

Date	Indicator	For	Estimate	Consensus*	Previous Period
15-Apr-2019	Empire Manufacturing	Apr	9.0	8.0	3.7
15-Apr-2019	Net Long-term TIC Flows	Feb	NA	NA	-\$7.2b
16-Apr-2019	Industrial Production MoM	Mar	0.2%	0.3%	0.0%
16-Apr-2019	Capacity Utilization	Mar	79.2%	79.2%	79.1%
16-Apr-2019	NAHB Housing Market Index	Apr	63.0	63.0	62.0
17-Apr-2019	Trade Balance	Feb	-\$54.0b	-\$53.5b	-\$51.1b
17-Apr-2019	Wholesale Inventories MoM	Feb	0.5%	0.4%	1.2%
17-Apr-2019	U.S. Federal Reserve Releases Beige Book				
18-Apr-2019	Retail Sales Advance MoM	Mar	0.9%	0.8%	-0.2%
18-Apr-2019	Retail Sales Ex Auto MoM	Mar	0.8%	0.7%	-0.4%
18-Apr-2019	Initial Jobless Claims	13-Apr	206k	NA	196k
18-Apr-2019	Philadelphia Fed Business Outlook	Apr	11.0	11.0	13.7
18-Apr-2019	Markit US Manufacturing PMI	Apr P	52.8	53.0	52.4
18-Apr-2019	Markit US Services PMI	Apr P	54.8	55.0	55.3
18-Apr-2019	Markit US Composite PMI	Apr P	NA	NA	54.6
18-Apr-2019	Leading Index	Mar	0.4%	0.4%	0.2%
18-Apr-2019	Business Inventories	Feb	0.4%	0.3%	0.8%
19-Apr-2019	Housing Starts	Mar	1270k	1230k	1162k
19-Apr-2019	Building Permits	Mar	1295k	1300k	1291k

*Consensus from Bloomberg

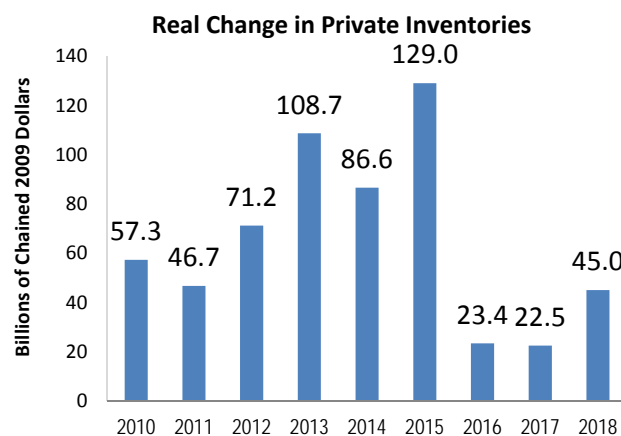
Private Inventories - A GDP Growth Wild Card

Rising business inventory levels have been boosting U.S. GDP growth in recent quarters. The average increase in real private inventories doubled from 2017 to 2018, from \$22.5 billion per quarter annualized on average to \$45.0 billion per quarter annualized in 2018, according to data from the Bureau of Economic Analysis. Wholesale inventories of computers, machinery, and automotive have climbed 15.6%, 13.7%, and 9.5% respectively from a year ago.

Some of this inventory building can probably be chalked up to business hoarding. Businesses may be trying to guard against future supply chain disruptions and higher import tariffs from China in the future. But if those supply chain disruptions or higher import tariffs never materialize, businesses will likely shed these precautionary stores of goods. Another possible explanation is that final demand from consumers and businesses is fading, and companies

have not adjusted to this new reality. Nevertheless, private inventory accumulation now presents another downside threat to future U.S. economic growth.

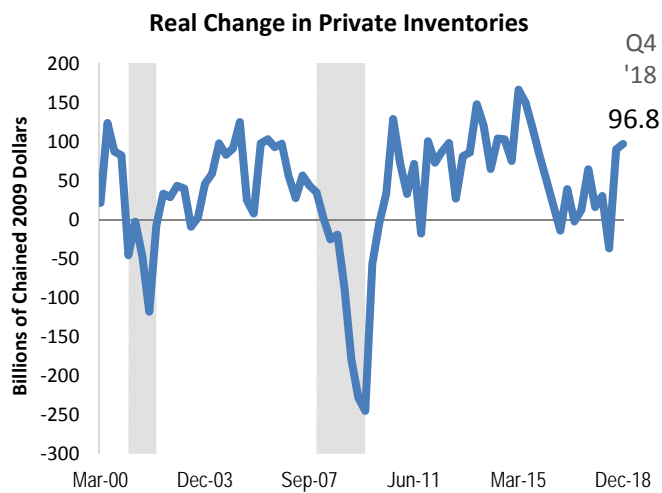
The Pace of Inventory Increase Doubled in 2018



Source: Bureau of Economic Analysis

Moreover, if the first quarter of 2019 is any guide, the pace of business inventory building appears to be on track to double again in 2019. The annualized change in real private inventories in the first quarter is likely to exceed \$110 billion. Such a rapid pace of inventory building in the first quarter is likely to flatter the headline GDP growth rate to the tune of 0.3 percentage points of GDP. But it also increases the odds of an inventory growth slowdown or reversal in the quarters ahead that will subtract from U.S. GDP growth as those inventories get worked down.

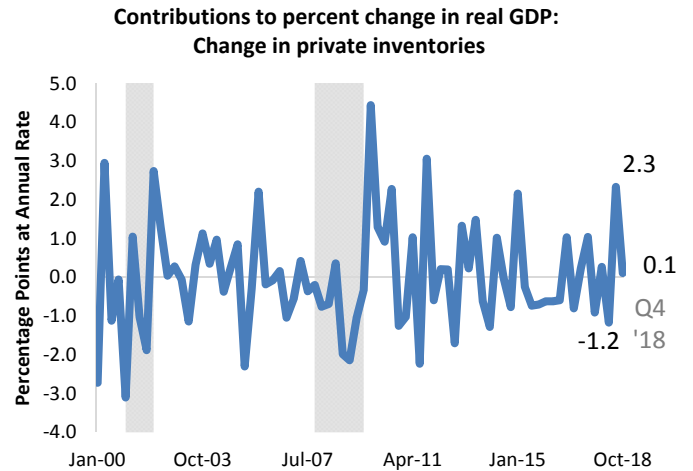
Private Inventory Accumulation Accelerated 2H 2018



Source: Bureau of Economic Analysis

After lackluster private inventory growth in 2016 and 2017, real private inventories jumped by \$89.8 billion annualized in Q3 and \$96.8 billion annualized in Q4. The swing from the second quarter’s \$36.8 billion decline was a whopping \$126.6 billion, adding 2.3 percentage points to the third quarter’s GDP growth alone. If this inventory building tails-off quickly in the quarters ahead, U.S. GDP growth could very easily surprise on the downside.

Change in Private Inventories a GDP Growth Wild Card



We had a similar buildup of private inventories in 2015 when U.S. GDP growth also hit 2.9% year-on-year only to be followed by 2016 when GDP growth slipped to an anemic 1.6% annual pace. Moreover, volatile private inventory swings can make accurate quarterly GDP forecasting difficult. It can also give you a false sense of confidence in the economy’s strength in one quarter only to disappoint you in future quarters as the undesirable inventory buildup gets worked down.

Economists aren’t very good at predicting quarterly inventory changes. Many treat it as statistical noise with some just assuming similar inventory changes as in prior quarters until incoming monthly reports of wholesale and retail inventories help sharpen their forecasts. It is even more difficult to predict today given unexpected fluctuations in global trade, volatile commodity prices, and changing tariff regimes, which play havoc with historical business inventory patterns.

In the past, large unintended inventory buildups late in the economic cycle have helped trigger recessions and can be an indication of fading consumer and business demand. However, early in an economic cycle, like in 2013, it can be a sign of increasing business confidence and an anticipation of higher future demand. Guess which one it is this time?

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Key Economic and Interest Rate Forecasts

Economic Data	History				Forecast								Yr/Yr % chg or Annual Avg.			
	2018.1	2018.2	2018.3	2018.4	2019.1	2019.2	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2017	2018	2019	2020
Real GDP*	2.2	4.2	3.4	2.2	1.9	1.6	1.6	1.5	1.0	0.6	0.5	0.5	2.2	2.9	2.2	1.0
Personal Consumption Expenditures*	0.5	3.8	3.5	2.5	0.8	2.3	2.1	1.9	1.5	1.0	1.0	1.0	2.5	2.6	2.2	1.5
Non-residential Fixed Investment*	11.5	8.7	2.5	5.4	4.3	1.4	3.3	2.5	1.5	1.5	1.5	1.5	5.3	6.9	3.8	1.9
Private Housing Starts (000s units)	1,317	1,261	1,234	1,185	1,260	1,240	1,220	1,210	1,190	1,185	1,180	1,175	1,208	1,249	1,233	1,183
Vehicle Sales (mill. Units, annualized)	17.1	17.1	16.9	17.5	16.9	16.8	16.7	16.5	16.2	15.9	15.6	15.9	17.2	17.1	16.7	15.9
Industrial Production*	2.3	4.6	5.2	3.7	0.3	1.0	1.7	1.0	-0.5	-1.0	-1.0	-1.0	1.6	3.9	2.1	0.0
Nonfarm Payroll Employment (mil.)	148.0	148.7	149.4	150.1	150.7	151.2	151.7	152.1	152.4	152.0	151.7	151.5	146.6	149.1	151.4	151.9
Unemployment rate	4.1	3.9	3.8	3.8	3.9	3.7	3.7	3.8	3.9	4.2	4.5	4.8	4.4	3.9	3.8	4.4
Consumer Price Index* (percent)	3.2	2.1	2.0	1.5	0.9	2.1	2.1	2.1	1.8	1.8	1.7	1.6	2.1	2.4	1.7	1.9
"Core" CPI* (percent)	2.7	1.9	2.0	2.2	2.3	2.1	2.1	2.1	2.0	1.9	1.8	1.8	1.8	2.1	2.1	2.0
PPI (finished goods)* (percent)	3.8	2.7	2.0	0.5	-2.5	2.1	1.8	1.8	1.3	1.4	1.4	1.4	3.2	3.1	0.6	1.6
Trade Weighted Dollar (Fed BOG, major)	86.2	88.2	90.2	91.4	91.4	91.6	90.6	89.5	89.3	89.0	88.5	88.0	91.1	89.0	90.8	88.7
Crude Oil Prices -WTI (\$ per barrel)	63	68	70	60	56	62	60	59	58	57	53	52	51	65	59	55

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

Financial Data	History				Forecast								Annual Average			
	2018.1	2018.2	2018.3	2018.4	2019.1	2019.2	2019.3	2019.4	2020.1	2020.2	2020.3	2020.4	2017	2018	2019	2020
S & P 500	2,733	2,703	2,850	2,699	2,721								2,449	2,746		
Dow Jones Industrial Average	25,127	24,556	25,595	24,916	25,147								21,745	25,048		
Federal Funds Rate (effective)	1.45	1.74	1.92	2.22	2.40	2.40	2.40	2.40	2.29	2.04	1.79	1.63	1.00	1.83	2.40	1.94
Treasury-3 Month Bills (yield)	1.58	1.87	2.07	2.36	2.44	2.45	2.44	2.43	2.30	2.05	1.80	1.64	0.95	1.97	2.44	1.95
Treasury-2 Year Notes (yield)	2.16	2.48	2.67	2.80	2.51	2.45	2.45	2.46	2.38	2.15	1.92	1.87	1.40	2.53	2.47	2.08
Treasury-5 Year Notes (yield)	2.53	2.77	2.81	2.88	2.50	2.40	2.42	2.48	2.41	2.22	2.10	2.05	1.91	2.75	2.45	2.20
Treasury-10 Year Notes (yield)	2.76	2.92	2.92	3.04	2.65	2.55	2.60	2.68	2.62	2.51	2.30	2.28	2.33	2.91	2.62	2.43
Treasury-30 Year Notes (yield)	3.03	3.09	3.06	3.27	3.02	2.99	3.05	3.06	3.00	2.88	2.85	2.80	2.90	3.11	3.03	2.88
Prime Rate	4.53	4.80	5.01	5.28	5.50	5.50	5.50	5.50	5.38	5.13	4.87	4.69	4.10	4.90	5.50	5.02
Libor 3-Mo. U.S. Dollar	1.93	2.34	2.34	2.62	2.71	2.65	2.65	2.68	2.60	2.35	2.10	1.94	1.26	2.31	2.67	2.25
Mortgage-30 Year (yield)	4.28	4.54	4.57	4.78	4.41	4.33	4.40	4.50	4.53	4.45	4.40	4.38	3.99	4.54	4.41	4.44
BAA Corporate (yield)	4.47	4.78	4.81	5.14	5.01	4.95	5.40	5.70	6.20	6.20	6.10	6.10	4.44	4.80	5.27	6.15

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