Paying for the Pandemic Response

How to Manage the New Debt

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Introduction

Clearly, a robust fiscal policy response is necessary to deal with the economic effects of the pandemic, but at the same time, the cost of these programs becomes incredibly high when added up together, and at some point, we will need to find a way to pay for them. It is still early in the crisis, so the pandemic could play out in many different ways, but in the US at least, the total fiscal cost of responding to the pandemic has already reached 14% of GDP and will likely end up reaching around 20% of GDP before it is over. Under more pessimistic scenarios, the total cost could even rise to 40% of GDP depending on how events unfold.(1) This is a lot of money even for a country, like the US, that has no trouble getting investors to purchase their debt, and though we need to do whatever it takes to deal with the crisis at hand and not worry about the costs, eventually we will have to confront the challenges from the extra debt that gets incurred.

First Option: Austerity

There are essentially three ways to deal with the new debt that arose from the pandemic. The first way to deal with the debt is to impose incredible amounts of austerity. Under this scenario, the US not only pays the interest on the debt, but also tries to reduce our debt burden by paying down the principal on the debt as well. In order to pay off the principal, the US would actually have to run budget surpluses consistently for a significant period of time, which would require painful amounts of tax increases and spending cuts since the deficit is likely going to be extremely high coming out of the pandemic.

Dealing with our new debt burdens in this way would be problematic for political reasons, where among G-7 countries over the last 25 years, budget surpluses have only been run on rare occasions and often only briefly when they do happen. Even when surpluses have been run for a number of years, as in Canada and Germany, they have done so in modest amounts of less than 2% of GDP.(2) Incredible amounts of austerity also results in some economic obstacles as well, since the government will need to run budget deficits to keep the economy at potential as long as interest rates are stuck at zero. If interest rates are at zero, that means nominal interest rates cannot fall any further (unless you do negative interest rates) and can not fall to the point where the economy reaches its potential output and achieves full employment.(3) In order to get to that point, some fiscal stimulus, in the form of budget deficits, will be needed to reach our economic ideal. If we do a great deal of austerity instead, the contractionary fiscal policy will not only cause incredible economic damage in the short run, but running continual surpluses in the long run will make sure the economy never gets rid of the persistent output gaps that were created in the first place by both the crisis and the austerity that followed.

Second Option: Grow Our Way Out

The second way to deal with the added debt burden resulting from the pandemic is to simply pay the interest, roll over the debt in perpetuity, and shrink our overall debt burden by growing the economy. In this scenario, the US would not run budget surpluses year after year, but would instead run deficits ranging from 0% to 4% of GDP. A balanced budget would cause debt as a percent of GDP to fall over time, while a deficit of 4% of GDP would keep it about the same over time.(4)

This is much more politically realistic, where among the G-7 members excluding Japan, these countries have run budget deficits worth less than 4% of GDP more than 80% of the time since 1995. Japan might be a harbinger of what other countries might face in the future, where they have run deficits above 4% of GDP more than 75% of the time since 1995 because they have had interest rates stuck near zero since the late 1990s.(5) The US actually managed to lower debt as a debt as a percent of GDP by running only modest deficits for a long period of time, where after WW II, debt levels in the US rose to about 120% of GDP, and in the 25 years from 1950 to 1974, the US only had a budget surplus in 5 of those years, but did keep deficits below 4% of GDP in all of them. By the mid-1970s, the US had paid back very little principal of the debt but the economy had grown so rapidly in those decades that debt as a percent of GDP shrank to under 35%.(6)

This is one way the US could absorb the new pandemic debt with little economic pain. If the US government kept deficits between 0% and 4% of GDP, and the economy grew at a reasonable rate, then debt as a percent of GDP would gradually shrink over time, and if we were able to continue this for approximately a decade then debt as a percent of GDP might be able to return to their previous levels under the more optimistic scenarios.(7) Unfortunately, the economy may not cooperate with such well laid plans.

The problem of course is that interest rates are still declining in the US, where in January of 1981 they rose to 19%, then fell to about 10% in 1989 at the end of the Reagan boom. At the end of the Clinton boom in 2000 interest rates peaked at 6.5%, while after the George W Bush years the trend persisted when interest rates peaked at 5.25%. In the latest business cycle, interest rates have continued to decline, peaking at only 2.5% after getting stuck near zero (below 0.5%) for about 7 years between 2009 and 2016 following the financial crisis. In the next business cycle, interest rates are definitely going to be near zero in the trough (since they have already fallen near zero now), and if the trends continue at the same pace, then even in the peak, interest rates in the US might remain stuck at zero. This means that interest rates might stay at zero for the entirety of the next business cycle and perhaps for every business cycle that follows.

If interest rates are stuck at zero, then running deficits between 0% to 4% of GDP might not be enough to keep the economy at full employment. After Trump passed his big tax and spending increases in late 2017 and early 2018, the deficit rose to about 4.6% of GDP in fiscal year 2019 without causing any problems with inflation and further reducing unemployment to nearly 50 year lows.(8) This means that a deficit of 4.5 to 5% of GDP might be about right for the US economy at the peak of this business cycle, which means deficits over the next business cycle might want to be higher than 5% over that entire time. The US can deal with those kind of deficits for decades without running out of fiscal space, but eventually there will be another economic crisis, and another one after that, and if we do not reduce debt as a percent of GDP during the good times, then eventually, perhaps in several decades, the US itself will start to have problems paying off debt solely with tax revenue.(9) Japan has already reached

this point due to their need to run high deficits when interest rates are at zero, where debt there has risen to 238% of GDP, and some countries in Europe, like Greece and Italy, will have run out of fiscal space after the new debt from the pandemic is taken into account.(10) The US is further away from reaching this point, but ultimately will likely have to face the same problems those countries are dealing with right now as long as interest rates continue to decline.

Third OptIon: Pay Off Debt Permanently With Printed Money

That leads to the third way to deal with the extra pandemic debt, which is to simply pay it off permanently with money printed by the central bank. This sounds radical, but if interest rates stay at zero, governments might need to run deficits above 4% of GDP in perpetuity and permanently printing money is realistically the only way to do that for extremely long periods of time. People of course will say, "Well that will just cause inflation to spiral out of control." The strange thing is that Japan, Europe, and the US have already printed a lot of money temporarily through massive quantitative easing (QE) campaigns and that has not yet even caused inflation in any of those countries to go significantly above target.(11) Quantitative easing is just a policy where the central bank prints a lot of money and uses it to buy government bonds. The only difference between what is being proposed here, which is permanently printing money, and what we have already done during past QE campaigns, is that with past QE the printed money is only temporary and will eventually be removed from the economy when the central bank sells the bonds it bought with printed money back to the private market.(12)

Based on our past experience then, it appears as though printing money and using it to buy bonds causes little trouble for inflation as long as the economy is depressed and interest rates are stuck at zero. The only question is what happens when the economy recovers and interest rates go above zero again. With temporary QE, the central bank would then sell all the bonds it previously bought, and the economy would go back to the way it was before. The fear is that if you leave the printed money in the economy permanently, once the economy does recover, banks will be able to dramatically expand the money supply by loaning out tremendous amounts of money, and this will cause inflation to spiral out of control.

The quick response to the problem is that the economy will not return to normal, that interest rates will stay at zero in perpetuity, and the banks will not loan out all the funds they can because there are not enough useful investments to make in our new economic environment. The alternative answer is to reply that even if the economy does return to normal and banks do start loaning out money, then we can simply raise the reserve requirement to prevent them from doing so. In either case, the problem is solved, whether the economy returns to normal and interest rates go above zero, or if our economy stays in this strange situation where interest rates are stuck at zero and banks do not want to loan out all the money they can. I wrote a separate paper on this subject about 4 years ago, called Helicopter Money: A Primer (Sly 2016) that deals with all these issues and many others in more detail.

The real advantage to having the central bank print money and leave it in the economy permanently is that it allows governments to do significantly more fiscal stimulus, since they no longer feel constrained by their fears of a future debt crisis. If the printed money is removed from the economy, the central bank sells the bonds back to private investors and the government has to pay it all off with tax money. If the printed money is left permanently in the economy, the central bank simply holds on to those government bonds forever, rolls over the debt in perpetuity, and could even pay back the interest they receive from the government back to the Treasury or Finance Ministry as they do in the United States. If

the central bank is holding the debt that means the government does not need to pay back any principal or any interest since they ultimately get it all back. The debt that was previously issued then would get paid back with printed money rather than tax money.

The most legitimate concern with using printed money to permanently pay off government debt is that the policy will work a little too well when encouraging more fiscal stimulus. When QE was temporary, governments tended to run large deficits in the midst of a crisis but then withdrew that stimulus a bit too quickly.(13) As long as the threat of a future debt crisis loomed large, then there was a lot of pressure to keep bringing the budget deficit down to sustainable levels, which might not have been what the economy required. If QE is permanent, then governments will feel free to run larger budget deficits, but this lack of any government budget constraint might cause them to do more fiscal stimulus than the economy needs. This is actually the most likely scenario that leads to spiraling inflation.

The solution to this problem is to create a strong, rigorous, and effective intellectual and institutional framework which dictates that fiscal stimulus should be done in moderate amounts in ways that allow the economy to reach its full potential, but not enough to cause inflation to rise uncontrollably. Most central banks in developed economies use an explicit inflation target to manage monetary policy, and central banks have become increasingly independent, so the policy concerns over rising inflation are already well represented within the policymaking apparatus.(14) The real problem comes from the rest of government, where they might end up being too generous when passing new tax cuts and spending increases. In that case, the central bank could simply stop printing money and reimpose the government's budget constraint by forcing them to borrow money again.(15)

Conclusion

The real question is whether we are willing to live with an underperforming economy for decade after decade because governments consistently do too little fiscal stimulus after the crisis ends, even though interest rates remain stuck at zero. The alternative is to try new approaches to economic policymaking that allow us to learn what works and what does not in this new economic environment, and as long as we do it in ways that are carefully crafted to limit the damage if we do in fact get some things wrong, then we should be able to find approaches that do work and do allow us to continue to succeed and thrive for decades to come.

End Notes

#1 – The Congressional Budget Office projects that the four stimulus packages passed so far will add $2.2 trillion to the deficit in fiscal year 2020 and $0.6 trillion in fiscal year 2021. This represents about 11% of GDP in FY2020 and 3% of GDP in FY2021. When originally passed however, two of the most expensive provisions, like the extra $600 a week in unemployment insurance benefits and small business loan program, were designed to be temporary. The extra $600 in benefits ends on July 31st, 2020, and the Paycheck Protection Program was originally designed to cover only 8 weeks of expenses. If Congress needed to extend these programs this would raise the total cost by hundreds of billions of dollars, since Congress has already spent $268 billion on the entire package of expanded unemployment insurance benefits and allocated a total of $669 billion for the small business loan program. If these benefits were

extended by 6 months this could easily add another 6% of GDP in new debt, and the costs could go even higher if the pandemic lasts a total of 2 years. Under this more extreme scenario, the total cost of the economic stimulus could easily double to about 40% of GDP.

#2 – Among G-7 countries since 1995, Japan, Italy, and France have not run a budget surplus at all during that time, while the US and UK only briefly ran budget surplus for 3 to 4 years each in the late 90s and early 2000s. Canada ran budget surpluses for 11 years between 1997 and 2007 and Germany for 7 years from 2014 to 2019 along with 2007 (Trading Economics 2020). Combined, that means the G-7 countries have run budget surpluses in a total of 25 years since 1995 or about 14% of the time.

#3 – In general, central banks do face significant difficulties lowering interest rates once they hit the zero lower bound. In theory, they can enact negative interest rates, but central banks have only been able to lower them a little bit below zero, where Denmark and Switzerland have been the most aggressive with rates of -0.75% and this is unlikely to be enough to bring the economy to back to potential. Central banks can lower long term interest rates by printing money and buying bonds through quantitative easing campaigns, but doing this without fiscal stimulus might not be enough by itself as Japan has learned in recent history. Real interest rates can go further negative by raising the inflation rate, which presents its own new slate of difficulties.

#4 – If a country were to balance the budget by running deficits worth 0% of GDP, then the overall level of debt would remain the same, but the economy would grow over that time, causing debt as a percent of GDP to shrink. If the US were to run budget deficits of 4% of GDP, this would cause debt to rise by about 4% since debt as a percent of GDP is around 100% of GDP (4% deficit / 100% debt = 4% increase). If real GDP growth in the US is about 2% (it has been a little over 2% since the financial crisis), and inflation is about 2% (it has been a little under 2% since the financial crisis), this would cause nominal GDP to rise about 4%. Since debt grew by 4% and nominal GDP grew by about 4% this would leave debt as a percent of GDP about the same. If debt were only 50% of GDP, the deficit could need to stay around 2% of GDP to have debt as a percent of GDP remain constant with 2% growth and 2% inflation. In that case, debt would rise by 4%, (2% deficit / 50% debt = 4% increase) and nominal GDP would rise by 4% keeping the ratio approximately constant. If debt were to grow to 150% of GDP, the deficit could rise to 6% of GDP and still keep the ratio constant, since the debt would be growing by 4% in that case as well (6% deficit / 150% debt = 4% increase).

#5 – The US ran budget deficits above 4% of GDP in 6 years since 1995; the UK, 10 years; Germany, 2 years; France, 6 years; Italy, 5 years; and Canada, 0 years. This adds up to 29 years since 1995, or about 19% of the time, making the deficit under 4% of GDP about 81% of the time among the G-7 countries excluding Japan over the last 25 years. Japan has run deficits above 4% of GDP in 19 of the last 25 years, or about 76% of the time (Trading Economics 2020).

#6 – The US ran budget surpluses in 5 years between 1950 and 1974, but kept deficits below 4% of GDP that entire time, running a maximum deficit of 2.8% of GDP in 1968. Debt as a percent of GDP reached 119% in 1946 and had fallen to 33% of GDP in 1974.

#7 – If deficits average about 2% of GDP during this time and real GDP grows by about 2% a year with 2% inflation, then the US should be able to reduce debt as a percent of GDP by about 20% over the course of 10 years.

#8 – Trump passed his tax cut into law in December of 2017 and passed his budget for fiscal year 2018 in March of 2018. The deficit rose from 3.2% of GDP before Trump took office in fiscal year 2016 up to 3.5% in fiscal year 2017, 3.8% in fiscal year 2018, and 4.6% in fiscal year 2019. Inflation during this time as measured by the core personal consumption expenditures (PCE) index rose by 2.0% or less compared to the same month the previous year in the following two years after the tax cut was passed. The unemployment rate fell from 4.1% in December of 2017 down to 3.5% in February of 2020, the lowest since 1969.

#9 – The US can maintain 5% deficits indefinitely and still keep debt as a percent of GDP below 125% as long as economic growth and inflation both remain about 2% and there is not another major economic crisis. Debt as a percent of GDP went up from about 63% of GDP in 2007 to 103% in 2014, a rise of about 40% of GDP, and as mentioned before in end note #1, the current crisis could create debt worth between 14% and 40% of GDP. If we assume the worst case by projecting that each major financial crisis creates new debt worth 40% of GDP, then the US is only two major crises away from having debt reach dangerous levels well above 150% of GDP that led to a bailout in Greece, and we might be in the middle of experiencing the first one right now. A second major crisis could occur in the next 20 years or perhaps two smaller crises could occur in the next 30 years, which means the US could run out of fiscal space in as little as 20 to 30 years, but it also might take decades longer if everything goes relatively smoothly.

#10 – In 2018, Japan had accumulated a total amount of debt worth 238% of GDP. In 2019, Greece had accumulated debt worth about 177% of GDP, which is still higher than the debt levels that sparked the first European bailout of Greece in 2010 when debt was only at 146% of GDP, indicating they have little room to accumulate more debt without causing major economic problems. In 2019, Italy had accumulated debt worth about 135% of GDP, but has also been hit especially hard by the pandemic, so after the virus goes away, Italy could easily be left with debt levels ranging from 150% to 160% of GDP, which leaves them at about the same debt levels as Greece had when they got their first bailout (Trading Economics 2020).

#11 – The Federal Reserve did three rounds of quantitative easing (QE) from 2008 to 2014, while Europe engaged in large amounts of QE from 2015 to 2018 and started doing smaller amounts after a short pause at the end of 2019. Japan began doing QE as early as 2001 but ramped up their efforts considerably in 2013 and have not yet stopped their efforts to try pumping a lot of money into the economy. Despite this massive influx of monetary stimulus, core inflation has remained below 2.5% in the US since the financial crisis (based on the CPI), has remained below 2% in the Eurozone over the same time period, and below 2% in Japan every year except for a brief period after they raised their Value Added Tax from 5% to 8% (which is a tax quirk that creates a one-time bump to inflation) at which point it exceeded 3% in part of 2014 (Trading Economics 2020).

#12 – In theory, the Federal Reserve, the European Central Bank, and the Bank of Japan claim that their QE is only temporary and that the printed money will eventually be removed from the economy. In practice, the ECB and the Bank of Japan were still doing more QE right before the pandemic hit, and so had not removed any of the past rounds of QE from the economy, while the US had started this process in 2018 but only was able to remove about 20% of the money they had previously pumped into the economy. Since neither the US, Europe, or Japan have been able to unwind their previous bond purchases paid for with printed money even at the peak of this business cycle, it is not entirely clear

when they would be able to do so now that another crisis has hit, or if they ever will be able to do so in any future business cycles.

#13 – The United States reduced their budget deficit from 8.4% of GDP in 2011 to 2.8% in 2014 after the financial crisis had subsided. Over approximately the same time period, Japan reduced its budget deficit from 8.3% of GDP in 2011 to 4.5% in 2015. If you were to combine all the countries in the Eurozone, their total deficit fell from 6.3% of GDP in 2010 to 0.5% in 2018 (Trading Economics 2020). There was considerable debate among economists whether this austerity was advisable or not, but it is definitely true that the US, Europe, and Japan did cut back substantially on fiscal stimulus after the financial crisis was over.

#14 – All OECD countries except Denmark and South Korea currently use an inflation target to guide monetary policy decisions. Central banks have faced pressure to become more independent from the government since the early 1990s, and both the UK and the Eurozone have made their central banks more independent during that time.

#15 – It is important to point out that central banks are in a precarious position when trying to limit the government's desire to cut taxes or increase spending, since ultimately all of their decisions, including how much money to print, can be changed either by installing new leadership at the top of the central bank or through legislation passed by the legislative and executive branches. The real constraint on government's behavior then is almost entirely intellectual, where it was the policy disasters of Weimar Germany that led to a very strong belief among economists and politicians that paying for government spending with printed money should be avoided entirely, and for decades central bankers and politicians followed through on those policy recommendations. The trick now is to change the intellectual framework to say that moderate amounts of money printing can be used to fund government deficits, and that governments should increase the amount of fiscal stimulus they put into the economy since that money will remain there permanently, but that this still needs to be limited in order to avoid creating too much inflation over the long term. The real question is whether governments can get a taste of funding deficits with permanently printed money without losing all sources of self-control, but carefully crafted, incrementally implemented policy experiments can show us whether it is possible to hit this sweet spot of fiscal stimulus that permanently printing money allows without sparking runaway inflation by breaking through all the limitations on a government's tax and spending policy.

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