What Is MMT's State of Play in Washington?

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PREFACE

Modern Money Theory (MMT) has been frequently mentioned in recent media—first as "crazy talk" that if followed would bankrupt the nation and then, after the COVID-19 pandemic hit, as a way to finance an emergency response. In recent months, however, Washington seems to have returned to the old view that government spending must be "paid for" with new taxes. This raises the question: Has MMT really made headway with policymakers? This e-pamphlet examines the extraordinary interview given recently by Representative John Yarmuth's (D, KY-03), Chair of the House Budget Committee, in which he explicitly adopts an MMT approach to budgeting. Chairman Yarmuth also lays out a path for realizing the major elements of President Biden's proposals. Finally, Wray summarizes a recent presentation he gave to the Congressional Budget Office's Macroeconomic Analysis section that urged reconsideration of the way that fiscal policy impacts are assessed.

Over the past couple of years, Modern Money Theory (MMT) has been in the headlines. At first, it was mostly "bad press," with pundits and politicians dismissing it as "crazy talk."[1] There have been four (yes, count them, four!) resolutions in the House and Senate condemning MMT as a threat to the nation—admittedly, all pushed by those on the Republican side of the aisle.[2] However, after the pandemic hit, MMT was embraced as an emergency policy to quickly inject five trillion dollars of "stimulus" into the economy.[3] While still considered dangerous by many, this was seen as a necessary response to save the economy from the ravages of COVID-19. The notion was that once the trough was reached, sane policy would return.

President Biden, however, has recognized that the new normal will not look like your grandad's normal. We face multiple pandemics: mutating viruses, climate change, intransigent poverty and inequality, a healthcare system that did not live up to the COVID-19 challenge and that is ill-prepared for the next health crisis, inadequate access to affordable higher education, an antiquated infrastructure, and a climate-driven refugee crisis. He also recognizes that tackling these issues comes with a high price tag—trillions of dollars. Yet, surprisingly—for the first time in nearly two generations—President Biden has not been completely stymied by the cost. He is the first president to clearly embrace the reality that the United States can and should openly talk about spending in multiple dollar amounts followed by nine zeros.

Unfortunately, as Yeva Nersisyan and I have explained elsewhere (Nersisyan and Wray 2021), he has resurrected the idea of "pay-fors" linked to that spending—MMT was only for the relief packages, not for "building back better"—requiring tax hikes to match the spending. MMT

[1] Bill Gates (Cohen 2019) called it "crazy talk"; Larry Fink called MMT "garbage" (Collins 2019); Ken Rogoff (2019) called it "nonsense"; Larry Summers (2019) claimed that the left's "embrace" of MMT would be a "disaster"; and the Nikkei Staff Writers (2019) reported that the Bank of Japan rejects MMT. For an alternative view, see Montier (2019), who critically analyzes why "everyone hates MMT," arguing "for me an economic approach must help me understand the world, and provide me with some useful insights (preferably about my day job—investing). On those measures, let me assure you that MMT thrashes neoclassical economics, hands down." Similarly, Jan Hatzius (Cohen 2019) of Goldman Sachs finds it "useful."

[2] The latest (as of July 2021) House resolution is here: https://hern.house.gov/uploadedfiles/mmt_-_117th.pdf; Bernie Sanders stood up to block the most recent Senate resolution: https://www.c-span.org/video/?c4962723/user-clip-bernie-sanders-debates-mike-braun-mmt; and a previous Senate version is here: https://www.congress.gov/116/crec/2019/05/01/CREC-2019-05-01-pt1-PgS2576.pdf.

[3] Congress appropriated about $5 trillion for COVID-19 relief, through the Coronavirus Aid, Relief, and Economic Security (CARES) Act (March 2020, $2.2 trillion), as part of the Consolidated Appropriations Act of December 2020 ($900 billion) and, most recently, the American Rescue Plan Act (March 2021, $1.9 trillion) (Nersisyan and Wray 2021).

disagrees. According to MMT, fiscal policy should be "functional"—achieve the public purpose—not formulated with a view to balancing the budget. The balanced budget view is enshrined in current Congressional policy, too, particularly due to the 2010 Statutory Pay-As-You-Go (PAYGO) Act and the 2011 Budget Control Act that essentially require that any fiscal policy that would increase spending or lower tax revenues be "offset" by other changes to spending or taxes. But tying tax hikes to spending is like tossing barbells to a drowning swimmer.

With MMT in the headlines, one of the questions always raised by reporters is this: Has MMT really made any headway in Washington? Except on the fringes—for example Congresswoman Alexandria Ocasio-Cortez and a few others have invoked MMT and declined to play the pay-for game—MMT appears to have been a one-hit wonder, used to justify COVID-19 relief.[4]

Yet there is some evidence that leads to a more optimistic assessment of MMT's success. In the fall 2019 I was invited by Representative John Yarmuth's (D, KY-03) office to testify on budget deficits before the House Budget Committee.[5] Previous to and after the hearing I was told by the congressman as well as his staff that at least the Democrat side of the committee was genuinely interested in and actively considering the MMT approach to fiscal policy. It turned out that was true on the Democrat side, but the Republican side merely parroted talking points proclaiming that the US federal government ought to balance its books just like any household or firm and that MMT's prescriptions would lead to rack and ruin.

More recently, I was also asked to make a long presentation to the Congressional Budget Office's Macroeconomic Analysis section that is responsible for providing long-term (30-year) budget and economic projections to the Congress. The baseline projections are constrained to be made under "current law." That current law implies growing primary deficits and debt both in absolute terms and as a share (of projected GDP), especially in the latter two decades. The

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[4] See Holland, Dmitrieva, and Boesler (2021) and also Cohen (2019) for a discussion of MMT's impact on thinking about policy. For a more optimistic view, also see Von Drehle (2020), who argued that "everyone's into endless spending now," and Greifeld (2020) who argues that actual policy is following MMT.

[5] Announcement is here: https://budget.house.gov/legislation/hearings/reexamining-economic-costs-debt; written testimony is here: http://www.levyinstitute.org/publications/statement-of-senior-scholar-l-randall-wray-to-the-house-budget-committee; video is here: https://www.youtube.com/watch?v=46xhX-GGJWol

PAYGO and "scoring" requirements that Congress imposes on itself means that the Congressional Budget Office (CBO) must assess whether policy will increase the deficit above the baseline—meaning more borrowing. They specifically wanted me to address the implications for the trajectory of interest rates and the burden and sustainability of that borrowing through time. They warned me that they use the ridiculous infinite horizons/intergenerational approach popularized by Larry Kotlikoff.[6] However, they assured me that the audience was interested in the MMT approach and that the reception would be cordial. I gave my presentation on May 19, 2021 with questions and answers, lasting about 90 minutes and with an audience of perhaps 75 staff members. The questions were indeed serious and respectful. I know that the CBO also asked another prominent MMT proponent to give a presentation.

However, the best evidence to date that MMT is making some inroads is the astonishing interview that Representative Yarmuth gave to C-SPAN (Yarmuth 2021). The full transcript is well worth reading.[7] The context for the interview is the prospects for President Biden's 2022 budget request, which of course contains his proposals for "building back bigger." The conventional view is that it will be a very difficult slog, especially through the Senate where Republicans are expected to oppose any tax hikes or spending that will significantly increase the deficit, and with two Democrats likely to join them. Even if the Democrats can coalesce, the filibuster threat would make it very difficult for Biden to get what he wants. There's been a lot of talk about pushing additional spending through during the reconciliation process, but that appears to many pundits to be unlikely. In this interview, Yarmuth makes it clear that he is optimistic: Congress will pass whatever they can pass, and much of the rest will make it through reconciliation.

The interview is a breath of fresh air for two reasons: Yarmuth's political optimism is a change of pace from many years of depressing hopelessness, and his penetrating focus on the issues that matter represents a breakthrough.[8] Can the long nightmare of fiscal austerity be coming to an end?

[6] See Galbraith, Wray, and Mosler (2009) for a thorough critique of this methodology.
[7] Gerling (2021) provides a transcript of Yarmuth's statements.
[8] Bernie Sanders (2021) has been an exception to the pessimism, of course.

I'll first focus on the main points made by Yarmuth, showing how they are consistent with MMT, and then I'll turn to the issues I tackled in my CBO presentation.

CONGRESSMAN YARMUTH: FOCUS ON RESOURCES, NOT MONEY

Congressman Yarmuth nicely summarized the main understanding he developed from his study of MMT:

> Historically, what we've always done is said, "What can we *afford* to do?" And that's not the right question. The right question is, "*What do the American people need us to do?*" And *that* question becomes the first question. Once you answered *that*, then you say, "*How do you resource that need?*"

And to clarify what he meant by "resource" he focused on capacity:

> Yarmuth: So, for instance, there is a $225 billion investment in childcare in the American Families Plan. But, you can't just say we're going to give $225 billion to people to pay for their childcare, because there's not enough capacity. So what you'd do [hypothetically] is, you'd make a false promise to the people, and then you would drive the price of existing childcare even higher. So what you *have to* do, is spend part of that money on *building capacity* so that there is enough childcare to actually service the people who need it.

This is precisely what I was trying to emphasize to the CBO: rather than focusing on possible impacts on the "infinite horizons" deficit that would result from a spending proposal, the CBO should be focused on the increased demand for resources that might cause inflation (see below). But, wait a minute, said the reporter— "We can just print more money and there are no consequences?"

> Yarmuth: There could be consequences if there is too much inflation. So, let me give you a hypothetical. We could say that, "We're going to give every American family a $200,000 voucher to buy a house." We could create the money to do that, but what would happen? Well, there is not enough housing, so the prices of existing houses would go through the roof—no pun intended! And again, you'd be creating a false promise. Meanwhile, you'd drive up the housing market to unsustainable levels. So, there is a limit as to how much money we can inject into the economy.

That is, without causing inflation. The problem is not the "money" but rather the demand on resources. The key is to ramp up capacity as we rebuild our economy along socially and

environmentally sustainable paths, and to phase in the spending on a pace with growth of capacity—precisely what Biden's plan will do, in Yarmouth's view.

> Yarmuth: If you are going to spend money at the federal level, if you're going to make investments, they need to be meaningful and important investments. And they have to actually add to the economic capacity of the economy. And that's what I think the American Rescue Plan and the American Families Plan do. We can't just throw money at worthless projects.

Biden's proposals will increase capacity, which attenuates any inflation pressure. In response to questions about the trillions that will be needed, Yarmuth argued:

> We can afford it, because we determine how much money is in the system—at the federal level. The federal government is not like any other user of currency, not like any household, any business, any state or local government. We issue our own currency, and we can spend enough to meet the needs of the American people—the only constraint being that we do have to worry about inflation from that spending.

As every American should know, this right of currency issue was provided to Congress by the US Constitution. But won't the government eventually exhaust its fiscal capacity? A caller commented: "I do agree there is certainly a difference between households and the government itself. However, the government does have limits. Because the government doesn't have any more money than the people have. There are limited resources."

> Yarmuth: Let me go back to [your] one comment ... that "We don't have any more money than the people have." Yes we do. We do have the printing presses. I hate to use that term—printing money—but we do. And if you think about it, we have been accumulating debt in the United States for most of our 230-year history.[9] How did we do that? That's because the government issued a lot of money, over time, and nobody has ever been asked to pay off any of that national debt. We've been able to finance our debt when we needed to. And I think it'll remain that way. Again, the constraint on us is rampant inflation.

[9] See Wray (2019). The federal government debt ratio has grown at a rate that averaged 1.82 percent per year between 1791 and 2018. If the ratio has grown at a rate approaching 2 percent per year for over 200 years, one could reasonably anticipate that it will continue to grow—without disaster.

This is correct: the danger is not national insolvency but excess demand on the nation's resources. A couple of questions were raised about the inflation signs we are already seeing.[10] Isn't Congressman Yarmuth concerned? In his response, he addressed both the current recovery as well as the future prospects:

> Yarmuth: So, again, you've got to realize, these are numbers that are very large, of course, but they're spread out over a number of years. And that's why I think the Fed Chair and others have said "We have the fiscal space to do this, because injecting this over a period of time will not cause the kind of inflation that is dangerous."

While I do not like the framing here (sovereign governments do not really borrow their own currency), Congressman Yarmuth is on the right track when he argues that there is nothing wrong with spending in excess of tax revenue:

> Yarmuth: We've been borrowing money to service the country—to serve the people of this country—for 230 years. And we'll continue to do that, because the needs are more than we choose to tax our citizens. And the money we have—if we relied on taxation, purely on taxation—to fund the government, then a lot of people would suffer very, very seriously, because we couldn't provide nearly the services that the American people want us to provide.

Trying to squeeze more tax revenue out of the economy would simply reduce private spending and increase the people's need for more government services. (In addition, we need to address the implications of the government's balance on the balances of other sectors—a point I'll return to below.) The answer is to spend more, without taxing more, in order to utilize existing idle resources and to add to the nation's capacity.

What about the mountains of government debt? Who will hold it, and who is going to pay it all back? Many people think that the United States must rely on Chinese willingness to lend the dollars (Interest rates will have to rise! The dollar might crash!), and that debt is going to burden America's grandkids.

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[10] See Nersisyan and Wray (2021) for an examination of current and foreseeable inflation pressures. While we are seeing bottlenecks and price rises as the economy reopens, as the Fed also argues we do not see evidence of sustained across-the-board inflation.

> Yarmuth: Now, so many people say that we have so much debt, and our grandchildren—it is going to be on their backs, and so forth. That is not the way it works. And I think the American people need an education about how the monetary system does work.
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> I remember going back, Greta, to when Paul Ryan was chair of the Budget Committee, and even before that—and all of these forecasts of gloom and doom about "Oh, we are going to accumulate so much debt, and interest rates are going to crowd out all other spending."
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> Well, we basically doubled the national debt from the recession in 2009 until last year, before the pandemic. And none of the things that people warned would happen, happened. We didn't have inflation. We had record low interest rates, rather than higher interest rates. And the dollar was trading with normal levels, vis-a-vis other currencies.
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> So, I think a lot of economists have begun to say "wait a minute—Maybe we have been thinking about debt in entirely the wrong way."

Precisely. And what about the Chinese holdings?

> Yarmuth: Okay, I'm glad you asked that question. China owns roughly $1 trillion, roughly, of U.S. treasuries. That's it. If they said they wanted a trillion dollars instead of a trillion dollars of treasuries, we would put a trillion dollars on their account, and that would be fine. And they could do with that, whatever they wanted. They could leave it here. They could take it home. We can do that with anybody. The emphasis on China owning our debt is way overplayed, 'cause, again, it's a fraction—it's less than 5 percent—of the debt.

Below, I will tackle foreign ownership of Treasury debt in more detail.

But how will you get this spending package through a divided Congress? Asked "Do you suspect the president's two infrastructure proposals also make it into the budget?," Yarmuth responded with an outline of the process he envisions to shepherd through the Biden plan:

> Yarmuth: Well, what we're doing, is we're assuming that there will be no bipartisan deal on infrastructure in the Senate. So we are proceeding as if all of the American Jobs Plan and all of the American Families Plan will be in the reconciliation instructions that we send to the Senate, and that we instruct our own committees to do. But, if they come up with a bipartisan deal, let's say it is $1 trillion, or almost a $1 trillion, we would take that out of the reconciliation instructions. So neither process precludes the other. We hope that the Senate does reach a bipartisan agreement on what we think of as hard infrastructure, and let the rest of it be done by reconciliation….
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> I think if there is a bipartisan deal on the Republican version of infrastructure—which is roads, bridges, water systems, broadband, airports, and ports, but not human infrastructure—if there is a bipartisan deal on that, we will pass it with a great deal of satisfaction. And I hope they do that. But all the rest of what we call infrastructure—the human infrastructure part—things like two years of early childhood education, which in my opinion, is the most important thing we can do for our future, besides deal with climate change.

> Eldercare—a lot of those issues—those will have to be done by reconciliation—by the budget process. It's potentially a parallel process.
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> But yes, if we get a bipartisan deal, we'd be happy with that. We'll do the rest of it by reconciliation. If we don't get a bipartisan deal, we'll do it all by reconciliation.

While it is too early to tell if Congressman Yarmuth is overly optimistic, there has been some progress made on the "hard" infrastructure programs, with many Republicans breaking ranks and supporting a significant amount of spending. There has been, however, pushback on the pay-fors, with Republicans refusing to even close the loopholes that wealthy individuals and corporations use to avoid taxes.

In the next section, I turn to the arguments I made before the CBO, trying to push them to consider a point of view very similar to that adopted by Yarmuth in this interview.

PRESENTATION TO CBO

In this section I will quickly summarize the main points I made in my presentation to the CBO. My goal was to outline the MMT approach and deal with the usual fears surrounding deficits and debt: solvency and sustainability, interest rate effects, and inflation potential. I then promoted an alternative way to approach the problem of dealing with multiple pandemics that threaten national and even human survival. It will be obvious that many of Congressman Yarmuth's views are consistent with MMT.

MMT provides a framework for analyzing a sovereign currency system—one in which the national government chooses a money of account, issues its own currency denominated in the money of account, imposes an obligation (today, tax) payable in its currency, and, if it issues other debt, the obligations are payable in its currency. This implies a floating currency, for otherwise the government would be committed to delivering something else in payment. What are the implications? The government cannot run out of its own currency, cannot be forced into involuntary default, and can make all payments as they come due. It is not financially

constrained but rather faces resource constraints. This was Yarmuth's view, as he focused on the inflation potential of spending rather than on the supposed financial constraints faced.

This is quite different from the conventional view that Yarmuth referred to as the "wrong way" we have been taught to think about it—based on the old loanable funds view that saving is the source of finance, a scarce resource that is allocated by interest rates (a view that is locked into the methodology used by the CBO). According to that view, as government borrows more to spend, that pushes up interest rates, reducing investment and possibly appreciating the dollar and causing a trade deficit (the old twin deficits argument that was popular in the Reagan years). The United States becomes reliant on "foreign savings" to "finance" its trade deficit that results from the "living beyond its means." In turn, the federal government needs "foreign savings" to "finance" its budget deficit. Budget and trade deficits threaten solvency and create debt burdens. The United States could become a Ponzi nation—borrowing just to pay interest, which is ultimately unsustainable due to growth of debt without limit.

The conventional view is that in normal times, government should tax then spend the revenue—borrowing should be avoided if possible. It faces a budget constraint similar to that faced by any firm or household, with one critical difference—it can "print" money. The constraint faced by government can be written as: $G=T+dB+dHPM$ (G is government spending, T is tax revenue, dB is borrowing or bond sales, and dHPM is printing high-powered money—reserves or currency). Limited borrowing may be OK in recession, but long-term sustainability conditions require that $g>r$ (where the growth rate of the economy, g, exceeds the interest rate on government debt, r).[11] However, as increasing government spending slows g (by reducing investment and because government spending is less productive than private spending) and raises r (by competing for scarce saving), the growth rate will fall below the interest rate as deficits and debt are incurred. Further, the debt burdens our grandkids, who must pay it back. The result can be secular stagnation (a hot topic right before the pandemic hit). While government could use the printing press, money printing causes inflation—so that is even worse and to be avoided, lest we follow the hyperinflationary path of the Weimar Republic, Zimbabwe, or Venezuela.

[11] This is a simplification; there are a number of ways of approaching the sustainability condition (depending on, for example, initial conditions) but they all come to approximately this conclusion.

According to MMT, the "budget constraint" is an ex post identity, not a constraint. It is true that at the end of an accounting period, the total of government spending will be equal to the sum of tax revenues, new bond issues, and bank reserves and currency issued (high-powered money), but this tells us nothing about how government spending was financed. Normally, *all three* operations are involved over the course of the year as government spends. However, all government spending is financed by crediting bank accounts and, all else being equal, that increases both bank reserves and bank deposits. This is because the Fed makes all payments for the Treasury by crediting bank reserves, with private banks making payments (on behalf of the government) by crediting depositors' accounts. Taxes reverse that (bank reserves and bank deposits are debited). Bonds are sold following the usual operating procedures throughout the year (whether the budget will be in balance, deficit, or surplus as of the end of the year), and MMT focuses on the use of bonds as a functional part of monetary policy (to manage reserve holdings and hit interest rate targets). This has been explained in great detail in many MMT publications, so I will not go through that here.[12]

The use of quantitative easing (QE) and other "unconventional" monetary policy, as well as the switch to paying interest on reserves,[13] have led to some modifications to monetary policy operations, but have not changed the logic: bonds are simply a higher interest–earning asset than reserves and really are not evidence of a borrowing operation. This has been made clear as the Fed has accumulated vast sums of Treasury bonds, leaving excess reserves in banks. While many erroneously call this "monetization" of deficits (supposedly highly inflationary), it simply shows that with a change to operating procedures, bonds could be entirely eliminated because interest-earning reserves provide a good substitute for banks to hold instead of bonds. In other words, if the Treasury really issues bonds to "finance" its spending but then the Fed buys them back in a QE operation, leaving reserves in place of bonds in the bank portfolios, couldn't we have just skipped the bond sales? The Fed could instead issue reserves to finance the spending (as it always does anyway) and treat this as an overdraft (that is a liability) of the Treasury's account.

[12] For a detailed explication, see Tymoigne (2014); see also Tymoigne and Wray (2013).

[13] Historically, the Fed was prohibited from paying interest on reserves (which is why bonds had to be sold to keep overnight interest rates above zero), but during the GFC, Congress allowed the Fed to begin to pay interest. This was necessitated by the decision to adopt QE—which otherwise would have made it difficult to keep the overnight Fed funds rate on a target above zero given massive excess reserves in the banks.

In that event, the ex post identity (not constraint) would be: $G=T+dHPM$. Voila! No Treasury debt held outside the government—just an internal bookkeeping entry that the Treasury owes an overdraft to the Fed (which is really what a Treasury bond held by the Fed amounts to).

Finally, the interest rate implication would be that Treasury interest payments would fall toward zero (as bonds are eliminated—unless Congress decides the Treasury should pay interest on overdrafts to the Fed) while the Fed's payment of interest on reserves would rise. The interest rate paid on reserves is entirely determined by the Fed. This would eliminate any fear that "bond vigilantes" could bid up interest rates—so the rate could be kept below the growth rate of the economy and the sustainability condition $g>r$ could be rigorously enforced. We could also stop worrying about a strike by the Chinese lenders to the US government.

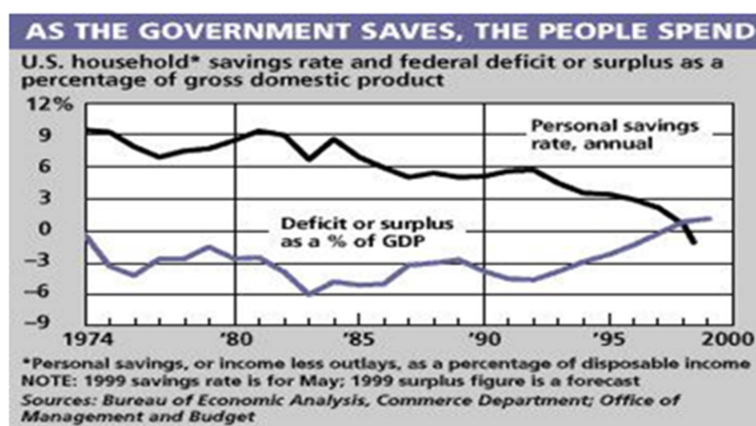
Note that this is a description for illustrative purposes, not necessarily a policy recommendation. MMT only wants to make it clear that sovereign governments do not really borrow their own currency and, in any event, issuing bonds is a policy decision, not a necessity for financing deficits. This is what Yarmuth is getting at when he says that "we have the printing press." However, the reality is somewhat veiled because current operating procedures do involve bond sales as well as two degrees of separation between those government printing presses and the public: all government payments are made by the *central bank* and through a *private bank*. If government really did just print up cash to make payments and then received it back in tax payments, it would be very clear that the government could not run out of cash and that taxes logically come after spending. As MMT says, taxes are for redemption (taking currency out of the economy), not something to be spent. But with the central bank and private bank obscuring the links that is no longer so obvious.

MMT has also made use of Wynne Godley's (1999) sectoral balance approach, which demonstrates that at the aggregate level, the sum of surpluses equals the sum of deficits since national income equals national expenditure. For one sector to run a surplus, at least one other must run a deficit. In the case of a country with a current account deficit, such as the United

States, the government deficit = domestic private surplus + foreign surplus.[14] What this means is that it is impossible to reduce the government deficit unless the domestic sector's surplus falls or the current account moves toward surplus (the foreign sector moves to deficit). There is a dependency across the sectoral balances—which means that the budget deficit is not purely discretionary (the outcome is constrained by what happens in the other two balances). Those who wish to achieve a balanced budget must recognize the consequent changes required in the other two balances; the only significant US budget surplus achieved since the Great Depression was the Clinton surplus—which occurred when the domestic private sector was running huge deficits (see figure 1). Those private deficits ultimately proved to be dangerous and unsustainable, and helped to trigger the global financial crisis (GFC) (figure 2). In spite of Clinton's projection that surpluses would continue for years until all the debt was repaid, large budget deficits returned and have risen sharply in the current crisis—precisely equaling the sum of the domestic private sector's surplus and the rest of the world's (ROW) surplus against the United States (shown as the nongovernment sector's surplus in figure 2).

Figure 1: Clinton Surpluses, Private Deficits?

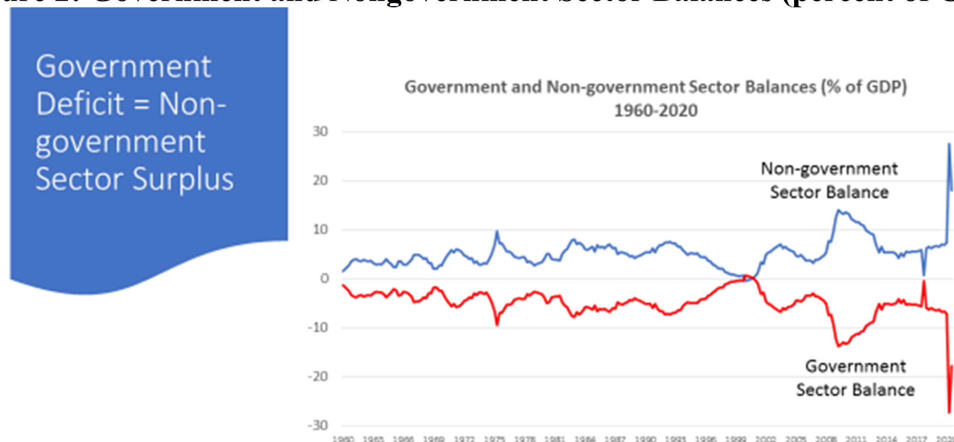
Clinton Surpluses, Private Deficits?



Source: Schlesinger (1999)

[14] The government sector includes all levels of government, the domestic private sector includes households and firms, and the foreign sector includes the ROW (a US current account deficit means the ROW is running a surplus against the United States, with its dollar income exceeding its dollar spending).

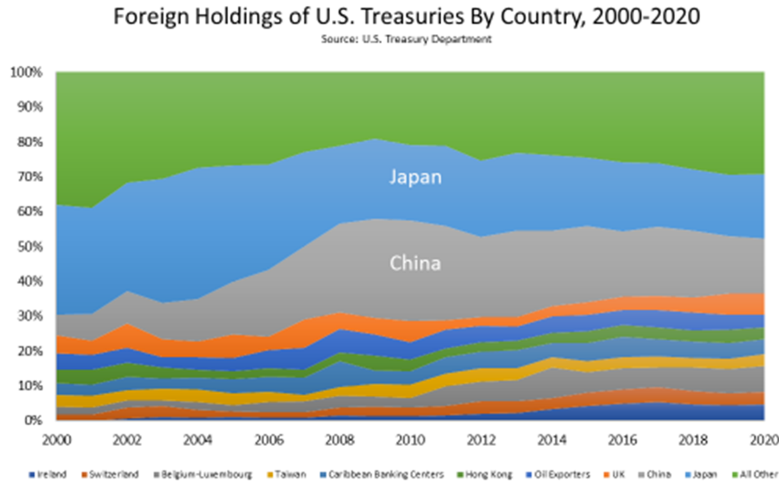
Figure 2: Government and Nongovernment Sector Balances (percent of GDP), 1960–2020



Source: Yeva Nersisyan, with data from the Bureau of Economic Analysis (BEA)

While economists have conventionally seen the ROW as a source of dollars to help finance the US budget and trade deficits, MMT argues that the United States is the source of dollars accumulated as the ROW's saving; as such, the ROW's saving cannot finance the US twin deficits. Rather, the US current account deficit funds the ROW's savings—allowing foreigners to net save in dollars. Some light is shed on this relationship by focusing on the data showing where US Treasury bonds are held: by major exporters. Figure 3 shows that most are held by exporters to the United States, plus offshore banking centers.

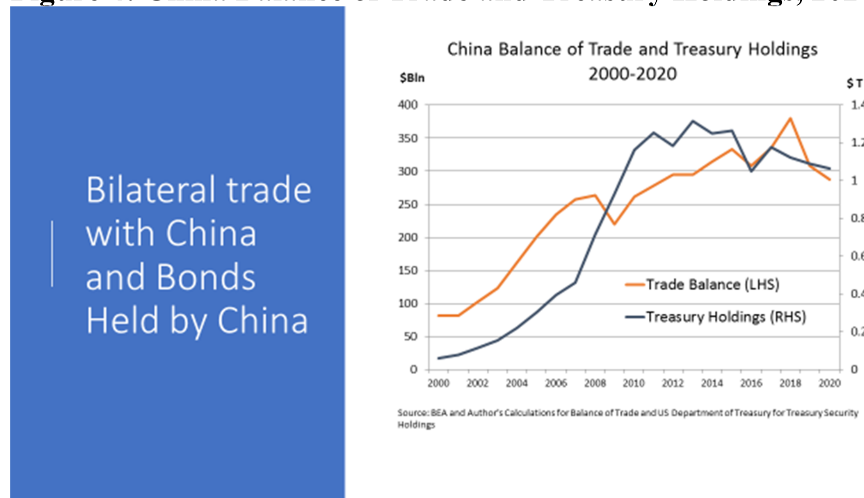
Figure 3: Foreign Holdings of US Treasuries (by country), 2000–20



Source: US Treasury Department

For example, looking at the bilateral trade relationship with China, we can see that her accumulation of US Treasury bonds closely tracks her trade surplus with the United States.

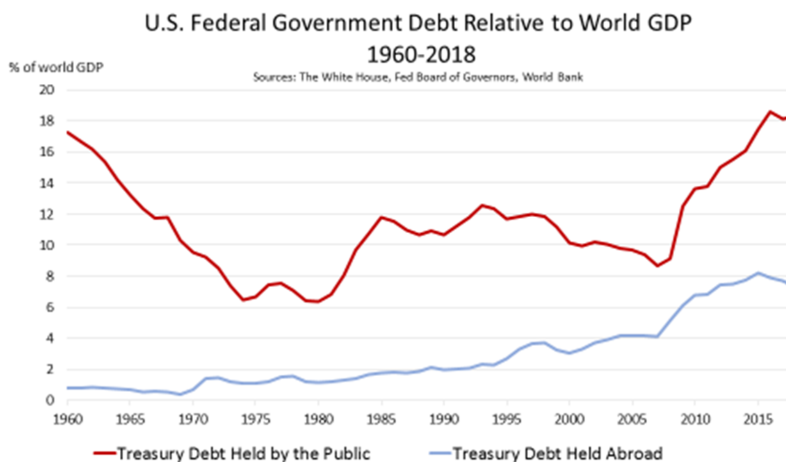
Figure 4: China Balance of Trade and Treasury Holdings, 2020–22



Source: BEA and author's calculations for balance of trade data and US Treasury Department for Treasury security holdings.

Finally, given the international position of the US dollar as the main reserve currency, it is not surprising that the ROW wants to hold US Treasuries. From that perspective, it makes some sense to scale the total amount of US Treasury bonds outstanding against world GDP rather than just against US GDP (as is usually done). The next graph shows that total US government debt relative to world GDP in 2015 had risen to about 18 percent—where it was back in 1960. The proportion of Treasuries actually held by the ROW had risen to about 8 percent of global GDP. It does not appear that this has yet satiated the ROW's demand for the safest asset in the world. It may make more sense to consider foreign holdings relative to the size of global GDP rather than relative to the size of US GDP alone, as foreigners want to allocate their portfolios across currencies (and the dollar), especially in the form of US Treasuries, which will remain in high demand for the foreseeable future.

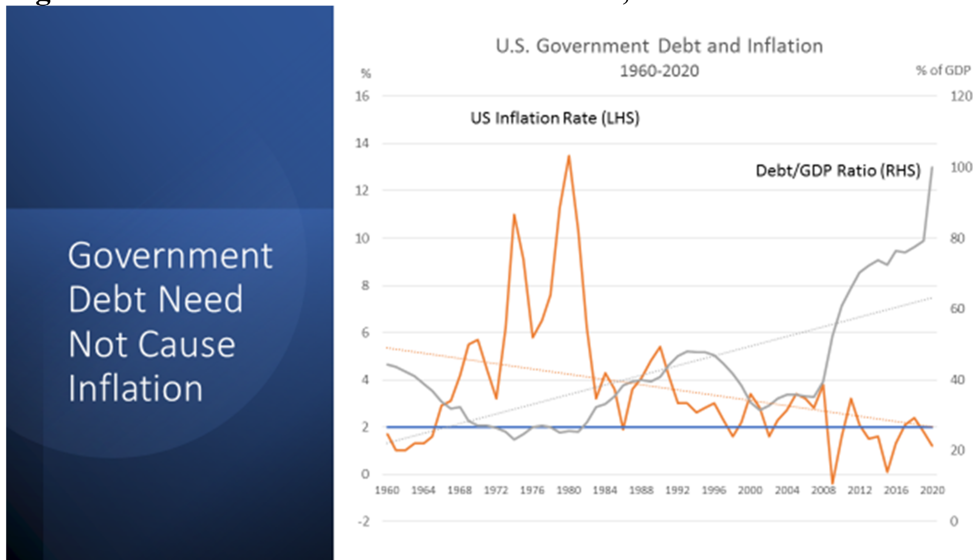
Figure 5: US Federal Government Debt Relative to World GDP, 1960–2018



Source: The White House, Federal Reserve Board of Governors, and World Bank

As mentioned, the CBO was interested in the MMT view on the relation of deficits and debt to inflation and interest rates. Let's explore the empirical relations—mentioned and dismissed as nothing to fear by Yarmuth. Figure 6 shows that as the federal government debt ratio has risen in recent years, the inflation rate has fallen—as he implied. There is no evidence that deficits and rising debt ratios have been inflationary.

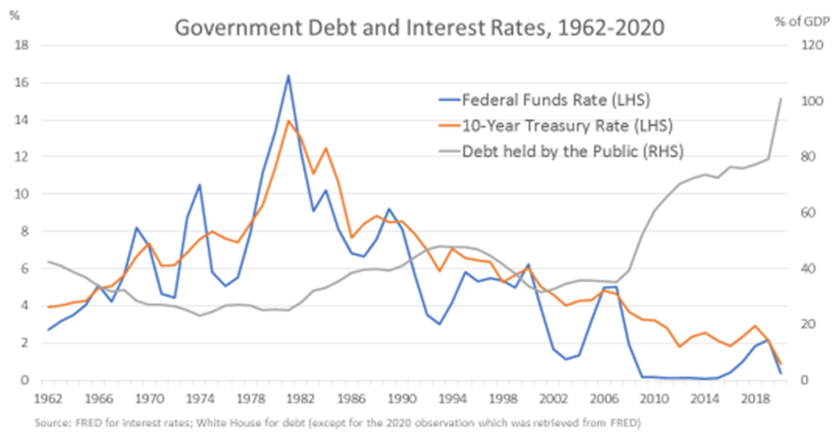
Figure 6: US Government Debt and Inflation, 1960–2020



Source: Yeva Nersisyan, with data from Bureau of Labor Statistics (BLS) for inflation and The White House for debt (except for the 2020 observation from FRED)

And as the debt ratio has risen, interest rates have come down—precisely the opposite of the result predicted by orthodoxy (as Yarmuth also recognized).

Figure 7: Government Debt and Interest Rates, 1962–2020



Source: FRED for interest rates, The White House for debt (except for the 2020 observation from FRED).

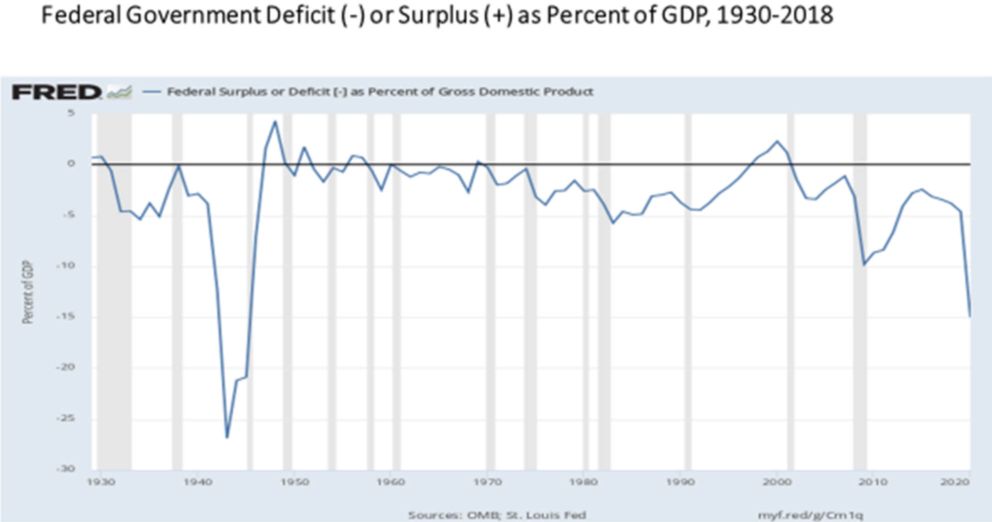
This is because, as discussed above, bond sales are part of monetary policy management that help the central bank to implement its policy of interest rate control. Bond sales by the Treasury are not competing for a scarce supply of saving and the interest rate is mostly determined by monetary policy. As a result, both short-term and long-term interest rates are primarily determined by the Fed. As shown in Nersisyan and Wray (2021), short-term rates follow the Fed's target rate with a correlation of nearly 99 percent and long-term rates are correlated at 88 percent. If there is any bond vigilante, it is the Fed. And Chairman Jerome Powell has made it clear that the Fed will not significantly raise interest rates unless there is clear evidence of sustained inflation. One of the major changes to Fed policy in recent years is that it will be far less likely to do another "Volcker": kill the economy with a huge interest rate hike as Chairman Paul Volcker did in the early 1980s. Indeed, Chairman Powell has rejected even the somewhat more cautious approach of Chairman Alan Greenspan, who is now believed by many to have overexercised his vigilance against inflation pressure.[15] The Fed today prioritizes employment and growth to a much greater degree than it had in the days of Volcker and Greenspan.

One of the greatest fears is that if policymakers understood that Uncle Sam cannot run out of money, the urge to "deficit spend" would lead to ever-higher deficits and put the United States onto a Zimbabwean path to hyperinflation. The reality is, as discussed above, that deficits are not really discretionary. Still, with all the talk of trillions of new spending, couldn't Congress put us on an undesirable path of ever-rising deficits? To answer this, we need to examine what typically happens to the budgetary outcome over the course of a business cycle—in large part, deficits are self-limited because they affect (and are affected by) growth. See the following figures.

First, there is a clear cyclical pattern to deficits: they rise in recession and fall in expansion. (The shaded bars are recessions; deficits regularly rise with recessions and fall in the subsequent expansions.)

[15] For early critiques of Greenspan's bias against growth and employment, see Wray (2004).

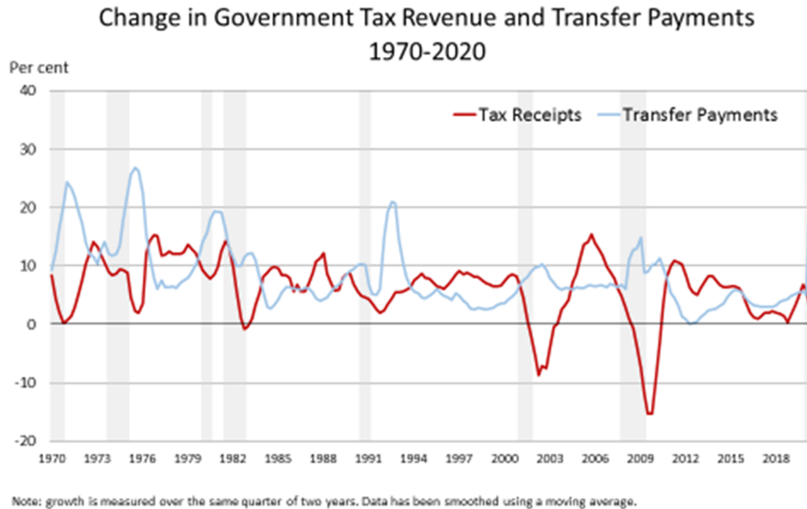
Figure 8: Federal Government Deficit or Surplus (as a percentage of GDP), 1930–2018



Source: FRED

Second, this pattern is largely attributed to automatic changes to tax revenues and transfer payments: taxes fall sharply in recession, while transfer payments rise in recession. In recent years, more of the burden of softening downturns has been taken on by falling taxes and less by rising transfers (as the social safety net has been weakened by cuts initiated by Reagan and then by Clinton). That was reversed by all the COVID-19 relief funding, when transfers exploded upward (so that the huge increase of the deficit in this current downturn was due mostly to an increase of spending, not due to falling tax revenues).

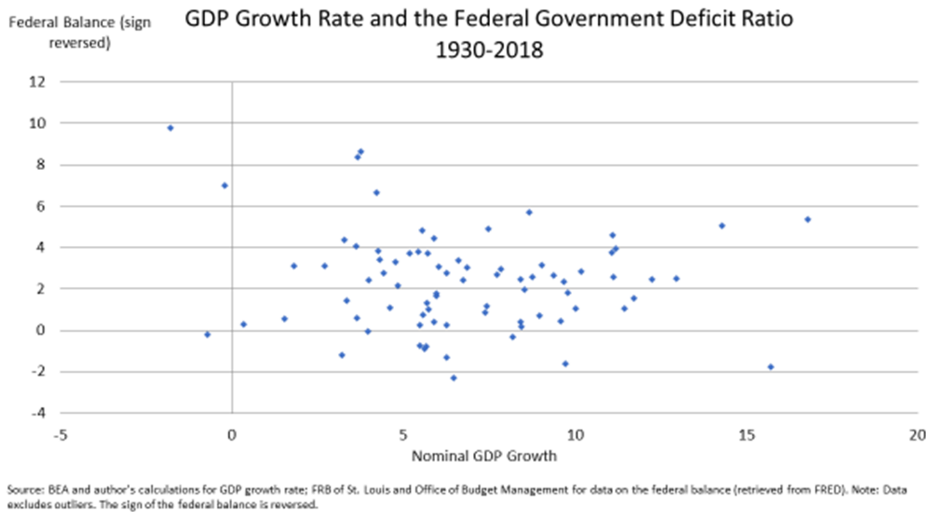
Figure 9: Change in Government Tax Revenue and Transfer Payments, 1970–2020



Note: Growth is measured over the same quarter of two years. Data has been smoothed using a moving average.
Source: Yeva Nersisyan, with data from FRED and BEA

Somewhat surprisingly, however, there is no obvious relationship between the budget deficit ratio and economic growth, as figure 10 shows—just about any growth rate is associated with any deficit ratio, and vice versa.

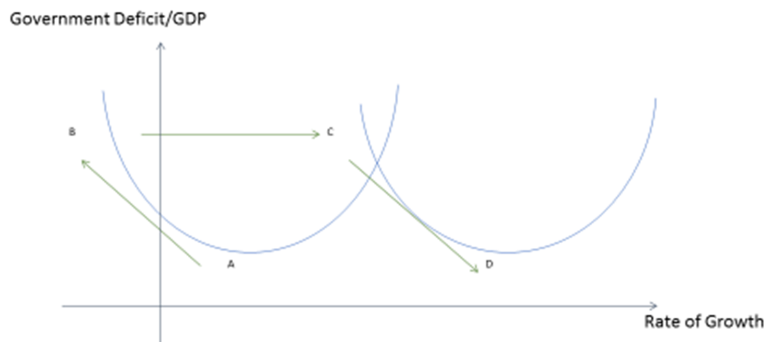
Figure 10: GDP Growth Rate and the Federal Government Deficit Ratio, 1930–2018



Source: BEA and author's calculations for GDP growth rate, FRB of St. Louis and OBM for data on the federal balance (retrieved from FRED)
Note: Data excludes outliers.

That is because there is no unique path to bigger deficit ratios. Let us suppose that a higher deficit ratio could be achieved through a discretionary increase of government spending *OR* through a reduction of tax revenue brought on by a recession. In the first case, the higher deficit would be associated with faster growth (with government spending boosting GDP), while in the second it would come with slower growth (with falling GDP lowering tax revenue).[16] Figure 11 shows both possibilities.

Figure 11: Two Paths to Deficits: Deficit Ratio and Growth Rate



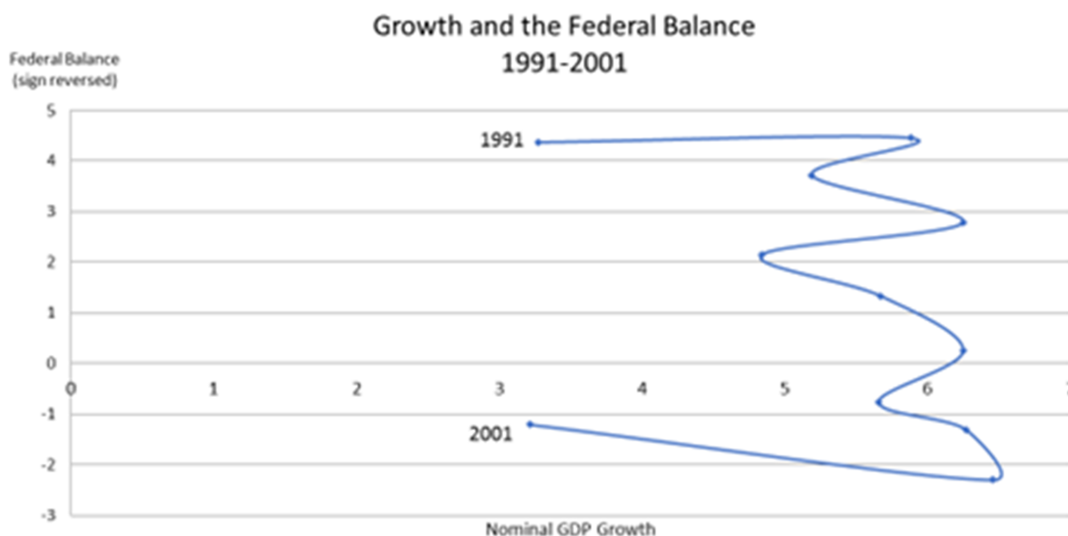
Moving from point A toward point B would be an example of a "bad" deficit (recession) rising due to the economy falling into negative growth. On the other hand, moving from point A to point C could be a "good" deficit that results from a stimulus package designed to boost growth. The higher deficit (in either case) would tend to raise aggregate demand and increase growth. If we are at point B (recession but with a big deficit that puts a floor to income), the economy begins to recover so the growth rate increases even as the deficit remains high (at least for a while because tax revenues rise with a lag as the economy's pace quickens). We move from B to C and if growth is sustained the deficit will gradually fall because tax revenues rise. If, however, we have a good deficit at point C, the growth rate eventually boosts tax revenues and we can

[16] This discussion follows the presentations I gave before both the House Budget Committee and the CBO.

move to a lower deficit ratio (point D). In either case, the high deficit is self-limiting because sustained growth will increase tax revenues (and lower transfer payments).

All of this is hypothetical and presented as an explanation of *possible* paths for deficits. Let's look at the real-world evidence for the United States in the next series of figures. Figure 12 shows the path of the deficit ratio and growth rate over the decade of the 1990s. Emerging from the George H. W. Bush recession at the beginning of the decade and running through the Clinton boom, we see a sustained relatively robust growth rate gradually reducing the deficit ratio (as tax revenue climbed and social transfers fell) and finally achieving a budget surplus before the end of the decade.

Figure 12: Growth and the Federal Balance, 1991–2001



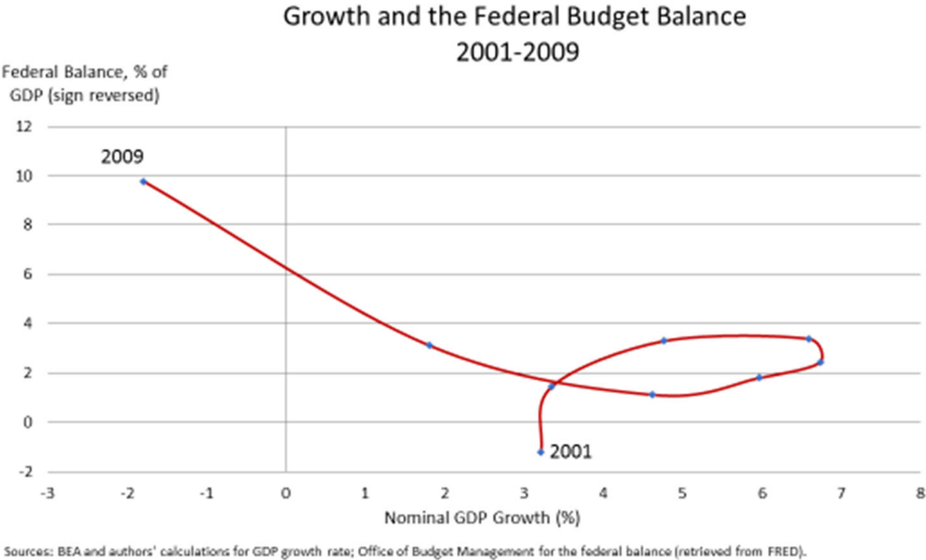
Source: BEA and author's calculations for GDP growth rate, FRB of St. Louis and OBM for data on the federal balance (retrieved from FRED)

That surplus removed demand and slowed economic growth;[17] the bursting of the dot-com bubble helped to bring on a recession. The budget turned sharply from a surplus to a deficit. The economy recovered in the early 2000s in large part due to the housing and commodities market bubbles. The deficit stabilized then fell in half (relative to GDP) as the economy grew. By late 2006, however, the economy was again facing fiscal headwinds and I warned of another likely

[17] For an early warning that tax revenues and the resulting budget surpluses were sucking demand from the economy, see Godley and Wray (1999).

crash (Papadimitriou and Wray 2007). The financial crisis began in early 2007 and was followed by a deep recession, with tax revenues plummeting and a deficit boosted by a small stimulus package (approximately $400 billion for each of two years).

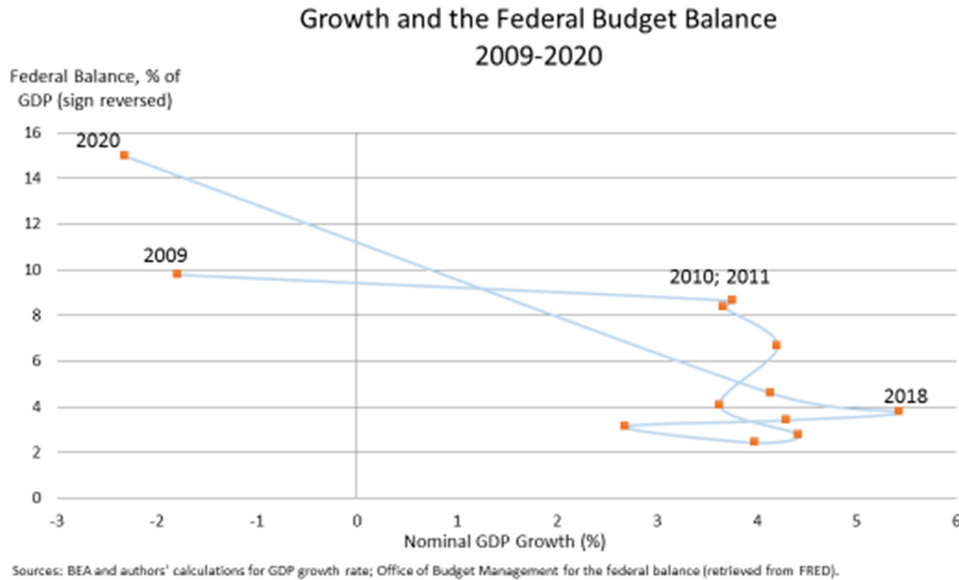
Figure 13: Growth and the Federal Budget Balance, 2001–9



Source: BEA and author's calculations for GDP growth rate, FRB of St. Louis and OBM for data on the federal balance (retrieved from FRED).

The deficit ratio grew to 10 percent in 2009—a postwar record—as figure 14 shows, helping to turn the economy around. As growth recovered, the deficit came down.

Figure 14: Growth and the Federal Budget Balance, 2009–20



Source: BEA and author's calculations for GDP growth rate, FRB of St. Louis and OBM for data on the federal balance (retrieved from FRED).

Figure 14 also shows the course of the relationship of deficits and growth between 2009 and the first year of the pandemic. Starting from a high deficit ratio with negative growth in 2009, the economy gradually recovered, reducing the deficit ratio to just 2 percent. Growth remained moderate until 2019 (with growing tax revenue reducing the deficit), when the pandemic caused a sharp downturn. The deficit grew to a new high of 15 percent of GDP by 2020 as the economy shrank by 2 percent.

The pandemic relief packages have added to the deficit but also helped to start a recovery (aided by attempts at reopening). This was a very unusual recession because it began as a supply-side problem (businesses had to shut down) that morphed into a demand-side problem (income was lost and many types of spending had to be curtailed due to restrictions). The relief spending helped to support demand and supply constraints were partially resolved by reopening business. As figure 9 showed, most of the resulting rise of the deficit was "good"—due to ramped up relief spending, not plummeting tax revenue (which remained surprisingly robust even at the state and local government level).

Figure 6, showing a falling trend in inflation even with a rising debt ratio, is now brought into perspective: since rising deficits tend to produce a growing debt ratio and since our biggest deficits have come during severe downturns (the GFC and pandemic-related recessions), it is not surprising that inflation has not been a problem in the face of a rising debt ratio. Further, as deficits fall automatically in expansions—due largely to rising taxes—this also helps to prevent inflationary pressures. This is known as an automatic stabilizer, since taxes remove from the economy income that might have been spent.

This is, however, only one of the reasons for the absence of high inflation over the past few decades. The reduction of the power of domestic labor (with unions largely in retreat) that shifted bargaining power to employers coupled with the competition our open economy now faces from low-wage workers abroad (reflected in the move to large current account deficits since the time of Reagan, so that imports reduce pricing power of domestic firms) have also banished inflation—at least for now. Many would also point their fingers to central bank policy that has supposedly reacted quickly to, and contained, any inflation pressure. While MMT is critical of this explanation, we will not pursue these issues further.

Of course, the big question now is: Where do we go from here? Can we—should we—spend trillions more to tackle the multiple pandemics? Won't that be excessively inflationary? Can we build back better while avoiding inflation, high interest rates, and potentially budget-busting deficits? Let us close with an examination of the MMT view on the way forward, drawing parallels with the views expressed by Congressman Yarmuth.

MMT AND BUILDING BACK BETTER

I won't repeat the detailed analysis that Nersisyan and I have provided, first to explain how we can pay for a broad-based Green New Deal (such as that proposed by Bernie Sanders; see Nersisyan and Wray [2020]) and then as a response to the pandemic and the other challenges we face (see Nersisyan and Wray [2021]). Let me just summarize the approach MMT takes to questions about "paying for" big initiatives.

When the pandemic hit, the Trump administration quickly pushed through relief, as did the new President Biden, without worrying about pay-fors. As discussed at the top of this paper, in the context of the emergency, MMT was mentioned favorably as a "new" approach of "money-financed" spending (sometimes likened to Milton Friedman's helicopter money; see Buiter [2020]). However, as the panic has faded, the mood has shifted when it comes to spending on Biden's build back better proposals, with insistence that spending must be paid for with a minestrone soup's worth of tax hikes: corporate profits tax hike, extra taxes on high-profits corporations, taxes on high earners, taxes on high wealth, and a hike of capital gains taxes. After Pro-Publica's exposure of tax avoidance by high-income earners (as well as other exposures of corporate tax avoidance) there has also been a call to use the IRS to increase collections to pay for spending. Predictably, Republicans have recoiled from those proposals.

But Treasury Secretary Janet Yellen (2021) has argued this is necessary if we are to go big on spending.

> Yellen: [W]e do need fiscal space to be able to address emergencies, like the one that we've been in with respect to the pandemic. We don't want to use up all of that fiscal space and over the long run deficits need to be contained to keep our federal finances on a sustainable basis. So, I believe that we should pay for, pay for these historic investments.

As summarized above, MMT rejects these notions. There is no such thing as fiscal space in financial terms. Federal government spending is "paid for" when Treasury cuts a check, the Fed credits bank reserves, and banks credit deposit accounts. Budgetary outcomes are ex post, only added up later, and do not impinge on the financial ability to spend. There is no such thing as "deficit spending" except as an ex post accounting phenomenon (at the time the spending occurs we cannot know the eventual budgetary accounting). While we understand that Congress has imposed on itself such constraints—through budgetary laws that require scoring, pay-fors, and sequestration—these are not really financial constraints but rather they are political constraints. The proof is that these constraints are often vitiated when it is politically viable—such as to allow Trumpian tax cuts to go through or to provide pandemic relief checks.

Furthermore, deficits are not really discretionary, as they depend on economic performance as well as the other sectoral balances. (For evidence, think about President Clinton's proclamation

that surpluses would be run for 15 years, eliminating all of the Treasury debt. The dot-com collapse that quickly followed immediately returned the federal budget to deficits that have been sustained for more than 20 years.) Still, the federal government can make all payments as they come due; its balance is always sustainable in the sense that bills can be paid. There is no such thing as "keeping the powder dry" by minimizing deficits now so that we can use them later. Spending foregone today does not enable more spending later—it is simply lost forever, and we lose the production that the idled resources could have produced.

What matters is resources and personnel activated and deployed by money, not money per se. Tackling multiple pandemics comes down to mobilizing unemployed resources, shifting those already employed, and creating new ones. How to shift resources from current use to favored uses? Taxes, postponed consumption, and patriotic saving (and, if necessary, we can use rationing and regulations to withdraw resources from low-priority private use). These were the methods used during World War II and were discussed by John Maynard Keynes in his little 1940 book of advice on "How to Pay for the War." Once we've released the resources, government spending allocates them as desired for achieving the public purpose. Taxes are not for spending, but can release resources for public use.

To shift resources from private to public use, taxes must reduce private spending. How do the favored tax hikes measure up? That is, how many dollars must be taxed to reduce (private) spending by one dollar, releasing resources for use?

As we have explained elsewhere (Lane and Wray 2021), the corporate tax is particularly ill-suited for such a purpose. While it is favored because it is supposed to raise a lot of revenue, and is supposed to hit the high earners who own shares, economic theory says it is shifted forward to consumers and backward to workers, as well as onto shareholders. Exactly what that division is remains unknown and contentious. To the extent it leads to higher consumer prices, it adds to inflation (opposite of the goal of preventing inflation by reducing resource use); even if shifted to workers, it is not necessarily progressive. If it does land on shareholders it is progressive, but it is unlikely to release many resources, as the propensity to spend out of shareholder's earnings is low. Further, if we look at who holds the shares, 40 percent are foreign and 35 percent are

institutions (such as pension funds), leaving only a quarter owned by domestic individuals making spending decisions that could absorb resources—meaning few domestic resources will be released for Biden's use.

What about a *millionaire* income tax? This depends on the millionaires' propensity to spend—how many dollars must their income be reduced to release a dollar's worth of resources? What about the *billionaire* wealth tax proposed by people like Elizabeth Warren? One of her selling points was that the tax would be so low it wouldn't hurt—which presumably means it would not change their consumption patterns at all. If that is the case, would such taxes release any significant amount of resources?

Regarding the high-frequency financial transactions tax, which is intended to slow trading and reduce volatility while raising lots of revenue: How many resources would be released? It is difficult to believe that would have a significant impact on resource use.

None of the favorite taxes measures up as a particularly effective way to release resources and, even if they did, there would be no reason to try to match revenue produced with spending planned because it could take tens of dollars of revenue to reduce private spending by a dollar. To properly measure the effectiveness of taxes, we need to consider the amount of domestic resources released, not the amount of revenue raised.

Pay-fors match spending and tax revenue, and may not be effective for battling inflation. To control inflation we need to match the tax take to the desired reduction of private spending. This could be less than program spending, but it is likely to be much more if aimed at high-income households (note Biden's promise: no taxes on those below a $400,000 minimum income threshold). There's no reason to expect that the ideal level would match spending against prospective tax revenue. The CBO should recognize this when "scoring": not all revenues are equal in terms of inflation-fighting ability.

Further, President Biden has floated a plan to use fifteen years of taxes to pay for eight years of spending. Why not twenty-five years or an indefinite future? How is that "pay-for"? More

importantly, why withdraw demand for seven years after the government stops spending on the programs, when disinflationary or even deflationary forces hit the economy?

Finally, the tax plan fails to target inequality: Why would a balanced-budget increase in taxes coincide with the desired inequality reduction? If we are serious about reducing inequality, we might need to tax the one-percenters by far more than the amount we need to spend on programs targeted to lower income Americans—given the degree of inequality we now face.

Broad-based but progressive taxes on consumption or income likely to be consumed are more effective at reducing the private use of resources (with an exemption for lower incomes). But this is not what is being proposed—because it would be politically unpopular and counterproductive if one of the goals is to reduce poverty and inequality while increasing opportunities for those of modest means. For this reason, we have advocated for a temporary surcharge in the form of a broad-based tax with generous exemptions to reduce resource use as infrastructure is built (Nersisyan and Wray 2020). We would then boost consumption once the nation's capacity is increased, for example, by phasing-in ramped up Social Security payments, to begin in five years. We would add high marginal tax rates on high income and wealth to reduce inequality. Enough to hurt. Not to raise revenue, but to reduce high income and wealth—and maybe to reduce consumption by those of means. And we'll need additional policies to increase income and wealth at the bottom.

Note, however, that all of this is contingent on resource needs. It is quite likely that we do not need any tax hikes to release resources. Our first rough estimates on a broad-based Green New Deal lead us to believe that such anti-inflation measures are probably not needed. The build back better plans advanced by Biden may add additional pressures on resources that could require such policies to relieve inflation pressure. Probably most important is to plan and carefully phase-in projects at a pace that the economy's resources can handle. This is precisely what Congressman Yarmuth suggested, and of course is imminently reasonable.

That does raise the scary word: planning. If the global pandemic as well as the climate catastrophe we face have taught us anything, planning cannot be a scary word anymore. The prospects before us of proceeding without planning are truly terrifying.

CONCLUSION

No change of procedures is required to "finance" a build back better plan: authorize spending and the Fed and Treasury know how to finance it by issuing the required dollars. The ultimate constraint is resources, not finance. Taxes can play a role in releasing resources, but are not needed for financial purposes. The budgetary outcome is neither discretionary nor worrying. It will move against the cycle and will be consistent with the financial balances of the other sectors. Interest rates are determined by central bank policy, not markets. Inflation can be avoided by policy focused on mobilizing resources and releasing them as necessary.

Let me close with a recommendation from Congressman Yarmuth on Stephanie Kelton's new book.

> Yarmuth: Well, I don't get any royalties from this, but I would flog a work called *The Deficit Myth*, by Stephanie Kelton—an economist and professor. And it's become quite a bestseller, actually. What she says is that "If you look at the total national debt, $28 trillion right now," what we think of as the national debt, she said, "Don't think of it as debt. Think of it as all the money the federal government has invested in the country over our history—minus taxes."
>
> And that's really what it is. I mean, those $28 trillion didn't exist—before the federal government issued them. And so, the federal government has the ability to create money, create financing, and that's what we've been doing and will continue to do.

To answer the main question raised in this paper, *Has MMT really affected thinking in Washington?*, I think the answer is yes. Has it sufficiently affected thinking that we have some chance at fulfilling key, long-neglected human rights and reversing suffering by many of our citizens? Has it created a level of understanding in our policymakers for averting climate catastrophe and human extinction and making our civilization sustainable? I hope so.

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