Selected Charts on the Long-Term Fiscal Challenges of the United States

November 2021
The national debt will rise to a historic high by the end of 2031


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The growing debt is caused by a structural mismatch between spending and revenues.

**FEDERAL SPENDING AND REVENUES (% OF GDP)**

- **Average Spending (1986–2020)**
- **Average Revenues (1986–2020)**
- **Spending**
- **Revenues**

Net interest costs are projected to rise sharply

**Net Interest (Billions of Dollars)**

- **Actual**
- **Projected**

**10-Year Interest Costs:** $5.4 trillion

By 2051, interest costs are projected to be more than three times what the federal government has historically spent on R&D, infrastructure, and education combined.

**FEDERAL SPENDING (% OF GDP)**

<table>
<thead>
<tr>
<th>Year</th>
<th>R&amp;D</th>
<th>Infrastructure</th>
<th>Education</th>
<th>Projected Interest Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>1.6%</td>
<td></td>
<td>2.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td>2041</td>
<td></td>
<td></td>
<td></td>
<td>8.6%</td>
</tr>
<tr>
<td>2051</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Average Spending (1971–2020)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5%</td>
<td></td>
</tr>
</tbody>
</table>

**Projected Interest Costs**

<table>
<thead>
<tr>
<th>Year</th>
<th>Interest Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>1.6%</td>
</tr>
<tr>
<td>2031</td>
<td>2.4%</td>
</tr>
<tr>
<td>2041</td>
<td>5.2%</td>
</tr>
<tr>
<td>2051</td>
<td>8.6%</td>
</tr>
</tbody>
</table>


**NOTE:** Infrastructure excludes defense.
Over the past decade, the U.S. spent more on interest on the national debt than it did on other national priorities.

**Federal Spending from FY2011 to FY2020 (Billions of Dollars)**

- **Net Interest Costs**: $2.7 Trillion
- **Veterans Benefits and Services**: $1.6 Trillion
- **Education**: $1.2 Trillion
- **Transportation**: $1.0 Trillion
- **Administration of Justice**: $0.6 Trillion
- **Natural Resources & Environment**: $0.4 Trillion


**Note**: Education includes education, training, employment, and social services.
Spending for mandatory programs and interest is projected to outpace all other non-interest spending.

**Federal Spending (% of GDP)**

- **Social Security and Major Healthcare Programs**
- **All Other Non-interest Spending**
- **Net Interest**

**SOURCE:** Congressional Budget Office, *The 2021 Long-Term Budget Outlook*, March 2021.

**NOTE:** The major healthcare programs include Medicare (net), Medicaid, the Children’s Health Insurance Program, and spending to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.

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The elderly population is growing rapidly and living longer

U.S. POPULATION AGE 65+ (MILLIONS)

Baby Boomers Turn 65

1990 2000 2010 2020 2030 2040 2050 2060

65–74

75–84

85+

Medical spending increases rapidly with age

**Healthcare Spending per Capita by Age Group (Dollars)**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Spent Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–18</td>
<td>$3,749</td>
</tr>
<tr>
<td>19–44</td>
<td>$4,856</td>
</tr>
<tr>
<td>45–64</td>
<td>$10,212</td>
</tr>
<tr>
<td>65–84</td>
<td>$16,977</td>
</tr>
<tr>
<td>85+</td>
<td>$32,903</td>
</tr>
</tbody>
</table>


NOTE: Data are for 2014.

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Total U.S. health spending (public and private) is projected to rise to nearly one-fifth of the economy by 2025.

**National Health Expenditures (% of GDP)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>19%</td>
<td></td>
</tr>
</tbody>
</table>


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United States per capita healthcare spending is nearly three times the average of other developed countries.

**Healthcare Costs per Capita (Dollars)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Costs per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>$3,616</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>$4,653</td>
</tr>
<tr>
<td>Japan</td>
<td>$4,823</td>
</tr>
<tr>
<td>Australia</td>
<td>$5,187</td>
</tr>
<tr>
<td>France</td>
<td>$5,376</td>
</tr>
<tr>
<td>Canada</td>
<td>$5,418</td>
</tr>
<tr>
<td>Germany</td>
<td>$6,646</td>
</tr>
<tr>
<td>Switzerland</td>
<td>$7,732</td>
</tr>
<tr>
<td>United States</td>
<td>$11,072</td>
</tr>
<tr>
<td>OECD Average</td>
<td>$4,034</td>
</tr>
</tbody>
</table>


**Notes:** Data are for 2019. Chart uses purchasing power parities to convert data into U.S. dollars. OECD average excludes the United States.

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Although the United States spends more on healthcare than other developed countries, its health outcomes are generally not any better.

**Health Status**
- Life Expectancy at Birth
  - Worst: Latvia
  - U.S.
  - Best: Japan
- Infant Mortality
  - Worst: Colombia
  - U.S.
  - Best: Estonia

**Quality of Primary Care**
- Unmanaged Asthma
  - Worst: Latvia
  - U.S.
  - Best: Mexico
- Unmanaged Diabetes
  - Worst: Mexico
  - U.S.
  - Best: Iceland

**Quality of Acute Care**
- Safety During Childbirth
  - Worst: Canada
  - Poland
  - U.S.
- Heart Attack Mortality
  - Worst: Mexico
  - U.S.
  - Best: Iceland

NOTES: Data are not available for all countries for all metrics. Data are for 2019 or latest available.

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As the population ages, fewer workers will be paying taxes to support each Social Security beneficiary.

**Workers per Beneficiary**

<table>
<thead>
<tr>
<th>Year</th>
<th>Workers per Beneficiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>3.2</td>
</tr>
<tr>
<td>2000</td>
<td>3.4</td>
</tr>
<tr>
<td>2020</td>
<td>2.7</td>
</tr>
<tr>
<td>2040</td>
<td>2.2</td>
</tr>
</tbody>
</table>


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Social Security will run a cumulative cash deficit of $2.9 trillion between now and 2034.

**Social Security Surpluses/Deficits (% of GDP)**

**Actual**

**Projected**

- **2021–2034 Deficit:** $2.9 Trillion

Trust Fund Depleted in 2034


Notes: Surplus/deficit numbers exclude interest income. The total deficit of $2.9 trillion is the present value of the cash deficits between 2021 and 2033. The Old-Age & Survivors Insurance trust fund is projected to be depleted in 2033 and lead to a 24 percent cut in benefits that year; the Disability Insurance trust fund is projected to be depleted in 2057 at which time benefits would be reduced by 9 percent.

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Low-income seniors rely on Social Security benefits for a major share of their retirement income

**SOCIAL SECURITY BENEFITS (% OF TOTAL INCOME)**

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowest Quintile (Under $13,499)</td>
<td>81%</td>
</tr>
<tr>
<td>Second Quintile ($13,499–$23,592)</td>
<td>81%</td>
</tr>
<tr>
<td>Middle Quintile ($23,592–$39,298)</td>
<td>61%</td>
</tr>
<tr>
<td>Fourth Quintile ($39,298–$72,129)</td>
<td>39%</td>
</tr>
<tr>
<td>Highest Quintile (Over $72,129)</td>
<td>15%</td>
</tr>
</tbody>
</table>


NOTE: A quintile is one-fifth of the population. Data are for 2014.
Discretionary spending is projected to remain below its historical average

% of Federal Spending

<table>
<thead>
<tr>
<th>Year</th>
<th>Mandatory Spending and Net Interest Costs</th>
<th>Discretionary Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>2021</td>
<td>76%</td>
<td>24%</td>
</tr>
<tr>
<td>2031</td>
<td>76%</td>
<td>24%</td>
</tr>
</tbody>
</table>

% of GDP


NOTE: Discretionary spending as a share of total spending declines in data for 2020 and 2021, which are affected by programs to address the pandemic. By contrast, discretionary spending accounted for 30 percent of total outlays in 2019 and is projected to return to that level in 2022.
Defense spending accounts for nearly half of total discretionary spending

2020 Discretionary Outlays: $1,627 Billion

- Defense
- Health
- Transportation
- Veterans' Benefits and Services
- Community and Regional Development
- Education
- Administration of Justice
- International Affairs
- General Government
- Natural Resources and Environment
- Housing Assistance
- General Science, Space and Technology
- Training and Employment

NOTES: Health includes funding for agencies that provide healthcare services or engage in health research, such as the National Institutes of Health, Centers for Disease Control and Prevention, and Indian Health Service. General government includes central executive and legislative functions as well as the administrative costs of Social Security, Medicare, and income security programs. Energy is included in Transportation and Agriculture is included in Natural Resources and Environment. Veterans’ benefits primarily consists of medical and hospital care. In 2020, spending on health programs was boosted by programs to address the pandemic; in 2019, the largest category other than defense was transportation.
The United States spends more on defense than the next 11 countries combined.

**Defense Spending (Billions of Dollars)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Spending (Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$778 Billion</td>
</tr>
<tr>
<td>China</td>
<td>$761 Billion</td>
</tr>
<tr>
<td>India</td>
<td></td>
</tr>
<tr>
<td>Russia</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
</tr>
</tbody>
</table>

NOTES: Figures are in U.S. dollars converted from local currencies using market exchange rates. Data for the United States are for fiscal year 2020, which ran from October 1, 2019 through September 30, 2020. Data for the other countries are for calendar year 2020. The source for this chart uses a definition of defense spending that is more broad than budget function 050 and defense discretionary spending.
Non-defense discretionary spending funds a wide range of programs

Non-defense Discretionary Outlays in 2020 (Billions of Dollars): $913 Billion

<table>
<thead>
<tr>
<th>Category</th>
<th>Outlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>$179</td>
</tr>
<tr>
<td>Transportation</td>
<td>$123</td>
</tr>
<tr>
<td>Veterans' Benefits and Services</td>
<td>$97</td>
</tr>
<tr>
<td>Community and Regional Development</td>
<td>$83</td>
</tr>
<tr>
<td>Administration of Justice</td>
<td>$64</td>
</tr>
<tr>
<td>General Government</td>
<td>$59</td>
</tr>
<tr>
<td>Housing Assistance</td>
<td>$52</td>
</tr>
<tr>
<td>General Science, Space, and Technology</td>
<td>$34</td>
</tr>
<tr>
<td>Training, Employment, and Social Services</td>
<td>$24</td>
</tr>
<tr>
<td>Natural Resources and Environment</td>
<td>$56</td>
</tr>
</tbody>
</table>


**NOTES:** Health includes funding for agencies that provide healthcare services or engage in health research, such as the National Institutes of Health, Centers for Disease Control and Prevention, and Indian Health Service. General government includes central executive and legislative functions as well as the administrative costs of Social Security, Medicare, and income security programs. Energy ($6 billion) is included in Transportation. Agriculture ($17 billion) is included in Natural Resources and Environment. Veterans’ benefits primarily consists of medical and hospital care. In 2020, spending on health programs was boosted by programs to address the pandemic; in 2019, the largest category was transportation.
The federal government collects revenues from a variety of sources

2020 Revenues
$3,420 Billion

- Individual Income: 47%
- Payroll: 38%
- Corporate Income: 6%
- Other: 4%
- Excise: 3%
- Customs Duties: 2%

NOTE: Other includes estate and gift taxes, income from the Federal Reserve, and miscellaneous fees and fines.

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The U.S. tax system is progressive, with higher-income taxpayers facing higher tax rates

**Effective Federal Tax Rates by Type (% of Expanded Cash Income in 2021)**

- **Excise Tax**: -13%
- **Estate Tax**: -8%
- **Corporate Income Tax**: 13%
- **Payroll Tax**: 17%
- **Individual Income Tax**:
  - Lowest Quintile: 20%
  - Second Quintile: 22%
  - Middle Quintile: 23%
  - Fourth Quintile: 29%
  - 80–90th Percentile: 30%
  - 90–95th Percentile: 29%
  - 95–99th Percentile: 23%
  - Top 1 Percent: 22%
  - Top 0.1 Percent: 20%


**NOTES**: Individual income tax rates for the lowest and second quintiles are negative and are netted against the payroll tax rate. A quintile is one-fifth of the population. In 2020 dollars, the income breaks are: 20% $27,900; 40% $50,700; 60% $91,200; 80% $163,600; 90% $239,600; 95% $339,200; 99% $818,700; 99.9% $3,803,800.
The top 1 percent of taxpayers generate 30 percent of total federal tax revenues

Share of Federal Tax Revenues

- Top 1 Percent: 30%
- All Other Taxpayers: 70%

NOTES: Federal tax revenues include revenues from the excise tax, estate tax, corporate income tax, payroll tax, and individual income tax. Data are for 2021. Income percentile classes are based on 2020 dollars; a tax unit was in the top 1 percent if its income was $882,500 or higher, as measured by expanded cash income.

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Income growth since 1979 has been larger for high-income earners, even when including transfers and taxes

**Average Annual Income After Transfers and Taxes (2018 Dollars)**

- **Top 1 Percent** (incomes up 268%)
- **Top Quintile** (incomes up 120%)
- **Middle Quintile** (incomes up 47%)
- **Lowest Quintile** (incomes up 91%)


**Notes:** Increases calculated for 1979–2018. Income after transfers and taxes is comprised of market income plus income from social insurance programs (i.e. Social Security), plus means-tested transfers received (i.e. Medicaid), minus federal taxes. The top quintile includes households that are also in the top 1 percent.

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Total tax expenditures are large in comparison to annual income taxes collected and to the government’s major programs.

**Budgetary Cost in 2020 (Billions of Dollars)**

- **All Tax Expenditures**: $1.8 Trillion
- **Individual & Corporate Income Tax Revenues**: $3.4 Trillion
- **Social Security**: $1.1 Trillion
- **Medicare**: $769 Billion
- **Defense**: $714 Billion


**Notes:** Tax expenditures are deductions, credits, exclusions, and preferential rates. The estimates for tax expenditures do not account for any interactive effects of combining various provisions. Medicare spending is net of premiums and payments from the states. Defense represents discretionary defense spending.
<table>
<thead>
<tr>
<th>Major Tax Expenditures</th>
<th>Budgetary Costs (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusion of pension contributions and earnings*</td>
<td>$292 billion</td>
</tr>
<tr>
<td>CARES Act recovery rebate tax credit</td>
<td>$269 billion</td>
</tr>
<tr>
<td>Exclusion of employer contributions for medical insurance and care**</td>
<td>$170 billion</td>
</tr>
<tr>
<td>Reduced rates of tax on dividends and long-term capital gains</td>
<td>$149 billion</td>
</tr>
<tr>
<td>Child Tax Credit</td>
<td>$118 billion</td>
</tr>
<tr>
<td>Earned Income Tax Credit (EITC)</td>
<td>$68 billion</td>
</tr>
<tr>
<td>Tax credits for health insurance purchased through marketplaces</td>
<td>$53 billion</td>
</tr>
<tr>
<td>Reduced tax rate on active income of controlled foreign corporations</td>
<td>$45 billion</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1.2 trillion</strong></td>
</tr>
</tbody>
</table>

NOTES: *Estimate includes defined benefit plans, defined contribution plans, plans covering partners and sole proprietors, and IRAs. **Estimate includes employer-provided health insurance purchased through cafeteria plans and TRICARE medical insurance. Entries do not sum due to rounding.

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The top 1 percent of taxpayers receive 24 percent of the benefit from individual income tax expenditures.

Distribution of Individual Income Tax Expenditures

- Top 1 Percent: 24%
- All Other Taxpayers: 76%

NOTES: Data are projected for 2019. Data only includes non-business tax expenditures that are claimed on individual tax returns.

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The growing federal debt is projected to reduce family incomes substantially.

**Income Loss for a Four-Person Family, on Average (2019 Dollars)**

- **2028**: -$4,000
- **2038**: -$8,000
- **2048**: -$16,000


**NOTE:** The income measures are based on CBO’s projections of real gross national product per person. The income loss is the difference between the income level if debt rises as it does under current law and the income level if debt remains near its current share of gross domestic product.

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Waiting to act raises the cost of stabilizing the debt

Size of Annual Budget Changes Needed to Stabilize the Debt (% of GDP)

- If Fiscal Reforms Begin in 2025: 2.9%
- If Fiscal Reforms Begin in 2030: 3.6%
- If Fiscal Reforms Begin in 2035: 4.8%

Solutions Initiative 2019: Projected federal debt

DEBT HELD BY THE PUBLIC (% OF GDP)


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