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AMID SURGING SUPPLY OF U.S. TREASURIES, CAN DEMAND HOLD UP?

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Amid Surging Supply of U.S. Treasuries, Can Demand Hold Up?

In March 2009, we cautioned that the then-historically low rates on U.S. Treasury securities were unsustainable in light of future borrowing needs and longer-term inflationary threats.¹ With yields on ten-year Treasuries below 3% at the time, we suggested investors shorten the duration of their deflation hedges by rotating a portion of their Treasury bond portfolio into shorter-term notes and cash. Further, we suggested considering inflation-linked bonds that included a principal guarantee at maturity (such as Treasury Inflation-Protected Securities [TIPS]) as part of a *deflation*-hedging portfolio, given their potential to protect against both deflation and inflation. Since that time, yields on longer-term U.S. Treasuries have risen significantly, and investors have gained more visibility on the macroeconomic front. Yet as relieved as investors should be that a Great Depression redux has been avoided, the outlook for bonds remains highly uncertain.

Bond bears point to further expected supply and the likelihood of higher interest rates as reasons to avoid U.S. government debt. Bond bulls point to economic uncertainty and lackluster data, particularly on the employment and production fronts, as reasons that inflation and interest rates will stay low and Treasuries will hold their value. The winner of this argument is far from clear, and the potential for volatility is growing. Further confusing the outlook for bonds is the impact of massive Federal Reserve purchases of Treasury debt, which concluded in October.

This commentary assesses recent supply and demand pressures for U.S. Treasury issuance and reviews some possible effects on interest rates. Given that we have now had a number of months to review the impact of increased government borrowing, we conclude with an update to our March advice. In our view, the current pricing of U.S. Treasury securities remains unattractive from a risk-reward perspective. At the same time, the risk of further economic stagnation and the challenges associated with ongoing deleveraging require that investors maintain protection against a deflationary bust by holding Treasuries. Investors must balance this need against the risk of rising rates. Although some of the risks to demand highlighted by analysts are not as great as they appear, higher rates in 2010 remain a distinct possibility given massive expected U.S. Treasury issuance, particularly should the economy expand. The Treasury is taking some steps to boost demand, such as offering longer-duration bonds and attempting to keep the interest rate curve steep, which increases the relative attractiveness of its long-term debt. However, with a best-case scenario of another \$1.2 trillion of issuance, there is little margin for error.

Soaring Treasury Issuance

Net issuance of U.S. Treasury securities soared to \$1.8 trillion during the fiscal year ending September 30, 2009 (Table A), a 125% increase on 2008's net borrowing and a 1,100% increase compared with 2007. These numbers represent massive increases from issuance earlier this decade, as annual volumes averaged less than \$200 billion until the end of 2008. There is now more than \$7 trillion of Treasury debt outstanding, and the outlook for supply is robust. Estimates of net issuance in 2010 range from \$1.2 trillion

¹ See our March 2009 Market Commentary *The Trouble With Treasuries*.

to \$1.8 trillion, boosted by the administration's desire to battle the ongoing economic recession with extraordinary levels of fiscal stimulus.

As we assess the market for U.S. Treasuries and the impact of increased supply, it is important to consider as well the growth in sovereign debt outside of the United States. The global debt markets are becoming increasingly crowded with sovereign issuance as governments around the world struggle to balance budgets amid a weak recovery. According to the International Monetary Fund, Europe and Japan are expected to issue a combined \$1.4 trillion of sovereign debt in 2009, more than a 100% increase from 2008's \$686 billion (Table B). Investors will have a surplus of highly rated government debt from which to choose in 2010.

Foreign Demand for U.S. Debt: Stalling?

Foreign investors, such as central banks, own \$3.5 trillion of U.S. Treasuries (Table C), more than half of existing supply. The largest foreign holders are China (\$799 billion) and Japan (\$751 billion), with European and Middle Eastern investors also owning sizable slugs of Treasuries. These investors have purchased more than 90% of new issuance over the last decade, and have supported the market in recent quarters by dramatically boosting the scale of their purchases while issuance ramped up. In 2008 foreign investors bought \$730 billion of Treasuries (Table D), more than double any previous 12-month purchase. Demand has also been strong in 2009, with \$273 billion in purchases during the first six months. Despite the attraction of the perceived low risk of default and liquidity of U.S. Treasuries, it remains to be seen whether the recent pace of foreign purchases is sustainable.

This is especially true for countries that peg, or attempt to manage the value of their currencies relative to the U.S. dollar. Should a foreign central bank (such as China) switch from a pegged currency to one that is allowed to appreciate against the dollar, it would drastically reduce the amount of U.S. dollars needed to recycle into Treasuries. Central banks manage their currencies by purchasing U.S. dollars from local export companies and giving fixed amounts of local currency in exchange. These dollars are then invested in US\$ assets, mainly Treasury and Agency securities, building large foreign exchange reserves. Historically foreign governments have found the choice between additional purchases of Treasuries and diversification of foreign currency reserves, which could undermine the value of current holdings, an easy one to make.

Today, however, foreign central banks might be motivated to reduce holdings, or at least slow purchases, as they have voiced discomfort with the concentration of U.S. dollars in their foreign currency reserves and are increasingly looking to diversify holdings. These concerns are growing, as a weak U.S. dollar and the potential for higher U.S. interest rates threaten to devalue existing reserve holdings. Some foreign central banks have already started to pull back—China purchased just \$49 billion of Treasuries during the first six months of 2009, well below the \$192 billion it purchased during the second half of 2008. Others have shifted from longer-duration Treasury securities to Treasury bills. However, for any central bank with large existing holdings, further purchases also serve to protect the value of existing investments. The

performance of U.S. Treasury securities during the financial crisis has reinforced their preferred status as a store of foreign exchange reserves.

The good news for the U.S. government is that while foreign central banks face significant risks from their concentrated holdings of Treasury securities, their ability to address those risks in a timely manner is limited. Central banks are gradualists by nature, and they often lack suitable alternatives for their foreign currency investments.² Given their existing Treasury holdings, foreign central banks will be hesitant to take actions that might drive prices lower.

Domestic Demand for Treasuries: Volatile

Domestic investors own almost 50% of outstanding Treasury debt but had made limited incremental purchases in recent years. This trend reversed dramatically in 2008 (Table D), as domestic demand exceeded foreign demand for the first time this decade. Increased domestic demand has come from a variety of players, including households, financial institutions, mutual funds, and the Federal Reserve Bank (Fed), although such demand has been volatile. For example, households were absent in 2008, only to re-emerge in 2009, while broker-dealers supported the market last year but were nowhere to be found more recently. The balance sheets of domestic investors suggest further capacity for investment, as high as up to \$1.2 trillion, based on historical holdings of households and banks. However, as shown by the recent fluctuations in purchases, there are a number of considerations that investors will weigh, creating challenges for the Treasury in terms of maximizing investor participation.

U.S. households³ made limited *direct* purchases of Treasuries in 2008, though mutual funds purchased \$406 billion of Treasuries last year. During first quarter 2009, direct purchases soared to \$330 billion, as investors fled the stock market and parked assets directly in Treasuries. As of mid-year 2009, households owned \$606 billion of Treasuries, over 10% of outstanding issuance and 1.4% of their total net worth. Given that U.S. households have allocated about 2.5% of assets on average to Treasuries since the mid-1970s (Table E), there seems to be some scope to increase holdings. At current levels of net worth, households would have to increase holdings by about \$500 billion to reach historical allocations of 2.5%.

But will they? As markets recovered during second quarter 2009, households bought just \$30 billion of Treasuries, a greater than 90% decline from the first quarter. Households have demonstrated strong demand for fixed income mutual funds in 2009, but most of these investments have flowed into corporate credit. Absent another sell-off in risk markets, the momentum behind household Treasury demand seems to have disappeared.

² Though the recent demand for gold suggests this may be changing.

³ Households, as defined by the Federal Reserve Bank “flow of funds” data, is a residual category that includes retail investors, hedge funds, endowments, and other financial investors not falling into other categories.

Depository institutions⁴ were net sellers of U.S. Treasuries in 2008, and they have made only limited purchases in 2009. However, they have historically been more supportive of the market, raising hopes that their involvement may increase. Current holdings of \$126 billion equate to around 1% of total assets, while the historical average is closer to 6%. With \$12 trillion of assets, potential demand appears sizable, as an increase to the average allocation would equate to an additional \$700 billion invested in Treasuries. However, banks have much larger allocations to Agency debt than to Treasuries, as they have used Agency debt as a proxy for Treasuries in recent years due to their yield pickup, limiting the appetite for Treasuries. This trend accelerated from fourth quarter 2008, as banks correctly assumed that planned government purchases of Agency securities would boost their values. As the impact of these programs fades, it may create some incremental demand from banks for Treasuries. However, whether overall appetite for highly rated government debt will increase is an open question. The interest rate carry trade is an important motivator for financials, but a steep interest curve thus far has had a limited impact on demand.

The final categories of investors that have shown significant increases in demand for Treasury securities are mutual funds and the Federal Reserve Bank itself. Extrapolating demand from these buyers is difficult. Mutual fund purchases of Treasuries were \$400 billion in 2008, driven largely by the appetite of risk-averse investors that moved assets into money market funds. However, during the course of 2009, money market fund holdings of Treasury bills have shrunk sharply, as investors have redeemed \$500 billion from money market mutual funds and switched to higher-yielding assets.

Finally, the Federal Reserve has thus far purchased nearly \$300 billion of existing Treasury securities, including \$180 billion during the first half of 2009. As the purchase program just concluded in October, it is far from clear which group of investors will step forward to fill this imminent gap.

Building Demand for Treasuries: What Else Can the Government Do?

The competing interests of investors such as central banks, retail investors, and commercial banks highlight the challenges the government faces when determining the appropriate issuance and interest rate policies for 2010. For example, commercial bank interest may be boosted by a steeper interest rate curve, which could in turn reduce interest from investors in money market mutual funds, as short-term yields would be less attractive on a relative basis. Foreign central banks would prefer that yields of longer-term securities remain low to preserve the value of existing holdings, but higher policy rates might increase the value of the U.S. dollar. Some decisions will be more straightforward, such as the interest of the Treasury in responding to demand from the market for longer-dated and inflation-linked securities.

Analysts have speculated that one way the Fed will increase demand for Treasuries is by changing regulatory requirements for banks. The Fed could raise capital requirements for banks (with surplus funds subsequently invested in Treasuries) or increase the amount of liquid assets (such as Treasuries) that banks

⁴ Depositor institutions is a Fed “flow of funds” category that includes commercial banks, savings institutions, and credit unions.

are required to hold. Some of this speculation seems unjustified given that U.S. banks already hold higher levels of liquid assets on their balance sheets than some international peers. In fact, the capacity for Eurozone financials to boost holdings of Eurozone government debt is one positive factor that limits the threat of increased global sovereign supply to the Treasury market.

At least in the short term, the government seems inclined to use a steep interest rate curve to try to lure buyers such as financial institutions. The government is attempting to influence the shape of the curve through both the Fed's setting of short-term target rates and the Treasury's borrowing policy. The Treasury has recently announced it will decrease the supply of short-term Treasury bills and increase the supply of longer-term notes, as well as increase the average maturity of its outstanding debt to more than six years. As part of this strategy, the government will also increase the issuance of longer-dated TIPS. The implementation of this policy has been underway for several months, as the net supply of Treasury bills since the second quarter has been negative. This is one factor that has helped to keep short-term interest rates low, along with the tendency of investors such as banks and hedge funds in recent weeks to "take chips off the table" as fiscal year-end periods approach and park cash in safe assets such as Treasury bills.⁵ Reducing short-term issuance will also bring benefits to the government by increasing short-term borrowing capacity, giving the Treasury flexibility to fund unexpected shortfalls, albeit at the cost of higher interest expense for longer-term issuance (particularly given the current steepness of the yield curve). It will also help the Treasury lock in what are historically low interest rates, though this has been given less publicity.

What Does All This Mean for Interest Rates?

In our March commentary, we pointed out that despite the intuition that greater supply leads to higher yields, evidence shows us this is not necessarily the case. One reason is that issuance increases during times of economic distress, which is when Treasury bonds benefit from a flight to quality. This was also true during the recent crisis, as interest rates declined for much of 2008 despite record issuance.

Increased Treasury supply and expectations of a global economic rebound are causing economic forecasters to predict higher interest rates in 2010; however, bullish forecasters are looking for higher rates amid GDP growth and modestly rising inflation, while bearish analysts expect interest rates to fall from the weight of sluggish U.S. growth, excess capacity, and unemployment.

For bond investors undecided about the prospects for growth, the recent surge in supply and question marks over who will purchase continued issuance may suggest that interest rates are set to increase. While bond bulls are comforted by the *possibility* of a double-dip recession and the *likelihood* of continued high unemployment and lingering deflation, several factors could combine to push rates gradually or sharply higher in 2010. These factors include skittish foreign central banks, return-seeking domestic investors, and the threat of significant global sovereign issuance. But as we noted earlier, these concerns are not the only

⁵ See Emily Barrett, "Negative Rates, but Panic Is Gone," *The Wall Street Journal*, November 20, 2009.

ones for bond investors—the unwinding of the government’s massive debt purchase program could have broad impacts as well.

Conclusion

The withdrawal of the Fed as an important marginal source of demand for Treasuries in 2009 has raised the stakes for other investors, just as their demand appears to be waning. The Fed has purchased \$300 billion of Treasuries in 2009, an amount that equates to more than 15% of fiscal 2009 issuance. Foreign central banks are likely suffering some indigestion after their record purchases, and there is also the sticky issue of their interest in diversifying reserve holdings. Can domestic investors pick up the slack? Unfortunately, their track record is a bit patchy. In a certain sense the market is self-regulating, since if the risk markets dip sharply again next year and the government needs to increase borrowing, it will likely find receptive demand as investors flee to safety. Conversely, if the market quickly rebounds, domestic investors will show less interest, but the government has less need to borrow. The problem is that the most likely scenario is of subdued growth and huge Treasury supply. If these factors are combined with a continued investor risk appetite, either higher interest rates will be needed to entice investors or the Fed will need to continue its purchases to constrain rates.

What are bond investors to do given these developments? The cessation of Fed purchases poses the risk of higher interest rates across the curve, with an increased supply of longer-duration Treasuries specifically putting pressure on longer-term interest rates. However, deflation also remains a possibility, given continued high levels of indebtedness, unemployment, and excess capacity. Further, Treasuries would benefit from another bout of risk aversion, which would be likely should earnings or economic news disappoint increasingly high expectations.

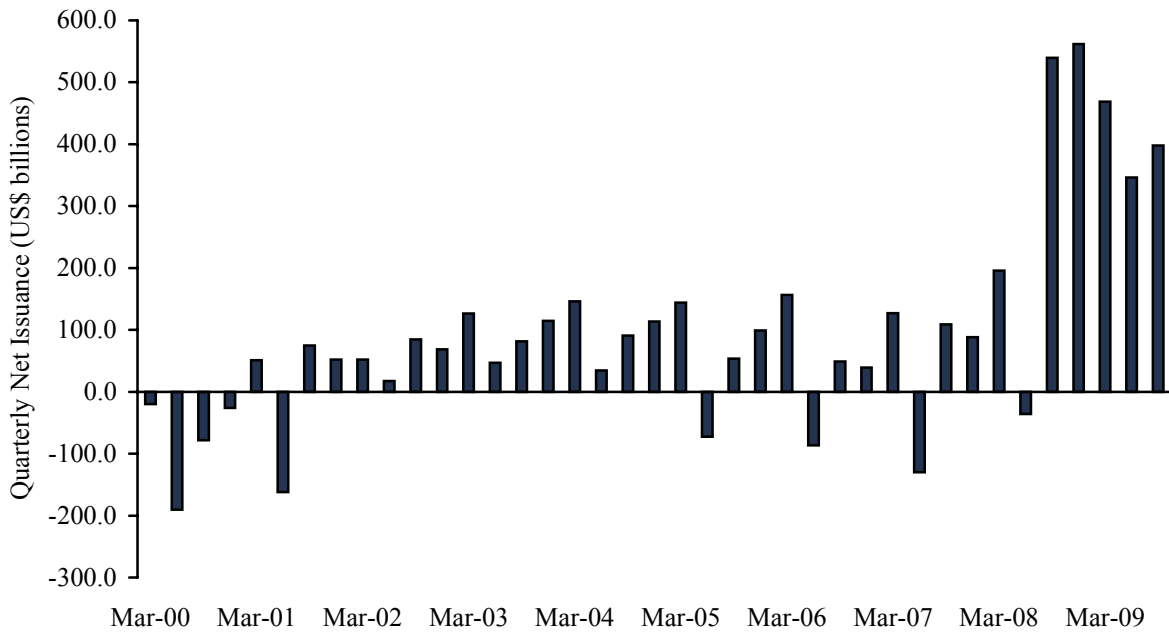
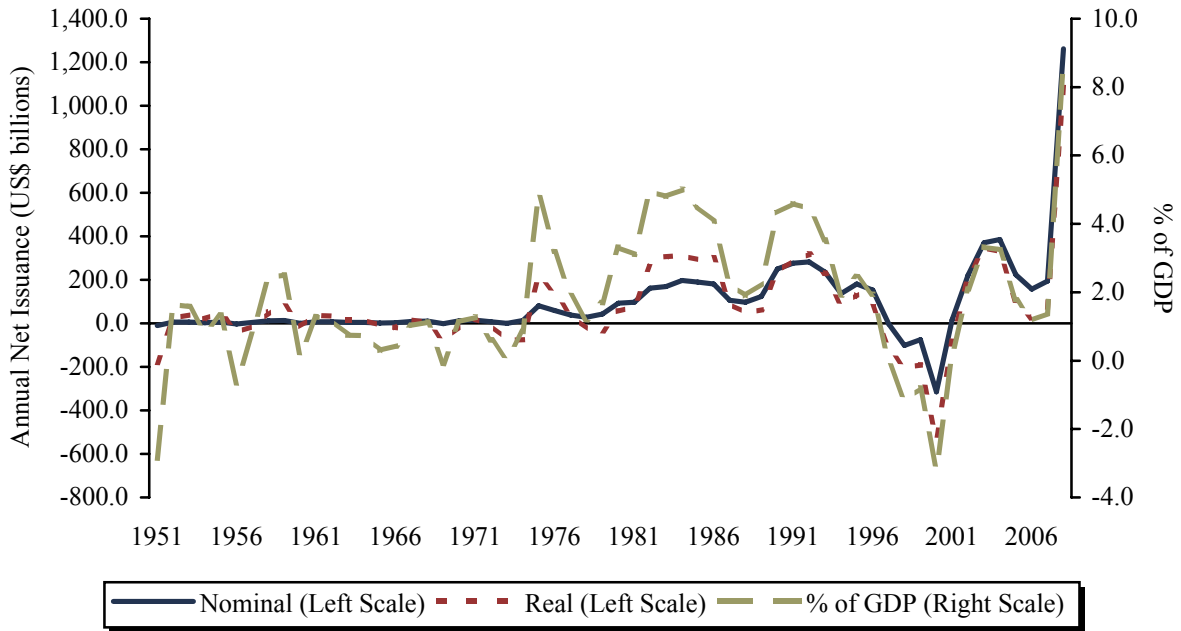
We continue to believe investors should hold high-quality, noncallable bonds to support necessary spending in the event of a protracted deflation. Traditionally, we stressed that this bond portfolio should have an intermediate-to-long duration. We modified this advice early this year given the very low level of interest rates, expressing in March a preference for shorter-duration bonds given the asymmetrical return profile. While the yield of the ten-year Treasury is slightly above 3% today, our concern lingers, and we believe a shorter-duration posture balances the need for deflationary cover with the real risk of rising rates.⁶ TIPS also still have a role to play, as a high-quality asset that should hold much of its value in deflation⁷ and provide a hedge against inflation.

⁶ That said, given two bond portfolios of equal size and differing durations, the shorter-duration portfolio will likely provide less spending support to an equity-oriented asset pool in a malign deflation.

⁷ TIPS have a “deflation floor” such that investors will at least receive *par* value at maturity, even if the period of the bond’s life is deflationary. TIPS are less liquid than nominal Treasuries, however, and may underperform nominals in a deflationary rout, particularly if the initial price of the TIPS is well above the “deflation floor” of its par value. Please see our November 2008 Market Commentary *Inflation-Linked Bonds in a Deflationary Environment* for more on the topic.

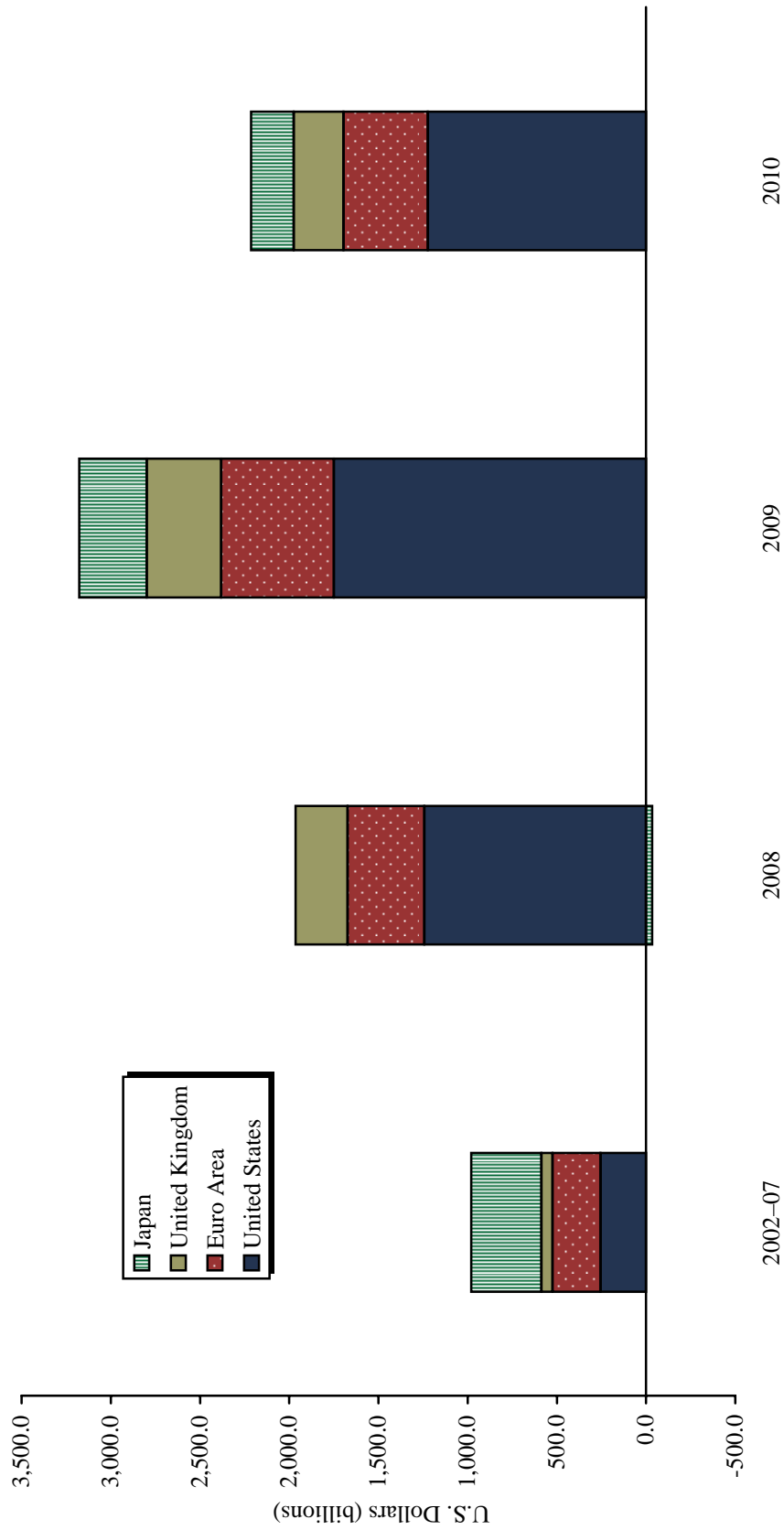
Table A
NET ISSUANCE OF U.S. TREASURIES

As of September 30, 2009



Sources: Federal Reserve and Thomson Datastream.

Table B
NET SOVEREIGN DEBT ISSUANCE
As of September 30, 2009

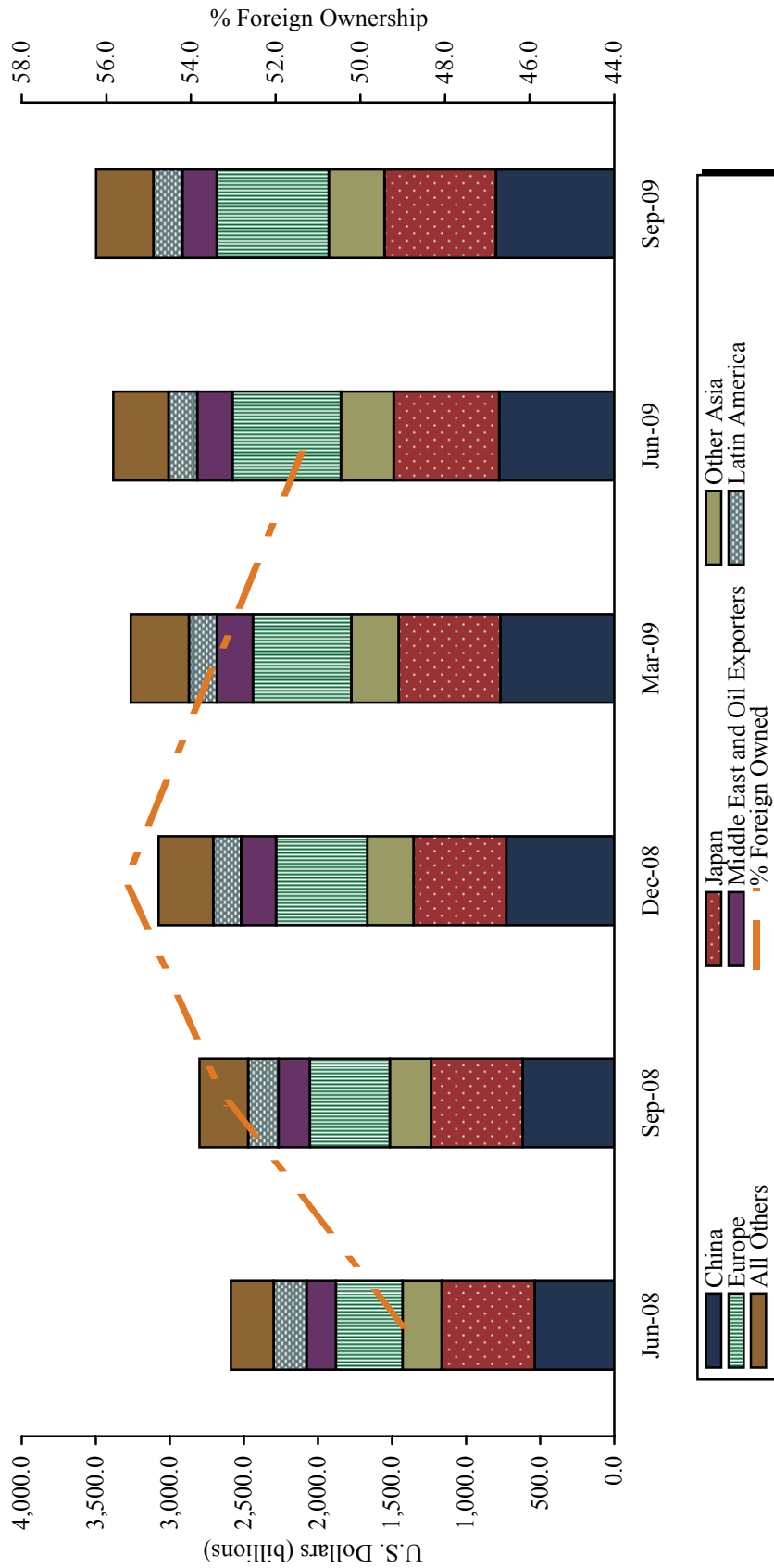


Source: International Monetary Fund.

Notes: Data from 2002 to 2007 represent the average annual net issuance. Data for 2009 and 2010 are projections.

Table C
FOREIGN OWNERSHIP OF TREASURIES

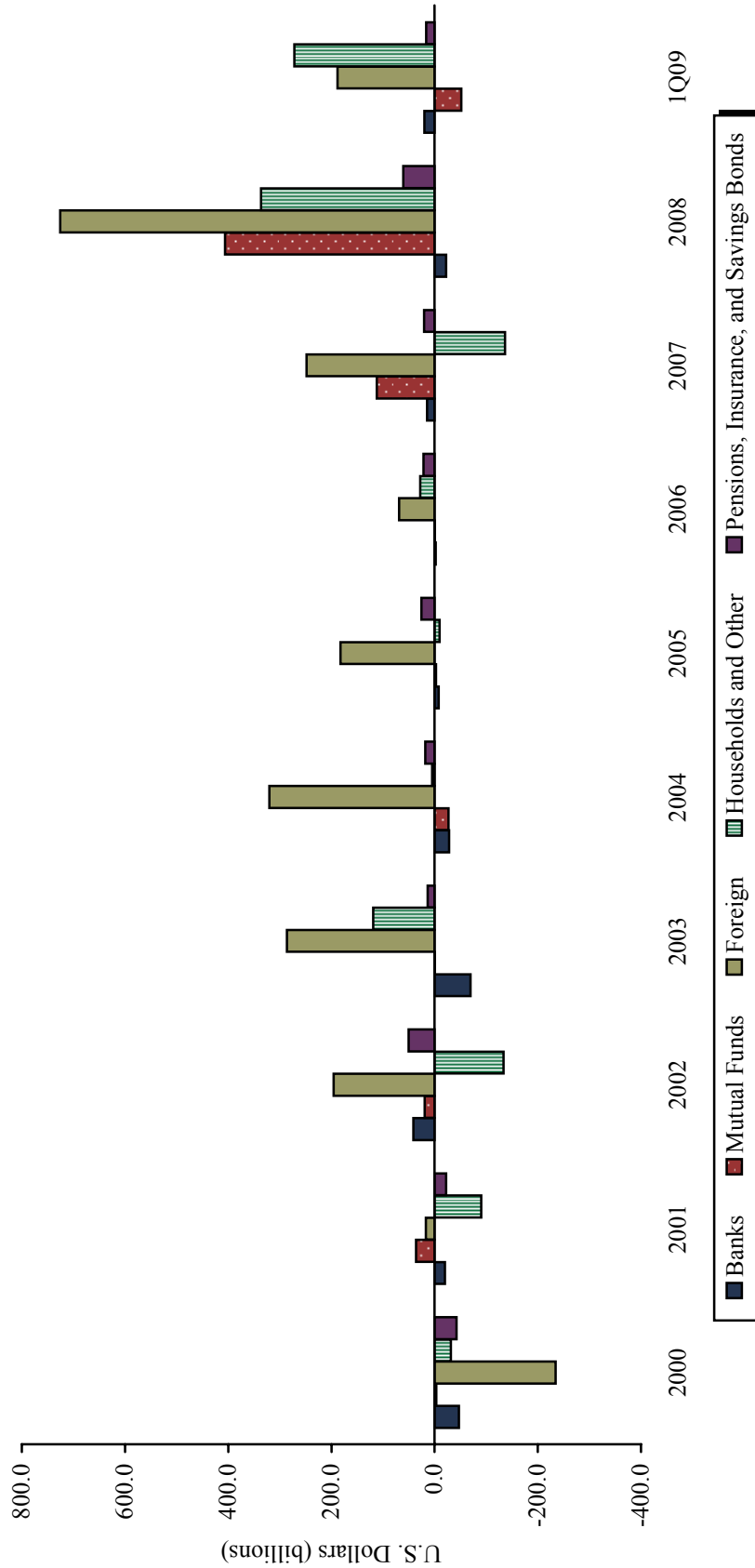
As of September 30, 2009



Sources: Federal Reserve and U.S. Department of Treasury.

Notes: Oil exporters includes Gulf-based and African nations. Russia and Norway are included in Europe rather than in oil exporters. Data for percentage of foreign owned are through June 30, 2009.

Table D
CHANGE IN OWNERSHIP OF U.S. TREASURIES BY INVESTOR TYPE
As of March 31, 2009



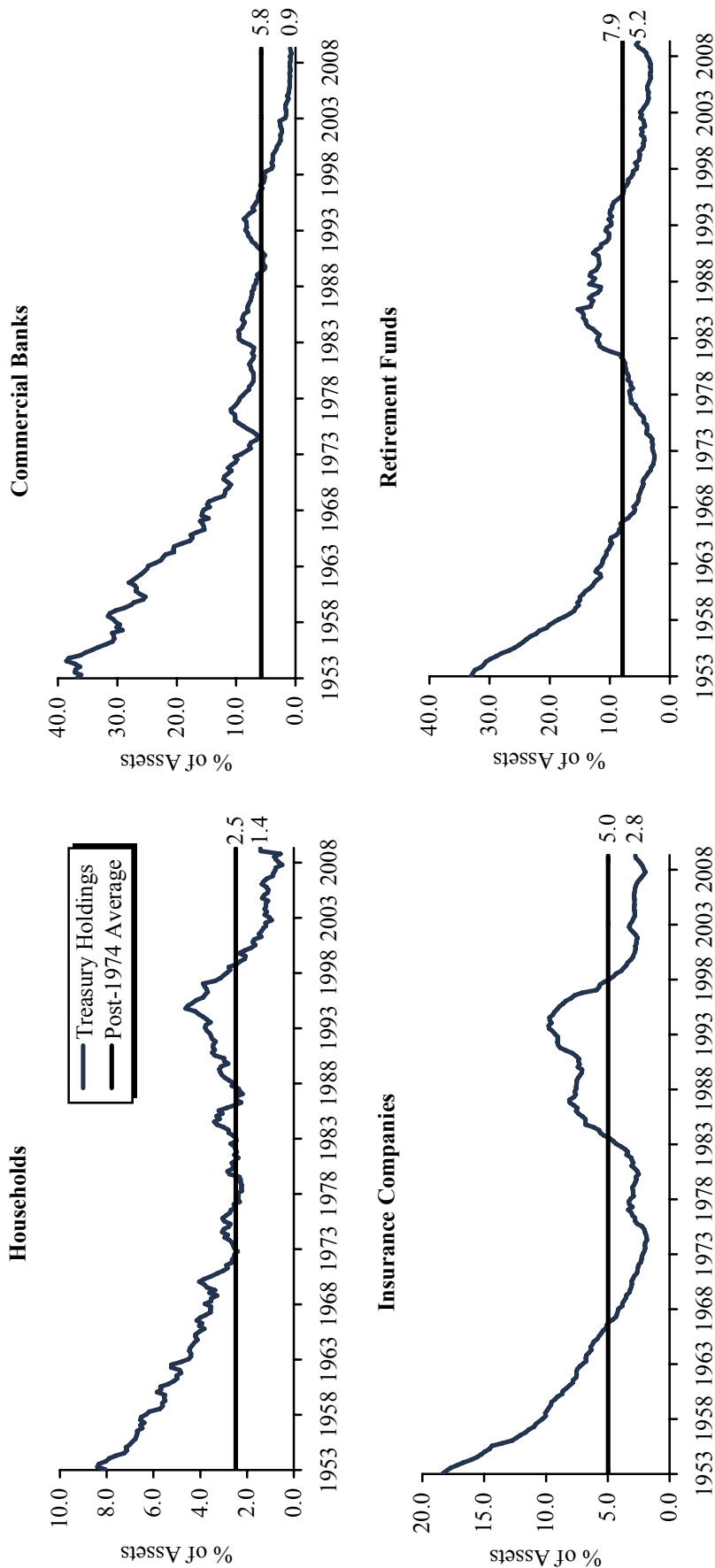
Source: U.S. Department of Treasury.

Notes: The households and other category is a residual that includes nonprofits and all other groups that have not been specifically enumerated. Pensions includes private pensions and those for state and local government employees.

Table E

TREASURY HOLDINGS AS A PERCENTAGE OF FINANCIAL ASSETS

First Quarter 1953 – Second Quarter 2009



Sources: Federal Reserve and Thomson Datastream.

Notes: Data are quarterly. All data are expressed as a percentage of financial assets. All averages are based on data post-1974. Household data include nonprofits. Retirement funds include private pension funds and state and local funds.