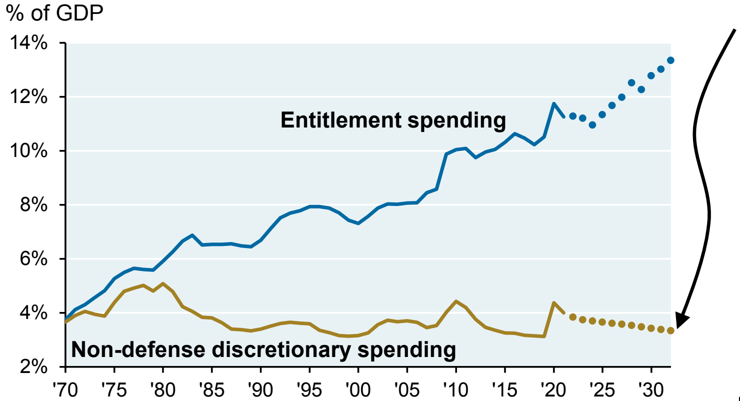
The chart that everyone hates

Ever since the entitlement system was created in the early 1970's, entitlement spending has been consuming a larger and larger share of government revenues. The consequence: a secular decline in what is called "non-defense discretionary spending" (NDDS); in other words, many of the other things that the Federal government spends money on. The NDDS examples shown in the bullet points are the kind of spending which tend to have the highest growth, employment and productivity multipliers. They also have the potential to jumpstart private sector activity in capital intensive sectors. Unfortunately, given Federal debt expected to exceed 100% of GDP before 2030, it will be difficult to increase NDDS without (a) one of the largest tax increases since WWII, (b) the largest entitlement reduction on record, or (c) a grand bargain combining a good amount of both.

Most people hate this chart. It challenges entrenched perceptions, dispenses with free lunches, forces people to make choices, and focuses on consequences for future generations instead of just the current one.

What does the Federal government spend money on?



Source: CBO, JPMAM. May 2022. Dots are CBO projections.

What is non-defense discretionary spending?

Healthcare
- Vaccine development
- NIH/CDC bioterrorism and disease control programs
- Food & Drug Administration

Transportation infrastructure
- Air, ground and water infrastructure
- Air traffic control and aviation safety
- Coast Guard and transportation security
- High speed intercity rail
- Army Corps of Engineers

Education and Training
- K-12 education, including subsidies for low income and disabled students, college Pell grants and Head Start pre-school programs
- Job retraining and apprenticeship programs

Law Enforcement
- FBI and Border Control
- IRS and Federal Courts

Science and energy
- Space exploration, National Science Foundation
- EPA superfund and arsenic/lead exposure programs
- Pollution control and abatement
- Renewable energy grid integration
- Nuclear/clean coal demonstration projects

Capital intensive spending by the Federal government with follow-up private sector adoption:

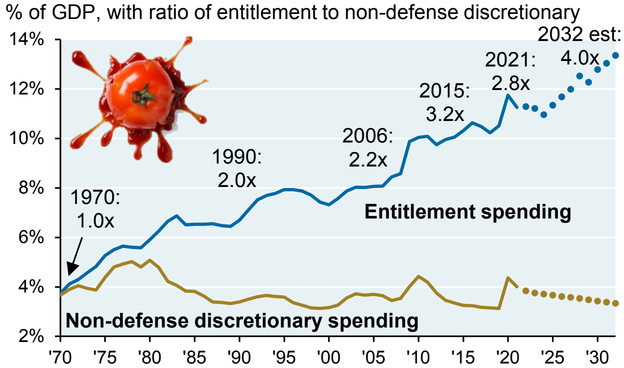
- Defense Advanced Research Projects Agency (1958, with the mandate to translate blue sky thinking into actual technology with a 10-20 year horizon; computers, semiconductors, biotechnology)
- Small Business Innovation Development Act (1982, assisting entrepreneurs with commercialization of new technology)
- Orphan Drug Act (1983, creating tax incentives, R&D subsidies, fast-track drug approval and marketing rights for products developed for rare conditions affecting less than 200,000 people; played a role supporting the growth of Amgen, Genentech, Biogen and Genzyme)
- National Nanotechnology Initiative (late 1990's/early 2000's joint Clinton/Bush initiative to provide research support and commercialization pathways for nanotechnology ideas with a timeframe of 20 years or more; nanotechnology had grown to a $1 trillion revenue industry by 2013)

Some history. An entitlement system was badly needed when it was created. In the 1960's, more than a third of the elderly in the US lived in poverty. Still, the idea of a broader safety net met with substantial opposition at the time[1]. By the early 1970's, entitlement supporters got the legislative support they needed. But when these systems were created, there were no mechanisms to calibrate entitlement spending to national income, to other government spending or to itself. Expressed in multiple terms, entitlements have risen from 1.0x NDDS in 1970, to roughly 2x NDDS in the 1990's to 2.8x today. By 2032, entitlements are expected to be 4.0x higher than NDDS. Some refer to this as "generational theft"[2] given the wealth transfers involved.

Another way to think about the challenge: by 2032, entitlement payments plus interest are expected to consume all Federal revenue collection on a permanent basis. This crossover can occur temporarily during a recession due to spikes in welfare and unemployment insurance. But by 2032, this crossover may be permanent, leaving no room for expansion or even maintenance of NDDS.

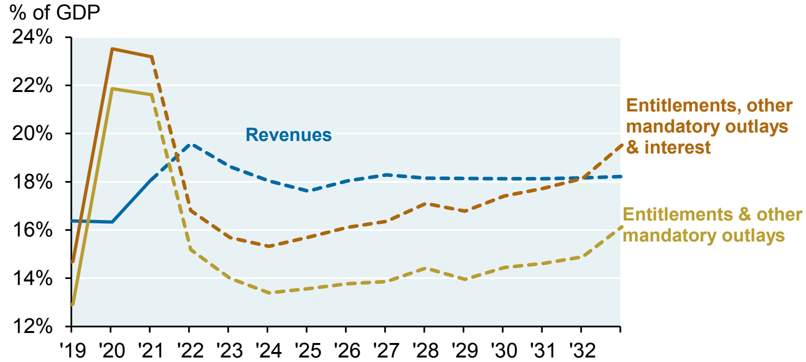
On the next few pages, I will first explain why fiscal progressives hate this chart, and then do the same for fiscal conservatives.

What does the Federal government spend money on?
% of GDP, with ratio of entitlement to non-defense discretionary



Source: CBO, JPMAM. May 2022. Dots are CBO projections.

Permanent crossover point is coming in the next decade
% of GDP



Source: CBO, Budget and Econ Outlook, JPMAM. May 2022.

[1] **20th century entitlement politics**. When Medicare was first introduced in the 1960s, it was described as "brazen socialism" in the Senate, and one of the LP albums released in 1961 was entitled "Ronald Reagan Speaks Out Against Socialized Medicine". Two decades earlier, when Truman proposed a national healthcare program in the 1940s, the plan was called a Communist plot by a House sub-committee. And when President Roosevelt introduced Social Security in the 1930s, he was branded as a Communist sympathizer by Alf Landon (Roosevelt's GOP opponent in the 1936 Presidential election), Republican Senators from Ohio, Pennsylvania and Minnesota, and publisher William Randolph Hearst.

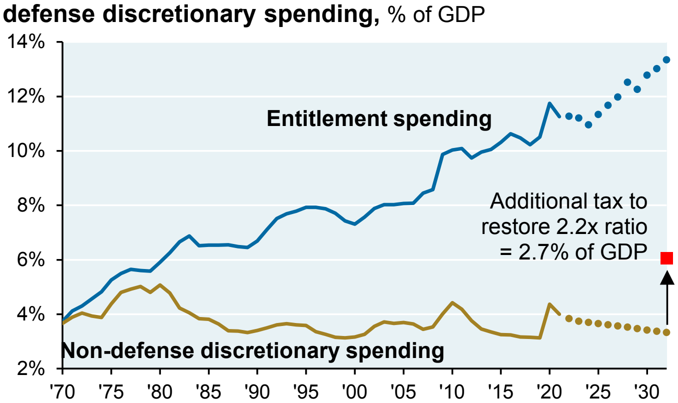
[2] "*Generational Theft Needs to Be Arrested. A Democrat, an independent and a Republican agree: Government spending levels are unsustainable*" Geoffrey Canada, Stanley Druckenmiller and Kevin Warsh, WSJ, Feb 14, 2013

Why fiscal progressives hate this chart

Let's start with a target for entitlements relative to NDDS. I used the 2.2x ratio that prevailed during the 1990s. To lower this ratio from 4.0x to 2.2x by 2032, fiscal progressives would probably recommend raising taxes and dedicating the revenues to NDDS. But by how much would taxes have to go up? See the two red dots**:**

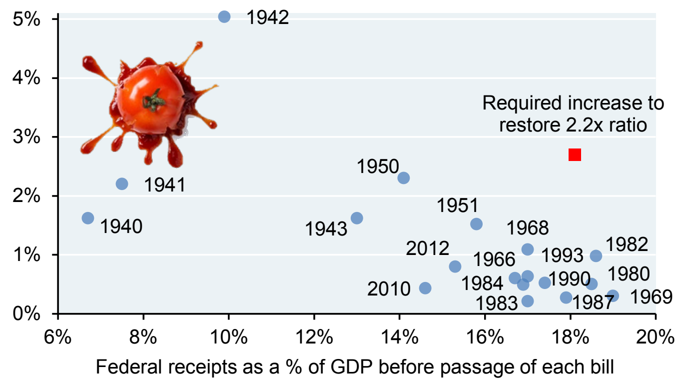
- The chart on the left shows that a tax increase of 2.7% of GDP in 2032, entirely spent on discretionary spending, would restore a 2.2x ratio
- How large is 2.7% of GDP as a tax increase? A lot. The chart on the right shows the history of US tax increases[3]. The y-axis is the tax increase relative to GDP, and the x-axis shows Federal receipts at the time. In other words, most tax increases have been ~1% of GDP or less, and took place when Federal receipts ranged from 16%-20% of GDP. The only tax bill that was larger than 2.7% of GDP: the tax bill of 1942, which took place during WWII and when Federal receipts were much lower.

Progressives: raise taxes and spend the proceeds on non-defense discretionary spending, % of GDP



Source: CBO, JPMAM. May 2022. Dots are CBO projections.

A history of US tax increases by year of legislation
Additional taxes raised as a % of GDP per annum



Source: US Treasury, Tax Policy Center, JPMAM. May 2022.

To be clear, 2.7% of GDP is **not** a level that can be met by raising taxes on "millionaires and billionaires". Senator Sanders' proposed plan relied on higher income and capital gains taxes on those earning more than $250k per year. This part of the plan was projected to raise $2 trillion over 10 years, or 1% of GDP annually[4]. As a result, a tax increase of 2.7% of GDP would have to impact a broader group of individual and corporate taxpayers[5].

Could means-testing bring the ratio down? Partially. One step could involve eliminating the cap on income used to compute Social Security taxes. This cap has existed since the creation of Social Security in 1937, and its removal could raise revenues to boost discretionary spending[6]. However, such a step would essentially convert Social Security from a "savings program" into an entitlement program (since higher income individuals paying more in taxes would not see social security benefits increase proportionally), and the politics would not be easy. Another possible step: means-testing of Medicare that would raise part B and D premiums for the wealthy, and further means-testing of Social Security payments. By combining these steps with the elimination of the Social Security income cap, the ratio could fall from 4.0x to 3.5x. However, a Sanders-style tax increase on income would ***still be needed*** to get the ratio closer to 2.2x.

[3] Tax bills shown include all revenue-raising tax legislation since 1940, including Revenue Acts, Tax Reform Acts, Deficit Reduction Acts, Excess and Windfall Profit Acts, Omnibus and Budget Reconciliation Acts, the Affordable Care Act and Social Security Amendments.

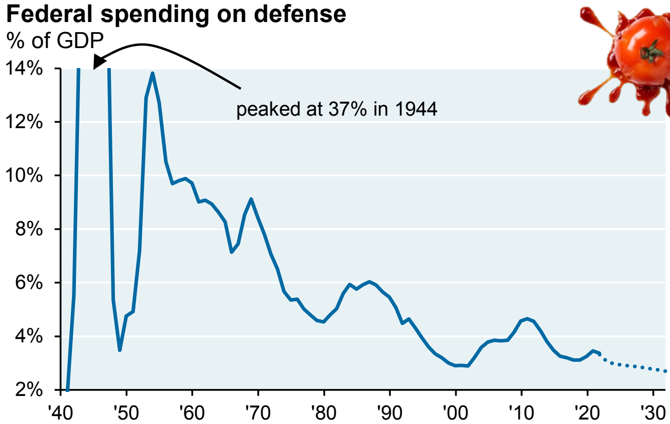
[4] "*Details and Analysis of Senator Bernie Sanders's Tax Plan*", Tax Foundation, Jan 2016. Top bracket is 52%; tax rates on capital gains and ordinary income are set at the same level for taxpayers with > $250k in AGI.

[5] **Corporate taxes** are generally not included in plans to fix the wedge since they are only one quarter the size of personal taxes, reducing the revenue impact of increasing them.

[6] A law might have to be changed to use earmarked Social Security taxes for non-Social Security purposes.

Could the ratio be reduced by cutting defense spending? Probably not. Based on current CBO projections, military spending is headed for the lowest share of GDP since 1940, a time when the US army was the 19th largest army in the world, even smaller than Portugal's[7]. If fiscal progressives do not want America to abdicate its role of protector of those who cannot protect themselves, that costs money.

Federal spending on defense



Source: CBO, JPMAM. May 2022. Dotted line = CBO projections.

Initial estimates vs. actual costs of healthcare

Benefit	Year	Annualized Cost (USD billions) Est.	Annualized Cost (USD billions) Actual	Actual to estimated cost ratio
Medicare hospital insurance	1965	9.0	67.0	7.4 to 1
Medicare (entire program)	1967	12.0	110.0	9.2 to 1
Medicare ESRD program	1972	0.1	0.2	2.3 to 1
Medicaid DSH program	1987	1.0	17.0	17 to 1
Medicare home care benefit	1988	4.0	10.0	2.5 to 1
Medicare catastrophic coverage*	1988	5.7	11.8	2.1 to 1
Massachusetts Health Reform	2006	0.7	0.9	1.2 to 1

Source: US Congress Joint Economic Committee. July 2009. * = multi-year estimate

Could a single-payer healthcare system bring down entitlement spending, leaving more room for discretionary spending? Unclear. In a single-payer system, the government has responsibility for financing the entire healthcare system. In the US, that would presumably require that premiums now paid to private sector insurers become taxes to fund healthcare coverage for all citizens. Even if that equilibrium worked (i.e., a single-payer system would not increase the deficit), that doesn't tell us anything about Medicaid and Medicare costs. Yes, a single-payer system would give the government more leverage to reduce Medicaid and Medicare costs. However, unless *availability* and *access* are curtailed, simply lowering unit costs does not guarantee a cheaper healthcare system. The history of healthcare legislation (see table above) shows how **actual costs often exceeded initial budgeted amounts by large margins**. As a result, I am reluctant to assume that a single-payer system would lower the cost of entitlements relative to where the CBO currently projects them.

Could **state and local governments** pick up the slack on discretionary spending? Unlikely. We have covered this topic before; unfunded pension and retiree healthcare obligations are squeezing many of them, forcing them to cut non-retiree related spending.

So to conclude, without large tax increases, fiscal progressives may witness the continued decline in discretionary spending programs, many of which they fought hard to create in the first place.

[7] *Biennial Reports of the Chief of Staff of the United States Army to the Secretary of War*, July 1939 – June 1945.

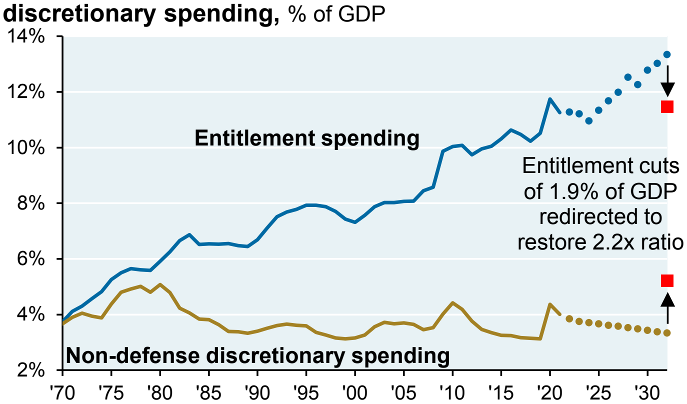
Why fiscal conservatives hate this chart

Fiscal conservatives often don't like the chart since it requires spelling out what Americans would have to do without. To get the ratio back down to 2.2x without raising taxes, a wide array of entitlement programs would have to be curtailed, with the savings redirected to discretionary spending:

- *Scale back Social Security*: (lower indexation formulas, higher retirement age, reduced benefit formulas for new workers, changes to disability eligibility age)
- *Scale back Medicaid and Medicare*: Caps on Federal spending on Medicaid, repeal of healthcare insurance subsidies related to the Affordable Care Act, higher Medicare co-pays and deductibles, restriction of Medigap coverage, increase in premiums for Medicare parts B and D, higher Medicare eligibility retirement age; Increased rebate payments by Medicare part D drug manufacturers

These cuts would save $700 billion per year, or ~2.0% of GDP[8]. These steps would represent the largest rollback of entitlements since they were created. Politically, a very toxic discussion. The first chart below shows the impact of redirecting reduced entitlement spending into NDDS.

Conservatives: reduce entitlements and spend savings on discretionary spending, % of GDP



Source: CBO, JPMAM. May 2022. Dots are CBO projections.

Post-war growth, projections and breakevens
10-year annualized % change in real GDP

Source: BEA, CBO, JPMAM. 2022.

Could faster economic growth help? In *theory*, faster economic growth could raise revenue that could be used to boost discretionary spending without having to cut entitlements. However, we should be realistic about what would be required: policies designed to maximize growth and corporate activity. Let's assume that instead of real GDP growth of ~2.5% per year (what the CBO assumes), the US grows at a faster rate, and that additional tax revenues from faster growth are dedicated to discretionary spending *only*. To restore a ratio to 2.2x by 2032, the US would require **annual real GDP growth of 4.2%.** This growth rate is even higher than during the boom of the 1990s, and was last seen during the pro-business era of the 1950's and 1960's.

The bottom line: to restore balance across current and future generations, fiscal conservatives would probably have to sell the merits of painful reductions in the safety net.

[8] The estimated cost savings for the items listed in the bullet points above come from the CBO Report "*Options for Reducing the Deficit*", published December 8, 2016.

Conclusions

The path of least resistance is to do nothing, and allow entitlements to continue crowding out spending that benefits future generations. The risk: lower growth and productivity, and with an increasingly disenfranchised population inclined to roll the dice on unorthodox candidates. What would a bipartisan effort to fix it look like? A **grand bargain** to regain a 2.2x ratio could look like this:

Policy type	Policy enacted	Share of total solution
Conservative	Reduce Social Security benefits for new beneficiaries	10%
Conservative	Caps on Federal spending on Medicaid, reducing overall Medicaid spending by 7%	8%
Conservative	Reduce availability and access to certain procedures under Medicare, reducing overall Medicare spending by 8%	26%
Progressive	Increase Medicare part B and D premiums on upper middle class taxpayers	5%
Progressive	Means-testing of Social Security payments to the wealthy, and increased payments by the wealthy into the Social Security system	4%
Progressive	Large personal income tax increases via partial implementation of the Sanders tax plan (roughly half), increasing taxes on the wealthy	9%
Progressive	Reduce military spending by 7% below 2032 target	6%
Bipartisan	Pro-growth, pro-business policies (which may at times conflict with other objectives) that result in a 0.5% higher annual real GDP growth rate; associated revenue used to boost discretionary spending	33%

Whose oxes are gored? In this iteration, everyone's, but note how important the last one is as a percentage of the total solution. Fiscal progressives would have to agree to supply side pro-business reforms that may not be consistent with other progressive policy objectives. The deal outlined above might only be possible only when fiscal progressives stop describing those concerned with generational theft as heartless proponents of a Dust Bowl society (particularly since many programs being cut are at the heart of a Progressive agenda), and when fiscal conservatives acknowledge the need for increased burden-sharing, over and above what exists already.

Michael Cembalest
J.P. Morgan Asset Management

Acronyms

AGI: Adjusted Gross Income**; BEA**: Bureau of Economic Analysis; **CBO**: Congressional Budget Office; **CDC**: Center for Disease Control; **DSH**: Disproportionate share hospital; **EPA**: Environmental Protection Agency; **ESRD**: End-stage renal disease; **NIH**: National Institute of Health

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