GDP
Measuring the Economy
GDP – Did You Know?

Did You Know?

$6.8
$9.4
$13.1
$15.6

1980
1990
2000
2010

Annual Real U.S. GDP
(Trillions of chained 2012 dollars)

$3
$6
$9
$12
$15
$18

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

Source: Bureau of Economic Analysis

Components of GDP (Expenditure Approach)

- **Consumption**
  - e.g., durables and nondurables
  - \[C\] = $13.24
  - 69%

- **Investment**
  - e.g., business investment in equipment and factories
  - \[I\] = $3.44
  - 18%

- **Government Spending**
  - e.g., government purchases of goods and services
  - \[G\] = $3.30
  - 17%

- **Net Exports**
  - e.g., U.S. exports to other countries, less imports
  - \[X\] = $0.92
  - -5%

Real GDP in 2019
(Trillions of chained 2012 dollars)

- $22
- $20
- $18
- $16
- $14
- $12
- $10
- $8
- $6
- $4
- $2
- $0
- -$2

Sources: Bureau of Economic Analysis & FRBSF Calculations

Sources: www.frbsf.org/education/teacher-resources/datapost

FRBSF Economic Education
U.S. Real GDP
by major spending category

(Annual values for years shown, trillions of chained 2012 dollars)

Source: Bureau of Economic Analysis

www.frbsf.org/education/teacher-resources/datapost
U.S. Real GDP by Quarter
(Trillions of chained 2012 dollars, SAAR)

Source: Bureau of Economic Analysis

www.frbsf.org/education/teacher-resources/datapost
Annotated Chart Notes
U.S. Real GDP by Quarter
(Trillions of chained 2012 dollars, SAAR)

- Gray bars indicate periods of economic recession according to the NBER Business Cycle Dating Committee.
- An inflation-adjustment method using 2012 dollars as the base year of comparison.
- Seasonally adjusted annual rate.

Source: Bureau of Economic Analysis

www.frbsf.org/education/teacher-resources/datapost
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)
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

- % change from 2001:Q4 to 2002:Q4
- Real GDP dropped nearly 3% between 2007:Q4 and 2008:Q4
- The “Great Recession” is the 18-month period from Dec 2007 to June 2009, according to the NBER
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?