

Book Chapter 6 thinking notes:
Working Title: Uncle Sam's Unpayable Debt

Lesson 6 Working title: "[Uncle Sam's Unpayable Debt](#)"

Subject: The US government's financial obligations

Theme: The US government's financial obligations were facilitated by bad money creation, and are now so big they can only be paid in debased dollars

Contrast: The US government cannot run out of money, therefore everything is fine.

In today's lesson, we will establish that the financial obligations of the US government, along with those of many other sovereign governments, are now so large as to be unpayable in money of current purchasing power. In addition, we'll cover why there are only a few options open to our politicians to deal with this problem, none of them pleasant or easy.

That is why I titled this Lesson "Uncle Sam's Unpayable Debt." I'll make the case that the US government (all the central sovereign governments, really) is approaching a point where its traditional methods of gathering money by taxing and borrowing to keep its political promises are no longer available. Simply put, the US government has hit a limit on traditional taxing and borrowing, so continued funding from these channels in the traditional ways will become impossible.

Next week, we'll zero in on the most likely actions the politicians will take to address this intractable debt problem. In preview, one of their main strategies will be financial repression, already underway, in which policy makers will let inflation run while suppressing interest rates. Spoiler alert: you will not benefit from financial repression. Understanding how they may do this will put us in a better position to counteract their tactics. I named Session Seven "Money Creation - The Disease and The Cure" because I think the government will use its ability to control money creation to attempt to solve the very problems it caused by excess money creation.

Finally, in Lesson Eight, titled "Surviving Financial Repression," we'll examine how to counter financial repression. Lesson Eight will be your "cash value" for sticking with this course because we'll discuss how you can survive and perhaps even prosper in this new era of financial repression, which will likely last a long time.

[slide – two big questions]

Part One: Can Uncle Sam's Debts Be Paid?

Part Two: How Do Politicians View This Problem?

So that is where we are headed, but now let's preview today's agenda. Let's explore the U.S. government's debt problem by asking these two questions. In part one, we'll lay out the facts of the US's financial obligations, show how completely outlandish they are, and demonstrate why

the U.S. government's financial obligations cannot be paid in current dollars. In part two, we'll look at the problem of financing the government from the professional politicians' point of view. The purpose will be to get an idea of what they, the politicians, think their realistic options are to deal with this debt.

[slide – Stockman]

We have already spent a lot of time illustrating bad money creation at the hand of the Fed, known as QE, which turned \$ Trillion of debt into money and suppressed interest rates. The Fed's role in facilitating irresponsible spending and increased debt is well summarized by David Stockman, a former budget director (under Ronald Reagan):

“Someday historians may wonder how such a disaster came to pass, and surely the Fed's culpability will be hard to miss...By monetizing massive amounts of the public debt during the last two decades, it allowed the debt to explode while crippling the bond yield signaling mechanism that might have at least given Washington's politicians fair warning.”

- David Stockman, “Contra Corner,” September 22, 2023 (subscription only)

https://www.davidstockmanscontracorner.com/thanks-fed-the-road-to-fiscal-armageddon/?mc_cid=00b28eaeed&mc_eid=5ccd0316e7

In other words, the Fed's massive bond purchases (Quantitative Easing) drove down interest rates, making it appear that we could afford to pile on Trillion dollars in new debt.

SECTION ONE: US FINANCIAL OBLIGATIONS CAN NOT BE PAID

My basic argument is that the US government debt is so large that it cannot legitimately be paid off, meaning it can only be partially paid or paid in dollars of diminished purchasing power. I'll explain why I think so.

[slide Margaret Thatcher]



“The problem with socialism is that you eventually run out of other people's money.”

- Margaret Thatcher

“A government which robs Peter to pay Paul, can always depend on the support of Paul.”

- Will Rogers

I'll start the discussion with a quote from Margaret Thatcher. In 1977, she famously said, "The trouble with socialism is that you eventually run out of other peoples' money."

Thatcher's phrase became popular because it is intuitively insightful. The idea is that there is only so much money; all of it belongs to someone who earned it, and the government has to tax the people somehow to get it. Whether you are sympathetic to socialism or not, that statement seems true because the fact is, if you keep taking wealth from productive people to give it to unproductive people, you will eventually reach a limit on the wealth you can redistribute.

However, Thatcher understated the problem of "other people's money" because she thought the government had already taxed people to their limit. In other words, her premise was that because there is a limit on taxation, which limits government revenue, this limit limits how much wealth can be redistributed.

That is what many people still think – that socialism, or mandatory wealth redistribution, is simply taxing Peter to pay Paul. But taxation is just one of the ways governments can redistribute wealth. Taxation is the most visible and, therefore, the most honest way to gather and redistribute public revenue. But there are other, less honest redistribution techniques, including taking on too much government debt and paying it back with depreciated currency without the lenders or the citizens realizing they are being short-changed by inflation.

The problem today is that we are not just running out of other people's "money." We are running out of other people's wealth, whether you are talking about taking it by taxing or borrowing. Our government has taxed and borrowed so much that the ability to gather any significant additional government revenue has reached a kind of boundary, a new frontier. I am not talking about the legal limit on the funded federal debt that Congress haggles over every time they vote to raise the debt ceiling. I am referring to the total of the government's future obligations, literally unpayable, that will ultimately require a kind of step-change in our welfare state.

So, let's dig into how these unpayable debts come about.

[slide – perverse incentives]

THE POWER INCENTIVE

Our government continually takes on more and more debt through a recursive process fueled by the incentive to maintain power.

- Politicians make promises to get elected.
- Politicians tax and borrow to pay for their promises
- Politicians make more promises to get re-elected
- Politicians tax and borrow more
- Rinse and repeat

To fulfill their promises, politicians throw public money at social problems, real or imagined, by taxing and borrowing. From wiping out sickness and poverty to stopping the seas from rising, politicians promise to solve all kinds of insoluble problems by spending hundreds of billions in public money. The process keeps them in office because making promises and throwing money at problems is popular enough among voters to get heavy-spending politicians reelected year after year.

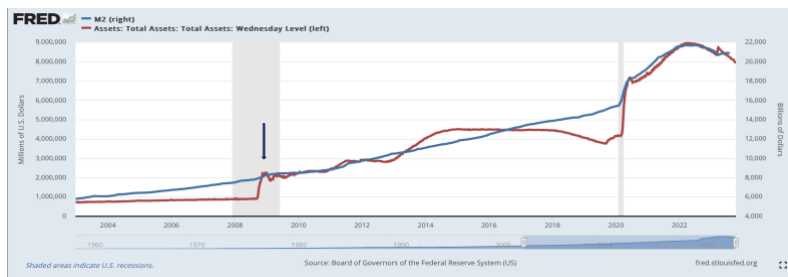
[optional: Fundamentally, this is a moral and cultural problem fueled by altruism and ignorance, but a deep philosophical analysis is beyond the scope of this course.]

The continuous cycle of promises and spending **eventually encourages politicians to grow the cost of their promises faster than they can gather revenue to pay for them.** First, they did what Margaret Thatcher noticed: they taxed individuals and corporations, raising taxes as high as the voters would allow. When taxes got so high as to become unpopular, threatening the politicians' careers, they borrowed money from savers and investors by issuing more Treasury bonds. When they ran out of bond buyers at low interest rates, they resorted to monetizing government debt, which, as we know, consists of central banks directing their commercial banks to buy bonds, creating new bank deposits in the process.

In other words, they resort to inflation, properly understood as money creation caused by government action.

[slide: M2 and Fed asset graph from Lesson Five]

Fed ownership of bonds (red, left) and M2 (blue, right)
2009 - 2023

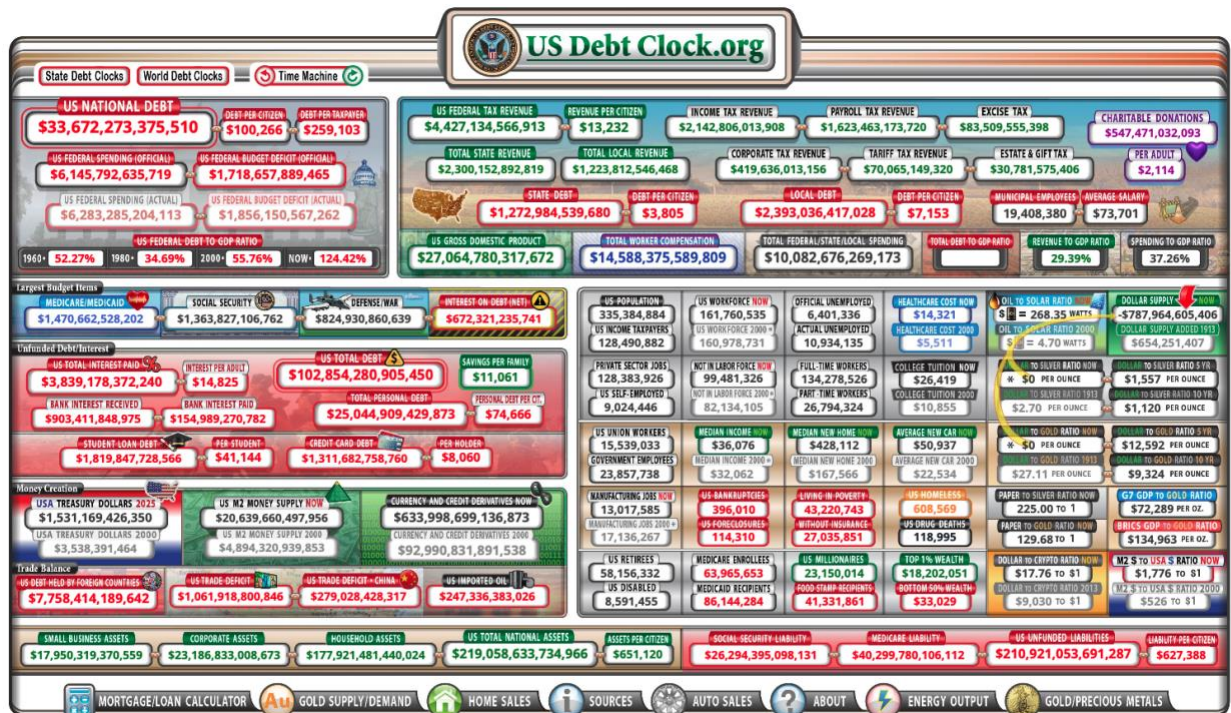


In recent history, the leading example of unproductive money creation is Quantitative Easing from 2009 to 2022, in which the Fed commanded commercial banks to create an unprecedented amount of new money, which funded unprecedented federal deficits by lowering interest rates and monetizing a large portion of the government's debt.

The ability to monetize debts at low interest rates gave Congress the idea that they could get away with more borrowing indefinitely, resulting in a massive increase in total debt in recent years. Incidentally, these same policies were followed by nearly all central banks in all countries.

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Just how significant is this debt, and how fast is it growing?



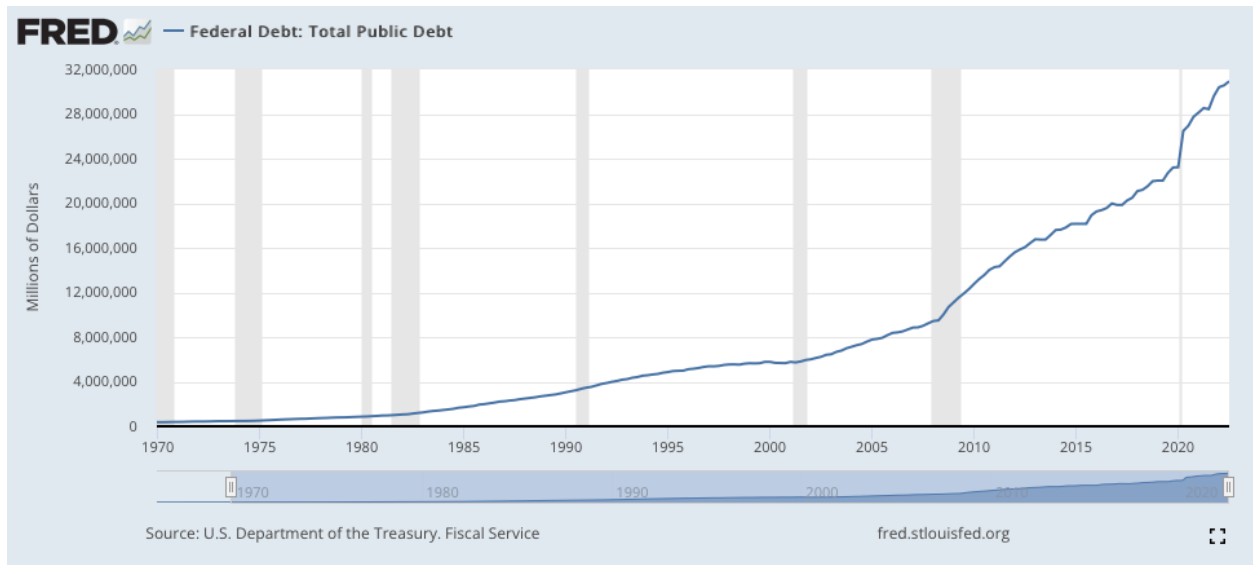
<https://www.usdebtclock.org>

As of a few days ago, US debt is just under \$34 Trillion and growing fast, having increased by \$2 Trillion in just the last year. The debt clock here shows so-called “funded debt,” or money borrowed in the US Treasury market and not yet paid back.

That’s a big number that’s hard to grasp, the kind of number generally reserved for physics classes when discussing light-years and quantities of subatomic particles, so how can we put it into units that are more understandable to an average person?

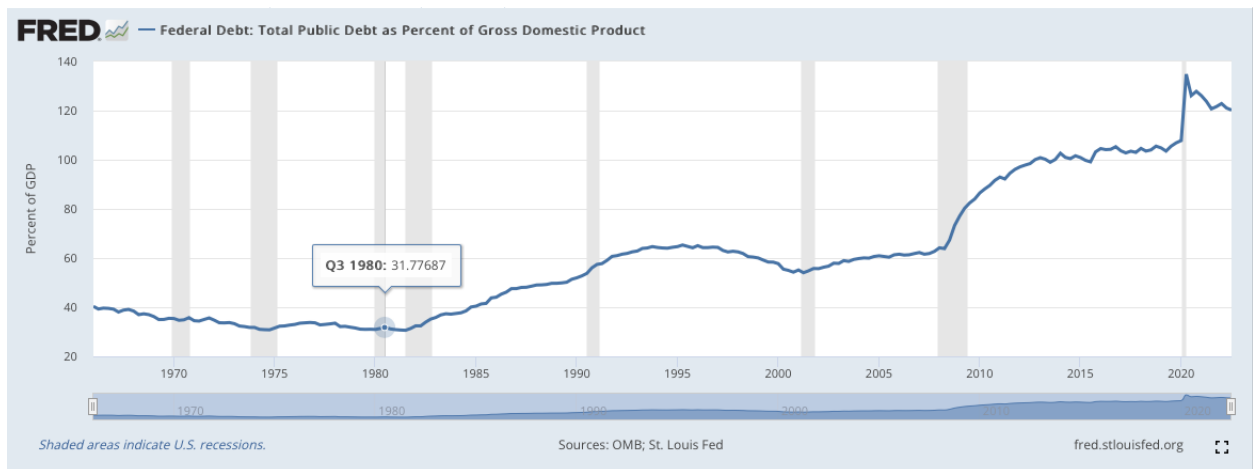
Per capita, this colossal number comes to over \$100,000 per U.S. citizen. So, let’s imagine the average citizen was tasked to pay off his share of the existing national debt. The median personal income of Americans is \$36,000. How long would it take for the average earner to pay off a \$100,000 debt? Even if he cut his personal consumption by 10%, it would take nearly 28 years to pay off \$100,000, which doesn’t even include interest on that debt. (The math is $\$100,000 / \$3600 = 27.8$ years) How could the average earner ever do that? It sounds impossible to me.

[slide:]



Here is a chart of the growth of the national debt. Notice the phases in the rate of growth that show up in the slope of the line: modest growth up till 2000, accelerating until 2009, accelerating faster till 2020, then out of control from 2020 until today. You can see it has accelerated in steps over the years. From 1990 to 2000, debt grew at 8.0% per year. From 2001 to 2008, 9.2% per year. From 2008 to 2020 (the significant QE years), the national debt grew at 12.0% per year. And during the last two pandemic years, debt increased by 17.7% per year. That is not a favorable trend. (The latest figures only include the second quarter of 2023, so this chart is several Trillion dollars behind! It looks very similar to the chart of money supply growth, which is no coincidence.)

From another perspective, during the first 22 years of the 21st Century, U.S. government debt grew 445% while nominal GDP grew by only 260%.



This chart shows the ratio of federal debt to gross domestic product (GDP), the debt-to-GDP ratio. This ratio has grown from 30% in 1980 to 120% in the last few years. The spike in debt / GDP during the pandemic years reflects the brief, sharp reduction of income caused by the Pandemic-related economic slowdown, accompanied by rising nominal GDP due to pandemic stimulus.

“Debt to GDP” is the most popular, widely quoted measure of the debt burden. GDP encompasses all income for both businesses and individuals. So, to put this in personal terms, debt to GDP is similar to measuring your total personal debt against your total personal income.

If your annual income was \$100,000, and your total debt was a \$10,000 loan with an interest rate of 10% (yearly interest payments of \$1000), your lender would probably say you were a reasonable credit risk for more lending because your debt-to-income ratio is only 10% ($10,000/100,000$). More importantly, the percentage of your income that pays interest is only 1%. ($1,000/100,000$). (Interest payments divided by income is sometimes called the “insolvency ratio.”) This level of debt would be in line with Lesson Three, our example of a consumer loan, which was paid off quickly out of future income.

If your debt were \$100,000, or 100% of your annual income, your yearly interest charges (at 10%) would give you an insolvency ratio of 10%. Paying 10% of your income to interest would eat into your savings and would likely prevent you from accumulating any savings to provide for you when you can no longer work. At this point, you are approaching a debt trap, meaning you are a slave to your debt unless you can figure out how to earn more money. No responsible lender would lend you more money based solely on your income.

If your debt went up to \$200,000, your debt-to-income ratio would go to 200%, and your insolvency ratio would rise to 20%. If your income were still \$100,000, it’s unlikely you could even afford \$20,000 in interest payments. No lender would give you this much money unless you had significant collateral to be repossessed.

The Cobden Centre

For honest money and social progress

[Heading Toward Another U.S. Government Default](#)

By Other Writer on Oct 27, 2023 03:29 am



"How did you go bankrupt?" Bill asked.

"Two ways," Mike said.

<https://www.cobdencentre.org/2023/10/heading-toward-another-u-s-government-default/>
(best viewed in your browser)

The point is there is a level of debt where interest payments overtake your ability to service that debt. This is true for individuals, and it is valid for sovereign nations. Today, the US government's insolvency ratio (interest expense as a percent of revenue) is about 20%; it will rise much higher as maturing federal debt is rolled over at higher interest rates and will increase even higher if the government's revenue falls due to a recession. The article highlighted above does an excellent job of laying out the problem.

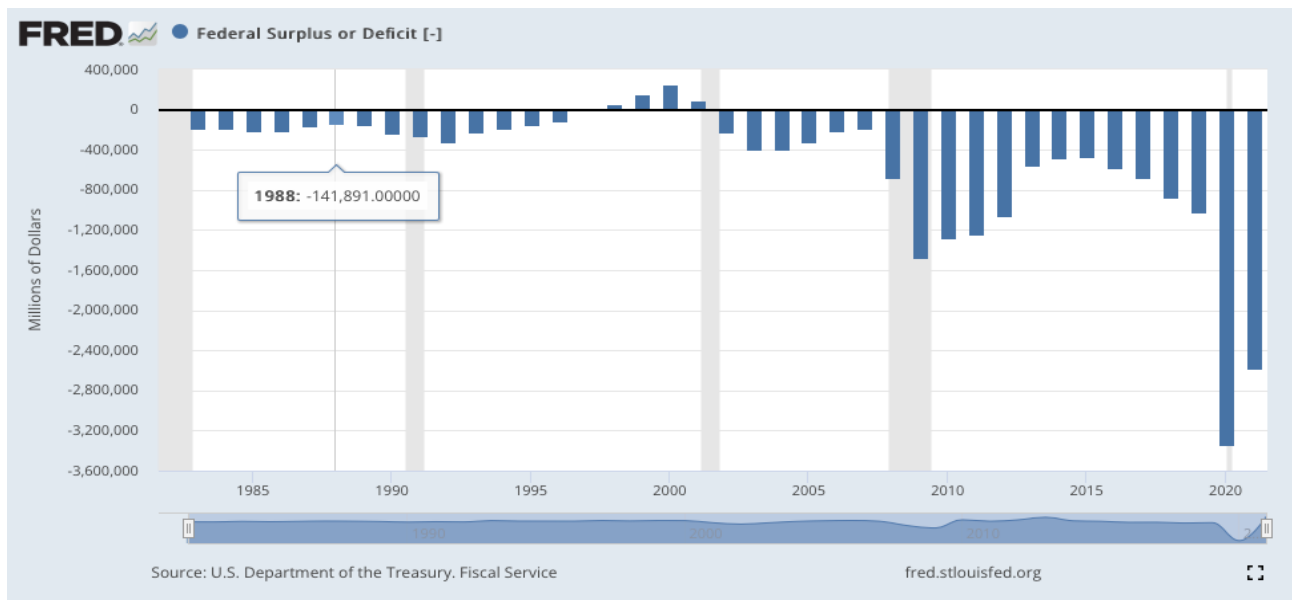
So, \$34 Trillion in debt, or \$100,000 per citizen, is a terrible number. You hear this debt number thrown around as Congress does its periodic Kabuki dance of arguing about increasing the authorized debt ceiling.

But it's way worse than this. \$34 Trillion is only a minor part of the US government's total financial obligations. \$34 trillion is what the government owes to the current owners of Treasury bonds. But there is a lot more "unfunded debt" out there. And although no one knows its exact number, it is huge. I want to explain this "unfunded debt" and show you how to estimate it so you have confidence in what I am saying.

Consider the unfulfilled promises the politicians have made. **These are mainly promises to pay future entitlements: social security, disability payments, Medicare, and Medicaid.** These entitlements are about 70% of the total annual federal budget. They are real promises written into federal law, with yearly cost-of-living escalators built in by legislation. **But they have yet to**

be funded, meaning the government has not yet taxed or borrowed from anyone to pay these obligations. That means these future obligations are separate from the government debt numbers.

The \$34 Trillion in debt includes money that has already been borrowed and spent (i.e., “funded”) and now must be paid back. But every year, what was a future obligation becomes a current obligation. The government cannot raise enough tax to pay this obligation, so it borrows the amount needed in the Treasury market. This amount is called the annual deficit and adds to the total funded debt outstanding.



“Reagan proved that deficits don’t matter,” Vice President Dick Cheney, 2003 (Ha!)

A historical chart shows how these unfunded obligations are paid for by more borrowing each year. This is the annual “deficit,” the difference between money spent and money collected by taxes and fees made up by borrowing. The formula is: government spending plus interest costs minus government revenue equals the deficit, which must be borrowed in the bond market. The vertical bars are the annual deficit added to the federal debt number. Annual deficits are the reason the \$34 Trillion number keeps going up.

These deficits will continue to be very large. The Congressional Budget Office, which has a history of underestimating our deficit spending, projects significant deficits as far as the eye can see (their projections go out for about 30 years).

Please realize that this deficit is very different from other famous historical deficits. For example, to pay for WWII, the USA (and many other nations) borrowed a lot of money, way more than they could have raised in taxes. This borrowing financed planes, tanks, and soldiers’ wages – expenses that ended when the war ended. Wartime debts were one-time costs. When the war ended, we scrapped the tanks and planes, and the soldiers returned to work. So, these

war debts were finite debts with a one-time deficit that was paid off fairly quickly, and then the financial obligation was extinguished.

Our current annual deficits are different because they recur every year. **They are chronic because they are an attempt to fund an open-ended obligation to provide retirement and medical benefits to every citizen – everyone alive and everyone yet unborn - until the day they die. The medical and disability benefits are physical goods and services with no known limit on dollar cost. The monetary promises of social security have cost-of-living escalators built-in by law. Under current law, all these obligations must be paid.**

So the next question becomes, how do we estimate a current monetary value, a present value, on these future deficits that we know will occur? I'll show you a shorthand method (included free today with your tuition!) In financial terms, we will estimate the present value of future deficits, the objective being to estimate just how massive these obligations are.

[slide]

Estimate the present value of future deficits:

Assume annual deficit = \$1.5 Trillion

What size investment could pay \$1.5 Trillion as an annual dividend?

Assume a 5% annual return on investment.

Answer: $\$1.5 \text{ Trillion} / 5\% = \30 Trillion

The deficit for FY 2023, which ended on September 30, clocked in at 2.0 Trillion. You can look at the CBO's estimates of future deficits. <https://www.cbo.gov/publication/59159>

The recently updated numbers project the annual deficit to grow to \$2.7 Trillion by 2033, raising the funded debt held by the public to nearly \$47 Trillion.

Let's be conservative and assume an annual deficit of only \$1.5 Trillion in today's dollars that repeats annually for a long time into the future. What would it cost today to make this a "funded" liability? What amount of debt would pay for these future obligations in today's dollars?

Put another way, Let's imagine the amount of money the government would need to invest today to pay out \$1.5 trillion annually, that is, enough profit or interest on an investment of some amount to pay for the deficit spending each year. Remember, the deficit is just the spending *not* covered by tax revenue. So even after taxes (government revenues) are taken out of the public's pool of savings, we still need an investment of an amount that returns 5% and pays \$1.5 trillion in annual interest to pay for this future deficit spending.

So, as a first cut, \$1.5 Trillion divided by 5% is \$30 Trillion. So a \$30 Trillion investment today that yields 5% forever would pay for the annual \$1.5 Trillion that taxes and fees cannot cover. Now add that \$30 trillion to the \$34 trillion in funded debt, giving you a total “real” debt of \$64 trillion. That’s a quick back-of-the-envelope calculation of total government financial obligations.

But wait! That number needs to be higher because it assumes a *constant* deficit of \$1.5 trillion, that is \$1.5 Trillion in today’s dollars. But we can be sure the nominal deficit will grow every year due to inflation. That is what the CBO assumes.

[slide]

The Deficit Will Grow with Inflation.

$$PV = D / (r-g)$$

PV = sum of future financial obligations in today’s dollars

D = deficit in year one, equal to the required return on investment

r = rate of return on investment

g = annual growth rate of deficit

$$PV = \$1.5 \text{ T} / (5\%-3\%) = \$75 \text{ T}$$

Total financial obligations = \$34 Trillion + \$75 Trillion = \$109 Trillion

[optional: Gordon growth model derived:

<https://www.youtube.com/watch?v=oAmPyKmxD7I>]

So, let’s use a little math from Finance 101 called the Gordon Growth Model to estimate the present value of a growing future deficit stream. This is the present value of a long-term income stream that grows constantly.

[optional: The calculation is not complex. I am attaching a link to an explanation of how it is derived mathematically if you have an interest.

<https://www.youtube.com/watch?v=oAmPyKmxD7I>]

Let’s say the deficit grows at just 3% per year, which is conservative because it has been growing much faster than that. (The Congressional Budget Office projects faster deficit growth than this, and they are usually too conservative. This is a conservative estimate to illustrate the magnitude of this problem.) If we start with a baseline deficit of \$1.5 Trillion today and grow it at 3% annually, the annual deficit would be \$2.02 Trillion in ten years and 2.7 Trillion in 20 years, etc. This means we have an increasing deficit to “discount” at 5% annually to arrive at our present value. The formula for calculating the present value of the future income stream from our imagined investment is the equation $PV=D/(r-g)$, also called the Gordon Growth Model.

\$1.5 Trillion is the current annual cash cost of these deficits in today's dollars or the assumed yearly addition to the funded liabilities (the national debt). The \$1.5 Trillion is also equal to the return on the required investment because it just funds the annual additional debt and no more. "g" is the yearly growth rate of D; in other words, today's deficit of 1.5T grows at 3% per year. "r" is the yearly rate of return we assume we can get on our investment (5%). Now we must solve how much we would have to invest today to get the money to cover the projected deficit.

So, mathematically, an investment of \$75 Trillion today that earns 5% per year for many years would provide enough income to pay for a deficit that starts this year at \$1.5 Trillion and grows by 3% per year for many years.

So, the present value of \$75 Trillion is the investment we would have to make today and earn a 5% return that would fund all future deficits. It's the "present value of the future stream of annual deficits."

The total debt number in my sample calculation is probably inaccurate; in fact, I can almost promise it is wrong. It's only a ballpark approximation based on rough assumptions about future interest rates, investment returns, and the growth of deficits. I offer it to illustrate that these obligations cannot be paid even with conservative assumptions.

You can find many other similar estimates that use more sophisticated estimating techniques, like the one shown here:

[slide – \$123 Trillion estimate and Cato estimate]

[Home](#) » [Editor's Pick](#) » [US National Debt is Actually \\$123 Trillion: Report](#)

US National Debt is Actually \$123 Trillion: Report

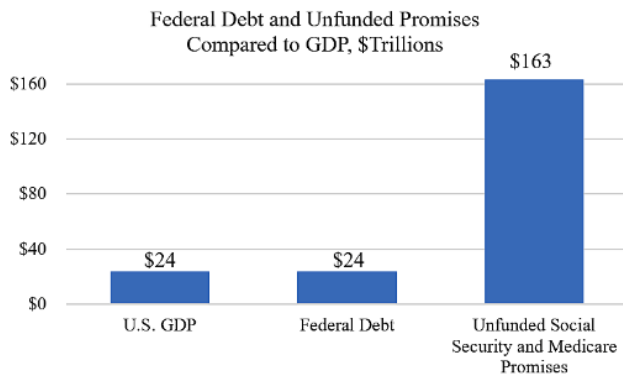


By David Wagner

David Wagner is a University of Manitoba graduate with a Bachelor of Arts in Religion in Sociology. He is interested in the psychology of religious and ideological belief and the relationship between religions and the state in totalitarian countries.



Published: April 29, 2021



In 2022, when federal debt was less than today, the Cato Institute estimated unfunded Social Security and Medicare promises at \$163 Trillion.

<https://www.cato.org/blog/federal-debt-unfunded-entitlement-promises>

But here is the real point. Although it is approximate, this huge investment required to fund future obligations is instructive because immediately you see it is impossible. Can you even imagine the possibility of funding, this year, a \$75 Trillion investment? \$75 Trillion is about three times the annual [US GDP](#) and over three times the US broad money supply.

On a per capita basis, assuming the funded plus unfunded debt is \$109 Trillion, **that is a debt of over nine times the annual income of the average US citizen.** This is impossible for the average person to pay.

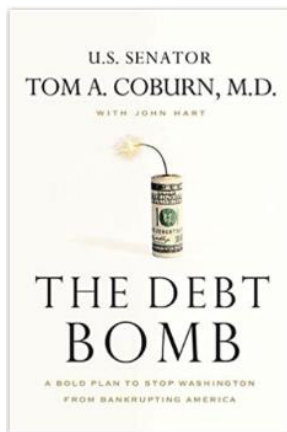
Or compare this \$100+ Trillion debt to the entire world's estimated wealth. Today's worldwide broad money supply is "only" around \$100 trillion, and the global annual GDP is "only" about [\\$110 Trillion](#). It is impossible to invest the entire world's money supply to pay for the deficits of the US government. There is not enough investment money, and there are not enough investment opportunities available to fund this obligation.

It is one thing to borrow money to fund a project that will pay back the interest and principal. You "fund" the investment by selling bonds or equity to raise money, and the investors lend or buy stock with their savings in the expectation of earning a return. That is what we have done with our currently funded debt of \$34 Trillion: savers have loaned the government money to pay for things that are already consumed, and now the government has to pay the lenders back.

But these future entitlements and promises are "unfunded" precisely because they cannot be funded! You could not sell enough bonds today to cover this investment. You cannot legitimately borrow enough to fund these liabilities because the total wealth required to support future payments of this magnitude is not ours to use. All the world's balance sheets combined will not pay for these promises. The deficits will consume more wealth than the world can allocate to them.

[optional: The government's spending program reminds me of the nuclear fusion problem because these deficits are based on the assumption that the economy can somehow consume more wealth than it can produce. Government spending is almost entirely consumption expenditure, not productive expenditure. As this consumption expenditure grows, it eventually consumes all production, giving nothing back for re-investment.]

It should be evident that if these vast numbers of dollars are going to be paid out, the only way it can happen is if there is a lot more money. In other words, if these dollar amounts are going to be paid, they must be paid off in inflated (i.e., depreciated) dollars. So, twenty years from now, you might get an annual social security check of \$100,000, but it will only buy the groceries, shelter, and transportation that \$20,000 buys today, and likely will buy less in actual goods and services that you can buy with \$20,000 today.



The Federal Debt Bomb - Is it about to Blow? (Vol. 55)

analyticsbox | Jun 08, 2022



Some conservative politicians and pundits like to talk about our vast federal debt using terms like “the debt bomb,” in which the level of debt somehow reaches a flashpoint and explodes, destroying everything around it. But that is not a good analogy, in my view. What we are facing is more like a debt swamp, where you walk in and slowly get bogged down and dragged under, and then you drown slowly in the quicksand. It is tough to identify the specific point at which you were doomed, the point at which there was no going back. So your awareness of these big numbers is instructive, but it still doesn't help much if you want to know how this growing debt will affect you personally.

Furthermore, these dramatic numbers don't mean much in the real world because politicians are in control and do not think in these terms. To know what the politicians will do about this debt, we must ask how **they** think about funding the government. How do they approach the problem? That's what I want to cover in the last section today.

[pause for questions and comments]

PART TWO: HOW POLITICIANS SEE THE DEBT PROBLEM

[slide: four options]

- Default
- Inflation
- Austerity
- Smoke and mirrors

What are a government's options when they face a seriously high debt that cannot be completely and honestly paid off? There are four options: default, high inflation, austerity, and deception.

1. Outright default on debts, i.e., the government reneges on all or some of its promises. The government admits they cannot pay. They say, oops, we or the previous government over-promised, and now we must confess we cannot pay all our debts, so we won't. For example, We will cut Medicare back and eliminate Social Security, but we must keep taxing your payroll to pay for other promises.

I believe this will not happen because the first politicians to propose it will lose their careers. The default option evokes the world of pitchforks and torches that will come out when you tell people they will not get their healthcare, disability, or social security. Default is the honest alternative, but it's also a poor outcome for the politicians in power.

[optional: Default is a little easier if the debt is mainly owed to foreigners. You can always justify default by casting foreigners as enemies. But if the debt is owed to citizens, which is the case with the USA's unfunded debt, it is a bigger problem for politicians who want to stay in office. The high price of political and economic disruption (the pitchfork and torch factor) makes this an unlikely scenario. Creditors suffer, everyone suffers as the economy suffers, and then there is a re-set as new politicians make new promises. I maintain that outright default of US debt is not an option, or at least not the first thing the politicians will try.]

2. Severe or hyperinflation: The government can pay off debts with made-up, depreciated currency worth much less than the value of the debt they owe. Weimar Germany and Zimbabwe are prime examples. Under this scenario, the economy collapses, and everyone suffers. Out comes the mob with pitchforks and torches. Severe inflation is a bad outcome for the people in power, often setting the stage for dictatorship. Although some pundits predict hyperinflation here in the USA, I disagree; hyperinflation is not our fate, which I will explain shortly.
3. Austerity: Under what some economists call "austerity," the government raises taxes severely and cuts back on some of its future promises. It may default selectively on its less urgent promises (like its foreign-held debt). The government will try to raise taxes, but it limits its expenses to what it can collect in taxes.

But under austerity, you have to cut the services being funded by borrowing, so politicians need to pay attention to which promises they can break and which ones they can pay while still keeping their jobs. **Austerity is a bitter pill for the population and politically dangerous for politicians, so it's unlikely to be the solution to our debt problem.**

[OPTIONAL: There is a form of austerity that would work. If you could establish, as a principle, that spending could not rise faster than the inflation portion of nominal GDP, you would ensure the real economy would grow more quickly than real government spending. Nominal GDP includes a real component and an inflation component that sums to the nominal growth value. If you only increased spending at the inflation rate, the real growth component would gradually ensure that government spending as a percent of GDP would shrink. Over many years, the influence of government on the economy would dwindle. This policy might be considered "austerity" because, in effect, real spending would be frozen. Congress would have to make very difficult spending allocations and "rationing" decisions every year. Don't worry, it is not about to happen.]

4. **Smoke and mirrors:** Pay off debts in a depreciating currency while artificially holding your finance costs down. This is recovery by "fooling most people some of the time." The most favored version of smoke and mirrors is "financial repression." Financial repression spreads the pain by letting inflation run pretty high and keeping interest rates below the inflation rate. For politicians, it is the least painful policy of choice when dealing with unmanageable public debt, so it is the odds-on favorite.

You are probably guessing that I think smoke and mirrors will be the politicians' choice because they can probably get away with it, at least for a while. This option will likely involve selective defaults, some changes in future entitlements, and an attempt to raise more taxes, in other words, a combination of the first three options, while making the people think they are still getting what they were promised.

I apologize for repeating something you already know: Politicians think and act only in the short term. "Short-term" means this year, my current political term, and maybe the next election. When they think of funding the US budget, they don't care about large aggregate numbers, like \$34 Trillion or \$109 Trillion. **They think in terms of year-to-year cash flow.** Their pragmatic (and cynical) question is: How will I get the money this year and next year to pay for the promises I made so I can keep myself in power, keep my salary and benefits, and keep my job until I can sail into the sunset, and not get blamed when things fall apart? With a few exceptions, this seems to be their primary incentive.

From this point of view, the advantage of an annual cashflow approach is that the sources and uses of cash can be tweaked and adjusted incrementally as the financial pressures intensify yearly.

How Politicians Think About Federal Spending

Cash requirements:

- Pay for **promises** and obligations
- Pay **interest** on existing debt

Paid for by cash sources:

- **Taxes** (all taxes, fees, duties, royalties, etc)
- **Borrowing** (in the Treasury market)

Here is an elected legislator's simplified cash flow format, which we will now use to discover how politicians will attempt to keep their promises in the face of an impossibly high debt level. As politicians face increasing funding difficulties, they have to pay for next year's expenses by getting enough revenue to meet their cash expenses and limiting cash outflows where possible to take pressure off the revenue.

They have only four levers to pull to make ends meet. Reduce promises, reduce interest costs, raise taxes, and increase borrowing. Let's see which categories are options for the politicians and how much room they have for adjustment.

First, let's look at the two sources of cash: taxes and borrowing. There are constraints on these sources. As we mentioned at the opening, taxes are limited by the voters' tolerance. At some point, taxes get so high the voters rebel and elect someone else who will not tax them so much.

Borrowing is also limited. The demand for Treasury bonds is limited by the public's investable funds and the interest rate they need as an incentive to lend their cash. We'll come back to interest expenses in a few minutes.

Cash requirements include legitimate government expenses like courts, police, and national defense. Then there is the extensive bureaucratic apparatus that must be paid for, including many employee salaries (over 23 million federal workers). But most important (to the politicians) are the significant and growing entitlement programs, including Social Security, Medicare, and Medicaid, which account for about 70% of government spending and most of the mandatory future growth of that spending, including most of the projected deficits.

Now, I want to stipulate that as they over-promise and run into cash flow constraints, our politicians will be very reluctant to be perceived as reneging on their promises, as that would be political suicide. Many people understand that entitlements (Social Security and Medicare) cannot be fully paid, but I ask you, what politician today has mentioned that these entitlements

must be cut? I can't think of any. They would be shot on sight. It has not happened because the voters do not want to hear it.

So it's logical the politicians will try to find a way to pay, or appear to pay, these entitlements to the people who elected them, at least in nominal dollars. So, the nominal payouts to the voters will not be reduced, except perhaps for some groups whose votes do not matter. For example, Congress may reduce social security payments to wealthy people who don't have enough votes to affect an election. But this level of budget cut will not be enough to solve the cash flow problem.

In the fiscal year just finished, Congress raised about \$4 trillion in revenue (taxes and fees of various types) and spent \$6 trillion, borrowing the \$2 trillion to pay the balance. How much more money can they raise in taxes? Can they increase taxes enough to cover their increasing spending?

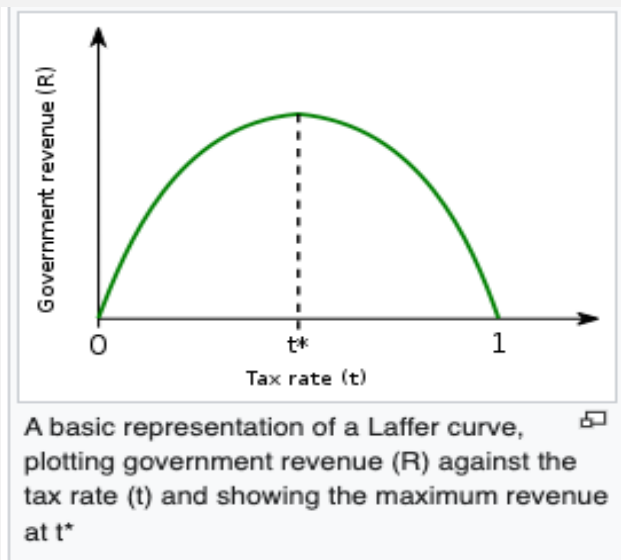
[slide – revenue as percent of GDP]



The problem with that idea is that for 75 years, tax receipts as a percentage of the US GDP have been constant at between 18 and 20 percent. Higher tax rates don't necessarily result in higher tax receipts because if tax rates on income get too high, people will produce less taxable income.

It's worth pointing out that government revenues drop sharply during recessions (gray-shaded areas), and typically, government deficits go way up during these periods, as the government will not cut spending and indeed increases spending to help people through hard times. So, if we have a recession coming up, things will be worse than I say here.

(Comment: other countries have higher tax/GDP numbers. The US is more comparable to these if you add total tax (state, city, county, etc) to the federal tax burden.)



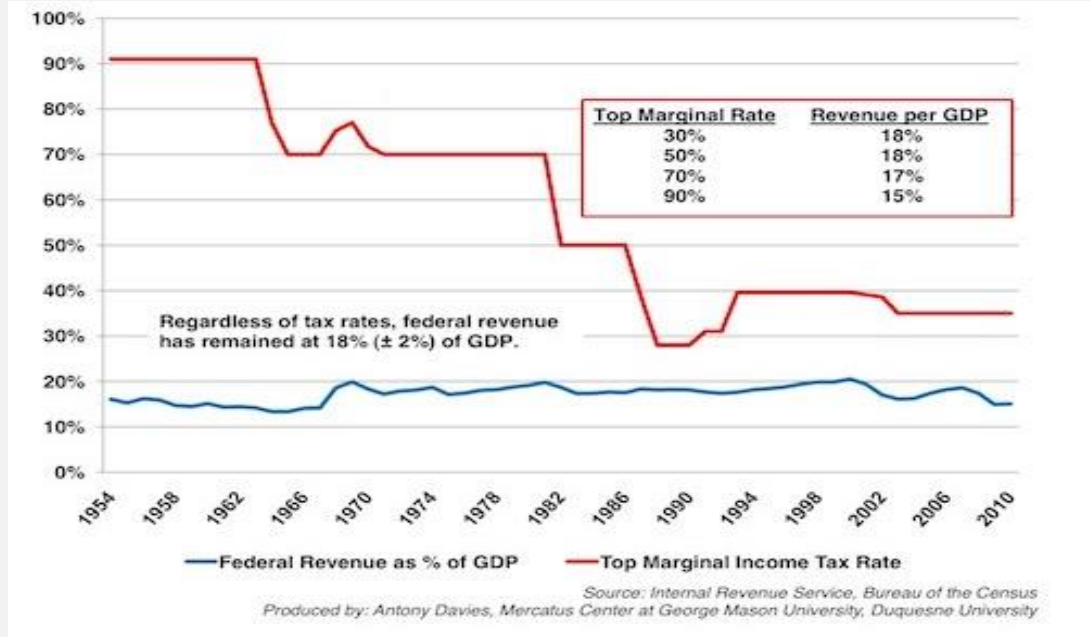
https://en.wikipedia.org/wiki/Arthur_Laffer

The question for politicians is, what tax rate will get them the maximum revenue? A zero-tax rate yields zero tax revenue. And a 100% tax rate also delivers zero revenue because people stop working when they can't keep any of the money they earned. Somewhere between zero and 100 percent is the theoretical optimum tax rate that will make the government its maximum revenue. That theoretical point is at the top of this curve, known as the Laffer Curve, named after the economist Art Laffer.

We have historical examples of this principle in action, such as when the United Kingdom reduced tax rates in the 1980s, and tax receipts went way up a few years later. Another example was when the Russian government, after the fall of their Communist government, slashed corporate taxes and raised revenues substantially. At a moderate tax rate, citizens and corporations felt they were getting something for their tax money, so they were willing to pay and not spend energy evading taxes.

Art Laffer does not take credit for this idea, known for many centuries. However, he made the concept famous at a 1974 meeting with Donald Rumsfeld and Dick Cheney. He drew the curve on a napkin to make a point, and an attending economist named June Wanniski started calling it the Laffer Curve.

Incidentally, I have met Art Laffer on several occasions. Along with a former business partner, I had breakfast with him in 2016, and he mentioned at the time that he was consulting with a Middle Eastern government to help them maximize tax revenue, so you know his expertise is in demand. He is a true tax expert.



The main takeaway from this idea is that although you cannot precisely know the “optimal” tax rate from a politician’s point of view, you also cannot arbitrarily raise the tax rate to generate more tax revenue. Somewhere, there is a limit beyond which an attempt to collect more taxes is counterproductive. As this chart shows, for the last 75 years, tax revenue as a percentage of US GDP has stayed constant, whether the top tax rate was 90%, 60%, or 40%.

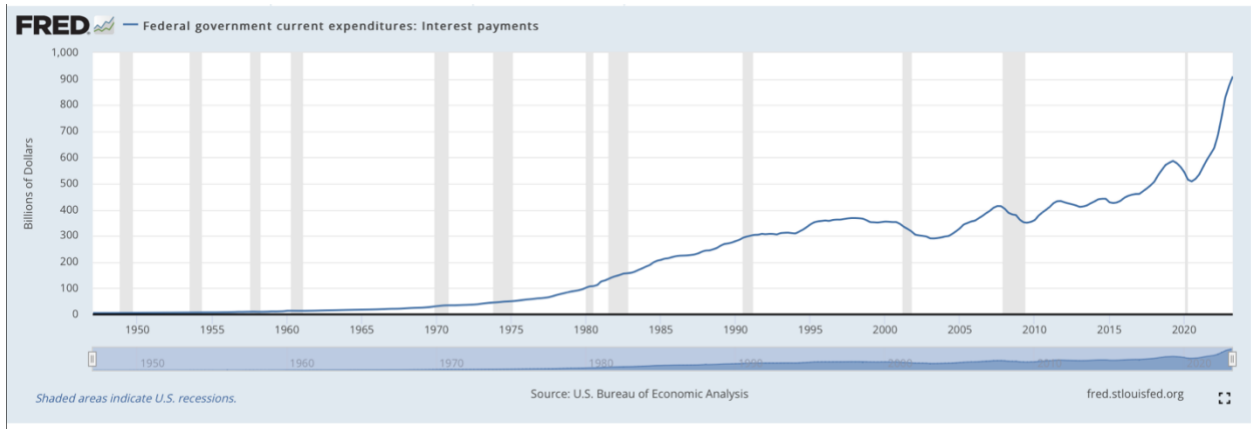
[optional: There is a good economic reason why even a statist government should not want to force too much taxation: Government spending is mostly consumption. But you have to produce wealth before you can consume it. If the government takes too much, they overwhelm the producers with too much consumption. Eventually, they will eat the productive ability of the country, meaning growth will no longer be possible. Under these conditions, the economy becomes poorer year by year. Example: Venezuela, where production has declined so much that people have actually lost weight on average.]

If we cannot raise additional tax revenue by increasing the tax rate, the obvious alternative is to increase the tax base by growing nominal GDP. Nominal growth above real growth means rising prices, which will be reflected in a rising consumer price index. The point is that an increasing GDP, even if it is nominal and not real, will give us an expanding tax base and rising tax revenue. Growing tax revenues faster than expenses would allow the government to make a dent in its chronic deficits.

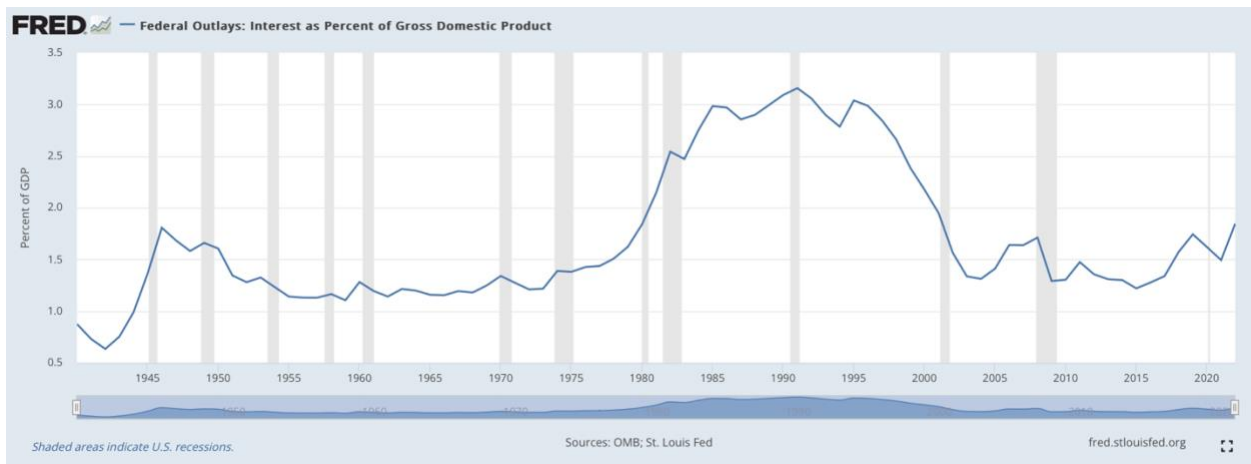
Let’s now take a look at the government’s cash expenses. We already stipulated we don’t want to cut nominal entitlement spending, so let’s look at the other outflow, interest costs. As we’ll

see, interest costs will be a big problem. It is not an option to default on the interest on Treasury bonds. Politicians **must always pay the interest on debt, or they will become like Argentina, unable to borrow again.**

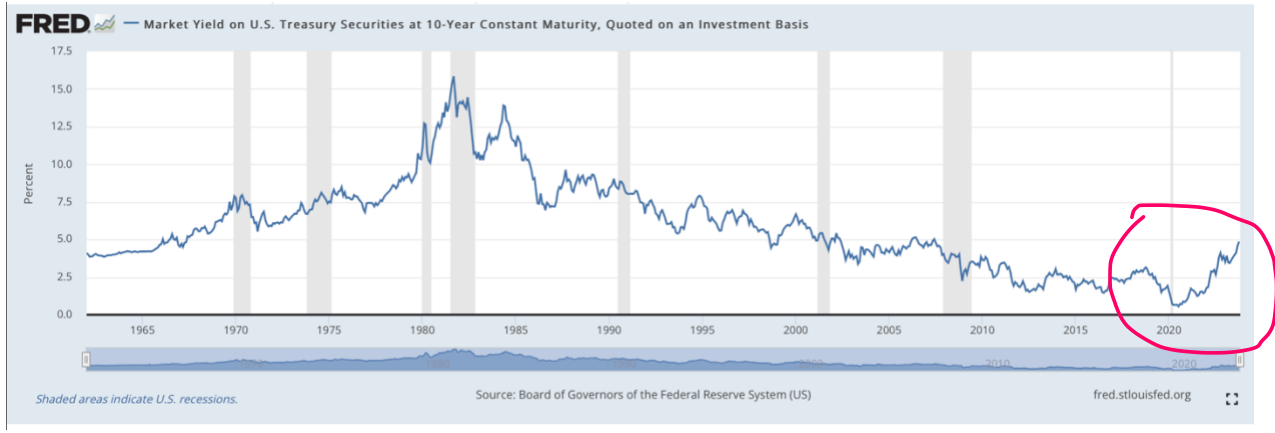
[slide – interest costs]



As of Q2 2023, annual federal government interest payments are up to 909 billion, now greater than the defense budget.



However, interest costs have not been a problem until very recently. Interest cost as a percentage of GDP, shown here, doesn't look too bad in recent years because, until 2020, interest rates were declining. So you can see, from about 2000 until 2022, interest costs were manageable as a percentage of income, or less than 2% of GDP.



This chart shows why this was so. For 40 years, rising federal debt was offset by falling interest rates, keeping total interest costs reasonably flat. But since 1980, a 40-year period of constantly falling interest rates was a happy circumstance. As we have seen, the Fed drove falling rates even lower from 2009 to 2020 with its extreme QE policies. Falling interest rates allowed the US government to finance its growing debt at ever-lower interest rates.

[slide – long-term interest rate chart with secular periods highlighted]



But now the party is over! This chart shows that interest rates move in long, multi-decade patterns. (Exactly why is not well understood, but the fact that they do seems not to be in question.) We have ended the most recent 40-year bull market in bonds (by which I mean a period of declining interest rates). Several factors support this conjecture, but they are beyond the scope of today's lesson. We can discuss this some more in Session Eight.

Citizens need to pay attention to this interest rate trend. The government got lucky for a while – they could borrow more because borrowing got cheaper almost every year for 40 years. If you thought (as some economists and politicians did) that interest rates would stay near zero forever, why wouldn't you borrow till the cows come home? After all, if interest rates were zero, you would borrow all you wanted. And, like refinancing your house at lower and lower rates, you could pull cash out of the bond market.

But now the game of refinancing federal debt at ever-lower interest rates is over, and the reverse is starting to take place. As you see on the far right of both charts, the interest rate on government debt has broken the downward trend, is now rising rapidly, and is unlikely to return to the near-zero levels of the past few years.

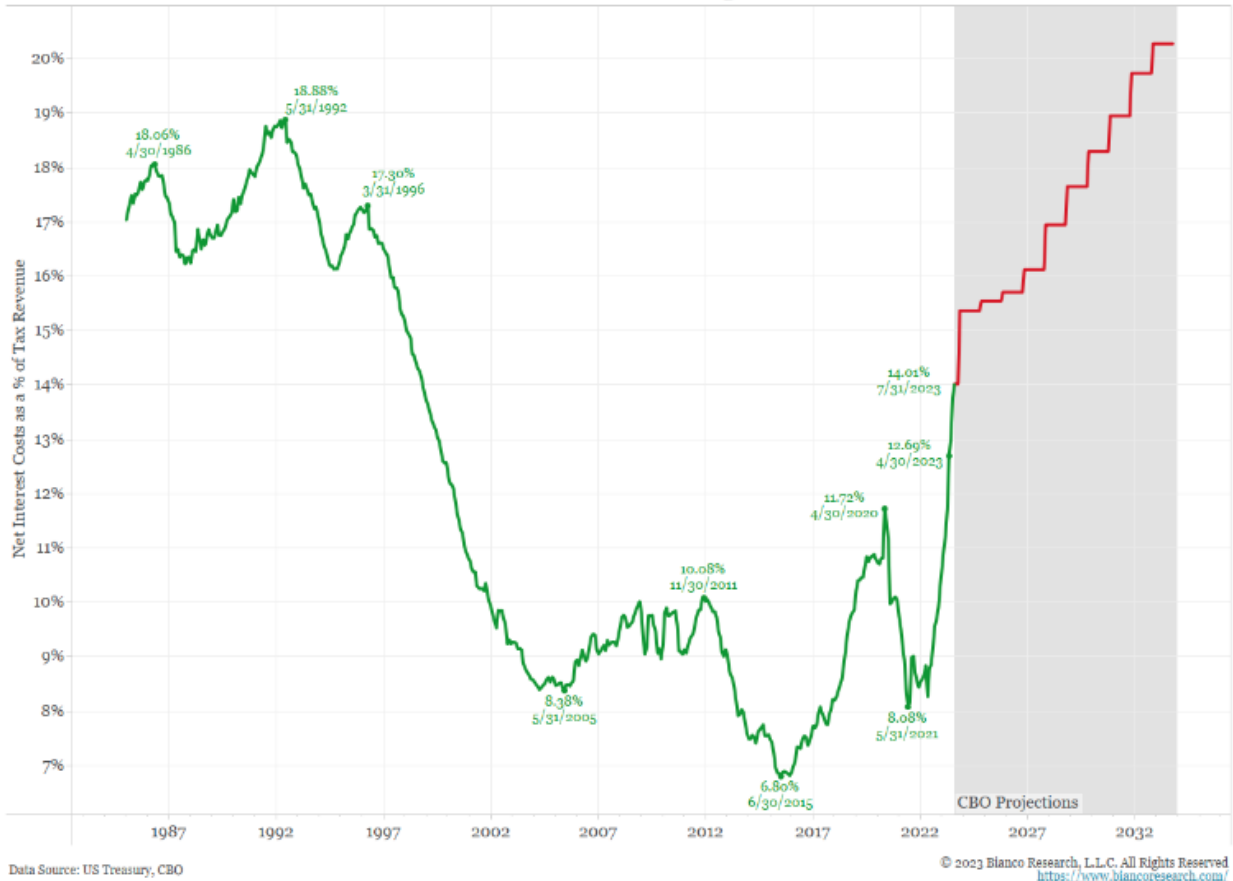
Because interest rates are rising, and large amounts of existing debt will soon be refinanced at higher rates, the interest cost is bound to increase rapidly. If the Fed merely holds short-term rates where they are, then more and more of the existing \$34 trillion in debt will be refinanced at these high current rates. In other words, if all of today's existing funded debt were yielding 5% on average, the total interest expense would be ~\$1.7 trillion, about double the ~\$909 billion today. Getting there would take a few years, but that's the direction. The average duration for U.S. public debt is around six years, but a lot of it is front-loaded, meaning in a few years, a much higher level of debt will all be financed at much higher interest rates than today's.

For example, if we add \$1.5 trillion to the debt for the next four years, we'll have about \$40 trillion in debt by 2028. At an average rate of 5%, that's \$2 trillion in annual interest expense.

To see how quickly rising interest costs on rising debt can overtake the cash flow, here is one scenario:

[slide]

Federal Net Interest Costs as a Percentage of Tax Revenue



Here is a graph of the CBO’s conservative projection of interest costs going out just ten years, projecting interest costs at 20% of revenue. They are assuming 3% interest rates, even though today's rates are 5% and rising! They also have a history of underestimating deficits. Even under their rosy scenario, you reach an insolvency ratio of over 20% in ten years.

In the long term, CBO projects that by 2050, 27 years from now, interest costs will rise to 11.5% of GDP from the current 3.5% rate. But if I am right that the government can only collect revenue at about 20% of GDP, this would mean about 58% of government revenues would be eaten up by interest payments. (11.5% of GDP / 20% of GDP = 57.5%).

Back to our example of borrowing against your income. We said if interest costs were eating up 10 or 20% of your income, no lender would consider you a reasonable credit risk. We are talking here about interest costs above 50% of income. That is not a good look for an investor typically lending to the US Treasury Department. Any way I calculate this, it does not look feasible.

I submit that long before we get to that point, the bond market will sniff out the problem, and it is doing just that right now. At some point, long before we get to these levels of interest as a percent of revenue, investors will only be willing to buy Treasury bonds in return for much

higher interest rates. But that is self-defeating because higher interest rates will raise interest costs, accelerating pressure on the government's cash flow.

So, these rising interest costs appear to be setting a debt trap for the government, threatening to overwhelm the government's cash flow.

The entire problem stems from our politicians' unrealistic commitments, which cannot be kept long-term. They borrow more this year to support next year's commitments, creating a deficit, adding to the debt, and moving the day of reckoning closer.

There is already a lot of pressure on the Treasury bond market as some big foreign owners of Treasuries, like China, have been selling down their Treasury holdings since about 2015. Other significant foreign holders, like Japan, have stopped increasing their holdings. This makes you ask, under these deteriorating cash flow conditions, who will buy our government's debt – who is going to finance the promises of our politicians?

Given this bleak picture, what alternatives does the government have? The only available “inflow” of funds is to increase taxes by inflating GDP. The only “outflow” of funds that can be controlled is limiting interest costs, which means holding down interest rates.

In other words, it is in our politicians' interest to pump up GDP through inflation while suppressing interest rates to a level below the annual increase in the Consumer Price Index.

This combination is known among economists as financial repression. It is already being implemented to some degree, and we will see more of it, perhaps for many years. Financial repression fundamentally consists of punishing savers through currency debasement while restricting their ability to save through interest rate suppression.

In the next session, we'll detail exactly what a government policy of financial repression consists of what kinds of economic policies, legislation, and regulatory actions they can do to implement financial repression.

[Wrap-up and questions.]

END OF MANUSCRIPT

BONEPILE:

(some of these references are subscription only)

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Great video from Luke Gromen. See esp. 25:00 and on: <https://www.realvision.com/hhb7i8>

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Stockman: https://www.davidstockmanscontracorner.com/its-the-interest-cost-stupid/?mc_cid=0c1da95707&mc_eid=5ccd0316e7

Example of my friend John:

- A retired schoolteacher on a fixed pension, age 72
- Owns a home with a low-cost mortgage, but not many other assets.
- Three years ago (in 2019 - 2020), he had a comfortable surplus of income, enough to play golf, travel a little, etc.
- His cost of living (food, energy, taxes, medical copays, etc.) is now up about 25% over the last three years.
- By his reckoning, at this rate, he will be living in an apartment in 10 or 15 years.
- To offset this, to stay in his home, he has gone back to work at age 72 to make up for lost purchasing power.