US Rates Watch

April tax season & debt limit X-date

April 18 is key for X-date projections

Next week's individual tax-date deadline (April 18) will be an important data point for our X-date projections. We maintain our current base case for a mid-August X-date but see risks skewed towards earlier given recent data on Treasury EM & possible larger deficit.

Earlier X-date is risk vs our mid-Aug base case

We see X-date risks as skewing earlier vs our mid-Aug base case, due to depletion of EM & higher deficit risk. Treasury has used $254b of their total EM, leaving $73b of EM remaining. We expected a large but slightly slower EM depletion (Exhibit 1).

Using our base case deficit forecasts, the earlier depletion of EM would shift the X-date forward slightly from Aug 23 to Aug 15. We also see risks as skewed to a larger deficit vs our economist's base case of $1.1tn in FY '23. Indeed, CBO estimates a FY '23 deficit of $1.4tn. If we use CBO's deficit, the X-date get pulled further forward to Aug 10. We still see a large error band around our X-date projection (Exhibit 2).

We see risks as skewed towards an earlier X-date but refrain from revising at this time. We hold off on revising given the potential for further X-date tweaks after the April 18 individual taxpayer deadline. We will aim to refine our projection in the next week or two.

April tax payment scenarios: TGA to $250-370b

Next week we expect to see TGA rise to $250-370b. This would be in-line with our April total surplus estimate of $267b. Historically, TGA rises $100-200b in the week including the individual tax date. Last year was an outlier with extremely strong tax receipts & a TGA increase of $356b the week of the tax date. More tax detail later in piece.

Based on history, we would see any TGA increase below $150b as weak & any increase above $200b as strong. Our X-date projections will likely swing with any above or below expectations tax receipt & TGA swing. TGA is already quite low due to debt limit dynamics, even after accounting for prior years with debt limit issues (Exhibit 3).

Note: most of the near-term TGA build will likely come from reserves. Historically, reserves have declined around the April tax date since most taxpayers pay taxes from deposits. Recent MMF inflows could see slightly larger share come from MMF vs history.

Bill implications: "safe zones", supply & pricing

Investors have reflected frustration around the wide range of X-date outcomes (Yellen = early Jun, CBO = Jul-Aug, BofA = mid Aug). We are sympathetic to these frustrations. Our guidance to investors: focus on debt limit "safe zones" with X-date uncertainty still high.

"Safe zones": we have described bill "safe zones" as dates that have low probability of default in the wide range of X-date outcomes. "Safe zones" are dates right after a large UST tax receipt or EM increase. More detail on "safe zones", bills, DL, & taxes below.

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EM = extraordinary measures

TGA = Treasury General Account

MMF = money market mutual fund

CBO = Congressional Budget Office

DL = debt limit

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We see 3 "safe zones" for bill investors in coming quarters. We use the term "safe zone" in quotes because it is hard to have confidence that any period is truly risk free in the with risk of potential government default. These are zones where we think clients can have higher confidence of avoiding potential default in wide range of DL uncertainty.

- **Pre June**: UST Secretary Yellen has said that it is unlikely EM & cash will be exhausted before early June. Investors can likely safely target maturities in May. This is likely why the 1m bill has recently richened dramatically vs other bills. Indeed, yesterday 1m bills traded 100+bps rich to OIS (Exhibit 4).

  It would be very unusual for Yellen bring forward the X-date meaningfully from early June. We believe her guidance was deliberately conservative to guard against the risk that the US gov't could run out of funds earlier than expected.

- **June 16 – July 7**: this period is defined by 2 key dynamics: (1) mid-June corporate tax date (2) technical EM increase on June 30. The Q2 corporate tax date is on June 15. If UST can make it to June 15, it can likely last to end June.

  If UST makes it to June 30, EM is increased $145.5b. The EM increase is due to highly technical factors. Specifically, it is driven by (1) large maturity in the Civil Service Retirement and Disability Fund that frees debt limit headroom (2) similar but smaller dynamics in Postal Service fund (Exhibit 1).

  We believe that investors can be reasonably safe in investments in bills maturing after the mid-June corporate tax date & June 30 EM refresh. This creates a large bill safe zone between June 16 – July 7. Dates right after the corporate tax date or EM increase are the saftest in this zone. Periods before or after this period are at greater risk of a technical default or delayed payment.

- **Sept 18 – Oct 1**: this period will likely be after any debt limit resolution. However, in case Treasury can last for longer than we currently project, this period will be defined by the mid-September corporate tax date.

  If Treasury can make it to September 15th, it can likely make it to the end of September. We are less confident in Treasury's ability to make payments in early October since there are typically large government outflows in the first few business days of the month (social security, Medicare, military).

We have bene somewhat surprised by the recent cheapening of bills in the late June to early July "safe zone". These bills have cheapened with recent 3m & 4m bill auctions. We think investors may be disregarding UST receipts & EM increase; they are likely just avoiding the uncertain X-date zone overall. Recent 1m bill richening & ON RRP increase is consistent with investors shunning 3-4m bills for maturities before early June.

Investor aversion to summer bills has likely contributed to higher recent ON RRP use. Historically, we have seen cheaper bills lead to lower ON RRP use (Exhibit 5). Today we are seeing cheaper 3m bills lead to higher ON RRP use, which is likely reflective of bill investor X-date uncertainty & growing concern. We believe bills in the mid-June to early July zone are a way for front end investors to enhance yield with "safe zone" plays.

Bill supply & pricing: April tax date dynamics should see limited bill supply in the months ahead. We show expected bill supply over coming months using our economist's base case deficit estimate & CBO projection (Exhibit 6, Exhibit 7). A higher deficit, as projected by CBO, would imply roughly $300b more in bills between now and Dec '23.

We expect that limited bill supply near-term will generally keep bills & short-dated USTs rich, excluding those that are vulnerable to the debt limit X-date. After the X-date is increased we continue to believe there will be material cheapening of bills vs FF OIS.

Once past the debt limit bills are likely to cheapen to OIS+5-10bps before MMF are willing to extend out of ON RRP & buy them. 3m bills at OIS+5-10bps is the same level where 3m bills cheapened after the late '17 - early '18 debt limit period & associated $540b bill supply surge (from Aug '17 to Mar '18) (Exhibit 8, Exhibit 9). During late '17 – early '18 period ON RRP drained to zero as MMF extended to buy cheap bills.

Debt limit headlines: clients have also inquired about recent headlines suggesting Republicans will soon unveil a 1Y debt limit extension. We have only seen media reports thus far, no concrete proposal.

We would be surprised to see the currently reported proposal becomes law. We believe this because (1) Democrats are currently advocating for a "clean" debt limit increase (2) a 1Y DL increase would make this an issue during the next general election, which is typically not desired by an politician (esp an incumbent president).

In the unlikely event the proposal becomes law, it would result in a near-term surge in bills & likely shift the new X-date to 2H '24. We expect there could be a bill supply surge of $200-$500b in coming months. This would likely see bill rates cheapen & ON RRP decline to absorb the new bill supply. It would also likely see front end spreads tighten.

Bottom line for rates: X-date timing is uncertain. Our base case is still a mid-August X-date but we see risks as skewed to earlier given larger deficit risk. X-date range is likely to narrow after the April tax date where we expect to see TGA increase $150-250b.

Until X-date range is narrowed we encourage clients to focus on bill "safe zones". Bills maturing before June are likely safe. The mid-June to early-July safe zone should reduce technical default risk due to corporate tax payments & EM boost on June 30. Bills should remain rich with limited supply before the X-date; bills should cheapen to OIS+5-10bps after DL resolution which should be a sufficiently cheap level to encourage MMF to extend out of ON RRP & into bills.

Tax season's cross winds

With the tax season approaching its April 18th deadline we take stock of the year-to-date fiscal picture and this year's tax season. Beginning with the deficit, it is on a much higher path halfway through FY 2023 owing to a few factors (Exhibit 10).

- First, the omnibus budget bill passed last December increased discretionary spending by roughly 9% compared to FY2022. There were increases for both defense and nondefense spending of roughly 10% and 8% respectively.
- Second, cost of living adjustment increases to social security (8.7% specifically) has contributed to the 5% y/y increase in social welfare payments this year compared to last.
- Third, interest costs have ballooned owing to the Fed's aggressive hiking cycle and the massive amount of debt accumulated from pandemic related fiscal stimulus.
- Last, since tax brackets are indexed to inflation, higher inflation last year led to a roughly 7% increase in tax brackets, which all else equal has led to less income tax revenue (Exhibit 11).

These factors help explain why the budget deficit is 65% higher than it was a year ago at the halfway mark. It does seem increasingly likely that the deficit increases this year compared to last. Indeed, the Congressional Budget Office (CBO) projects a deficit of $1.410tn for FY 2023 compared to $1.375tn in FY 2022. Admittedly, this looks like a rather small increase based on where the deficit is tracking. However, recall that last year's deficit was boosted roughly $400bn because of the way government accounting treated the student loan forgiveness program.

The bottom line is that the risks around the deficit are skewed to the upside, especially given our economic outlook for a recession starting in 3Q.

Meanwhile, tax returns are tracking below last year's levels (Exhibit 12). Indeed, cumulative refunds are down 9.5% y/y through April 11, 2023, owing largely to a 9.8% decline in average returns. The number of returns processed are up 0.4% compared to a year ago. One of the key reasons for the smaller average tax return this year is due to the expiration of the expanded tax credit. Lower average tax returns should translate into higher aggregate personal income tax receipts in April, all else equal.

That said, the full effect of income tax season will not be known until after the date passes when payments start to roll in. Indeed, income tax payments more than offset refunds. This is why we see income tax receipts spike in April and more specifically after the filing data as payments are made to the Internal Revenue Service (IRS, Exhibit 13 and Exhibit 14)

While we do not have a projection of where total personal income tax revenue will end up this month, we can form expectations based on the data in hand and the changes to the tax system. First, individual tax receipts are down 14% through April 11 compared to the same period a year ago. Second, as shown in Exhibit 11, we know that the increase in tax brackets will reduce payments for most households. Moreover, the benefit is greater for higher income households that tend to owe taxes rather than receive refunds. Therefore, we think it's highly likely we see personal income tax collections this April down from last year as lower payments should more than offset smaller than refunds.

The upshot is that it's not unreasonable to expect income tax receipts to be down as much as 14% compared to a year ago, which would translate into $83bn less in revenue. We see this as being a likely upper bound on the decline in income taxes as wages and employment are up from a year ago. That said, a decline appears in income taxes from last April seems likely, which would also add to the risks of an earlier X-date.

The corporate tax date is also April 18th. Cumulative corporate tax receipts are up 2.2% from this time a year ago. We do not expect significant changes from the trend in corporate tax receipts this year, however, it could imply a greater drain out of ON RRP than in previous years due to large inflows into the government institutional MMFs seen in the past month.

Exhibit 1: Extraordinary Measures forecast assuming a DISP of 7 months ($mn)
We get a one-time increase in EM on June 30th of $145.5b

Key Assumptions	Starting amount	Used	Remaining
Extraordinary Measures	513,564	304,234	209,330
G - Fund	292,599	270,312	22,287
Exchange Stabilization Fund	17,365	722	16,643
CSRDF & PSRHBF	58,100	33,200	24,900
One time measure June 30	145,500	-	145,500

Source: BofA Global Research, Treasury, Thrift Savings Plan

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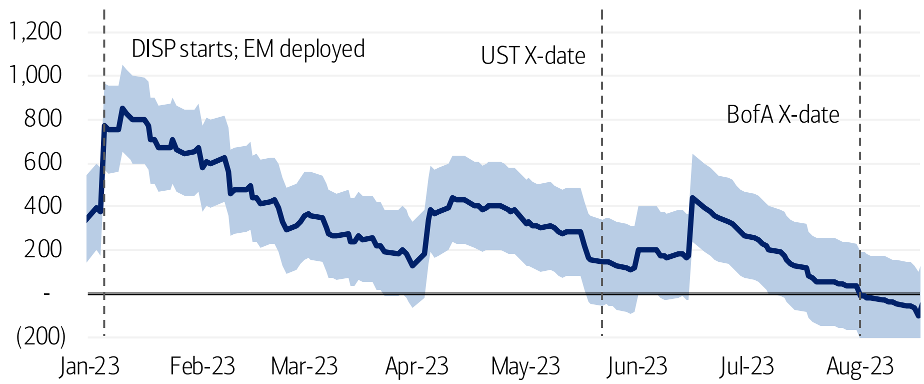
Exhibit 2: Projected TGA + Extraordinary Measures remaining ($bn)
BofA's projected X-date is pulled forward from Aug 23 to Aug 15 due to faster depletion of EM



Source: BofA Global Research, Treasury, FRBNY

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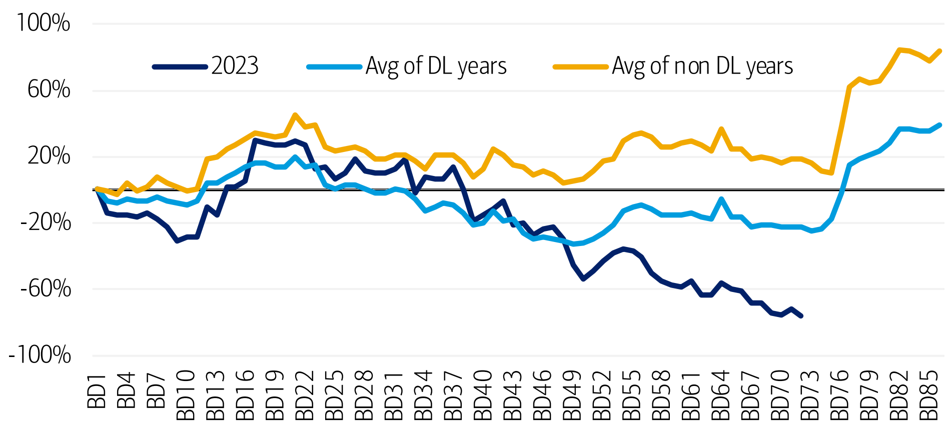
Exhibit 3: Percent change in TGA from first business day of the year to the week of April tax-date
In DL years, TGA sees a 63% increase on avg from the low the week ahead of the tax date to the high



Source: BofA Global Research, FRBNY

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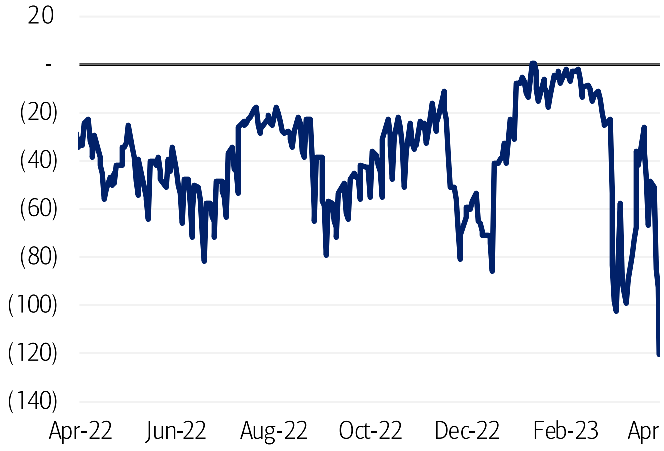
Exhibit 4: 1m bill-OIS (bps)
1m bill is 120bps rich to 1m OIS



Source: Bloomberg

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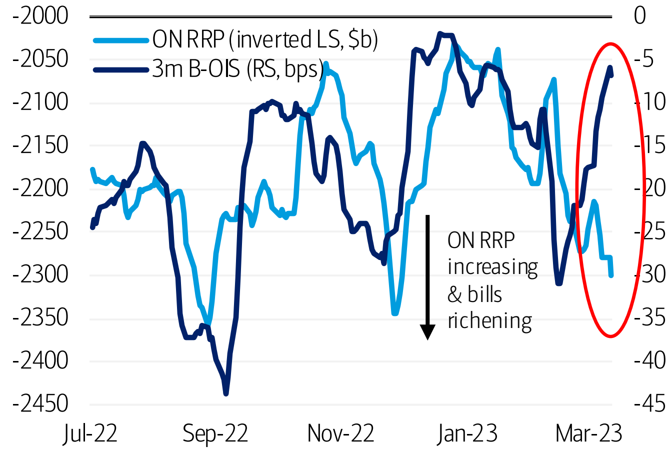
Exhibit 5: ON RRP take-up vs 3m bills-OIS
Bill cheapening has typically led to lower ON RRP use



Source: BofA Global Research, FRBNY, Bloomberg

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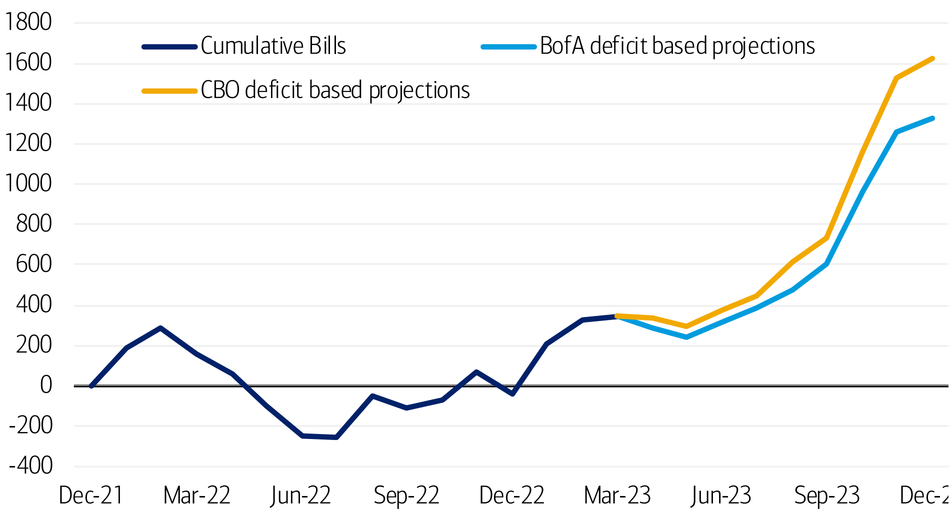
Exhibit 6: Cumulative bill supply projections ($bn)
A higher deficit forecast from CBO would imply ~$300b more in net bill issuance



Source: BofA Global Research, Treasury, CBO

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Exhibit 7: Projected monthly net bill issuance based on BofA and CBO deficit forecasts ($bn)
A higher deficit between April and Dec'23 would imply ~$300b higher net bill issuance

	BofA deficit-based projections	CBO deficit-based projections	CBO-BofA
April	(60)	(10)	50
May	(42)	(39)	4
June	79	78	(0)
July	69	70	1
August	82	166	84
September	136	126	(10)
October	360	424	64
November	291	369	78
December	70	95	25
Total	984	1,280	297

Source: BofA Global Research, Treasury, CBO

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Exhibit 8: Bill Supply ($bn)
Bill supply surged $540b after 2017 DL resolution

Source: Bloomberg

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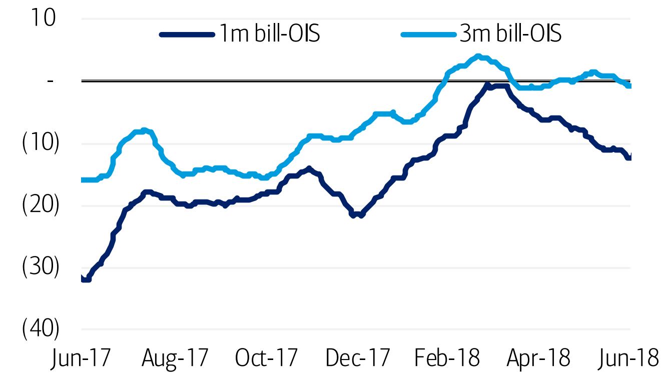
Exhibit 9: 1mo moving avg of 1m & 3m bill-OIS (bps)
Bills cheapened to OIS+5-10bp after 2018 DL episodes



Source: BofA Global Research, Bloomberg

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Exhibit 10: Federal Budget (Fiscal year-to-date through March of each year, % y/y)
The deficit is running at a much higher level than a year ago due to increased spending, lower income taxes and other factors.

	2023	2022	2021	2020	2019
Deficit	**65%**	**-61%**	**130%**	**8%**	**15%**
Net receipts	**-3%**	**25%**	**6%**	**6%**	**1%**
Individual income taxes	-8%	36%	7%	6%	-2%
Corporate income taxes	10%	22%	24%	24%	-14%
Social insurance taxes & contributions	9%	9%	4%	5%	5%
Excise taxes	4%	27%	-24%	-19%	19%
Other	-41%	30%	13%	15%	-1%
Net outlays	**13%**	**-18%**	**45%**	**7%**	**5%**
Defense	8%	-1%	4%	7%	9%
Social welfare: Medicare, income security, & social security	5%	-25%	65%	5%	4%
Interest	42%	25%	-15%	5%	15%
Non-defense less social welfare and interest	22%	-19%	53%	11%	1%

Source: US Treasury

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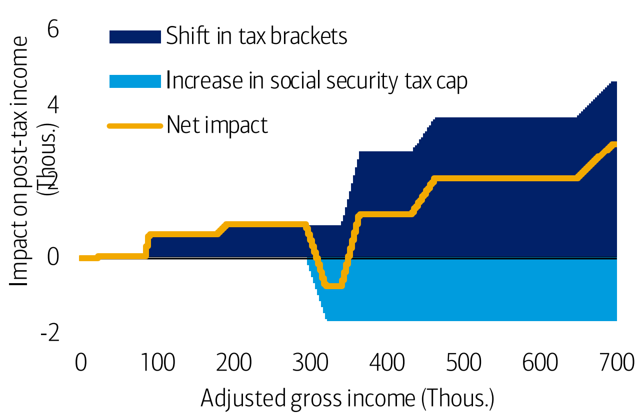
Exhibit 11: Impact on post-tax income of the 2023 tax threshold adjustments for a married couple filing jointly with two equal incomes
Most households will see a gain in post-tax income in 2023 from the adjusted tax thresholds



Source: BofA Global Research. Note: The impact on post-tax income could differ in households with different distributions of income across earners, or different filing statuses. This is just an illustrative example.

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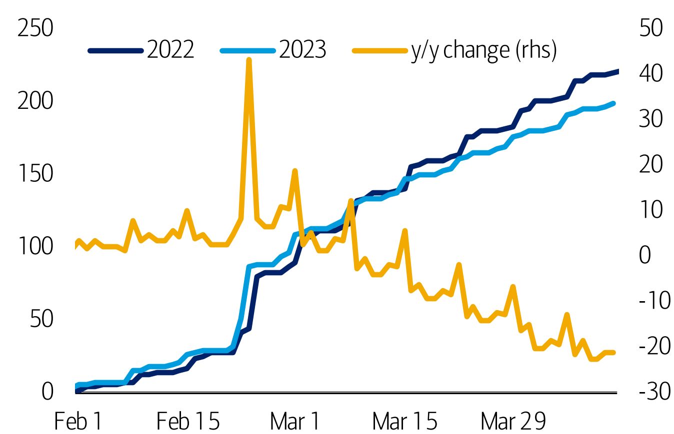
Exhibit 12: Cumulative year-to-date federal income tax refunds issued to individuals ($bn)
Federal income tax refunds issued this year fell meaningfully below 2022 levels in March



Source: IRS, Haver Analytics. Note: the data are daily and run through April 11 2023

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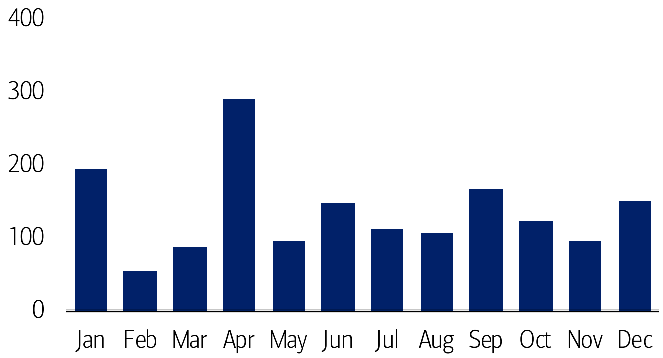
Exhibit 13: Individual income tax receipts ($bn avg. 2015-2019

Individual Income taxes spike in April as payments are made after the deadline



Source: U.S. Treasury Department, BofA Global Research

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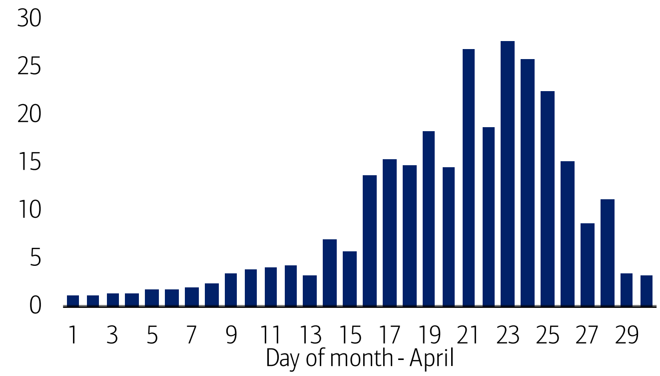
Exhibit 14: Ap Non-withheld income taxes receipts ($bn, avg. 2015-19)

Income tax payments are typically paid after the filing date has passed



Source: U.S. Treasury Department, BofA Global Research

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