Report to the Secretary of the Treasury from the Treasury Borrowing Advisory Committee

August 2, 2023

August 1, 2023

Letter to the Secretary

Dear Madam Secretary:

Since the TBAC last convened in early May, two-year Treasury yields are about 100 basis points higher while ten-year Treasury yields have increased by around 40 basis points. The move higher in Treasury yields in part reflects expectations of higher policy rates from global central banks including from the Federal Reserve. Interest rate and other financial markets reflect the recent resilience of US economic growth, defying expectations for a near-term significant slowdown or recession.

Concerns around the debt ceiling increased significantly in late May. Yields on Treasury bills maturing in early June moved significantly higher as some investors avoided certain securities. The episode imposed a direct cost on taxpayers through higher borrowing costs for the US Treasury. Yields rapidly normalized once Congress reached an agreement to suspend the debt ceiling.

Following the suspension of the debt ceiling, focus shifted to Treasury's plans to rebuild its cash balance, with some concern that the increased T-bill issuance and liquidity drain might lead to volatility or market disruption. These concerns did not materialize, in part because cash that left private markets to rebuild the Treasury General Account (TGA) largely came from declining balances at the Federal Reserve's reverse repo facility rather than from reduced bank reserves. Comparing July 28th to May 31st, the TGA has increased by $501 billion, Federal Reserve reverse repo balances have declined by $505 billion and bank reserves declined by just $39 billion.

The bank stress that emerged in March has stabilized, but markets, policymakers, and the public remain attuned to financial sector risks. Initial concerns that were centered on rapid deposit flight and unrealized losses on held-to-maturity assets dissipated, in part due to the availability of FDIC deposit insurance and the roll-out of the Federal Reserve's Bank Term Funding Program. But attention has shifted to more generalized profitability concerns that may continue to worsen with

funding rates higher, shift in financial regulation, and an inverted yield curve over time compressing net-interest-margins.

The Federal Reserve's Senior Loan Officer Opinion Survey indicates banks are continuing to tighten standards and raise spreads on newly originated loans. Aggregate bank balance sheet data shows a substantial slowdown in loan growth in early 2023, with total C&I loans declining since March and real estate and consumer loans increasing at a slower rate. Treasury market participants have also been debating the extent to which changing bank attitudes toward liquidity and more stringent regulatory requirements might affect bank demand for Treasuries and other high-quality fixed-income assets.

In fact, government related securities on bank balance sheets have declined by about $635 billion since peaking at over $4.7 trillion in early 2022. Much of the decline has been due to reductions of agency MBS, but more recently banks have been reducing their holdings of Treasuries. Bank holdings of non-mortgage backed government related securities (mainly Treasuries) have declined by $146 billion so far this year.

At the same time, Treasury investors have noted Treasury supply will need to increase to address the rise in public deficits as tax revenues have come in weaker and government outlays have increased. Issuance needs will be additionally impacted by the timing of a potential recession, the Fed's plans for balance sheet reduction, and the path of interest rates.

Away from US Treasuries, global fixed-income markets have been focused on the Bank of Japan's policy adjustments, both as Japanese government bonds (JGBs) may have been acting as an anchor for global longer-term bond yields and because Japanese investors have significant holdings of US Treasuries and US dollar denominated investment grade credit. The Bank of Japan announced on July 28 that it would relax its yield curve control (YCC) policy. Whereas 0.5% had been a "rigid limit" on 10-year JGB yields, it will now be a "reference" with longer term yields tolerated up to 1.0%. The initial market reaction was evident but muted: 10-year Japanese bond yields rose about 10 basis points to slightly above 0.5% on the announcement, and 10-year Treasury yields rose only slightly on the news.

The US economy has remained resilient. Despite expectations for a slowdown or even contraction in economic activity, real GDP growth registered 2.0%QoQ annualized in Q1 and 2.4% in Q2. Consumer spending has been the major driver of growth, but strength broadened in Q2 with stronger business equipment investment and less drag from residential fixed investment. The interest rate sensitive housing sector, which had been in a multi-quarter contraction, is expanding once again with 30-year mortgage rates stabilizing above 6%. Available supply of homes is now

limited by existing homeowners with low-rate mortgages who do not wish to sell. The resulting supply-demand imbalance has resulted in renewed month-on-month house price increases.

Hiring has been much stronger than expected in 2023, but the pace of job growth has slowed from a 312k three month moving average in March to a still strong 244k in June. The job market remains tight with a 3.6% unemployment rate close to historic lows. But there are some signs of loosening. The quit rate has declined from a peak of 3.0% in late 2021 to 2.4% in June. The ratio of job openings to unemployed workers has declined from more than 2-to-1 to a still-elevated about 1.6-to-1 over the same time period. A variety of wage metrics have slowed, but to rates still inconsistent with 2% inflation. Average hourly earnings have slowed from 5.4%YoY one year ago to 4.4%YoY, the smoothed Atlanta Fed Wage Tracker has slowed from 6.7%YoY to 5.6%YoY, and the employment cost index registered 1.0%QoQ in Q2.

Headline CPI fell to 3.0%YoY in June, the slowest rate since March 2021 and well below the high of 9.1% one year ago. The recent rise in average national gasoline prices and collapse of the Black Sea grain deal raise upside risks to headline inflation. Core inflation has slowed mainly due to softer goods prices and slowing shelter prices. Non-shelter services inflation remains elevated. Market pricing implies a further rapid slowdown with 1y ahead inflation swaps pricing headline inflation of about 2.0%YoY. Recently softer core inflation, just 0.16%MoM core CPI in June, has encouraged some investors to believe that a “soft landing” where inflation falls without a recession is achievable. But other market participants question whether inflation can sustainably return to the two percent target without a more significant slowing in growth and loosening of the labor market.

G10 interest rate markets, excluding Japan, embed expectations that central banks have increased policy rates close to their peak for this cycle. In the US, the market-implied year-end policy rate increased from 4.5% in May to 5.4% currently. Fed officials slowed the pace of rate hikes by “skipping” a hike in June but then raising rates 25bp in July. At time of writing markets are pricing about 50% probability of a further 25bp rate hike in September or November. Markets are then pricing about 100bp of cuts over 2024 likely reflecting some probability of “normalization” cuts to ease nominal rates down in a “soft landing” as well as some probability of deeper cuts associated with a more significant downturn. Balance sheet reduction is proceeding at the pre-announced pace and Chair Powell suggested at the July FOMC press conference that in some circumstances balance sheet reduction might continue even if the Fed began decreasing policy rates.

In light of this financial and economic backdrop, the Committee reviewed Treasury’s August 2023 Quarterly Refunding Presentation. Based on the marketable borrowing estimates published on July 31, Treasury currently expects privately-held net marketable borrowing of $1.007 trillion in

Q4 FY 2023 (Q3 CY 2023), with an assumed end-of-September cash balance of $650 billion. The borrowing estimate is higher than at the May refunding, primarily due to a lower starting cash balance, a higher assumed end of quarter cash balance, and projections of lower receipts and higher outlays. For Q1 FY 2024 (Q4 CY 2023), privately-held net marketable borrowing is expected to be $852 billion, with a cash balance of $750 billion assumed at the end of December. Primary dealer projections for issuance have increased for FY 2023 and FY 2024, with uncertainty driven by economic growth expectations and the duration of SOMA run-off.

The Committee discussed Treasury's updated views on the operational design of a regular buyback program. The Committee found Treasury's update to be helpful and transparent in dimensioning the program and expects it will be a useful tool for communication and for gathering further industry feedback. The Committee discussed the relative merits of both market and model based pricing methodologies for evaluating buyback offers, seeing value across both. The Committee encouraged Treasury to retain some flexibility in valuation as well as an ability to adapt methodology based on program uptake and market evolution.

Our charge examined the relative merits of potential increased issuance across various products and tenors. We began with a refreshed run of the Optimal Debt Model in the current market environment. Fundamental conclusions from the Model remain similar to historical studies, favoring more belly, T-bill and floating rate note (FRN) issuance. The charge discussion highlighted that the recent rapid increase in T-bill supply has been well absorbed, with money market funds (MMFs) still having significant room to absorb additional T-bill supply. This demand may be further amplified by a market view that the Federal Reserve is approaching the late stages of their hiking cycle, where MMFs may be more likely to extend duration further.

In reviewing recent demand for US Treasuries in auctions, the Committee noted that an increasing percentage of supply is being absorbed by investment funds, while foreign participation has remained range bound. While demand for Treasury issuance remains strong, the Committee felt that the 7 and 20y segments may not bear increases as well as other points on the curve.

As a part of the charge discussion, the Committee evaluated the tradeoffs of three issuance scenarios – neutral, longer tenors, and shorter tenors. These scenarios were run prior to the announcement of Marketable Borrowing Estimates from July 31, 2023. In all scenarios, T-bill issuance surpasses 20% in the short term, and TIPS issuance falls below 7% in the medium term.

In light of the charge discussion, the Committee then discussed the financing recommendations for the current and subsequent quarters. Even amid modest coupon increases, the T-bill share of outstanding debt is expected to rise above 20%, the top of the Committee's recommended range. Given the evolution of the outlook on financing needs, including the rebuild of the TGA, and the

alternative of rapid meaningful coupon increases, the Committee discussed maintaining T-bill share at a higher level over the medium term. T-bills have proven to be an effective absorber of unexpected issuance needs, and the Committee expects that can continue given current levels of demand. In light of that, the Committee is comfortable running T-bills in the range of their longer-term historical share of 22.4% for some time before returning to the recommended 15-20% range, in order to maintain a regular and predictable approach to increasing coupon issuance.

The Committee then discussed the composition of coupon auction size increases. The group expects all coupon sizes will need to increase, though favored increasing 7- and 20- years somewhat less. While most Committee members favored increases across the curve, some preferred more meaningful increases in the long end. With regard to TIPS, the Committee felt that demand would support $2 billion of increases per auction in intermediate maturities. Nonetheless, Treasury should consider the 7-9% previously recommended range as a flexible one in the medium term, given the scope of overall issuance needed. Over the longer term, further study of options like an adjustment in the TIPS calendar schedule or a new inflation linked product might be valuable to help maintain the TIPS percentage within the recommended range.

The Committee had a robust discussion on the pace of nominal coupon increases. Some committee members were in favor of recommending more meaningful increases in Q4 FY 2023. This would help to lessen the reliance on bills at the margin. Ultimately, the group recommended more modest increases in Q4 FY 2023, as a base upon which to build in Q1 FY 2024. Given the scale of change in forecasted borrowing needs, the Committee expects key debt characteristics will deviate from TBAC recommended ranges. While we see this as necessary, we suggest Treasury take steps to normalize toward these metrics over time.

Of course, given the considerable uncertainty surrounding the economy and projected borrowing needs, Treasury will need to retain flexibility in its approach.

Respectfully,

Deirdre K. Dunn

Chair, Treasury Borrowing Advisory Committee

Colin Teichholtz

Vice Chair, Treasury Borrowing Advisory Committee