Results of the 2021 Annual Update of the National Income and Product Accounts

Released July 29, 2021
Real GDP

![Real GDP Graph]

2016 2017 2018 2019 2020

Percent Change

Trillions of Dollars

Q1 Q2 Q3 Q4

Real GDP, Revised
Real GDP, Previously Published
Real GDP, Percent Change, Revised
Real GDP, Percent Change, Previously Published

2021 Annual Update of the National Income and Product Accounts
Released July 29, 2021
Average annual rates of change for real GDP, business cycles

Previously Published (lighter shade)  |  Revised (darker shade)
---|---
1991Q1-2001Q1 | 3.6  3.6
2001Q1-2001Q4 | 0.6  0.7
2001Q4-2007Q4 | 2.9  2.9
2007Q4-2009Q2 | -2.7 -2.6
2009Q2-2019Q4 | 2.3  2.3
2019Q4-2020Q2 | -19.2 -19.2
2020Q2-2020Q4 | 18.0 18.3

2021 Annual Update of the National Income and Product Accounts
Released July 29, 2021
Change in real GDP

Previously Published (lighter shade)  Revised (darker shade)

<table>
<thead>
<tr>
<th>Year</th>
<th>Previously Published</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>2017</td>
<td>2.3</td>
<td>2.3</td>
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<tr>
<td>2018</td>
<td>3.0</td>
<td>2.9</td>
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<tr>
<td>2019</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>2020</td>
<td>-3.5</td>
<td>-3.4</td>
</tr>
</tbody>
</table>
Average annual rates of change for real GDP, 2015 Q4 to 2020 Q4

<table>
<thead>
<tr>
<th>Category</th>
<th>Previously Published</th>
<th>Revised</th>
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<tbody>
<tr>
<td>GDP</td>
<td>1.4</td>
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<tr>
<td>PCE</td>
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<td>1.5</td>
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<tr>
<td>Investment</td>
<td>2.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Exports</td>
<td>-0.7</td>
<td>-0.8</td>
</tr>
<tr>
<td>Imports</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Government Spending</td>
<td>1.3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Percent
Real GDP

[Percent change from preceding period, SAAR]
### Real GDP: 2020Q1-2020Q4

[Percent change at quarterly rate]

<table>
<thead>
<tr>
<th></th>
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<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Q1</td>
<td>-1.3</td>
<td>-1.3</td>
<td>0.0</td>
</tr>
<tr>
<td>2020 Q2</td>
<td>-9.0</td>
<td>-8.9</td>
<td>0.1</td>
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<tr>
<td>2020 Q3</td>
<td>7.5</td>
<td>7.5</td>
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<tr>
<td>2020 Q4</td>
<td>1.1</td>
<td>1.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>
### Fourth quarter over fourth quarter change in real GDP

[Percent change from fourth quarter to fourth quarter, one year ago]

<table>
<thead>
<tr>
<th>Year</th>
<th>Previously Published</th>
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<th>Revision</th>
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<tbody>
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<td>2.1</td>
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<td>-0.1</td>
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<tr>
<td>2019</td>
<td>2.3</td>
<td>2.6</td>
<td>0.3</td>
</tr>
<tr>
<td>2020</td>
<td>-2.4</td>
<td>-2.3</td>
<td>0.1</td>
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Change in real GDI

<table>
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<th>Previously Published</th>
<th>Revised</th>
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</thead>
<tbody>
<tr>
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<td>0.9</td>
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<tr>
<td>2017</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>2018</td>
<td>2.6</td>
<td>2.9</td>
</tr>
<tr>
<td>2019</td>
<td>1.8</td>
<td>2.0</td>
</tr>
<tr>
<td>2020</td>
<td>-3.3</td>
<td>-2.9</td>
</tr>
</tbody>
</table>

Previously Published (lighter shade)  
Revised (darker shade)
New and revised source data

- Quarterly Census of Employment and Wages
- Occupational Employment Statistics
- Producer Price Index
- Consumer Price Index

- American Community Survey
- Annual Capital Expenditures Survey
- Annual Retail Trade Survey
- Annual Survey of Manufactures
- Annual Survey of State and Local Government Finances
- Annual Wholesale Trade Survey
- Value of Construction Put in Place Survey
- Service Annual Survey
- Quarterly Services Survey
- 2017 Economic Census

- Office of Management and Budget: Federal budget
- Internal Revenue Service: Tax returns for corporations, sole proprietorships, and partnerships
- Federal Reserve Board: FAUS
- Department of Agriculture: Farm statistics

- International transactions accounts

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Statistical improvements

• **New housing services methodology based on the American Community Survey**
  • Bottom-up approach developed at the local level within each State; aggregated to National totals

• **Extended improvements first incorporated into BEA’s International Transactions Accounts in June 2020 back to 1999 in the NIPAs**
  • Extended imports of financial services that are furnished without payment by financial institutions
  • Extended improved allocation of Treasury Inflation-Protected Securities (TIPS) that harmonized economic accounting for inflation adjustments on interest paid to foreign holders of TIPS with that paid to domestic business and persons
New housing services methodology

- **Bottom-up approach replaces top-down approach**
  - Single data source: American Community Survey
  - Annual current-dollar values estimated for each unit

- **Tenant-occupied units: Sums of actual tenant rents**

- **Owner-occupied units: Two components**
  - Rental equivalence
    - Stratified averages of reported tenant rents applied to owner units by year and PUMA (strata = age, structure type, #bedrooms, #rooms)
  - Owner premium = value of unit ÷ median value by stratum
    - Adjusts for known quality differences between owner units and tenant units
    - Increases aggregate rental equivalence value by 35-40% each year
Consumer spending on housing

[Billions of chained (2012) dollars]
2018 Q1: Contributions to revision to change in GDP

Change in real GDP was revised from 3.8 percent to 3.1 percent (SAAR)

The bar chart shows the contributions to the change in real GDP. The revised change in real GDP of 3.1 percent (SAAR) is attributed to:

- **Census Quarterly Services Survey**: Contribution of 0.24 percentage points.
- **Census manufacturers’ shipments**: Contribution of -0.38 percentage points.
- **Census foreign trade statistics**: Contribution of -0.35 percentage points.
- **Imports**: Contribution of -0.11 percentage points.
- **Government spending**: Contribution of -0.00 percentage points.

The contributions from PCE, Investment, and Exports are also shown, but their contributions are not specified in the provided data.
2018 Q2: Contributions to revision to change in GDP

Change in real GDP was revised from 2.7 percent to 3.4 percent (SAAR)

GDP PCE Investment Exports Imports Government spending

-0.40 -0.20 0.00 0.20 0.40 0.60 0.80

Percentage points

0.7

BEA International Transactions Accounts (ITAs)

0.21

Census Value-Put-In-Place (VPIP)

0.33

Census foreign trade statistics

0.38

BEA ITAs

-0.23

-0.01

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2019 Q2: Contributions to revision to change in GDP

Change in real GDP was revised from 1.5 percent to 3.2 percent (SAAR)

- GDP: 1.7
- PCE: -0.10
- Investment: 1.52
- Exports: 0.28
- Imports: 0.01
- Government spending: 0.00

Census VPIP, manufacturers' shipments, & wholesale trade inventories
Census foreign trade statistics
Change in real GDP was revised from -5.0 percent to -5.1 percent (SAAR)

- GDP: -0.1
- PCE: -0.04
- Investment: 0.64
- Exports: -0.83
- Imports: -0.35
- Government spending: 0.41

Contributions to the revision:
- Census inventories & BLS Producer Price Indexes: 0.64
- BEA ITAs: -0.83
- Census public employment & payroll: 0.41
- Census foreign trade statistics: -0.35
Change in real GDP was revised from -31.4 percent to -31.2 percent (SAAR)
2020 Q3: Contributions to revision to change in GDP

Change in real GDP was revised from 33.4 percent to 33.8 percent (SAAR)

- GDP: 0.4
- PCE: 0.07
- Investment: -0.25
- Exports: -0.25
- Imports: 0.21
- Government spending: 0.56

Sources:
- Census Public employment & payroll
- Census foreign trade statistics
- IHS Polk Automotive
- BEA ITAs
Change in real GDP was revised from 4.3 percent to 4.5 percent (SAAR)

- GDP: 0.2
- PCE: 0.68
- Investment: -0.40
- Exports: 0.03
- Imports: -0.16
- Government spending: 0.05

Contributions to revision to change in GDP

- Census
- Monthly Retail Trade Survey

2020 Q4: Contributions to revision to change in GDP
National income

[Revision in level]

Billions of dollars

2016 2017 2018 2019 2020

-49.3 -78.9 -16.2 4.0 102.2

National Income
Proprietors’ income with IVA, CCAdj
Rental income of persons with CCAdj
Corporate profits with IVA, CCAdj

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Corporate profits by industry

Billions of dollars

Domestic Industries

Rest of the world

Previously Published (lighter shade)  Revised (darker shade)
Personal income

[Revision in level]

Billions of dollars

2016 2017 2018 2019 2020

-63.8 -98.4 -145.8 -127.1 -100.3

Personal Income
Compensation of Employees
Proprietors’ income with IVA, CCAdj
Rental income with CCAdj
Personal dividend income

2021 Annual Update of the National Income and Product Accounts
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Personal saving rate

[Personal saving as a percentage of disposable personal income]

2021 Annual Update of the National Income and Product Accounts
Released July 29, 2021
Personal saving rate

[Personal saving as a percentage of disposable personal income]
Thank you.