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# GDP

## Measuring the Economy

Date last updated: September 14, 2020

Federal Reserve Bank of San Francisco  
Economic Education

# GDP – Did You Know?

## Known As

- Gross Domestic Product
- National Output
- Measure of the Economy's Health

## Calculation

### Three ways to measure national output:

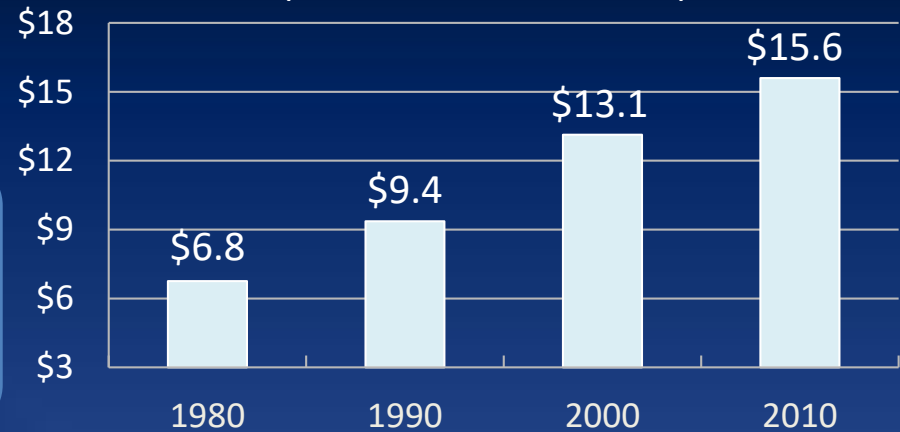
- Expenditure Approach: sum of goods and services sold to final users (this is the most common approach)
- Income Approach: sum of income payments and other costs incurred in the production of goods and services
- Value-Added Approach: sum of the value added at each stage of production

## Data Reports

- The Bureau of Economic Analysis (BEA) is responsible for calculating values of GDP
- The BEA publishes estimates on an annual and quarterly basis
- The “advanced” estimates of GDP are released roughly four weeks after the end of each quarter (January, April, July, and October)
- “Revised” estimates incorporate more complete and accurate source data

## Annual Real U.S. GDP

(Trillions of chained 2012 dollars)



Source: Bureau of Economic Analysis

Real GDP (adjusted for inflation) nearly doubled in value between 1980 and 2000. In 2010, real GDP reached \$15.6 trillion.

# Components of GDP (Expenditure Approach)

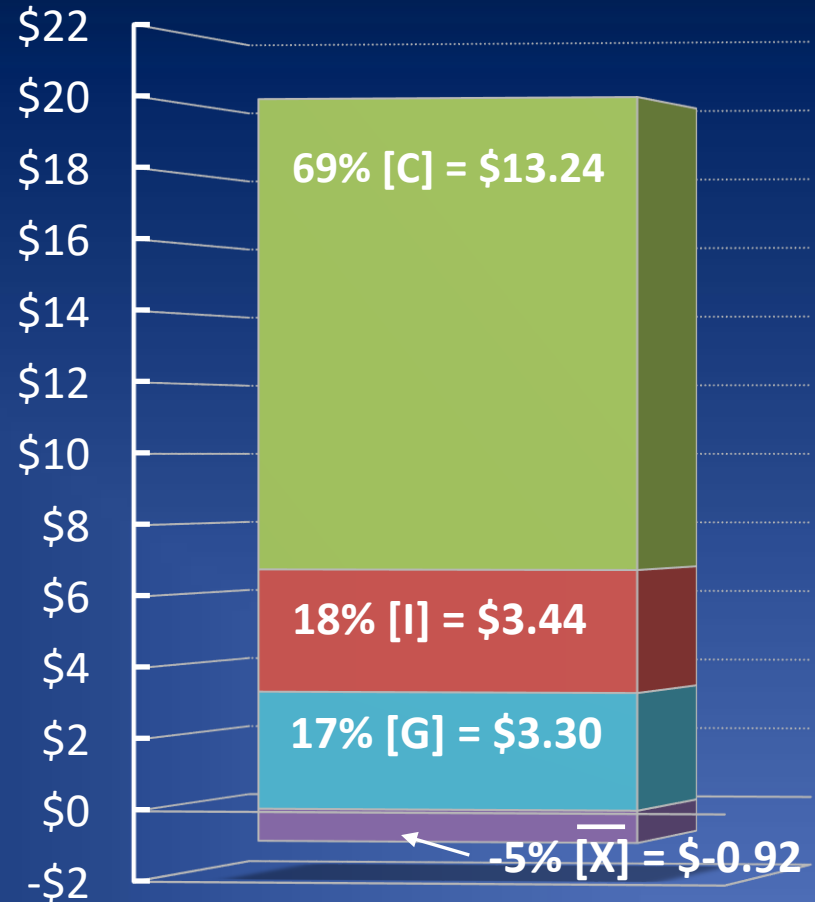
**[C]** **Consumption**  
e.g., durables and nondurables

**[I]** **Investment**  
e.g., business investment in equipment and factories

**[G]** **Government Spending**  
e.g., government purchases of goods and services

**[X]** **Net Exports**  
e.g., U.S. exports to other countries, less imports

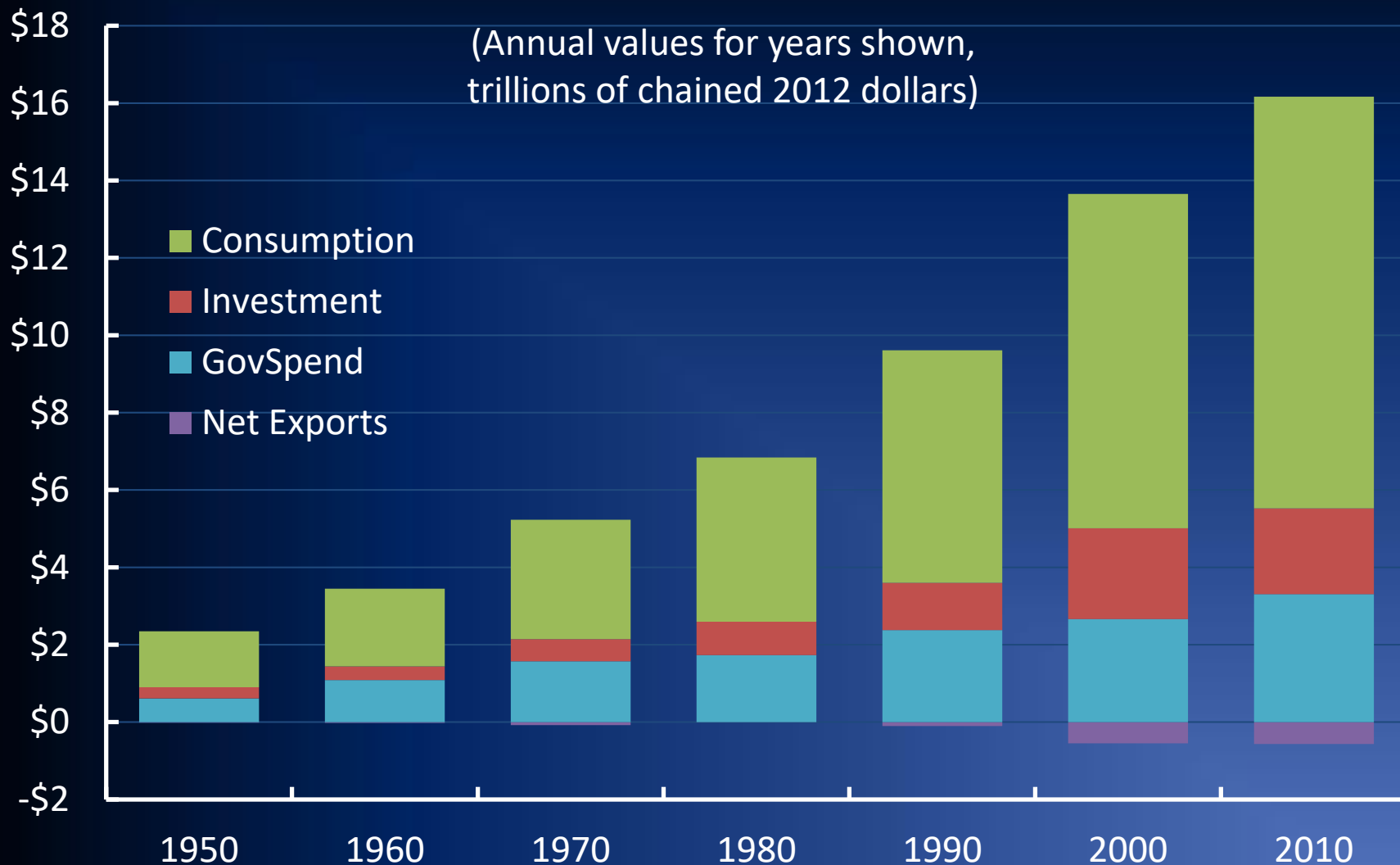
**Real GDP in 2019**  
(Trillions of chained 2012 dollars)



Sources: Bureau of Economic Analysis & FRBSF Calculations

# U.S. Real GDP

by major spending category



Source: Bureau of Economic Analysis

207403  
2615  
43634  
32207

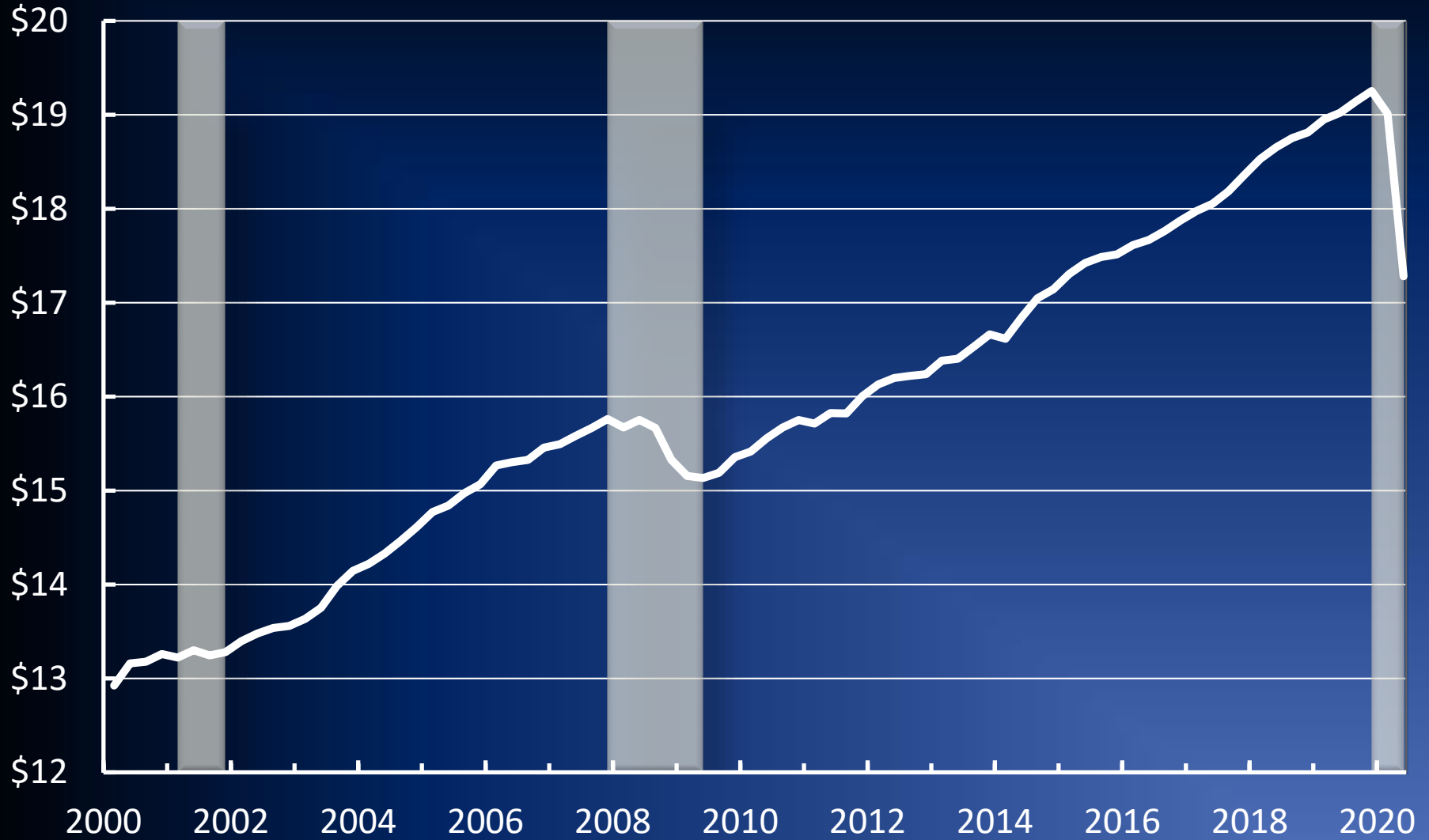
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[www.frbsf.org/education/teacher-resources/datapost](http://www.frbsf.org/education/teacher-resources/datapost)

FRBSF Economic Education

# U.S. Real GDP by Quarter

(Trillions of chained 2012 dollars, SAAR)

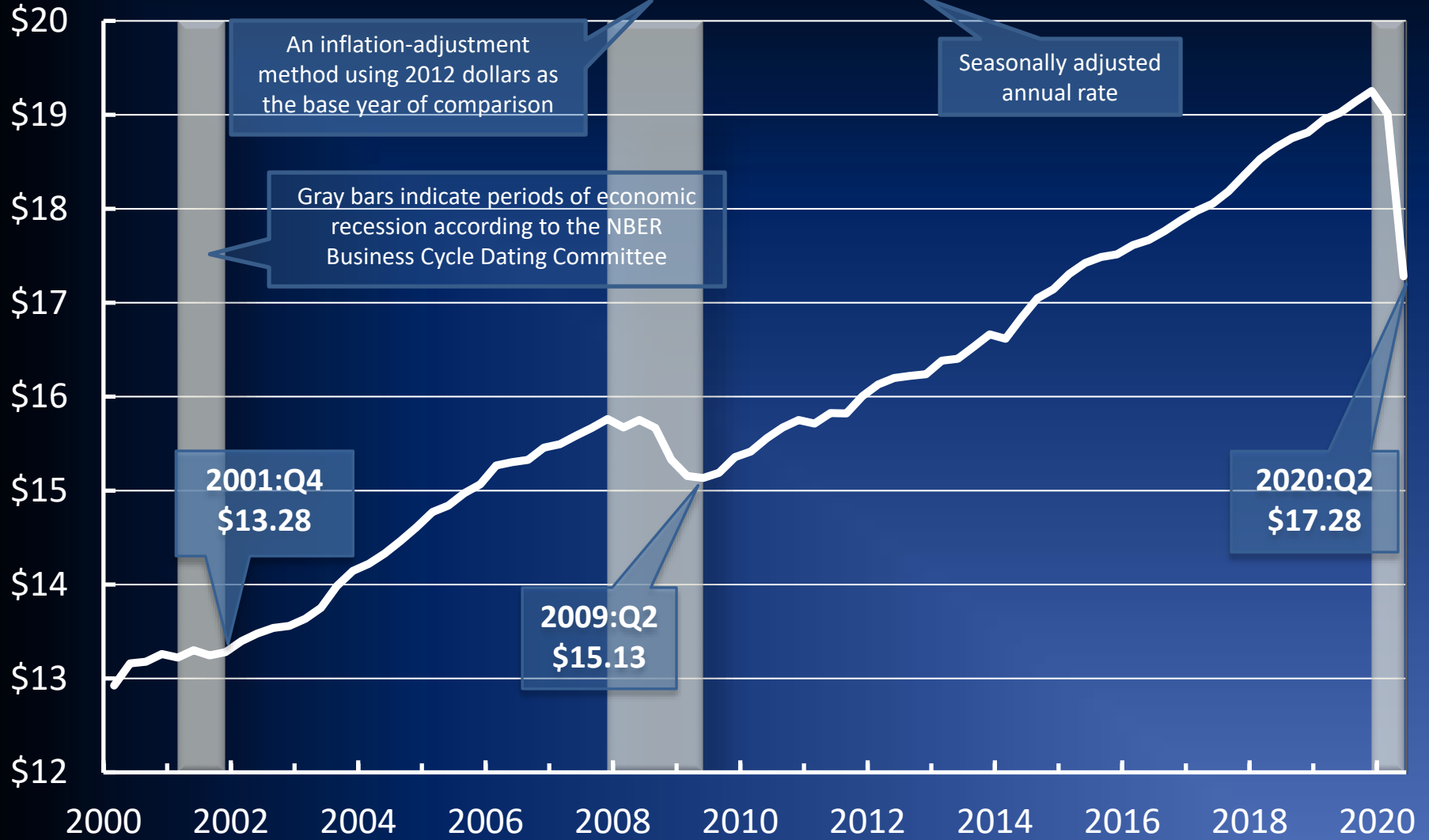


Source: Bureau of Economic Analysis

# Annotated Chart Notes

## U.S. Real GDP by Quarter

(Trillions of chained 2012 dollars, SAAR)

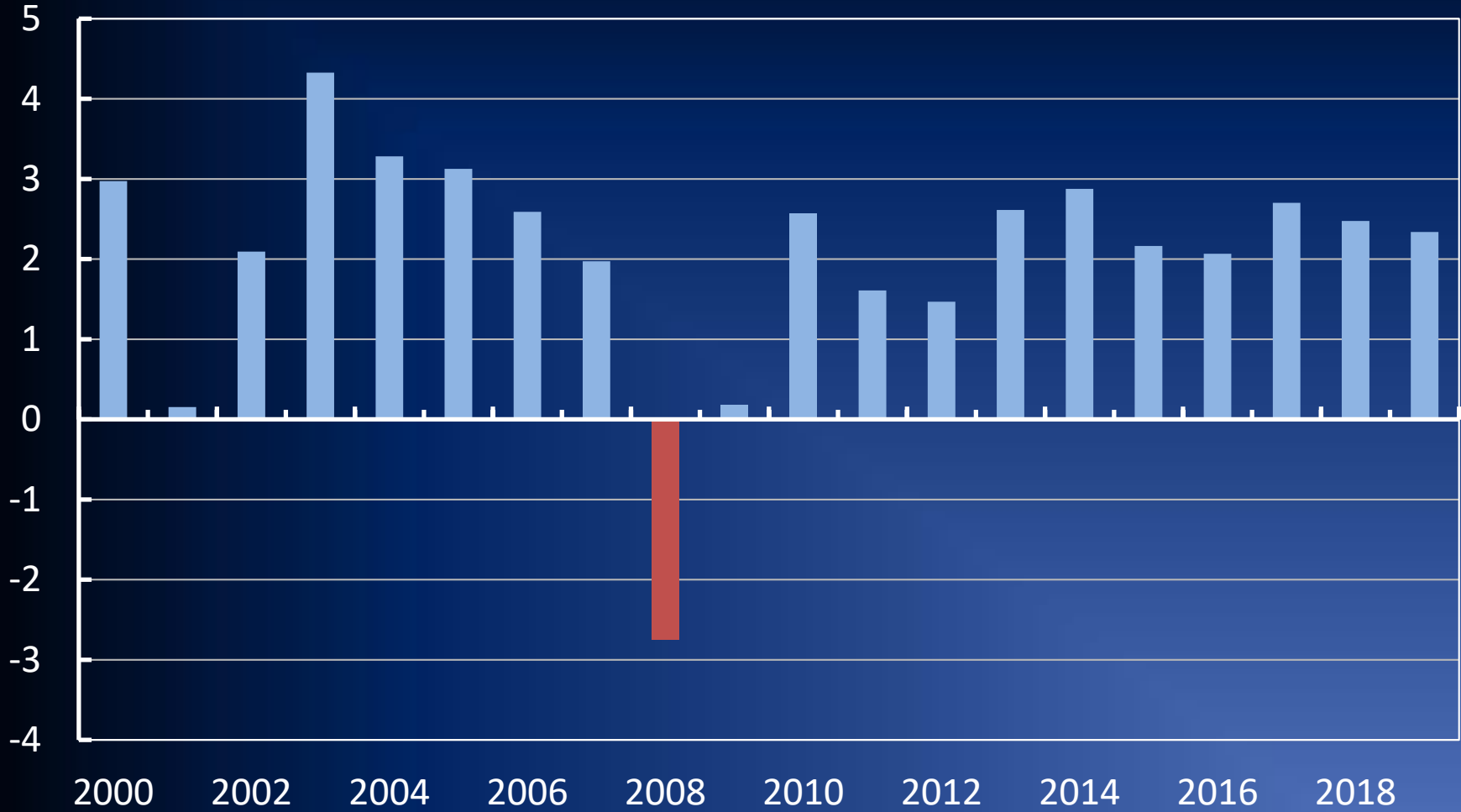


Source: Bureau of Economic Analysis

# Measuring Changes in GDP: Yearly % Change

## Real Gross Domestic Product (GDP)

Q4/Q4 Percent Change



Source: Bureau of Economic Analysis & FRBSF Calculations

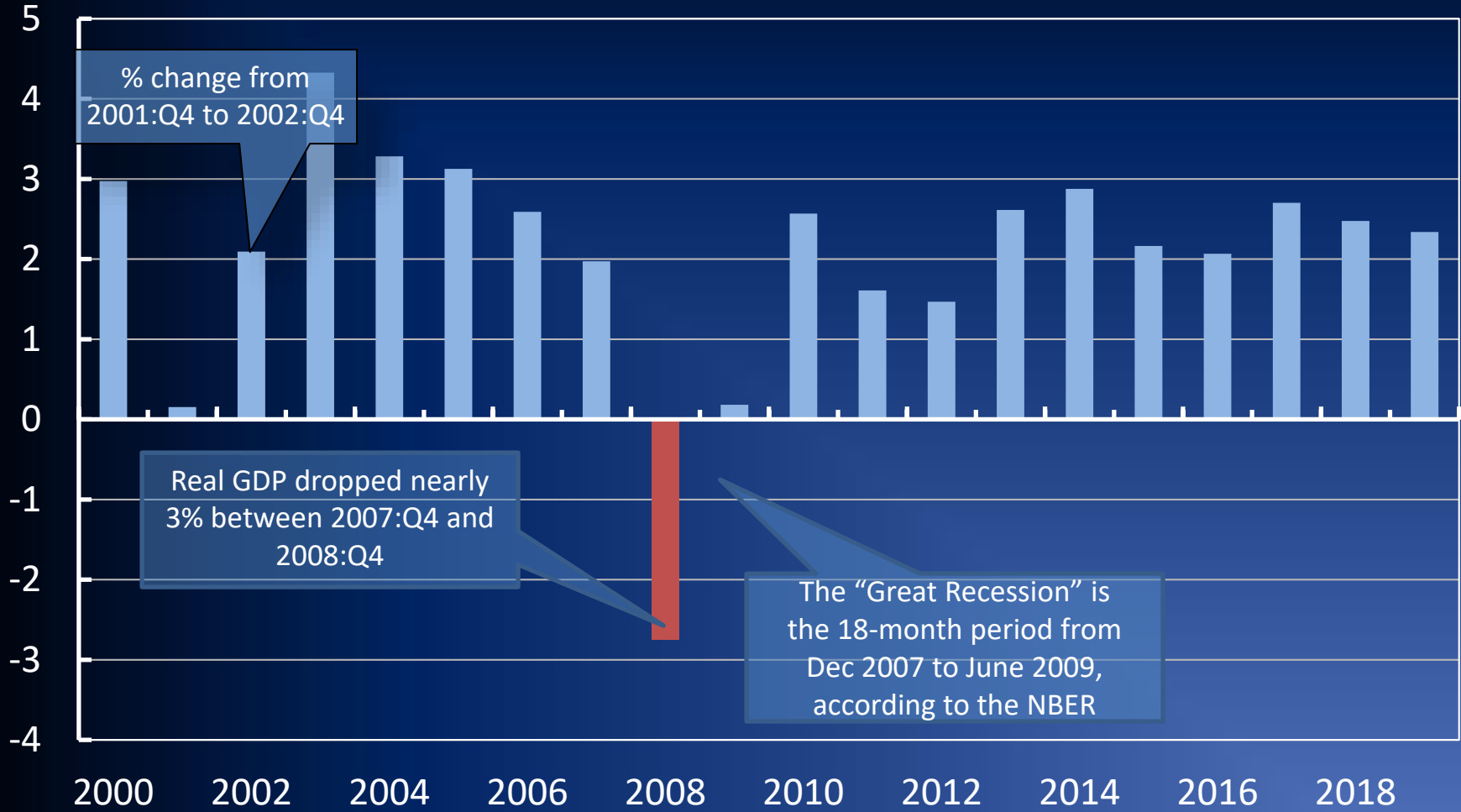
Note: Values are percent change using trillions of chained 2012 dollars (SAAR)

# Annotated Chart Notes

## Measuring Changes in GDP: Yearly % Change

Real Gross Domestic Product (GDP)

Q4/Q4 Percent Change



Source: Bureau of Economic Analysis & FRBSF Calculations

Note: Values are percent change using trillions of chained 2012 dollars (SAAR)



# What Do You Think?

1. How has consumer spending changed since 1950? How have net exports changed since 1980? (See slide 4)
2. What was the lowest level of real GDP during the Great Recession? (See slide 5)
3. How does real GDP growth in the Great Recession compare to early 2000s recession? (See slide 7)
4. Why is GDP considered a good measure of the “health” of the economy?