The *U.S. Economy in a Snapshot* compiles observations of staff members of the Federal Reserve Bank of New York’s Research and Statistics Group. The views, model results, and analysis presented are solely those of the individual contributors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System. The analysis presented herein is based on data released through February 8, 2019.
- Consumer confidence declined sharply in January, but remained at relatively high levels.
  - Light-weight vehicle sales have been stable on a rolling 12-month basis, even though they have softened recently.

- Business equipment spending rose modestly in 2018Q3, a further slowdown from the second quarter and below the pace in 2017.
  - New orders of capital goods (excluding aircraft) declined in November but remained slightly above shipments, suggesting a bit of momentum over the near term.

- Housing activity indicators remained soft in December.
  - While a strong labor market continues to have the potential to provide support to the housing sector, higher mortgage rates and tax code changes appear to have had some restraining effect on the market.

- Payroll growth was strong in January. The employment-to-population ratio and the labor force participation rate rose, while the unemployment rate increased modestly.
  - Various measures of labor compensation continue to indicate a gradual firming of wage growth.

- Core inflation remains consistent with the FOMC’s longer-run objective.

- U.S. equity indices rebounded partially over the past month from the falls in 2018Q4, while volatility declined. The nominal 10-year Treasury yield was little changed. The broad trade-weighted dollar index declined slightly, with mixed performance against different currencies. Oil prices were essentially unchanged over the month.

**Output moderately above potential GDP estimate**

- The level of real GDP in 2018Q3 was about 0.6% above the estimate of real potential GDP from the Congressional Budget Office (CBO).
  - Due to the partial government shutdown, the estimate of 2018Q4 GDP has not been released at this time.
  - The CBO recently released revised estimates of potential GDP: These estimates are modestly higher than previously.
  - The 4.0% unemployment rate in January was below most estimates of its natural rate, including that of the CBO (4.60%).

- The current output and unemployment gaps signal tight resource constraints in the U.S. economy.
  - However, capacity utilization rates remain below their historical averages, suggesting looser constraints by that measure.
**Indicators consistent with strong labor market**

- The labor force participation rate increased 0.1 percentage point to 63.2% in January, the highest participation rate since September 2013.
  - The prime-age (25-54) male participation rate was 89.4% in January, up from 89.0% in December.
  - The prime-age female participation rate rose by less, from 75.9% in December to 76.0% in January.
- The employment-to-population ratio rose 0.1 percentage point to 60.7% in January.
- The unemployment rate increased 0.1 percentage point to 4.0% in January.
  - An alternative measure of unemployment, U6, which includes marginally attached workers and workers who hold part-time jobs but prefer full-time jobs, increased to 8.1%.

**Inflation remains near FOMC’s longer-run objective**

- The total CPI price index fell 0.1% in December, after being flat in November. The core CPI price index (which excludes food and energy prices) increased 0.2% in December, same as in the previous two months.
  - Energy prices declined 3.5% in December, and are down 3.3% relative to one year ago. Food prices rose 0.4%.
- The 12-month changes in the total CPI and core CPI price indices were +1.9% and +2.2%, respectively.
  - Core goods prices rose for the third consecutive month while core services inflation was marginally stronger.
  - While headline CPI inflation has softened since mid-year, core CPI inflation remains consistent with the FOMC’s longer-run goal.
**Industrial Production**

- Annualized 3 Month % Change
- Annualized 3 month % Change

Source: Federal Reserve Board via Haver Analytics  
Note: Shading shows NBER recessions.

**Industrial production rises solidly over 2018Q4**

- Industrial production, which measures the output of manufacturing, utilities, and mining, increased about 3.7% (annual rate) over the three months through December.
  - By comparison, it rose at a 5.7% rate over the three months through September and at a 3.8% rate over the three months through June.

- Mining and manufacturing supported industrial production growth in Q4.
  - Manufacturing production rose 4.3% (annual rate) over the three months through December.
  - Mining surged at a 10.4% rate over the same period.
  - By contrast, utilities production fell at a 7.8% rate over this period, held down by the effects of warmer weather.

**Manufacturing and ISM Manufacturing Index**

- 12 Month % Change
- Index

Source: Institute for Supply Management, Federal Reserve Board via Haver Analytics
  
Note: Shading shows NBER recessions.

**Manufacturing activity expands in January**

- Manufacturing production increased by 1.1% in December following no change in November.
  - Manufacturing production rose by 3.4% in December on a 12-month change basis.

- The ISM PMI increased 2.3 percentage points to 56.6 in January.
  - January’s increase indicates that manufacturing expanded at a faster pace than in December, but at a slower pace than in 2018.
  - The Prices Paid Index fell to just below 50, indicating decreasing prices for the first time since February 2016.

- Regional Fed manufacturing surveys were mixed in January.
Total light-weight vehicle sales relatively stable

- The monthly data on total sales of light-weight motor vehicles includes sales to consumers, businesses, and government. The data are broken down between automobiles and light-weight trucks (which includes SUVs) and between domestic and imported.

- Over the 12 months ending in January of 2019, total light-weight vehicle sales average 17.2 million at a seasonally-adjusted annual rate, essentially unchanged from the preceding 12-month period.

- From 2000 through 2013, total sales were roughly evenly split between automobiles and light-weight trucks. In the past five years there has been a significant shift. Light-weight trucks are now nearly 70% of total unit sales.

Consumer confidence continues to decline in January

- The Conference Board’s Consumer Confidence Index fell just over 6 points in January, after falling almost 10 points in December.
  - The decline in the headline index was driven primarily by the Expectations Index component.
  - This is the lowest reading for the Expectations Index since October 2016.
  - The headline index remains at relatively high levels.

- Consumers’ short-term outlook on both business conditions and employment continued to deteriorate.

- The Michigan Survey consumer sentiment index also decreased sharply in January, and is back to levels last observed in October 2016.
**Equipment Investment and Capacity Utilization**

- **4-Quarter % Change**
- **% of Capacity**

- **Manufacturing Capacity Utilization Rate (Right Axis)**
- **Real Business Investment in New Equipment (Left Axis)**

**Equipment spending growth modest in 2018Q3**

- Real business equipment investment grew at a 3.4% annual rate in 2018Q3. In the first 3 quarters of 2018, equipment spending rose 5.5% (annual rate) after rising 9.6% in 2017.
  - Compared to 2017, growth has slowed this year in all major categories of equipment except transportation equipment.
  - The equipment spending share of nominal GDP remained slightly below its average share in 2013–15.

- Recent softer equipment investment has occurred against a backdrop of continued relatively low levels of the manufacturing capacity utilization rate.
  - This rate was 76.5% in December, the highest since November 2014, but about 2 percentage points below its long-run average.
  - Historically, utilization rates near 75% are associated with modest growth of equipment investment.

**Investment in Nonresidential Structures**

- **Year-over-Year % Change**
- **Structures: Petroleum and Natural Gas (Right Axis)**
- **Structures: Total (Left Axis)**

**Nonresidential structures investment up in 2018Q3**

- Total nonresidential structures investment rose by 6.3% in the four quarters ending 2018Q3.
  - This series is dominated by fluctuations in nonresidential structures investment in the petroleum industry.

- Investment in nonresidential structures in the petroleum and natural gas industry rose by 29.8% in the four quarters ending 2018Q3.
  - Investment in the oil and gas sector has reflected the decline of oil prices in early 2016 and subsequent rebound.
  - Year-over-year growth in nonresidential structures investment in energy is slightly below its 2017Q4 historic high.
**Inventories of existing homes for sale rising rapidly**

- Over the period from mid-December 2017 through mid-December 2018, mortgage interest rates rose around 100 basis points. This led to a slowing of sales of both new and existing homes.

- The National Association of Realtors, which publishes the monthly data on existing home sales, also publishes data on homes listed for sale and the months’ supply of existing homes for sale at the current sales pace.

- The 12-month change in the months’ supply statistic gives an informative inventory series, as it abstracts from seasonal patterns in listings. This statistic has moved substantially higher over the period during which sales have slowed, potentially putting downward pressure on home prices.

**Housing prices continue to grow, albeit at slower rate**

- The CoreLogic single family national home price index rose 4.7% in December on a year-over-year (YoY) basis.
  - While home price growth continued, it slowed relative to earlier in 2018, when increases were around 6%.
  - All states except North Dakota and Louisiana experienced YoY increases in the home price index in December.

- The inventory of single family homes was 1.36 million units in December, equivalent to a 3.7 months’ supply at the current sales pace and down from 3.9 in November.
  - Since late 2015, the inventory of single family homes for sales has remained below the normal range of 5-7 months.
  - While sales remain low, the yearover-year change in supply has increased notably in recent months.
  - While home price growth continues, it has slowed relative to earlier in the year.
**GOVERNMENT SECTOR**

**Government Deficit as Percentage of GDP**

- In late January, the Congressional Budget Office (CBO) released its updated projections of federal receipts and outlays. This “baseline” assumes that revenues and outlays will be governed by current law, with many of the tax cuts enacted in late 2017 assumed to expire by around 2025.
- In Fiscal Year (FY) 2018, the federal deficit was $779 billion or 3.8% of GDP. Over the period from 1962 through 2017, the deficit averaged 2.7% of GDP.
- In the current fiscal year, the deficit is projected to increase to 4.2% of GDP, and then average 4.4% over the period from FY2020 through FY2029. Total revenues are projected to increase to 18.3% of GDP by FY2029 while total outlays rise to 22.7% of GDP.

**State and Local Government Employment**

- State and Local Government Employment rose 0.5% in the 12 months ending in December 2018.
  - State and local government employment has been growing at a similarly modest annual rate since early 2017.
  - The growth rate has been between 0.3% and 0.7% for that entire period.
  - Growth has been below a 1% annual rate since the Great Recession.
- State and Local Government Employment Growth is a reasonably good proxy for State and Local Government Consumption.
  - State and Local Consumption is an important GDP component.
  - New data on State and Local Government Consumption are not available due to the federal government shutdown.
INTERNATIONAL DEVELOPMENTS

**Global GDP Growth and Composite PMI**

Percent (SAAR) vs. Diffusion Index

- GDP Growth (Left Axis)
- Composite PMI (Right Axis)

1999 2001 2003 2005 2007 2009 2011 2013 2015 2017

Sources: National sources; Markit Economics

Note: Correlation = 0.83

**Global surveys point to sluggish growth**

- Global GDP growth was relatively sluggish in Q4, at an estimated 2.7% for the 40 largest global economies.
  - Growth averaged 3.3% over the previous two years.

- Survey data point to further sluggishness in the first quarter of 2019, with the global composite purchasing managers’ index falling to 52.1 in January.
  - The historical relationship between the composite PMI and growth points to a 2019Q1 outturn of roughly 2.2%.

- Manufacturing activity is seeing the sharpest slowdown.
  - The global manufacturing PMI now stands at 50.7, down 3.7 points from its cycle peak in late 2017.
  - The global services PMI stands at 52.6, down 2.2 points from its cycle peak in early 2018.

**China: Manufacturing PMI and Industrial Production**

- China's GDP grew 6.4% in 2018Q4 (year-over-year), down 0.3 percentage points from the same period in 2017. Though the growth rate matched the lowest on record (in Q1 2009), the economy's slowdown has been quite gradual.

- Monthly data in December of last year showed a mixed picture.
  - The quarterly growth rate of industrial production stabilized, boosted by an uptick in December to 6.7% (annual rate).
  - The official purchasing mangers index (PMI) also increased slightly from 49.4 to 49.5, after falling for four months.
  - By contrast, an alternative PMI index—the Caixin index, which is based on a different sample of firms—tumbled to 48.3. This index probably reflects weakness among smaller firms.
LABOR MARKET

Payroll Employment and Aggregate Hours

![Graph showing payroll employment and aggregate hours from 2000 to 2018.]

Source: Bureau of Labor Statistics via Haver Analytics

Note: Shading shows NBER recessions.

Strong payroll growth in January

- Nonfarm payroll employment increased 304,000 in January, well above the Bloomberg median forecast.
  - Payroll employment was revised down for December and revised up for November, resulting in a net downward revision of 70,000.
  - The latest figure is the highest monthly gain since last February and represents a marked increase from the average monthly gains in 2018 (223,000).
- Government employment went up by 8,000, including a rise of 1,000 in federal government employment.
  - The federal government shutdown did not significantly affect the payroll numbers, because the establishment survey defines individuals as employed if they receive pay for any part of the pay period that includes the 12th of the month. Since federal employees on furlough will receive pay for the pay period, they are included in the payroll numbers.

Alternative Unemployment Rates

![Graph showing alternative unemployment rates from 2000 to 2018.]

Source: Bureau of Labor Statistics

Note: Shading shows NBER recessions.

Slight uptick in unemployment

- The unemployment rate was 4.0% in January, representing a noticeable increase from the 3.7% low recorded in November 2018.
  - Among the unemployed, the number who reported being on temporary layoff increased by 175,000, possibly due to the partial federal government shutdown.
- An alternative measure of unemployment, U6, which includes marginally attached workers and workers who hold part-time jobs but prefer full-time jobs, increased to 8.1%, compared to 7.6% in November and December.
**Labor Market**

**Labor Force Participation Rate – Prime Age (25-54)**

- Participation rate increases across genders
  - The labor force participation rate among prime-age males increased 0.9 percentage point between January 2016 and January 2019, from 88.5% to 89.4%. Among prime-age females, the labor force participation rate increased by 1.9 percentage points over the same period, from 74.1% to 76.0%.
  
  - The increase in the overall male participation rate was more muted than that of prime-age males, from 69.0% in January 2016 to 69.3% in January 2019.
  
  - Similarly, the growth in the overall female participation rate of females was less than that of prime-age females, from 56.9% to 57.5%.

**Growth of Average Hourly Earnings and ECI**

- Earnings growth relatively strong in recent months
  - Average hourly earnings increased by 0.11% in January, and were up 3.18% on an annual basis.
    - While the monthly change is below expectations, the 12-month change in average hourly earnings in the last four months (ranging from 3.18% to 3.34%) was notably above the 2.4–3.0% range in which the average hourly earnings change had been fluctuating from 2016 until September.
  
  - Average weekly earnings increased by 3.48% on a 12-month basis.
Core inflation holds steady in December

- Headline inflation fell driven by a decline in energy prices, but core inflation rose in line with expectations.
  - The 12-month change in the core index was 2.2% in December, the same as in November.
  - New data on CPI inflation are not available due to the federal government shutdown.

- Core goods prices rose for the third consecutive month.
  - The rise in core goods prices was mainly due to increases in the prices of recreational commodities. The 12-month change in core goods prices in December was 0.1%.

- Core services inflation was a bit stronger in December than in the previous two months.

Consumer inflation expectations stable

- According to the NY Fed's Survey of Consumer Expectations, median inflation expectations at both the one-year and three-year horizons remained unchanged in January at 3.0%. Inflation expectations at both horizons have been very stable over the past 9 months.

- Median inflation uncertainty— or the uncertainty expressed by respondents regarding future inflation outcomes— similarly remained unchanged at both horizons.

- Expectations for changes in the cost of medical care decreased from 9.0% in December to 8.3%. The median one-year ahead expected change in gasoline and food prices increased from 4.2% and 3.7% in December, to 4.5% and 4.2% in January, respectively.
FINANCIAL MARKETS

U.S. Equity Market Index and Volatility

- U.S. equity markets rebounded modestly during the last month.
  - The S&P 500 index gained 6.3% between January 8, 2019 and February 5, 2019.
  - Option-implied stock market volatility, as measured by the CBOE Volatility Index (VIX Index), declined.
    - The VIX Index closed at 15.57 on February 5, 2019, close to its historical median level.

USD Exchange Rates

- The exchange value of the dollar against a basket of global currencies depreciated by 0.23% between January 8, 2019 and February 5, 2019.
  - Over the same period, the dollar depreciated by 1.63% against the Mexican peso but appreciated by 0.3% against the euro and by 1.11% against the Japanese yen.
  - Since the start of the year, the dollar has depreciated by 0.79% against a basket of global currencies.
**FINANCIAL MARKETS**

### U.S. Bank Equities Performance

[Graph showing performance of equities over time with indices SP500, XLF ETF, and KBW Index]

**Source:** Bloomberg Finance L.P.

**Note:** Start date 01/03/2007 = 1.

### Bank stocks gain in value

- As measured by the KBW Nasdaq bank index, bank equities increased 8.12% between January 8, 2019 and February 5, 2019.
  - The index increased by 1.8 percentage points more than the S&P 500.

- The XLF financial sector ETF increased 7.32% between January 8, 2019 and February 5, 2019.
  - Since the start of the year, the XLF ETF has gained 8.62% in value.

### Expected Federal Funds Rate

[Graph showing expected federal funds rate over time with maturity labels]

**Source:** NY Fed calculations, Bloomberg Finance L.P.

**Note:** Estimated using OIS quotes

### Implied path for federal funds shifts down

- The expected path of the federal funds rate implied by rates on overnight index swaps (OIS) moved down modestly for intermeditated maturities over the period from January 8, 2019 to February 5, 2019.
  - The shift for intermediate maturities was around 6 basis points.
  - For shorter maturities, the expected path of the federal funds rate declined by around 1 basis point.

- The market-implied path remains well below the median path of the FOMC’s December 2018 Summary of Economic Projections and the December 2018 NY Fed Survey of Primary Dealers at longer horizons.
**10-Year Treasury and Term Premium**

- Longer-term Treasury yields increased slightly since beginning of January.
  - The 10-year yield increased by 2.9 basis points between January 8, 2019 and February 5, 2019.
  - Estimates from the Adrian-Crump-Moench term structure model attribute the increase almost exclusively to a less negative term premium, while the expected path for the short term interest rate remains broadly unchanged.

**5-10 Year Forward Decomposition**

- **Breakeven inflation increases slightly**
  - Market-implied TIPS-based measures of long-term inflation expectations (“breakevens”) increased in recent weeks.
    - The five-to-ten year breakeven inflation increased by 4.57 basis points between January 3, 2019 and January 31, 2019.
  - According to the Abrahams-Adrian-Crump-Moench model, most of the year-to-date movements in forward inflation compensation continue to reflect movements in the inflation risk premium.
    - The estimated five-to-ten year inflation risk premium increased by 4.55 basis points between January 3, 2019 and January 31, 2019.
For-profit enrollees most affected by business cycle

- For-profit enrollees face a large earnings penalty relative to others, but that effect is doubled during bust.

- Entering the labor market in bust leads to a perceptible earnings drop for enrollees of all types of schools.
  - A four-year student entering the labor market in bust could expect to earn $4000 less on average compared to entering in boom.

- The premium for attending a selective institution is large and similar in boom and bust.
  - The earnings penalty for attending a public institution (relative to a non-profit institution) is similar during bust.

Earnings gap widens between majors in bust

- Earnings gap widen between majors in bust.
  - STEM fares better in bust period than Business, Vocational does relatively better in bust than in boom.
  - Business majors drive high earnings, but their effect does not depend on the business cycle.
  - Earnings gap between STEM and other majors widens in bust.

- An increase in graduation rate from 4-year institutions leads to higher earnings, but markedly more so in bust.
  - Degree compensates for some of the expected earnings loss due to economic conditions.
  - Earnings Gap between graduates and dropouts is larger in bust.
HUMAN CAPITAL INVESTMENT, BUSINESS CYCLES, AND INEQUALITY

For-profits increase earnings gap, more so in bust

- We measure earnings inequality as the earnings differential between students in top vs. bottom terciles; we measure economic mobility as the extent to which an individual moves up or down the earnings distribution over time.
  - For-profit attendance increases earnings differential somewhat more so in bust.
    - Public colleges promote economic mobility, and somewhat more so in bust.
    - Selective colleges promote upward mobility and reduce inequality, but less so in bust.

Graduation is a strong equalizer, more so in bust

- Business and STEM (while remunerative) are less equalizing and less promoting of economic mobility, more so in Bust.
  - A 10 percentage point increase in the number of business majors raises the earnings gap 19% in boom and an additional 5% in the bust period.
  - Vocational education promotes earnings equality and economic mobility, more so in bust.
  - Graduating, as opposed to dropping out, lowers the earnings gap, especially in the bust period.
    - Each additional 10% of students that graduates reduces the earnings gap by 20% in boom and 25% in bust.