The Longbrake Letter*

2019 Outlook – April Assessment

Bill Longbrake

2019 Outlook - April Update: As was the case in 2018, above potential economic growth continues to be a global theme. However, reflecting growth deceleration in the second half of 2018, global growth slowed during the first quarter of 2019 and is expected to converge to its long-run potential level by the end of the year.

The gloomy mood at the beginning of 2019 has given way to renewed optimism that global economic activity will improve as 2019 progresses. This sentiment shift can be traced to easing of U.S. monetary policy and easier financial conditions and Chinese policy stimulus. However, trouble persists in Europe and Japan.

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:

- **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.* 2019 Q1 real GDP growth is likely to be relatively weak between 1% and 2%; however, analysts generally expect U.S. growth to reaccelerate during the year, reflecting accommodative U.S. monetary policy and a reacceleration in China’s growth following the recent growth slowdown. During April, Goldman Sachs upgraded its outlook for the U.S. significantly. *This risk remains, but policy actions, improving financial market conditions and confidence have lessened this risk in the near term.*

- **Excessive corporate debt.** *This is a longer-term risk, which is worsening gradually.*

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

- **Deteriorating residential loan credit standards.** *There has been no change in this risk, 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. *The jury is still out, but unofficial commentary suggests that the U.S. and China will back away from full-scale trade war; the Trump Administration has been noticeably silent about auto tariffs and has not released the Commerce Department’s report. New tariffs are likely to be imposed on imported European goods and the European Union is expected to retaliate in kind. This risk remains and continues to contribute to slowing global growth.*
• **Tight monetary policy** ï the FOMC’s change to a neutral monetary policy in January lessened this risk. *FOMC policy review could result in a revised inflation target 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 later in 2019, which will reduce the risk of tighter market liquidity. Financial conditions in the U.S. have eased considerably since the beginning of the year which has diminished this risk. Chinese policy has also diminished this risk; however, monetary policy remains tight in Europe and relatively ineffective in Japan.*

• **Tightening financial conditions** ï since the beginning of the year this risk has lessened, but greater than expected deceleration in global growth could easily reignite tightening. *Financial conditions in the U.S. eased considerably in the first quarter but 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 has 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.*

• **Escalating political uncertainty.** *This risk in the U.S. has diminished in the short run, but could escalate at any time. Political uncertainty is rising in the U.K. and Europe.*

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

• **Brexit and the European Union** ï 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.*

• **Slowing growth – Italy, France and Germany** ï 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.*
• **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 30% in the first quarter of 2019, reflecting investor optimism that policy will end the growth slowdown. 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. This is a significant risk and its too soon to determine whether Chinese policy actions will be effective, although recent data are encouraging.*

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.*
2019 and Beyond – Forecast Summary for the U.S. and the Rest of the World, Highlights of Key Issues, and Identification of Risks

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: March Assessment:** 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.

April

- **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 has risen about stronger U.S. growth, this spread returned to a positive 12 basis points by April 12th**
- **LEI improved 0.2% in February, a mildly favorably signal that the economy could strengthen in coming months**

- **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 = 2.2%; GS original = 2.4%; revised = 2.5%; Bill’s original BASE scenario = 2.47%, revised = 2.43%; Bill’s original STRONG GROWTH scenario = 2.53**

- **GS Q1 estimate = 1.7%; slower growth due to: weaker consumer spending; delays in tax refunds, decline in residential investment; partial government shutdown will depress Q1 GDP by 0.4%, but about 75% of the decrease will be recovered in Q2; tighter financial conditions during 2018 Q4 will slow real GDP growth in the first half of 2019, but easing financial conditions will boost growth in the second half**

- **B of A Q1 estimate = 2.0%, down from 2.8% because of the federal government shutdown and lower consumer spending (-0.2% to -0.3% from December market volatility confidence shock bleeding over into January), however, inventory accumulation has been stronger than expected**

- **2019 Q2 estimate: GS = 2.8%; B of A = 2.5%**

- **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 = 2.4%; preliminary April = 2.6%**

- **Chicago Fed National Activity Index fell to - .25 in January from .05 in December; February = -.29**

- **February LEI = 3.6% Y/Y, but declining**

- **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 = 1.02%**
• **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 estimate of potential growth is between 1.5% and 1.6%
  ✓ 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 = 2.00%

• **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 = 1.28% (4-quarter moving average); 1.63% YoY
  ✓ Bill’s 2019 original forecast = 1.37%; revised = 1.23% (4-quarter moving average)
  ✓ B of A 2019 original forecast = .88%; revised = .77% (4-quarter moving average)

• **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
  ✓ Jobless claims fell to the lowest level in 69 years in January and were little changed from this level in early April
  ✓ 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 = 160,000; B of A original = 178,000, revised = 169,000; Bill’s BASE original = 177,500, revised = 147,600
  + January 2019 payroll = 312,000; February = 33,000; March = 196,000; YTD monthly average = 180,333
  ✓ 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 (240,167 monthly excluding a downward adjustment of 488,000 for 2018 stemming from updating of population controls) during 2018

Household employment: January = 236,000; February = 255,000; March = -200,000; YTD monthly average = 97,000

- 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

- 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 12th = 62.2

- 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.

- The participation rate was 63.05% in December 2018; January = 63.21%; February = 63.15%; March = 63.03%; stronger than expected participation rate in January and February due to return of discouraged workers to the labor force and prime age women, particularly those under the age of 35 with professional degrees

- Unemployment rate should edge down slightly from 3.9% to between 3.2% and 3.6%.

- 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%

- The 4-week moving average of unemployment claims was 207,000 in early-April compared to the multi-decade low of 206,000 in late 2018
• **Hourly wage** 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%
  ✓ 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%
  + 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 12th = 68.5
  ✓ GS’s wage tracker was 3.04% in Q4 2018; January = 3.2%; February = 3.4%; March = 3.0%
  ✓ The Atlanta Federal Reserve Bank wage tracker was 3.8% in December 2018; January = 3.7%; February = 3.4%; March = 3.5%
  ✓ 2018 Q4 employment cost index increase: total = 2.89%; wages and salaries = 3.00%; benefits = 2.75%

• **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 4.97% in 2018
  ✓ January = 4.94%; February = 4.91% (12-month moving average)

• **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 = 4.84%; February = 4.85% (12-month moving average)

• **Auto sales** should decline during 2019
  ✓ Auto sales averaged 17.19 million units during 2018; January = 16.69 million units; February = 16.54 million; March = 17.48 million; average YTD = 16.90
  ✓ 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, 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, and fell 0.2% in February, adversely impacted by delays in tax refunds; the 12-month moving average annual growth rate dropped to 2.0%; financial market turmoil in 2018 Q4 and its impact on consumer confidence were major factors in the spending slowdown; financial markets improved in January and February and this should boost spending growth 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 = 124.1, reflecting a sharp decline in the present economic conditions index
  - 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 = 96.9
  - Bloomberg = 59.6 in December 2018; January = 58.2; February = 61.0; March 2nd = 62.1 (highest since 2000); April 6th = 59.8
  - Evercore ISI = 54.5 in December 2018; January = 54.2; February = 53.2; March = 54.2; April 12th = 54.1
  - B of A’s consumer January survey indicated increasing pessimism: 34% feel that the economy has weakened since a year ago and 34% expect the economy to be weaker in the next year
  - 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 2018; 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 = 4.9%; January = 4.8%; February = 4.9%
Revolving consumer credit 12-month moving average: December 2018 = 3.5%; January = 3.2%; February = 3.2%
Non-revolving credit 12-month moving average: December 2018 = 5.4%; January = 5.4%; February = 5.4%
Federal Reserve Senior Loan Officer Opinion Survey: residential mortgage underwriting standards were unchanged in 2018 Q4, 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; banks expect higher residential mortgage delinquencies in 2019 and intend to tighten underwriting standards

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 = 6.74%
January = 7.47%; February = 7.10%; YTD = 7.29%

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%
Stock prices YTD: January = 7.9%; February = 11.1%; March = 13.1%; April 15th = 15.9%

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
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
 NFIB optimism index = 104.4 in December; January = 101.2; February = 101.7; March = 101.8
 GS analyst index = 61.3 in December; January = 67.9; February = 59.0
 Manufacturers “very” or “somewhat” upbeat about their company’s outlook: 2018 Q4 = 88.7%; 2019 Q1 = 89.5%; (average past 9 quarters = 91.8%)
 Business Roundtable CEO Economic Outlook Index weakened in 2019 Q1

- **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 3.9% over December 2017; January = 110.2, up 3.9%; February = 110.4, up 3.7%; March = 110.2, up 3.3%

- **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 = 79.1%; February = 79.0%; March = 78.8%

- **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%
  - GS original 2019 forecast = 3.3%; revised = 4.4%
  - B of A original 2019 forecast = 3.5%; revised = 4.4%
  - 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 5th = 60.1
  - Spending for non-aircraft capital goods, a proxy for all capital spending, increased 6.1% over 12 months ending in January, but new orders, a leading indicator, have declined gradually since peaking in July
  - NFIB net percentage planning to increase capital spending: December 2018 = 25%; January = 25%; February = 27%; March = 27%
  - NFIB percentage reporting making capital outlays: December 2018 = 61%; January = 60%; February = 58%; March = 60%
  - According to an Evercore ISI survey, satisfactory resolution of trade negotiations with China will have limited favorable impact on
business investment, but the negative impact if talks fail 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 and commercial real estate loans tightened in 2018 Q4 and demand weakened; banks expect to tighten underwriting standards further in 2019 and demand to continue to weaken
  - BAA and high yield bond credit spreads blew out during December’s severe market correction and only partially recovered during January

- **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%
  - GS 2019 original forecast = -2.1%; revised = -0.6% with steady improvement during 2019 to a growth rate of 6.0% by Q3 due to lower interest rates and demographic trends favoring increased home ownership
  - B of A 2019 original forecast = -1.3%; revised = -0.3%
  - 2018 housing starts = 3.2% (single family = 2.3%; multi-family = 5.4%)
  - GS housing starts 2019 original forecast = -0.7%; revised = 3.0%
  - B of A housing starts 2019 original forecast = 2.9%; revised = 2.1%
  - Bill’s BASE housing starts 2019 original scenario = -6.4%; revised = -0.8%
  - 12-month moving average change in housing starts: February = 1.2%
  - The NAHB December 2018 housing index = 56 (value greater than 50 means is favorable); January = 58; February and March = 62; April = 63; 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 12th = 55.7 (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
✓ New home sales increased in December 2018 after bottoming in October and posted the best month in February in nearly a year
✓ Household formation continues to rise gradually – the five-year annual average = 1.23 million in 2018 Q4; 2018 = 1.50 million
✓ Home ownership rate increased to 64.6% in 2018 Q4

- **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 = 4.6%; 20-city index = 4.1%
  ✓ FHFA housing price index 2018 = 5.7%
  ✓ 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 = 4.3%
    + S&P Core Logic Case Shiller 20-city housing price index: January = 3.5%

- **Trade deficit** should rise in 2019 in a range of 3.0% to 3.5%.
  ✓ December 2018 trade deficit = 2.98%
  ✓ January = 2.95%
  ✓ Annual growth rates in both goods imports (9.6%) and exports (9.0%) peaked in October; annual growth in goods imports slowed to 8.0%, in January reflecting the slowdown in consumer spending and the impact of tariffs on prices
  ✓ 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
  ✓ President Trump said in mid-March that he expects tariffs on Chinese imports to remain “for a substantial period of time”

- 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%; March 2019 YTD change = -0.2%

- **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 = $52; February = $55; March = $58; early April = $63

- **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** – between no increases and one decrease
  - **Original GS** – pause early in the year followed by 2 increases; **revised GS** – no increases
  - **Original B of A** – 2 increases in Q1 and Q2; **Revised B of A** – 1 increase in Q4, but risk in direction of no increase

- The Fed’s March Beige Book, which surveys economic conditions in the 12 Federal Reserve districts, indicated economic activity proceeding at a slight to moderate pace – somewhat better than the January report; optimism generally prevailed, but trade policy and the global slowdown were concerns; scarcity of skilled labor and upside pressure on input costs continued to be concerns, but wage pressures remained moderate
- The minutes of the March FOMC meeting continued to emphasize the theme of “patience”: growth has slowed but is decelerating modestly – the fundamentals continue to support sustained expansion, inflation remains near the 2 percent target and upward pressures appear muted

- **Total inflation** measures (CPI and CPE) will rise decline in 2019 as the impacts of the 2018 rise in energy prices falls 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%
 ✓ December 2018 total CPE = 1.76%; January = 1.37%; February data delayed because of partial government shutdown
 ✓ GS total 2019 CPI original forecast = 1.6%; revised = 2.0%
 ✓ B of A total 2019 original CPI forecast = 1.5% (average for year), revised = 1.9%; total original PCE forecast = 1.6%; revised = 1.7%
 ✓ 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; April 12th = 2.04% (CPE equivalent = 1.74%)
 ✓ 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% (this survey consistently reports higher inflation expectations than TIPS, so what is important to watch is directional changes in consumer expectations)
 • 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% (core CPI is weaker than expected but should return to the forecast range by the end of the year)
   ✓ December core CPE = 1.94%; January = 1.79%; February data delayed because of partial government shutdown
   ✓ GS original core 2019 CPI forecast = 2.3%, revised = 2.2%; original core PCE = 2.0%; revised core PCE = 1.8%
   ✓ B of A core 2019 CPI original forecast = 2.2%, revised = 2.2%; core PCE original = 2.0%, revised = 1.9%
   ✓ 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 2.55% on April 15th
✓ 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 has risen about stronger U.S. growth, this spread returned to a positive 12 basis points by April 15th

- **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 = 1.3%**
  ✓ State and local tax receipts stopped growing in January, but increased slightly in February and more strongly in March: 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;

- 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 = 4.17% 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 = 4.48%**
  ✓ **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 = 4.38%
✓ 12-month deficit-to-GDP ratio: January = 4.35%; February = 4.44%; March = 4.15%
✓ The federal debt ceiling suspension ended March 2nd, Treasury Department can continue normal operations until September or October when the ceiling will become binding
✓ 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 tax refunds have been slow and in February were 3% below 2018’s pace; refunds are not expected to improve much from 2018’s level in March and April
✓ 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: March Assessment:** Global economic activity, which peaked in mid-2018, continues to slow in early 2019. 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 quarter 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%
- 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%
- 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%: better, but still below the potential growth rate of 5.1%; March = 4.8%
- Economic activity slowed in Europe during the first quarter; Italy is in recession and growth is barely positive in Germany.
- China, reportedly, has implemented a massive fiscal stimulus program to boost consumption, which is expected to boost Chinese growth as 2019 progresses.
- JP Morgan Global Manufacturing PMI decelerating – peak: December 2017 = 54.4; January = 50.8; February 2019 = 50.6
- Reflecting improvements in the U.S., global financial conditions eased slightly in January and February.
- 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

✓ 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% in December 2018

• **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** = 3.4%

(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** = 3.5%

✓ **JP Morgan Global Manufacturing Index**: December = 51.4; January = 50.7, slowing rate of expansion since August 2016

• **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** = 3.1%

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

✓ **B of A original forecast** = 1.4%; **revised** = 1.1%

✓ **GS original forecast** = 1.6%; **revised** = 1.0%

✓ **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%; below potential growth rate
- **Euro area manufacturing index**: February = 49.3; March = 47.6 (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%; GS forecast -0.3% GDP growth in 2019
- Germany’s GDP declined 0.2% in 2018 Q3 and was 0.0% in 2018 Q4; January CAI = 0.6%; February = 1.0%; March = 0.4%
- Industrial production in Germany fell 0.8% in February; Germany’s manufacturing index plummeted to a recession level of 44.7 in March, but the services index remained above 50 at 54.9; GS forecasts 0.7% GDP growth in 2019
- France’s manufacturing index: February = 51.5, March = 49.8; services index: February = 50.2, March = 48.7
- Euro area GDP grew 0.2% in 2018 Q4
- Money supply has declined 4.0% over the past year

- **European total inflation** in 2019 will remain 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.
- Data are not yet available, but downside surprises are more likely than upside surprises
- B of A original total inflation forecast = 1.0%; revised = 1.2%
- GS core inflation forecast = 0.9%

- **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 January and February
- 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; realistically the ECB has little left in its toolkit to stimulate economic activity
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
- European Parliament elections in May could elevate political uncertainty
- In Spain, the ruling coalition’s budget was defeated; new national elections have been scheduled – Spain now has five political parties, with a hollowing out of the tradition center-left and center-right parties

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%
  - 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 = 1.1%
  - GS original 2019 GDP forecast = 1.5%; revised = 1.1%
  - BOE decreased its 2019 GDP forecast from 1.7% to 1.2%
  - January job placement fell, but wage growth remained strong
  - B of A 2019 Q1 GDP growth estimate is 0.03% which annualizes to barely more than 0.1%
  - B of A decrease its 2019 growth forecast to 1.1%
  - 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 depressing 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
- CAI = 5.5% in December 2018 and was decelerating; potential growth = 6.0%
  - CAI = 5.5% in January; February = 6.0%; March = 6.7%
- 2018 growth = 6.6%; however Q4 2017 to Q4 2018 growth = 6.4%, indicating a modest slowing
- Business conditions have weakened sharply in Australia and Japan, confirming the slowdown in China’s economy
- 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
- Shanghai stock index rose 30% in the first quarter and Shenzhen was up 30%, 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

- **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 of negative impacts on growth; monetary
and fiscal policy adjustments are designed to offset these negative effects – the PBoC removed a 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 = 0.7%
  - 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%
  - Employment is strong and nominal income increased 3.2% and part-time wages increased 2.6% during 2018, however, declining corporate profits will probably slow wage gains in 2019; consumer spending is rising gradually; office vacancy rates continue to fall; capital spending rose a strong 5.7% in 2018 and growth accelerated in 2018 Q4
  - 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 and appear to have declined further in 2019 Q1
  - 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

- **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%
  - Parliamentary elections are scheduled for later in 2019; Prime Minister Modi’s BJP party was defeated in three state elections in December and the national standing of the Congress Party is rising based upon its promise to provide a minimum income guarantee for India’s poorest citizens

- **Emerging market countries, including China**, should experience slower growth of 4.8% in 2019 compared to 5.1% in 2018.
  - CAI = 4.2% in December 2018 and was decelerating; potential growth = 5.1%
- CAI = 4.4% in January; February = 4.7%; March = 4.8%

- **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%
  - B of A original GDP forecast = 3.5%; revised = 2.4%
  - GS original GDP forecast = 2.6%; revised = 2.0%

- **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%
  - CAI = 2.4% in December 2018
  - CAI = 2.1% in January; February = 1.1%; March = 2.6%

- **Venezuela’s** economy continues to implode; regime change is unlikely, however, unless the military intervenes.
  - The political situation deteriorated sharply in January when xxx declared himself to be the rightful president and several countries, including the U.S., recognized him as the legitimate president; however, the military continues to support Nicolas Maduro
  - 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 data not available until late April; many analysts made modest cuts in their 2019 growth forecasts at the beginning of the year; however, as growth has firmed in March and April, one analyst, GS, substantially upgraded its 2019 forecast

- **GDP positive output gap** rises less than expected or turns negative; this is likely to happen only if recession occurs.
  - **Risk not realized**, Q1 data not available until late April; CBO reduced its forecast slightly and decreased real GDP growth forecasts imply that the positive output gap will not expand as much as originally expected

- **U.S. productivity** falls below the bottom end of the forecast range.
  - **Risk not realized**, data not yet available to assess

- **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 employment growth over the first three months of 2019 is within the forecast range
  - **✓** The trend of strong monthly 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 slightly in March)

- **Employment participation rate** falls below the bottom of the forecast range rather than remaining relatively stable or rising modestly.
  - **✓** 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; forecasters generally have been surprised at the strength of this phenomenon; the participation rate was at the top end of the forecast range in March
• **U.S. unemployment rate** rises above the forecast range; this is likely only if recession occurs.
  - **Risk probably 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 and March and is expected to fall further in coming months and be within the forecast range by the end of the year

• **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 and March, but was slightly below 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

• **Nominal U.S. consumer disposable income** 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 and February slightly below forecast range, but expected to be within the forecast range by the end of the year

• **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 and February slightly above the forecast range; spending is expected to strengthen in coming months along with improving financial markets performance and spending growth appears likely to exceed the top end of the forecast range

• **Auto sales** are less than expected.
  + **Risk realized**, January and February sales were weaker than expected; although March sales rebounded, the 12-month moving average rate of growth has decelerated from 2.4% in May 2018 to -1.1% in March 2019

• **Retail sales growth** is lower than expected.
  + **Risk realized**, 12-month moving average rate of growth decelerated from 6.1% in July 2018 to 2.0% in February 2019; but spending should strengthen in coming months in response to improving financial markets performance
- **Measures of consumer confidence** drop substantially.
  - **Risk not realized**, measures declined modestly in January but improved in February and March

- **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 two months of 2019 was within the forecast range

- **U.S. stock prices** fall more than or rise more than the forecast range.
  + Stock prices rose strongly in January, February and March and are 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 in the first quarter were small, some stronger, some weaker

- **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 not realized**, data not yet available to assess

- **Industrial production** rises less than expected.
  - **Risk not realized**, industrial production was relatively stable in January and February but the rate of growth slowed slightly

- **Capacity utilization** falls.
  - **Risk not realized**, capacity utilization slowed modestly in January and February

- **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 activity was weak at the end of 2018 but is expected to improve modestly during 2019 as affordability improves in response to lower interest rates and smaller increases in home prices
- **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**, price increases decelerated in the last few months of 2018, a trend that continued in January

- **U.S. trade deficit** does not widen as much as expected.
  - **Risk not realized**, trade deficit in January was slightly below the forecast range, but is expected to increase during 2019

- **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, declining only 0.2% YTD through March

- **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 realized**, prices moved above the top of the forecast range in March and April

- **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 FOMC may revise policy to assure inflation averages 2.0% over the cycle, which could result in no further increases in the federal funds rate for an extended time; FOMC will end balance sheet shrinkage during 2019 and this will relieve pressure on liquidity

- **Financial conditions** tighten and cause financial market volatility.
  - **Risk not realized**, financial conditions have eased since the beginning of the year, and are only slightly tighter than they were prior to the financial markets correction during the fourth quarter of 2018

- **U.S. inflation** falls or rises more than expected.
- **Risk not realized**, core CPI data for the first quarter were slightly below the lower end of the forecast range, but are expected to be near the bottom end of the range by the end of the year; core PCE data are available only for January, but should follow a similar pattern to core CPI

- **U.S. long-term interest rates** fall or rise more than expected.
  - **Risk not realized**; rates have moved very little so far in 2019; the yield curve is very flat

- **U.S. fiscal policy** is less expansionary than expected due to political uncertainty and congressional paralysis.
  + 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

- **State and local investment spending** increases less than expected; this would be indicative of slower than expected growth or recession and falling tax revenues.
  ✓ Data will not be available until 2019 Q1 GDP report released in late April
  ✓ Growth in state and local tax revenues slowed in January but improved in February and March

- **Federal budget deficit** increases more than expected.
  - **Risk not realized**, tariff revenues and reduced disaster recovery and foreign military spending 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 support this expectation; 2019 global growth forecasts have been reduced modestly; March data improved slightly and hopes are high that Chinese stimulus will reverse slowing global growth

- **Global risks to monitor in 2019**  
  ✓ U.S.-China trade war – will it be resolved amicably? Negotiations continue, but an amicable resolution seems probable, although some tariffs could remain in place  
  ✓ Brexit – will exit occur without a deal or the exit date be delayed? Exit date was delayed to October 31st; in the meantime, uncertainty over the outcome is contributing to a substantial deceleration in the U.K. economy  
  ✓ Japan's consumption tax increase – will implementation be delayed or offset with fiscal stimulus?  
  ✓ Will oil shocks occur? – six-month waivers on Iran oil exports expire in May  
  ✓ Political turmoil – India’s parliamentary elections, European parliament elections, U.S. government shutdown potential – resolved, but possible to reoccur in September  
  ✓ Financial shocks that morph in political shocks – Italy tops the list  
  ✓ 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; to date monetary policy has been ineffective in both regions  
  ✓ 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 and stock market investors are believers; however, it’s too soon to determine whether policy intervention will be successful, although preliminary data are encouraging

- **Global GDP growth** slows more than expected.
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.
  - Data not yet available to evaluate this risk

- **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; industrial production declined 5.4% during 2018
  ✓ Europe’s export-heavy economy is especially susceptible to slowing global growth and trade restrictions; recent underperformance of Germany’s economy, which might be in recession, is indicative of this risk
  + ECB eased monetary policy modestly in early March, but with negative interest rates, there’s little it can effectively do to stimulate economic activity
  ✓ The European economy would be adversely impacted if the U.S. imposes tariffs on cars and automobile parts; this risk is uncertain but seems unlikely to occur

- **Europe** financial conditions tighten more than expected, financial market volatility escalates and the ECB’s monetary policy is relatively ineffectual.
  - Risk not realized; along with other global financial markets, financial conditions eased slightly in January and February
  + 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
  + 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
  ✓ Slowing economic growth will contribute to deepening political discord
  ✓ 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
  
• **UK** political instability escalates leading to new parliamentary elections and worse than expected economic performance.
  - **Risk not realized;** Prime Minister May narrowly survived a no-confidence vote, Brexit deadline extended to October 31st; political fragmentation in the U.K. is an increasing threat
  
• **China’s growth** slows more than expected.
  - **Too soon to determine;** policy stimulus appears likely to diminish this risk
  ✓ Analysts expect growth to strengthen in the second half of 2019 as policy intervention gains traction, which assumes policies will be effective, which is not a certainty
  
• **China’s trade war with the U.S.** worsens and adversely impacts global growth.
  - **Risk not realized;** however, no agreement has been reached; the March 1st deadline was extended; however, this is not a high stakes issue for the Chinese leadership and thus resolution in ways that satisfy U.S. agricultural and industry appears likely
  ✓ 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; this raises the possibility of irrational exuberance in coming months and the risk of regulatory intervention
  
• **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 appears to be in the process of being realized;** several negative factors bear watching: trade war and China’s growth slowdown are depressing corporate earnings, financial conditions are tight; recession may be developing.

**Emerging economies** – a strong dollar leads to serious difficulties especially for countries with large amounts of dollar-denominated debt.

+ **Political risk is rising in India:** Parliamentary elections are scheduled for later in 2019; Prime Minister Modi’s BJP party was defeated in three state elections in December and the national standing of the Congress Party is rising based upon its promise to provide a minimum income guarantee for India’s poorest citizens; the concern is that India’s fiscal situation will deteriorate – already fiscal deficits have exceeded targets over the past two years.

+ **Venezuela’s political crisis is deepening and oil sanctions, which were scheduled to take effect in March, could negatively impact global oil prices** (oil prices in March and early April moved above the top end of the forecast range).

+ **Turkey’s economy contracted in 2018 Q3 and Q4, a rule of thumb for recession.**

- 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 continue, risk of no deal seems unlikely, but significant tariffs could remain in place.**

- **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 but is unlikely to occur – the Trump Administration has not released the Commerce Departments report; however, the U.S. is preparing to impose tariffs on other European imports and the European Union is likely to retaliate in kind.**
• New Risks
  ✓ Following collapse of U.S.-North Korea denuclearization summit with U.S. President Trump, North Korea is preparing to resume intercontinental ballistic missile testing