2019 Outlook – July Assessment

Bill Longbrake

2019 Outlook - July Update:

At the beginning of 2019, the fury of the stock market's precipitous decline during 2018 Q4 led many to believe that recession might be imminent. In 1959, before he became Fed chairman, Alan Greenspan opined that "stock prices drive economic activity." Looking back at revised December data appears to bear out the wisdom of that observation. Retail sales in the U.S. fell 2.3% from November to December or about 31% on an annualized basis. It was not a very merry Christmas for retailers.

As 2019 began, the U.S. economy was at an inflection point where the potential for negative feedback from severely damaged investor, consumer and business confidence could have cascaded in an ever-worsening downward spiral.

Sensing the fragility of the situation, Fed officials, communicated that monetary policy would be adjusted to support economic activity. This was ratified by the FOMC’s monetary policy statement issued following its January meeting by not raising the federal funds rate, indicating that balance sheet shrinkage would be ended sooner and introducing the word "patient" to indicate that the federal funds rate would not be raised for a considerable time and leaving the door open, through the language that policy was data dependent, that rates would be cut if the economy faltered.

This reversal in monetary policy was sufficient to restore investor confidence. The U.S. stock market began a vigorous recovery in January and by the end of April reached a new all-time high, totally wiping out the 20% 2018 Q4 decline in stock prices. And, consistent with Alan Greenspan’s 1959 observation, as investor confidence improved, and as stock prices rose, a recovery in business and consumer optimism quickly followed.

Goldman Sachs has quantified the relationship between what is happening in financial markets and real economic activity by constructing a financial conditions index (FCI) and demonstrating that changes in this index unambiguously lead changes in economic activity. The linkage between the two is changes in investor, consumer and business sentiment which lead to spending and capital expenditures decisions.
However, in May growing evidence of slowing global growth, particularly in China, which has been a driver of global growth over the past couple of decades, and the escalation in the U.S. trade war with China accompanied by a breakdown in negotiations between the two countries, fostered another swoon in investor confidence, albeit not nearly as violent as what occurred in 2018 Q4. This time the Fed responded quickly with soothing words and again ratified its probable intent to ease monetary policy at the June FOMC meeting by extracting the word "patient" from its monetary policy statement and indicating that it was not concerned about inflationary pressures.

Once again investor sentiment was buoyed up and stock prices again rose to new highs.

These episodes demonstrate the importance of monetary policy in supporting favorable confidence. Abrupt and negative changes in confidence can lead quickly to recession, if not reversed.

But, monetary policy cannot cure underlying and fundamental imbalances in the U.S. and global economies. I described these imbalances at the beginning of the year and they are articulated in the paragraphs which follow with updated commentary about developments.

Accommodative monetary policy can delay the day of reckoning, but once imbalances become too great, monetary policy cannot by itself prevent recession. This lesson is clear from the experience of the Great Financial Crisis and Great Recession of 2007-09.

Moreover, accommodative monetary policy can have perverse effects if it prevents correction of imbalances and, worse, if it fosters an escalation in imbalances. That would appear to be the case today. One needs to look no further than Japan and Europe, both of which have had super-aggressive accommodative monetary policies for several years. Both are on the cusp of recession. And, there is doubt that monetary policy can continue to come to the rescue, as embodied in the quip that monetary policy may be out of ammunition or bullets.

Given all of this, it is natural to raise the question of when recession will occur and cleanse the economy of the imbalances that have been building. What we know is that accommodative monetary policy, through its favorable impacts on investor, consumer and business confidence, can support economic activity and extend an expansion for a very long time. The FOMC has been very clear that it sees its mission to support the economy in the short run and this view appears to be supported by beliefs of policymakers that the potential longer run consequences of
this approach to policy are not significant. This, of course, is debatable, but I am skeptical of this sanguine view.

What I can say, I believe with confidence, is that recession is not yet imminent. What I can also opine is that the day of reckoning is inevitable but the timing could be a long time in coming.

**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 collapse of U.S.-Chinese trade negotiations and the implementation of new and higher tariffs by both countries is expected to slow GDP growth in both countries in coming quarters. This risk remains but may have moderated somewhat because Presidents Trump and Xi agreed in late June to resume negotiations and delay implementation of additional tariffs. Monetary policy actions, Chinese stimulus, strong business and consumer confidence in the U.S. lessen this risk in the near term, but the U.S.-China trade war seems likely to reverse springtime’s more favorable developments. Although the labor market remains robust and consumer confidence is trending at cyclical high levels, other indicators, particularly in the manufacturing sector, continued to weaken progressively during Q2.

- **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. Low interest rates and easy access to credit are encouraging leverage and enabling weak competitors to remain in business.

- Leveraged loans and collateralized debt obligations (CLOs). This is a longer-term risk, which is worsening gradually, powered by investor appetite for yield and belief that risks are limited.

- 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 is contributing to slowing global economic growth. Uncertainty has led to slower growth in business capital expenditures.

- 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 75 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. The FOMC is likely to take its cue from the market and reduce interest rates by 25 basis points at the end of July. Additional cuts are possible later in the year. In spite of quantitative easing and negative interest rates, monetary policy remains tight in Europe and relatively ineffective in Japan. China has eased monetary policy.

- **Tightening financial conditions** — 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 tightened somewhat in May in response to the failed U.S.-Chinese trade negotiations, but eased again as it became apparent that the FOMC would probably cut interest rates. By early July financial conditions in the U.S. had returned to the level that existed during much of 2018 prior to Q4’s financial markets tempest. 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, although there is no evidence of this occurring. 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. The recent parliamentary election in Greece in which a centrist party ousted the incumbent populist party is a hopeful sign that populism may be receding as a political force.*

• 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. It is likely that Boris Johnson, a Brexit hardliner, will succeed her. However, this will not necessarily lead to a “no deal” Brexit but alternatively to Parliament’s acceptance of a slightly altered “May Plan” with an extended implementation time frame.*

• 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 is 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 are resolved, 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; in this regard, the weakness of Deutsche Bank is especially worrisome.*

• 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 31% through mid-April, reflecting investor optimism that policy would 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. Even though Presidents Trump and Xi agreed to recommence trade negotiations, the Shanghai stock market has trended sideways since...*
early May, perhaps because expectations for a favorable outcome to the renewed talks are low. Japan and many emerging markets economies have slowed, reflecting weaker Chinese growth. 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.

*Prices in U.S. stock markets continue to climb ever higher, spurred by low interest rates and the expectation that the FOMC will ease monetary policy.*

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. Although growth in economic activity in the U.S. is clearly slowing, the slowdown is from above potential to potential. The labor market is strong, consumer sentiment is at cyclical highs. As long as financial conditions do not tighten, and they are not likely to do so as long as the FOMC eases monetary policy, recession is not likely to occur.

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. Î Outlook – July 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.

July: global growth is clearly weakening and policy responses have yet to shift momentum in a more favorable direction. In the U.S. the manufacturing sector has slowed to stall speed. Slowing global growth and increased uncertainty has led to a slowing in business investment growth and housing investment continues to languish. Employment growth remains strong and unemployment continues to decline below the natural rate. However, the rate of growth, particularly as measured by total hours worked, is slowing gradually, a trend that seems likely to continue. The slowdown in the rate of growth in total hours worked is occurring and a slowing in the recent acceleration in wage rates is possible. And as this occurs, growth in consumer spending, which accounts for nearly 70% of GDP will also gradually slow. The slowdown in consumer spending could accelerate, if consumer sentiment wavers, but recent survey data indicate strong consumer optimism. Overall, the portrait that recent economic data are painting is one of continued strong economic activity in the U.S. which is gradually slowing to the underlying long-term potential rate of growth. For the time being the risk of recession remains minimal.

- 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 July 16th, averaging -11 basis points

✓ Duke CFO survey 2019 Q2: 48% expect recession to begin by 2020 Q2, up from 38% in 2019 Q1; 69% expect recession to commence by the end of 2020

✓ Leading Economic Indicators (LEI) index was flat in January; +0.1% in February; +0.4% in March to 111.9; +.2% in April to 112.1 (revised in May to 111.8); unchanged in May at 111.8, a mildly favorable trend 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

✓ Financial conditions, which spiked in 2018 Q4, have eased gradually during 2019 to the level that prevailed during Q2 and Q3 2018; easier financial conditions are correlated with stronger growth in economic activity

✓ Evercore ISI’s mid-July survey of retailers, industrials, and real estate builders, indicated record high inventories; industrials which especially high; companies will focus over Q3 and Q4 in bringing inventories down and this will depress real GDP growth

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 = 2.5%; Bill’s original BASE scenario = 2.47%, revised = 2.68%; Bill’s original STRONG GROWTH scenario = 2.53%, revised = 2.69%

Final Q1 GDP annualized growth = 3.1%; however, netting out growth in inventories and slowing growth in imports reduced the final estimate of GDP to 1.6%, which is a more reliable indicator of the fundamental trend in GDP growth.

- 2019 Q2 estimate: GS = 1.4%, forecast depressed by weaker business and residential housing investment and expectation that inventory levels are excessive and correction will depress Q2 growth, but boosted by strong consumer spending; B of A = 1.7%, boosted by more favorable trade balance and stronger construction.

### Composition of 2019 and 2018 Quarterly GDP Growth

<table>
<thead>
<tr>
<th></th>
<th>First Quarter 2019 Advance Estimate</th>
<th>First Quarter 2019 Preliminary Estimate</th>
<th>First Quarter 2019 Final Estimate</th>
<th>Fourth Quarter 2018 Final Estimate</th>
<th>Third Quarter 2018 Final Estimate</th>
<th>Second Quarter 2018 Final Estimate</th>
<th>First Quarter 2018 Final Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Consumption</strong></td>
<td>.82%</td>
<td>.90%</td>
<td>.62%</td>
<td>1.66%</td>
<td>2.37%</td>
<td>2.57%</td>
<td>.36%</td>
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<tr>
<td><strong>Private Investment</strong></td>
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<tr>
<td>Nonresidential</td>
<td>.38%</td>
<td>.31%</td>
<td>.61%</td>
<td>.73%</td>
<td>.35%</td>
<td>1.15%</td>
<td>1.47%</td>
</tr>
<tr>
<td>Residential</td>
<td>-.11%</td>
<td>-.13%</td>
<td>-.08%</td>
<td>-.18%</td>
<td>-.14%</td>
<td>-.05%</td>
<td>-.14%</td>
</tr>
<tr>
<td>Inventories</td>
<td>.65%</td>
<td>.60%</td>
<td>.55%</td>
<td>.11%</td>
<td>2.33%</td>
<td>-1.17%</td>
<td>.27%</td>
</tr>
<tr>
<td>Net Exports</td>
<td>1.03%</td>
<td>.96%</td>
<td>.94%</td>
<td>-.08%</td>
<td>-1.99%</td>
<td>1.22%</td>
<td>-.02%</td>
</tr>
<tr>
<td>Government</td>
<td>.41%</td>
<td>.42%</td>
<td>.48%</td>
<td>-.07%</td>
<td>.44%</td>
<td>.43%</td>
<td>.27%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3.18%</td>
<td>3.06%</td>
<td>3.12%</td>
<td>2.17%</td>
<td>3.36%</td>
<td>4.15%</td>
<td>2.31%</td>
</tr>
<tr>
<td><strong>Final Sales</strong></td>
<td>2.53%</td>
<td>2.46%</td>
<td>2.57%</td>
<td>2.06%</td>
<td>1.03%</td>
<td>5.32%</td>
<td>2.04%</td>
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<tr>
<td><strong>Private</strong></td>
<td>2.12%</td>
<td>2.04%</td>
<td>2.09%</td>
<td>2.13%</td>
<td>.59%</td>
<td>4.89%</td>
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<tr>
<td><strong>Private Domestic</strong></td>
<td>1.09%</td>
<td>1.08%</td>
<td>1.15%</td>
<td>2.21%</td>
<td>2.58%</td>
<td>3.67%</td>
<td>1.79%</td>
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Year-Over-Year Growth Rates for Components of Real GDP

<table>
<thead>
<tr>
<th>GDP Component</th>
<th>First Quarter 2019</th>
<th>Fourth Quarter 2018</th>
<th>Third Quarter 2018</th>
<th>Second Quarter 2018</th>
<th>First Quarter 2018</th>
<th>Fourth Quarter 2017</th>
<th>Third Quarter 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Consumption</td>
<td>69.32%</td>
<td>2.71%</td>
<td>2.64%</td>
<td>2.65%</td>
<td>2.51%</td>
<td>2.48%</td>
<td>2.53%</td>
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<tr>
<td>Private Investment</td>
<td>18.28%</td>
<td>6.58%</td>
<td>6.96%</td>
<td>6.74%</td>
<td>6.29%</td>
<td>5.84%</td>
<td>5.26%</td>
</tr>
<tr>
<td>Nonresidential Residential</td>
<td>3.23%</td>
<td>-1.03%</td>
<td>-2.33%</td>
<td>1.47%</td>
<td>2.08%</td>
<td>2.42%</td>
<td>3.34%</td>
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<tr>
<td>Inventories</td>
<td>3.06%</td>
<td>122.4%</td>
<td>100.4%</td>
<td>-12.0%</td>
<td>114.5%</td>
<td>203.7%</td>
<td>-3.7%</td>
</tr>
<tr>
<td>Net Exports</td>
<td>-4.89%</td>
<td>4.79%</td>
<td>6.45%</td>
<td>6.53%</td>
<td>5.95%</td>
<td>8.68%</td>
<td>9.21%</td>
</tr>
<tr>
<td>Exports</td>
<td>13.70%</td>
<td>3.54%</td>
<td>3.94%</td>
<td>4.56%</td>
<td>4.20%</td>
<td>3.45%</td>
<td>3.02%</td>
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<tr>
<td>Imports</td>
<td>-18.58%</td>
<td>3.87%</td>
<td>4.59%</td>
<td>5.06%</td>
<td>4.65%</td>
<td>4.76%</td>
<td>4.56%</td>
</tr>
<tr>
<td>Government</td>
<td>17.06%</td>
<td>1.80%</td>
<td>1.51%</td>
<td>1.11%</td>
<td>.45%</td>
<td>.14%</td>
<td>.07%</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>3.04%</td>
<td>2.88%</td>
<td>2.73%</td>
<td>2.57%</td>
<td>2.38%</td>
<td>2.22%</td>
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<tr>
<td>Final Sales</td>
<td>99.64%</td>
<td>2.84%</td>
<td>2.76%</td>
<td>2.76%</td>
<td>2.51%</td>
<td>2.26%</td>
<td>2.22%</td>
</tr>
<tr>
<td>Private</td>
<td>82.58%</td>
<td>3.05%</td>
<td>3.02%</td>
<td>3.10%</td>
<td>2.95%</td>
<td>2.72%</td>
<td>2.72%</td>
</tr>
<tr>
<td>Private Domestic</td>
<td>87.47%</td>
<td>3.15%</td>
<td>3.21%</td>
<td>3.29%</td>
<td>3.11%</td>
<td>3.03%</td>
<td>3.05%</td>
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</tbody>
</table>

✓ 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 = 1.6%; June = 1.1%

- Chicago Fed National Activity monthly Index (3-month trend) indicates that economic activity is decelerating to a below trend pace: December = -.01 (.07); January = -.18 (.02); February = -.64 (-.28); March = +.02 (-.27); April = -.48 (-.37); May = -.05 (-.17) (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 (revised in May to 111.8); unchanged in May at 111.8, a mildly favorable trend that suggests U.S. growth is likely to decelerate in coming months to its potential long-term trend level
# Real GDP Growth Forecasts

(year-over-year average)

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<tbody>
<tr>
<td>Actual</td>
<td>2.88</td>
<td>1.57</td>
<td>2.22</td>
<td>2.88</td>
<td>1.73</td>
<td>1.70</td>
<td>1.70</td>
<td>1.70</td>
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</tr>
<tr>
<td>B of A</td>
<td></td>
<td>2.44</td>
<td>1.60</td>
<td>1.85</td>
<td>1.73</td>
<td>1.70</td>
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<tr>
<td>GS</td>
<td>2.48</td>
<td>2.16</td>
<td>2.13</td>
<td>1.84</td>
<td>1.50</td>
<td>1.50</td>
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<tr>
<td>IHS Markit</td>
<td>2.70</td>
<td>2.10</td>
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<tr>
<td>Economy.com</td>
<td>2.60</td>
<td>1.70</td>
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<tr>
<td>Blue Chip Average</td>
<td>2.60</td>
<td>1.90</td>
<td>1.70</td>
<td>1.90</td>
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<tr>
<td>CBO</td>
<td>2.72</td>
<td>1.89</td>
<td>1.59</td>
<td>1.60</td>
<td>1.68</td>
<td></td>
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<tr>
<td>FOMC High*</td>
<td>2.20</td>
<td>2.20</td>
<td>2.00</td>
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<tr>
<td>FOMC Low*</td>
<td>2.00</td>
<td>1.80</td>
<td>1.80</td>
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## Bill’s Scenarios

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</thead>
<tbody>
<tr>
<td>BASE</td>
<td>2.68</td>
<td>2.05</td>
<td>1.88</td>
<td>1.89</td>
<td>1.94</td>
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<tr>
<td>STRONG GROWTH</td>
<td>2.69</td>
<td>2.14</td>
<td>2.00</td>
<td>2.01</td>
<td>2.08</td>
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</table>

*Q4 to Q4 is sensitive to specific Q4 values and may diverge from year-over-year trend.

- **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 = .98%**
  - **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 = 2.06% (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%

- **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 = 164,000; B of A original = 178,000, revised = 129,000; Bill’s BASE original = 177,500, revised = 151,083.

- January 2019 payroll = 312,000; February = 56,000; March = 153,000; April = 216,000; May = 72,000; June = 224,000; YTD monthly average = 172,167; (notice the month-to-month volatility, but the monthly average is within the forecast range).

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; June = 248,000; YTD monthly average = 91,333; (household monthly average tracking considerably below payroll monthly average – the two measures should converge over time).
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 = 33.5%; June = 27.6%

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 = 62.8; July 12th = 63.1

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%; April = 62.80%; May = 62.83%; June = 62.92%; average YTD = 62.99%; 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%.

- 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 decrease in the number unemployed; March = 3.8%; April and May = 3.6%; June = 3.7%

+ 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 219,000 in the week ending July 6th
U-3 and U-6 Unemployment Rates

LT (>26 weeks) and ST (<26 weeks) Unemployment Rates

Source: Bureau of Labor Statistics
• **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 = 3.15%; June = 3.20%
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%; June = 3.30%
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 = 70.2; July 12th = 72.1

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%; June = 3.0%

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%; May = 3.7%; June = 3.9%

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 = 4.77%; March = 4.67%; April = 4.57%; May = 4.50% (12-month moving average); data revisions reduced growth; trend is decelerating and below forecast range

**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 = 4.87%; February = 4.84%; March = 4.84%; April = 4.82%; May = 4.77% (12-month moving average); spending growth is slowing slightly, but above income growth, which means the saving rate is declining
Real Personal Consumption Growth Rate Forecasts

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<td>2.82</td>
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<tr>
<td>B of A</td>
<td></td>
<td>2.39</td>
<td>1.91</td>
<td>1.95</td>
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<td>1.71</td>
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<td>BASE</td>
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<td>2.96</td>
<td>2.59</td>
<td>2.11</td>
<td>2.16</td>
<td>2.14</td>
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</table>

- **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 = 16.37 million; May = 17.40; June = 17.29; average YTD = 16.91
  - 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 2.3% in the month of December, reflecting adverse impacts of financial market volatility, rebounded 1.6% in January, fell 0.7% in February, adversely impacted by delays in tax refunds; rose 2.0% in March, rose 0.3% in April and May; and rose 0.4% in June
  + The quarterly YoY average annual growth rate: January = 2.4%; February = 1.7%; March = 2.6% April = 3.0%, May = 3.4%, and June = 3.2%; financial market turmoil in 2018 Q4 and its impact on consumer confidence were major factors in the spending slowdown in January and February; financial markets improved in January and February and this helped boost spending growth in March, April, May and June
  ✓ 38% of retailers reported in mid-July that inventories were “too high” or “a little too high” compared to 15% that indicated that inventories were “a little too low” or “too low”; this large gap of 23%, 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 = 131.3, reflecting improvements in both the current conditions and expectations components; June = 121.5, reflecting declines 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; June = 98.2 (decline in expectations outweighed increase in current conditions)
  ✓ Bloomberg = 59.6 in December 2018; January = 58.2; February = 61.0; March = 62.1; April = 60.4; May = 60.8; June = 62.6; July 6\textsuperscript{th} = 63.8 (highest since 2000 and close to a record high)
+ Evercore ISI = 54.5 in December 2018; January = 54.2; February = 53.2; March and April = 54.2; May = 53.4; June = 53.4; July 12th = 53.5
✓ 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%; May = 5.2%
  + 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%; May = 4.2%
  + Non-revolving credit 12-month moving average: December 2018 = 5.3%; January = 5.3%; February = 5.4%; March, April, and May = 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 = 6.83%; February = 7.11%; March = 6.19%; April = 6.11%; May = 6.15%; YTD = 6.48%
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 2% (revised down from 4%) from $162 in 2018 to $165.83 (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%; May = -1%; June = -7%
- Stock prices YTD: January = 7.9%; February = 11.1%; March = 13.1%; April = 17.5%; May = 9.8%; June = 17.3%; July 16<sup>th</sup> = 19.8% (record high for S&P 500 on July 15<sup>th</sup>)

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); June = 51.7
(new orders sub-index declined to 50.0, but production and employment increased)

+ 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); June = 55.1 (new orders and employment softened)

+ NFIB optimism index = 104.4 in December; January = 101.2; February = 101.7; March = 101.8; April = 103.5; May = 105.0; June = 103.3

+ GS analyst index = 61.3 in December; January = 67.9; February = 59.0; March = 53.2; April = 53.5; May = 49.2 (contraction, but equates to trend growth and a composite manufacturing and non-manufacturing PMIs of approximately 53 – extreme weakness in new orders and shipments in May and June); June = 50.3

☑ 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: 2018Q4 = 66.4; 2019Q1 = 64.6; 2019Q2 = 65.7 (50 dividing line between expansion and contraction

☑ 64% of industrial companies reported in mid-July that inventories were “too high” or “a little too high” compared to only 7% that indicated that inventories were “too low”: the gap of 57% is a record high and implies that a major liquidation of inventories will occur in coming months and this will depress economic activity in Q3 and perhaps Q4

• **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%; May = 109.6, up 1.8%; June = 109.6, up 1.4%

• **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 = 78.5; March = 78.4%; April = 77.9%; May = 78.1%; June = 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 = 4.4%
  - GS original 2019 forecast = 3.3%; revised = 2.9%; (forecast update reduced because of expected impacts of the trade war with China); (GS’s capital expenditures tracker has eased from nearly 10% to 3.5% in the past year)
  - B of A original 2019 forecast = 3.5%; revised = 3.4%

*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; June = 55.3; July 12th = 54.6 (expansion continues, but at a decelerating rate)
  - NFIB net percentage planning to increase capital spending in next three to six months: December 2018 = 25%; January = 25%; February, March and April = 27%; May = 30%; June = 26%
  - NFIB percentage reporting making capital outlays in the past six months: December 2018 = 61%; January = 60%; February = 58%; March = 60%; April = 58%; May = 64%; June = 54%
  - 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.

Real Private Investment (Residential and Nonresidential) Growth Rate Forecasts

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Bill’s Scenarios

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**Real private investment = 2.41% for 1999-2019**

- 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 = -2.0%
+ GS 2019 original housing investment forecast = -2.1%; revised = -1.0% with improvement in the second half of 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 housing investment forecast = -1.3%; revised = -1.8%
+ 2018 housing starts = 3.2% (single family = 2.3%; multi-family = 5.4%)
+ GS housing starts 2019 original forecast = -0.7%; revised = 3.2%
+ B of A housing starts 2019 original forecast = 2.9%; revised = 2.1%
+ Bill’s BASE housing starts 2019 original scenario = -6.4%; revised = -1.5%
+ 12-month moving average change in housing starts: May = -3.0%
+ The NAHB December 2018 housing index = 56 (value greater than 50 means is favorable); January = 58; February and March = 62; April = 63; May = 66; June = 64, July = 65, 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 = 54.9; July 12th = 53.7 (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, declined in March and April, and rose in May; over the past 12 months sales of existing homes have declined -1.1%
+ New home sales were unchanged in 2018 from 2017; annual rate of change (12-month moving average): January = -1.6%; February, March, and April = -2.7%; May = -3.6%
+ 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
+ 43% of real estate builders reported in mid-July that inventories were a “little too high” compared to 29% that indicated inventories were a
“little too low”: this gap of 14%, while not extremely large, will be a head wind to real estate investment in coming months

- **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 decelerated to 5.0% in March; April = 5.3%
  - GS 2019 housing price **original** 2019 forecast = 3.1%; **revised** = 3.2%
  - B of A 2019 **original** housing price 2019 forecast = 3.2%; **revised** 2019 = 3.3%
  - Bill’s BASE scenario 2019 housing price forecast **original** = 2.2%; **revised** = 2.2%
  - S&P Core Logic Case Shiller national housing price index peaked at 6.5% in March 2018 and has trended down since then: January = 4.2%; February = 3.9%; March = 3.7%; April = 3.6%
  - S&P Core Logic Case Shiller 20-city housing price index: January = 3.5%; February = 2.9%; March = 2.6%; April = 2.5%

  ![Cumulative Real Housing Price Appreciation Relative to Long-Term Trend (1975-2019)](image)

- **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%; May = 3.02%
✓ Annual growth rates in both goods imports (9.7%) and exports (9.2%) peaked in October; annual growth in imports slowed to 5.1%, in May and growth in exports slowed to 3.8%, 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%; June = 2.1%; YTD change = -0.4%; (some analysts argue that the dollar is 10 to 15% overvalued)

- 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; June = $55; early July = $59; average YTD = $57

- 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.
  + 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 – two decreases in 2019 and two decreases in 2020 and 2021
+ **Original GS** – pause early in the year followed by 2 increases; **revised GS** – 2 decreases in Q3 2019 (July and September)
+ **Original B of A** – 2 increases in Q1 and Q2; **revised B of A** – 2 decreases in Q3 (September) and Q4 and a third decrease in early 2020

**Number of Federal Funds Rate Changes of 25 Basis Points**

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<th>2020</th>
<th>2021-23</th>
<th>Total</th>
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<td>0</td>
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<tr>
<td><strong>B of A</strong></td>
<td>-3</td>
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<td><strong>GS</strong></td>
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<td>-6</td>
<td>-3</td>
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*FOMC, B of A, GS and CBO rates are equilibrium estimates
#Bill’s estimates are forecasts which peak above the projected equilibrium rate

**Federal Funds Rate Forecasts**

While the FOMC did not change interest rates at its June 19th meeting, the policy statement dropped the word “patient,” which was a code language for a neutral monetary policy; in its place the FOMC said: “In light of these uncertainties and muted inflation pressures, the Committee will closely monitor the implications of incoming information for the economic outlook and will act as appropriate to sustain the expansion, with a strong labor market and inflation near its symmetric 2 percent objective.” In past statements, the term “monitor” has indicated an easing bias; since the meeting Chairman Powell testified before Congress and without saying so directly, his testimony and responses to questions convinced market participants that the FOMC will cut rates at the July 31st meeting.

Based on the minutes of the June 17th FOMC meeting and subsequent commentary from Fed officials, it is likely that the FOMC will terminate balance sheet shrinkage at the end of July rather than in September; earlier termination would have a moderately favorable impact on market liquidity.

- **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%; May = 1.80%; June = 1.66%
  - December 2018 total CPE = 1.76%; January = 1.37%; February = 1.32%; March = 1.48%; April = 1.56%; May = 1.52% (weaker than expected)
- GS total 2019 CPI original forecast = 1.6%; revised = 1.7%
- 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; July 12th = 1.92% (CPE equivalent = 1.62%)
- 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%; June = 2.3% (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%; May = 2.00% (core CPI is weaker than expected but should return to the forecast range by the end of the year); June = 2.13%
  - December core CPE = 1.95%; January = 1.79%; February = 1.65%; March = 1.54%; April = 1.62%; May = 1.60%
  - GS original core 2019 CPI forecast = 2.3%, revised = 2.2%; original core PCE = 2.0%; revised core PCE = 1.7%; (GS’s core CPE tracker has risen to 2.0%, implying prevalence of upside pressures on inflation, including the impact of tariffs on imported goods)
  - B of A core 2019 CPI original forecast = 2.2%, revised = 2.2%; core PCE original = 2.0%, revised = 1.8%
  - FOMC core 2019 PCE original forecast = 2.0% to 2.1%; revised = 1.9% to 2.0%

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**Core PCE Inflation Forecasts**

*annual percentage rate*
## Core PCE Inflation Forecasts

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### Bill’s Scenarios

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## Core CPI Inflation Forecasts

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*CPI total index; over the past 20 years core CPI has averaged 30 basis points higher than core CPE

- 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 **2.13% on July 16th**
  - 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 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 July 16\(^{th}\), averaging -11 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** = 1.9\%
- State and local investment spending grew 4.6\% 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

![Ten-Year Treasury Yield Forecasts](image-url)
strengthened); June = 59.5 (sales tax revenues weakened, particularly in states won by President Trump in the 2016 election)

Federal and State and Local Investment Spending Growth Rates

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Bill’s Scenarios

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*1999-2019 annual average growth rate = 1.43%

- 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 = 4.39%, 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 = 4.29%
- 12-month deficit-to-GDP ratio: January = 4.34%; February = 4.43%; March = 4.13%; April = 4.34%; May = 4.63%; June = 4.31%

![Federal Budget Deficit Forecasts](chart.png)
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 0.0% 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: July Assessment**: Global economic activity, which peaked in mid-2018, continues to slow in early 2019 ("+" indicates growth above potential or improving trend; "-" indicates growth below potential or worsening trend). 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** peaked at 100.67 in November and December 2017 and has declined steadily since then: December 2018 = 99.45; January = 99.32; February = 99.22; March = 99.14; April = 99.08; May = 99.03 (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%; June = 2.6%**

✓ 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%; June = 0.7%**

✓ 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%; June = 4.1%**

- **Economic activity slowed in Europe during the first quarter; Italy is in recession and growth was barely positive in Germany; Q2 is likely to be worse**

✓ 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; April = 50.4; May = 49.8 (contraction – declining new orders, exports and employment); June was also below 50**

✓ 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%; April = 50.4; slowing rate of expansion since August 2016; May = 49.8 (contraction – declining new orders, exports and employment); June was also below 50
✓ 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%; June = 0.8%; 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%; June = -0.7%; 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 and June = -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%; however, on the positive side, preliminary evidence
indicates that President Macron’s structural reforms may be having a beneficial impact on French economic activity

✓ 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; May = 1.0%
  ✓ B of A original total inflation forecast = 1.0%; revised = 1.3%
  ✓ GS core inflation forecast = 0.9%; total inflation = 1.3%
  ✓ Long-term inflation expectations: June 18th = 1.21%
  ✓ German 10-year bund: June 18th = -0.30%

- **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; the ECB is expected to announce additional easing at its upcoming meeting
  ✓ Yields on German 10-year bunds continue to decline and were -0.31% on June 24th

- **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, could elevate political uncertainty, particularly in Italy and Germany (there is no evidence yet that this risk is materializing); the U.K.’s “Brexit Party” won a plurality of votes cast in the U.K., 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%; June = -0.3%
  - 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%
  - 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%
  - 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%; 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%; June = 5.6%
- 2018 growth = 6.6%; however Q4 2017 to Q4 2018 growth = 6.4%, indicating a modest slowing
  + 2019 Q1 YoY growth = 6.4%; Q2 YoY = 6.2%; however, June data were strong, which may signal that stimulus is having a favorable impact on economic activity
  - Export and import growth has weakened, reflecting in part U.S. tariffs
  + 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 31% on April 17th; 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 declined 16% as it became clear that a trade deal between the U.S. and China might not occur.

- 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 expected 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%; June = -0.6%
  - 2019 Q1 GDP = 2.1%, an apparently strong performance, but was actually much weaker due to a substantial decrease in imports.
  + Employment was 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; machine tool orders plunged 42% in June from the 2018 peak.
  - 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; measures of wage growth have weakened during 2019
- Odds of recession starting in 2019 are increasing and Q2 data may indicate negative growth
  ✓ Value Added Tax is scheduled to be raised from 18% to 20% in October and could adversely impact consumer spending and assure recession
  ✓ Trade tensions between Japan and South Korea are elevated but economic consequences are uncertain
  ✓ 2019 inflation forecast = 0.4%

- **India** should continue to experience relatively strong real GDP growth in a range of 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%; June = 6.5%
  ✓ 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%; June = 4.1%

- **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%; June = 0.1%
  - 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%; June = -0.2%

• **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 and to date has been unsuccessful in forcing regime change
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 2.7%

- **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 six 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, was stable in May, and rose slightly in June)
• 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 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, May, and June

• 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, was stable in May at the top end of the forecast range, and was slightly above the forecast range in June

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

• 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, April and May 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, April and May was slightly above the forecast range, but is a gradually decelerating trend; 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 June that expectation is unfolding; the 12-month moving average rate of growth has decelerated from 2.5% in May 2018 to -1.1% in June 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 3.1% in May 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, improved in February, March, April, and May, and were mixed in June

• **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 realized**, the saving rate for the first five months of 2019 was slightly below 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 June and hit a new all-time high on July 3rd: price gains remain substantially above the 2019 forecast range

• **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 six months of the year were small, some stronger, but most slightly weaker; growth in manufacturing activity is decelerating, but services remain strong

• **Industrial production** rises less than expected.
  + **Risk realized**, through May industrial production was slightly lower than in December
• **Capacity utilization** falls.
  + **Risk realized**, capacity utilization was lower in May than in December

• **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**, business investment increased above the forecast range in Q1, but trade uncertainty and slowing global growth will slow growth during the remainder of 2019 to the bottom end of the forecast range

• **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, March and April and are within the forecast range

• **U.S. trade deficit** does not widen as much as expected.
  - **Risk not realized**, trade deficit in January, February, March and April was slightly below the forecast range, but edged above the bottom end of the forecast range in May

• **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, decreasing 0.4% YTD through June

• **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, April and May and have averaged slightly above the top end of the forecast range over the first six months of the year

- **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 early in the year; it will be patient and any increase or decrease in interest rates will depend on the strength or weakness of incoming data; the word “patient” was removed from the June policy statement, which may have set the stage for a rate decrease in July or September
  - The market expects two cuts in the federal funds rate by the end of the year and two more cuts in 2020 and 2021
  - 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; sagging inflation expectations may compel the FOMC to reduce rates
  - FOMC will end balance sheet shrinkage in September 2019 and this will relieve pressure on liquidity, but may accelerate the timing to August

- **Financial conditions** tighten and cause financial market volatility.
  - **Risk not realized**, on balance financial conditions have eased since the beginning of the year and have returned to the moderate level that prevailed prior to the 2018 Q4 “correction” in financial markets

- **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 well below the bottom end of the forecast range in May; 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 (just barely) the bottom end of the forecast range; the yield curve inverted slightly in late May and the inversion has persisted since then
• **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; because the suspension of the debt ceiling has lapsed, the Treasury is expected to run out of funds by early October; this sets up the potential for a political, and perhaps financial, crisis at the end of September

• **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; revenue growth eased slightly in May

• **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 early 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 economic activity continued to slow during Q2 and GS’s CAI for many countries fell below potential; growth in the volume of global trade fell to zero in May

- **Global risks to monitor in 2019**
  - U.S.-China trade war – will it be resolved amicably? Negotiations failed in early May, but Presidents Trump and Xi agreed in late June to resume talks; however, prospects for favorable resolution are not good
  - 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; Q1 GDP strength was attributable to inventory stockpiling in anticipation of Brexit on March 29th, this stockpiling will now depress GDP growth going forward as excess inventories are unwound; it is likely that Boris Johnson, known as a “hard Brexiter,” will succeed Theresa May as Prime Minister; however, a variation on May’s deal with the EU seems likely to be approved by Parliament, but with an extended transition date to avoid the consequences of a quick closing of the North Ireland border
  - 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; a military confrontation between the U.S. and Iran over the downing of a U.S. drone was averted

- 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 tops 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, notwithstanding Presidents Trump and Xi’s agreement to recommence talks, 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 has been focused on personnel decisions in the aftermath of the EU parliamentary elections, but a new confrontation between Italy’s government and the EC and a potential European banking crisis bear close watching as economic activity in the euro area continues to slow

- 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; Q2 growth slowed by was at the lower end of the forecast range
• **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 partially realized:** trade growth is decelerating in the U.S. and globally and this is depressing overall economic growth; however, protectionism has largely been confined to U.S. initiatives and direct foreign responses to those initiatives.

• **European growth** slows more than expected.
  + B of A expects growth to slow to 1.2% 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; June’s negative CAI implies that recession may have resumed during Q2
  ✓ **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; further monetary easing is expected during the summer in an attempt to head off recession in the euro area
  ✓ **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 ineffectual.

- 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.; following the U.S. lead, financial conditions eased again in June and early July

+ End of ECB balance sheet expansion comes at a time when growth is decelerating; expectations are rising that the ECB will resume asset purchases and may lower interest rates more deeply into negative territory

- 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 and 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; negative interest rates are eroding the financial ability of insurance companies and pension funds to meet beneficiary obligations – the consequences are not yet severe, but are accumulating steadily

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 failed repeatedly to get parliament to agree to an exit
plan from the EU; Boris Johnson, a Brexit hardliner, is expected to be named to head the Conservative Party, and will replace Theresa May as Prime Minister; Brexit deadline extended to October 31st; political fragmentation in the U.K. is an increasing threat and appears to be weighing negatively on economic activity
+ 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 during 2019, 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; the trade war with the U.S. appears to having an adverse impact – growth in both imports and exports has turned negative

- **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; Presidents Trump and Xi agreed to resume negotiations, so 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 31% by April 17th (Shanghai Composite Index); however, when the trade negotiations with the U.S. stalled and then collapsed, the stock market declined 13% by May 9th, although gains are still a positive 18% for the year through July 15th

- **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 and already be underway.

- 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, but rose again when tensions escalated between the U.S. and Iran).
  - Turkey’s economy contracted in 2018 Q3 and Q4, a rule of thumb for recession.
  - GDP growth in emerging economies is below potential and is gradually decelerating; 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 in May and both countries increased tariffs; talks resumed in late June and delayed imposition of additional tariffs; however, expectations for a favorable resolution are low.
  - 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, 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; for a moment in time following the downing of a U.S. drone it appears that this risk would be realized, but the threat was averted for now by President Trump’s decision not to retaliate; however Iran’s decision to continue development of nuclear weapons and the U.S. tightening of economic sanctions assures that tensions will remain high