US Viewpoint

Fiscal impulse: running out of steam

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Fiscal policy supported growth in 2023…

Growth over the past year has proven to be more resilient than expected. One factor behind this resiliency, in our view, was expansionary fiscal policy that crowded in private investment and boosted infrastructure spending. Additionally, consumers saw a real income windfall thanks to a massive cost of living adjustment reflecting inflation in the prior year and inflation indexation of tax brackets.

…But not by as much as the deficit suggests

While we judge the fiscal impulse on growth to have been positive over the last four quarters, we argue that the increase in the primary deficit overstates the impulse. A simple top-down measure suggests the fiscal impulse on growth in FY 2023 was 3.0%, compared to GDP growth of just 1.9%. We do not think this passes the smell test. Much of the increase in the deficit was due to declines in revenue, which are typically less stimulative than changes to outlays. Using a bottom-up approach, we estimate fiscal policy had a smaller but still-significant impulse of 0.9% on growth.

Outlook: from tailwind to headwind

Looking ahead, we expect fiscal policy to turn from tailwind to headwind. We forecast a decline in the primary deficit from 5.1% of GDP to 3.3% in both FY 2024 and FY 2025. Revenues will get a boost from delayed tax collections and higher capital gains collections. Meanwhile, mandatory outlays will likely fall due to further diminution in COVID relief and little change to discretionary spending. We are also already seeing signs that fiscal policy's effect on private investment growth is fading. In short, we expect the fiscal impulse to be a drag on growth in FY 2024 and neutral for growth in 2025 since what matters for growth is the change in fiscal stance, not the level.

But higher deficits are here to stay

That said, deficits are likely to remain elevated and at levels typically seen during recessions. Indeed, we expect the deficit-to-GDP ratio, which includes net interest, to remain above 6% through the end of our forecast horizon. This is partly because we forecast net interest expenses as a share of GDP to increase for the foreseeable future given already-accrued debt, higher interest rates and large deficits.

Sustainability and future policy implications

Higher overall deficits increase concerns over debt sustainability, particularly if we are in a new high interest rate regime. The US has long been on an unsustainable path, but higher rates exacerbate these concerns. Additionally, higher deficits today should reduce the appetite for expansionary fiscal policy in future downturns.

Refer to important disclosures on page 11 to 13.
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Fiscal policy a source of resiliency

Economic activity over the past year has proven to be more resilient than we anticipated. There are several factors behind this surprise with looser fiscal policy being one of them, in our view. We estimate that the fiscal impulse contributed roughly 0.9 ppt to growth over the last four quarters (4Q 2022 to 3Q 2023). Looking ahead to the next two years, we expect the impulse to turn into a headwind in FY 2024 and be neutral in 2025 assuming no major change to fiscal policy.

Details on the deficit

Before addressing the role that fiscal policy played in economic growth over the past year, it is worth discussing the deficit in some detail. The FY 2023 deficit surprised to the upside spurring claims that fiscal policy is too loose given the current stage of the business cycle. Indeed, the deficit increased from $1.4tn in FY 2022 (5.4% of GDP) to $1.7tn in FY 2023 (6.3% of GDP).

Excluding student loan forgiveness, the deficit doubled

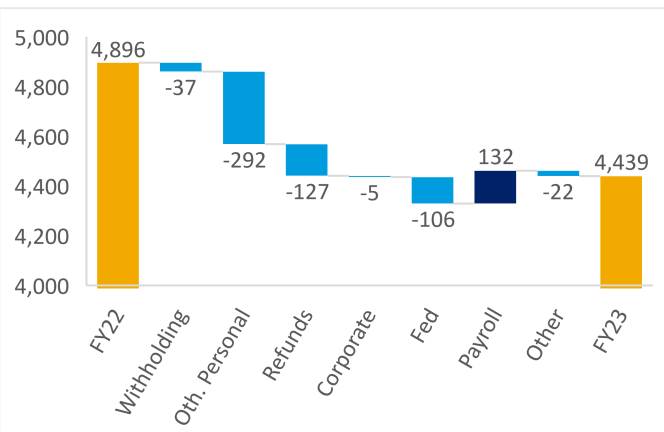
However, these numbers understate the true increase in the deficit due to the treatment of changes to the Student Loan Forgiveness Program. Budgetary procedures required the multiyear cost of changes in terms of outstanding student loans to be reflected on a net present value basis in the month when terms were changed. As a result, the FY 2022 deficit was artificially boosted by $370bn, and the FY 2023 deficit was artificially reduced by $330bn. Excluding these effects the deficit roughly doubled in FY 2023 to a whopping $2.0tn or 7.4% of GDP.

What has driven the doubling in the deficit?

Looking at the details, the increase in the deficit was driven by an increase in outlays ($563bn), including interest expense, and a decline in revenues (-$457bn). In our view, the drop in revenues has been the more important determining factor of the surprising jump in the deficit. Though a few of the increases in outlays could also be chalked up as a surprise.

Exhibit 1: Change in Tax revenue ($bn)

A decline in refunds and other personal income taxes largely explain the drop in revenue in FY 2023



Source: US Treasury Department

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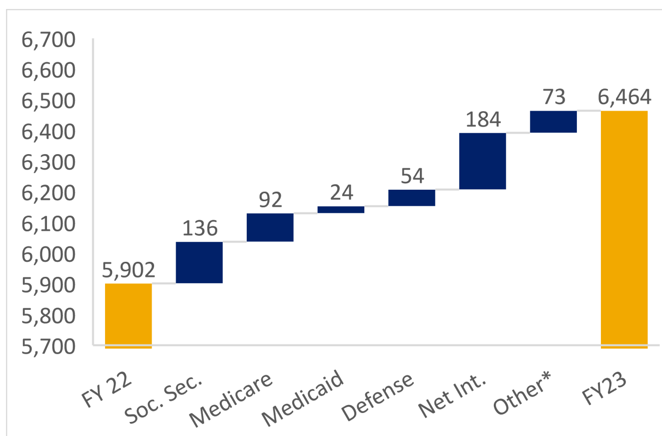
Exhibit 2: Change in Outlays ($bn)

Net interest and entitlement spending have driven the increase in outlays



Source: US Treasury Department

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Revenues generally co-move with the economic cycle absent any major change to tax rates since the major sources of revenue are individual income taxes and payroll taxes, which are intrinsically tied to employment (Exhibit 3). Given growth in employment, it therefore comes as no surprise to see payroll taxes, the taxes employers pay, up 8.9% y/y.

However, the 17.3% decline in individual income taxes is surprising. Drilling into this revenue source, most of the decline is due to a 25% decrease in other individual income taxes. We believe this drop is due to a few of factors: 1) a decline in capital gains taxes given the lagged effects of declines in equity prices (Exhibit 4), 2) the Employee Retention Tax Credit, which is a tax credit for businesses that retained workers during 2020 and 2021, and 3) delayed tax collections due to natural disasters in California, Alabama and Georgia.

In addition to the decline in other personal income taxes, withholding fell by 0.6% y/y and individual refunds were ~52% higher than in FY 2022. These revenue streams were likely affected by the inflation indexation to income tax brackets, which are in place to prevent bracket-creep over time. In 2023, income tax brackets rose by 7% in FY 2023, reducing the effective tax rate for all households.

Meanwhile, the rise in outlays has come as less of a surprise since many of the increases outside of interest payments are known ahead of time. Indeed, the cost-of-living adjustment for social security is determined by CPI for wage earners in 3Q of each year and affects payments starting in January of the following year. Additionally, the increases to discretionary spending were known after the FY 2023 omnibus budget was passed. A couple of line items that could be considered surprises are the 38.7% y/y increase, or $184bn, in net interest expenses, and the $101bn in rise FDIC outlays in response to the March banking stress that are expected to be recovered overtime as assets are liquidated.

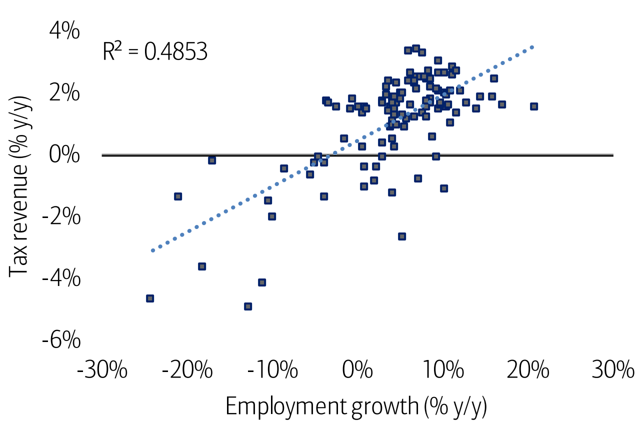
In short, we think some of the widening in the deficit seen this past year is due to idiosyncratic factors that we should not expect to repeat in future years. These factors also have implications for how we think about the true impulse.

The implications for growth

The doubling of the deficit, after adjusting for student loans has led to claims that fiscal policy has been a key factor in the better-than-expected economic data seen over the past year. We sympathize with this argument, and in this section attempt to measure the role fiscal policy has played.

It's important to note that the role that fiscal policy plays in growth is determined by changes from one year to the next. If deficits are high but unchanged, fiscal policy would be neutral for growth from one year to the next. Estimating the fiscal impulse, however, is not as simple as looking at the change in deficits and most approaches have drawbacks. Therefore, we look at a few different approaches to gauge the effect fiscal policy had on growth in FY 2023.

Exhibit 3: Employment growth vs. Tax revenue (% y/y)
Tax revenue is closely related to job growth



Source: BLS, US Treasury Department

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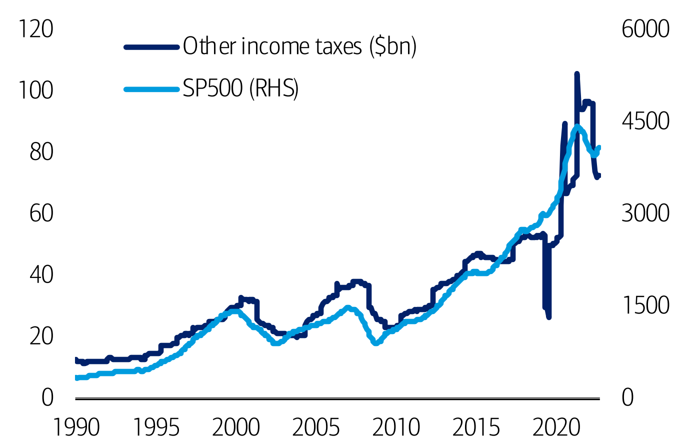
Exhibit 4: Other individual income taxes vs. S&P500
Other income tax revenue is affected by capital gains tax collections



Source: Haver Analytics, US Treasury Department

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A top-down measure

First, we calculate a simple top-down measure that has been used by the IMF (International Monetary Fund). The measure is derived from the "cyclically neutral budget model." The first step is to select a base year where potential GDP roughly equals actual GDP. For this we use CBO's estimate of potential growth and judge FY 1996 to be the best candidate for our base year. The gap between the potential and actual GDP was just 0.04 ppt. Next, we calculate a base year ratio of government spending to potential GDP (g_0) and a base year ratio of government revenue to actual GDP (t_0). With these two ratios, we can calculate the cyclically neutral budget deficit for any given year (t) as follows (Exhibit 5):

$$Cyclically\ neutral\ budget_t = g_0 * Potential\ GDP_t - t_0 * GDP_t$$

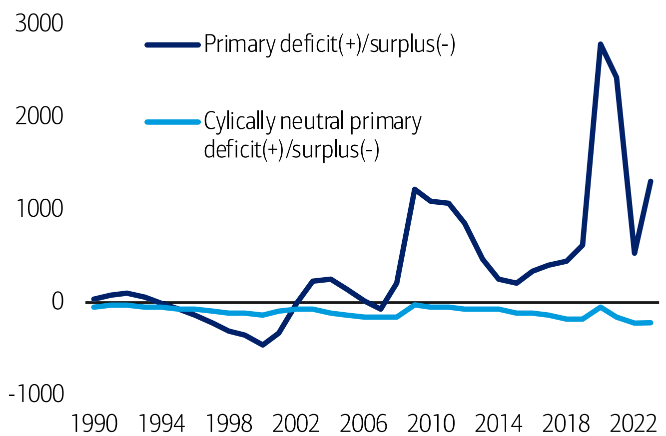
The fiscal stance is then calculated as the difference between the cyclically neutral budget and the actual budget. The fiscal stance can be expansionary when growth in outlays is more than proportional to the growth in potential GDP and/or when the change in revenues is less than proportional to the change in actual GDP. Finally, to calculate the fiscal impulse, we look at the change in the fiscal stance as a ratio to nominal GDP. This measure is very close to looking at the change in the primary deficit-to-GDP ratio but adjusts for fluctuations in the business cycle.

In Exhibit 6, we plot the fiscal impulse including our estimate for FY 2023. Note that we compute the fiscal impulse using the primary deficit after excluding the effects of changes to the student loan program. We estimate that the fiscal impulse using this top-down approach was 3.0% in FY 2023 (Exhibit 6).

The upshot is that this top-down measure suggests that the higher budget deficit was expansionary and supportive of growth over the four quarters ending 3Q 2022. However, did fiscal contribute three percentage points to growth this year? Real GDP growth from FY 2022 to FY 2023 was just 1.9%, 1.1ppt below the estimated impulse. We find it hard to believe that the Federal Government's fiscal stance more than explained growth in FY 2023. While we believe it certainly helped, there are other factors like strong wage and employment growth that also explain the better-than-expected growth.

It should also be noted that this top-down fiscal impulse measure is often seen as a first step to measuring the impulse from fiscal policy. It is better as a directional indicator

Exhibit 5: Cyclically neutral deficit vs. primary deficit (FY, $bn)
The deficit has been well above a "cyclically neutral budget deficit"



Source: BofA Global Research, CBO

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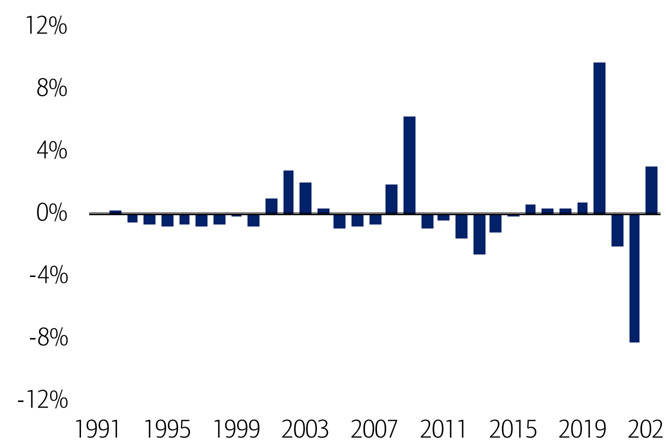
Exhibit 6: Fiscal impulse – IMF measure
A top-down measure suggests the fiscal impulse was 3.0% in FY 2023.



Source: BofA Global Research

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than of magnitude, in our view. Additionally, the measure has been subject to several critiques over the years, including the following:

1. It assumes the effect of a change in revenues and outlays are equivalent. Research suggests that the effect of a change in outlays has a larger effect than a change in revenues.

2. It does not account for the effect on prices, interest rates and exchange rates.

In addition to these criticisms, there are portions of the increase in outlays and decline in revenues that we believe should be excluded from any calculation of the fiscal impulse. The first is the decline in Fed remittances to the Treasury. This portion of the drop in revenues has no bearing on spending of the Federal Government and is not a transfer to the public sector. Second, we believe that the increase in FDIC outlays in response to the stress in the banking sector should also be left out for similar reasons. Third, outlays were boosted because of a decline in auction licenses of the electromagnetic spectrum, which we do not consider stimulative and should therefore also be excluded in fiscal impulse calculation. Adjusting outlays and revenue for these three-line items reduces the fiscal impulse from 3.0% to 1.8% in FY 2023, which is still hard to justify in terms of magnitude.

We believe that one could also argue to exclude any reduction in revenue explained by lower capital gains tax collections and delayed tax payments due to natural disasters. On the former, lower capital gains taxes are not a function of a change in the tax rate but rather consumer behavior. Therefore, we are not sure it should be viewed as a decline in revenue that supports growth. Meanwhile on the latter, households and businesses affected by a delay in tax payments knew that they would eventually have to pay. Therefore, they unlikely responded to the delay by increasing spending. If we were to adjust revenues for these sources, the fiscal impulse measure would decline further.

We are of course open to counterarguments around these adjustments. However, we think the above discussion illustrates the challenge of assessing the fiscal impulse at any given period. It also highlights why looking simply at the change in the primary deficit-to-GDP ratio can be misleading or overstate the role of fiscal policy.

A bottom-up approach

This begs the question, are there better alternatives to the top-down approach discussed above? There are certainly alternatives but even the most well-intentioned approaches are subject to drawbacks. In this section we construct a bottom-up approach based on detailed line items for revenues and outlays.

To formulate our bottom-up estimate, we use the latest CBO breakout of revenues and outlays. We then assign these line items a fiscal multiplier that we judge to be most appropriate using the range of multipliers published in Whalen (2015). For example, we consider the increase in social security payments to be a transfer payment to individuals (Exhibit 7). Some of our selections could be debated but in general we make the distinction that revenue changes have lower multipliers than changes in outlays, which is a key differentiating factor with the top-down approach. The benefit of this method is that it should capture fading fiscal stimulus as well as any impulse from the decline in revenues and increase in outlays.

Note we exclude the following outlays from our analysis: FDIC payments, Spectrum auction receipts, Pension Benefit Guaranty Corporation, and Net interest on the public debt. We do not think these should be counted towards a fiscal impulse calculation for reasons discussed above.

Using these multipliers, we compute a multiplier adjusted deficit as a share of nominal GDP in FY 2022 and FY 2023 for each multiplier: low, mid, and high. That is, we take the product of each line item and its multiplier to get a total for outlays and revenues. Then

Exhibit 7: Major budget line items and our assignment of the fiscal multiplier associated with each
To estimate a bottom-up fiscal impulse, we use fiscal multipliers for each major line item

Budget line items	Category of multiplier	Multiplier Low	Multiplier Mid	Multiplier High
Revenues				
Individual Income Taxes	Two-Year Tax Cuts for Lower- and Middle-Income People	0.3	0.9	1.5
Payroll Taxes	Transfer Payments to Individuals	0.4	1.25	2.1
Corporate Income Taxes	Corporate Tax Provisions Affecting Cash Flow	0	0.2	0.4
Other Receipts	-			
Outlays				
Social Security Benefits	One-Time Payments to Retiree	0.2	0.6	1
Medicare	Transfer Payments to Individuals	0.4	1.25	2.1
Medicaid	Transfer Payments to Individuals	0.4	1.25	2.1
Department of Education	Purchase of Goods and Services by Federal Govt	0.5	1.5	2.5
Refundable Tax Credits	Transfer Payments to Individuals	0.4	1.25	2.1
Coronavirus Relief	Transfer Payments to S&L Govt for Other Purchases	0.4	1.1	1.8
Spectrum Auction Receipts	-			
FDIC	-			
PHSSEF	Transfer Payments to Individuals	0.4	1.25	2.1
PBGC	-			
DoD—Military	Purchase of Goods and Services by Federal Govt	0.5	1.5	2.5
Net Interest on the Public Debt	-			
Other	Purchase of Goods and Services by Federal Govt	0.5	1.5	2.5

Source: BofA Global Research, CBO

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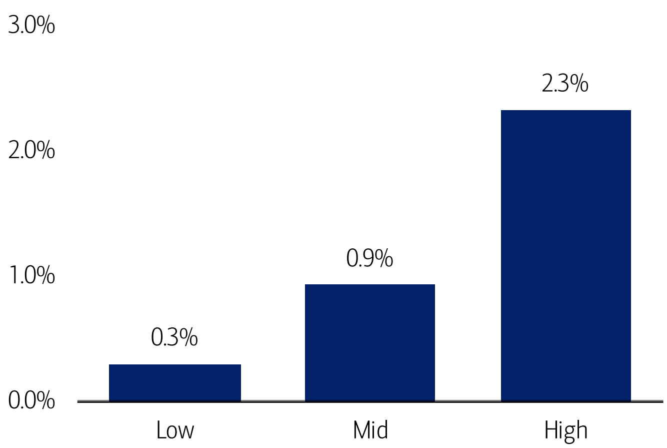
we subtract revenues from outlays and divide by GDP. Once we have the ratio for each fiscal year, we take the difference between the two to arrive at our estimate of a bottom-up fiscal impulse (Exhibit 8). As can be seen the estimate ranged from 0.3% to 2.3%, which is admittedly wide. The upshot is that this approach also suggests the fiscal impulse was positive, but the magnitude is below the top-down approach for all three multipliers.

Given this range, the next question is which side we lean towards. In our view we tilt towards the lower end. That is because fiscal multipliers are smaller when growth is near potential and monetary policy is more responsive like it has been today. Therefore, we think the fiscal impulse was somewhere between 0.3-0.9ppt rather than 2.3ppt.

As mentioned in the prior discussion around our top-down estimate, there is also a question around whether the full decline in other income taxes should be considered "stimulative." We think some portion could easily be excluded if it reflects capital gains

Exhibit 8: A bottom-up fiscal impulse in FY 2023 assuming different multipliers
Our bottom-up estimate of the fiscal impulse in FY 2023 was 0.3ppt to 2.3ppt



Source: BofA Global Research

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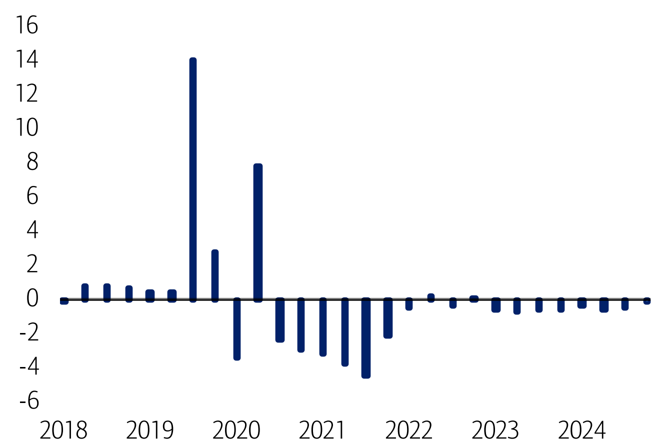
Exhibit 9: Fiscal Impact Measure: Fiscal policy contribution to growth (ppt, 4-q moving average)
A measure from Brookings, however, suggest policy was a slight drag on growth in FY 2023



Source: Brookings

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or delayed tax deadlines. As an illustration of what an adjustment might do, we repeat the same exercise as above but remove individual income taxes from the calculation. Doing so would turn the fiscal impulse negative for all ranges of fiscal multipliers. This is consistent with estimates from the Brookings Institute, which we discuss next.

Brookings measure of fiscal impact

Last, we look at one other well-known fiscal impulse measure, the Fiscal Impact Measure (FIM) from the Brookings Institute Hutchins Center of Fiscal and Monetary Policy. The measure, like our own, suggests that fiscal policy was relatively looser in FY 2023 compared to FY 2022. However, unlike our estimate, it suggests that fiscal policy was a slight drag on growth (Exhibit 9). Therefore, this does give us pause when we find the impulse to be positive.

In discussions with members of the team behind the Fiscal Impact Measure, we learned that much of the drag can be attributed to the ongoing decline in pandemic related relief, and assumptions of long-run ways for spending of money from PPP and other provisions. Neither our top-down or bottom-up approach account for the possibility that outlays and revenues in any given fiscal year could affect future years.

A range of estimates

The upshot from these range of estimates is that it is difficult to truly measure the fiscal impulse. Even model-based estimates have drawbacks. Given the discussion above and the dynamics seen this year, we think that our bottom-up approach is nearest to the truth especially since the contribution from government consumption and investment has been relatively high over the last four quarters. Therefore, we think it’s reasonable to assume that fiscal was responsible for around 0.9ppt of growth the 1.9% growth in FY 2023.

An eye to the future

While we judge fiscal policy to have been a factor in the resiliency of economic data over the past year, we expect it to be a slight headwind next year and roughly neutral thereafter. To arrive at these conclusions, we first formulate our expectations for the primary deficit over the next two years.

FY 2024: primary deficit to decline

We expect the primary deficit to decline as a share of GDP in FY 2024 for a few reasons. First, the Fiscal Responsibility act established caps that keep discretionary spending flat in FY 2024. Importantly, the act included a section that enacts a 1% sequestration to discretionary spending if any portion of the Federal Government is funded on January 1, 2024. While this is not a massive source of fiscal austerity, it does appear to be an increasingly likely outcome given divided views over top line spending levels between House Republicans and the rest of Congress.

Second, fading COVID relief should continue to translate into less spending. For example, the end to continuous re-enrollment of Medicaid recipients and the end of expanded SNAP benefits in March should result in a decline in mandatory spending in FY 2024.

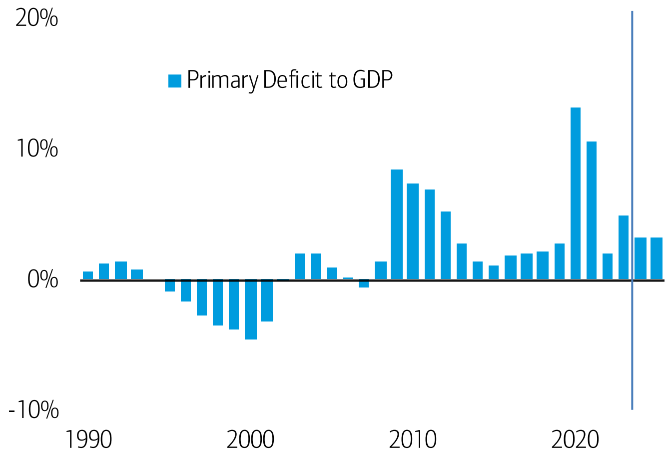
Third, revenues as share of GDP, should increase next year due to the following reasons. First, there is evidence that delayed tax collections in FY 2022 are boosting tax revenue to start FY 2023. Therefore, revenue should recover because of that shift in deadlines and a return to regular collection timing. Second, capital gains taxes are likely to be higher next year. Third, increased IRS enforcement and the alternative minimum tax— a 15% minimum tax rate on corporations— should mean higher tax collections more generally.

FY 2025: primary deficit unchanged as a share of GDP

In FY 2025, we expect the primary deficit as a share of GDP to be unchanged from FY 2024. Though there is admittedly greater uncertainty over this outlook since the outcome of next year's elections have important implications for spending and tax policy. If Republicans were to sweep the elections, we would not be surprised to see a push for more tax cuts. Whereas, if Democrats swept the elections, increased discretionary spending could be on the table. Finally, a split outcome, which seems likely, would lead to gridlock and little change to fiscal policy. Therefore, we would expect discretionary spending to increase by the 1% cap outlined in the FRA. Meanwhile, we expect mandatory spending to increase in line with inflation. On the revenue side, revenues should grow in line with our GDP forecasts.

The upshot is that we expect the primary deficit as share of GDP to fall from 5.0% in FY 2023 to 3.3% in FY 2024 and FY 2025, still well above historic levels (Exhibit 10). Primary deficits will also put upward pressure on the overall deficit through higher interest expenses.

Exhibit 10: Primary deficit to GDP
We expect the primary deficit to GDP ratio to decline in FY 2024



Source: CBO, BofA Global Research

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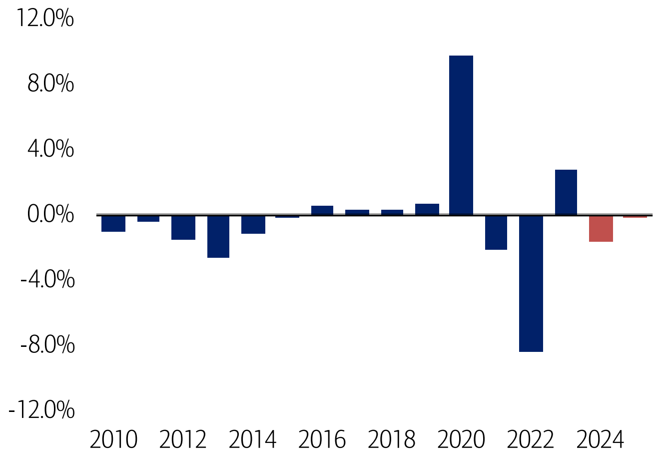
Exhibit 11: Top-down fiscal impulse (%)
A top-down estimate suggests the fiscal impulse will be negative in FY 24



Source: BofA Global Research

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A fading impulse

Our forecast of the primary deficit implies that the fiscal impulse is likely to be a headwind in FY 2024 and neutral in FY 2025 using the top-down analysis discussed earlier in the piece. These estimates appear consistent with the Brookings Fiscal Impact Measure (Exhibit 9).

While it is a challenge to repeat the same bottom-up exercise for the Fiscal impulse in FY 2024 and FY 2025, a rough approach that focuses only on the recently enacted fiscal policies: the infrastructure investment and jobs act, CHIPS act, and inflation reduction act, suggests that the impulse from these bills should fade in FY 2024 and FY 2025 (Exhibit 12). Indeed, the 3Q GDP data already point to a moderation in the impulse from manufacturing investment. Additionally, fading COVID relief is set to continue next year which will translate into a headwind for growth. Last, unlike this year, the 3.2% COLA for social security is in line with our estimate for inflation, and the increase for income tax brackets is more modest than in FY 2023 (5.4% v 7%). As a result, we would not expect to see a repeat of the same "real income" windfall for households due to inflation adjustments that we realized in FY 2023.

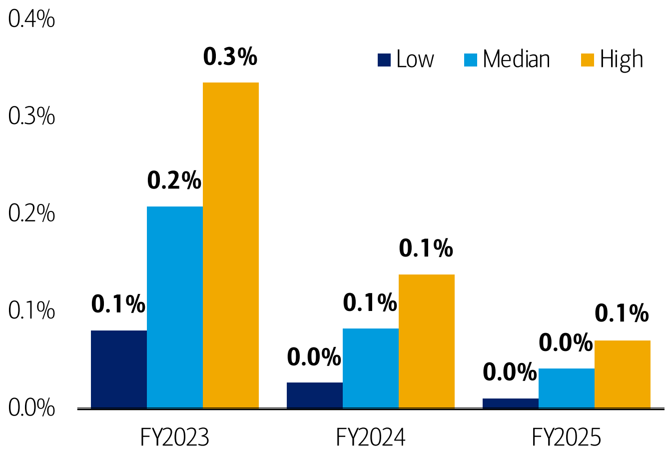
In short, we do not expect fiscal to provide the same support to growth next year as it did in FY 2023, which contributes to our view for economic growth to slow below trend.

6% is the new 3%

While we do expect the primary deficit to GDP ratio to decline to 3.3% in each of the next two fiscal years, it's important to note that we expect the deficit-to-GDP ratio to remain at levels typically seen during periods of economic weakness. Indeed, we forecasts a deficit-to-GDP ratio of 6.3% and 6.5% in FY 2024 and FY 2025 respectively. In other words, we see the deficit-to-GDP ratio falling by less than the primary deficit to GDP ratio due to rising net interest payments. This is because the recent surge in Treasury yields means the cost of refinancing existing debt has increased significantly as has the cost of financing new debt. An upside risk to these estimates is defense spending given ongoing conflicts that could lead to greater aid for allies.

Exhibit 12: Estimated fiscal impulse for the infrastructure and jobs act, inflation reduction act, and Chips and science act

The impulse from recent policies should fade over time



Source: BofA Global Research

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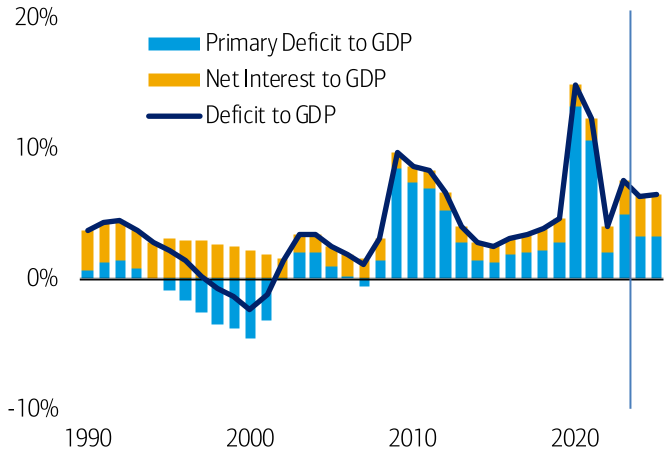
Exhibit 13: Deficit-to-GDP (%)

We expect net interest to comprise a larger share of the deficit-to-GDP ratio in coming years



Source: BofA Global Research

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Higher interest rates also raise concerns about debt sustainability. During the low-rate environment of the 2010s, many economists argued that low rates meant the cost of running deficits were relatively limited. This is because it can be shown that a key determinant of the debt-to-GDP ratio and debt sustainability is the relationship between interest rates (r) and growth (g). When Interest rates are below growth, running a positive primary deficit can still result in the debt-to-GDP ratio declining over time. However, when interest rates exceed growth the debt-to-GDP ratio can grow exponentially absent some type of fiscal adjustment. This is a topic for another note and a more complete discussion, but it also is top of mind for investors.

What higher deficits also means is that in the event of a recession, deficits will expand from an already "recessionary level" to an even larger share of GDP due to the drop in tax revenues. That could reduce Congress' appetite for expansionary fiscal policy to offset any future downturn. Additionally, we think Congress' actions to recessions is colored by their most recent experience. Congress injected a mountain of stimulus during the pandemic, which was a large factor behind the surge in inflation we still are facing today. We think this experience will also make Congress more hesitant to enact expansionary fiscal policy in a future downturn.

The bottom line

In this report we have argued that fiscal policy was a contributor to the better-than-expected growth seen over the last four quarters. That said, the fiscal impulse was not as eye-popping as the deficit figures suggest. Looking ahead, we expect fiscal policy to turn from tailwind to headwind in FY 2024 adding to our expectation for growth to slow over the coming quarters. Nevertheless, higher deficits are likely here to stay for the foreseeable future, which raises concerns about debt sustainability, the prospect for interest rates, and the implications for the response of fiscal policy in future downturns.

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