fiscal 2019 deficit: original = 4.62%; revised = 4.22% due to stronger revenue growth (tariffs and individual income taxes – stronger personal income growth), reduced overseas military spending and emergency spending for disaster recovery, return to prior lower spending caps, and lower interest rates on the federal debt
  ✓ GS fiscal 2019 deficit original forecast = 4.72%; revised = 4.37%
  ✓ B of A fiscal 2019 deficit: original = 4.69%; revised = 4.40%, but higher than CBO’s projection due primarily to the elimination of “return to prior spending caps” assumption
  ✓ Bill’s BASE scenario fiscal 2019 deficit: original = 4.73%; revised = 4.30%
  ✓ 12-month deficit-to-GDP ratio: January = 4.34%; February = 4.43%; March = 4.13%; April = 4.34%; May = 4.63%
✓ The federal debt ceiling suspension ended March 2nd, Treasury Department can continue normal operations until September or October when the
✓ If Congress does not agree on a fiscal 2020 budget resolution that overrides automatic spending caps by September 30th, substantial spending cuts will be mandated by the Budget Control Act

✓ Federal investment spending rose 2.6% in 2018; GS 2019 original forecast = 3.0%, revised = 2.7%; 2018 increase and expected 2019 increase boosted significantly by Tax Cuts and Jobs Act of 2017 and lifting of congressional spending caps in 2018; after 2020, annual increases are expected to decrease substantially

- 2019 Q1 federal investment spending was -0.1% as a consequence of the partial government shutdown; growth is expected to rebound during the remainder of 2019

✓ President Trump submitted to Congress in March a fiscal 2020 budget proposal for $4.75 trillion, which Congress is likely to ignore, but it suggests downside risk in government expenditures in 2020
2. **Rest of the World: June Assessment**: Global economic activity, which peaked in mid-2018, continues to slow in early 2019 ("+" indicates growth above potential; "-" indicates growth below potential). The OECD global leading indicator index continued to decline at the end of 2018, driven by Europe, the U.S., and particularly China.

+ OECD global leading economic activity indicator, which has been declining for several months, continued to decline in the first and second quarters and has reached its lowest level since the global 2008-09 recession

✓ GS's global current activity indicator (CAI, which is a proxy for real GDP growth) was 3.1% in December 2018, below the potential growth rate of 3.5% and the expected 2019 global growth rate of 3.5% to 3.7%.

- Global January CAI = 3.1%; February = 3.2%; March = 3.3%; April 2.9%; May = 2.9%

✓ CAI for major advanced economies was 1.7% in December 2018, and was decelerating, but still above the potential growth rate of 1.4%.

+ January major advanced economies CAI = 1.2%; February and March = 1.4%; April = 1.5%; May = 1.1%

✓ CAI for emerging markets (which includes China) was 4.2% in December 2018, and was decelerating and below the potential growth rate of 5.1%.

- January emerging markets CAI = 4.4%, February = 4.7%; March = 4.8%; April = 4.0%; May = 4.3%

- Economic activity slowed in **Europe** during the first quarter; **Italy** is in recession and growth is barely positive in Germany.

✓ China implemented a massive fiscal stimulus program to boost consumption, which is expected to boost Chinese growth as 2019 progresses, but this might be offset by escalation of the U.S.-China trade war.

- JP Morgan Global Manufacturing PMI decelerating – peak: December 2017 = 54.4; January = 50.8; February and March 2019 = 50.6

✓ The mood at the Davos World Economic Forum in late January was “subdued, cautious and apprehensive; Fareed Zakaria commented: “There is no great global political crisis, yet people speak in worried tones about the state of democracy, open societies and the international order;” globalization has given way to a new era of sluggishness, or “slowbalization,” which will lead to stronger ties to regional blocs as supply chains seek sources closer to home;
mounting debt in developed countries could lead to financial panic; increasing social and political division risks economic calamity; growing discomfort with corporate influence over society, particularly Big Tech; it seems unlikely that the downbeat mood has change much as the year has progressed

✓ B of A has concluded that policy shocks (trade war, Brexit, U.S government shutdown, French yellow jackets, etc.) over the past year have depressed confidence and growth expectations and reduced capital spending, which leads to a self-fulfilling outcome of slower growth

✓ Growth in global trade decelerated during 2018 to 1.7%, deceleration is continuing in 2019

✓ Global financial conditions, after improving in early 2019, have tightened to a level near what occurred during 2018 Q4’s severe financial market correction

- **Global growth** is likely to slow from 3.8% in 2018 to 3.5% to 3.7% in 2019. Global economic momentum decelerated in the last few months of 2018 and this should carry over into 2019. However, downside risks, such as U.S. trade policies and an emerging global monetary tightening cycle, and, of course the risks of political turmoil in Europe, the Middle East, Korea, and possibly elsewhere could contribute to even slower growth.

  ✓ GS 2019 global growth **original** forecast = 3.6%; **revised** = 3.4%

  ✓ B of A 2019 global growth **original** forecast = 3.6%; **revised** = 3.3%

  (developed economies lowered from 2.0% to 1.8%; emerging economies reduced from 4.6% to 4.5%)

  ✓ IMF 2019 global growth **original** forecast = 3.7%; **revised** = 3.3%

  ✓ JP Morgan Global Manufacturing Index: December = 51.4; January = 50.8, February and March = 50.6%; slowing rate of expansion since August 2016

  ✓ 21 of 31 countries reported slowing manufacturing activity in May

- **Global inflation** is expected to fall from 3.3% in 2018 to 2.8% in 2019, reflecting slowing global growth.

  ✓ B of A **original** forecast = 3.0%; **revised** = 3.2%

- **European growth** will slow to 1.4% (B of A) to 1.6% (GS) from 2018’s 1.8% pace. Tighter monetary policy and political uncertainty pose downside risk to growth.

  ✓ B of A **original** forecast = 1.4%; **revised** = 1.2%
✓ **GS original** forecast = 1.6%; **revised** = 1.0%

+ **Euro area GDP** grew 0.2% in 2018 Q4; 2019 Q1 GDP growth = 0.4%
  (1.6% annual rate)

✓ **Euro area CAI** = 1.4% in December, and was decelerating, but well above potential growth of 1.0%
- January **Euro area CAI** = 0.9%; February and March = 1.0%; April = 0.8%; May = 0.9%; below potential growth rate
- Manufacturing activity in the Eurozone contracted during February – May with Germany experiencing a large decline in orders, exports and output; **Euro area** manufacturing index: February = 49.3; March = 47.5; April = 47.9; May = 47.7 (recession level); services index: February = 52.8; March = 52.7

✓ IMF and OECD **Euro area** real GDP growth forecasts for 2019 = 1.9%, but are stale and do not reflect loss of economic momentum at the end of 2018; EC’s revised 2019 GDP forecast = 1.3%
- **Italy’s** GDP declined in both Q3 and Q4 2018, qualifying for a technical recession; industrial production declined 5.4% during 2018 with most of the decline concentrated in the production of consumer goods; January CAI = -0.8%; February = -0.9%; March = -0.4%; April = -0.3%; GS forecast -0.3% GDP growth in 2019; B of A 2019 forecast = 0.2%; May = 0.0%; industrial production rose 1.0% QoQ in Q1 following quarterly declines in 2018, but fell 1.0% in March and 0.7% in April; manufacturing PMI is contracting – April = 49.1, May = 49.7; services PMI is weakening – April = 50.4, May = 50.0
- **Germany’s** GDP: 2018 Q3 = -0.2%, 2018 Q4 = 0.0%, 2019 Q1 = 1.6%; January CAI = 0.6%; February = 1.0%; March = 0.4%; April = 0.1%; May = -0.1%; B of A 2019 GDP forecast = 1.0%; GS = 0.7%; IMF = 0.8%
- Manufacturing output in Germany fell 0.1% in Q1 but industrial production rose 0.5%; Germany’s manufacturing index plummeted to a recession level of 44.7 in March and 44.5 in April, but the services index remained above 50 at 54.9
- **France’s** manufacturing index: February = 51.5, March = 49.8; services index: February = 50.2, March = 48.7; B of A 2019 GDP forecast = 1.1%
✓ B of A 2019 GDP forecast for **Spain** = 2.0%
- Money supply has declined 4.0% over the past year

- **European total inflation** in 2019 will decline from 1.7% in 2018 to 1.0% in 2019 (B of A), reflecting falling energy prices and slowing economic growth:
**core inflation** will ebb slightly lower from 1.0% to 0.9%; both measures will remain considerably below the ECB’s 2.0% target.

- Core inflation stuck at 1.0% but risks are to the downside
- B of A original total inflation forecast = 1.0%; revised = 1.3%
- GS core inflation forecast = 0.9%; total inflation = 1.3%

- **European financial markets** should be volatile, reflecting rising political uncertainty, tighter monetary policy and financial conditions, and slowing economic growth.
  - Tracking the U.S., volatility moderated in European financial markets in Q1 but rose in May
  - Concerned about slowing EU growth, ECB eased monetary policy in early March by extending long-term liquidity facilities to banks and indicating no change in negative interest-rate policy during 2019; the market response was tepid and bank stock prices declined; the ECB liberalized and reduced the cost of liquidity loans to members and extended its no rate increase guidance to mid-2020 at its June meeting; realistically the ECB has little left in its toolkit to stimulate economic activity
  - Yields on German 10-year bunds continue to decline and were -0.21% on May 31st

- **European political dysfunction, populism and nationalism** will continue to build in many countries.
  - No new developments of consequence have occurred early in 2019; however, this may change if European economic activity continues to deteriorate; for example, the French yellow jackets activism has faded, although it has not disappeared; Italy’s populist government had backed away from confrontation with the EC, but this could re-emerge if the recession in Italy deepens (Italy’s 2019 Q1 GDP rose, but forecasters still expect little growth during 2019)
  - European Parliament elections, which took place between May 23 and 26, is likely to elevate political uncertainty, particularly in Italy and Germany and could influence the formation of a new government in Spain; the U.K.’s “Brexit Party” won a plurality of votes cast in the U.S., adding further to the political fragmentation in U.K. politics
  - According to Stratfor, European politics has entered a period of fragmentation with mainstream centrist parties losing ground to new competitors on the left and right
In Spain, no party won a majority in the April 28th elections, but the Socialist Party improved its position by winning 123 of 350 seats in Parliament; overall election results showed growing political polarization and party fragmentation.

- **U.K. growth** is expected to be relatively stable in a range of 1.2% (B of A) to 1.5% (GS and IMF) in 2019 compared to 1.2% to 1.3% in 2018; Brexit and political disarray are downside risks.

- **CAI = 0.8% in December 2018 and was decelerating; potential growth = 1.3%**
  - CAI = 0.7% in January; February = 1.0%; March = 0.6%; April = 1.4%; May = 0.6%
  - 2018 Q4 GDP growth was 0.2% (0.8% annualized), which was weaker than expected; without inventory building, growth would have been even weaker
  - B of A original 2019 GDP forecast = 1.2%; revised = 1.3%
  - GS original 2019 GDP forecast = 1.5%; revised = 1.1%
  - 2019 Q1 GDP increased 0.5% (2.0% annualized), but the strong performance was caused by inventory stockpiling and strong consumer spending, neither of which are likely to be sustained during the remainder of 2019; Q2 GDP growth is expected to be negative
  - BOE decreased its 2019 GDP forecast from 1.7% to 1.2%
  - January job placement fell, but wage growth remained strong
  - Service PMI declined to a recession level 48.9 in March
  - The EU extended the Brexit deadline from March 29th to October 31st; this extends uncertainty about the parameters of the eventual deal or no deal and is likely to depress U.K. economic activity

- **China’s GDP growth** is expected to slow to a range of 6.1% (B of A); 6.2% (GS) and 6.3% (OECD) in 2019 from 6.6% in 2018; risks are to the downside as China’s economy transitions from industrial to consumer emphasis, as President Xi continues to emphasize the goal of a “better quality life” over GDP growth, and as global growth slows and the U.S. pursues restrictive trade and technology policies.

- China’s official 2019 GDP growth target is a range of 6.0 to 6.5%
- IMF raised its 2019 GDP growth forecast from 6.2% to 6.3% in early April
- B of A 2019 original GDP forecast = 6.1%, revised = 6.0%; GS original = 6.2%, revised = 6.5%
✓ CAI = 5.5% in December 2018 and was decelerating; potential growth = 6.0%
- CAI = 5.5% in January; February = 6.0%; March = 6.7%; April = 5.8%; May = 5.9%
✓ 2018 growth = 6.6%; however Q4 2017 to Q4 2018 growth = 6.4%, indicating a modest slowing
+ 2019 Q1 YoY growth = 6.4%
+ March data reports were stronger and indicated reacceleration in Chinese growth: industrial output = 8.5% YoY; fixed investment = 6.5% YoY; retail sales = 8.7% YoY
- Export growth through April has been weak, reflecting in part U.S. tariffs; however, import growth has strengthened as economic activity as reaccelerated and commodity prices have firmed
+ Housing demand is expected to remain strong and provide support to economic growth
- Land sales are slowing which reduces revenue to fund infrastructure development, but this source of funding is declining in importance
✓ Fiscal and monetary policy adjustments are intended to stabilize economic growth, not stimulate it; Premier Li Keqiang said on March 5th that the government would respond to the growth slowdown by cutting taxes, easing burdens on the private sector and giving markets a bigger role
  - New fiscal stimulus – tax cuts and infrastructure investment – expected to amount to 3% of GDP ($370 billion); however, tax cuts will benefit only a small percentage of the population; the benefits of lower taxes will be offset by stricter enforcement
  - People’s Bank of China easing credit availability through a bond swap facility
  - Regulatory policy is aimed at preventing cash hoarding at state owned enterprises which has been limiting credit availability at private businesses
✓ Credit growth has reaccelerated
✓ Shanghai stock index rose 30% in the first quarter and was up 33% through mid-April; Shenzhen was up 41% at its peak on April 17th, reflecting improving liquidity, as credit growth reaccelerated to an annual rate of 10.6% in January, optimism about a trade deal with the U.S., and expectations that China’s growth will reaccelerate during 2019; however, since mid-April the Shenzhen stock index has declined 16% as it became clear that a trade deal between the U.S. and China is unlikely
• **China’s leadership** will continue implementing **economic reforms** gradually; financial and political stability will be maintained.
  ✓ Regulation of unconventional credit products and environmental issues continues despite negative impacts on growth; monetary and fiscal policy adjustments are designed to offset these negative effects – the PBoC removed a policy reference to deleveraging in February

• **Japan’s** growth is expect to improve modestly from 0.7% in 2018 to a range of 0.9% (GS and IMF) to 1.1% (B of A) in 2019; total inflation is expected to fall from 1.1% (B of A) in 2018 to 0.4% in 2019 (B of A); core inflation is expected to rise from 0.4% in 2018 (GS) to 0.8% in 2018 (GS).
  - B of A original forecast = 1.1%; revised = 0.4%
  - GS original forecast = 0.9%; revised = 0.5%
  ✓ CAI = 1.2% in December 2018, slightly above the potential growth rate of 0.9%; January CAI = 1.0%; February = 0.1%; March = -0.5%; April = 1.3%; May = 0.1%
  ✓ 2019 Q1 GDP = 2.1%, an apparently strong performance, but was actually much weaker due to a substantial decrease in imports
  + Employment is strong and nominal income increased 3.2% and part-time wages increased 2.6% during 2018, however, declining corporate profits is contributing to smaller wage gains in 2019; consumer confidence is trending lower; office vacancy rates continue to fall; capital spending rose a strong 5.7% in 2018 and growth accelerated in 2018 Q4
  - Economic activity has slowed substantially so far in 2019
  - Slowing global growth is depressing manufacturing and industrial production and is expected to weigh on corporate earnings; corporate profits fell 22.1% in 2018 Q3 and Q4 from the 2018 Q2 level
  - Job openings slowed substantially during 2018 and were up only 0.5% in January 2019 over January 2018 – slowing job openings have been preceded past recessions
  - Odds of recession starting in 2019 are increasing
  ✓ Value Added Tax is scheduled to be raised from 18% to 20% in October and could adversely impact consumer spending and assure recession
• **India** should continue to experience relatively strong real GDP growth in a range of to 7.0% to 7.5% in 2019. A potential downside risk in 2019 is the defeat of Prime Minister Modi in parliamentary elections.
  ✓ CAI = 6.8% in December 2018; potential growth rate = 7.2%
  - CAI = 6.7% in January; February = 6.6%; March = 6.5%; April = 3.4%; May = 6.2%
  ✓ GS 2019 GDP forecast = 7.5%; B of A = original 7.4%, revised = 7.0%
  ✓ Prime Minister Modi’s BJP party won a resounding Parliamentary election victory

• **Emerging market countries, including China**, should experience slower growth of 4.8% in 2019 compared to 4.9% (B of A) in 2018.
  - B of A original forecast = 4.8%; revised = 4.3%
  ✓ CAI = 4.2% in December 2018 and was decelerating; potential growth = 5.1%
  - CAI = 4.4% in January; February = 4.7%; March = 4.8%; April = 4.0%; May = 4.3%

• **Brazil** will benefit from improved political stability; Brazilian growth is expected to improve from 1.2% (GS) to 1.5% (B of A) in 2018 to 2.6% (GS) to 3.5% (B of A) in 2019
  ✓ CAI = 1.7% in December 2018 compared to potential growth = 2.2%
  + CAI = 3.8% in January; February = 3.9%; March = 1.1%; April = 2.6%; May = 1.2%
  - B of A original GDP forecast = 3.5%; revised = 1.2%
  - GS original GDP forecast = 2.6%; revised = 1.7%

• **Russia** will continue to grow well below potential in 2019; growth is expected to range from 1.5% (OECD) to 1.8% (GS) compared to potential growth of 3.3%.
  + GS original GDP forecast = 1.8%; revised = 2.1%
  ✓ B of A GDP original forecast = 1.7%; revised = 1.2%
  ✓ CAI = 2.4% in December 2018
  - CAI = 2.1% in January; February = 1.1%; March = 2.6%; April = 1.1%; May = 0.3%

• **Venezuela’s** economy continues to implode; regime change is unlikely, however, unless the military intervenes.
  + The political situation continues to deteriorate but Maduro remains in power with the support of the military, even though many nations including the U.S., do not recognize Maduro as the legitimate
president; as time passes, the economy continues its plunge; oil exports have dwindled to a trickle

- The U.S. imposed oil sanctions with the intent to expedite regime change; initially the impact of sanctions has fallen most heavily on the general populace
3. U.S. Risks – stated in the negative relative to the forecast; “+” risk realized; “-“ risk not realized

- **U.S. real GDP growth** falls short or exceeds expectations; falling short is the more serious risk as this is likely to happen only if recession occurs.
  - Risk not realized, Q1 GDP grew 3.1%, which was above the expected overall 2019 growth rate, but was inflated by unsustainable growth in inventories and net exports. Forecast Q2 growth is expected to be less than 2.0%, but full year growth is still expected to be slightly above long-term potential in a range of 2.4% to 2.6%

- **GDP positive output gap** rises less than expected or turns negative; this is likely to happen only if recession occurs.
  - Risk not realized, Q1 positive output gap rose from .30% to .57% in Q1, but is on track to be slightly less than the forecast; CBO increased its forecast for potential growth slightly in January which implies that the positive output gap will not expand quite as much as originally expected

- **U.S. productivity** falls below the bottom end of the forecast range.
  - Risk not realized, Q1 productivity growth was surprisingly strong raising the possibility that productivity in 2019 will exceed the forecast range pf 1.2% to 1.4%

- **U.S. employment growth** is slower or faster than expected; slower growth is the more serious risk as this is likely to happen only if recession occurs.
  - Risk not realized, average payroll employment growth over the first five months of 2019 was within the forecast range, but average household employment growth was below the forecast range; (this is a perverse result because payroll and household employment usually grow by close to the same amounts, which raises the question of which indicator is more reliable in gaging the tightness of the labor market)
  ✓ The trend of strong monthly payroll employment gains, which are above the natural rate of growth in the labor force, has been possible because the participation rate has increased bringing more people into the labor force; this trend is not likely to be sustained (the participation rate ticked down in March and April and was stable in May)
• **Employment participation rate** falls below the bottom of the forecast range rather than remaining relatively stable or rising modestly.
  - **Risk not realized**, Participation was above the upper end of the projected range in January and February, reflecting continuation of the recent pattern of re-entry of people into the labor force who had either been discouraged or disinterested; the participation rate was at the top end of the forecast range in March and solidly within the forecast range in April and May

• **U.S. unemployment rate** rises above the forecast range; this is likely only if recession occurs.
  - **Risk not realized**, because of the unexpected increase in the participation rate, the unemployment rate in January was above the expected range; however, it fell in February, March and April and was stable in May at the top end of the forecast range

• **U.S. hourly wage rate growth** is lower or higher than the forecast range; lower wage growth is the more serious risk.
  - **Risk probably not realized**, wage growth rose in January, February, March, April and May and is near the bottom end of the forecast range; however, wage growth is expected to continue rising during 2019 and be within the forecast range by the end of the year (wage growth for nonsupervisory and production workers was within the forecast range in May)

• **Nominal U.S. consumer disposable income** increases less or more than expected; a less than expected increase is the more serious risk.
  + **Risk realized**, 12-month moving average in January, February, March and April was below the forecast range and in a gradual declining trend

• **Nominal U.S. consumer spending** increases less or more than expected; a less than expected increase is the more serious risk.
  - **Risk not realized**, 12-month moving average in January, February, March and April was slightly above the forecast range; spending is expected to weaken slightly in coming months and be within the forecast range by the end of the year

• **Auto sales** are considerably less than expected.
- Risk not realized, auto sales were expected to decline in 2019 and through May that expectation is unfolding; the 12-month moving average rate of growth has decelerated from 2.5% in May 2018 to -2.1% in May 2019

- Retail sales growth is lower than expected.
  + Risk realized, 12-month moving average rate of growth decelerated from 6.2% in July 2018 to 2.8% in April 2019; but, depending upon continuation of strong employment growth and financial markets performance, growth in spending is expected to strengthen in coming months

- Measures of consumer confidence drop substantially.
  - Risk not realized, measures declined modestly in January but improved in February, March, April, and May

- Consumer saving rate rises or falls more than expected; a higher than expected saving rate is the greater risk because that is likely only in the event of recession.
  - Risk not realized, the saving rate for the first four months of 2019 was at the bottom end of the forecast range

- U.S. stock prices fall more than or rise more than the forecast range.
  + Risk realized, stock prices rose strongly in January, February and March and hit a new high at the end of April; prices weakened in May but recovered in early June: price gains remain substantially above the forecast range for 2019

- U.S. business activity contracts or expands more than expected; contraction is the more serious risk.
  - Risk not realized, changes in survey measures through the first five months of the year were small, some stronger, but most slightly weaker; growth in manufacturing activity is decelerating

- U.S. private business investment does not improve as much as or more than expected; falling short of expectations is the more serious risk.
  + Risk realized, business investment increased slightly less than the bottom end of the forecast range in Q1 and is expected to remain weak; it appears that tariffs and trade uncertainty may be depressing investment activity
• **Industrial production** rises less than expected.
  + **Risk realized**, through April industrial production was slightly lower than in December

• **Capacity utilization** falls.
  + **Risk realized**, capacity utilization was lower in April than in December

• **Growth rates in U.S. residential housing investment and housing starts** are less than or more than expected; below expectations is the more serious risk.
  - **Risk not realized**, housing investment declined in Q1 and was slightly below the bottom end of the forecast range; housing starts declined modestly in Q1, but were within the forecast range; activity is expected to improve during the remainder of 2019 as affordability improves in response to lower interest rates and smaller increases in home prices but will decline slightly in comparison to 2018

• **U.S. residential housing price increases** are stronger than or less than expected; stronger than expected price growth would be an indication of price speculation, while slower than expected price growth would most likely be caused by recession or deteriorating consumer confidence.
  - **Risk not realized**, as expected, price increases decelerated in January, February and March and are within the forecast range

• **U.S. trade deficit** does not widen as much as expected.
  + **Risk realized**, trade deficit in January, February and March was slightly below the forecast range; the shortfall could continue due to increases in tariffs

• **Value of the dollar** falls rather than remaining stable or rising modestly.
  - **Risk not realized**, trade-weighted value of the dollar has been relatively stable, increasing 0.6% YTD through May

• **Oil prices** rise above or fall below the expected range; prices below the forecast range is the greater concern because it would be indicative of global recession.
- **Risk not realized**, prices moved above the top of the forecast range in March, April and early May but were within the forecast range in early June

- **U.S. monetary policy** tightens more than 50 basis points, spawns financial market uncertainty and contributes to global financial instability.
  - **Risk not realized**, FOMC changed policy from a tightening bias to neutral; it will be patient and any increase or decrease in interest rates will depend on the strength or weakness of incoming data
  - The market expects two cuts in the federal funds rate by the end of the year and a third cut in early 2020
  - the FOMC may revise policy to assure inflation averages 2.0% over the cycle, which could result in no increases in the federal funds rate for an extended time
  - FOMC will end balance sheet shrinkage in September 2019 and this will relieve pressure on liquidity

- **Financial conditions** tighten and cause financial market volatility.
  - **Risk not realized**, on balance financial conditions have eased since the beginning of the year but are somewhat tighter than they were prior to the “correction” in financial markets during the fourth quarter of 2018

- **U.S. inflation** falls or rises more than expected.
  + **Risk realized**, core inflation measures have been weaker than expected; core CPI and CPE inflation were below the bottom end of the forecast range in April; both measures of inflation are expected to rise during the remainder of the year but might not reach the bottom end of the forecast range

- **U.S. long-term interest rates** fall or rise more than expected.
  - **Risk not realized**: although rates have moved down more than most expected so far in 2019, they remain within the bottom end of the forecast range; the yield curve inverted slightly in late May and early June

- **U.S. fiscal policy** is less expansionary than expected due to political uncertainty and congressional paralysis.
+ **Risk realized**, partial government shutdown had a small transitory negative impact; according to CBO’s updated projections, government spending will be somewhat lower in fiscal 2019 than originally expected; if Congress does not pass a budget resolution by September 30th, sequestration will automatically result in substantial spending cuts

- **State and local investment spending** increases less than expected; this would be indicative of slower than expected growth or recession and falling tax revenues.
  - **Risk not realized**, spending increased more than expected in Q1; tax revenues strengthened in April as estimated income tax payments surged

- **Federal budget deficit** increases more than expected.
  - **Risk not realized**, tariff revenues, reduced disaster recovery expenses, lower foreign military spending and higher tax revenues have reduced the size of the projected deficit

✓ The federal debt ceiling suspension ended on March 2nd, since Congress did not raise the ceiling, CBO projects that the Treasury Department can continue normal operations until September or October when the ceiling will become binding
4. **Global Risks** – stated in the negative relative to the forecast; “+” risk realized; “-” risk not realized

- **Rising pessimism** – 30% of business leaders expect global growth to slow in 2019 a six-fold increase from 2018
  - January and February global data supported this expectation; however growth stabilized in March; nonetheless, 2019 global growth forecasts have been reduced modestly; March data improved slightly and hopes are high that Chinese stimulus will reverse slowing global growth; the escalation in the U.S.-China trade war is a negative development

- **Global risks to monitor in 2019**
  - U.S.-China trade war – will it be resolved amicably? Negotiations failed in early May, but an amicable resolution could still be reached, although this seems unlikely now that both countries have increased and extended the coverage of tariffs
  - Brexit – will exit occur without a deal or the exit date be delayed? Exit date was delayed to October 31\(^{st}\); in the meantime, uncertainty over the outcome is contributing to a substantial deceleration in the U.K. economy; Q1 GDP strength is attributable to inventory stockpiling in anticipation of Brexit on March 29\(^{th}\), this stockpiling will now depress GDP growth going forward as excess inventories are unwound; Prime Minister May’s decision to resign once a replacement is selected adds to the uncertainty and negative outlook
  - Japan’s consumption tax increase – will implementation be delayed or offset with fiscal stimulus? Economic activity is deteriorating and the probability of imminent recession is growing; the consumption tax, if implemented in October as scheduled, would add to downside pressures
  - Will oil shocks occur? – six-month waivers on Iran oil exports expired in May; while the price of oil rose in early 2019, strong U.S. and Saudi production offset shortfalls in production from Iran and Venezuela and has kept a lid on prices; slowing global growth has contributed to lower oil prices by depressing demand
  - Political turmoil – India’s parliamentary elections (May), European parliament elections (May), U.S. government shutdown potential – the U.S. government shutdown was resolved in January, but could reoccur in September; India elections resulted in Prime Minister
Modi’s party gaining a solid majority in parliament; EU parliamentary elections, as expected, benefited parties on the right and left at the expense of those in the political center, but not to an extent sufficient to alter the existing balance of power

✓ Financial shocks that morph into political shocks – Italy top the list, but U.S.-China trade war is also a candidate – the U.S. – China trade war has escalated and odds for a negotiated settlement appear to be low; this will boost inflation somewhat in the U.S. in coming months and slow investment activity; U.S. financial markets expect the Fed to reduce interest rates to offset negative trade impacts on economic growth; emerging nations will be adversely impacted; it is unclear how China will be affected, but it is clearly a downside risk; all is quiet for now in Europe as attention is focused on personnel decisions in the aftermath of the EU parliament elections, but a new confrontation between Italy’s government and the EC and a potential European banking crisis bear close watching

✓ Inability of monetary policy to respond to recession, particularly in Europe and Japan – growth in both the EU and Japan is slowing more than expected and Japan appears to be on the cusp of recession; to date monetary policy has been ineffective in both regions in lifting growth and inflation

- Chinese policy intervention has limited impact in reversing decelerating growth with knock on adverse impacts on global growth – China is pulling policy levers to boost growth; recent data indicate that policy stimulus is working; however, it’s too soon to determine whether policy intervention will be successful; the renewal and escalation of U.S.-China tariffs on trade is a downside risk

• **Global GDP growth** slows more than expected.
  + **Risk realized**: the managing director of the IMF, Christine Lagarde, warned that the global economy “is growing more slowly than we had anticipated” and cited trade tensions, financial tightening, Brexit uncertainty, and slowing growth in China; “When there are too many clouds it takes just one lightening bolt to start the storm”

• **Global trade** declines as the U.S. and other countries pursue protectionist policies.
  - **Risk not realized**: data not yet available to evaluate this risk, but trade growth is decelerating in the U.S. and seems certain to slow
globally as corporations rethink supply chains, given the uncertainty of U.S. trade policy

- **European growth** slows more than expected.
  - B of A expects growth to slow to 1.1% or less; GS expects growth to slow to 1.0%
  - Italy’s GDP declined in both Q3 and Q4 2018, qualifying for a technical recession, but growth rebounded in Q1; industrial production declined 5.4% during 2018; more recent data indicate stagnant economic activity
  - Europe’s export-heavy economy is especially susceptible to slowing global growth and trade restrictions; recent underperformance of Germany’s economy, is indicative of this risk
  - ECB eased monetary policy modestly in early March and expanded liquidity access for banks in June, but with negative interest rates, there’s little it can effectively do to stimulate economic activity; indicative of these risks, bank stock prices continue to plumb new lows
  - The European economy would be adversely impacted if the U.S. imposes tariffs on cars and automobile parts; this risk is uncertain and might have diminished due to the U.S. focus on tariffs on Chinese imports; a decision has been delayed until late 2019, but could be a real possibility unless Europeans get serious about negotiating with the U.S.; in addition to automobile parts, European protection of its agricultural markets is a significant issue

- **Europe** – financial conditions tighten more than expected, financial market volatility escalates and the ECB’s monetary policy is relatively ineffecual.
  - Risk not realized; along with other global financial markets, financial conditions eased slightly in January and February, but volatility increased in May in sympathy with renewed volatility in U.S. financial markets but financial conditions tightened to a greater extent in Europe than in the U.S.
  - End of ECB balance sheet expansion comes at a time when growth is decelerating
  - ECB eased bank liquidity risks by extending the maturity date of the policy of providing long-term liquidity lending to banks and by liberalizing the financial terms of liquidity loans
  - Negative interest rates continue to depress bank profits – both phenomena are contributing to declining business lending and
slowing economic activity; the ECB has little in the way of policy tools to combat slowing growth and declining inflation

• **Europe** – political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union.
  ✓ May elections for the European Parliament could exacerbate growing political fragmentation in the EU – although parties on the left and right won seats at the expense of centrist parties, for now the status quo appears to remain intact
  ✓ Slowing economic growth will contribute to deepening political discord – this is a risk with a long fuse
  ✓ Dislike for EC Brussels technocrats and economic recession could create a politically unstable climate in Italy that leads to a euro crisis and poses existential risk to the EU – risk has not been realized, but it hasn’t gone away either

• **UK** political instability escalates leading to new parliamentary elections and worse than expected economic performance.
  - Risk not realized; but the political status quo is in turmoil; Prime Minister May has failed repeatedly to get parliament to agree to an exit plan from the EU; as soon as a successor is named to head the Conservative Party, Prime Minister May will resign; Brexit deadline extended to October 31st; political fragmentation in the U.K. is an increasing threat
  + Brexit party won a plurality of votes in the UK elections for the EU parliament, which could lead to repercussions in the increasingly fragile internal UK political arena

• **China’s growth** slows more than expected.
  - Too soon to determine; policy stimulus appears likely to diminish this risk, but the trade war with the U.S. could be a negative offset
  ✓ Analysts expected growth to strengthen in the second half of 2019 as policy intervention gained traction, which assumes policies will be effective, which is not a certainty; with the escalation of the trade war with the U.S., analysts’ optimism is fraying

• **China’s trade war with the U.S.** worsens and adversely impacts global growth.
  + Risk realized; no agreement was reached and both countries increased tariffs and extended them to a larger basket of goods;
agreement is still possible but neither country appears willing to make concessions.

✓ Chinese stock markets rose sharply in the first quarter, reflecting improved access to credit, optimism about a trade deal with the U.S., and expectations for reacceleration in growth and rose 41% by April 17th; however, when the trade negotiations with the U.S. stalled and then collapsed, the stock market declined 16%, although gains are still a positive 18% for the year through June 11th.

- **China’s and U.S. global leadership confrontation** – cold-war sparring could adversely affect global growth.
  ✓ Chinese policy aims to reduce dependence on the U.S. dollar by broadening acceptance of the renminbi as a global transactions and settlement currency.
  ✓ China and the U.S. are engaged in a race to dominate technology development; China is overly dependent on the U.S. dominated semiconductor market and will seek to build its own independent capability.

- **Japan’s** economic growth slows more than expected.
  + Risk realized: several negative factors bear watching: trade war and China’s growth slowdown are depressing corporate earnings, financial conditions are tight; growth has slowed sharply and recession risk has risen.

- **Emerging economies** – a strong dollar leads to serious difficulties especially for countries with large amounts of dollar-denominated debt.
  ✓ Venezuela’s political crisis continues to deepen and declining oil production, could negatively impact global oil prices (oil prices in March, April and early May moved modestly above the top end of the forecast range, but fell back into the range in late May and early June).
  + Turkey’s economy contracted in 2018 Q3 and Q4, a rule of thumb for recession.
  + GDP growth in emerging economies below potential; U.S. trade policies will have both short-term and long-term negative effects; in the short-term growth will slow as trade is depressed by tariffs; in the long-term growth could be impacted significantly and adversely if corporations invest in relocating supply chains to domestic sites.
• Severe and, of course, unexpected **natural disasters** occur, which negatively impact global growth.
  - Risk not realized

• **Global trade war** threatens global economic growth
  + U.S. – China negotiations failed and both countries increased tariffs
  - The possibility that the U.S. might impose tariffs on imports of autos and auto parts, which would impact Europe, Japan and Korea in particular, remains – the Trump Administration has delayed a decision until late 2019; however, the U.S. is preparing to impose tariffs on other European imports and, if this occurs, the European Union is likely to retaliate in kind
  + President Trump’s short-lived threat to impose tariffs on goods imported from Mexico has been withdrawn for now, but could resurface later on, particularly if Trump judges the threat to be beneficial to his re-election chances.
  + It is becoming clearer as time passes that uncertainty is as much of a negative factor on global growth as the imposition of actual tariffs

• **New Risks**
  ✓ Following collapse of U.S.-North Korea denuclearization summit with U.S. President Trump, North Korea has resumed intercontinental ballistic missile testing, which have duly been reported, but little attention has been paid to this intentional sabre rattling
  ✓ Potential for conflict with Iran which could disrupt global oil supplies