Thinking Notes Jan 13, 2022 podcast

Subject: United States Public Debt
Theme: United States public debt, which includes unfunded obligations, will usher in an era of financial repression
Contrast: The public debt is just the 31 trillion of treasury debt, and we can handle that

Working Title: "Uncle Sam's Unpayable Debt"

INTRO and OVERVIEW:
Hello everyone, Happy New Year, 2023, and welcome back to HardmoneyJim on the ARC-UK YouTube Network.

Today I'm operating from beautiful Coronado, CA, where premium gas is still seven bucks a gallon, but the sun is warm and wonderful, except this week when we are getting some much-needed rain.

Here's a shot of Point Loma from the beach nearby.

I hope you all had a great holiday season, as I did, spending time with family and good friends. I plan to continue these podcasts and essays in the coming year, but I want to publish more consistently. To do that, I need time to prepare these presentations to the level of quality I think you want, so rather than try to do a podcast every week, I will shoot for every other week. No guarantees on that because I have other projects I am working on, but a podcast every other week will be my goal and my intention. And along the way, I plan to write some more essays. There is much to write about because money creation and its consequences show up everywhere, affecting all financial decisions, and needs to be better understood.

Today I want to discuss a significant consequence of our government's unsound monetary policy: I'm speaking of the ballooning federal debt, how that debt is affecting you now, and how it will affect you in the coming years. The massive size of the national debt is a consequence of money creation because the government, through the banks and the Fed, has been able to borrow money from the public almost without limit by paying its debts with new, made-up money.

My aim in these following three podcasts is to explain first: what is happening with government debt and the problems it presents to US elected politicians; second, how our politicians will deal with this growing debt problem, that is, how they will react to the debt problem which is of their own making; and finally, how the government's emerging monetary policies are going to affect your financial life, and what you can do to protect yourself against economic damage.

I titled today's podcast "Uncle Sam's Unpayable Debt," in which I'll discuss the enormity of the US government's debt and why it cannot be legitimately paid off in the same way you and I have to pay off our debts. 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 to them. In other words, traditional taxing and borrowing have hit an upper limit, so further funding from these channels alone will soon become impossible.

Part Two of this series, which I will call "Money Creation - The Disease and The Cure," will focus on how the government will use money creation to repair the damage it caused by its previous monetary policies. In preview, they are likely to implement a policy of "financial repression," consisting of high inflation and below-market interest rates. You will not be surprised to learn that you will not likely benefit from these emerging policies.

Then finally, in Part Three, after we understand the government's funding problem and how they will try to fix it, we'll examine how its new policies will affect you. Part Three – "Surviving Financial Repression – will be your "cash value" for sticking with these podcasts because we'll discuss how you can survive and perhaps even prosper in this new era of financial repression, which is likely to last a long time.

That's a long introduction, but it's essential to know where we are going and where we are at all times on a little discovery tour. As always, please remember that it's much easier to understand the challenges ahead if you have some fundamental knowledge of how money is created and how the government tries to control the money-creation process. If you subscribe to HardmoneyJim for free on Substack, you'll find plenty of short essays explaining how money creation works and how government frequently abuses that process.

So now let's dive into today's subject and talk about "Uncle Sam's Unpayable Debt."

My thesis is that the US government debt is so large that it can only partially be paid off, at least not legitimately. I'll explain why I think so.


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

— Margaret Thatcher

tags: entitlement, government

In 1977, Margaret Thatcher famously said that the trouble with socialism is that you eventually run out of other peoples' money. Whether you like socialism or not, that statement is 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.

Thatcher's phrase is insightful, but it understates the problem of "other people's money" because she had in mind that the government has taxed people to their limit; so, the limit on taxation is the limit on socialism. That is what many people think – that socialism, or mandatory wealth redistribution, is simply taxing Peter to pay Paul. But taxation is just one of the ways government can redistribute wealth. Taxation is the most visible and, therefore, the most honest way to gather and spread public revenue. But there are 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.
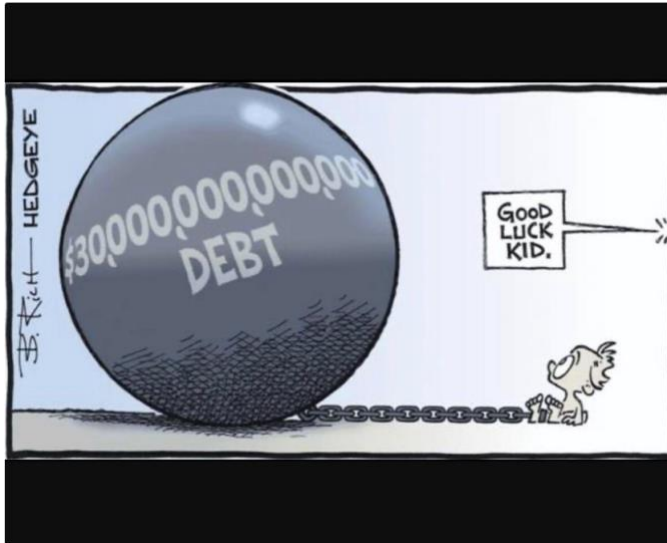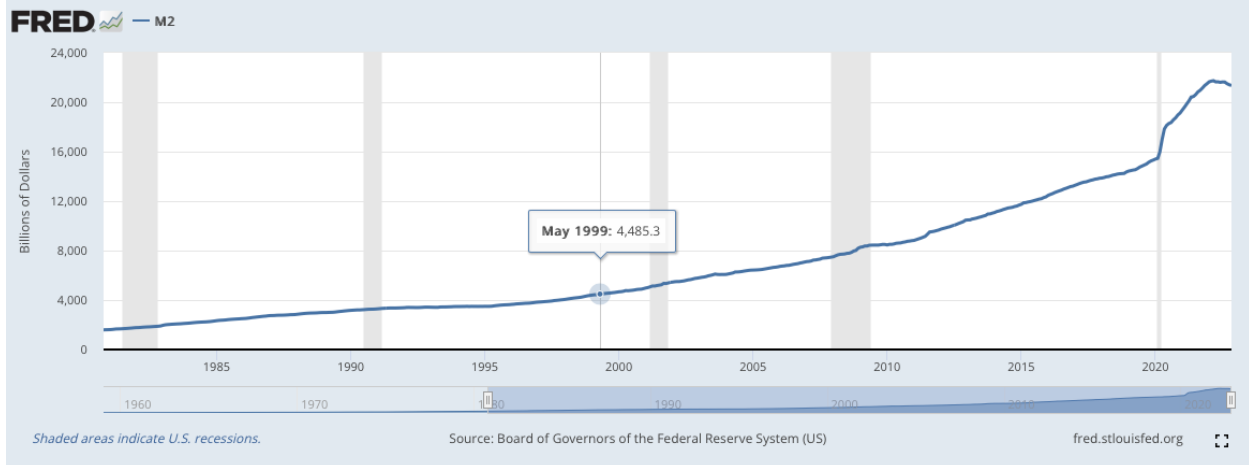
The problem today is that we are running out of "other people's money," whether you are talking about taxing or borrowing. Our government has taxed and borrowed so much that the ability to gather any significant additional government revenue has reached a kind of boundary, a new frontier. I am not talking about the legal limit on the funded federal debt that Congress haggles over every year but about the unpayable future obligations that will ultimately require an essential change in our monetary system. So let's dig into how these unpayable debts come about.

Our government continually takes on more and more debt through a cyclical process fueled by perverse incentives:

- Politicians make promises to get elected
- Politicians tax and borrow to pay for their promises
- Politicians make more promises, 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. For example, politicians promise to wipe out poverty or stop the rising seas by spending hundreds of billions of 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.

But this cycle of promises and spending eventually requires that government grow the cost of its promises faster than it can gather revenue to pay for them. First, they tax individuals and corporations, raising taxes as high as the voters will allow. They borrow money from savers and investors when they run out of tax money. When they can no longer legitimately borrow money from savers and investors, they resort to unproductive money creation, also known as inflation.

FRED — M2

Billions of Dollars

May 1999: 4,485.3

Shaded areas indicate U.S. recessions.   Source: Board of Governors of the Federal Reserve System (US)   fred.stlouisfed.org

HardmoneyJim has often discussed the techniques that the Fed and the Treasury have used to create money for the government's benefit. The leading example in recent history is from 2009 to 2022, 13 years of Quantitative Easing, in which the Fed commanded the banks to create an unprecedented amount of new money, which funded federal deficits by lowering interest rates and monetizing a large portion of the government's debt. This policy culminated in Pandemic QE (the wave on the far right side of the graph above), which fueled the asset inflation blow-off and consumer price inflation we are still in today.
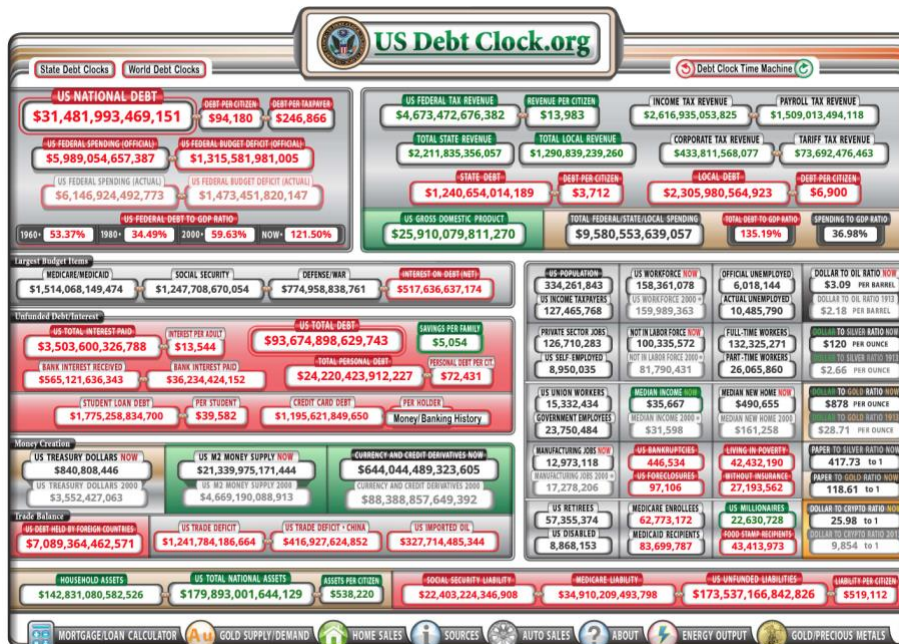

USdebtclock.org

So, our politicians have run up a huge national debt, apparently enabled by QE, but how significant is this debt? For example, the debt clock here shows the absolute level of "funded
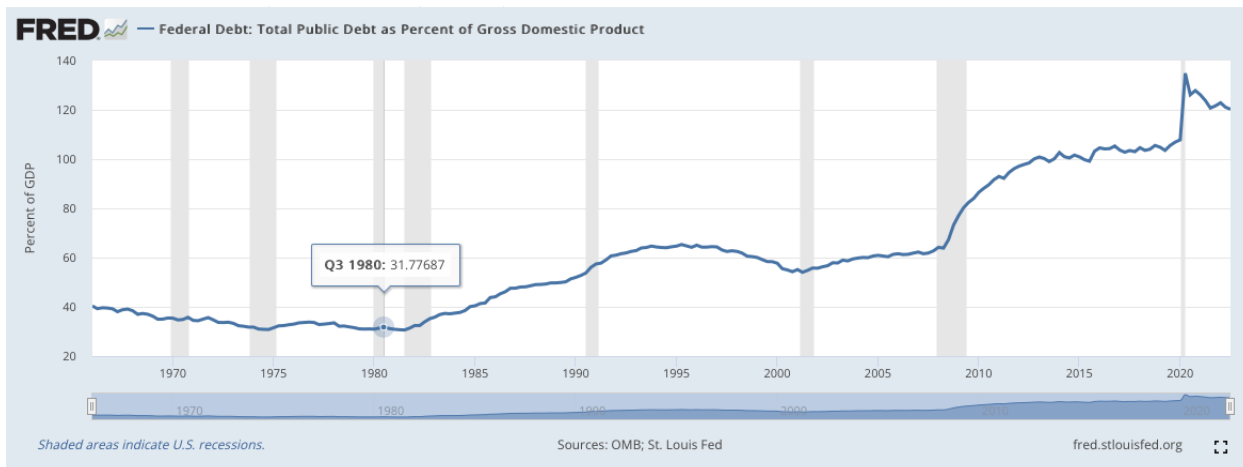
debt," or money borrowed in the public bond market, of over $31 Trillion. There are several measures.

Per capita, this colossal number comes to over $94,000 per citizen. So let's imagine the average US citizen was tasked to pay off his share of the existing national debt. The median personal income of Americans is $36,000. The debt per citizen is about $94,000. How long would it take for the average earner to pay off a debt that large? Even if he cut personal consumption by 10%, it would take over 25 years to pay off 94,000, which doesn't even include interest on that debt. How could the average earner ever do that? It sounds unrealistic to me.
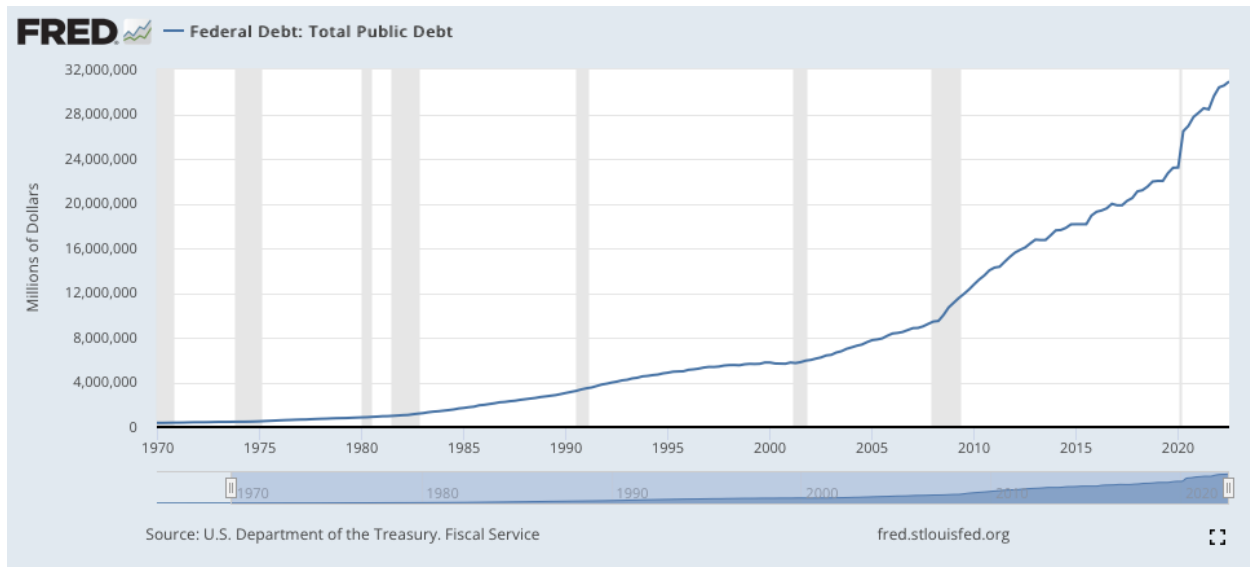
Here is a chart of the growth of the national debt. (It looks very similar to the previous chart of money supply growth, which is no coincidence.) You can see it has accelerated in steps over the years. From 1990 to 2000, debt grew at 8.0% per year. From 2001 to 2008, 9.2% per year. From 2008 to 2020 (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 obviously not a favorable trend.

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

FRED — Federal Debt: Total Public Debt as Percent of Gross Domestic Product

Q3 1980: 31.77687

Shaded areas indicate U.S. recessions.   Sources: OMB; St. Louis Fed   fred.stlouisfed.org

This chart shows the ratio of federal debt to gross domestic product (GDP). This ratio has grown from only 30% in 1980 to over 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.

"Debt to GDP" is the most popular, widely quoted measure of the debt burden. GDP encompasses all income for both businesses and individuals. So 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). The percentage of interest charges to income is only 1%. (1,000/10,000)

But if your debt went from $10,000 to $200,000, your debt-to-income ratio would go from 10% to 200%, and your interest expense of $20,000 per year would bring your interest expense-to-income balance from 1% to 20%. Any lender would think more than twice before lending you more money. If your income is $100,000, it's unlikely you can afford $20,000 in interest payments.

$31 Trillion in debt is a significant number, and you hear it mentioned a lot as Congress does its annual Kabuki dance of arguing about the authorized debt ceiling. But large as it is, $31 Trillion is only a minor part of the US government's financial obligations. $31 trillion is what the government owes to 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 vast, bringing the government's total financial obligation to at least $100 trillion or more.

I want to explain this "unfunded debt" and show you how to estimate it so you have confidence that what I am saying is true.

Consider the unfulfilled promises the politicians have made, mainly promises to pay future entitlements: social security, disability payments, Medicare, and Medicaid. These are generally around 70% of the total annual federal budget. They are real promises with real cost-of-living escalators built in by legislation. But have yet to be funded, meaning the government has not yet taxed anyone or borrowed from anyone to pay for these obligations.
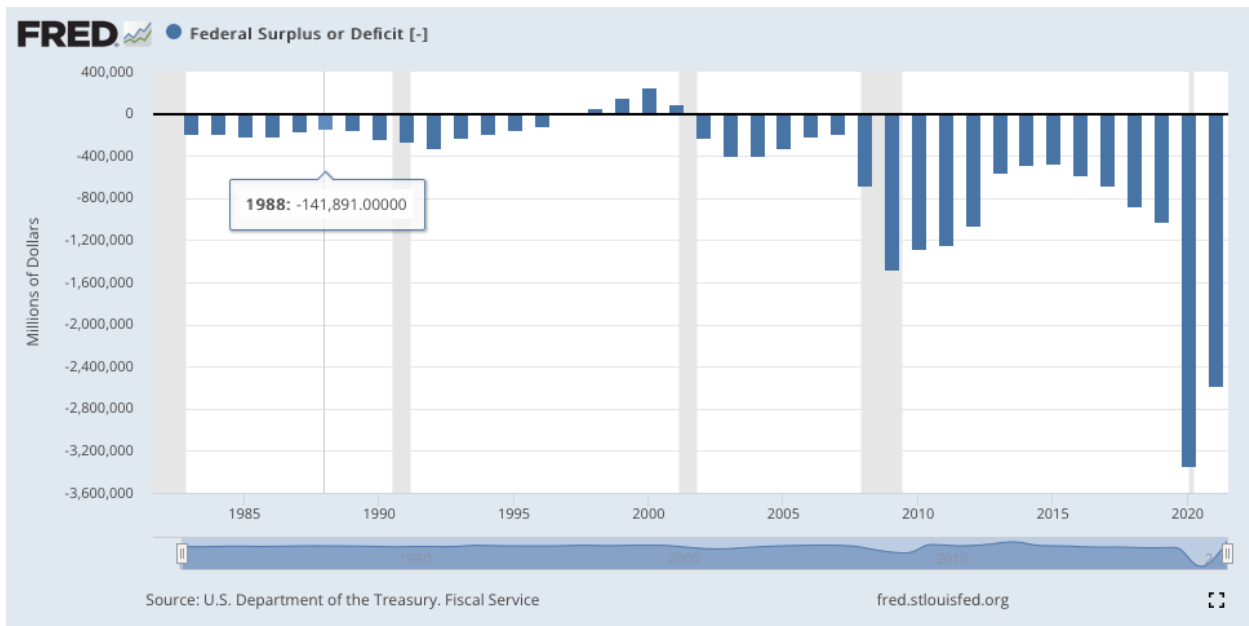
"Reagan proved that deficits don't matter," Vice President Dick Cheney, 2003

Here is a historical chart of these unfunded obligations. The vertical bars are the annual deficit or the difference between tax revenue and the money the government spends. Each year, as these "unfunded" obligations come due, they are paid for by borrowing the difference between what is required by law to be paid out and what can be collected by taxes. 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 note that this deficit is very different from other famous historical deficits. For example, to pay for WWII, the USA (and many other nations) borrowed much money, way more than they could raise in taxes. But this borrowing financed planes, tanks, and soldiers' wages, which had a finite life. They were one-time costs. We scrapped the tanks and planes when the war ended, and the soldiers returned to work. So these war debts were finite debts with a one-time deficit that was paid off fairly quickly.

But our current annual deficits are different because they recur every year. They are chronic in that they are trying to fund an open-end obligation to pay retirement and medical benefits to every citizen – everyone alive and everyone yet unborn - until the day they die. Thus they are imprecise, open-ended future obligations with no known limit.

So the next question becomes, how do we put 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.

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 Trillion / 5% = $30 Trillion

Current annual deficits are running at about 1.5 trillion per year (the average of the last ten years), which is a very conservative estimate of future obligations. Let's assume this 1.5 Trillion deficit repeats yearly for a long time into the future. What would it cost to make this a "funded" liability? Let's imagine the amount of money the government would need to invest today to pay out $1.5 trillion, enough profit or interest to pay for the deficit spending each year. (Remember, this is just the amount of spending not covered by tax revenue.) So we need an investment that returns 5% and pays $1.5 trillion in annual interest to pay for these future deficits.

$1.5 Trillion divided by 5% is 30 trillion. So a $30 Trillion investment that yields 5% will pay for the annual $1.5 trillion deficit. Now add that 430 trillion to the $31 trillion in funded debt, giving you a total "real" debt of 61 trillion. That's a quick back-of-the-envelope calculation of total government financial obligations.

But the deficit will grow!

PV = D/(r-g)
PV = financial obligation in today's dollars
D = deficit in year one, equal to the cash return on investment
r = rate of return on investment
g = annual growth rate of deficit

PV = $1.5T / (5%-3%) = $75T

Total liabilities = $31 Trillion + $75 Trillion = $106 Trillion

But wait! That number still needs to be higher because it assumes a constant deficit of $1.5 trillion annually. We know the deficit is going to grow every year. So let's use a little math trick

from Finance 101 to estimate the present value of the growing future deficit stream. This is the present value of a long-term income stream that "reverse engineers" a compound interest calculation. It is not complex, and you can find the explanation in any finance textbook or online.

Let's say the deficit grows at just 3% per year, which is very conservative because it has been growing much faster than that. The formula for calculating the present value of the future income stream from our mythical investment is the equation $PV=D/(r-g)$

PV is the investment we would have to make today to fund all future deficits. It's also the present value of the entire future deficit payment stream.

D is the current annual cash cost of these deficits or the yearly addition to unfunded liabilities ($1.5 Trillion), also equal to the return on the investment because it just funds the debt and no more. "g" is the annual 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 on our investment (5%)

PV of future deficits = $1.5 Trillion / (5% - 3%) = $75 Trillion
Plus, $31 Trillion funded debt

"Total US Sovereign debt" = $106 Trillion

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

The principal value of this exercise is to illustrate the method for estimating the value of future spending obligations. It's only a ballpark approximation based on rough assumptions about future interest rates, investment returns, and the growth of deficits. You can find many other similar estimates, like the one shown here.

Although it is only approximate, this huge investment, required to fund future obligations, is instructive because immediately you see it is an *impossible investment*. 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. Even compared to the entire world, today's worldwide broad money supply is "only" around $100 trillion, and the global GDP is "only" about 120 trillion. There is not enough investment money, and there are not enough investment opportunities available to fund this obligation.

So right there, you can see why these future liabilities must be "unfunded." They are unfunded **precisely because they cannot be funded! You cannot borrow enough to fund these liabilities legitimately because the wealth required to support an investment of that magnitude does not exist.**

The government's spending program reminds me of the nuclear fusion problem because these deficits are based on the assumption that the economy needs to 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 also be evident that if these vast numbers are going to be paid out, the only way it can happen is if there is much more money to pay out. In other words, if they are going to be paid, these debts 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 typical $20,000 you call today, and it probably will buy fewer authentic goods and services.
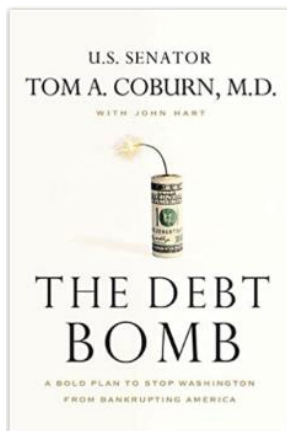
The Federal Debt Bomb - Is it about to Blow? (Vol. 55)

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.

These dramatic numbers don't mean much in the real world because politicians are in control, and they do not think in these terms. To know what the politicians will do, 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]

Now, I apologize for repeating something you already know; Politicians think and act only in the short term. "Short-term" means this year and maybe the next election. When they think of funding the US budget, they don't care about large aggregate numbers, like $30 Trillion or $100 Trillion. They think in terms of year-to-year cash flow. Their pragmatic 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?

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 their simplified cash flow format, which we will now use to discover how politicians will scheme to keep their promises in the face of an impossibly high debt level.

Under "cash requirements," they need money to fulfill their promises and to pay the interest on existing debt. Cash requirements include legitimate government expenses like courts and police and other essential government services, like national defense. Then there is the extensive regulatory apparatus that has to be paid for, and lots of employee salaries to pay. 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 for most of the mandatory future growth of that spending, including the projected deficits.

Now, I want to stipulate that as they run into cash flow constraints, our politicians will be very reluctant to renege on their promises, as that would be political suicide. So I take it for granted that they will find a way to pay all their obligations, especially the entitlements, at least in nominal dollars. I am saying that payouts to voters will not be seriously reduced, except maybe to the voters who don't matter. For example, they may reduce social security for wealthy people, but this will not make a big dent in the budget. Politicians do not want to be known for reneging on their promises.
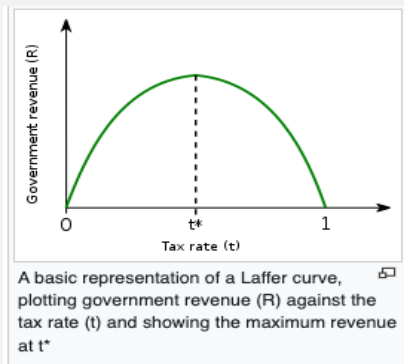
They also have to pay interest on the funded debt, that is, on Treasury bills, notes and bonds. They must pay for that, or they can never borrow again.

And, of course, they pay for all this by taxing as much as they can and borrowing the rest.

How much money can they raise in taxes? Can they increase taxes enough to cover their increasing spending?
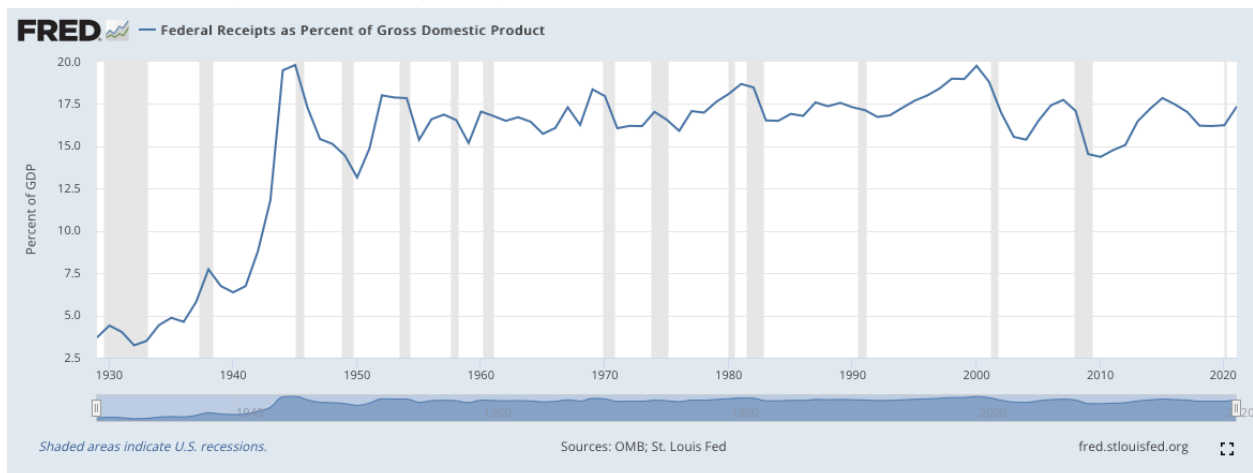
The problem with that idea is that for 75 years, tax receipts as a percentage of the US GDP have been constant at just under 20%. Higher tax rates don't necessarily result in higher tax receipts because if tax rates on income get too high, people will produce less taxable income.

A basic representation of a Laffer curve, plotting government revenue (R) against the tax rate (t) and showing the maximum revenue at t*

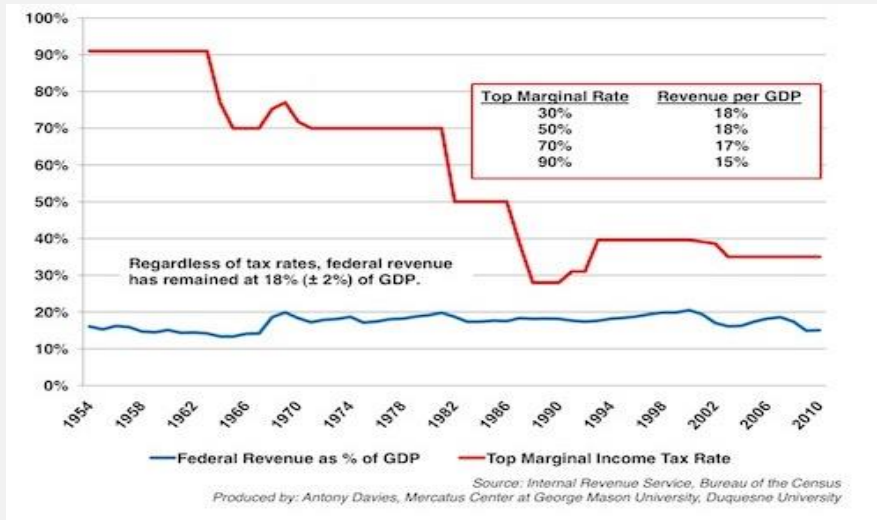**Art Laffer**

Laffer at the White House in 2019

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

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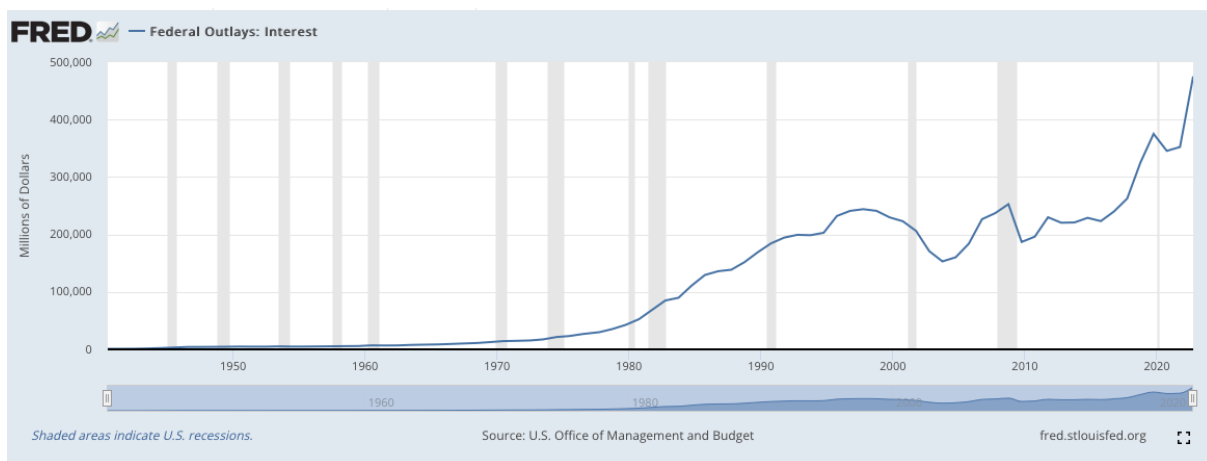
Art Laffer does not take credit for this idea, which has been known for many centuries. However, he made the concept famous at a 1974 meeting with Donald Rumsfeld and Dick Cheney. He drew the curve on a napkin to make a point, and an attending economist named June Wanniski started calling it the Laffer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

I have met Art Laffer on several occasions. I had breakfast with him about 6 or 7 years ago, and he mentioned 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.

Top Marginal Rate and Revenue per GDP table:

Top Marginal Rate	Revenue per GDP
30%	18%
50%	18%
70%	17%
90%	15%

Regardless of tax rates, federal revenue has remained at 18% (± 2%) of GDP.

— Federal Revenue as % of GDP — Top Marginal Income Tax Rate

Source: Internal Revenue Service, Bureau of the Census
Produced by: Antony Davies, Mercatus Center at George Mason University, Duquesne University

The main takeaway from this idea is that you cannot precisely know the "optimal" tax rate from a politician's point of view. The main point is that you cannot arbitrarily raise the tax rate to generate more tax revenue. 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%.
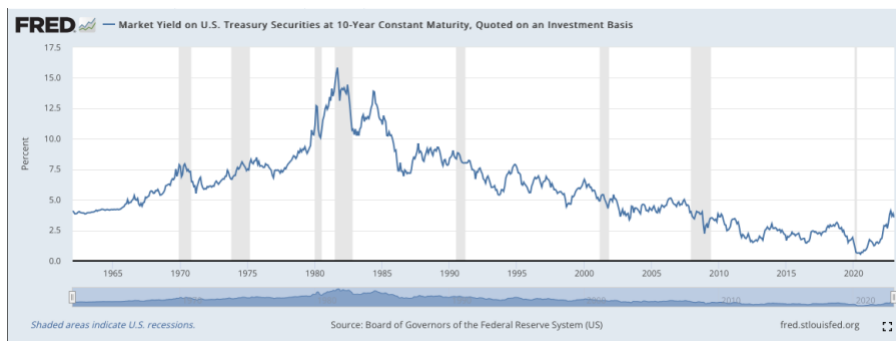
Because we cannot raise much additional tax revenue by increasing the tax rate, the obvious thing to do is to increase nominal GDP. The faster GDP grows, the quicker tax revenue will grow.

Shaded areas indicate U.S. recessions.   Source: U.S. Office of Management and Budget   fred.stlouisfed.org

How about the government's other source of revenue, borrowing? Can borrowing be materially increased to meet the government's cash requirements? This chart shows that interest costs have proliferated as the debt has increased.

Federal Outlays: Interest as Percent of Gross Domestic Product
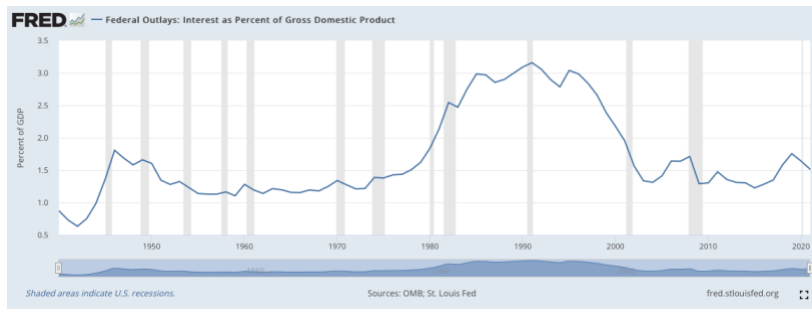
However, interest cost as a percentage of GDP, shown here, doesn't look too bad in recent years because, until 2023, interest rates declined even as total debt went way up.

Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis

Rising debt was offset by falling rates, keeping total interest costs pretty flat. But the 40-year cycle of constantly falling interest rates was a unique circumstance, allowing the government to refinance both old and new federal debt at ever-lower interest rates.

People need to pay more attention to this. The government got lucky. But now the game of refinancing federal debt at ever-lower interest rates is over. If you thought interest rates would continually decline and stay near zero forever, why wouldn't you borrow till the cows come home? But as you see on the far right of the chart, 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.
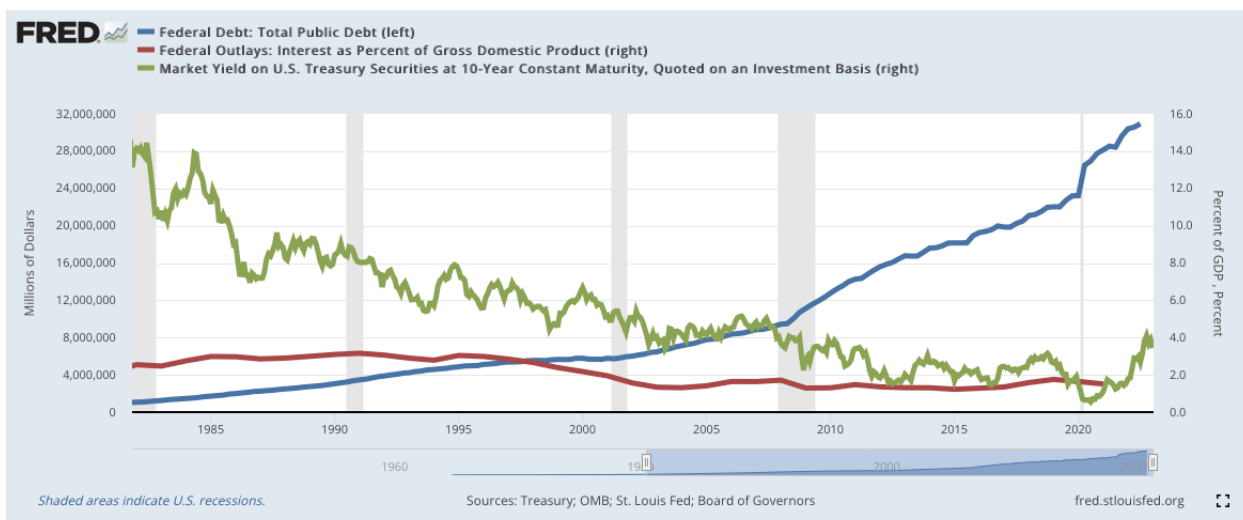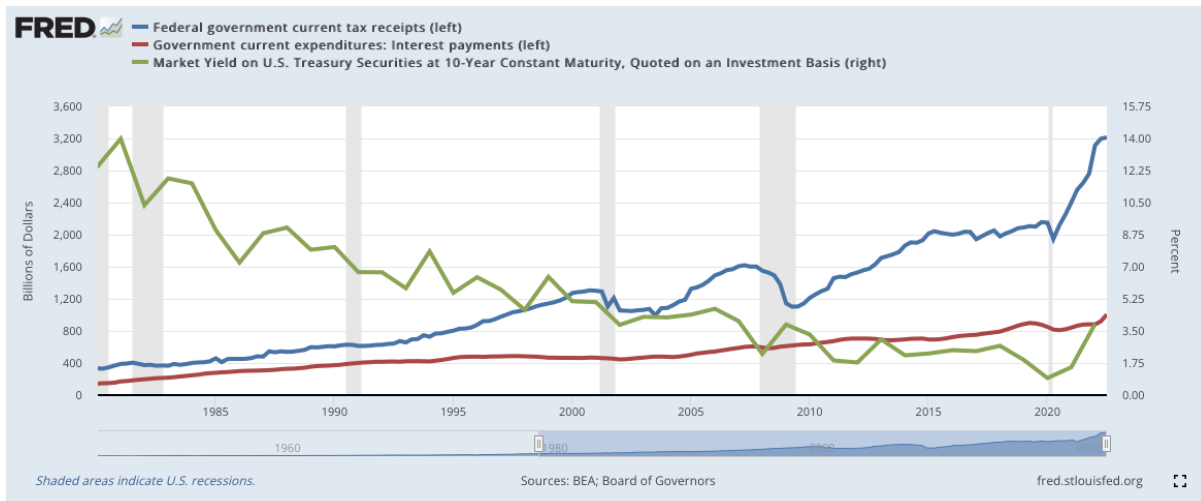
Here is a combination chart that illustrates the problem. The blue line (read on the left axis) is government "funded debt," $31 Trillion. The red line (read on the right axis) is the total interest cost on that debt as a percentage of GDP. Despite the rising debt, this number has grown only as fast as GDP due to constantly falling interest rates (green line, read on the right axis).

Because interest rates are rising, and large amounts of existing debt will soon be refinanced at higher interest rates, the red line is programmed to shoot up rapidly, very soon.

Currently, interest costs are about two percent of GDP. The Congressional Budget Office projects that by 2050, 27 years from now, interest costs will rise to 11.5% of GDP. These projections assume only very modest increases in interest rates. If tax receipts are limited to about 20% of CBO's projected GDP, interest costs will be almost 60% of tax receipts by 2050. That is not a good look for an investor who would typically lend to the US Treasury Department.

I submit that long before we get to that point, investors will only be willing to buy Treasury bonds in return for much higher interest rates. But that would put even more pressure on the government's budget. There is already pressure on the Treasury market as the big foreign buyers of Treasuries, like China and Japan, are drawing down their Treasury holdings. They are not buying more. Which makes you ask, under these deteriorating conditions, who will buy our government's debt?

Given this bleak picture, what alternatives does the government have? To keep borrowing, the government will have to raise tax revenues by increasing GDP while simultaneously holding interest rates as low as possible.

Increasing GDP means increasing consumer prices because it is rising costs, the items in the Consumer Price Index, that determine the increase in nominal GDP. **In other words, it is in the government's interest to pump up GDP through inflation while suppressing interest rates to a level well below the annual increase in the Consumer Price Index.**

This combination is known among economists as financial repression. It is already here to some degree, and we will see more of it, perhaps for many years.

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. If you want to think of it in personal terms, consider that if inflation is rising at 10% and all you can earn on your savings is 5%, then you, the saver, are the one being financially repressed.

Financial repression is an application of the principle that savers are punished by inflation because you invest your money at a fixed rate, and your money gets paid back in a currency that buys less than it did when you invested. You get a negative real return on your savings. You make up for the loss in purchasing power by either working more to earn more or reducing your standard of living. That's a concrete example of financial repression, which I think is coming.

All that is a lot to take in, I know, so before we close, let's recap in four bullet points:

- We saw that the US federal spending is enormous and is quickly growing out of control. Government spending increases are baked into the future, so government spending will continue to increase.

- The increasing spending must be funded by increasing taxes and borrowing, but rising interest rates increase interest costs, limiting their ability to borrow.

- So the fix is to pump up tax revenues while keeping interest costs as low as possible.

- Tax revenues will be increased by inflating GDP, that is, by raising consumer prices. And interest rates have to be suppressed. We'll talk next time about how government can stop interest rates.

Let's draw a line there, see if there are questions, then I will close.

[Wrap-up and questions.]