



# US Chartbook v0.0

**Notes:**

Author: Brian Dew, [brian.w.dew@gmail.com](mailto:brian.w.dew@gmail.com)

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Unless otherwise noted: data are seasonally adjusted and adjusted for inflation where necessary; growth and interest rates are presented on an annualized basis; and average growth rates are simple averages of individual period growth rates, rather than annualized cumulative growth.

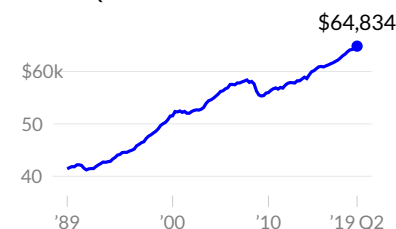
# Overall Economic Activity

This analysis of the United States economy begins with the most popular measure of economic activity, Gross Domestic Product (GDP). According to the Bureau of Economic Analysis, GDP—the seasonally-adjusted annualized value of goods and services produced in the US—was \$21,339 billion in the second quarter of 2019, compared to an inflation-adjusted equivalent of \$10,209 billion in the first quarter of 1989.

The US population is growing by about sixth-tenths of a percent per year. GDP per capita (see —), adjusted for inflation to 2019 Q2 dollars, has increased to \$64,834 in 2019 Q2 from \$41,425 in 1989 Q1.

## GDP per capita

in 2019 Q2 dollars



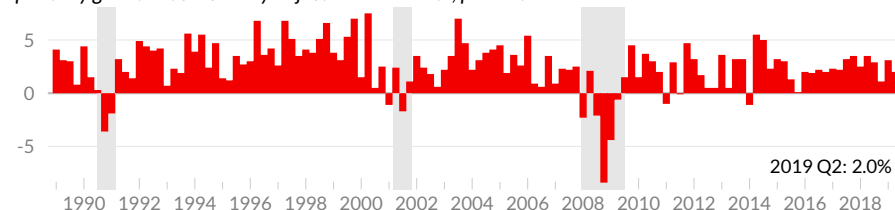
Source: Bureau of Economic Analysis

## Economic Growth

GDP (see ■) increased at an annual rate of 2.0 percent during the second quarter of 2019, compared to an increase of 3.1 percent in the first quarter of 2019. Quarterly growth has averaged 2.5 percent over the past three years, 2.2 percent over the past 10 years, and 2.5 percent over the past 30 years.

### Real Gross Domestic Product Growth

quarterly growth at seasonally adjusted annual rate, percent



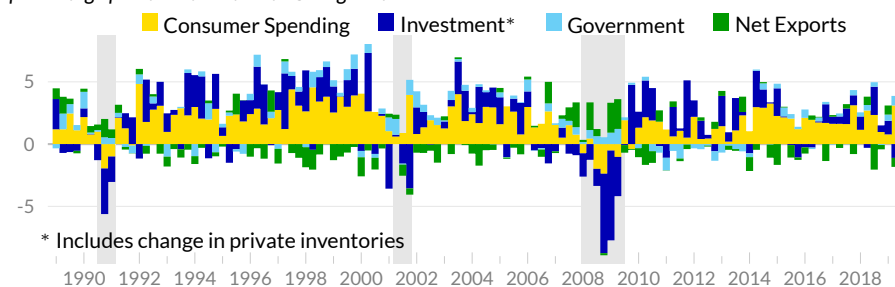
Source: Bureau of Economic Analysis

## Components of Growth

The **expenditure approach** compiles GDP from the sum of spending on domestic goods and services. Major spending categories are consumer spending (see ■), private investment (gross spending on capital goods) and changes in private inventories (see ■), government spending and investment (see ■), and net exports (see ■) which is measured as foreign spending on US goods and services less US spending on goods and services produced by the rest of the world.

### Real GDP Growth by Expenditure Type

percentage point contribution to GDP growth

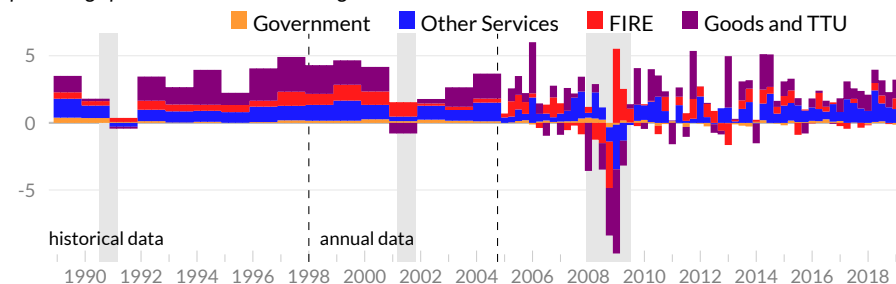


Source: Bureau of Economic Analysis

The **production approach** calculates GDP as the sum of gross value added–output minus inputs–in each sector. This identifies contributions from: goods-producing sectors combined with trade, transportation, and utilities (see ■), finance, insurance, and real estate (see ■), other service-providing sectors (see ■), and government (see ■).

### Real GDP Growth by Industry Group

percentage point contribution to GDP growth

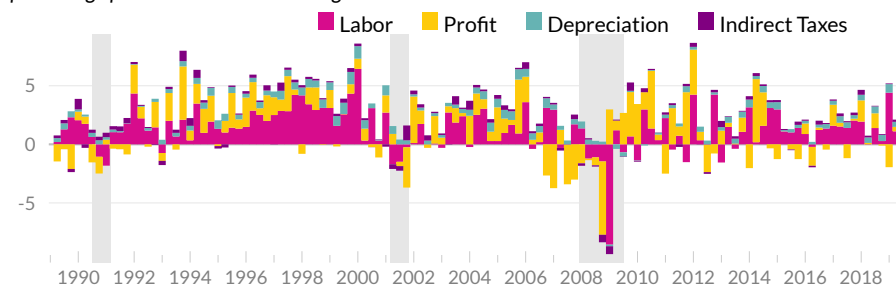


Source: Bureau of Economic Analysis

The **income approach** calculates GDP as the sum of market income to persons (in exchange for labor (see ■) or from returns on capital (see ■)), indirect taxes such as sales taxes or tariffs (see ■), and depreciation (see ■).

### Real Gross Domestic Income Growth

percentage point contribution to GDI growth

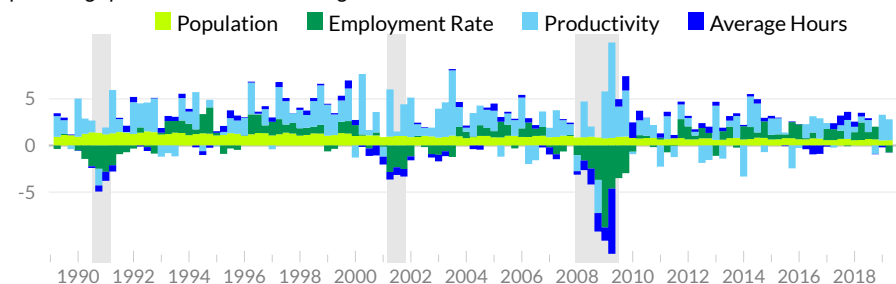


Source: Bureau of Economic Analysis

Changes to GDP can be assigned to changes in **household inputs**: population (see ■), employment rates (see ■), average hours worked (see ■), and total economy productivity (see ■).

### Real GDP Growth by Inputs

percentage point contribution to GDP growth



Source: Author's Calculations

## Components of Economic Growth

percentage point contribution to real GDP/GDI growth

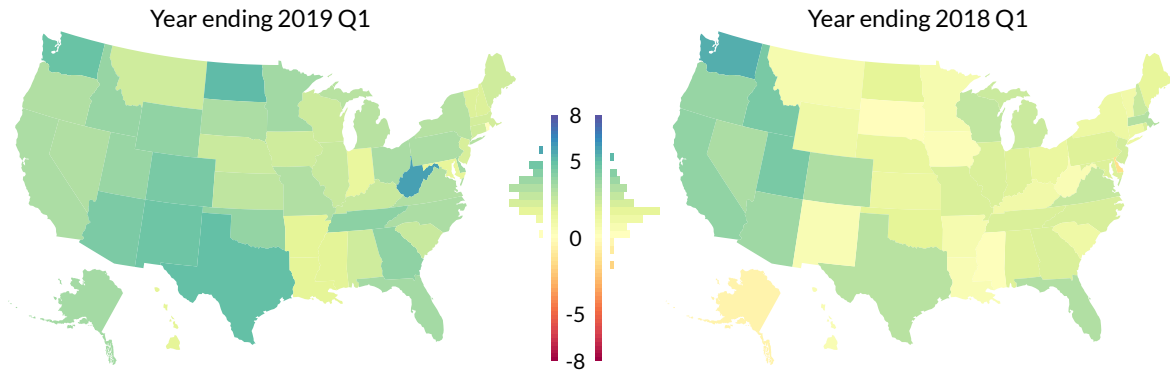
moving averages

	2019 Q2	'19 Q1	'18 Q4	'18 Q3	'18 Q2	3- year	10- year	30- year
<span style="color: red;">■</span> <b>Gross Domestic Product</b>	2.0	3.1	1.1	2.9	3.5	2.5	2.2	2.5
<span style="color: yellow;">■</span> Consumer Spending	3.10	0.78	0.97	2.34	2.70	1.88	1.58	1.81
Durable Goods	0.87	0.02	0.09	0.25	0.56	0.44	0.42	0.42
Non-durable Goods	0.91	0.30	0.24	0.50	0.57	0.40	0.30	0.33
Services	1.32	0.46	0.65	1.59	1.57	1.03	0.85	1.06
<span style="color: blue;">■</span> Gross Investment	-1.11	1.09	0.53	2.27	-0.30	0.62	0.87	0.59
Residential	-0.09	0.60	0.64	0.29	1.04	0.60	0.58	0.54
Non-residential	-0.11	-0.04	-0.18	-0.16	-0.15	-0.01	0.11	0.03
Change in inventories	-0.91	0.53	0.07	2.14	-1.20	0.04	0.17	0.03
<span style="color: lightblue;">■</span> Government	0.77	0.50	-0.07	0.36	0.44	0.25	0.00	0.24
Federal	0.52	0.14	0.07	0.19	0.25	0.14	0.01	0.07
State and Local	0.25	0.36	-0.14	0.17	0.19	0.12	-0.00	0.17
<span style="color: green;">■</span> Net Exports	-0.72	0.73	-0.35	-2.05	0.67	-0.25	-0.20	-0.15
Exports	-0.71	0.49	0.18	-0.78	0.71	0.27	0.48	0.51
Imports	-0.01	0.23	-0.53	-1.27	-0.04	-0.52	-0.67	-0.66
<span style="color: purple;">■</span> Goods and TTU	-	1.39	1.13	1.13	0.99	0.89	0.57	0.91
Manufacturing	-	0.51	0.32	0.31	0.26	0.32	0.15	0.33
Construction	-	0.00	-0.09	0.12	0.11	0.07	-0.00	-0.01
Retail Trade	-	0.63	-0.14	0.34	-0.06	0.24	0.13	0.20
<span style="color: red;">■</span> FIRE	-	0.80	-0.07	0.59	0.55	0.21	0.48	0.47
<span style="color: blue;">■</span> Other Services	-	1.03	1.16	1.33	2.35	1.19	0.86	0.89
Education & Healthcare	-	0.51	0.16	0.24	0.34	0.24	0.18	0.19
Professional & Business	-	0.27	0.48	0.59	0.96	0.48	0.33	0.34
Information	-	0.25	0.47	0.41	0.70	0.41	0.29	0.26
<span style="color: orange;">■</span> Government	-	-0.14	-0.02	0.12	0.07	0.06	0.00	0.10
<span style="color: lightgreen;">■</span> Population	0.57	0.55	0.66	0.70	0.59	0.64	0.72	0.98
<span style="color: green;">■</span> Employment Rate	-0.75	-0.05	1.36	0.74	1.88	0.61	0.30	0.02
<span style="color: blue;">■</span> Average Hours	-0.02	-0.15	-0.04	0.20	0.40	0.09	0.14	0.02
<span style="color: lightblue;">■</span> Productivity	2.24	2.75	-0.90	1.29	0.64	1.16	1.10	1.48
<b>Gross Domestic Income</b>	2.1	3.2	0.8	3.3	0.7	2.0	2.4	2.5
<span style="color: magenta;">■</span> Labor	1.11	4.41	0.28	1.39	-0.03	1.38	1.18	1.29
<span style="color: yellow;">■</span> Profit	0.38	-1.95	-0.11	1.26	0.12	0.06	0.79	0.63
<span style="color: teal;">■</span> Depreciation	0.43	0.73	0.53	0.59	0.47	0.44	0.31	0.42
<span style="color: purple;">■</span> Indirect Taxes	0.19	0.06	0.07	0.05	0.15	0.15	0.15	0.17

Source: Bureau of Economic Analysis and Author's Calculations

## Real GDP Growth by State

percentage point change in real GDP



Source: Bureau of Economic Analysis

For the year ending 2019 Q1, one state (West Virginia) had real GDP growth of more than five percent, 40 states had real GDP growth between two and five percent, 10 states had less than two percent GDP growth, and no states had negative GDP growth.

## Real GDP Growth by State

quarterly growth at seasonally adjusted annualized rate

total growth

	2019 Q1	'18 Q4	'18 Q3	'18 Q2	'18 Q1	1-year	3-year	10-year
<b>United States</b>	2.2	4.2	3.4	2.2	3.1	3.2	8.3	23.4
<b>Pacific</b>	1.7	6.4	2.0	2.3	2.8	3.3	11.8	31.5
Washington	7.2	7.2	5.4	3.1	3.1	4.7	16.2	38.1
California	0.9	6.6	1.2	2.2	2.7	3.2	11.4	32.1
Oregon	2.0	3.6	4.2	1.3	3.1	3.1	12.1	27.7
Hawaii	0.0	2.4	1.6	1.1	1.2	1.6	4.7	16.1
Alaska	-5.7	1.7	2.9	4.9	3.9	3.4	0.2	-2.9
<b>West South Central</b>	2.4	4.1	2.5	5.6	4.7	4.2	6.7	26.7
Texas	2.4	4.5	3.3	6.6	5.1	4.9	8.3	34.0
Oklahoma	0.8	5.4	0.2	5.5	3.9	3.7	1.4	18.7
Arkansas	1.0	1.7	0.6	1.5	2.5	1.6	3.0	12.2
Louisiana	4.3	1.4	-0.1	1.3	3.8	1.6	2.0	-1.5
<b>Middle Atlantic</b>	1.2	4.1	2.8	1.2	3.1	2.8	6.9	20.2
New York	0.5	4.7	3.0	0.2	3.8	2.9	7.8	26.7
Pennsylvania	0.7	4.0	3.2	2.5	2.9	3.2	6.3	18.5
New Jersey	3.6	2.4	1.8	1.8	1.8	2.0	5.3	7.9
<b>Mountain</b>	2.7	4.0	4.8	3.3	3.8	4.0	10.0	20.0
Utah	5.9	3.7	4.7	1.8	4.2	3.6	12.2	32.8
Colorado	0.3	5.9	4.1	3.8	3.6	4.4	10.8	29.9
Idaho	2.0	5.6	3.6	2.7	2.7	3.6	12.5	21.6

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	2019 Q1	'18 Q4	'18 Q3	'18 Q2	'18 Q1	1-year	3-year	10-year
continued from previous page . . .								
Arizona	5.2	2.6	7.4	3.5	3.8	4.3	12.4	18.9
Montana	-0.4	3.2	1.4	1.3	3.2	2.2	2.4	15.0
Nevada	6.4	2.5	2.7	2.8	4.0	3.0	9.0	11.0
New Mexico	-1.1	4.3	5.5	4.1	4.6	4.6	4.7	7.6
Wyoming	-6.2	3.0	2.8	6.0	3.3	3.8	-0.2	-13.3
<b>South Atlantic</b>	2.0	3.2	4.7	1.7	2.7	3.1	8.4	18.6
Georgia	-0.5	2.6	7.6	2.1	3.1	3.8	10.6	24.2
South Carolina	1.4	2.5	3.2	1.6	2.5	2.4	7.6	21.2
Florida	4.1	1.4	7.2	2.0	2.9	3.4	10.3	20.8
Maryland	0.4	3.7	-0.9	1.2	1.8	1.5	6.9	18.5
District of Columbia	3.7	1.4	6.3	0.1	1.4	2.3	7.2	17.6
North Carolina	2.0	7.7	0.5	1.9	2.8	3.2	7.9	15.1
Virginia	2.9	2.9	4.9	1.5	2.7	3.0	6.4	14.7
Delaware	-1.2	0.8	9.0	0.0	3.9	3.4	0.6	13.8
West Virginia	-2.0	6.8	9.3	1.8	5.2	5.7	6.1	6.5
<b>West North Central</b>	0.9	6.4	1.5	1.4	2.7	3.0	4.7	17.0
North Dakota	0.5	9.6	3.2	3.5	3.9	5.0	-0.9	52.0
Nebraska	0.7	4.7	-0.8	2.2	3.4	2.4	3.5	25.8
South Dakota	4.6	2.4	4.5	2.1	3.6	3.1	1.2	22.7
Minnesota	0.1	7.6	2.5	1.1	2.6	3.4	7.5	20.4
Iowa	1.4	6.5	-0.2	0.3	2.3	2.2	2.1	19.7
Kansas	0.6	5.4	1.2	0.9	3.1	2.6	5.7	14.7
Missouri	1.4	6.2	1.8	1.8	2.3	3.0	4.6	5.0
<b>East North Central</b>	2.8	1.8	3.9	1.5	3.0	2.5	5.9	16.4
Ohio	0.2	3.1	4.9	1.4	3.5	3.2	5.8	18.8
Michigan	2.3	3.8	3.3	1.8	2.6	2.9	7.5	18.4
Wisconsin	4.9	1.6	2.4	2.1	2.9	2.3	6.4	17.3
Indiana	4.0	-0.4	1.9	0.9	2.9	1.3	6.5	14.8
Illinois	4.0	0.6	5.0	1.3	2.9	2.4	4.5	13.6
<b>New England</b>	3.6	0.6	3.3	1.7	2.5	2.0	5.2	15.1
Massachusetts	4.7	2.2	1.8	1.8	2.7	2.1	7.2	25.4
New Hampshire	6.4	-0.7	3.9	1.7	2.6	1.9	5.7	20.7
Vermont	0.9	4.0	-1.1	1.9	2.5	1.8	5.0	11.9
Maine	2.0	2.5	3.1	0.7	2.6	2.2	6.1	8.6
Rhode Island	1.3	3.2	-5.7	1.0	2.2	0.1	0.9	7.7
Connecticut	1.7	-3.6	9.0	1.8	2.2	2.2	1.8	-0.1
<b>East South Central</b>	0.3	4.5	3.0	1.6	2.4	2.9	6.3	14.4
Tennessee	0.6	6.6	5.2	1.6	2.4	3.9	8.9	23.6
Kentucky	-1.8	4.5	0.9	1.8	2.5	2.4	4.1	12.8
Alabama	1.2	2.2	1.8	2.1	2.7	2.2	5.8	10.6
Mississippi	1.3	2.2	2.0	0.5	1.9	1.7	2.8	0.0

Regional breakdown with four columns (full width) and the various state IDs and the latest, 1-year and 3-year moving averages. Then do a stacked bar chart that assigns GDP growth to the various regions.

May also want to have some text that describes the contributions to total GDP growth, some of the top and bottom states, and some overall trends. For example, how many states have averaged GDP growth of 2 percent or more over the past three years? Which states have averaged GDP growth of 4 percent or more the past year? If `len(states) < 4` print out the state names.

How many states does it take to make up half of US GDP growth?

# Poverty

## Share of local population in bottom third of housing-adjusted income, 2017

Share of commuting zone householders with after-housing-expense annual income below \$13,060

