

# Life Without Treasury Securities

PORTFOLIO MANAGEMENT AND THE NATURE OF FINANCIAL CRISES WOULD BE PROFOUNDLY DIFFERENT.

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*The U.S. Treasury debt may soon be paid off. However, Treasury securities perform vital and difficult-to-replace roles: as riskless assets in portfolios; benchmarks in the pricing of private securities; reliable hedges for marketmakers in debt securities and derivatives; safe havens for funds; and, as was formerly the case with gold, the chief international money. If and when Treasury debt is paid off, the loss of Treasuries in these roles means that securities markets will shrink, while banking-type intermediaries gain. The perceived probability of governmental bail-out for various kinds of debt in case of trouble will determine winners and losers among candidates for replacements, with foreign central banks making the pivotal choices. Retirement of Treasuries—especially short-term bills—is monetary destruction. What instruments take their place and how completely and smoothly, will have profound worldwide repercussions. Thus, the U.S. Treasury should maintain some debt, despite the budget surplus.*

**D**uring the year 2013, according to the new Federal Budget, the U.S. Government will have retired the public debt. The privately owned and marketable debt—which excludes obligations that are nonmarketable or owned by official institutions (including the Federal Reserve and foreign central banks)—could be extinguished much sooner.

These predictions, of course, are to be taken with a grain of salt. In addition, technical measures are afoot to enhance the tradability of whatever marketable debt remains at any time—to try to make it seem larger. All the same, a meaningful reduction in the privately-held marketable debt is well under way, from a peak of \$2.6 trillion three years ago to about \$2.1 trillion currently, and perhaps \$1.9 trillion by year end. Already the shrinkage in long-term bond issuance has seriously disrupted the bond market, enough to make headlines in the popular press. A bit of conjecture seems justified, therefore, as to how a financial universe lacking a reliably vast stock of easily-traded “Treasuries” might differ from the one to which we have become accustomed.

The existence of a huge and actively traded federal debt has profoundly influenced not merely the shape of our securities markets, but of our entire financial and monetary system. As is beginning to be appreciated, even a substantial slowing in rollover issuance, not to speak of a major reduction in the amount outstanding, causes a major change in the financial landscape. Although the market will adapt or develop other instruments to substitute for Treasuries, financial life will be different. The changes will include greater riskiness of the credit structure, an economy more vulnerable to financial panic, and

Paper prepared for a conference of the Eastern Economic Association, March 24, 2000.

a reduced role for securities markets in favor of giant financial intermediaries.

Treasury securities and their market have developed into an important public good. Their atrophy has costs that ought to be reckoned, regardless of how large the net benefit from the retirement of the national debt. There may even be a case for expedients that would preserve the debt in the face of budget surpluses.

### The Benchmark Role

Let me deal first with some of the more direct consequences of Treasury debt retirement, before moving on to more complex issues of monetary and financial structure. Much financial market theory and practice pivots on the concept of a “riskless” or “least risky” asset. While the theory does not need to specify this asset, as a practical matter everyone around the world—professors as well as practitioners—has long identified the concept with Treasury securities, which are regarded as free of default risk. Short-term Treasuries are also essentially free of price risk. Indexed Treasury securities are free even of inflation risk, making them a safer store of value than money. (There are also a few special issues to foreign monetary authorities that are guaranteed against exchange risk.) In reality, of course, there can be no truly riskless asset—death and taxes remain the only certainties vouchsafed to human beings. Nevertheless, the existence of a huge and liquid stock of Treasury obligations has given a practical anchor to both the market and the academic concept of a riskless asset. The riskiness of other assets is calibrated by the extra yield they must offer relative to Treasuries. How is this benchmark role to be filled when and if Treasuries are gone?

### Disrupting the Risk-Reward Structure

Trading in Treasury obligations is huge. Transactions volume at the thirty primary dealers reporting such data (out of some 2000 firms registered in the business) has been running at about \$190 billion daily, dwarfing other securities markets. Volume is also large in the Treasury options and futures markets. For all the major securities dealers and many smaller ones, the government securities business and related customer relationships constitute an integral part of their core operation. The steady flow of new issues and secondary market trading has provided a more or less assured earnings base at relatively low risk. The risk is low because of the clear understanding that, for the sake of the Treasury as well as the entire financial system, the Federal Reserve must and will backstop the

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market in time of turmoil.

In response, large amounts of capital have been attracted into the investment banking business. The most prominent investment banks are the major government securities dealers, and vice versa. Retirement of the debt would erase these earnings, as well as, perhaps even more importantly, attenuate the risk-reducing relationship with the Federal Reserve.<sup>1</sup> The upheaval in the risk-reward structure of investment banking implies major alterations in how and at what cost the industry renders its services.

As the Treasury market shrinks, at least some of the capital invested in its operation is being withdrawn from securities trading. The thirty (reporting) dealers that the Federal Reserve currently admits as counterparties in its open-market operations numbered forty-six about a decade ago, and observers expect more to drop out soon. Market making in other than Treasury bonds is much more expensive and risky. Corporate bond issues are smaller, less widely held, and trade much less frequently. Every issuer is subject to idiosyncratic changes in its individual credit rating and that of its industry, as will become more apparent when stock prices and corporate profits are less robust. Anticipating or even keeping up with such changes requires a significant research effort. It is not clear whether investment banking firms will consider the game worth the candle.

### Impact on Hedging Activity

More broadly, Treasury securities and their futures and option markets play an important role in the hedging activities that underpin the enormous variety and volume of derivatives activity. Whether any market, even yesterday's Treasury market, can handle the transactions surges generated by “dynamic hedging” in times of stress may be questioned. Such concerns are underlined by the chaotic reaction of the Treasury market recently, when it belatedly recognized that shrunken issuance had destroyed the benchmark usefulness of the 30-year bond. As Treasury securities quickly lose their “numeraire” status at progressively shorter maturities, such doubts will multiply.

<sup>1</sup>The Federal Reserve itself will have to change its open-market techniques for adding or withdrawing bank reserves, but there are many ways to accomplish this. Central banks in countries without broad markets in government debt manage very well.

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Market makers rely on Treasury obligations to hedge a great variety of transactions and positions. Dealers have been net short Treasury coupon issues most of the time. In mid-January 2000, reporting dealers were net short (i.e., had borrowed and sold) \$77 billion of Treasury coupon issues, \$33.6 billion of this in over-five-year obligations. Presumably, many or most of these short sales were meant to balance related long positions in corporate, agency, and other debt. What market is going to offer comparable depth? Without Treasuries, it is questionable whether derivatives activity in general, and the volume and profit it generates, can be maintained to the present extent.

Insofar as finance theory is concerned, the growing scarcity and eventual disappearance of Treasuries will upset many formal and empirical models structured around the Treasury bill rate as a riskless anchor. In a formal sense, of course, the theory refers to some notional riskless rate. It will be much more difficult, however, to relate this concept to tangible proxies. Just which private debts the market chooses to regard as the least risky will change from time to time, as well as the degree of risk that the least risky securities of the moment are deemed to carry. As the market becomes less reliable, so will the theory.

### **Corporate Bond Insurance**

In order to continue to price and place the great diversity of risky securities, the markets will have to choose some tangible obligations other than Treasuries on which to bestow the “least risky” benchmark. Ideally, the issuer(s) of such securities would regularly offer a wide range of maturities in large homogeneous chunks that facilitate large turnover. Issuers able to meet these requirements would trade at a premium to the market. But there are few, if any, present-day issuers who reliably approach what used to be the Treasury standard.

To be sure, the reduction in Treasury debt has been and probably will continue to be matched by an approximately equal surge in corporate bond issuance.<sup>2</sup> But the

<sup>2</sup>To continue to grow, the economy must generate a more or less proportional growth in aggregate debt, however that aggregate may be composed. This may be regarded as one source of *Ricardian* equivalence.

corporate issuers are many rather than few, frequent multibillion issues by the same borrower are scarce, and long-term maturities of twenty years and longer are exceptional. Moreover, the absolute and relative fortunes of individual businesses are endlessly changing. The likely impermanence of any private benchmark will impose an additional risk premium on all borrowing, over and beyond the penalty for

the fact that no benchmark borrower would be default-proof like the Treasury. Fear of unmanageable systemic risk will also be greater. In sum, even were the true riskless rate (whatever that might mean in such circumstances) to stay the same, for many reasons the actual rates paid by borrowers would be higher.

### **Other Borrower Debt as a Benchmark**

Other major borrowers are striving to capture the benchmark status that the Treasury is vacating. The so-called “federal agencies,” which more precisely are government-sponsored corporations, most prominently the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Federal Home Loan Bank System (FHLB) have a head start. They have been structuring their issuance with benchmark status in mind. These agencies are legally required to invest primarily in mortgages and related paper. The rapid growth in mortgage demand in recent years has enabled them to enlarge their securities debt from \$0.9 trillion in 1997 to \$1.4 trillion recently. In addition to the agencies, several giant businesses that are not government-related also are vying, through their finance subsidiaries, to fill at least part of the emerging benchmark “vacuum.” The “swaps” market, in which major banks swap between floating and fixed rate obligations out as far as thirty years, also is a contestant. So strong is the Treasury benchmark habit, however, that all these alternative instruments—agencies, corporates, and swaps—still are priced primarily in “basis points over Treasuries.”

The agencies have the great advantage that the public treats their obligations as virtually Treasury-equivalent with respect to default risk. Although perhaps aware that Fannie Mae, Freddie Mac, and FHLB securities do not enjoy a legally-binding government guarantee, the public nevertheless takes for granted that the Treasury and Federal Reserve would come to the rescue when necessary. Although the agencies have important public-service functions, these are not their only or perhaps even principal motivations. The stock of both Fannie Mae and Freddie Mac is actively traded on the New York Stock

Exchange; and the prices fluctuate, as with other stocks, on the basis of profit expectations. Just as for financial institutions in general, the agencies' profitability depends on the growth of assets, the "spread" between cost of and yield on funds, and the default incidence on owned or guaranteed loans. Like other financial businesses, agencies can reap losses as well as profits, depending on the vagaries of the market and the soundness of their managers' judgment. Such risk does not afflict Treasury obligations. Under what circumstances the authorities might come to an agency's assistance in the event of sizable losses is a question for the future.

It is intriguing to speculate whether down the road, if and when the Japanese economy and financial system have regained international confidence, Japanese government securities, which will be outstanding in large volume, might achieve the standing that Treasuries currently enjoy. Should the Japanese market modernize to render it as transparent and commercially reliable for foreigners as the American market is today, Japanese government obligations could turn out to be the benchmark instrument of choice. As the sands of political and economic hegemony shift, such matters may help to determine which is the world's premier currency in the future.

### Monetary Consequences

As this conjecture illustrates, the disappearance of Treasury debt has radical implications for the financial system as a whole. In our time, Treasury securities have assumed the "outside money" role played by gold under the gold standard—the ultimate measure and store of value, and means of settlement. Short-term Treasuries serve as a stock of de facto money, complementing as well as competing with currency and deposits. The market and the authorities have combined to assure the virtually frictionless conversion of Treasuries into payment money (checking accounts or federal funds) on demand.

For many economic units, be they public or private, domestic or foreign, Treasury bills serve as a major or even principal store of value and quasi-means of payment. Deposit insurance, after all, extends only to \$100,000 per account, but the guarantee on Treasury debt is unbounded. Banks and other issuers of short-term liabilities, monetary and otherwise, are disciplined by the knowledge that, should their solvency become suspect, a readily accessible riskless asset exists to which their clientele can and will run in a "flight to quality." By the same token, however, investors are more willing to hold risky

non-Treasury obligations because a portion of their portfolio can be held in riskless form and because, whenever the sense of default risk heightens, a safe asset exists into which they can escape. In a world without Treasuries, portfolio management and the nature of financial crises would be profoundly different.

### More Vulnerability to a Crisis of Confidence

The disappearance of short Treasuries would be tantamount to a destruction of money. Although, as already indicated, the market is attempting to develop substitutes, it faces a fundamental difficulty. The market can only generate "private" or "inside money." Such money (bank deposits are the prime example) is the liability of a profit-

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maximizing private entity, and its creation is inextricably linked to that entity's acquisition of assets whose value and liquidity are necessarily risk-prone. In the absence of Treasury securities, these assets must be claims on other private entities. As a result, the inside money stock is always vulnerable to a crisis of confidence. Treasury securities, in contrast, are public or "outside money." They are backed by a powerful government committed to the servicing of its debt and wielding enormous money-printing and taxing powers that are revocable only in a shattering political upheaval.

When times are orderly, a variety of "private inside" liabilities, backed by diverse private assets, can perform the monetary role quite well. But the potential for excess or shortfall is great. That is why, to prevent inflation, society has had to give central banks the responsibility and power to limit the excessive creation of "private money." But what about a shrinkage or threatened implosion of private money? Today the public can substitute Treasury securities. But what will happen tomorrow if there are no Treasuries? One-hundred-dollar currency notes are not apt to be a useful substitute. Occasions are bound to arise in future, as happened with the Asian crisis in late 1997 and the collapse of Long Term Capital Management in 1998, when some important financial institutions and their assets and liabilities fall into doubt. Then the authorities must manage, somehow, to preserve public confidence in the inside money stock if economic and

financial collapse is to be averted. It is as vital to modern society that liquid assets can be turned into cash and that checks are honored as it is that electricity and water flow when the switch or faucet is turned on.

Currently, as for example in the 1997 and 1998 instances just cited, a credit panic routinely triggers a “flight to quality,” that is, into Treasuries. This preempts the utterly destructive efforts to turn “high-denomination” balances into currency that would occur otherwise. The substantial part of high-value balances that is already in Treasuries prior to a crisis does not even need to seek

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safety. The additional demand for government securities can readily be met by dealers, who can safely borrow any shortfall in securities from the Federal Reserve and others, because they know that huge new bill offerings are routinely forthcoming from the Treasury every week. In addition if need be, the solvency of the dealers themselves is in effect underwritten by the Federal Reserve. Thus, the economy is spared the full force of monetary destruction in a crisis.

#### **Emergence of Benchmark Bank and Non-bank Institutions**

Suppose now that no new supply of Treasury securities existed, or even that they had all been paid off. Then where would such a “flight to quality” seek refuge? The public will flee, of course, to that “private money” regarded as closest to “public money,” which is to say money backed by the comparatively inexhaustible resources of government rather than the relatively fragile assets and capital of private lending institutions.

What might be the actual “private money” of choice in such circumstances? The most obvious haven will be in deposits at giant banks or other institutions that, in Robert Litan’s apt description, are “too large to disappear” or to liquidate. These will be the benchmark institutions thought to enjoy unquestioned access to the federal funds and swaps markets and presumed to be closely supervised and embraced by the Federal Reserve. The banks in question will be the flagships or prime subsidiaries of large financial holding companies, whose far-flung enterprises (the scope of which has just been greatly broadened by new legislation) might be put in jeopardy

by a failure in their “family.” To prevent such contagion, the public correctly will presume, the authorities must “bail out” such entities.

There will not be many such banks. Electronic imperatives are forcing the consolidation of the financial industry. But even if this were not the case, the authorities would be unwilling (for moral hazard reasons) and possibly technically unable to guarantee large numbers of institutions in the event of crisis. Foreign official institutions, in their search for alternative ways to hold dollars as Treasuries vanish, will likely have served as bellwethers, probably already having concentrated their dollar holdings in just a few banking institutions. Keeping foreign central banks whole would be absolutely vital in order to forestall a collapse in the dollar.

Even a small crisis would likely guarantee the elect few banks a long span of financial primacy. Once businesses and wealthy individuals have seen lesser banks struggling to sink or swim on their own, they are likely to commit the bulk of their “household” money to the strongest survivors for a long time indeed.

Although borrowers and financial intermediaries may rejoice at first as competition from the Treasury fades, most will eventually discover that market discipline has become much harsher. In contrast, those few institutions whose “too big to fail” mantle is confirmed are likely to grow inordinately huge and powerful, whether acting individually or in a cartel. By the same token, however, they are likely to be much more closely regulated and supervised. Governments will expect them to act as instruments of domestic and foreign policy. As we have seen abroad, universal banks and their governments exert enormous influence on one another.

Might some non-bank institutions also gain this sort of immortality? In times of stress there will be strong pressure and good reason to shelter such issuers, instruments, and market mechanisms as may have filled the “benchmark” vacuum created by the disappearance of Treasuries. Putting their solvency above suspicion may be regarded as essential for containing a financial crisis.

I have already raised this issue in regard to the Federal agencies. It may not be practical or desirable, even in good times, for lenders restricted to a particular kind of lending, as are the agencies to real estate, to obtain a preferential call on the cheapest funds. On some occasions, an overflow of funds might be force-fed into mortgages, weakening the quality of credit. At other times, demand for mortgages might be slack, impeding the issuance of benchmark securities. The issue may become

moot, however. If the agencies actually achieve their goal of becoming benchmark issuers with minimum funding costs and tacit governmental backing, it is politically probable that Congress will be prevailed upon to loosen the inhibitions on their lending scope. After all, every borrower will press for the privilege of access to the cheapest lender. Thus, the agencies would evolve into universal banks (while, as explained above, the banks become more like government agencies). Indeed, with the Treasury out of their way as a borrower, the agencies have the potential to grow into financial colossi reminiscent of the Japanese Postal Savings System.

The major money market mutual funds also deserve consideration as a possible crisis shelter for funds. Should ever a “run” on an equity mutual fund appear to be cushioned by official help (even if only verbal), the public would be sure to remember that in times of stress. Even absent such a precedent, people may reason that the authorities would feel obliged to prevent withdrawal delays at any important money market fund, for fear that other funds and parent organizations might be “infected.” If so, perhaps money market funds might eventually manage ways to broaden the scope of their investments in such a way that they, too, might grow into giant banks.

Reference has already been made to the role foreign central banks may play in this winnowing of financial instruments and institutions. The demise of the Treasury market also may foster, sooner than might happen otherwise, the development of euro, yen, or other currency-denominated instruments that foreigners may regard as competitive with private dollar instruments of the “inside” variety. Financing a large U.S. current account deficit in such a new world might be quite a challenge.

## A Public Good

Although the government originally fostered the “breadth, depth, and resiliency” of the Treasury market to forestall kinks in wartime financing, the market has evolved into a public good of much broader nature. Because Treasury securities are effectively “outside money,” they lessen the contagion that occurs when “inside money” becomes suspect. They reduce the frequency and intensity with which the authorities must intervene as lenders of last resort to avert systemic crises. They support the dollar because of their peculiar suitability for foreign investors, especially monetary authorities. And they provide rate benchmarks that lower the costs of private borrowing.

Thus, there is a case for maintaining their issuance. To accomplish this (other than by running budget deficits) would require the Treasury to become a lender in order to earn the interest payable on the “unnecessary” debt. We should not want the Treasury to become like a universal bank, because politics inevitably impinges on such a bank’s loans and investments. But perhaps ways could be devised for the Treasury to on-lend the proceeds of its borrowing to qualified financial intermediaries proportionately, in an entirely non-discretionary manner. (The existing system of Treasury “tax and loan” balances provides a partial precedent.) The recipients would, of course, pay interest to the Treasury. The amount of debt the Treasury should issue, and when, probably should be a prerogative of monetary policy.

The matter deserves study and thought, lest the far-reaching consequences of the disappearance of Treasury securities catch us unaware and unprepared. ■

## ERRATA

In Jian-Chiu Han, “Equity Valuation Cannot Outgrow the Economy in Long Run” (July 2000), the following two corrections should be noted:

1. On page 56, equation (6) appeared as “ $rp = g - Yd(1+g)$ ”. It should read as “ $rp = g - i + Yd(1+g)$ ”. The “ $i +$ ” is missing.
2. On page 58 about availability of data. The web site name should be [www.econdynamics.com](http://www.econdynamics.com) instead of [www.eurodynamics.com](http://www.eurodynamics.com) (“econ” vs. “euro”).