



Osher Lifelong Learning Institute, Fall 2023

Contemporary Economic Policy

West Virginia University
Fall, 2023

National Economic Education Delegation



Course Outline

- **Contemporary Economic Policy**

- Week 1 (10/6): Economic Update (Geoffrey Woglom, Amherst College)
- Week 2 (10/13): Trade and Globalization (Avik Chakrabarti, U of Wisconsin Milwaukee)
- Week 3 (10/27): Economics of Immigration (Robert Gitter, Ohio Wesleyan)
- Week 4 (11/3): Monetary Policy (Geoffrey Woglom, Amherst College)
- **Week 5 (11/10): Federal Debt (Joseph Carolan, Oakland University)**
- Week 6 (11/17): International Institutions (Alan Deardorff University of Michigan)

Debt: Feelings....

- Feelings about debt – often personal
- How you *feel*....depends on
 - Experiences
 - Risk profile
 - Many other things..
- Let's start with some definitions & concepts that help

Federal Debt: definition

NOTE: Debt = negative savings

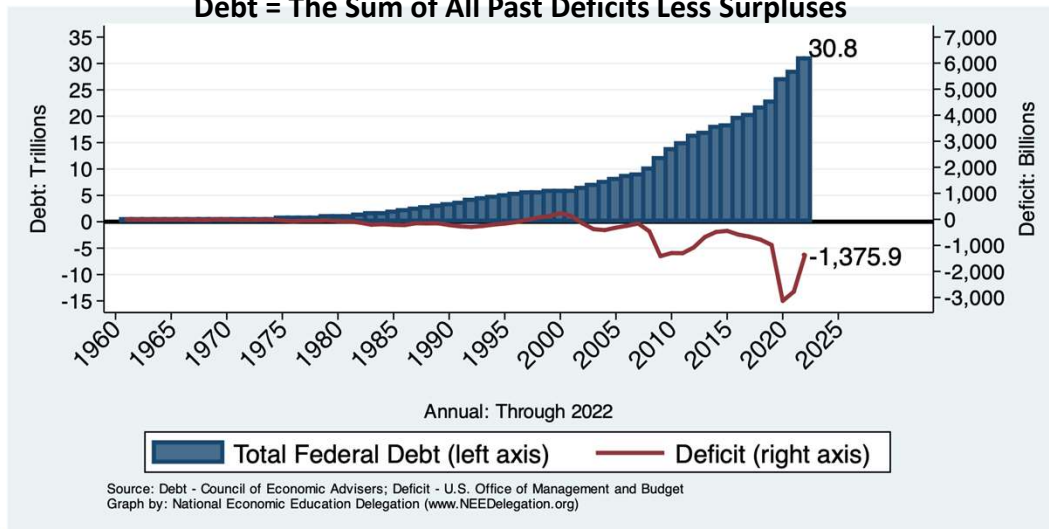
- 'Deficit' vs 'Debt'
 - Fiscal year Deficit = Total Outlays Less Revenues
 - Accumulated value of past borrowing is total **government debt**.

A History of Persistent Deficits



Debt vs. Deficit

Debt = The Sum of All Past Deficits Less Surpluses

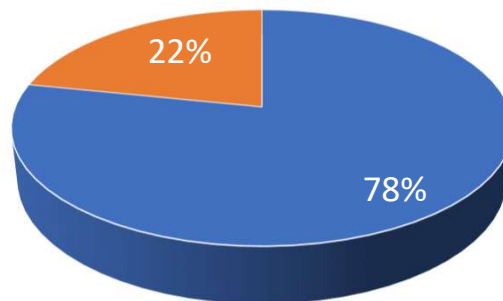


Federal Debt: measures of debt

- Total Debt vs. Publicly-held Debt
- 'Relative' debt (AKA – “debt to GDP ratio”)

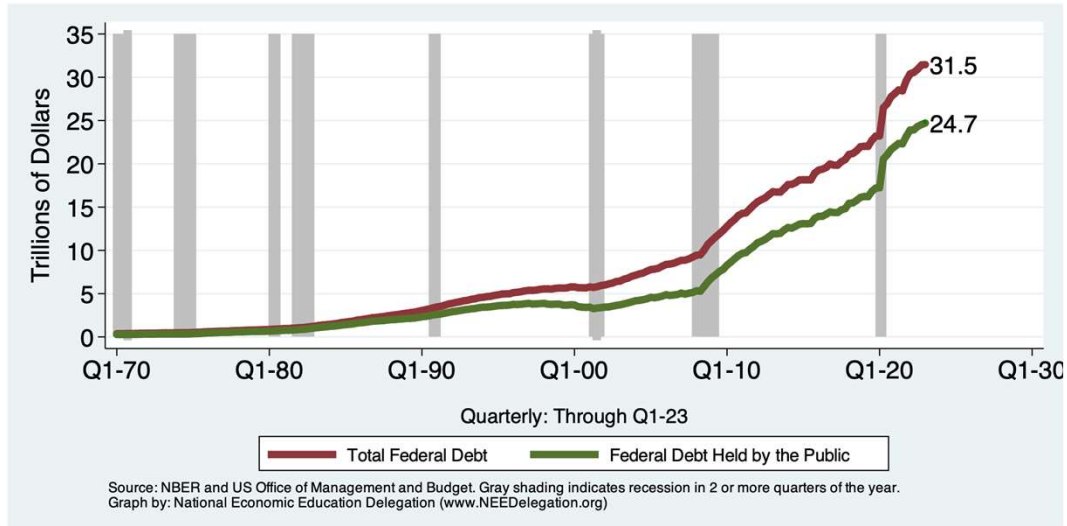
A Breakdown of the Total Federal Debt

Total Public Debt: \$33.7T, 11/10



■ Publicly Held ■ Intra-gov't

Two Measures of the Debt



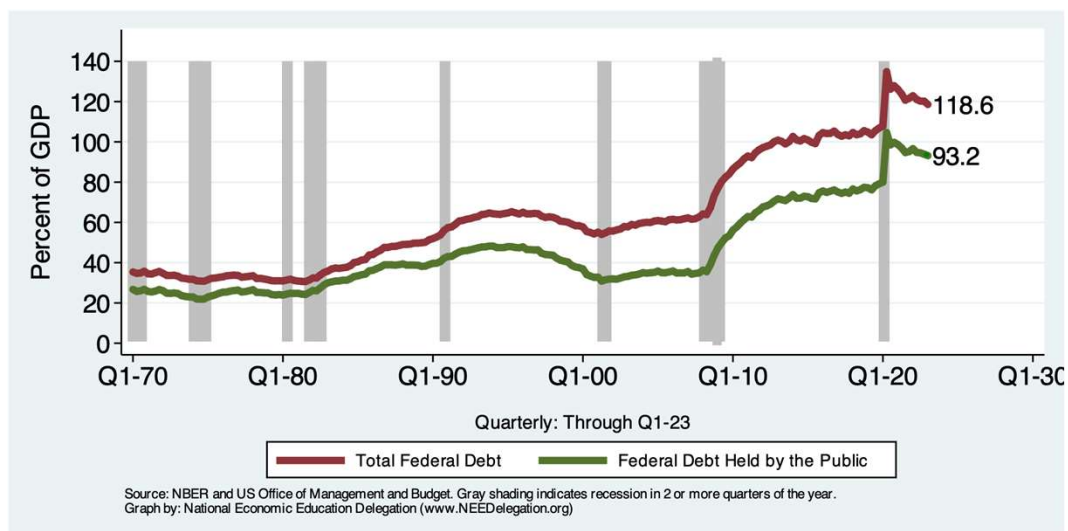
Key Idea: *Public Debt*

- **Why just public debt? Has to be “repaid” & is subject to interest rate fluctuation**
 - Process of repayment: “rolling over” (in a bit)
 - Interest rate fluctuations: will explore a bit later
- **For now, consider internal debt just bookkeeping, public debt needs to be “repaid” so we**

Key Idea: *Relative Debt*

- Most analyses focus on public debt *relative* to size of the economy (i.e. GDP)
- Relative debt is a fraction: Debt/GDP
- Can decrease if:
 - The *numerator* falls (means: have budget surplus)
 - The *denominator* rises (i.e. GDP grows)
 - OR, the *denominator (GDP) grows faster* than the *numerator (debt)*

Two Measures of RELATIVE Debt



Debt: Personal & Federal

- What do we use it for / why need it?
- From whom / how do we get it? Does it matter from whom?
- When does it become a problem?



Debt: What do we use it for ? (1)

- Unexpected emergencies – we need \$ now!
- Economic investment (not speculating, *economic* investment which creates long term value greater than the cost of capital, i.e. $ROI > WACC$)
 - Education
 - Think: businesses – using it to grow!



Common belief: Not All Govt Borrowing Is Bad!

• **Two good reasons to borrow:**

1. During a temporary crisis
 1. Recession
 2. War
 3. Pandemic
2. Productive public investment
 1. Infrastructure
 2. Education



• **These deficits do not permanently increase relative debt.**

- Great Depression, WWII → Great Recession? COVID?
- Public investment expands GDP and tax revenue → ROI > WACC

What the US Govt. Budget Looked Like 2019

2019 Budget Summary (in billions)

Revenue		Outlays	
Income Tax		Mandatory	\$2,735
Payroll Tax		Discretionary	\$1,336
Corporate Tax		Interest	\$376
Other	\$271		
Total	\$3,462	Total	\$4,447

NOTE: Programmatic Outlays = 'Mandatory' + 'Discretionary' More to come in moments

Budget Deficit **\$984 Billion**

What the U.S. Gov't Budget Looked Like 2020

Supplemental Spending

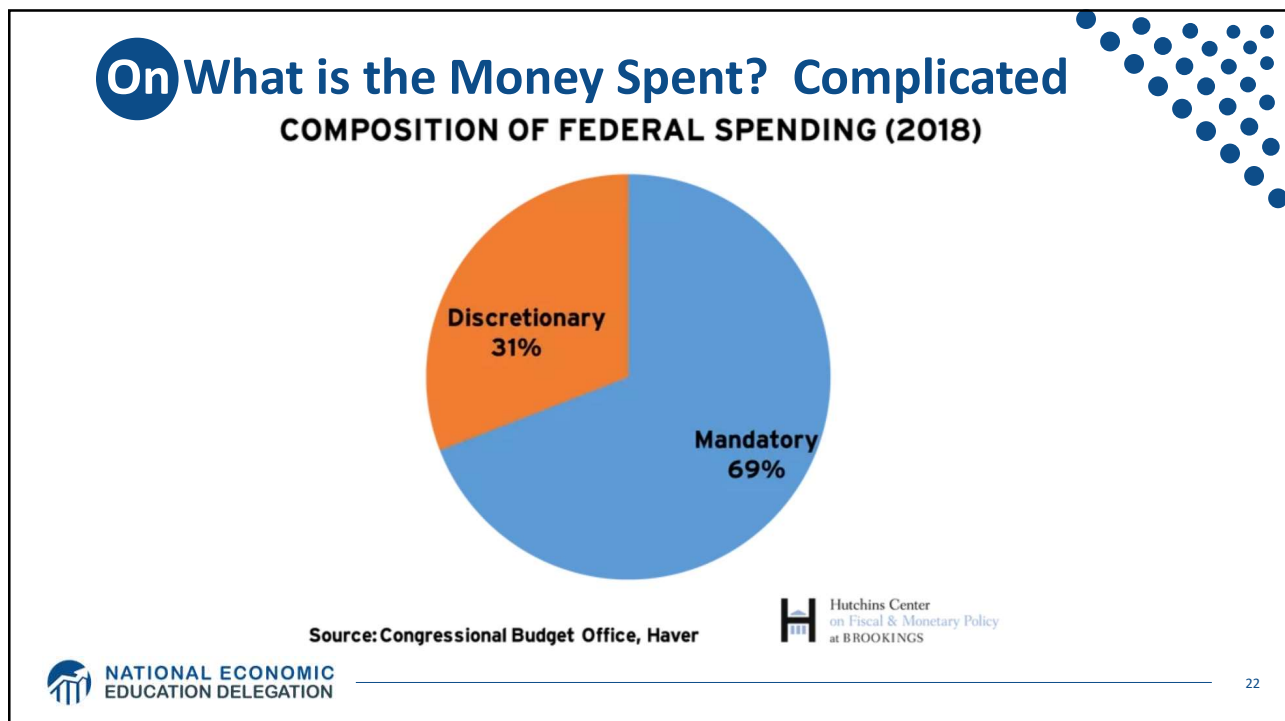
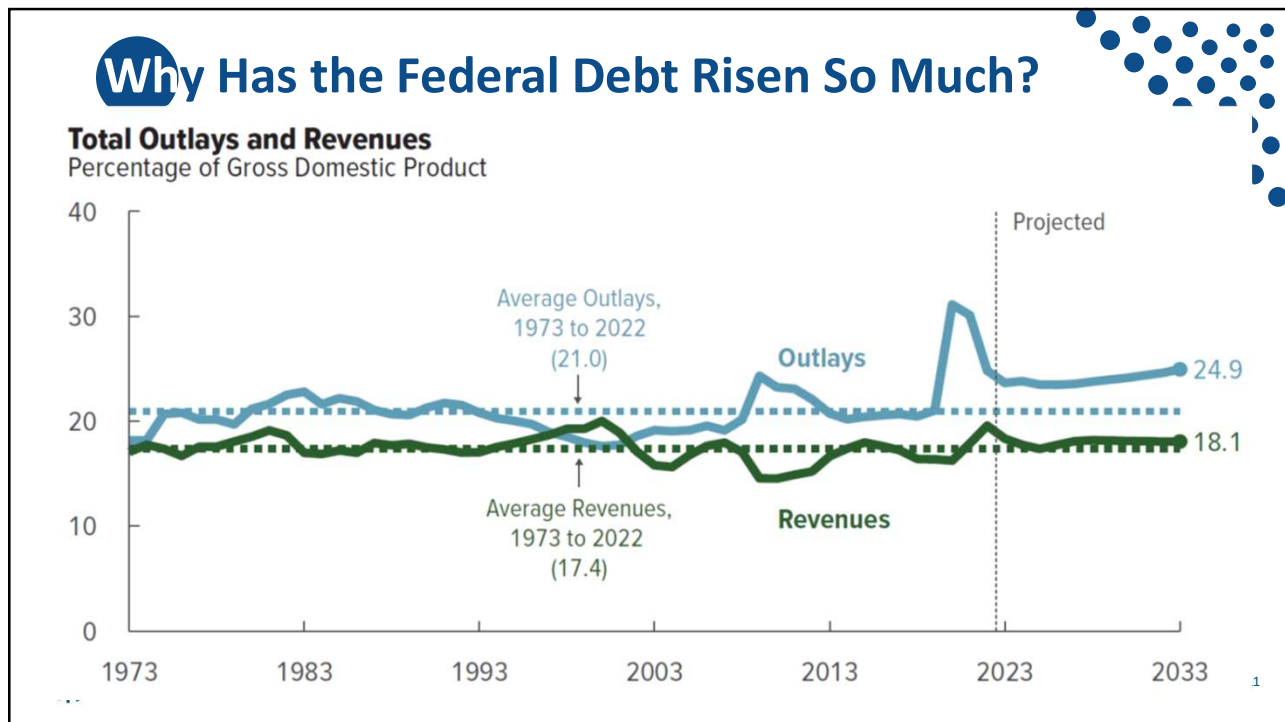
Supplemental appropriations, also known as supplemental spending, are appropriations enacted after the regular annual appropriations when the need for funds is too urgent to wait for the next regular appropriations. In 2020, Congress passed four supplemental appropriations to aid the nation's recovery from the COVID-19 pandemic. You can explore the spending related to these supplemental appropriation laws in USAspending.gov's [COVID-19 Spending Profile](#) page.

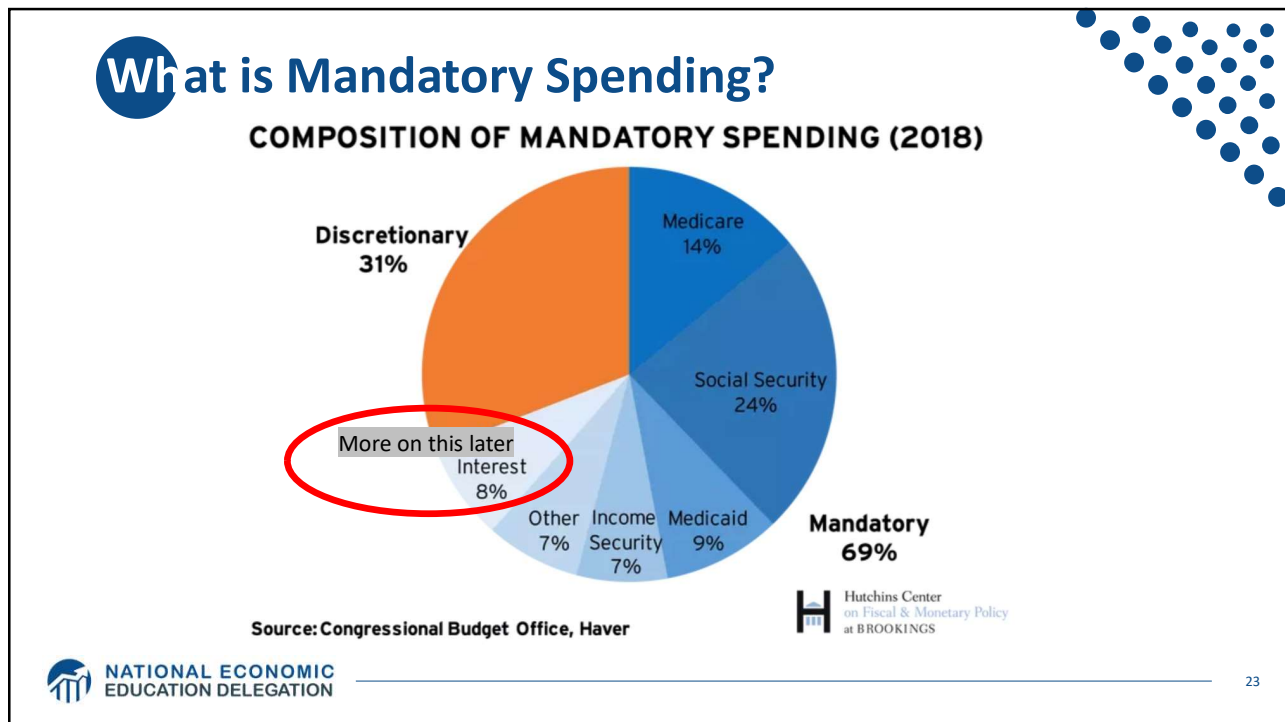
		Billions	
		Outlays	
		Mandatory	\$2,315
		Discretionary	\$3,850
Payroll Taxes	\$1,510	Interest	\$387
Corporate Taxes	\$212		
Other	\$289		
Total	\$3,420	Total	\$6,552

Budget Deficit: \$3,132

Debt: What do we use it for ? (2)

- **Unexpected emergencies – we need \$ now!**
- **Use it for investment (not speculating, economic investment which creates value greater than the cost of capital – $ROI > WACC$)**
 - Education
 - Think: businesses – using it to grow!
- **Don't make enough to cover expenses**
- **Buy things you want now, don't have the money → implies you will have it later**





What the US Govt. Budget Looked Like 2022

2022 Budget Summary (in billions)

Revenue		Outlays	
Income Taxes	\$2,632	Mandatory	\$4,134
Payroll Taxes	\$1,484	Discretionary	\$1,661
Corporate Taxes	\$425	Interest	\$475
Other	\$356		
Total	\$4,897	Total	\$6,270

Budget Deficit **\$1,373 Billion**

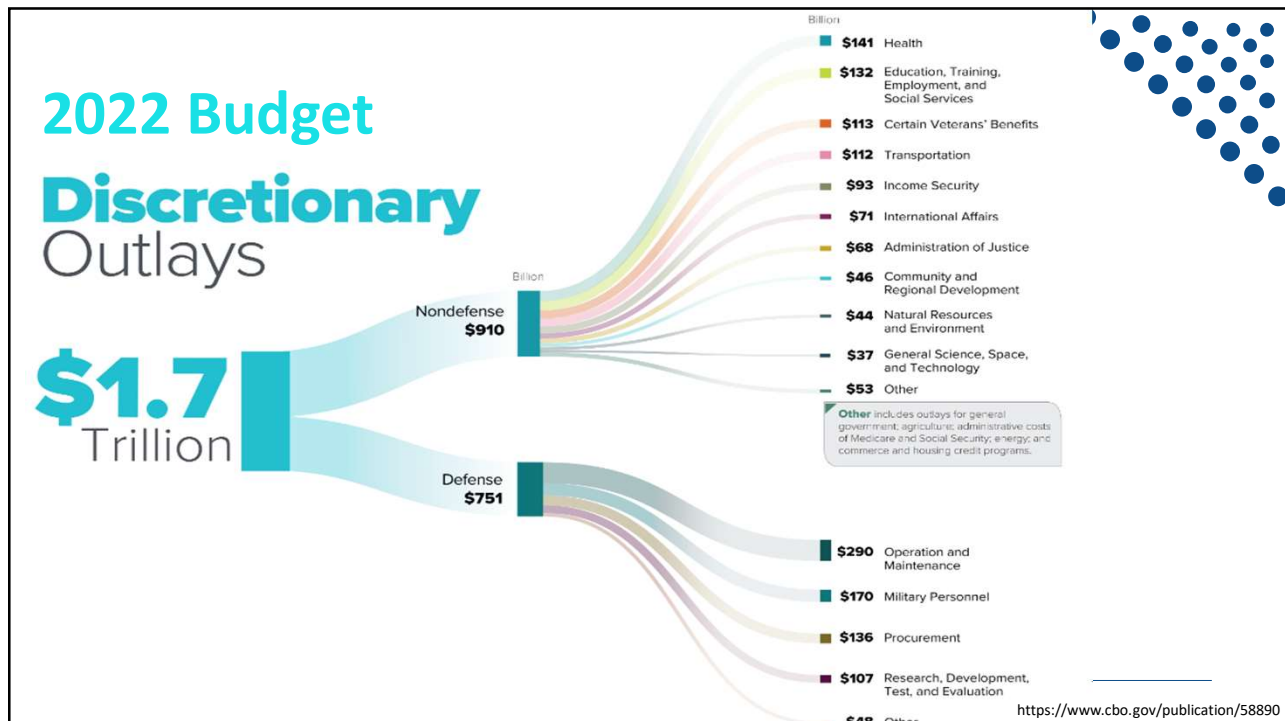
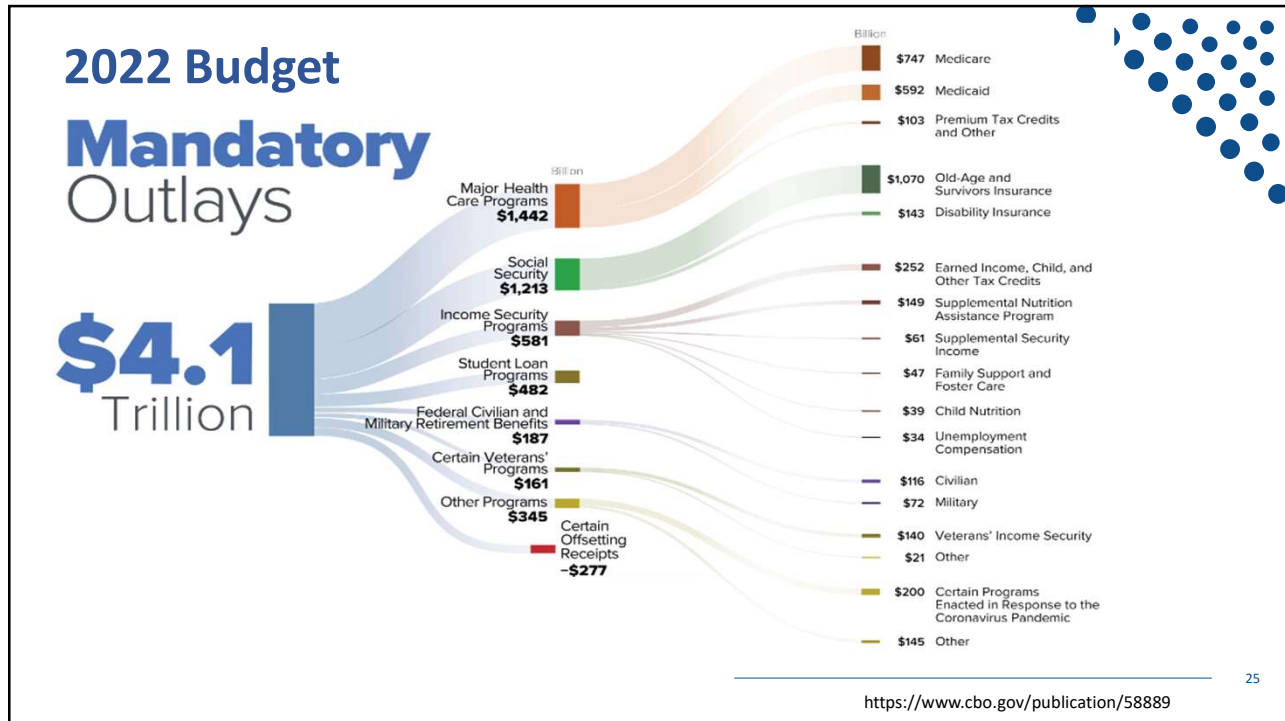
1.4T vs. 2019 (Revenue Total)

1.4T vs. 2019 (Mandatory Outlays)

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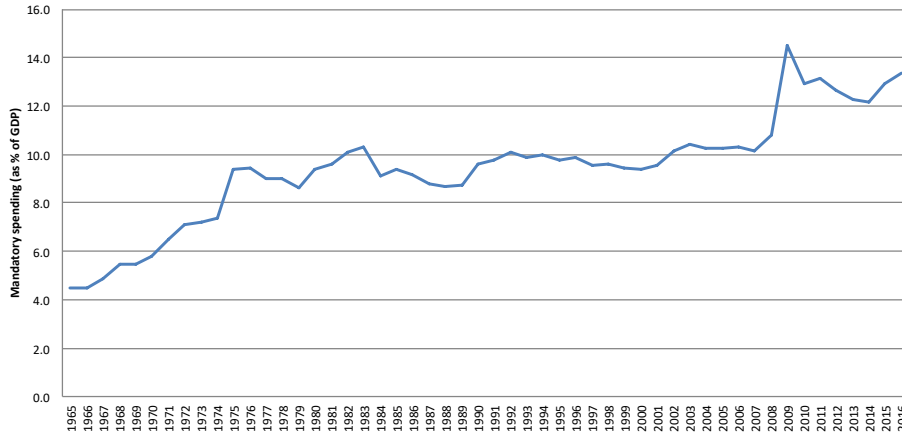
<https://www.cbo.gov/publication/58888>

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Mandatory Spending: Total Mandatory

Total Mandatory Spending, as Percentage of GDP

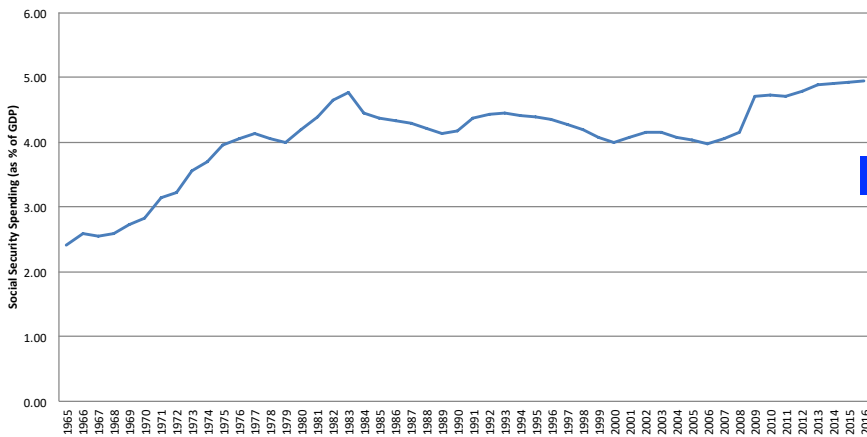


Source: Congressional Budget Office (2017)



Mandatory Spending: Social Security Spending

Social Security Spending, as Percentage of GDP



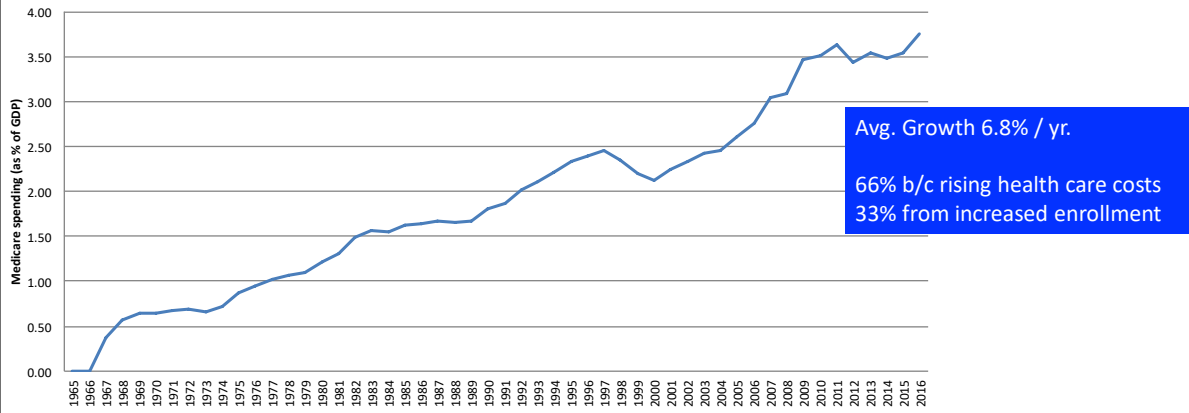
6% annual growth rate

Source: Congressional Budget Office (2017)



Mandatory Spending: Medicare Spending

Medicare Spending, as Percentage of GDP

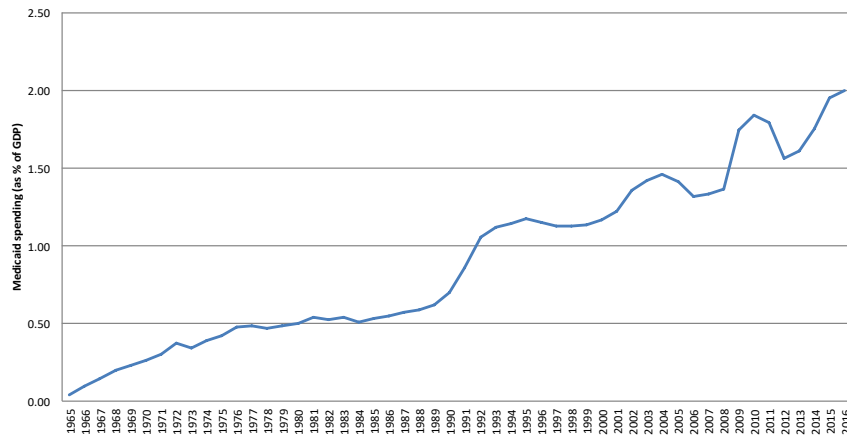


Source: Congressional Budget Office (2017)



Mandatory Spending: Medicaid Spending

Medicaid Spending, as Percentage of GDP

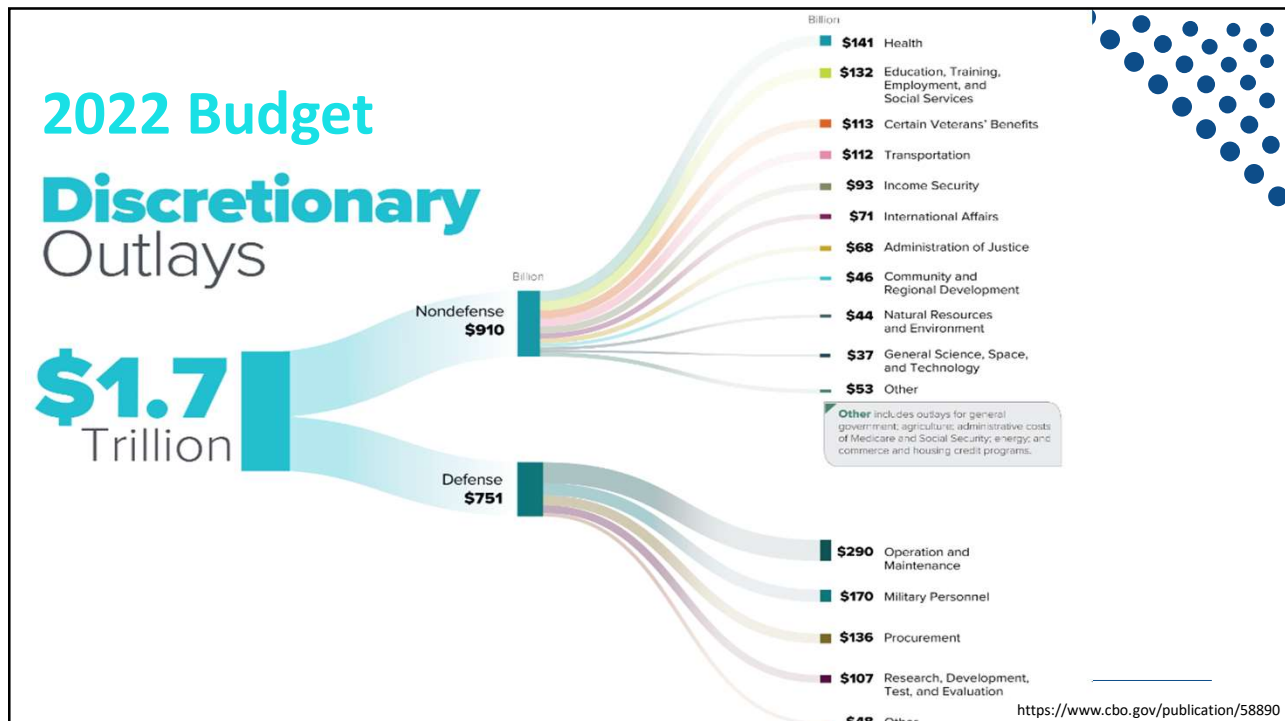


Source: Congressional Budget Office (2017)



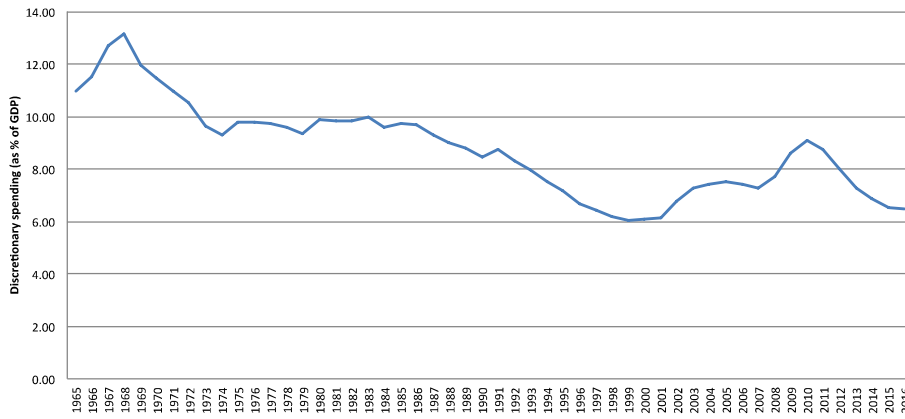
Debt: What do we use it for ? (3)

- Unexpected emergencies – we need \$ now!
- Use it for investment (not speculating, economic investment which creates value greater than the cost of capital – ROI>WACC)
 - Education
 - Think: businesses – using it to grow!
- Don't make enough to cover expenses
- Buy things you want now, don't have the money → implies you will have it later
- **Big purchases**
 - Individuals: house, car, education, other
 - Gov't: National Defense, Transportation, Education, other (Discretionary)



Discretionary Spending: Total

Total Discretionary Spending, as Percentage of GDP

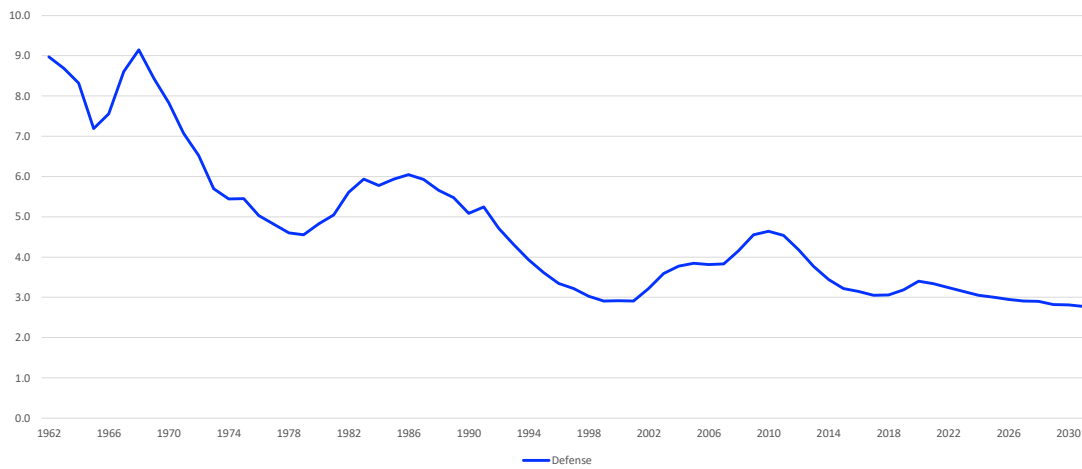


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Source: Congressional Budget Office (2017)

Discretionary Spending: Defense Spending

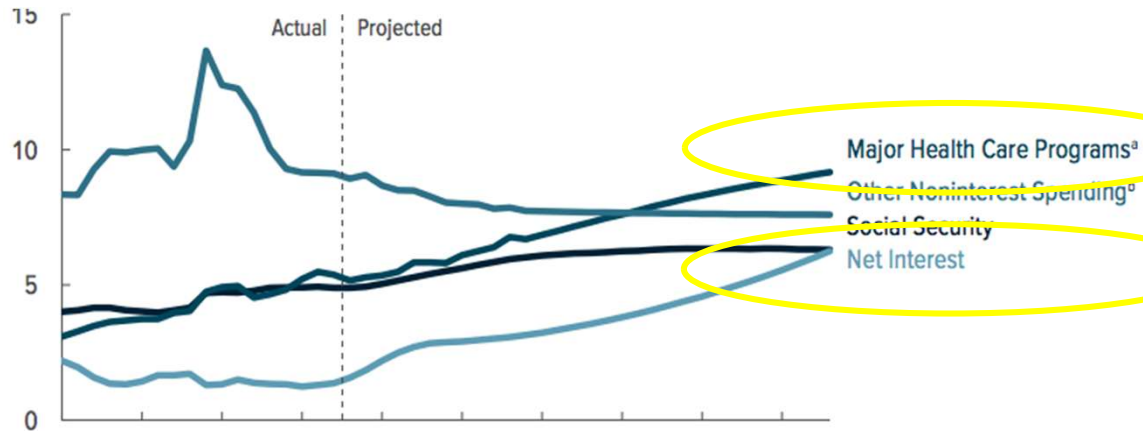
Defense



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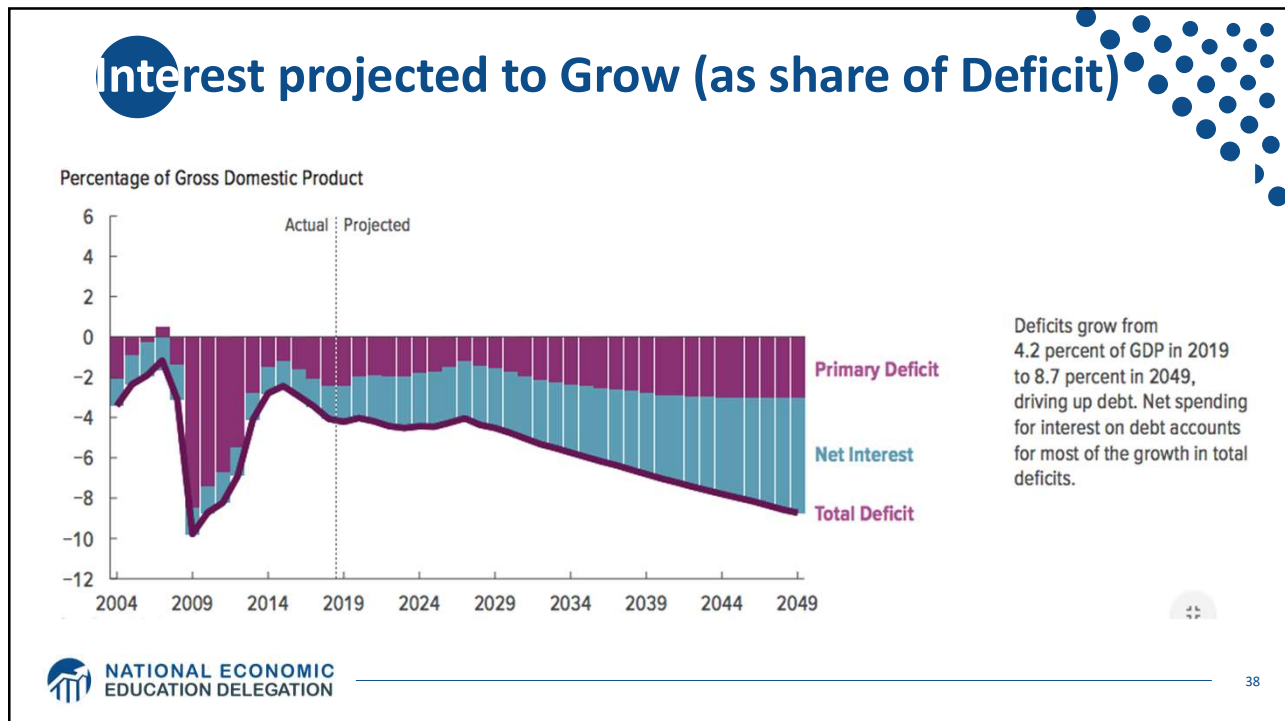
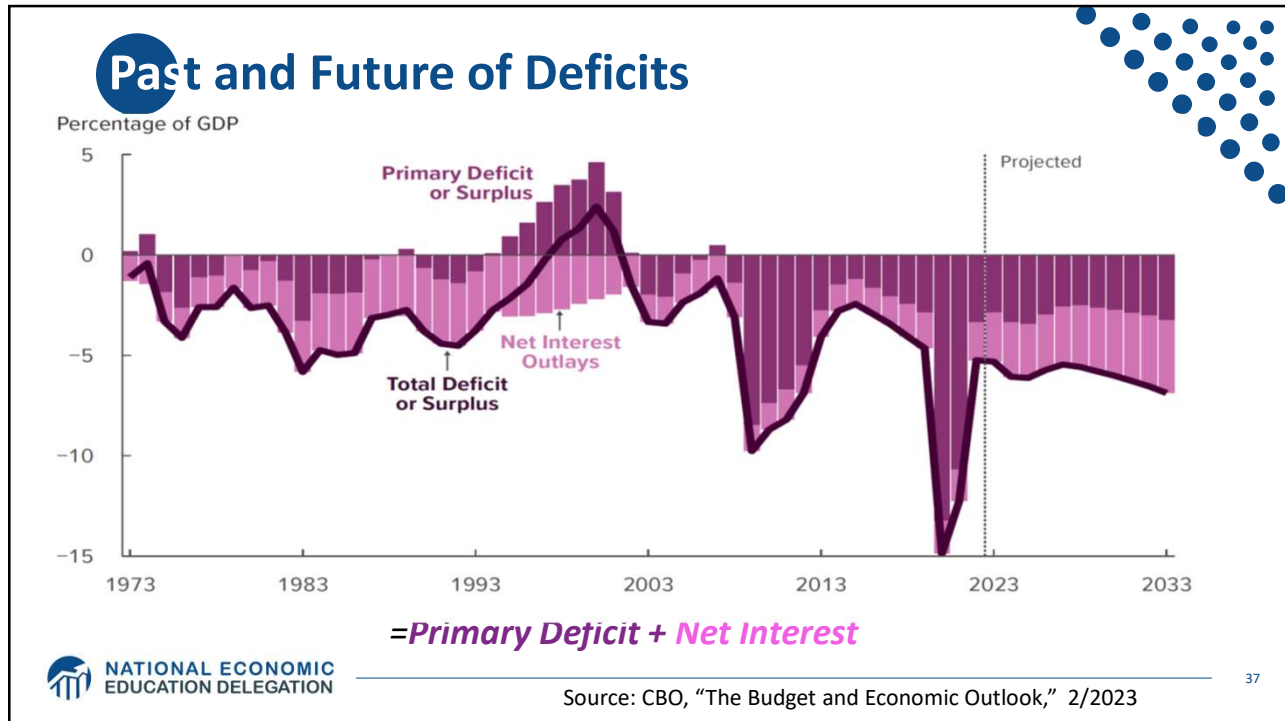
Source: Congressional Budget Office (2017)

What Are the Primary Drivers Going Forward?



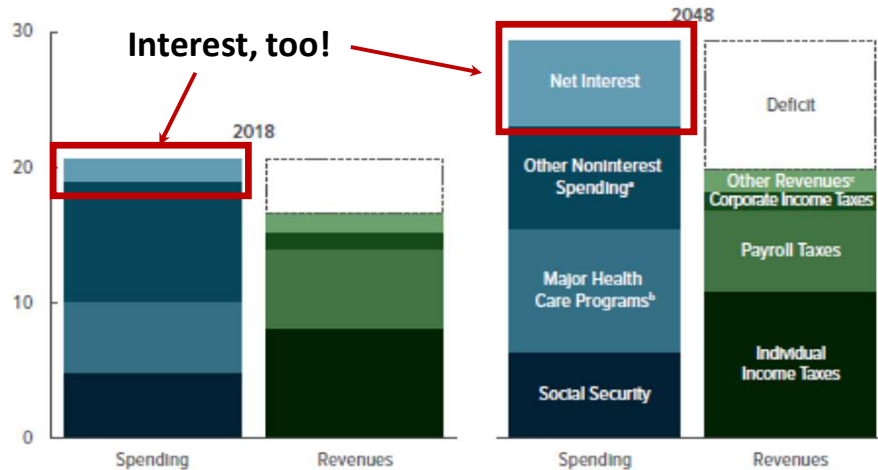
Two Measures of the **Deficit**

- **Primary deficit = current programmatic outlays – revenues**
- **Total deficit = primary deficit + interest**
- **Interest on debt:**
 - Amount owed due to past deficits.
- **Distinction becomes important for understanding:**
 - Future course of relative debt
 - Costs borne by future generations because of debt



Spending to Grow Much Faster Than Revenue

Percentage of Gross Domestic Product



Source: Congressional Budget Office.



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Issue: deficit spending....

- **Continued deficit spending increases debt. Is this a problem?**
 - If don't want deficit spending, then must
 - Increase revenue (TAXES)
 - Decrease spending (on What?)
 - Keep interest on debt from growing....(can we?)
- **Continued deficit spending increases debt. Is this a problem?**



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Options considered

Options to Reduce the Federal Deficit

CBO will publish a new volume of budget options at the end of this year.

Among the options that CBO has previously examined, 13 would have reduced the deficit by at least \$500 billion over the next 10 years:

- Reduce the Department of Defense's Budget
- Increase Individual Income Tax Rates
- Impose a 5 Percent Value-Added Tax
- Eliminate Itemized Tax Deductions
- Impose a Tax on Greenhouse Gas Emissions
- Impose a Tax on Financial Transactions
- Increase Excise Taxes on Motor Fuels and Index for Inflation
- Increase the Maximum Taxable Earnings for the Social Security Payroll Tax
- Increase the Payroll Tax Rate for Social Security
- Increase the Payroll Tax Rate for Medicare Hospital Insurance
- Establish Caps on Federal Spending for Medicaid
- Reduce Federal Medicaid Matching Rates
- Reduce Tax Subsidies for Employment-Based Health Insurance



Issue: deficit spending grows Debt. Problem?

• With personal debt – answer depends on various moving parts, including

- How much you make.

KEY: "relative" debt is Debt/GDP ratio → rate of GDP growth is key component

- Where do you get debt from?
- How much does it cost you?
- Can you pay it back?



How Does the US Government Borrow?

- **It issues debt.**
 - Treasury marketable securities:
 - Treasury bills, notes, and bonds
 - TIPS: Treasury inflation-protected securities
 - Savings bonds
- **Who buys the debt?**
 - Other federal agencies
 - Individuals and businesses
 - State and local governments
 - Foreign government and individuals
 - Federal Reserve



Traditional View

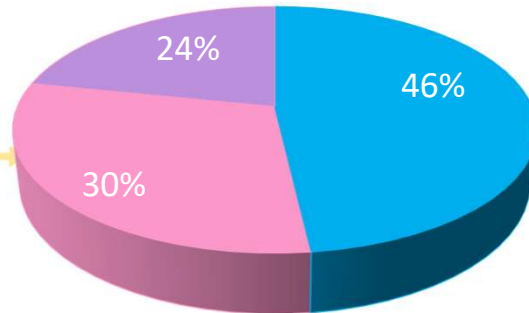
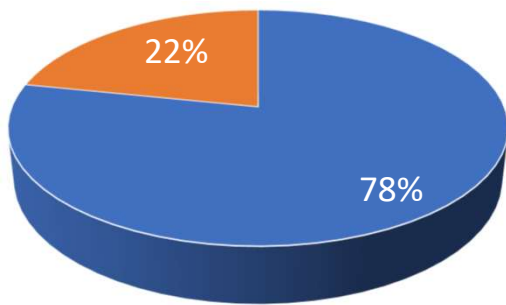
- **Repayment a non-issue: unlike private sector debt**
 - Government doesn't "pay back" debt.
 - Maturing government bonds paid by issuing new bonds ("rolling over" the debt)
 - Interest on the debt is essentially paid by the young to previous generation of lenders (who will then get paid off by next generation...and so forth)



A Breakdown of the Total Federal Debt

Total Public Debt: \$33.7T, 11/10

Publicly Held Debt: \$32.3T



■ Publicly Held
 ■ Intra-gov't
 ■ Domestically Held
 ■ Foreign
 ■ Federal Reserve

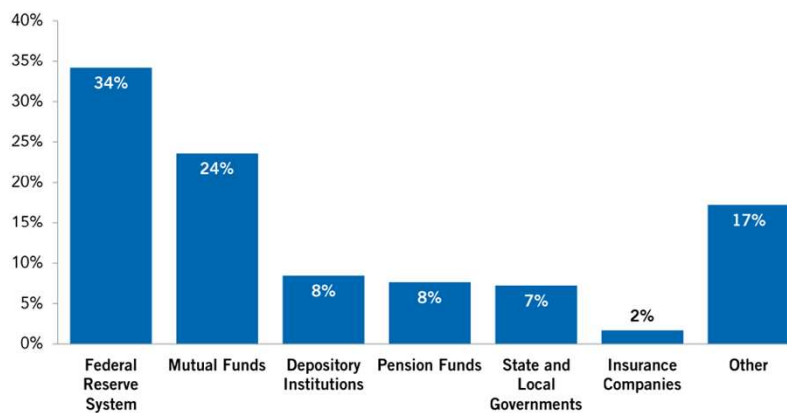
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Sources: US Treasury, Federal Reserve Board 45



The Federal Reserve owns one-third of domestically held debt

% OF DEBT HELD BY THE PUBLIC OWNED BY DOMESTIC CREDITORS



SOURCE: U.S. Department of the Treasury, *Treasury Bulletin*, September 2021.
 NOTES: Data are for March 2021. The Other category is made up of U.S. Savings Bonds and Other Investors.
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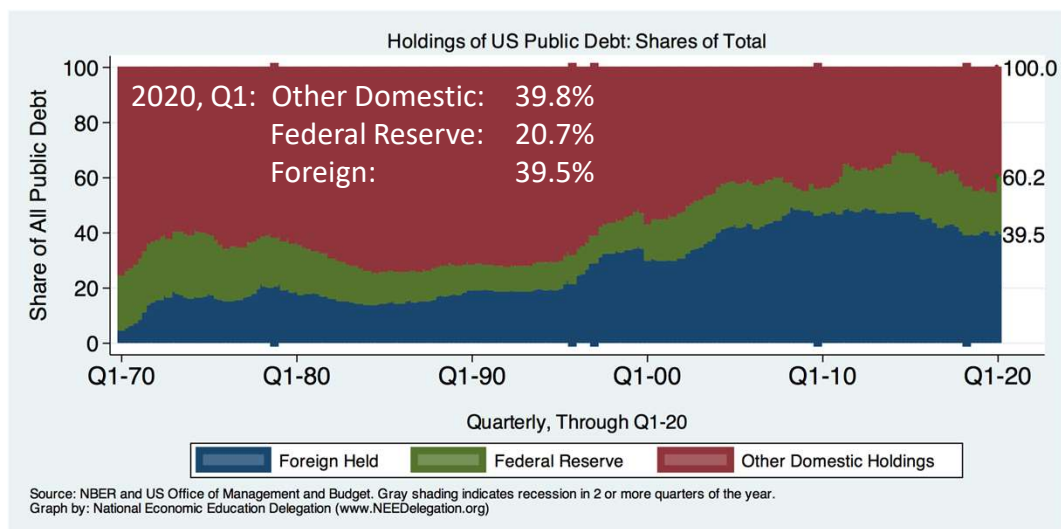
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Debt from domestic markets

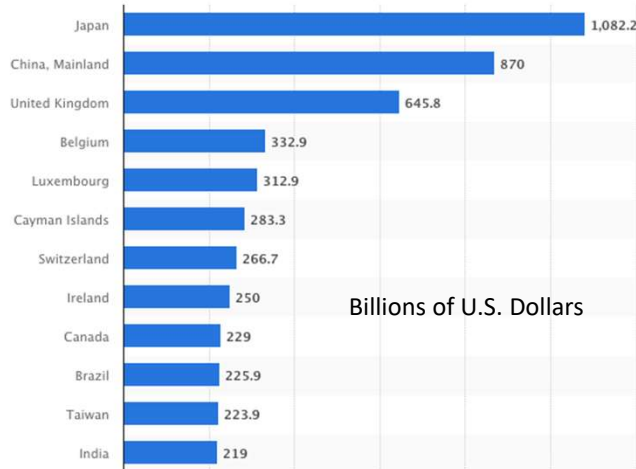
- **Might reduce availability of funds to other borrowers.**
 - Often referred to as “crowding out” private investment
- **Intra-government debt**
 - **DOES NOT** crowd out private investment.
 - **DOES NOT** require funding on credit markets
- **Debt held by the public**
 - **MIGHT** ‘crowd out’ private investment: less Private sector investment → smaller capital stock → reduced future output.
 - B/C debt funded by borrowing on credit markets and competes with private funding → Think like this: savers have choices – bonds, bank, stocks – if give to Govt (bonds), then not there for others to borrow
- **Little evidence of ‘crowding out’ (worth asking why? Implies funds available from elsewhere)**



Trends in US Debt Over Time



Who Holds Debt: Foreigners, 11/22



Foreign ownership is relatively recent – in 1990 foreign ownership was less than 20%



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Source: <https://www.statista.com/statistics/246420/major-foreign-holders-of-us-treasury-debt/>

Why do Foreigners Buy US Treasuries

“SAFE HARBOR” (for your savings)

- **Market for Treasuries is the deepest, most liquid and safest capital market in the world.**
- **US economy has a history of political and economic stability.**
- **We enjoy “An exorbitant privilege” (Valery Giscard d’Estaing): The dollar is the largest international reserve currency.**
 - Most trade transactions are quoted in dollars, e.g., oil.
 - With some exceptions, foreigners borrow in dollars. E.g., Yankee bonds



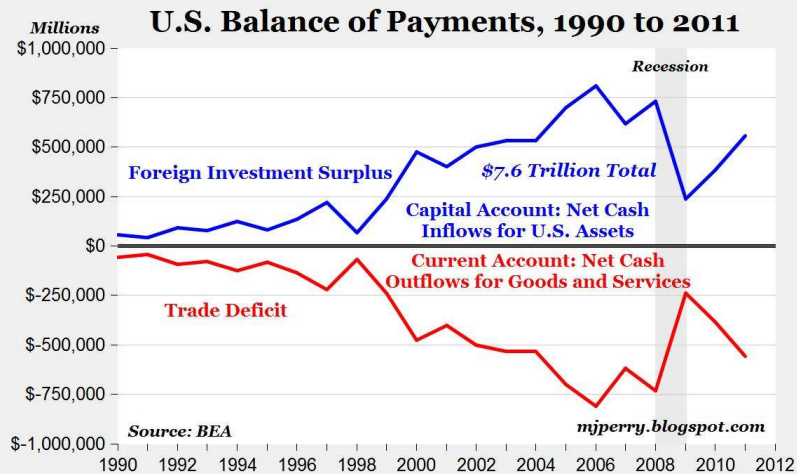
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Trade and Investment Flows Balance Out

Why do Foreigners Buy US Treasuries (2)

This is the
"Best Buy"
effect



Should Foreigner ownership be concerning?

• Why not?

- Currency used for international trade
- Investors that are looking for stable ROI
- Imports & foreign borrowing go hand in hand (The "Best buy" effect)
- Fed holds foreign debt (the "poker game" idea)

• Why?

- Interest payments go to foreigners
- Possibility of a "fiscal crisis" (later)

Debt: When does DEBT become a problem?

- **Can't pay it back**
- **Creditors demand repayment**
- **Interest rates too high**
 - Requires higher ROI
 - Interest payments eat up too much of income
- **Gets too big (relative to what?)**
- **Damages credit rating severely**
 - Hurts ability to borrow again
 - Increases cost of borrowing
- **Things don't go as planned....**
- **Others?**

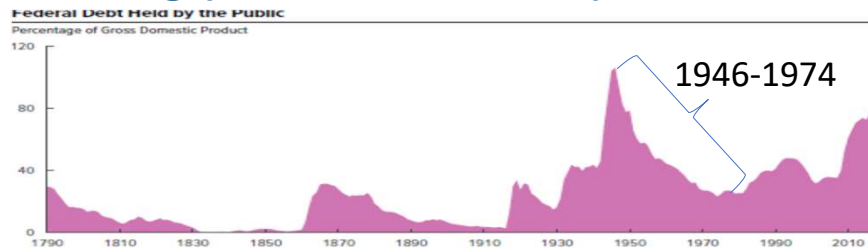


Debt: When does it become problem?

- **Can't pay it back**
 - Let's consider this...when won't US be able to pay it back?



Gets too big (relative to what?)



What can we learn from the 46-74 period, where the relative debt fell continuously?

- Relative debt fell *in spite of* deficits in 21 of the 29 years, while debt increased by 42%.
- 1946-1974, grew debt, but **not as fast as the economy was growing**.
- While the debt grew by 42%, GDP grew by 550%

Proof that: You don't need a surplus to reduce the *relative* debt:

You just need GDP to grow faster than the debt



What about default?

- Private sector can default / declare bankruptcy
- Stephanie Kelton (Modern Monetary Theorist)

6-6-2020, *NYTimes* op-ed, "Learn to Love Trillion-Dollar Deficits."

US Treasury borrows in dollars and therefore cannot default (as opposed to Greece).



Debt: When does DEBT become problem?

- **Creditors demand repayment. Consider the following points**

- How government borrows (issues bonds & rolls over)
 - o Mechanics of “repayment”
- Why lenders buy US debt
 - o ‘Safe Harbor’
 - o ‘Best Buy’ effect
 - o Investment in US Economy – what do you want from investment? Failure?
- BUT...fiscal crisis could materialize...

What would a Fiscal Crisis Look Like?

Foreigners lose confidence in the dollar and sell Treasuries in exchange for assets denominated in their own currency,

1. Sale of Treasuries raises interest rates, worsening our fiscal outlook.
2. Trading of Foreign for US assets lowers US exchange rate.
 - a. Raising the price of imports thereby increasing inflation.
 - b. Lowering the foreign currency returns on all US assets, exacerbating 1.

Could the Fed Bail us Out? – the “poker game”

1. Yes - It could buy Treasuries and prevent the rise in interest rates.
2. But - Insufficient foreign assets to prevent the fall in the exchange rate,

Debt: When does it become problem?

- **Interest rates too high**

- Requires higher ROI
- Interest payments eat up too much of income

Issue: rising interest payments

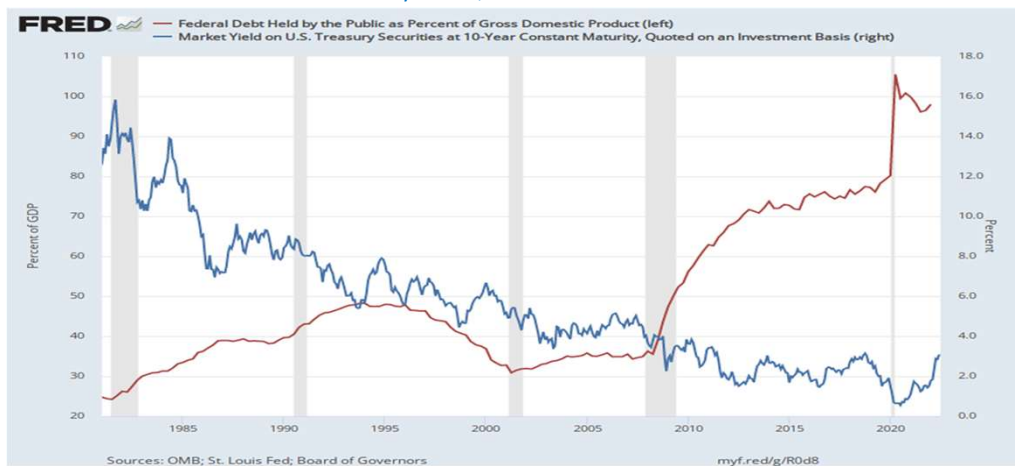
- **More debt means more interest to pay as debt matures**
- **Rising interest rates → cost more to “roll over” debt**
- **Are days of very low interest rates gone?**
- **IF Government spending ‘Crowds Out’ → higher interest rates & fewer loanable funds:**
 - Increases Foreign Borrowing & FDI:
 - Higher interest rates lead to foreign capital inflows or foreign borrowing.
- **When the Fed raises interest rates, the exchange rate of the dollar rises, causing:**
 1. Increases in the trade deficit
 2. Foreign borrowing.
- **IF foreign owners panic, rates up!**

What Traditional Economic Theory Got Wrong

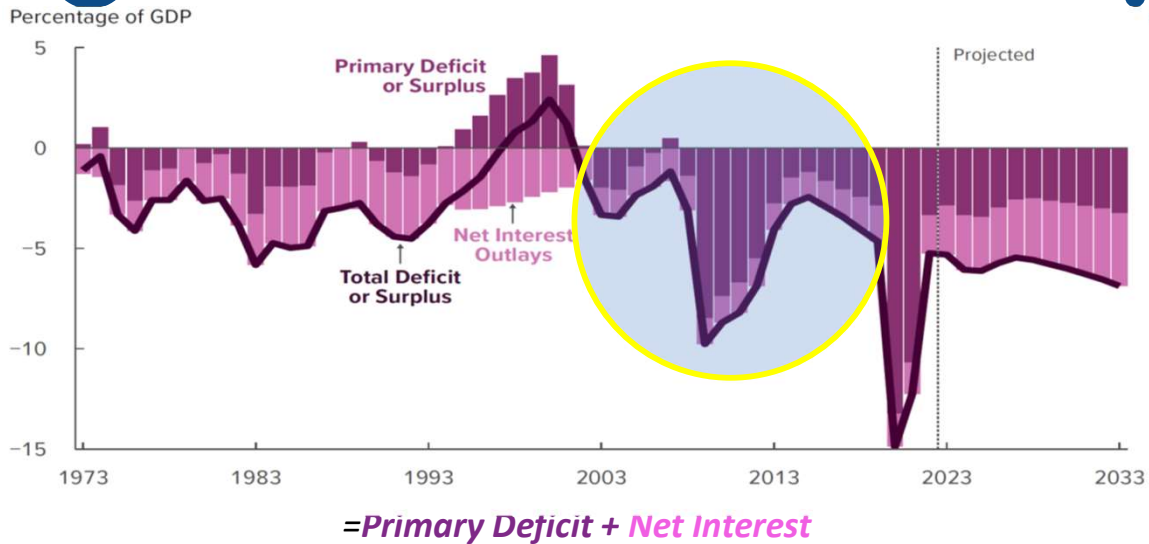
- Assumed that the interest rate was *greater* than the growth in GDP
 - In order to stabilize the debt, government must run a primary surplus.
 - The bigger the debt, the larger the required primary surplus.
- More debt today means a higher primary surplus is needed in the future, i.e., higher taxes and/or less programmatic outlays.
- BUT....interest rates **didn't** behave that way

The Dog that Didn't Bark; Rising Interest Rates?

Blue Line Rate on 10-Yr Treasury Bonds; Red Line Relative Debt



Previously: Past & Future of Deficits



Debt: When does DEBT become a problem?

- ~~Can't pay it back~~
- ~~Creditors demand repayment~~
- ~~Interest rates too high~~
- Gets too big (relative to what?)
- Damages credit rating severely
 - Hurts ability to borrow again
 - Increases cost of borrowing
- Things don't go as planned....
- Others?

Issue: how big is too big?

- **Debt is growing b/c**
 - Primary deficits continue to grow
 - Interest payments continue to grow
- **When should we start to worry that it's getting too big?**
- **Economists: if traditional view, wrong, then what to think?**
 - MMT (Kelton)
 - Blanchard



New(er) View: MMT's 'Free Lunch'

- **Only limit on deficit spending is if it leads to too much spending thereby increasing current inflation.**
- **Recognizing this fact, "...could free policymakers not only to act boldly amid crises but also to invest boldly in times of more stability."**
- **Dr. Kelton again**
 - Example: How did we "find the money" in FY 2020 to increase in the deficit by about \$1.9 trillion?
 - Answer: Fed open market purchases of \$1.7 trillion provided 89% of the financing.
 - More generally, she argues that we can always find the money to increase federal spending



MMT's Free Lunch – maybe not so free...

- Recent rise in inflation suggests free and easy application of MMT theories – acting boldly in times of emergency, finding money via Fed, etc – might lead to problems.
- Deficit spending needs to be reigned in....?

New View: Almost a Free Lunch

- If the interest rate is *less* than the growth rate of GDP, then Debt to GDP can be stabilized with a (small) *primary deficit*

Olivier Blanchard (economist @ MIT, Head of IMF.):

“If the future is like the past [with low interest rates],...the issuance of debt without a later increase in taxes may well be feasible. Put bluntly, public debt may have no fiscal cost.”

But,

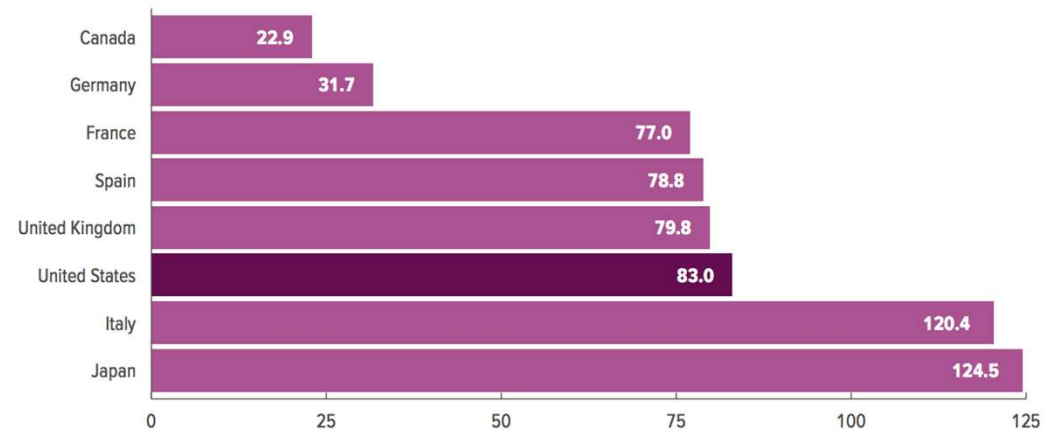
“My purpose...is not to argue for more public debt, especially in the current political environment. It is to have a richer discussion of the costs of debt...than is currently the case.”

- Blanchard does believe that the relative debt must be stabilized
 1. At some point current deficits should be reduced.
 2. But it may not be crucial at what level of debt we stabilize.

Other Countries Have Higher Debt Levels

Debt of Selected Countries at the End of Calendar Year 2018

Percentage of Gross Domestic Product



Source: Congressional Budget Office, using data from the Organisation for Economic Co-operation and Development.



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Relative Debt Cannot **Grow** Forever, But

- **IF Relative does grow, then we encounter issues with lenders**

- Interest payments will grow with it.
- Investors might start questioning the creditworthiness of the US government
- Interest rates might increase
- It becomes more difficult to borrow in times of crisis.
- Could start to crowd out investment by consumers and businesses.
- Could be inflationary.

- **May not present a problem if $GDP > \text{Interest rates}$ (Blanchard)**



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Takeaways / talking points

- **Can't technically default, nor technically have to "repay"**
 - "Rolling over" debt may cost more in future
- **The current trajectory for the federal debt seems unsustainable**
- **Persistence of deficit spending will increase need to borrow**
 - What should we cut?
- **Debt service will increase due to**
 - Deficit spending, thus more borrowing
 - Possible increased interest rates
- **Good borrowing may become more difficult if relative debt grows**
 - Economic investment may lack
 - Emergency borrowing ability may be constrained
- **Increased debt service may "crowd out" private investment**
- **Debt held by foreigners increases – may lead to 'fiscal crisis'**
- **Relative debt stabilization may be handled by combination of GDP growth and low interest rates**



Thank you!

Any Questions?

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Federal Debt Glossary

- *Total Federal Debt* is the value of all outstanding government bonds (or “Treasuries”) that have been issued to finance past federal government deficits.
- *Deficit* is the difference between total federal spending and revenues.
- *Federal Debt in the Held by the Public* is the debt held by the private domestic investors, foreign investors and the Federal Reserve. The concept of the debt excludes intragovernmental debt, such as the debt held by the Social Security and Medicare Trust Funds.
- *The Relative Debt* is the Federal Debt Held by the Public as a fraction of the size of the economy, or GDP.
- *Congressional Budget Office (CBO)* is a congressional think tank that analyzes the effect of legislation on the budget (“scoring”) and issues periodic projections on the future of debt and deficits
- *Primary Deficit* is the difference between federal spending on programs and total revenues. The primary deficit excludes interest on the debt.
- *Rolling Over the Debt* the process of paying off maturing government bonds with newly issued



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Federal Debt Glossary (Cont.)

- *Crowding Out* is the phenomena where government financing of deficits raises interest rates and lowers firms' investment.
- *International Reserve Currency* is foreign holdings of US debt (and other countries debt) to facilitate international trade; e.g., oil is traded in dollars.
- *Default* is when an entity that issues a bond fails to make an interest payment or the repayment of the face amount on time.
- *Foreign Exchange Value of the Dollar* is the purchasing power of the dollar in terms of a foreign currency. When the US exchange rate falls, the dollar has less purchasing power over foreign goods.
- *Budget Reconciliation* is a Senate process for by-passing the filibuster, so that legislation can be enacted with a 51-vote majority. The process can only be used for changing spending or taxes and the legislation cannot increase the deficit after 10 years.

