# Report to the Secretary of the Treasury from the Treasury Borrowing Advisory Committee of the Securities Industry and Financial Markets Association

May 3, 2017

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Letter to the Secretary

Dear Mr. Secretary:

The pace of economic activity slowed at the start the year, but some pick-up in the second quarter appears likely. Real GDP edged up 0.7% (annual rate) in the first quarter, held back by a slowdown in consumption spending and inventory investment. By contrast, business fixed investment accelerated in the first quarter, and residential investment expanded at a double-digit pace. Smoothing through the volatility, real GDP has expanded 1.9% over the last four quarters.

Since the Committee last met in February, financial markets easily digested the Federal Open Market Committee's (FOMC) second interest rate increase in as many quarters. Markets also digested the Committee's discussion about potentially beginning to gradually shrink later this year or next year its holdings of agency mortgage-backed securities and Treasury securities. Indeed, financial conditions have eased somewhat since the March FOMC meeting. Mortgage rates have edged down, equity prices are higher, and the broad-trade-weighted value of the US dollar has fallen. Financial conditions are expected to remain accommodative in the near term, continuing to support domestic economic activity. Relatively low mortgage rates should support ongoing growth in residential investment, and improved business profits and confidence should bolster nonresidential investment. Household spending is supported by favorable fundamental factors, including healthy balance sheets (helped by equity price gains and house price appreciation), ongoing employment increases, and improving wage prospects. Looking ahead, these factors point to a sturdy backdrop for the ongoing economic expansion.

Real personal consumption expenditures inched up 0.3% in the first quarter, slowing from the brisk fourth-quarter rate of 3.5%. Spending on durable goods slipped with real auto sales to consumers falling. Real services spending growth was quite weak, though that was due in part to unseasonably warm winter weather which reduced utilities consumption. More recent news has been better. In March, retail sales excluding autos, building supplies and gasoline stations rebounded following a weak February that may have reflected the slower pace of federal tax refund payments in the first quarter. In addition, April auto sales appear to have been better than March, according to industry analysts. Altogether, real consumer spending growth is widely expected to improve in the second quarter. Consumer sentiment measures have remained elevated and held on to the gains following the Presidential election. Household balance sheets have been buoyed by rising home prices, the improvement in equity wealth in recent years, and disciplined debt growth. Those strong fundamentals, combined with ongoing gains in employment and wages, suggests household spending will be able to underpin the expansion in the coming quarters.

Business fixed investment is looking better after having been a negative during most of the past two years. In the first quarter, the broad category of nonresidential fixed investment picked up to a 9.4% pace. Equipment investment accelerated further as activity has improved since last summer, and rose at a 9.1% annual rate in the first quarter. Drilling activity has continued to rise as the energy sector recovers from the fall in global oil prices two years ago. Investment in intellectual property is expanding at a moderate rate. Looking forward, orders of nondefense capital goods excluding aircraft have improved further in recent months, and remain above the corresponding shipments, which bodes well for further growth in equipment investment. Separately, residential investment rose 13.7% in the first quarter. Despite the rise in mortgage rates over the last few quarters, housing metrics look generally healthy. Inventory investment, after adding a percentage point to growth in the fourth quarter, subtracted nearly a percentage point in the first quarter. Such a low level of inventory investment is unlikely to repeat in the second quarter, suggesting some positive contribution to second-quarter growth.

Net exports added little to first quarter GDP growth. Looking ahead, net exports seem an unlikely source of material growth for the US economy as the adjustment to the prior appreciation of the US dollar may be a headwind. At the same time, the outlook for global growth, though subdued by historical standards, has largely held up well in recent quarters. Concerns over growth and stability in China have largely abated. Worries surrounding potential populist outcomes in European elections appear to have receded following the outcome of the first round of the presidential elections in France. More generally, European growth has been better than widely expected. Combined, these factors bode well for foreign trade going forward.

Following a year of modest growth, government spending and investment contracted in the first quarter. Defense outlays fell for the second quarter in a row. Nondefense federal spending growth slowed. Spending and investment by state and local governments fell for the third quarter out of the last four, and the high frequency data on construction spending by state and local governments on schools, roads and other infrastructure remains weak. Presumably, the general improvement in municipal finances over the past few years should support some improvement in investment going forward, despite some states and municipalities remaining under pressure and some continuing to struggle with their pension obligations. Plans for federal fiscal policy expansion and lower taxes continue to be debated by elected officials, but market participants remain optimistic that some stimulus may be enacted before the Congressional mid-term elections in 2018.

Above-trend economic growth over the past year has promoted a solid pace of labor market expansion. Nonfarm payroll employment has averaged about 180,000 jobs a month over the most recently reported 12 months. At the same time, the unemployment rate fell to 4.5% in March, and broader measures of labor utilization have moved down to levels consistent with full employment. Wage growth has improved, reflecting a modest acceleration over the last several years.

Consumer price inflation has generally moved higher in recent quarters. Headline personal consumption prices rose 2.0% over the year ended in the first quarter, helped by energy prices recovering from the declines at the beginning of last year. Inflation excluding food and energy fell notably in March, in part due to a huge decline in the quality-adjusted price for wireless phone services. Various measures of the underlying trend in inflation like core prices continue to run somewhat below the target rate of inflation of the FOMC. Survey-based measures of inflation expectations are little changed in recent quarters at the bottom end of their historical range. Market-based measures of inflation compensation have also changed little since the start of the year, although they have improved since last summer.

Federal Reserve officials have suggested that further gradual increases in the target range for the federal funds rate would be appropriate. At its most recent meeting in March, the FOMC raised the target range for the federal funds rate to 0.75% to 1.0%. In the Committee participants' submissions of the appropriate path of policy at that meeting, the median assumed two additional increases in the target range would be appropriate this year should above-trend growth and progress toward sustaining inflation at the 2.0% target continue. Subsequent communications from FOMC members have reiterated that expected stance of policy. In addition, the minutes to the March meeting revealed widespread sentiment among participants to alter the current policy of re-investments later this year. The minutes also revealed sentiment for reducing the holdings over time of both mortgage-backed securities and Treasury securities. In addition, speeches and interviews suggest the Committee intends to minimize the degree of disruption that might be imposed on financial markets as it shrinks its balance sheet over the coming years.

Against this economic backdrop, the Committee reviewed Treasury's May 2017 Quarterly Refunding Presentation to the TBAC. Fiscal year-to-date receipts are $25 billion lower than the same period of the previous year, due mainly to a statutory change in the due date for certain corporate taxes. Fiscal year-to-date Treasury outlays as well as entitlements increased year-over-year.

Based on the Quarterly Borrowing Estimate, Treasury's Office of Fiscal Projections currently projects a net marketable borrowing need of $26 billion for the third quarter of FY 2017, with an end-of-June cash balance of $200 billion. For the fourth quarter of FY 2017, net marketable borrowing need is projected to be $98 billion, with a cash balance of $115 billion at the end of September.

Auction statistics since January were unremarkable as were changes in investor class allotments.

The Committee reviewed the Treasury's cash balance policy in light of prudent risk management goals as well as recent developments related to the debt limit impasse. The current level of coverage since May 2015 has been *in*sufficient to maintain liquidity to withstand a loss of market access for five days approximately 21% of the time. The predominant reason for Treasury missing its five-day liquidity target owed to issues surrounding the debt limit. Prudent risk management warrants a minimum cash balance of $150 billion or five days of outlays. In the Committee's judgement, it would be highly desirable to increase the buffer over time to the Committee's previous recommendation of 10 days of outlays.

The first charge was to discuss the implications for Treasury debt management from the Federal Reserve's potential normalization of its SOMA portfolio.

Although the Federal Open Market Committee hasn't provided precise guidance, the assumption for the sake of illustration is that run-off begins at the start of 2018 and ceases in mid-2020. In addition, future budget deficits are an important variable in Treasury funding irrespective of what the Fed does with its balance sheet. The member showed several alternatives for reducing the Fed's balance sheet as well as different assumptions for the future path of the federal deficit based on the Congressional Budget Office's projections and the low, median and high estimates from the Treasury primary deal survey.

Given these assumptions, the member considered two alternative Treasury financing scenarios: (1) Concentrate extra issuance in the front end of the yield curve (specifically, equal proportion of T-bills, 2-year notes, and 3-year notes); (2) Spread extra issuance across all maturity points in proportion to current issue sizes holding the T-bill share constant at its year-end 2017 value.

Under all the assumptions for the deficit in scenario 1, issuance of 2s and 3s as a share of GDP increases beyond historical ranges by sometime in the next five years.

In the second scenario, 2- and 3-year issuance as a share of GDP remains below their historical maximums. However, 5- and 10-year issuance as a share of GDP increases toward the upper end of their historical range.

Importantly, under the first scenario, the weighted average maturity (WAM) of the debt shrinks notably from nearly 6 years to between 4-1/2 and 5-1/2 years, depending on the assumptions about the deficit. By contrast, in the second scenario, the WAM continues to extend gradually.

The Committee concluded that the financing gap faced by Treasury in coming years is likely to be too large to address with a heavy concentration of front-end issuance. Such a policy would also imply an undesirable decline in the WAM in response to Fed run-off and higher deficits.

Alternatively, spreading issuance across the curve would result in coupon sizes as a share of GDP that are close to peak levels for most maturities, with the exception of 2-year notes which would remain inside their historical range. In this case, the Treasury would maintain a gradual increase in the WAM.

The final part of the charge discussed how to gauge the market impact from these various scenarios. The presenting member used the primary dealer auction survey in order to shed light on the market impact from the various scenarios. A wide-ranging discussion cast doubt on whether the primary dealer survey is well designed to answer this question given that the respondents may not be considering such large increases in overall issuance. The Committee recommended that the Treasury survey primary dealers at the next refunding in order to pin down the market's assumptions about Fed balance sheet run off. The Treasury should then ask the respondents about how Treasury might best increase issuance in light of their assumptions about the Fed's expected balance sheet policy, including potential auction sizes and potential impact on market pricing.

The Committee discussion highlighted that it is simply not a viable strategy to accommodate the magnitude of the potential additional issuance using only front-end instruments. The Fed run-off and potentially higher deficits represent meaningful challenges that would require a sustained shift in borrowing needs to be spread across the curve.

The second charge was to study the potential demand for ultra-long debt (e.g., 50- and 100-year issues).

One of the presenting members began by describing the international experience. Ultra-long sovereign issuance is relatively small globally. The notable exception is the UK, where ultra-longs are a relatively large part of the market. However, the demand in the UK is driven almost entirely by their unique pension regulations.

In terms of the sources of demand, another presenting member showed that foreign demand for ultra-longs is likely to be low. Foreign holdings of Treasuries are predominantly shorter maturity. Long-end Treasuries (25-to-30-year maturities) represent only about 4% of foreign Treasury holdings.

US corporate defined benefit pension plans represent a possible but uncertain source of demand. To help fix ideas, if pension plans were to fully fund and fully match, they would require an additional $2.3 trillion in mostly long duration fixed income. However, the typical corporate DB plan has liability duration of approximately 12 years, with only 10-15% of projected benefits beyond 35 years. Putting the pieces together, the member concluded that pension plans would not be a large or reliable source of demand for ultra-long issuance.

Life and annuity insurance companies are another potential source of demand. However, insurance mandates have a strong preference for corporate credit and spread product. Presently, US government holdings are only 4% of overall holdings. Given their preference for cash flow matching and spread product, insurers would have more demand for 20-year investment grade issues. It was noted that 20-year Treasury issuance would provide a reference bond for corporate issuers who could issue to meet insurance demand. As a result, there would appear to be significant demand from insurers at the 20-year part of the curve for investment grade corporate debt given their desire to match life contingent liability flows.

One ultra-long issue that might be worth investigating further is a zero-coupon ultra (e.g., 50-year STRIPS). This product would provide pensions and insurers a security to maximize duration per unit of portfolio market value. Despite this, there are a number of issues that would need to be addressed, including tax issues, potential complications with the government debt limit, and systems development.

Turning to pricing, the member looked at the spread between 30- and 50-year maturities in other countries. With the exception of the UK where there's captive demand because of pension regulation, other countries see a significant spread between benchmark 30-year issues and ultra-longs.

Finally, the member described a term-structure model that can be used to estimate the fair value of ultra-long maturities. The 50-year bond is estimated to have a 7 basis point higher yield than the 30-year bond. The fitted curve is a hypothetical exercise, and in practice other factors (such as the degree of institutional demand) are likely to affect the yields on these bonds relative to the fitted yield. The member expected Treasury would initially issue at a higher yield than the fitted curve.

The second member presented the findings of a small macroeconomic model to assess the costs and benefits of long-term debt issuance. This continues the preliminary model work described at the previous TBAC meeting. The model is intended to capture the uncertainty in both financing needs and borrowing rates across the yield curve.

The model results do not point to meaningful benefits of long-term debt issuance. The reduction in the variation in debt funding costs from extending to very long maturities is limited. Moreover, if the term premium increases with duration, moving to very long maturities would raise the expected cost to the Treasury. Furthermore, the member highlighted that the WAM is not an adequate measure of funding cost risk in this model.

The third member then turned to potential issuance mechanics. Emphasis was placed on the Treasury's debt management goal to be regular and predictable. In that regard, a Committee participant's survey of market participants did not expect meaningful ultra-long supply. Recent research from the primary dealers in response to Treasury's outreach questioned whether demand would be significant enough or sustainable to meet Treasury's regular and predictable issuance pattern.

In terms of recommendations, the Committee unanimously agreed:

· There is little evidence of strong or sustainable demand for ultra-longs in the US markets.

· However, issuing more longer-term debt could be warranted if Treasury wanted to raise its overall borrowing capacity. Under that objective, Treasury should consider points between 10-

and 30-year benchmarks, such as a return of the 20-year bond, in addition to increased issuance in 10- and 30-years.

· Treasury should study further a zero coupon security and, if demand increases or expected pricing relative to theoretical value improves, 40- or 50-year par bonds. Finally, the 100-year bond is not worth considering.

Respectfully,

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Jason G. Cummins

Chairman

TBAC Recommended Financing Table Q2 and TBAC Recommended Financing Table Q3