

# U.S. Economic Comment

- Financial markets: pricing in recession, but the economy still on track (for now)
- Housing: mild response to lower interest rates; elevated prices represent a constraint

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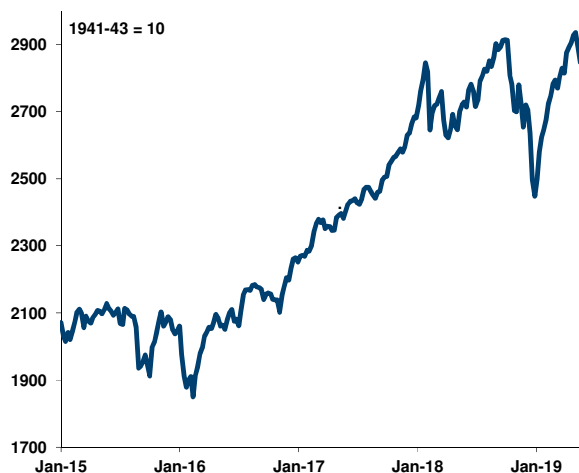
## Financial Markets and the Economic Outlook

Market participants remained in a snit this week, as recent retreats in equity values and interest rates intensified. The drop of more than six percent in the S&P 500 since late April and the decline of nearly 50 basis points in the yield on 10-year Treasury notes since mid-April suggest that investors and traders are beginning to sense recession (charts). Both shifts have been notable, but we view the drop in interest rates as the more striking of the two. The recent retreat continued an adjustment than began in November and has now pushed the long-term yield approximately 110 basis points lower.

With possible recession on the minds of market participants, investors and traders also are expecting the Federal Reserve to ease monetary policy, with fed funds futures now showing a 94 percent probability of at least one rate cut this year and a 70 percent probability of more than one cut. Such views are not fantasy; we suspect that the Fed will err on the side of caution and react quickly if they perceive a threat to the expansion. However, the economic data, in our view, have not softened enough to warrant easier monetary policy.

The speech by Vice-Chair Richard Clarida on Thursday sent a message along these lines. He hinted at a willingness to ease policy by noting that the Federal Open Market Committee “would take into account” material downside risks to the baseline economic outlook. Mr. Clarida also noted that persistent shortfalls of inflation from the Fed’s target of two percent could trigger a rate cut. However, he suggested that the economy and inflation were not at the point that warrants attention from the Fed. Inflation is below target, but transitory influences seem to be in play. Moreover, he did not see meaningful downside risks to the outlook, as he viewed the economy as “in a good place.”

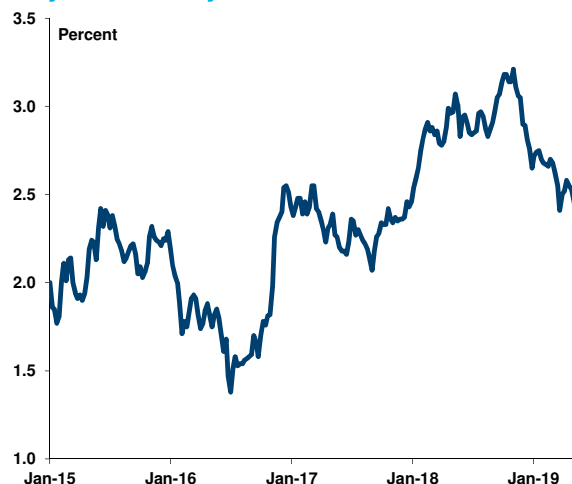
### S&P 500 Index\*



\* Weekly average data, except for the last observation which is a mid-day quote for May 31, 2019.

Source: Standard and Poor's via Haver Analytics; Bloomberg

### 10-year Treasury Yield\*



\* Weekly average data, except for the last observation which is a quote for May 30, 2019.

Source: Federal Reserve Board via Haver Analytics

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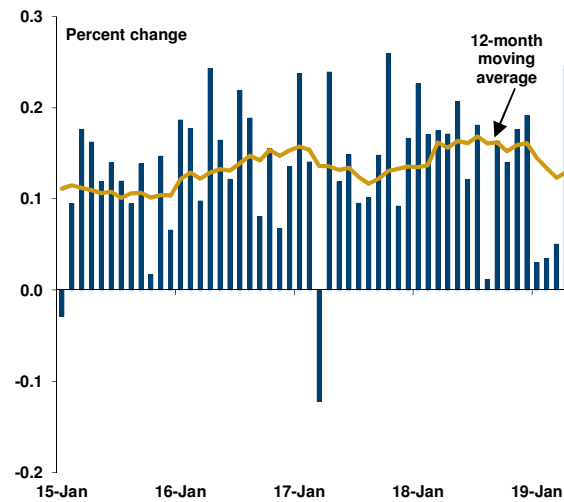
Recent economic data certainly support the Fed view, especially the latest results on the price index for personal consumption expenditures (PCE). This measure posted an above-average increase in April after three minuscule advances (two of which rounded down to no change, chart). The subdued changes in the early months of the year and the pickup in April were heavily influenced by airfares and charges for financial services. Chairman Powell argued that the sharp declines in these items at the start of the year were transitory, and the jumps in April support this view.

This same report supported Mr. Clarida's (and Mr. Powell's) view that the economy was in a good place. Income growth in April was strong, fueled by gains in investment income and wages. In addition, real consumer spending was brisk in March and held that elevated level in April.

Recent results set the stage for growth in real consumer expenditures close to three percent in the second quarter. Support from consumers is likely to remain firm in the months ahead given the strength of the labor market.

Market participants no doubt recognize the strength of the labor market and the likely support from consumers. Recession fears are driven by potential fallout from the trade war, and some recent developments suggest that such concerns are real. For example, both exports and imports of goods fell noticeably in April, reinforcing soft trends that had developed in recent months and suggesting that tariffs were beginning to constrain economic activity. Business investment represents an area that is likely to react quickly in the event of a trade war, and executives seem to be putting projects on hold. Surveys of capital spending plans at both large and small enterprises have eased recently, and orders for capital goods other than aircraft have tilted downward since last fall, with softness in new bookings leading to declines in unfilled orders (charts).

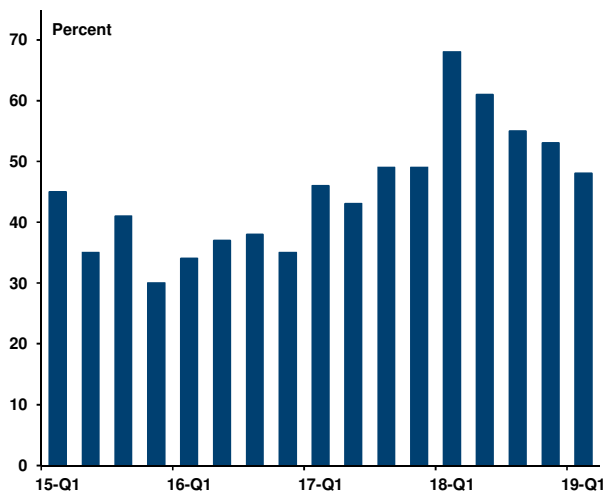
**Core PCE Price Index**



PCE = personal consumption expenditures

Source: Bureau of Economic Analysis via Haver Analytics

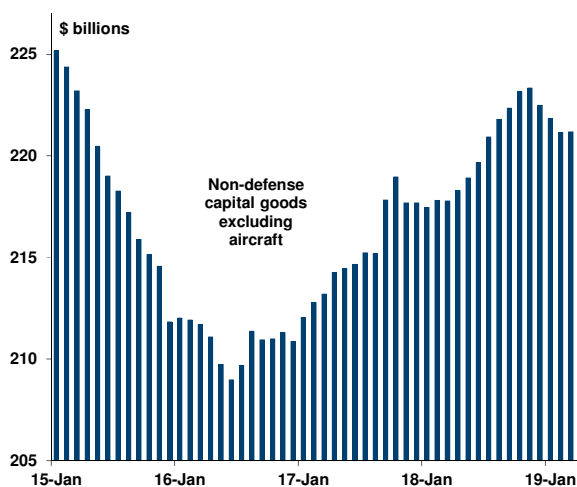
**Outlook for Capital Spending\***



\* Outlook for capital spending by large firms. The share of respondents planning to increase capital spending in the next six months.

Source: Business Roundtable via Haver Analytics

**Unfilled Orders for Durable Goods**



Source: U.S. Census Bureau via Haver Analytics

The slowdown in trade and in business investment seems to be taking a toll on the manufacturing sector. Factory employment has increased only modestly in recent months (average of 4,000 in the past three months versus an average of 22,000 in the 12 months before the recent easing). In addition, the manufacturing component of industrial production has been flat or down for four consecutive months (chart).

These developments, in our view, are not quite strong enough to offset support from consumers and trigger a downturn, but trade frictions certainly present a downside risk. It is not inconceivable that Fed officials will alter their outlook in the months ahead.

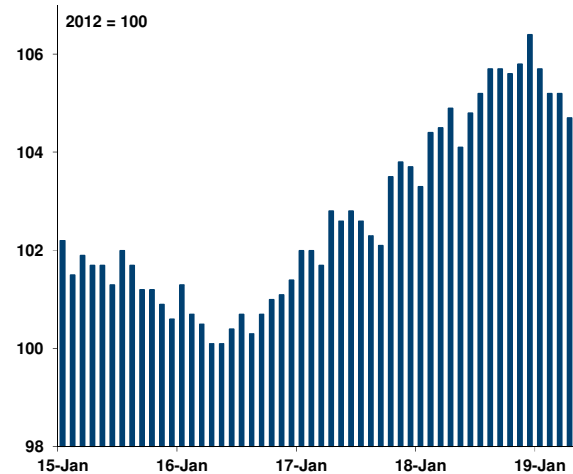
### Housing: Favorable Rate Environment, but Other Constraints Exist

The housing sector might seem capable of providing a spark that keeps the economy on track. The two most important fundamental factors for housing -- the state of the labor market and the level of interest rates -- are both flashing green. However, despite the favorable environment, we do not have high hopes for this area.

Recent developments have not been encouraging. The drop of approximately 60 basis points in mortgage rates from November to February led to a pickup in sales of new and existing homes, but activity regained only a portion of the ground lost during most of last year (chart, below left). The additional decline of 40 basis points in the past three months (to 3.99 percent in the latest week) could provide additional stirring, but we see factors other than interest rates as restraining activity.

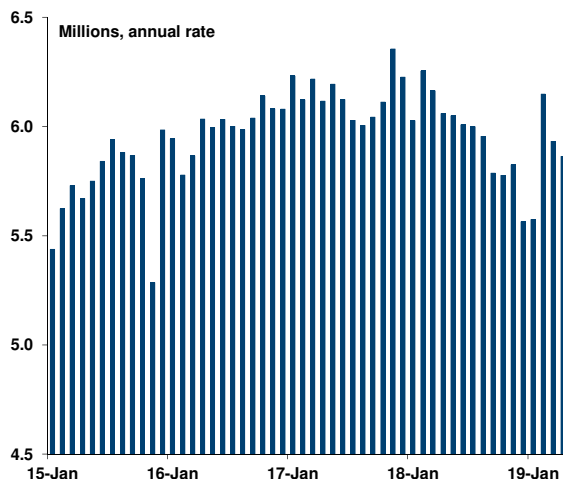
Specifically, we see three factors operating simultaneously to create a perfect storm in the housing market: prices, tax reform, and lessons from the financial crisis.

### Industrial Production: Manufacturing



Source: Federal Reserve Board via Haver Analytics

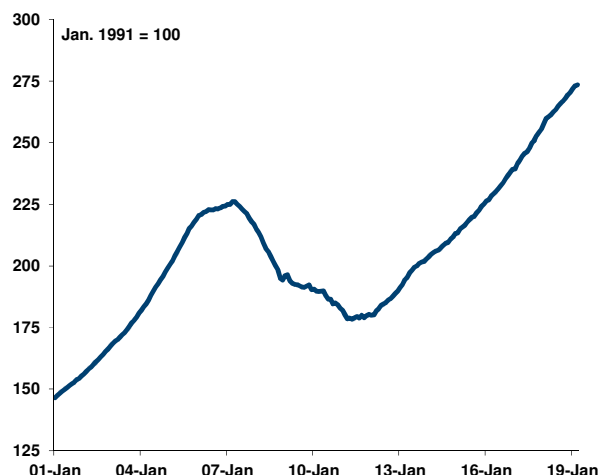
### Total Home Sales\*



\* Sales of existing and new homes.

Source: National Association of Realtors and U.S. Census Bureau via Haver Analytics

### FHFA Home Price Index



Source: Federal Housing Finance Agency via Haver Analytics

**Prices.** The housing price index published by the Federal Housing Finance Agency (FHFA) has increased for 86 consecutive months with an average increase of 0.5 percent per month over this span. The cumulative change has pushed the level of the index far above the previous peak in 2007 -- a level that was viewed as a bubble (chart, prior page, bottom right).

**Tax Reform.** The Tax Cuts and Jobs Act was not kind to housing because of its limits on the deductibility of mortgage interest and state and local taxes. Lower tax rates and reform of the alternative minimum tax will have a cushioning effect on the tax bills of home buyers, but these provisions also benefit non-homeowners. When faced with a decision to purchase a home or rent, the tax act tilts decisions in the direction of renting. The New York Fed recently published two compelling research notes arguing that TCJA raised the cost of home ownership and softened home sales (see the Liberty Street blog on the NY Fed web site; April 15 and 17, 2019).

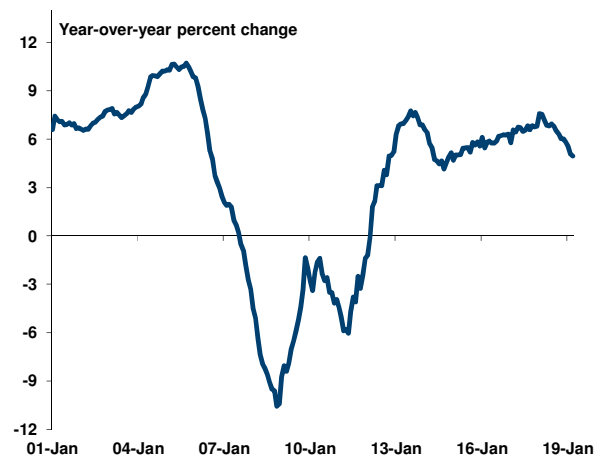
**Lessons from the Financial Crisis.** We view the financial crisis as having an effect on the housing market even today. Part of the influence is through lending standards, which are much tighter than they were before the crisis -- even tighter than before the bubble started to inflate. In addition, those households that lost a home after the bursting of the bubble might still not be over the trauma and are steering clear of the housing market.

The most notable influence of the crisis might be on the expectations for home prices. Pre-crisis, most individuals viewed housing as a safe investment, one involving little or no downside risk. However, the crisis demonstrated that housing prices can fall -- and by substantial amounts. Many individuals might have withdrawn from the housing market because of the view that home prices at current levels have downside potential.

Putting all three of these considerations together leaves a persuasive argument for slow housing activity. The tax act by itself would lead some individuals to expect prices to adjust downward because of the lost tax advantages. The risks are more pronounced because of the elevated nature of prices.

Thus, while interest rates represent a positive factor for the housing market, many potential buyers do not see pricing as attractive. We suspect that prices will need to adjust downward -- or grow more slowly than inflation or incomes for a time -- in order to ease concern about downside risks on home prices. The adjustment seems to be underway, as the rate of increase has slowed recently. The year-over-year change in the FHFA index was in the range of six to seven percent during 2017, but it started to ease last year, with the latest observation backing off to five percent (chart).

**FHFA Home Price Index**



Source: Federal Housing Finance Agency via Haver Analytics

## Review

| Week of May 27, 2019  | Actual   | Consensus  | Comments   |
|---|--|--|--|
| <b>Consumer Confidence (May)</b>                              | <b>134.1 (+3.8%)</b>                                 | <b>130.0 (+0.6%)</b>                                 | Consumer confidence jumped for the second consecutive month, reversing most of the swoon triggered by volatile financial markets in December. The measure returned to the upper portion of the recent range, with only four observations late last year higher.  |
| <b>Revised GDP (2019-Q1)</b>                                  | <b>3.1% (-0.1 Pct. Pt. Revision)</b>                 | <b>3.0% (-0.2 Pct. Pt. Revision)</b>                 | The business sector was the source of most of the modest downward revision to GDP growth in Q1, as both fixed investment and inventory investment were adjusted downward (growth of 2.3% rather than 2.7% for fixed investment; contribution from inventory investment of 0.60 pct. pt. rather than 0.65 pct. pt.). Residential construction and net exports also were revised slightly lower, while consumer spending was a bit firmer than initially estimated.  |
| <b>U.S. International Trade in Goods (April)</b>              | <b>-\$72.1 Billion (\$0.2 Billion Wider Deficit)</b> | <b>-\$72.7 Billion (\$1.3 Billion Wider Deficit)</b> | Both exports and imports fell noticeably in April, slipping 4.2% and 2.7%, respectively, with weakness broadly based across categories. The shifts in trade flows left the deficit for April wider than the average of \$71.3 billion in Q1, setting the stage for a modest negative contribution to Q2 GDP growth. While the April data suggest a drag from trade, we hesitate to draw firm conclusions because these figures are not price adjusted and they do not include trade in services. In addition, data for May and June could change the picture.  |
| <b>Personal Income, Consumption, Core Price Index (April)</b> | <b>0.5%, 0.3%, 0.2%</b>                              | <b>0.3%, 0.2%, 0.2%</b>                              | Strong increases in interest and dividends (2.7% and 0.7%, respectively) supplemented an advance of 0.3% in wages in salaries, leaving solid growth in income. The increase in nominal consumer spending translated to no change after adjusting for inflation. Despite the soft reading in April, consumer spending in Q2 is likely to show respectable growth. Spending in March was strong, and holding this level in April put outlays above the average in Q1. Moderate advances in the next two months could leave Q2 growth in real consumption close to 3%. The core PCE price index almost rounded up to 0.3% in April (0.247%), but this above-average increase followed feeble increases in the prior three months. The year-over-year advance of 1.6% was one tick faster than the prior reading, but slower than the recent high of 2.0% last July. |
| <b>Revised Consumer Sentiment (May)</b>                       | <b>100.0 (-2.3% Revision)</b>                        | <b>101.5 (-0.9% Revision)</b>                        | Although consumer sentiment for May was revised lower from the preliminary tally released two weeks ago, the index still shows positive attitudes among consumers. The May reading is among the best of the current expansion (only three slightly higher) and is elevated by historical standards as well.  |

Source: The Conference Board (Consumer Confidence); Bureau of Economic Analysis (Revised GDP, Personal Income, Consumption, Core Price Index); U.S. Census Bureau (U.S. International Trade in Goods); Reuters/University of Michigan Survey Research Center (Revised Consumer Sentiment); Consensus forecasts are from Bloomberg

## Preview

| Week of June 3, 2019                                | Projected  | Comments  |
|---|--|---|
| <b>ISM Manufacturing Index (May) (Monday)</b>       | <b>54.0 (+1.2 Index Pts.)</b>                        | Like other manufacturing-related statistics, the ISM index has softened in recent months, but the shift in this measure has been more pronounced than others and might be overstating the degree of weakness (the index has dropped 8.0 points in the past eight months). We look for a rebound in May, although the expected reading is still well shy of the average of 58.8% in all of 2018.   |
| <b>Construction Spending (April) (Monday)</b>       | <b>0.0%</b>  | Multi Family construction and improvements to existing homes are doing well, but a continued downward drift in single-family construction (down in nine of the past 10 months) is likely to provide an offset. Building by state and local governments is likely to give back some of the surprising surge in January and February.   |
| <b>Factory Orders (April) (Tuesday)</b>             | <b>-0.5%</b>   | An expected increase of approximately 1.0% in orders for nondurable goods should offset a portion of the already reported drop of 2.1% in durable bookings. The advance in the nondurable area is not likely to be encouraging, as the increase will probably be concentrated in the petroleum category and driven by higher prices. Orders for nondurable goods ex-petroleum are likely to continue to move along the flat trend that has been in place since last summer. |
| <b>ISM Nonmanufacturing Index (May) (Wednesday)</b> | <b>56.5 (+1.0 Index Pt.)</b>                         | With the economy probably decelerating from the average pace of 3.0% in 2018, the ISM nonmanufacturing index is not likely to match last year's average of 58.9%. However, the cumulative drop if 5.3 pct. pts. since September might be overstating the degree of easing, opening the possibility of a pickup in May.  |
| <b>Trade Balance (April) (Thursday)</b>             | <b>-\$50.8 Billion (\$0.8 Billion Wider Deficit)</b> | The already reported slippage of \$0.2 billion in the goods trade deficit for April, along with the revision of -\$0.5 billion for March, will probably feed through to the total trade balance.  |
| <b>Revised Nonfarm Productivity (2019-Q1)</b>       | <b>3.4% (-0.2 Pct. Pt. Revision)</b>                 | Following the lead of revised GDP, the output measure in the productivity report is likely to be adjusted downward, leaving productivity growth a touch slower than initially estimated. Although likely to be revised downward, the expected increase in productivity represents one of the best of the current expansion.   |
| <b>Payroll Employment (May) (Friday)</b>            | <b>160,000</b>                                       | A portion of the robust gain in employment in April was probably the result of random volatility, which raises the prospect of a correction in May. A jump in the labor force after two soft months could push the unemployment rate higher (3.7% expected versus 3.6% in April).   |

Source: Forecasts provided by Daiwa Capital Markets America

## Economic Indicators

| May/June 2019   |  |   |   |   |
|---|--|---|---|---|
| Monday  | Tuesday  | Wednesday   | Thursday  | Friday  |
| 27  | 28   | 29  | 30  | 31  |
| <b>MEMORIAL DAY</b>   | <b>FHFA HOME PRICE INDEX</b><br>Jan 0.5%<br>Feb 0.4%<br>Mar 0.1%<br><b>S&amp;P CORELOGIC CASE-SHILLER 20-CITY HOME PRICE INDEX</b><br>SA NSA<br>Jan 0.1% -0.2%<br>Feb 0.3% 0.2%<br>Mar 0.1% 0.7%<br><b>CONFERENCE BOARD CONSUMER CONFIDENCE</b><br>Mar 124.2<br>Apr 129.2<br>May 134.1 |   | <b>INITIAL CLAIMS</b><br>May 11 212,000<br>May 18 212,000<br>May 25 215,000<br><b>REVISED GDP</b><br>GDP Chained Price<br>18-Q4 2.2% 1.7%<br>19-Q1(a) 3.2% 0.9%<br>19-Q1(p) 3.1% 0.8%<br><b>U.S. INTERNATIONAL TRADE IN GOODS</b><br>Feb -\$69.9 billion<br>Mar -\$71.9 billion<br>Apr -\$72.1 billion<br><b>ADVANCE INVENTORIES REPORT</b><br>Wholesale Retail<br>Feb 0.4% 0.2%<br>Mar 0.0% -0.3%<br>Apr 0.7% 0.5%<br><b>PENDING HOMES SALES</b><br>Feb -1.0%<br>Mar 3.9%<br>Apr -1.5% | <b>PERSONAL INCOME, CONSUMPTION, AND CORE PRICE INDEX</b><br>Inc. Cons. Core<br>Feb 0.2% 0.0% 0.0%<br>Mar 0.1% 1.1% 0.1%<br>Apr 0.5% 0.3% 0.2%<br><b>CHICAGO PURCHASING MANAGERS' INDEX</b><br>Index Prices<br>Mar 58.7 64.5<br>Apr 52.6 50.8<br>May 54.2 53.8<br><b>REVISED CONSUMER SENTIMENT</b><br>Mar 98.4<br>Apr 97.2<br>May(r) 100.0 |
| 3   | 4  | 5   | 6   | 7   |
| <b>ISM INDEX (10:00)</b><br>Index Prices<br>Mar 55.3 54.3<br>Apr 52.8 50.0<br>May <b>54.0 52.0</b><br><b>CONSTRUCTION SPEND. (10:00)</b><br>Feb 0.7%<br>Mar -0.9%<br>Apr <b>0.0%</b><br><b>VEHICLE SALES</b><br>Mar 17.4 million<br>Apr 16.4 million<br>May <b>16.8 million</b> | <b>FACTORY ORDERS (10:00)</b><br>Feb -1.0%<br>Mar 1.4%<br>Apr <b>-0.5%</b>   | <b>ADP EMPLOYMENT REPORT (8:15)</b><br>Private Payrolls<br>Mar 151,000<br>Apr 275,000<br>May --<br><b>ISM NON-MFG INDEX (10:00)</b><br>Index Prices<br>Mar 56.1 58.7<br>Apr 55.5 55.7<br>May <b>56.5 56.0</b><br><b>BEIGE BOOK (2:00)</b><br><b>April Beige Book</b><br>"Economic activity expanded at a slight-to-moderate pace in March and early April." | <b>INITIAL CLAIMS (8:30)</b><br><b>TRADE BALANCE (8:30)</b><br>Feb -\$49.3 billion<br>Mar -\$50.0 billion<br>Apr <b>-\$50.8 billion</b><br><b>REVISED PRODUCTIVITY &amp; COSTS (8:30)</b><br>Productivity Unit Labor Costs<br>18-Q4 1.3% 2.5%<br>19-Q1(p) 3.6% -0.9%<br>19-Q1(r) 3.4% <b>-1.2%</b>  | <b>EMPLOYMENT REPORT (8:30)</b><br>Payrolls Un. Rate<br>Mar 189,000 3.8%<br>Apr 263,000 3.6%<br>May <b>160,000 3.7%</b><br><b>WHOLESALE TRADE (10:00)</b><br>Inventories Sales<br>Feb 0.4% 0.3%<br>Mar -0.1% 2.3%<br>Apr <b>0.7% -0.5%</b><br><b>CONSUMER CREDIT (3:00)</b><br>Feb \$15.5 billion<br>Mar \$10.3 billion<br>Apr --           |
| 10  | 11   | 12  | 13  | 14  |
| <b>JOLTS DATA</b>   | <b>NFIB SMALL BUSINESS OPTIMISM</b><br><b>PPI</b>  | <b>CPI</b><br><b>FEDERAL BUDGET</b>   | <b>INITIAL CLAIMS</b><br><b>IMPORT/EXPORT PRICES</b>  | <b>RETAIL SALES</b><br><b>IP &amp; CAP-U</b><br><b>CONSUMER SENTIMENT</b><br><b>BUSINESS INVENTORIES</b>  |
| 17  | 18   | 19  | 20  | 21  |
| <b>EMPIRE MFG</b><br><b>NAHB HOUSING INDEX</b><br><b>TIC DATA</b>   | <b>HOUSING STARTS</b><br><b>FOMC MEETING</b>   | <b>FOMC DECISION</b><br><b>POWELL PRESS CONFERENCE</b>  | <b>INITIAL CLAIMS</b><br><b>CURRENT ACCOUNT</b><br><b>PHILLY FED INDEX</b><br><b>LEADING INDICATORS</b>   | <b>EXISTING HOME SALES</b>  |

Forecasts in Bold. (a) = advance (1st estimate of GDP); (p) = preliminary (2nd estimate of GDP); (r) = revised

## Treasury Financing

| May/June 2019  |   |  |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
|--|---|--|---|--------|---------------|--------|------|---------------|--------|------|--------------|--------|------|--------------|--------|------|---|--|--------|-------|------------|--------|------|--|------|-------|--------------|--------|------|---|--|------|-------|--------------|--------|------|--------------|--------|------|--|
| Monday   | Tuesday   | Wednesday                                      | Thursday  | Friday |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 27   | 28  | 29   | 30  | 31     |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| <b>MEMORIAL DAY</b>  | <b>AUCTION RESULTS:</b><br><table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Cover</th> </tr> </thead> <tbody> <tr> <td>13-week bills</td> <td>2.310%</td> <td>3.15</td> </tr> <tr> <td>26-week bills</td> <td>2.320%</td> <td>2.91</td> </tr> <tr> <td>2-year notes</td> <td>2.125%</td> <td>2.75</td> </tr> <tr> <td>5-year notes</td> <td>2.065%</td> <td>2.38</td> </tr> </tbody> </table> <b>ANNOUNCE:</b><br>\$40 billion 4-week bills for auction on May 30<br>\$35 billion 8-week bills for auction on May 30<br><b>SETTLE:</b><br>\$45 billion 4-week bills<br>\$35 billion 8-week bills |  | Rate  | Cover  | 13-week bills | 2.310% | 3.15 | 26-week bills | 2.320% | 2.91 | 2-year notes | 2.125% | 2.75 | 5-year notes | 2.065% | 2.38 | <b>AUCTION RESULTS:</b><br><table border="1"> <thead> <tr> <th></th> <th>Margin</th> <th>Cover</th> </tr> </thead> <tbody> <tr> <td>2-year FRN</td> <td>0.140%</td> <td>2.84</td> </tr> </tbody> </table><br><table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Cover</th> </tr> </thead> <tbody> <tr> <td>7-year notes</td> <td>2.144%</td> <td>2.30</td> </tr> </tbody> </table> |  | Margin | Cover | 2-year FRN | 0.140% | 2.84 |  | Rate | Cover | 7-year notes | 2.144% | 2.30 | <b>AUCTION RESULTS:</b><br><table border="1"> <thead> <tr> <th></th> <th>Rate</th> <th>Cover</th> </tr> </thead> <tbody> <tr> <td>4-week bills</td> <td>2.330%</td> <td>3.02</td> </tr> <tr> <td>8-week bills</td> <td>2.330%</td> <td>2.74</td> </tr> </tbody> </table> <b>ANNOUNCE:</b><br>\$72 billion 13-,26-week bills for auction on June 3<br><b>SETTLE:</b><br>\$72 billion 13-,26-week bills |  | Rate | Cover | 4-week bills | 2.330% | 3.02 | 8-week bills | 2.330% | 2.74 | <b>SETTLE:</b><br>\$11 billion 10-year TIPS<br>\$18 billion 2-year FRNs<br>\$40 billion 2-year notes<br>\$41 billion 5-year notes<br>\$32 billion 7-year notes |
|  | Rate  | Cover  |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 13-week bills  | 2.310%  | 3.15   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 26-week bills  | 2.320%  | 2.91   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 2-year notes   | 2.125%  | 2.75   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 5-year notes   | 2.065%  | 2.38   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
|  | Margin  | Cover  |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 2-year FRN   | 0.140%  | 2.84   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
|  | Rate  | Cover  |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 7-year notes   | 2.144%  | 2.30   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
|  | Rate  | Cover  |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 4-week bills   | 2.330%  | 3.02   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 8-week bills   | 2.330%  | 2.74   |   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 3  | 4   | 5  | 6   | 7      |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| <b>AUCTION:</b><br>\$72 billion 13-,26-week bills  | <b>ANNOUNCE:</b><br>\$40 billion* 4-week bills for auction on June 6<br>\$35 billion* 8-week bills for auction on June 6<br><b>SETTLE:</b><br>\$40 billion 4-week bills<br>\$35 billion 8-week bills  |  | <b>AUCTION:</b><br>\$40 billion* 4-week bills<br>\$35 billion* 8-week bills<br><b>ANNOUNCE:</b><br>\$72 billion* 13-,26-week bills for auction on June 10<br>\$38 billion* 3-year notes for auction on June 11<br>\$24 billion* 10-year notes for auction on June 12<br>\$16 billion* 30-year bonds for auction on June 13<br><b>SETTLE:</b><br>\$72 billion 13-,26-week bills  |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 10   | 11  | 12   | 13  | 14     |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| <b>AUCTION:</b><br>\$72 billion* 13-,26-week bills   | <b>AUCTION:</b><br>\$38 billion* 3-year notes<br><b>ANNOUNCE:</b><br>\$40 billion* 4-week bills for auction on June 13<br>\$35 billion* 8-week bills for auction on June 13<br><b>SETTLE:</b><br>\$40 billion* 4-week bills<br>\$35 billion* 8-week bills   | <b>AUCTION:</b><br>\$24 billion* 10-year notes | <b>AUCTION:</b><br>\$40 billion* 4-week bills<br>\$35 billion* 8-week bills<br>\$16 billion* 30-year bonds<br><b>ANNOUNCE:</b><br>\$72 billion* 13-,26-week bills for auction on June 17<br>\$26 billion* 52-week bills for auction on June 18<br>\$15 billion* 5-year TIPS for auction on June 20<br><b>SETTLE:</b><br>\$72 billion* 13-,26-week bills   |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| 17   | 18  | 19   | 20  | 21     |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |
| <b>AUCTION:</b><br>\$72 billion* 13-,26-week bills<br><b>SETTLE:</b><br>\$38 billion* 3-year notes<br>\$24 billion* 10-year notes<br>\$16 billion* 30-year bonds | <b>AUCTION:</b><br>\$26 billion* 52-week bills<br><b>ANNOUNCE:</b><br>\$40 billion* 4-week bills for auction on June 20<br>\$35 billion* 8-week bills for auction on June 20<br><b>SETTLE:</b><br>\$40 billion* 4-week bills<br>\$35 billion* 8-week bills  |  | <b>AUCTION:</b><br>\$40 billion* 4-week bills<br>\$35 billion* 8-week bills<br>\$15 billion* 5-year TIPS<br><b>ANNOUNCE:</b><br>\$72 billion* 13-,26-week bills for auction on June 24<br>\$18 billion* 2-year FRNs for auction on June 26<br>\$40 billion* 2-year notes for auction on June 25<br>\$41 billion* 5-year notes for auction on June 26<br>\$32 billion* 7-year notes for auction on June 27<br><b>SETTLE:</b><br>\$72 billion* 13-,26-week bills<br>\$26 billion* 52-week bills |        |               |        |      |               |        |      |              |        |      |              |        |      |   |  |        |       |            |        |      |  |      |       |              |        |      |   |  |      |       |              |        |      |              |        |      |  |

\*Estimate