# Yardeni Research, Inc.



## MORNING BRIEFING February 26, 2018

### Fed on Inflation Watch

See the collection of the individual charts linked below.

(1) Panic attacks come and go. (2) Was the 60th panic attack really a correction since it was so short? (3) Wish came true for correction hunters. (4) The latest flash crash was an abridged version of Black Monday (October 19, 1987). (5) No sign of imminent recession in LEI or CEI. (6) Growth rate of CEI suggests real GDP growth remains around 2% y/y. (7) No boom, no bust. (8) Will the Bond Vigilantes spoil the party? (9) Bond yields are normalizing. (10) Fed officials rooting for inflation to rise to their 2% target. (11) Fed staff conceding macro inflation models aren't working, yet Fed officials continue relying on them.

**Strategy I: Downs & Ups.** Since the start of the current bull market, Joe and I didn't see most of the panic attacks coming, but we did see them going. In other words, once they got started, we argued that they would pass and be followed by relief rallies rather than turn into a bear market. The latest selloff was the 60<sup>th</sup> panic attack by our count. It was among the worst in terms of the magnitude of the downdraft, but it also was among the shortest in duration. It was the fourth correction in the current bull market, with the S&P 500 down 10.2%, slightly exceeding the 10.0% threshold for corrections, but it lasted just 13 days through February 8. (See our <u>S&P 500 Panic Attacks Since 2009.</u>)

Since their January 26 record highs, the S&P 500 is now down 4.4% and the Nasdaq is down only 2.2% (*Fig. 1* and *Fig. 2*). Why the roundtrip? There was an inflation scare on February 2, when wage inflation showed a sign of picking up. That triggered a selloff that was exacerbated by some cockamamie algorithm-driven ETFs. Some investors who had been praying for a correction to provide a buying opportunity swooped in to buy stocks in recent days. The ones who did so apparently aren't overly concerned that inflation will take off, forcing the Fed to raise rates more quickly, which could trigger a jump in bond yields.

The 10-year Treasury bond yield has risen to 2.88% on Friday, up from 2.38% a year ago (<u>Fig. 3</u>). Inflationary expectations based on the spread between the 10-year Treasury and TIPS yields edged up to 2.1% on Friday, up from 2.0% a year ago (<u>Fig. 4</u>). So what's the big deal?

The latest correction was reminiscent of the 1987 crash. But that was a bear market, with the S&P 500 plunging 20.5% on Black Monday, October 19, 1987. Then too the selloff was triggered by rising bond yields (among other fundamental factors) and turned into a flash crash by so-called "portfolio insurance." But it took several months for the stock market to recover, even though corporate earnings continued to rise despite the stock market's swoon. If the latest flash crash is over already, then the next bear market in stocks will occur when the economy falls into a recession rather than when another flash crash triggers it. Now consider the following:

(1) Leading Indicators. As Debbie reviews below, there's no sign of an imminent economic downturn in the Index of Leading Economic Indicators (LEI), which rose 1.0% m/m during January to a new record high (<u>Fig. 5</u>). Interestingly, it has been in record-high territory just for the past 11 months. During the previous five economic expansions, the LEI remained in record territory for 38 months on average, ranging between 7 months and 89 months.

(2) Coincident Indicators. Also worth noting is that while the Index of Coincident Economic Indicators (CEI) has been in record-high territory since February 2014, its y/y growth rate continues to meander around 2.0%, along with the growth rate of real GDP (*Fig. 6*). In other words, it's still slow but steady growth. There's no boom in the CEI, which reduces the risk of a bust. Even the Atlanta Fed's <u>GDPNow</u> forecast for Q1 growth has been revised down from over 5.0% a few weeks ago to 3.2%. Our mantra is: "No boom, no bust."

**Strategy II: Bond Vigilantes as Spoilers.** As noted above, the latest correction was more like a flash crash than a bona fide correction. However, whenever the market goes up or down, there always seems to be some plausible fundamental explanation. It may or may not be correct but nonetheless becomes the consensus view on the financial news programs. This time, the consensus instance analysis was a three-parter, with the Bond Vigilantes pushing yields up because they are upset that the Fed started tapering its balance sheet last October, recent fiscal policy initiatives widening the federal budget deficit to over a trillion dollars this year, and inflation potentially making a comeback soon.

As Debbie and I noted two weeks ago, the federal deficit, which was \$666 billion (there's that devilish number again!) during fiscal 2017, is set to widen again—back to over \$1.0 trillion this fiscal year and next—just as the Fed is set to reduce its holdings of US Treasury securities by \$180 billion this fiscal year and \$360 billion in fiscal 2019 (<u>Fig. 7</u> and <u>Fig. 8</u>). "It's no wonder that the Bond Vigilantes are getting agitated," we wrote.

We are predicting that the bond yield will be trading between 3.00% and 3.50% soon. However, we see that as a return to more normal levels after the bond yield had been repressed by the Fed for so long by the various QE programs. As we've argued before, in normal times (whatever that means), the bond yield should be trading close to the growth rate of nominal GDP, which was 4.4% during Q4.

Nevertheless, we don't see the bond yield rising above 4.00% because we believe that inflation will remain subdued. If we are wrong about that, then the combination of Fed balance-sheet tapering, widening budget deficits, and accelerating inflation certainly could rile the Bond Vigilantes into pushing up yields to the point of causing a recession. We think that remains a low-probability scenario, but we are aware of it and will be on the lookout for the posse of Bond Vigilantes. While we are doing so, we are keeping alert by listening to Aerosmith's 1976 song "Back in the Saddle."

**The Fed: Rooting for Inflation.** While the financial markets have started to worry about a reflation scenario, Fed officials continue to hope that inflation will rise in 2018 to hit their target of 2.0% for the core PCED rate. It was 1.5% last year on both a December-to-December and year-over-year basis.

The <u>minutes</u> of the January 30-31 meeting of the FOMC were released last week. The word "inflation" was mentioned 129 times. The word "unemployment" was mentioned just 13 times. However, that doesn't mean that Fed officials are worrying about higher inflation. Rather, they seemed to spend most of their time on the subject trying to convince one another that it should rise back up to 2.0% this year now that the economy is at full employment.

The FOMC has a tradition of starting the year with a "Statement on Long-Run Goals and Monetary Policy Strategy." They've been doing that since January 25, 2012. They've invariably expressed the following view that was repeated in the latest minutes:

"The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee reaffirms its judgment that inflation at the rate of 2 percent, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's

statutory mandate."

In fact, inflation, based on the core PCED, has been below 2.0% most of the time since 2008, even as monetary policy turned ultra-easy (*Fig. 9* and *Fig. 10*). The FOMC's confidence in the notion that inflation is mostly a monetary phenomenon in the long run begs the question: "Are we there yet?" Nope! If not, then why not? The answer could be that inflation isn't just a monetary phenomenon. There are powerful structural forces keeping it down, including competition unleashed by globalization, deflationary technological innovations, and aging demographics.

The latest FOMC minutes note that the Fed's staff presented "three briefings on inflation analysis and forecasting." Here are a few excerpts from the minutes rendition and our reaction:

(1) Inflation models are error prone. "The presentations reviewed a number of commonly used structural and reduced-form models. These included structural models in which the rate of inflation is linked importantly to measures of resource slack and a measure of expected inflation relevant for wage and price setting—so-called Phillips curve specifications—as well as statistical models in which inflation is primarily determined by a time-varying inflation trend or longer-run inflation expectations."

And how well have those models been working? "Overall, for the set of models presented, the prediction errors in recent years were larger than those observed during the 2001–07 period but were consistent with historical norms and, in most models, did not appear to be biased." We think that means: The models have worked terribly since 2007, but that's normal.

- (2) Resource utilization is hard to measure. Monetary policy presumably "influences" inflation by affecting resource utilization. "The briefings highlighted a number of other challenges associated with estimating the strength and timing of the linkage between resource utilization and inflation, including the reliability of and changes over time in estimates of the natural rate of unemployment and potential output and the ability to adequately account for supply shocks." In other words, the macro inflation models depend on variables that really can't be observed and measured.
- (3) Inflationary expectations are also hard to measure. The Fed also presumably can influence long-term inflationary expectations, which should drive actual inflation. "Moreover, although survey-based measures of longer-run inflation expectations tended to move in parallel with estimated inflation trends, the empirical research provided no clear guidance on how to construct a measure of inflation expectations that would be the most useful for inflation forecasting."
- (4) Insanity is using the same flawed models knowing they are flawed. No comment is necessary on the following: "Following the staff presentations, participants discussed how the inflation frameworks reviewed in the briefings informed their views on inflation and monetary policy. Almost all participants who commented agreed that a Phillips curve—type of inflation framework remained useful as one of their tools for understanding inflation dynamics and informing their decisions on monetary policy."

And what about long-term inflationary expectations? The minutes noted: "They [FOMC participants] commented that various proxies for inflation expectations—readings from household and business surveys or from economic forecasters, estimates derived from market prices, or estimated trends—were imperfect measures of actual inflation expectations, which are unobservable. That said, participants emphasized the critical need for the FOMC to maintain a credible longer-run inflation objective and to clearly communicate the Committee's commitment to achieving that objective." Groupthink continues to flourish at the Fed.

### **CALENDARS**

**US. Mon:** New Home Sales 600k, Dallas Fed Manufacturing Index, Chicago Fed National Activity Index. **Tues:** Durable Goods Orders, Total, Ex Transportation, and Core Capital -2.0%/0.4%/0,6%, Consumer Confidence 126.0, Advance Merchandise Trade Balance -\$71.3b, Richmond Fed Manufacturing Index 15.5, S&P Case-Shiller Home Price Index 0.7%m/m/6.3%y/y, FHFA Price Index 0.5%, Wholesale Trade Inventories 0.2%, Powell. (*Wall Street Journal* estimates)

**Global. Mon:** Draghi. **Tues:** Eurozone Economic Confidence 114.0, Germany CPI 0.5%m/m/1.5%y/y, Japan Industrial Production -4.2%m/m/5.2%y/y, Japan Retail Trade -0.6%m/m/2.5%y/y. (DailyFX estimates)

### STRATEGY INDICATORS

Global Stock Markets Performance (*link*): The US MSCI index rose 0.5% last week, ranking 15th out of the 49 markets in a week when 20 countries rose in US dollar terms and the AC World ex-US index was unchanged. That compares to 22nd a week earlier when 22 markets rose and the 4.3% gain for the AC World ex-US index was the best since March 2016. BRIC performed the best among regions for a second week with a gain of 2.0%, followed by EM Eastern Europe (1.9%), EM Latin America (1.7), EM Asia (1.5), and EMEA (1.3). The worst-performing regions were EMU (-0.9) and EAFE (-0.5). Jordan was the best-performing country with a gain of 4.9%, followed by Russia (3.9), Egypt (3.5), Taiwan (3.4), Chile (2.6), and Brazil (2.6). Of the 29 countries that underperformed the AC World ex-US MSCI last week, Hungary fared the worst, falling 4.4%, followed by New Zealand (-2.7), Ireland (-2.6), Greece (-2.1), and Italy (-2.0). On a ytd basis, the US MSCI improved to a 2.8% gain, and rose in the performance ranking last week to 22/33 from 27/33. The US MSCI still leads the AC World ex-US (1.4) in the ytd period, during which all regions and 38/49 countries are positive. EM Latin America has risen 11.8% ytd and leads EM Eastern Europe (10.2), BRIC (7.9), EMEA (7.6), EM Asia (3.6), and EMU (1.6). EAFE (0.7) is the only laggard relative to the AC World ex-US's performance.

**S&P 1500/500/400/600 Performance** (*link*): All three market-cap indexes rose again last week as LargeCap performed best with an increase of 0.6%, ahead of the gains for SmallCap (0.5%) and MidCap (0.2). MidCap is now down 4.6% from its record high on January 26, worse than the declines of LargeCap (-4.4) and SmallCap (-3.4) since then. Eighteen sectors rose in the latest week, down from all 33 rising in the prior week. The biggest gains in the latest week were recorded by MidCap Telecom (8.0), MidCap Energy (2.5), LargeCap Tech (1.9), SmallCap Tech (1.5), and MidCap Tech (1.4). The biggest decliners for the week: SmallCap Consumer Staples (-3.3), LargeCap Telecom (-2.4), LargeCap Consumer Staples (-2.2), MidCap Consumer Staples (-1.9), and SmallCap Telecom (-1.4). Despite the recent carnage, all three indexes are positive ytd again. LargeCap is now up 2.8% so far in 2018, ahead of SmallCap (1.1) and MidCap (0.2). Seventeen sectors are positive to date in 2018, up from just three in early February. The best-performing sectors ytd: SmallCap Health Care (10.2), LargeCap Tech (7.5), LargeCap Consumer Discretionary (7.2), MidCap Health Care (5.5), MidCap Tech (4.5), and LargeCap Financials (4.0). The worst performers ytd: SmallCap Real Estate (-11.0), MidCap Energy (-8.9), MidCap Real Estate (-8.5), SmallCap Utilities (-7.8), LargeCap Real Estate (-7.1), and LargeCap Telecom (-6.5).

**S&P 500 Sectors and Industries Performance** (*link*): Seven of the 11 sectors rose last week, but only four outperformed the S&P 500's 0.6% gain. That compares to all 11 sectors rising a week earlier, when three outperformed the S&P 500's 4.3% surge. Tech was the best-performing sector for a second week with a gain of 1.9%, ahead of Materials (1.2%), Energy (1.0), and Consumer Discretionary (1.0). Telecom (-2.4) was the biggest underperformer, followed by Consumer Staples (-2.2), Health Care (-0.1), Real Estate (0.0), Industrials (0.3), Financials (0.4), and Utilities (0.5). Six sectors are in the plus

column so far in 2018, up from just one sector two weeks earlier. These four sectors are ahead of the S&P 500's 2.8% ytd gain: Tech (7.5), Consumer Discretionary (7.2), Financials (4.0), and Health Care (3.1). The seven sectors that are underperforming the S&P 500 ytd: Real Estate (-7.1), Telecom (-6.5), Energy (-5.2), Consumer Staples (-4.9), Utilities (-4.8), Materials (1.2), and Industrials (2.2).

Commodities Performance (*link*): The commodities markets improved further last week from early February's selloff: 12 of the 24 commodities we follow moved higher for the week as the S&P GSCI commodities index rose 1.8%. That compares to a 3.5% gain in the prior week, its biggest since July 2017 as 20/24 commodities rose. Last week's strongest performers: Cotton (5.4%), Lean Hogs (4.7), Brent Crude (3.9), GasOil (3.6), and Heating Oil (3.4). Last week's biggest decliners: Aluminum (-3.2), Lead (-3.1), Feeder Cattle (-2.6), and Live Cattle (-2.2). The S&P GSCI commodities index is now up 2.1% ytd after having been up by as much as 4.7% ytd on January 26. The best performers so far in 2018: Cocoa (16.0), Kansas Wheat (13.5), Unleaded Gasoline (10.8), Soybeans (8.9), and Wheat (8.7). The biggest laggards of 2018 to date: Sugar (-11.2), Natural Gas (-10.0), Aluminum (-5.7), Heating Oil (-4.6), and Coffee (-4.1).

Assets Sorted by Spread w/ 200-dmas (link): Spreads between prices and 200-day moving averages (200-dmas) rose last week for 12/24 commodities, 7/9 global stock indexes, and 16/33 US stock indexes, compared to 18/24 commodities, 9/9 global stock indexes, and 33/33 US stock indexes rising a week earlier. Commodities' average spread rose w/w to 6.8% from 6.5%. Nineteen commodities trade above their 200-dmas, unchanged from a week earlier. Nickel leads all commodities and all assets at 22.6% above its 200-dma, but Cotton (12.4) rose 5.8ppts w/w for the best performance of all commodities. Nickel is followed by Crude Oil (19.3%), Unleaded Gasoline (19.0), and Brent Crude (16.3). Natural Gas trades at 10.4% below its 200-dma (tied with SmallCap Real Estate), the lowest of all assets. Lead (5.1) fell 3.9ppts w/w for the worst performance all commodities and indeed all assets. The global indexes trade at an average of 4.8% above their 200-dmas, up from 3.8% in the prior week. Seven of the nine global indexes trade above their 200-dmas, up from five a week earlier. Brazil (20.5) still leads the global indexes and rose 3.0ppts w/w for the best performance among them. The UK (-2.8) trades the lowest among its country peers as it dropped 0.6ppt for last week's worst performance among global indexes. The US indexes trade at an average of 3.2% above their 200-dmas, with 21 of the 33 sectors above, up by hair from 3.1% a week earlier, when 24 sectors were above. SmallCap Health Care (16.8) still leads all US stock indexes relative to their 200 dmas, followed by LargeCap Financials (10.9) and SmallCap Industrials (8.4). Among the US stock indexes, SmallCap Real Estate (-10.4) trades the lowest, followed by MidCap Real Estate (-7.5) and MidCap Telecom (-6.8), which rose 7.5ppts for the best performance among US stock indexes and all assets.

**S&P 500 Technical Indicators** (*link*): The S&P 500 price index improved relative to its short-term 50-dma and long-term 200-dma trend lines last week. While the index remained in a Golden Cross (50-dma higher than 200-dma) for a 95th straight week (after 17 weeks in a Death Cross), the index's 50-day moving average (50-dma) relative to its 200-dma dropped for a third week to 6.8% from 6.9% and is down from a 55-month high of 7.2% in early February. This Golden Cross reading compares to a four-year low of -4.5% in March 2016. The S&P 500's 50-dma rose w/w for a second week after falling a week earlier for the first time since mid-August, but the 200-dma continued to rise as it has done since May 2016. The index improved to 0.4% above its rising 50-ma from 0.1% a week earlier, which compares to a two-year low of 3.8% below its falling 50-dma in early February and is down from a two-year high of 6.2% on January 29. The S&P 500 improved to 7.2% above its rising 200-dma from 7.0%, which is up from 2.9% in early February (the lowest since the election). However, it's still down from a seven-year high of 13.5% on January 29. That compares to a prior post-election low of 3.0% in mid-August and a four-year low of -10.1% in August 2015.

**S&P 500 Sectors Technical Indicators** (*link*): Last week saw eight of the sectors strengthen relative to

their 50-dmas, but just six improved relative to their 200-dmas. Four sectors (Consumer Discretionary, Financials, Industrials, and Tech) now trade above their 50-dmas, with that number unchanged from the prior week as Industrials turned positive and Health Care turned negative. Utilities was below its 50dma for an 11th week, and Real Estate was below for a tenth week. The longer-term picture—i.e., relative to 200-dmas—shows seven sectors trading above, down from eight a week earlier as Energy turned positive w/w and two turned negative, Consumer Staples and Telecom. Real Estate was below for an eighth week, and Utilities below for a tenth week. All 11 sectors had been above both their 50dmas and 200-dmas briefly in mid-December for the first time since July 2016. Nine sectors are in a Golden Cross (50-dmas higher than 200-dmas), unchanged from a week earlier. All 11 had been in a Golden Cross in mid-January for the first time since a 26-week streak ended in October 2016. Real Estate was out of the Golden Cross club last week for a third week and the first time since last April, and Utilities was out for a fifth week and for the first time since last March. Six sectors have rising 50dmas, down from seven a week earlier as Telecom turned lower w/w. That's still better than early February when just four had a rising 50-dma, which was the lowest since February 2017. Real Estate fell for the eighth time in ten weeks, and Utilities moved lower for a sixth straight week. Seven sectors have rising 200-dmas, down from nine a week earlier as Consumer Staples and Telecom turned lower. That's up from six in early February though, which was the lowest since May 2017. The 200-dmas for Real Estate and Utilities fell for a seventh week.

### **US ECONOMIC INDICATORS**

Leading Indicators (*link*): The Leading Indicators Index (LEI) continued to surprise on the upside in January, climbing to yet another new record high. "The leading indicators reflect an economy with widespread strengths coming from financial conditions, manufacturing, residential construction, and labor markets," said Ataman Ozyildirim, director of Business Cycles and Growth Research at The Conference Board. (He also noted that though the stock market volatility came after January, it shouldn't have a big impact.) The LEI climbed for the fourth straight month, up 1.0% last month and 3.4% over the period, now 5.6% above its previous record high posted in March 2006. It hasn't posted a decline in 21 months. Of the 10 components, eight contributed positively, while the average workweek and real consumer goods orders were unchanged. The biggest positive contributions came from building permits (0.21ppt), the new orders diffusion index (0.20), and the financial components—stock prices (0.18), leading credit index (0.15), and the interest-rate spread (0.13). Jobless claims (0.10) and consumer expectations (0.09) were also notable contributors, while real core capital goods orders' (0.03) contribution was more modest.

Coincident Indicators (*link*): January's Coincident Indicators Index (CEI) also continued to hit new record highs, not posting a decline since January 2014. The CEI advanced for the fourth month, climbing 0.1% in January and 1.0% over the period; it's up 8.3% since January 2014. Three of the four components contributed positively last month: 1) Nonfarm payroll employment continued to head straight up to new record highs; it hasn't posted a decline since September 2010. 2) Real personal income—excluding transfer payments—rose for the sixth time in seven months by a total of 1.2% to another new high; it's up 2.4% y/y after declining the final five months of 2016. 3) Real manufacturing & trade sales increased for the ninth straight month, by a total of 4.0%, setting new record highs along the way. 4) Industrial production, on the other hand, eased 0.1% after expanding 2.3% the previous four months to a new record high.

**Regional M-PMIs** (*link*): Three Fed districts have now reported on manufacturing activity for this month—New York, Philadelphia, and Kansas City—and they show growth in the sector remains robust. We average the composite, orders, and employment measures as data become available. The composite index was unchanged at 18.6 this month, not too far from its recent high of 26.3 in October, which was the highest since July 2004. The Philadelphia (25.8 from 22.2) and Kansas City (17 from 16)

regions showed a slight pickup in growth, while New York's (13.1 from 17.7) showed a slight easing. The new orders gauge (18.0 from 12.0) improved, driven by an orders acceleration in the Philly (24.5 from 10.1) region; growth in the Kansas City (16 from 14) and New York (13.5 from 11.9) regions nearly matched January's pace. The employment measure climbed from 12.9 to 19.7 this month, heading back toward its recent peak of 22.6 in October. Manufacturers in all three regions—Philly (25.2 from 16.9), Kansas City (23 from 18), and New York (10.9 from 3.8)—added to payrolls at a faster pace.

### **GLOBAL ECONOMIC INDICATORS**

**Eurozone CPI** (*link*): January's CPI rate eased for the second month, falling from 1.5% in November to a six-month low of 1.3% y/y last month, matching its flash estimate. January's rate remained below the ECB's goal of just under 2.0%. Looking at the main components, rates for energy (to 2.2% from 2.9% y/y) and food, alcohol, and tobacco (1.9 from 2.1) once again slowed. Meanwhile, the rate for non-energy industrial goods (0.6 from 0.5) hit its highest level in nearly two years; services inflation was unchanged at 1.2% y/y. The core rate—which excludes energy, food, alcohol, and tobacco—edged up to 1.0% y/y from 0.9% the prior three months. Of the top four Eurozone economies, inflation rates in France (1.5% y/y) and Germany (1.4%) were above the Eurozone's 1.3%, while Italy's (1.2) and Spain's (0.7) were below. Ireland (0.3) had one of the region's lowest rates.

Germany Ifo Business Climate Index (<u>link</u>): German business confidence undershot expectations this month, but was still at its second-highest level in the history of the series going back to 1991. The Ifo business climate index slipped to 115.4 in February, after rising from 117.2 to 117.6 in January—back up at November's record high. The expectations component dropped for the third month, from 111.0 in November to a 10-month low of 105.4 this month; "the export euphoria is flattening out a bit," according to Ifo's Klaus Wohlrabe, as the stronger euro clouded the outlook of some exporters. The present situation component remained in record territory, easing to 126.3 from January's record high of 127.8. Ifo's expectations component correlates closely with German factory orders and production; the overall index tracks exports more closely. Recent Ifo data continue to support robust economic activity. Wohlrabe concurs, noting, "I would not yet speak of change in the underlying trend; the German economy is still doing very well, but some steam has been let off."

Germany GDP (*link*): Economic growth in the Eurozone's largest economy expanded 2.5% (saar) during the final quarter of last year, following a 3.0% gain during Q3; it began 2017 accelerating at more than a two-year high of 3.6%. The expenditure breakdown showed a sharp acceleration in exports led last quarter's gain. Real exports rose 11.4% (saar)—the strongest since Q2-2010—outpacing the solid 8.2% gain in real imports. Domestic demand barely budged, edging up 0.4% (saar), slowing dramatically from Q2's 4.9% jump. Consumers were absent during the final half of 2017 after robust growth during the first half. Real household consumption was flat during Q4 after posting its first contraction in nearly four years during Q3—dropping 0.9% (saar); spending had averaged quarterly gains of 3.5% during the first half of last year. Also decelerating dramatically was fixed investment (0.1%, saar), which has been slowing steadily since Q1's 10.9% surge. It showed little growth last quarter: spending on equipment (2.6%) was basically offset by the second straight decline in construction (-1.4) expenditures. Meanwhile, real government spending rose 2.0% (saar) during Q4, accelerating steadily from Q1's 1.2% pace.

**UK GDP** (*link*): UK real GDP for Q4 was weaker than first reported both on a quarterly and annual basis—with its growth continuing to lag behind other G7 economies. Real GDP expanded 1.6% (saar), slowing from Q3's 2.0% and its recent peak rate of 3.0% at the end of last year. Real household consumption grew 1.4% (saar) last quarter, similar to prior quarters, while gross fixed capital formation (4.4%, saar) accelerated from Q3's 2.9% pace. Real government consumption climbed 2.3% (saar) after no growth the prior quarter. Trade was a drag on growth last quarter as exports (-0.8) fell for the

first time in over a year and imports (6.3) advanced at their fastest pace in over a year. For all of 2017, real GDP grew 1.7%, the weakest calendar-year increase since 2012.

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