The Longbrake Letter*
2019 Outlook – January Assessment
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2019 Outlook**:** As was the case in 2018, above potential economic growth continues to be a global theme. However, reflecting growth deceleration in the second half of 2018, over the course of 2019, global growth is expected to slow gradually and converge to its long-run potential level by the end of the year.

What economists refer to as "***tail risk,***" which is large deviations from generally anticipated outcomes, is unusually high as 2019 commences. While the consensus does not expect recession to commence during 2019, "tail risk" is significant and the probability of recession occurring in the U.S., and some other countries, is rising.

Specific outcome projections in this ***"Outlook"*** are tied to an overall assumption that growth slows gradually from 2018's significantly above potential pace but that no recession occurs. However, if recession does begin before the end of 2019, actual outcomes by the end of 2019 will differ considerably, and negatively, from projections.

At the beginning of 2019 in the case of the U.S., unemployment is 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 riming of recession and its severity.

There are significant risks facing the U.S. and global economies as 2019 commences:

- **The U.S. economy is operating above full capacity**. Based upon Congressional Budget Office (**CBO**) analysis, the U.S. economy enters 2019 operating about 0.35% above capacity on a four-quarter moving average basis. This is expected to grow to approximately 1.1% to 1.2% 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.*
- **Excessive corporate debt.**
- **Leveraged loans and collateralized debt obligations (CLOs)**
- **Deteriorating residential loan credit standards.**
- **Trade war.**
- **Tight monetary policy.**
- **Tightening financial conditions.**
- **Declining consumer, business, and investor sentiment.**
- **Escalating political uncertainty.**
- **Rise of populism and nationalism**
- **Brexit and the European Union**
- **Slowing growth – Italy, France and Germany**
- **Slowing growth – China, emerging markets.**

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 expected the U.S. economy to be in recession by the end of 2018 (that is not a misprint).
- Corporate CFO's are also gloomy – 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 19th out of 19 choices. In January 2019, recession risk ranked first.
- Over half of the economists polled by the Wall Street Journal expect recession to begin in 2020; 10% expect recession to begin in 2019.
- Goldman Sachs pegs recession odds at 15% in 2019, but notes that the market's probability is 50%

- Bank of America/Merrill Lynch recession model indicates a 10% to 20% chance of recession, but an alternative recession model, based upon financial markets measures, places the odds of recession in 2019 at approximately 40%

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>U.S.</u> – **<u>Outlook:</u>**

- ***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.
    - ✓ **B of A 2019 real GDP forecast = 2.5%; GS = 2.4%; Bill's BASE scenario = 2.47%; Bill's STRONG GROWTH scenario = 2.53;**
    - ✓ **GS Q1 estimate = 1.9%; B of A Q1 estimate = 2.2% but with downside risk because of the federal government shutdown**

- ✓ **GS's U.S. Current Activity Indicator (CAI), which is a proxy for real GDP growth, was 2.1% in December 2018, above GS's long-term potential level of 1.6%, but below its forecast 2019 GDP growth rate; January = 1.8%**

- *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 <u>positive</u> 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 estimated output gap was a positive 0.35%, indicating the economy was operating slightly above its potential**

- *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.

- *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.

- *Payroll and household employment* growth should slow during 2019 because employment is well above its long-tern 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 219,833 monthly in 2018; household employment grew 240,167 monthly during 2018**
  - ✓ **BLS will benchmark payroll employment in February which is likely to increase payroll employment growth in 2018 and reduce the gap with household employment growth**
  - ✓ **The Conference Board's difference between jobs plentiful and jobs hard to get was 34.6% in December 2018, which was the highest level ever recorded; it is likely to fall, perhaps substantially in 2019**
  - ✓ **Evercore ISI employee placement (average of temporary and permanent) index = 61.3 in December (a value above 50 indicates expansion); the index declined to 59.8 on January 18th, foreshadowing a slowdown in employment growth**

- *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**

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

- *Hourly wage* growth, reported by BLS for all employees and non-supervisory and production workers, should edge up slightly during 2018 to a range of 3.2% to 3.6%.
  - ✓ **Hourly wage growth for all employees (12-month moving average) was 2.85% in December 2018**
  - ✓ **Hourly wage growth for production and nonsupervisory employees (12-month moving average) was 2.83% in December 2018**
  - + **Evercore ISI employee pricing power (average of temporary and permanent) index = 68.6 in December (a value above 50 indicates increasing pricing power); employee pricing power = 69.0 on January 18th**
  - ✓ **GS's wage tracker was 3.04% in Q4 2018**
  - ✓ **The Atlanta Federal Reserve Bank wage tracker was 3.9% in November 2018**

- *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 an estimated 4.9% in 2018**

- *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 an estimated 4.9% in 2018**

- **Auto sales** should decline during 2019
  - ✓ **Auto sales averaged 17.15 million units during 2018**

- *Retail sales* growth should be stable or slightly slower during 2019
  - ✓ **Retail sales grew 4.1% through November 2018**
  - ✓ **B of A credit card data indicate that growth in retail sales slowed in December**

- *Consumer confidence* in 2019 should decline from historically high levels in 2018.
  - ✓ **Conference Board = 128.1 in December 2018**
  - ✓ **University of Michigan = 95.3 in December 2018; January preliminary = 90.7, which was worse than expected and a two-year low**
  - ✓ **Bloomberg = 59.6 in December 2018**
  - - **Evercore ISI = 54.5 in December 2018; January 18th = 54.1**

- *Consumer credit growth* should slow during 2018; however revolving credit growth could rebound from 2018's depressed level which was caused primarily by cuts in personal income taxes.
  - ✓ **Total consumer credit grew 4.4% through November 2018**

- ✓ **Revolving credit grew 2.5% through November 2018**
- ✓ **Non-revolving credit grew 5.1% through November 2018**

- *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 was 6.6% (through November)**

- *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 7% from $162 in 2018 to $174 in 2019**
  - - **Stocks prices were +6.5% YTD on January 18th**

- *Business activity* will weaken slightly but remain positive with both the PMI manufacturing and service indices averaging above 50.
  - ✓ **PMI manufacturing index = 54.1 in December 2018**
  - ✓ **PMI non-manufacturing (services) index = 57.6 in December 2018**
  - ✓ **NFIB optimism index = 104.4 in December**
  - ✓ **GS analyst index = 61.3 in December**

- *Industrial production* will increase in 2019 but at a slower rate than in 2018.
  - ✓ **The industrial production index was 109.9 in December 2018, up 4.1% over December 2017**

- *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 = 78.7% in December 2018**

- *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%).
  - ✓ **GS original 2019 forecast = 3.3%; revised = 3.4%**
  - ✓ **B of A 2019 forecast = 3.5%**
  - + **Evercore ISI capital goods index was 64.3 in December (acceleration above 50; deceleration below 50); it was 62.6 on January 11th**
  - ✓ **NFIB net percentage planning to increase capital spending = 25% in December 2018**
  - ✓ **NFIB percentage reporting making capital outlays = 61% in December 2018**

- *Business credit* growth should continue to expand near levels experienced in 2018, but credit spreads should widen.

- *Residential housing investment* should decline in 2019 in a range of 0% to -3%; housing starts should also rise in a range of -6.5% to +3.0%.
  - ✓ **GS 2019 <u>original</u> forecast = -2.1%; <u>revised</u> = -2.0%**
  - ✓ **B of A 2019 forecast = -1.3%**
  - ✓ **GS housing start forecast = -0.7%**
  - ✓ **B of A housing start forecast = 2.9%**
  - ✓ **Bill's BASE housing start scenario = -6.4%**
  - - **The NAHB December 2018 housing index = 56 (value greater than 50 means is favorable); January = 58**

- *Residential housing prices* should rise more slowly in 2019 in a range of 2**% to 4%.**
  - ✓ **GS 2019 housing price forecast = 3.1%**
  - ✓ **B of A 2019 housing price forecast = 3.2%**
  - ✓ **Bill's BASE scenario housing price forecast = 2.2%**

- *Trade deficit* should rise in 2019 in a range of -3.0% to -3.5%.
  - ✓ **December 2018 estimated trade deficit was -2.93%**

- 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%.
  - ✓ **Bill's 2019 BASE scenario estimate = 2.5%**

- *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 per barrel in December 2018**

- *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**
  - ✓ **Market forward yield curve – between no increases and one decrease**
  - ✓ **GS – pause early in the year followed by 2 increases**
  - ✓ **B of A – 2 increases**
  - ✓ **The Fed's January Beige Book, which surveys economic conditions in the 12 Federal Reserve districts, indicated weakening economic activity; scarcity of skilled labor and upside pressure on input costs continue to be concerns; ISI's diffusion index at -7.0 was the weakest for this report since 2012**

- *Total inflation* measures (CPI and CPE) will rise decline in 2019 as the impacts of the 2018 rise in energy prices falls out of the indices: total CPI will rise 1.6% to 1.8% and total CPE will rise 1.7% to 1.9%.
  - ✓ **December total CPI = 1.95%**

- ✓ **Estimated December total CPE = 1.82%**
- ✓ **GS total 2019 CPI _original_ forecast = 1.6%; _revised_ = 1.8%**
- ✓ **B of A total 2019 CPI forecast = 1.6%; total PCE = 1.7%**
- ✓ **FOMC total 2019 PCE forecast = 1.8% to 2.1%**
- ✓ **Market expected long-term CPI inflation rate, embedded in TIPS (Treasury Inflation Protected Securities) = 2.02% (approximately 1.72% CPE) in December 2018; January 16th = 2.00% (CPE equivalent = 1.70%)**
- ✓ **Consumer long-term expected CPI (University of Michigan Survey): December 2018 = 2.5%; January = 2.6% (this survey consistently reports higher inflation expectations than TIPS, so what is important to watch is directional changes in consumer expectations)**

- **Core inflation** (CPI and CPE) will rise slightly from 2018's level in response to an economy operating above full capacity: core CPI will rise 2.2% to 2.4% and core CPE will rise 1.9% to 2.1%.
  - ✓ **December core CPI = 2.21%**
  - ✓ **Estimated December core CPE = 1.84%**
  - ✓ **GS core 2019 CPI forecast = 2.3%; core PCE = 2.0%**
  - ✓ **B of A core 2019 CPI forecast = 2.4%; core PCE = 2.1%**
  - ✓ **FOMC core 2019 PCE forecast = 2.0% to 2.1%**

- 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 2.79% on January 18th**

- *Federal fiscal policy* involving tax cuts and spending increases will have a smaller favorable effect on real GDP growth during 2019 and by the end of the year the fiscal impulse will become modestly negative.
  - ✓ **Federal government investment spending is expected to increase 2.8% in 2018**
  - ✓ **GS federal government investment spending: _original_ 2019 forecast = 3.8%; _revised_ = 3.6%**

- *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 is expected to rise 1.0% or less in 2018**
  - ✓ **GS forecasts state and local government investment spending will increase 1.4% in 2019**

- 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.
  - ✓ **GS fiscal 2019 deficit forecast = 4.72%**
  - ✓ **B of A fiscal 2019 deficit forecast = 4.69%**
  - ✓ **CBO fiscal 2019 deficit forecast = 4.62%**
  - ✓ **Bill's BASE scenario fiscal 2019 deficit = 4.73%**
  - ✓ **November 2018 12-month deficit-to-GDP ratio = 4.22%**

2. **Rest of the World:** **December Assessment:** Global economic activity continued to be very strong in the first and second quarters of 2018, led by developed economies with strong passthrough benefits to emerging markets; growth is now slowing but remains above the full potential growth rate, nearly all global economies are growing faster than potential, which is not sustainable over the longer run. 2018 growth forecasts for most countries were raised during the first half of 2018. Recent data reports have been softer than expected in Europe and China, indicating that the global growth rate has peaked. A stronger dollar and increasing scarcity of dollar liquidity is putting stress on emerging markets.
    - ✓ **GS's 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%**
    - - **January CAI = 3.4%**
    - ✓ **CAI for major advanced economies was 1.7% in December 2018, and was decelerating, but still above the potential growth rate of 1.4%**
    - ✓ **CAI for emerging markets (which includes China) was 4.2%, and was decelerating and below the potential growth rate of 5.1%**

- *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 forecast = 3.6%**
    - ✓ **B of A 2019 global growth forecast = 3.5%**
    - ✓ **IMF 2019 global growth forecast = 3.7%**

- *Global inflation* is expected to fall from 3.2% in 2018 to 2.8% in 2019, reflecting slowing global growth.

- *European growth* will be slow to 1.4% (B of A) to 1.6% (GS) from 2018's 1.9% expected pace. Tighter monetary policy and political uncertainty pose downside risk to growth.
    - ✓ **Euro area CAI = 1.4% in December, and was decelerating, but well above potential growth of 1.0%**
    - ✓ **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**

- *European total inflation* in 2019 will remain decline from 1.7% in 2018 to 1.0% in 2019, 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.

- *European financial markets* should be volatile, reflecting rising political uncertainty, tighter monetary policy and financial conditions, and slowing economic growth.

- *European political dysfunction, populism and nationalism* will continue to build in many countries.

- *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%**

- *China's GDP growth* is expected to slow to a range of 6.1% (B of A) to 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.
  - ✓ **CAI = 5.5% in December 2018 and was decelerating; potential growth = 5.9%**
  - ✓ **2018 growth = 6.6%; however Q4 2017 to Q4 2018 growth = 6.4%, indicating a modest slowing**

- *China's leadership* will continue implementing *economic reforms* gradually; financial and political stability will be maintained.

- *Japan's* growth is expect to improve modestly from 0.7% in 2018 to a range of 0.9% (GS and IMF) to 1.1% (B of A) in 2019; total inflation is expected to fall from 1.1% (B of A) in 2018 to 0.4% in 2019 (B of A); core inflation is expected to rise from 0.4% in 2018 (GS) to 0.8% in 2018 (GS).
  - ✓ **CAI = 1.2% in December 2018, slightly above the potential growth rate of 0.9%**

- *India* should continue to experience relatively strong real GDP growth in a range of to 7.0% to 7.5% in 2019. A potential downside risk in 2019 is the defeat of Prime Minister Modi in parliamentary elections.
  - ✓ **CAI = 6.8% in December 2018; potential growth rate = 7.2%**

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

- *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%**

- ***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%.
  - ✓ **CAI = 2.4% in December 2018**

- ***Venezuela's*** economy continues to implode; regime change is unlikely, however, unless the military intervenes.

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.

- *GDP positive output gap* rises less than expected or turns negative; this is likely to happen only if recession occurs.

- *U.S. productivity* falls below the bottom end of the forecast range.

- *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.

- *Employment participation rate* falls below the bottom of the forecast range rather than remaining relatively stable or rising modestly.

- *U.S. unemployment rate* rises above the forecast range; this is likely only if recession occurs.

- *U.S. hourly wage rate growth* is lower or higher than the forecast range; lower wage growth is the more serious risk.

- *Nominal U.S. consumer disposable income* increases less or more than expected; a less than expected increase is the more serious risk.

- *Nominal U.S. consumer spending* increases less or more than expected; a less than expected increase is the more serious risk.

- *Auto sales* are less than expected.

- *Retail sales growth* is lower than expected.

- *Measures of consumer confidence* drop substantially.

- *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.

- *U.S. stock prices* fall more than or rise more than the forecast range.

- *U.S. business activity* contracts or expands more than expected; contraction is the more serious risk.

- *U.S. private business investment* does not improve as much as or more than expected; falling short of expectations is the more serious risk.

- *Industrial production* rises less than expected.

- *Capacity utilization* falls.

- *Business investment* grows more than or less than the forecast range; less than is the greater risk.

- *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.

- *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.

- *U.S. trade deficit* does not widen as much as expected.

- *Value of the dollar* falls rather than remaining stable or rising modestly.

- *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.

- *U.S. monetary policy* tightens more than 50 basis points, spawns financial market uncertainty and contributes to global financial instability.

- *Financial conditions* tighten and cause financial market volatility.

- *U.S. inflation* falls or rises more than expected.

- *U.S. long-term interest rates* fall _or_ rise more than expected.

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

- *State and local investment spending* increases less than expected; this would be indicative of slower than expected growth or recession and falling tax revenues.

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- ***Federal budget deficit*** increases more than expected.

4. **Global Risks –** stated in the negative relative to the forecast; **"+" risk realized**; **"-" risk not realized**

- *Global GDP growth* slows more than expected.

- *Global trade* declines as the U.S. and other countries pursue protectionist policies.

- *European growth* slows more than expected.

- *Europe* – financial conditions tighten more than expected, financial market volatility escalates and the ECB's monetary policy is relatively ineffectual.

- *Europe* – political instability and social unrest rises more than expected threatening survival of the Eurozone and the European Union.

- *UK* political instability escalates leading to new parliamentary elections and worse than expected economic performance.

- *China's growth* slows more than expected.

- *China's trade war with the U.S.* worsens and adversely impacts global growth.

- *Japan's* economic growth slows more than expected.

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

- Severe and, of course, unexpected *natural disasters* occur, which negatively impact global growth.

- **Global trade war** threatens global economic growth