

| Date | Indicator | For | Estimate | Consensus* | Previous Period |
|-------------|--|--------|----------|------------|-----------------|
| 13-Nov-2018 | NFIB Small Business Optimism | Oct | 108.0 | 108.0 | 107.9 |
| 14-Nov-2018 | CPI MoM | Oct | 0.3% | 0.3% | 0.1% |
| 14-Nov-2018 | CPI Ex Food and Energy MoM | Oct | 0.2% | 0.2% | 0.1% |
| 15-Nov-2018 | Empire Manufacturing | Nov | 19.5 | 19.0 | 21.1 |
| 15-Nov-2018 | Retail Sales Advance MoM | Oct | 0.4% | 0.5% | 0.1% |
| 15-Nov-2018 | Retail Sales Ex Auto MoM | Oct | 0.3% | 0.5% | -0.1% |
| 15-Nov-2018 | Philadelphia Fed Business Outlook | Nov | 20.9 | 20.0 | 22.2 |
| 15-Nov-2018 | Import Price Index MoM | Oct | 0.1% | 0.0% | 0.5% |
| 15-Nov-2018 | Initial Jobless Claims | 10-Nov | NA | NA | 214 |
| 15-Nov-2018 | Business Inventories | Sep | 0.3% | 0.3% | 0.5% |
| 16-Nov-2018 | Industrial Production MoM | Oct | 0.2% | 0.2% | 0.3% |
| 16-Nov-2018 | Capacity Utilization | Oct | 78.2% | 78.2% | 78.1% |
| 16-Nov-2018 | Kansas City Fed Manufacturing Activity | Nov | 5.0 | NA | 8.0 |
| 16-Nov-2018 | Net Long-term TIC Flows | Sep | NA | NA | \$131.8b |

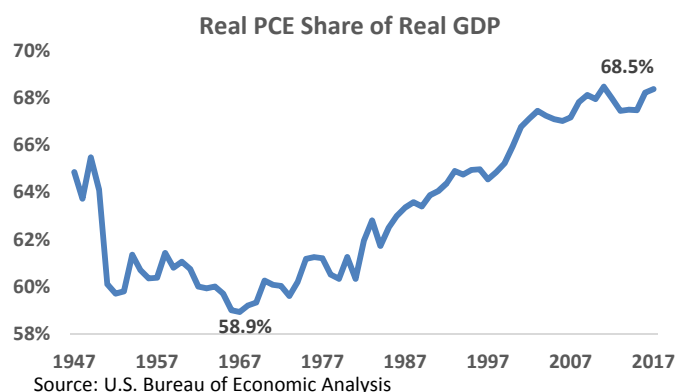
*Consensus from Bloomberg

Can the U.S. Consumer Keep Up the Pace?

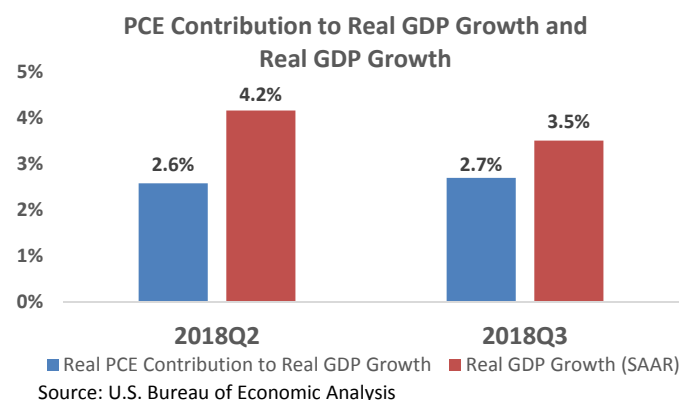
The U.S. consumer is often the most important piece of our economic puzzle, making the difference between a solid economic expansion and a mediocre one. One way to measure the consumer's importance to GDP is to calculate the consumer spending share of GDP. Since 1947 the consumer spending share of GDP has ranged from a low 58.9% in 1967 to 68.5% in 2011. The 2017 share was just below the 2011 all-time high at 68.4%.

Another way to measure the importance of consumer spending for economic growth is to look at the contribution of consumer spending growth to overall real GDP growth. Real GDP increased 4.2% and 3.5% at annual rates in the second and third quarters of 2018, with consumer spending contributing 2.6 and 2.7 percentage points, respectively.

PCE Share of GDP Has Been Mostly Rising Since 1967



The Consumer Has Been Driving GDP Growth Recently



In short, the consumer's importance for the economy and economic forecasting has grown pretty steadily for decades and remains very high today. You could say the

consumer has been the engine of U.S. economic growth lately.

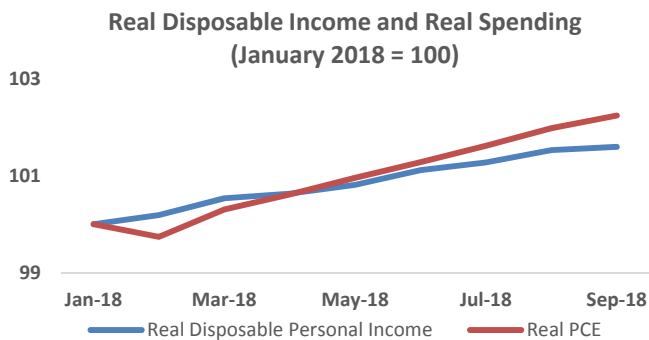
What’s Driving Consumer Spending Growth Today?

Job growth is an important driver of consumer confidence and spending. Job gains have remained strong so far this year with average monthly gains of 212,000 through October. Moreover, the economy has added an impressive 20 million net new jobs since February of 2010, underscoring the strength of the U.S. labor market in this expansion. However, economic research has shown that it’s the real income growth derived from being employed that is the primary driver of spending gains. Indeed, the correlation between real personal consumption expenditures and real disposable income growth from the first quarter of 1948 to the third quarter of 2018 is a solid 0.71. This means an increase in real disposable income growth is matched with a coincident increase in real consumer spending growth 71% of the time.

Is Current Consumer Spending Strength Sustainable?

As we have demonstrated, consumer spending gains tend to closely track income growth over the long term. In other words, people largely spend what they earn. Recently, however, spending growth has been steadily outpacing income growth. This excess spending trend first emerged in May 2018 and has persisted each month ever since. Indeed, the gap between spending growth and income growth has widened over time.

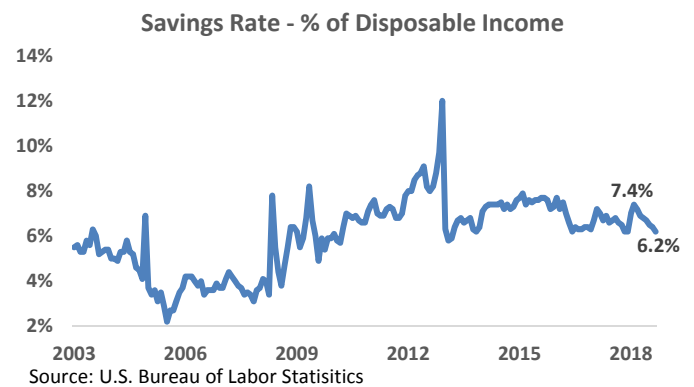
Spending Growth Has Exceeded Income Growth Since May



Source: U.S. Bureau of Economic Analysis

Of course, there are other resources consumers can tap to support their spending, including home equity, credit cards, and dipping into their savings. The savings rate – expressed as a percent of disposable income – has remained elevated ever since the Great Recession began in December 2007, as households decided it was prudent to build up their savings for the inevitable next economic downturn. The savings rate, however, has declined for seven straight months since reaching 7.4% in February. This suggests that households are having to direct a higher share of their disposable income toward additional spending.

The Savings Rate Has Declined Since Reaching 7.4% in February



Source: U.S. Bureau of Labor Statistics

So Where Does the Consumer Go from Here?

The tax cuts in January 2018 probably have a lot to do with the added consumer spending in Q2 and Q3 of this year, but signs that consumers are overdoing it are already becoming apparent.

Our forecast is for annualized real consumer spending growth to decelerate from the current white-hot pace of 4.0% to 2.6% in the fourth quarter, and then slow to 2.2% Q4/Q4 in 2019. The fading impact of the 2018 tax cuts, higher interest rates, tightening financial conditions, lower savings rates, a slowing global economy, and rising tariffs on U.S. imports will all weigh more heavily on real consumer spending growth next year.

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Major Economic Indicators

| Economic Data | History | | | | | | | | Forecast | | | | Yr/Yr % chg or Annual Avg. | | | |
|---|---------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|----------------------------|-------|-------|-------|
| | 2017.1 | 2017.2 | 2017.3 | 2017.4 | 2018.1 | 2018.2 | 2018.3 | 2018.4 | 2019.1 | 2019.2 | 2019.3 | 2019.4 | 2016 | 2017 | 2018 | 2019 |
| Real GDP* | 1.8 | 3.0 | 2.8 | 2.3 | 2.2 | 4.2 | 3.5 | 2.4 | 2.2 | 2.1 | 1.9 | 1.8 | 1.5 | 2.2 | 2.9 | 2.5 |
| Personal Consumption Expenditures* | 1.8 | 2.9 | 2.2 | 3.9 | 0.5 | 3.8 | 4.0 | 2.6 | 2.3 | 2.3 | 2.1 | 1.9 | 2.7 | 2.5 | 2.7 | 2.6 |
| Non-residential Fixed Investment* | 9.6 | 7.3 | 3.4 | 4.8 | 11.5 | 8.7 | 0.8 | 5.7 | 3.9 | 4.1 | 3.7 | 3.4 | -0.6 | 5.3 | 6.7 | 4.2 |
| Private Housing Starts (000s units) | 1,231 | 1,171 | 1,172 | 1,259 | 1,317 | 1,261 | 1,218 | 1,280 | 1,290 | 1,280 | 1,277 | 1,275 | 1,176 | 1,208 | 1,269 | 1,281 |
| Vehicle Sales (mill. Units, annualized) | 17.1 | 16.8 | 17.1 | 17.7 | 17.1 | 17.1 | 17.1 | 16.9 | 16.5 | 16.5 | 16.4 | 16.3 | 17.5 | 17.2 | 17.1 | 16.4 |
| Industrial Production* | 1.0 | 5.0 | -1.5 | 7.7 | 2.5 | 5.3 | 3.3 | 2.6 | 2.2 | 2.0 | 1.7 | 1.5 | -1.2 | 1.6 | 3.7 | 2.5 |
| Nonfarm Payroll Employment (mil.) | 145.9 | 146.3 | 146.9 | 147.4 | 148.1 | 148.7 | 149.3 | 149.9 | 150.4 | 150.9 | 151.3 | 151.7 | 144.3 | 146.6 | 149.0 | 151.1 |
| Unemployment rate | 4.7 | 4.3 | 4.3 | 4.1 | 4.1 | 3.9 | 3.8 | 3.7 | 3.6 | 3.6 | 3.7 | 3.8 | 4.9 | 4.4 | 3.9 | 3.7 |
| Consumer Price Index* (percent) | 3.0 | 0.1 | 2.1 | 3.3 | 3.5 | 1.7 | 2.0 | 3.0 | 2.5 | 2.0 | 2.1 | 2.1 | 1.3 | 2.1 | 2.5 | 2.3 |
| "Core" CPI* (percent) | 2.2 | 0.8 | 1.8 | 2.2 | 3.0 | 1.8 | 2.0 | 2.3 | 2.4 | 2.2 | 2.1 | 2.1 | 2.2 | 1.8 | 2.2 | 2.2 |
| PPI (finished goods)* (percent) | 5.7 | 1.0 | 1.6 | 5.7 | 3.6 | 2.7 | 2.2 | 4.1 | 1.9 | 1.8 | 1.7 | 1.7 | -1.0 | 3.2 | 3.2 | 2.3 |
| Trade Weighted Dollar (Fed BOG, major) | 94.4 | 93.0 | 88.3 | 88.9 | 86.2 | 88.2 | 90.2 | 91.1 | 90.8 | 90.4 | 89.6 | 88.5 | 91.6 | 91.1 | 88.9 | 89.8 |
| Crude Oil Prices -WTI (\$ per barrel) | 52 | 48 | 48 | 55 | 63 | 68 | 70 | 70 | 67 | 66 | 65 | 63 | 43 | 51 | 68 | 65 |

*Quarterly Data Percent Change At Annual Rate; Annual Data Year-on-Year % Chg, or Annual Average.

| Financial Data | History | | | | | | | | Forecast | | | | Annual Average | | | |
|--------------------------------|---------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|----------------|--------|------|------|
| | 2017.1 | 2017.2 | 2017.3 | 2017.4 | 2018.1 | 2018.2 | 2018.3 | 2018.4 | 2019.1 | 2019.2 | 2019.3 | 2019.4 | 2016 | 2017 | 2018 | 2019 |
| S & P 500 | 2,326 | 2,398 | 2,467 | 2,603 | 2,733 | 2,703 | 2,850 | | | | | | 2,093 | 2,449 | | |
| Dow Jones Industrial Average | 20,406 | 20,994 | 21,891 | 23,689 | 25,127 | 24,556 | 25,595 | | | | | | 17,916 | 21,745 | | |
| Federal Funds Rate (effective) | 0.70 | 0.94 | 1.15 | 1.20 | 1.45 | 1.74 | 1.92 | 2.21 | 2.46 | 2.71 | 2.88 | 2.88 | 0.39 | 1.00 | 1.83 | 2.73 |
| Treasury-3 Month Bills (yield) | 0.61 | 0.91 | 1.05 | 1.23 | 1.58 | 1.87 | 2.07 | 2.22 | 2.48 | 2.73 | 2.90 | 2.89 | 0.32 | 0.95 | 1.94 | 2.75 |
| Treasury-2 Year Notes (yield) | 1.24 | 1.30 | 1.36 | 1.69 | 2.16 | 2.48 | 2.67 | 2.90 | 2.96 | 3.06 | 3.07 | 3.06 | 0.84 | 1.40 | 2.55 | 3.04 |
| Treasury-5 Year Notes (yield) | 1.95 | 1.81 | 1.81 | 2.07 | 2.53 | 2.77 | 2.81 | 3.03 | 3.15 | 3.25 | 3.27 | 3.21 | 1.34 | 1.91 | 2.78 | 3.22 |
| Treasury-10 Year Notes (yield) | 2.45 | 2.26 | 2.24 | 2.37 | 2.76 | 2.92 | 2.92 | 3.15 | 3.29 | 3.42 | 3.48 | 3.41 | 1.84 | 2.33 | 2.94 | 3.40 |
| Treasury-30 Year Notes (yield) | 3.05 | 2.90 | 2.82 | 2.82 | 3.03 | 3.09 | 3.06 | 3.31 | 3.51 | 3.65 | 3.64 | 3.57 | 2.60 | 2.90 | 3.12 | 3.59 |
| Prime Rate | 3.80 | 4.05 | 4.25 | 4.29 | 4.53 | 4.80 | 5.01 | 5.25 | 5.50 | 5.75 | 6.00 | 6.00 | 3.51 | 4.10 | 4.90 | 5.81 |
| Libor 3-Mo. U.S. Dollar | 1.07 | 1.21 | 1.31 | 1.46 | 1.93 | 2.34 | 2.34 | 2.43 | 2.66 | 2.91 | 3.02 | 3.03 | 0.74 | 1.26 | 2.26 | 2.91 |
| Mortgage-30 Year (yield) | 4.17 | 3.98 | 3.88 | 3.92 | 4.28 | 4.54 | 4.57 | 4.80 | 4.97 | 5.08 | 5.13 | 5.05 | 3.66 | 3.99 | 4.55 | 5.06 |
| BAA Corporate (yield) | 4.66 | 4.49 | 4.33 | 4.27 | 4.47 | 4.78 | 4.81 | 5.08 | 5.40 | 5.60 | 5.80 | 6.10 | 4.71 | 4.44 | 4.78 | 5.73 |

Source: Bank of the West Economics, Bloomberg, Federal Reserve