



Real GDP: Percent change from preceding quarter



U.S. Bureau of Economic Analysis

Seasonally adjusted at annual rates

Contribution to GDP by Component: 2018 (IV) vs. 2018 (III)

	Contribution to 2.6% growth 4Q18*	Contribution to 3.4% growth 3Q18
Consumer	1.92	2.37
Increase in goods spending of 3.9% was complemented by a 2.4% growth in services spending.		
Investment	0.82	2.53
The 4 th qtr saw growth rate in nonresidential investments while residential fixed investments continued its downward pace.		
Government	0.07	0.44
Growth in both federal and state spending increased in the 3Q.		
Export - Import	-0.22	-1.99
Growth in exports offset a portion of the increase in imports.		

Source: U.S. Department of Commerce Bureau of Economic Analysis

*Advance Estimate

Inflation Remains within Target

February 28, 2019

Table 4. Price Indexes for Gross Domestic Product and Related Measures: Percent Change From Preceding Period

Line		2016	2017	2018	Seasonally adjusted at annual rates																Line
					2015				2016				2017				2018				
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	Gross domestic product (GDP)	1.1	1.9	2.2	-0.2	2.4	1.2	0.1	-0.2	2.7	1.4	2.3	2.0	1.2	2.2	2.5	2.0	3.0	1.8	1.8	1
2	Personal consumption expenditures	1.1	1.8	2.0	-1.8	2.0	1.2	-0.2	0.2	2.4	1.7	1.9	2.1	0.8	1.6	2.7	2.5	2.0	1.6	1.5	2
3	Goods	-1.6	0.3	0.7	-8.2	1.9	-0.8	-4.0	-4.1	1.2	-0.9	0.8	2.2	-2.8	0.7	1.5	2.2	0.4	-0.4	-1.1	3
4	Durable goods	-2.3	-2.2	-1.7	-3.0	-0.7	-2.2	-2.2	-1.9	-2.6	-3.5	-3.5	0.2	-3.1	-2.4	-2.2	-1.1	-1.6	-0.9	-1.5	4
5	Nondurable goods	-1.2	1.6	1.9	-10.7	3.1	-0.1	-4.8	-5.2	3.1	0.4	3.0	3.3	-2.6	2.3	3.4	3.9	1.4	0.0	-1.0	5
6	Services	2.3	2.4	2.7	1.4	2.0	2.1	1.6	2.3	2.9	3.0	2.5	2.0	2.4	2.0	3.3	2.6	2.7	2.5	2.7	6
Addenda:																					
27	Final sales of domestic product	1.1	1.9	2.2	0.0	2.5	1.2	0.2	-0.1	2.7	1.4	2.2	2.0	1.2	2.2	2.5	2.0	3.1	1.8	1.8	27
28	Gross domestic purchases	0.8	1.9	2.2	-1.5	1.6	0.9	-0.4	-0.5	2.3	1.5	2.1	2.2	1.1	1.8	2.6	2.5	2.4	1.8	1.6	28
29	Final sales to domestic purchasers	0.8	1.9	2.2	-1.3	1.7	1.0	-0.4	-0.5	2.3	1.6	2.0	2.2	1.1	1.8	2.6	2.5	2.4	1.8	1.6	29
30	Final sales to private domestic purchasers	0.9	1.7	2.1	-1.2	1.6	1.1	-0.3	-0.1	2.2	1.5	1.9	1.9	1.0	1.7	2.4	2.5	2.2	1.7	1.5	30
31	Gross national product (GNP)	1.1	1.9	.....	-0.3	2.4	1.2	0.1	-0.2	2.7	1.4	2.3	1.9	1.2	2.2	2.5	1.9	3.0	1.8	.....	31
32	GDP excluding food and energy ¹	1.4	1.9	2.2	0.4	1.9	1.4	0.5	0.6	2.3	2.0	2.1	2.2	1.3	1.8	2.4	2.4	2.9	1.9	2.0	32
33	Gross domestic purchases excluding food and energy ¹	1.1	1.8	2.1	0.1	1.5	1.1	0.4	0.4	2.1	1.7	1.8	1.9	1.5	1.7	2.1	2.4	2.5	1.8	1.8	33
34	PCE excluding food and energy ¹	1.7	1.6	1.9	0.7	1.8	1.5	1.0	1.7	2.1	2.0	1.5	1.6	1.3	1.4	2.1	2.2	2.1	1.6	1.7	34
35	Market-based PCE ²	0.8	1.5	1.8	-2.3	1.8	1.0	-0.3	-0.3	2.0	1.4	1.7	2.1	0.0	1.4	2.5	2.3	2.0	1.2	1.2	35
36	Market-based PCE excluding food and																				

Headwinds for 2019

- Global Slowdown
- Trade Wars
- Brexit – unresolved
- Debt Ceiling
- QT Still happening = about 1% raising rates a year
- Patient – Fed talk

Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents under their individual assessments of projected appropriate monetary policy, December 2018

Advance release of table 1 of the Summary of Economic Projections to be released with the FOMC minutes

Percent																
Variable	Median ¹					Central tendency ²					Range ³					
	2018	2019	2020	2021	Longer run	2018	2019	2020	2021	Longer run	2018	2019	2020	2021	Longer run	
Change in real GDP	3.0	2.3	2.0	1.8	1.9	3.0-3.1	2.3-2.5	1.8-2.0	1.5-2.0	1.8-2.0	3.0-3.1	2.0-2.7	1.5-2.2	1.4-2.1	1.7-2.2	
September projection	3.1	2.5	2.0	1.8	1.8	3.0-3.2	2.4-2.7	1.8-2.1	1.6-2.0	1.8-2.0	2.9-3.2	2.1-2.8	1.7-2.4	1.5-2.1	1.7-2.1	
Unemployment rate	3.7	3.5	3.6	3.8	4.4	3.7	3.5-3.7	3.5-3.8	3.6-3.9	4.2-4.5	3.7	3.4-4.0	3.4-4.3	3.4-4.2	4.0-4.6	
September projection	3.7	3.5	3.5	3.7	4.5	3.7	3.4-3.6	3.4-3.8	3.5-4.0	4.3-4.6	3.7-3.8	3.4-3.8	3.3-4.0	3.4-4.2	4.0-4.6	
PCE inflation	1.9	1.9	2.1	2.1	2.0	1.8-1.9	1.8-2.1	2.0-2.1	2.0-2.1	2.0	1.8-1.9	1.8-2.2	2.0-2.2	2.0-2.3	2.0	
September projection	2.1	2.0	2.1	2.1	2.0	2.0-2.1	2.0-2.1	2.1-2.2	2.0-2.2	2.0	1.9-2.2	2.0-2.3	2.0-2.2	2.0-2.3	2.0	
Core PCE inflation ⁴	1.9	2.0	2.0	2.0		1.8-1.9	2.0-2.1	2.0-2.1	2.0-2.1		1.8-1.9	1.9-2.2	2.0-2.2	2.0-2.3		
September projection	2.0	2.1	2.1	2.1		1.9-2.0	2.0-2.1	2.1-2.2	2.0-2.2		1.9-2.0	2.0-2.3	2.0-2.2	2.0-2.3		
Memo: Projected appropriate policy path																
Federal funds rate	2.4	2.9	3.1	3.1	2.8	2.4	2.6-3.1	2.9-3.4	2.6-3.1	2.5-3.0	2.1-2.4	2.4-3.1	2.4-3.6	2.4-3.6	2.5-3.5	
September projection	2.4	3.1	3.4	3.4	3.0	2.1-2.4	2.9-3.4	3.1-3.6	2.9-3.6	2.8-3.0	2.1-2.4	2.1-3.6	2.1-3.9	2.1-4.1	2.5-3.5	

Table 1. Overview of the World Economic Outlook Projections

(Percent change, unless noted otherwise)

	Year over Year								
	Estimates		Projections		Difference from Oct 2018 WEO Projections 1/		Q4 over Q4 2/		
	2017	2018	2019	2020	2019	2020	2018	2019	2020
World Output	3.8	3.7	3.5	3.6	-0.2	-0.1	3.5	3.6	3.6
Advanced Economies	2.4	2.3	2.0	1.7	-0.1	0.0	2.1	1.9	1.7
United States	2.2	2.9	2.5	1.8	0.0	0.0	3.0	2.1	1.5
Euro Area	2.4	1.8	1.6	1.7	-0.3	0.0	1.2	1.9	1.5
Germany	2.5	1.5	1.3	1.6	-0.6	0.0	0.9	1.7	1.5
France	2.3	1.5	1.5	1.6	-0.1	0.0	1.0	1.6	1.5
Italy	1.6	1.0	0.6	0.9	-0.4	0.0	0.2	1.2	0.6
Spain	3.0	2.5	2.2	1.9	0.0	0.0	2.3	2.1	1.6
Japan	1.9	0.9	1.1	0.5	0.2	0.2	0.6	0.0	1.6
United Kingdom	1.8	1.4	1.5	1.6	0.0	0.1	1.3	1.5	1.6
Canada	3.0	2.1	1.9	1.9	-0.1	0.1	2.0	1.8	1.9
Other Advanced Economies 3/	2.8	2.8	2.5	2.5	0.0	0.0	2.8	2.3	2.9
Emerging Market and Developing Economies	4.7	4.6	4.5	4.9	-0.2	0.0	4.7	5.0	5.0
Commonwealth of Independent States	2.1	2.4	2.2	2.3	-0.2	-0.1	2.4	1.8	1.9
Russia	1.5	1.7	1.6	1.7	-0.2	-0.1	2.2	1.4	1.7
Excluding Russia	3.6	3.9	3.7	3.7	0.1	0.0	...	...	...
Emerging and Developing Asia	6.5	6.5	6.3	6.4	0.0	0.0	6.3	6.4	6.3
China	6.9	6.6	6.2	6.2	0.0	0.0	6.4	6.2	6.2
India 4/	6.7	7.3	7.5	7.7	0.1	0.0	7.1	7.6	7.7
ASEAN-5 5/	5.3	5.2	5.1	5.2	-0.1	0.0	5.1	5.1	4.7
Emerging and Developing Europe	6.0	3.8	0.7	2.4	-1.3	-0.4	1.3	2.1	1.6
Latin America and the Caribbean	1.3	1.1	2.0	2.5	-0.2	-0.2	0.3	3.0	1.9
Brazil	1.1	1.3	2.5	2.2	0.1	-0.1	1.9	2.4	2.2
Mexico	2.1	2.1	2.1	2.2	-0.4	-0.5	2.1	2.3	2.1
Middle East, North Africa, Afghanistan, and Pakistan	2.2	2.4	2.4	3.0	-0.3	0.0	...	...	...
Saudi Arabia	-0.9	2.3	1.8	2.1	-0.6	0.2	4.1	1.0	2.2
Sub-Saharan Africa	2.9	2.9	3.5	3.6	-0.3	-0.3	...	...	...
Nigeria	0.8	1.9	2.0	2.2	-0.3	-0.3	...	...	...
South Africa	1.3	0.8	1.4	1.7	0.0	0.0	0.5	0.9	2.2

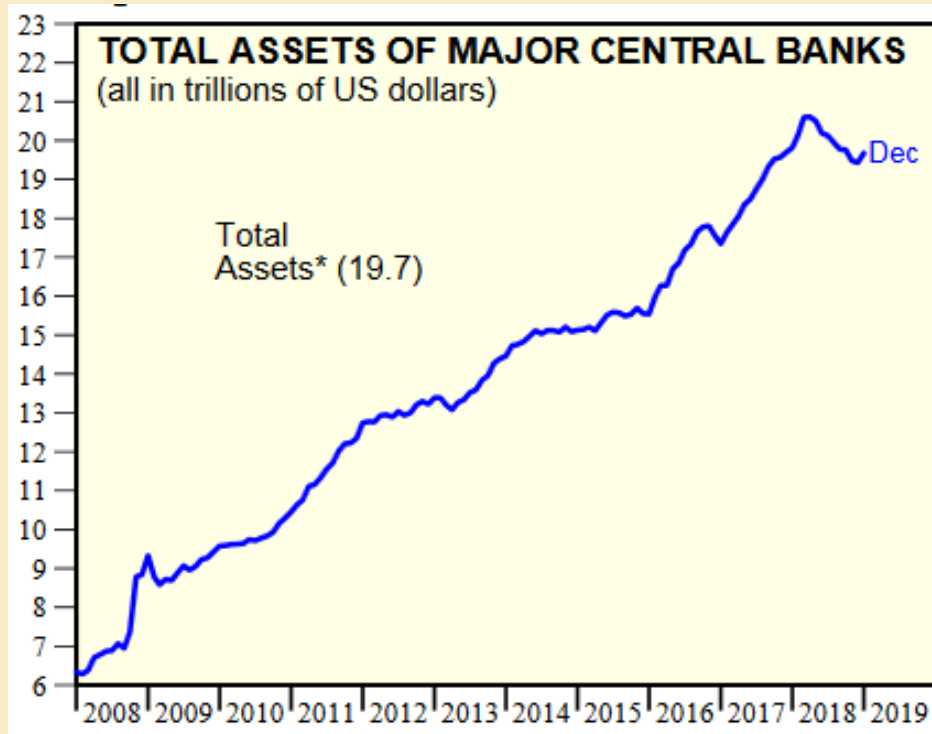
GDP across the globe

Country	GDP (Trillion \$ - 2018)	Rank (out of 195 nations)
World	84.84	
U.S.	20.51	1
China	13.46	2
Japan	5.07	3
Germany	4.03	4
United Kingdom	2.81	5

<https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/WEOWORLD/ADVEC/USA?year=2018>

Source: IMF

Global Central Bank Balance Sheets



*Includes US, ECB, Bank of Japan, and PBOC.

Source: Haver Analytics

<http://www.yardeni.com/pub/peacockfedecbassets.pdf>

Fed Funds Implied Probabilities

United States		Instrument		Futures: Fed Funds - Effective				Fed Effective Rate		2.40
1) Overview		2) Future Implied Probability								
Current Implied Probabilities							3) Add/Remove Rates			
Dates		<input checked="" type="radio"/> Meeting <input type="radio"/> Calculation		Calculated 02/25/2019				Based on rate 2.25-2.50		
Meeting	Hike Prob	Cut Prob	1.75-2	2-2.25	2.25-2.5	2.5-2.75	2.75-3	Fwd Rate		
03/20/2019	1.7%	0.0%	0.0%	0.0%	98.3%	1.7%	0.0%	2.41		
05/01/2019	1.6%	2.0%	0.0%	2.0%	96.3%	1.6%	0.0%	2.40		
06/19/2019	1.6%	6.5%	0.1%	6.4%	92.0%	1.6%	0.0%	2.39		
07/31/2019	2.2%	6.4%	0.1%	6.3%	91.4%	2.2%	0.0%	2.39		
09/18/2019	2.1%	7.3%	0.2%	7.2%	90.5%	2.1%	0.0%	2.38		
10/30/2019	2.1%	8.2%	0.2%	8.0%	89.6%	2.1%	0.0%	2.38		
12/11/2019	2.0%	13.6%	0.7%	12.9%	84.4%	2.0%	0.0%	2.37		
01/29/2020	1.8%	23.7%	2.2%	21.5%	74.5%	1.7%	0.0%	2.34		

Source: Bloomberg Finance LP.

