

WHITE PAPER



The \$36 Trillion Question

I was counseled early in my career never to raise a question in a business setting unless you knew the answer and could articulate it forcefully. Well, I am going to violate that sage advice. However, we are not going to raise just any old question. This paper deals with *the* most important conundrum facing economists and investors: What is the end game for the massive monetary and fiscal stimulus that has been in place for the U.S. and most of the rest of the world? Is there a point at which the accumulated federal debt has an impact on the economy, or even worse, causes a crisis of one sort or another? What will the Federal Reserve do with its \$8 trillion balance sheet? I am not overly embarrassed that we do not know the answers to these critical questions because no one else does, including our government officials. So rather than definitively answering them, we lay out the dimensions of the issues, discuss some of the possible answers and their implications, and finish up with a couple of conclusions that are informed guesses at best.

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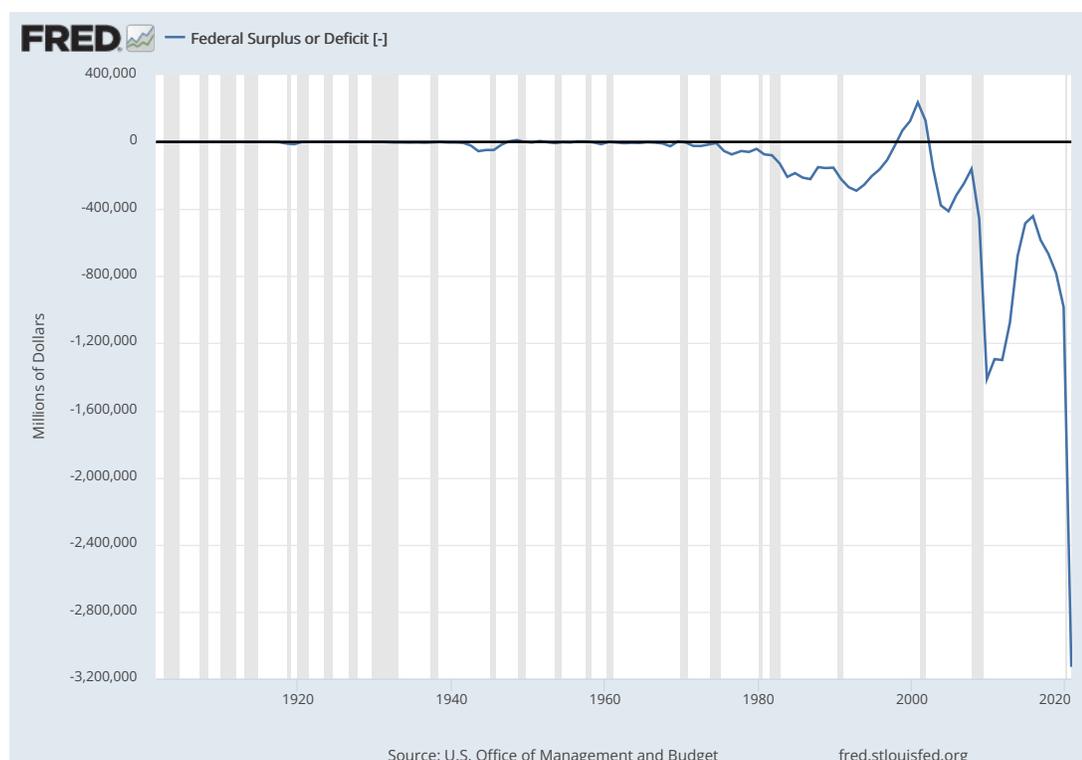
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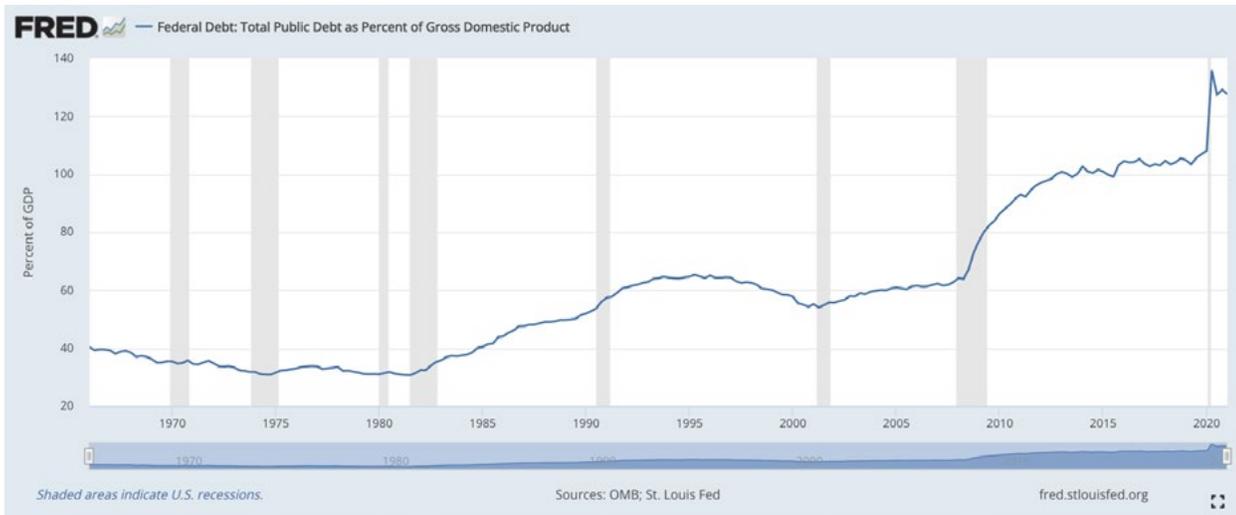
Budget Deficits and the Federal Debt

The following chart depicts the annual surplus or deficit of the U.S. government in current dollars dating back to 1901:



Note that surpluses and deficits were de minimis until World War II when the necessity to finance the war effort resulted in five years of significant deficits. (although they look quite small by current standards). From the end of the war until 1980, there were both surpluses and deficits, although the figures remained quite modest. The Reagan administration enacted tax cuts in 1981 and 1986, which when combined with a recession in 1981-1982, resulted in an increase in the deficit from \$73 billion in fiscal 1980 to \$290 billion in 1992. Deficits then moderated for five years before actually turning into surpluses from 1998-2001. The Great Financial Crisis (GFC) had a major impact on economic activity and tax collection necessitating fiscal support that led to a three-fold increase in the deficit in 2009 versus the prior year and four consecutive years of deficits in excess of \$1 trillion. As the economy recovered, deficits moderated until the Trump tax cut in 2017 which resulted in roughly a 70% cumulative increase in the deficit over the ensuing three years. With more than \$5 trillion spent on various stimulus packages to counteract the impact of Covid-19, red ink reached \$3.1 trillion for fiscal 2020 and the current projection for 2021 is also in excess of \$3 trillion. The Congressional Budget Office forecasts average deficits through 2031 of \$1.2 trillion per annum.

Budget deficits are financed by borrowing, most notably the issuance of U.S. Treasury securities. The most common metric for reporting the accumulated debt is the ratio of federal debt to GDP, which is depicted in the following chart:



While not shown on this particular chart, it is noteworthy that today’s ratio of 127.5% exceeds the peak World War II level in 1946 of 119%. The average interest rate on U.S. government debt is currently 1.6%, resulting in estimated interest expense for fiscal 2021 of \$300 billion which represents approximately 5.2% of the federal budget. The Congressional Budget Office estimates that the yield on the 10-year U.S. Treasury will climb to 3.4% by 2031 as compared to the current level of 1.25%. For perspective, the average 10-year Treasury rate over the past fifty years has been approximately 6%. When combined with the continuing deficits mentioned above, this results in estimated interest expense of approximately \$910 billion in 2031, which will represent 11.6% of the budget.

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Debt Worries Versus Modern Monetary Theory

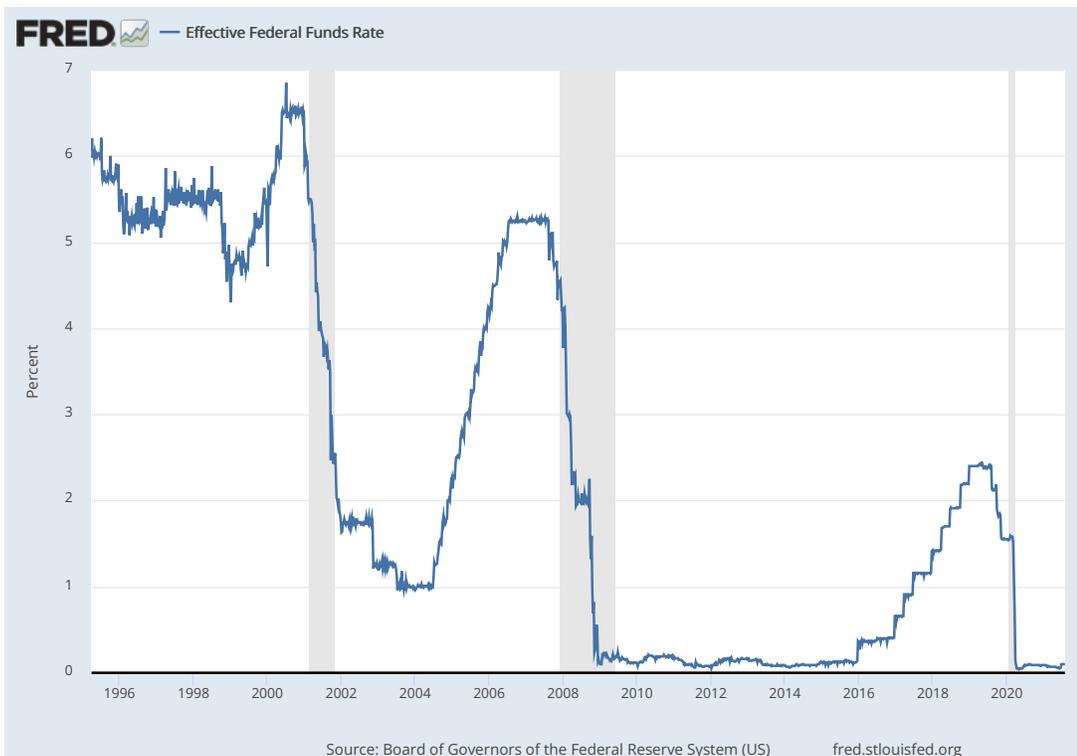
There is a raging debate among economists and policy makers as to whether we should be concerned about continuing deficits and the growing level of accumulated government debt. One side argues that the following risks are present and growing rapidly:

- The necessity to finance an ever-increasing amount of federal debt will inevitably increase interest rates which will in turn dampen economic growth.
- Other borrowers may be *crowded out* of the debt markets by huge Treasury issuance.
- Rising interest expense will necessarily decrease spending in other portions of the federal budget or further increase deficits.
- There is the possibility that potential buyers could at some point balk at further government bond purchases, thereby precipitating a financial crisis.
- The ability to respond to any sort of fiscal crisis may be impacted by a high level of outstanding debt. (although the government did not seem to have any difficulty responding to the Covid-19 crisis).
- Financing government debt decreases the amount of savings available to fund projects in other segments of the economy. This would likely decrease productivity resulting in lower wage growth.

The opposing view is held by proponents of Modern Monetary Theory (MMT) who posit that governments with fiat currencies can issue as much money as needed to service debt so there are essentially no fiscal constraints. To the extent that printing money increases the inflation rate, the government can control it by slowing future money issuance and raising taxes. They point out that inflation has been modest and the demand for U.S. securities strong despite the fact that deficit concerns have been voiced continuously since the early 1980s. For more information on MMT, [**see Sam Fraundorf's white paper on our website.**](#)

The Federal Reserve

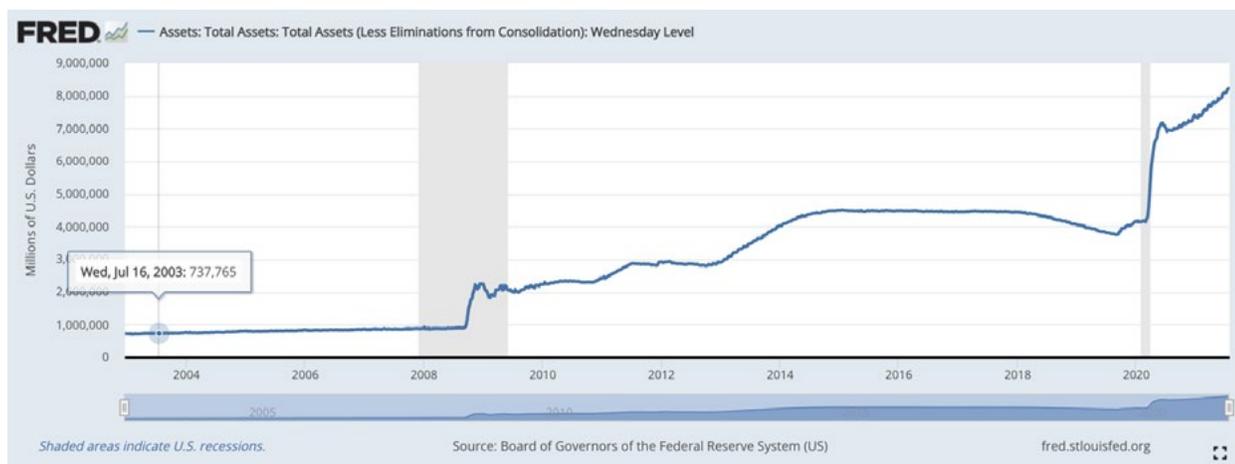
While the deficit issue has been unfolding for decades, the Federal Reserve's balance sheet came to the fore in its response to the Great Financial Crisis of 2008-2009. Historically, the FED's primary tool for managing the economy was its ability to raise and lower short-term interest rates. The following chart depicts twenty-five years of history of the FED Funds Rate.



Note that the FED cut rates significantly in response to the 2001 and 2008 recessions and then again at the onset of the pandemic. Most interesting and controversial was the FED's decision to maintain rates at effectively zero from 2009 to 2016 despite an economy that was recovering nicely.

In addition to cutting interest rates, the FED responded to the GFC with a new strategy that was to purchase many different types of bonds in the open market in order to prevent a potential economic collapse and maintain functioning, liquid markets. This program, which was known as Quantitative Easing, is depicted in the following chart, which shows that the FED’s balance sheet increased from \$900 billion to \$4.5 trillion between 2008 and 2015. As was the case with short-term interest rates, the FED chose to maintain most of its bond holdings until early 2020, when it exploded its balance sheet from just over \$4 trillion to in excess of \$8 trillion. It continues to purchase securities at a rate of \$120 billion per month. However, on July 28, the FED announced that conditions were approaching the point that it might begin to *taper* its bond-buying program.

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One important point is that there is a linkage between the level of outstanding government debt and the FED’s balance sheet. Specifically, large deficits require the Treasury to issue huge quantities of bonds, frequently exceeding investor demand. This forces the FED to step in to make up the difference in order to ensure the orderly functioning of the markets.

The bottom line is that since the onset of the Great Financial Crisis, the U.S. has experienced massive financial stimulus in the form of a tripling in government debt, interest rates that hovered near zero, and more than \$7 trillion in bond purchases by the Federal Reserve.

Where is the Growth?

Given all of this stimulus, it would be reasonable to expect very strong economic growth. Yet, from the trough of the GFC through today, real GDP has grown at barely a 2% annual rate as compared to the 3% rate that prevailed for the past seventy-five years. There are a variety of theories as to the causes of this mystery, including errors in measurement, poor productivity growth, low population growth, modest immigration, and issues of timing. See our white paper [**Population Bust-Productivity Boom?**](#)

In the next section, we present the primary considerations in addressing these issues. However, the lack of growth over the past twelve years raises a critical question. Given that growth was modest despite massive stimulus, is it really possible to address the debt level, raise interest rates, or reduce the FED's balance sheet? Despite the fact that taking no action might lead to long term consequences of various sorts, could the economy and investors stand the pain of reducing or eliminating any of the three sources of stimulus? (often referred to on Wall Street as "taking away the punch bowl")? One clue may be the fourth quarter of 2018 when the U.S. stock market fell 13.5% in response to the FED's efforts to nudge interest rates toward more normal levels. As shown in the FED Funds chart on the previous page, the FED quickly reversed course by reducing rates three times in 2019.

The Way Forward-Deficits and Federal Debt

There are basically two ways to reduce budget deficits: reduce spending, and/ or increase tax revenue. Spending cuts are always politically difficult and they seem especially unlikely at the moment, given the need for infrastructure spending as well as support for those still recovering from the financial problems created by the pandemic. We do believe there will be tax rate increases but they are likely to be more modest than those proposed by President Biden. Therefore, our best hope for reining in deficits is strong economic growth that generates tax revenue beyond current forecasts.

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After waiting many years for technological advances to accelerate productivity improvement and therefore economic growth, there is some evidence that it is finally occurring. So an optimistic scenario would be characterized by declining deficits with the ultimate objective of reaching a balanced budget.

However, even this relatively favorable outlook leaves us with the problem of dealing with the large amount of government debt currently on the books. Hopefully, a balanced budget would include sufficient funds to make principal and interest payments on at least a portion of the debt. In other words, the government would service some of its debt out of current revenues, just like the rest of us. Unfortunately, the size of the debt makes it unlikely that all of it could be serviced in this manner, which will require what is known as *debt monetization*. This occurs when the government simply prints enough money to make interest and principal payments. Any country with a fiat currency can follow this strategy, but the overriding question is whether it eventually results in inflation, or even worse, hyper-inflation. This is the big question that we cannot answer—it is the subject of debate by our country's greatest economic minds. A related question is whether the potential for inflation leads to some sort of crisis of confidence and an unpleasant market event.

Where Now The Fed?

There are two basic questions regarding the FED's balance sheet. First, can it reduce or even eliminate bond purchases without upsetting markets or worse, causing another round of economic distress? Second, what does the FED do with the \$8+ trillion in assets that it currently holds? Once again, if the current economic momentum remains in place, there is every reason to hope that the FED can slowly reduce new purchases and allow the markets to function on their own.

However, that still leaves the question of what to do with its current holdings. Assuming little or no new purchase activity, we can imagine three alternative paths. First, the FED could sell assets into the open markets thereby reducing its exposure. Given the huge amount of world liquidity and appetite for high quality assets, such a strategy is certainly possible. However, we think a large amount of selling runs the risk of

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spooking markets, so any selling would need to be both modest and quietly implemented. A second strategy is simply to hold all current securities until they mature, which will result in a very slow glide path toward a smaller balance sheet. This approach raises the difficult question of whether the issuers of all of these bonds have the wherewithal to retire them at maturity or whether a good deal of this debt will need to be refinanced. Again, a healthy economy will certainly help, but our best guess is that the FED will have to refinance or roll over a good number of its positions. The third strategy is for the FED to maintain a large balance sheet for the long pull, which is essentially equivalent to monetizing the debt as was discussed above. Once again, that raises the specter of long-term inflation.

The Bottom Line

In the case of both government debt and the FED's balance sheet, it seems that the most likely course is monetization, which is basically analogous to printing money. In the short term, this is likely to stimulate the economy, which is arguably quite welcome given that major sectors are still recovering from the pandemic. The big question is whether monetization ultimately leads to inflation. Nobel Prize winner Milton Friedman said, "Inflation is always and everywhere a monetary phenomenon." On the other hand, MMT proponents would say "no worries" and their point of view is supported by the fact that inflation has remained modest despite a thirty-fold increase in the level of federal debt since 1980 and the massive growth in the FED's balance sheet since 2009. We will continue to watch the debate with great interest!

One note of caution: The Consumer Price Index for June exceeded the prior year level by more than 5%, although we agree with the FED's argument that this burst of inflation is transitory caused by supply-chain bottlenecks and other inefficiencies associated with the messy process of restarting the economy.

So we are not overly worried about short-term inflation, but prudence suggests two critical actions on our part. First, we should be particularly vigilant regarding potential inflation. Second, we should have an effective inflation hedge strategy ready if required. We are on it!

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