



INVESTMENT UPDATE

If you want to buy a Treasury bond, it's a pretty easy thing to do. A call to your broker, or to a bank, and you can be the owner of a Treasury security. You can do it electronically, either through an existing brokerage account, or you can go directly to the Treasury's website, sign up for a new account and buy Treasury securities at one of their frequent auctions with the click of a mouse button. Moreover, you can buy different kinds of Treasuries; the Treasury issues bills with maturities of 12 months or less; notes are issued with maturities from two to ten years; and Treasury bonds are currently issued with maturities of either 10 or 30 years. You can buy Treasury Inflation Protection Securities (TIPS),

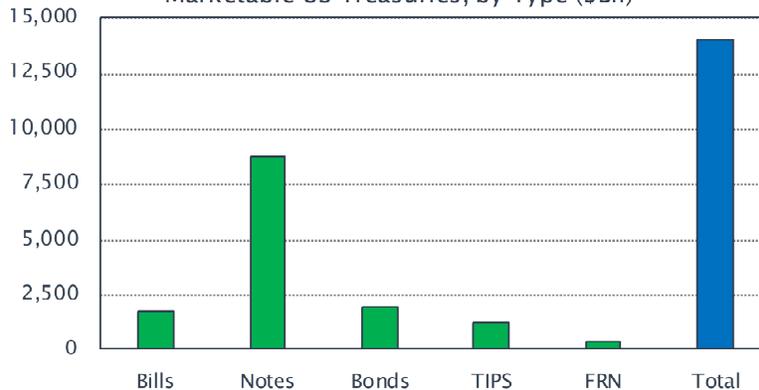
which pay a low coupon, but which compensate the holder by increasing the par value of the bond if inflation rises. Finally, though relatively small, the Treasury has been issuing floating rate notes (FRNs) since 2014. The top chart shows the relative size of each category.

The market for Treasury bonds has never been bigger, with just under \$14 trillion of "marketable" Treasury debt outstanding as of the end of July, bonds that can be bought and sold on the open market. The Treasury has another \$377 billion in non-marketable debt that is held by the public, and an additional \$5.5 trillion in intragovernmental holdings (largely for Social Security, federal employees and military retirement, and medical/hospital trust funds), which is also non-marketable.

As the bottom chart shows, the maturity structure of marketable Treasury debt is "front loaded," that is, tilted towards shorter maturities. This is because, first, the Treasury tends to issue more in the way of short-term debt (there's more aggregate investor demand for short maturities) and, second, as longer term debt

ages, it "rolls down the yield curve" with each passing day; eventually, even 30-year bonds have short maturities. One additional anomaly: beginning in 1998, and for the next four years, the US ran a budget surplus, so the Treasury cut back on issuance and was a net buyer of Treasury securities for those years. Believing that this fiscal conservatism would continue, the Treasury announced in 2001 that it would suspend new auctions of 30-year bonds. However, the Bush tax cuts and increased military spending after 9/11 meant that this policy was reversed after a couple of years, but the result is that there are no outstanding Treasuries that mature between 2033 and 2035.

Marketable US Treasuries, by Type (\$Bil)



The financial crisis had an even bigger impact on the Treasury's budget, with the US hitting a record deficit of \$1.4 trillion in 2009—nearly 10% of our GDP. Treasury issuance exploded over the next few years; it wasn't until 2014 that the US' budget deficit dropped back below 3% of GDP. On a "net" issuance basis (that is,

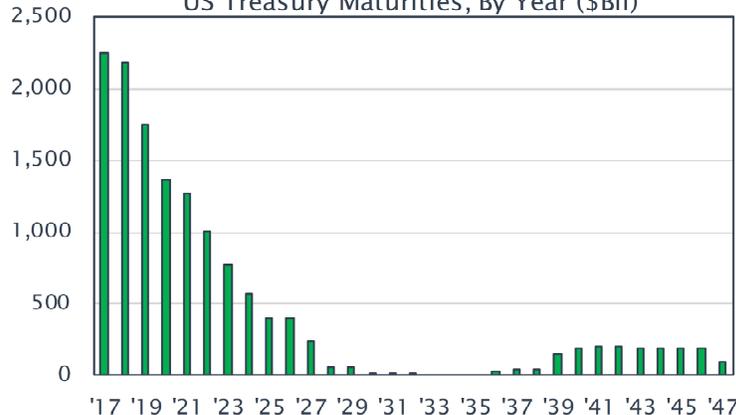
subtracting bonds that are maturing and therefore need to be refunded), Treasury supply has moderated significantly since the early part of the decade, yet remains high by historical

standards (see the top chart on the next page).

Over the past few years, the Federal Reserve has scooped up some of this increased supply in its quantitative easing (QE) programs, which were designed to push bond prices up and interest rates down. The Fed now holds approximately \$2.5 trillion in Treasuries, \$1.5 trillion more than they had before the financial crisis. After keeping

its holdings at this higher level for the past three years, the Fed has now decided to, as part of its normalization of monetary policy, begin shrinking its investment portfolio. At their July meeting the Fed announced that it will begin to allow

US Treasury Maturities, By Year (\$Bil)



some of its holdings to mature “relatively soon,” and even provided a timetable (subject to revision, obviously) of how these rolls-offs will accelerate over the next few quarters. As a result, bond investors are wondering what the Fed’s deliberate shrinking of its balance sheet will mean for bond prices going forward. After all, it stands to reason that if the QE programs were successful in bringing interest rates down after the financial crisis, they might rise when the market is forced to absorb the additional supply that’s not being bought by the Fed.

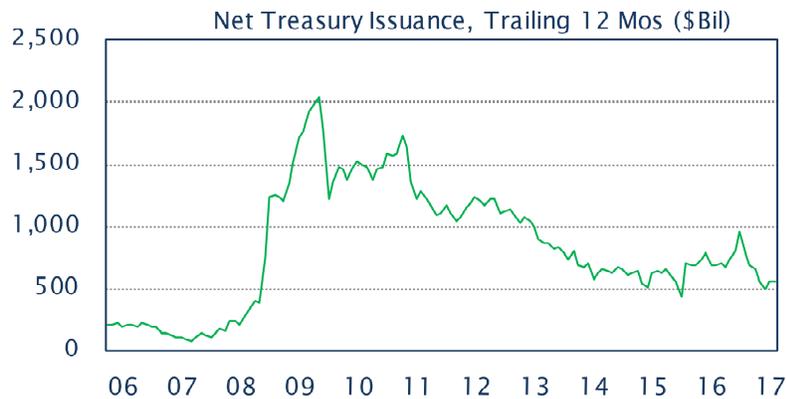
Of course, the Fed hasn’t acted alone in pursuing QE strategies, as every other major central bank has implemented its own bond-buying program over recent years to stimulate economic growth. The European Central Bank (ECB) and the Bank of Japan (BOJ) are still buying bonds at an annual rate of approximately \$500 billion and \$1 trillion, respectively, and are just now beginning to consider when to “taper” their purchases. Obviously, they are a few years behind us in this regard.

Back to the question of “How much will rates rise when the Fed stops reinvesting?” The true answer is that nobody knows for sure. But that has not stopped the Fed’s Treasury Borrowing Advisory Committee (TBAC) from rendering an opinion. In a release earlier this month the TBAC estimated that the “term premium” on 10-year Treasury notes would eventually rise by 40 basis points (0.40%) as a result of balance sheet normalization.

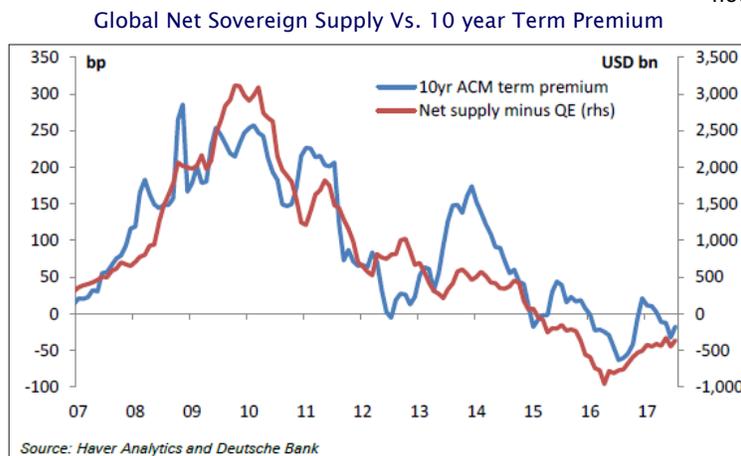
The term premium, in case you were wondering, is the amount of yield compensation investors demand when faced with the decision whether to buy longer-maturity Treasury bonds (compared to shorter, less-risky bonds) that has been affected by QE. In other words, longer Treasury yields have been driven lower by the Fed’s buying program, simply due to the impact on the supply-demand equation; the degree of “flattening” the Treasury yield curve has experienced in recent years due strictly to QE is the term premium.

As mentioned above, the US and its major trading partners have been running significant budget deficits since the financial cri-

sis, yet the net new issuance of government debt has flattened out both here and worldwide over the past couple of years. In fact, QE asset purchases in Japan and Europe (not to mention China) currently exceed net new sovereign bond issuance, as shown in the bottom chart. (courtesy of Deutsche Bank). We see that there has been a strong relationship between the net new issuance of sovereign debt, less QE purchases, and the term premium that the Fed’s TBAC referred to. This makes intuitive sense: To the extent that QE programs offset or exceed the net new issuance of government debt from these countries, there will be a measurable impact on the yields—and the term premia—of the debt of those countries.



\$800 billion in Treasuries for investors to absorb. If two-thirds of that increase was in coupon-bearing securities (i.e., Treasury notes and bonds), their analysis showed that that \$530 bil-



Deutsche Bank performed a statistical analysis on this relationship and found a “net supply” coefficient of 0.075. Assuming that the Fed were to reduce its Treasury holdings from \$2.5 trillion to \$1.7 trillion (a reasonable assumption), there would be net new issuance of \$800 billion in Treasuries for investors to absorb. If two-thirds of that increase was in coupon-bearing securities (i.e., Treasury notes and bonds), their analysis showed that that \$530 billion increase in net issuance multiplied by the 0.075 coefficient would translate into an increase in the term premium for Treasuries of... wait for it...40 basis points, the same figure that the TBAC estimated.

Investors probably won’t have to prepare for the estimated 40 basis points of yield increases any time soon, as the Fed’s own

schedule of portfolio normalization starts off relatively slowly, only allowing \$180 billion to roll off in the first year. That translates (using the same methodology as above) in an increase in the term premium of only 9 basis points in the first 12 months. The \$800 billion of balance sheet shrinkage will take nearly three years, using the Fed’s schedule.

Bottom line: There’s no reason for investors to dump Treasuries for fear of what happens when the Fed starts to shrink its balance sheet. It’s nearly certain that the Federal Reserve, and its foreign counterparts, still have plenty of mid-course corrections ahead in their collective pursuit of policy normalization.