THE DECLINE OF THE FEDERAL DEBT: LIFE WITHOUT HAMILTON'S BLESSING?

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ABSTRACT

As budget deficits turned to surpluses and the federal debt began to shrink at the end of the 1990s, the possibility that the federal debt could be eliminated arose. This paper provides historical analysis of the debt to help decide if the nation's economy would be healthier without the federal debt. After presenting the history of the debt, the paper assesses the trends of the major components of the debt – the portions owned by the government, the Federal Reserve, and private investors, both domestic and foreign. That leads to a final consideration of the economic implications of eliminating the federal debt.

Introduction

In 1781, Alexander Hamilton declared: "A national debt, if it is not excessive, will be to us a national blessing."[1] The federal debt that Hamilton praised has alternatively grown and shrunk throughout the country's history, but rarely has any public official considered the debt a blessing since the days of Hamilton. Indeed, one of the most consistently popular political promises made by presidential candidates over the last two centuries has been to reduce the national debt in order to save our future generations from the debt's supposed burden, not its blessing. By the middle of the 1990s, concern over the debt reached a crescendo. The relentless string of budget deficits and the explosive growth of the debt had pushed the total federal debt past $5 trillion. In fact, John Steele Gordon's conclusion to his *Hamilton's Blessing* was a call to arms to bring the growth of the debt under control before the blessing turned into a curse.[2]

The tide dramatically turned shortly after that. By the end of the decade, spending restraints and a rapidly growing economy combined to produce surprisingly large budget surpluses that reversed the growth of the debt. The portion of the debt held by private investors—that is, the "privately-held" debt—began to shrink substantially for the first time since the 1920s. And as the new century began, there were indications that even the gross federal debt could also begin to decline within the next decade, also for the first time since the 1920s. Projections of continuing sizeable surpluses raised the possibility of not just the decline of, but also the complete elimination of, the privately-held debt before the end of the decade. In just a few years, fears of an ever-mounting debt were replaced by talk of the potential ability to eliminate it. And that possibility has created a whole new question concerning the pros and cons of life without the federal debt. Economists, bankers, investors, central bankers, etc. are asking the question: How would the economy work without Treasury securities? Already, the Treasury has stopped issuing

one-year securities, and the next target for elimination is the thirty-year "long bond." Given the important roles that Treasury securities have played and still play in so many ways, domestically and internationally, would it be wise to eliminate entirely "Hamilton's blessing?"

That question could be debated from a number of angles—some quite technical. But in order to gain a proper understanding of the place of the federal debt in the economy, it is prudent to begin with some historical perspective. The purpose of this paper is to provide historical background and analysis of the debt and its uses. To that end, the paper will first examine the long-term quantitative history of the debt and its components. Then it will consider the historical background and trends of the major components of the debt—that is, the portions owned by the government, the Federal Reserve, and foreign investors. That will bring us to the final consideration of the implications and the wisdom of eliminating the debt.

The Federal Debt, Then and Now

The U. S. government was in debt the day it was born, and has never been out of debt since. In spite of this long record of indebtedness, there is no real evidence that the debt has ever significantly hampered the government or economy. Quite the contrary, as Hamilton predicted, the Treasury securities that make up the debt became an important, if not vital, asset in the operation of the economy's financial markets and institutions. Ever since the creation of the First Bank of the United States in 1792, Treasury securities have served as collateral and income-earning assets for banks. As such, they have served as a foundation for the banking and monetary system, and, at times, have even been used as money itself. Furthermore, the regular trading of federal debt paper in New York City was the basis for the birth of the New York Stock Exchange, when Treasury bonds were traded under a buttonwood tree near the waterfront on Wall Street.[3]

During the country's first years, the debt hovered near $80 million, an amount that accounted for most of the Revolutionary War's estimated cost of $100 million. At $80 million, the debt was roughly equal to 40% of the economy's annual GDP.[4] High tariff revenues—the primary source of federal government receipts throughout the eighteenth and nineteenth centuries—helped reduce the debt to $45 million during Jefferson's presidency right up to 1812. But the costs of the ensuing war pushed the debt back up as all wars have. For the next three decades, a preponderance of budget surpluses gradually reduced the debt to the point that it was virtually eliminated in 1835, when it shrunk to a mere $34,000 for the year as a whole. Yes that is thousands, not millions or billions. The economic bad times that followed for the next seven years dragged tariff revenues down and shifted the budget into a string of deficits that gave new life to the debt. From then until the Civil War began, the debt ranged from $15 to $68 million, growing during economic contractions and shrinking during the expansions.[5]

The Civil War brought an explosion of the federal debt. The massive expenses of the war dwarfed the ability of the government's meager tax system to raise revenues.

Annual budget deficits of $400 to $900 million forced the Treasury to issue enormous quantities of bonds. As a result, the debt grew over forty fold from $64 million to $2.67 billion, more than half the size of GNP. Surprisingly, the markets managed to absorb this surge. Along with this landslide of borrowing, the government did manage to raise close to three quarters of a billion dollars during the war due to the establishment of a wide variety of new and higher taxes. For the most part, the newly created structure of taxes survived after the war; the annual budgets were ten times the size of pre-war budgets. Twenty-eight straight years of budget surpluses followed the war, and the debt was cut to just below a billion in 1892—less than 10% of GNP. During the next twenty-five years, the debt stayed fairly level in the range of $1.1 billion.[6] Relative to GNP, it sunk to a mere 2.5% just before World War I.[7]

The next major chapter in the debt's story was World War I. This war proved to be vastly more expensive than the Civil War. With the aid of the recently born income tax ratified in 1913 as well as a variety of other taxing tools, the government managed to raise receipts from the $700 million range in 1916 to over $5 billion in 1919. However, that was not nearly enough, as spending reached as high as $18 billion in 1918. The net result was an accumulation of debt to over $25 billion, ten times the level reached in 1865.[8] But the economy had grown by an even greater proportion in the interim, so that at $25 billion, the debt was only 30% the size of GNP.[9]

One of the byproducts of this growth in the debt was the expansion in the breadth and depth of the secondary market for Treasury securities in the 1920s accompanied by the increased use of Treasuries as a part of any diversified investment portfolio. Our later section on Federal Reserve ownership of the debt addresses one aspect of this development. Another was the impact on the banking industry. The increased quantity and level of trade activity in Treasury bills led to a significant change in bank portfolio management strategies. It became common for banks to hold T-bills as secondary reserves and to buy and sell them in order to make adjustments to their liquidity position. In this and a variety of other manners, the expanded activity in Treasury securities contributed to the financial markets' taking on a form that is more recognizable to us today in terms of the buying, selling, and holding of securities.

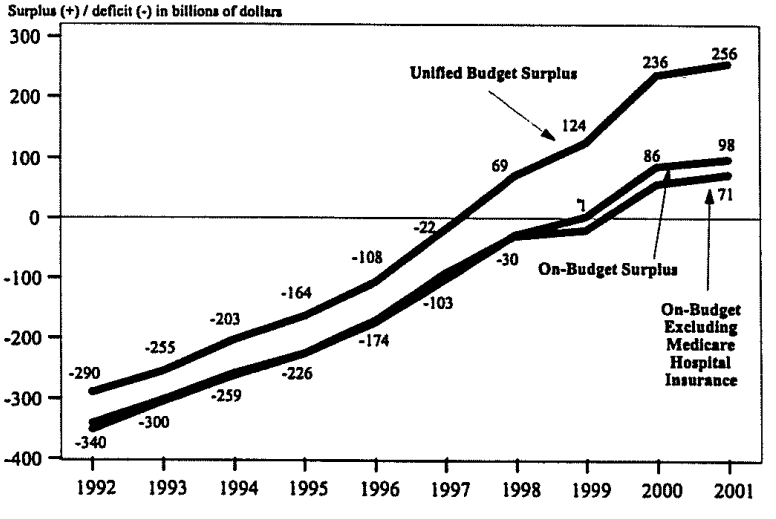
From 1920 to 1931, eleven straight years of budget surpluses pared the debt by 35%. Unfortunately, all that changed with the Great Depression. The precipitous drop in economic activity brought tax revenues down so far that substantial deficits occurred every year of the 1930s. This was in spite of efforts by Presidents Hoover and Roosevelt as well as Congress to halt the flow of red ink. By 1941, the debt had grown to almost $50 billion, twice the World War I peak, and the debt was at an all-time high level of 50% of GNP.[10] This was before the truly enormous buildup of war debt had begun.

The cost of war ratcheted up again in logarithmic fashion as World War II drove the debt to a peak of $269 billion, ten times its World War I level. Relative to the size of the economy, the debt hit its all-time high of 130% in 1946. But, in spite of its record absolute and relative size, the debt did not prove to be a burden on the economy. In fact, the economy flourished after the war, and as output expanded rapidly, the debt to GNP

ratio progressively declined to the range of 34% in the mid 1970s. Interest rates were low, and capital investment high. Budget deficits and surpluses came in equal numbers in the 1950s, but the debt crept upward. The 1960s showed eight straight deficits sandwiched between surpluses in 1960 and 1969, and the debt still grew, albeit, only modestly. That surplus in 1969 was a landmark, because it would prove to be the last one for twenty-eight years. The next two decades saw a growing flood of red ink as deficits tended to grow ever larger and the debt climbed at an accelerating rate, with no war to blame.[11]

Starting in 1975, budget deficits began to reach and surpass record levels. The 1976 $73 billion deficit was the highest ever, besting any deficit during World War II. New records were set in 1980 and 1981, and then the deficit leaped over $125 billion in 1982 and over $200 billion in 1983. These deficits drove up the debt, which topped $1 trillion in 1982. It doubled by 1986 only to double again by 1992, when the deficit hit the all-time high of $290 billion. Where it had taken the debt 190 years to reach the $1 trillion level, but the massive deficits of the 1980s and early 1990s drove the debt up progressively faster. It reached the $2 trillion mark in 1986, $3 trillion in 1990, $4 trillion in 1992, and it passed $5 trillion in 1996. The pace at which the debt was growing was a cause of great concern, as the debt to GDP ratio had climbed by 1993 to 68%, the highest level since 1955. Annual interest payments on the debt easily exceeded $300 billion.[12]

FIGURE ONE
On-Budget and Off-Budget Surpluses or Deficits, 1992-2001



Source: Office of Management and Budget. *FY 2002 Economic Outlook* (Washington, D.C.: U.S. Government Printing Office, 2001), 16.

However, 1993 marked a fiscal turnaround. The tax to GDP ratio began to rise at the same time as the ratio of government spending to GDP began to fall. A combination of higher tax rates and government spending restraints narrowed the gap between expenditures and receipts. The deficits started shrinking at a rate of about $40 billion a year. The strong performance of the economy allowed government receipts to grow faster than the slower growing expenditures and much faster than anyone had expected. Finally, in 1998, taxes passed expenditures, and the budget showed its first surplus in twenty-eight years. With real growth roaring ahead at rates above 5%, the budget surplus grew past $230 billion in 2000.[13]

Figure One depicts how the federal budget climbed out of the red and into the black during the 1990s. It also shows that there is more than one measure of the budget and its deficit or surplus. The unified budget is all-inclusive. It is made up of what are called "off budget" items, which include the separated budgets of the Social Security and Postal systems, and the "on budget" items that include everything but those two. The off-budget balance is dominated by Social Security, and it has shown ever-increasing surpluses since the early 1980s, when the FICA tax was raised in order to protect the solvency of Social Security. That is why every deficit on the unified budget up to 1997 was smaller than the on-budget deficit. In 1998, the year of the first recent unified budget surplus, the on-budget balance still showed a deficit. The unified budget would not have showed a surplus if it were not for the Social Security surplus. While the unified budget showed a $124 billion surplus in 1999, the on- budget books were almost exactly balanced. It was not until 2000 that a surplus appeared on both the on and off budget balances.

With the appearance of budget surpluses, one would expect that the debt would have begun to decline in 1998 and that the decline would have accelerated in the two subsequent years. It turns out that it is not quite that simple. **Table One** summarizes changes in the debt in recent years from the point of view of who owns the debt. While there is approximately $5.6 trillion in total gross debt, over $2 trillion of that is owned by government agencies in their trust funds, the topic of our next section. That leaves about $3.4 trillion that are "publicly owned" – that is, they are owned by anyone other than the government agencies. Of that, half a trillion dollars worth is owned by the Federal Reserve, which is not treated as a government agency because it is privately owned by the national banking system. After that deduction is made, we are left with the $3 trillion that are owned completely outside the government—hence, they are labeled "privately owned." It is the "publicly-owned" and the "privately-owned" portions of the debt that are indeed shrinking as one would have expected, while the total gross debt is still creeping upward. The dynamics of the respective portions of the debt are addressed in the next three sections.

TABLE ONE

The Federal Debt and Its Ownership

	Total	Held by	Held by Public			Privately-Held	
Year	Debt	Govt.	Total	Fed	Total	Domestic	Foreign
1996	5225	1447	3778	391	3387	2394	993
1997	5413	1598	3814	436	3378	2147	1231
1998	5526	1766	3760	458	3302	2078	1224
1999	5656	1989	3667	497	3170	1889	1281
2000	5674	2236	3438	511	2927	1702	1225

Source: National Economic Trends. Federal Reserve Bank of St. Louis.

Government Ownership

The largest and fastest growing individual segment of the federal debt shown in Table One is the portion that is owned by the government itself, in the accounts of its agencies and trust funds. Over the years, Congress has created over two hundred government accounts and trust funds including the more famous Social Security trust funds, the FDIC insurance funds (both BIF and SAIF), the Civil Service Retirement and Trust Funds, and the Federal Employees Retirement Fund as well as many more obscure ones.[14] As we saw above, nearly 40% of the gross federal debt is held by government agencies; these are the accounts. The legislative programs in which the funds were created were devised to produce operating surpluses that would accumulate over time in such a manner that the programs would be financed from either their own current contributions or from withdrawals from their respective trust funds. At the outset, it was understood that the prudent way to manage such funds was to have them earn interest while they accumulated, and the safest way to do so was to have the funds invested in Treasury securities. Hence, with the creation of each of the programs, another account or trust fund began to acquire Treasury securities.

All of these Treasury securities are called "government account series" (GAS) securities, and they are "nonmarketable," meaning that they cannot be traded in the open bond market. They can either be held to maturity or redeemed prior to maturity, but in either case they must be turned back over to the Treasury. Some "par-value" securities are always redeemable at par or face value regardless of the current price of similar marketable securities, while others, called "market-based securities," are redeemable at current market prices. And most are simply in book-entry form, meaning that no actual bond physically exists, only a serial number. The big and only exception to the latter rule is in the case of the Social Security trust funds. In an effort to make these funds sound safer than the rest, the Treasury is mandated to actually issue tangible paper securities. Thus, when FDIC accumulates a surplus of bank deposit insurance premiums, it trades the

actual funds for some book-entry bonds, while the Social Security Administration trades its surpluses for actual paper securities. Except for the mirage of extra safety associated with the paper security, the process is the same. As trust funds grow, the number of GAS securities issued grows.[15]

What happens to the money that is now in the Treasury's hands is crucial to understanding the workings of the debt. In general, the surplus funds from the agencies accumulating GAS securities are simply put into the general pool of government funds collected by the Treasury, primarily through taxes, and used to pay for other government programs. As we discussed earlier in our look at the budget in general, the unified budget is divided into two parts—"off-budget," chiefly composed of Social Security (plus the Post Office), and "on-budget," which covers the rest. For all of the on-budget agencies that are acquiring GAS securities, their surplus funds are commingled with tax revenues without demarcation. The surpluses in the income-earning agencies help pay, along with general tax revenues, for the programs provided by the rest of the agencies that earn no income. In the special case of Social Security, their off-budget surplus is often listed separately; nevertheless, the surplus funds get commingled just like the rest after Social Security buys its GAS securities.[16]

Next, what happens after the commingling of the funds depends on the status of the unified budget. If the unified budget shows a deficit, the surpluses in the agency fund accounts partially offset the deficit on the rest of the budget. The Treasury must issue securities to the public, in addition to the GAS securities issued to the trust funds, in order to finance the remaining deficit. That was the case up to the middle of 1997, as a look back at Figure One and Table One demonstrate. The gross federal debt grew in both the GAS and the publicly-held columns. On the other hand, if the unified budget is exactly balanced (as briefly occurred at one point in 1997), the surplus funds in the income-earning agencies exactly match the tax shortfall for the rest of the government. The gross federal debt grows as the Treasury issues GAS securities to the income-earning agencies. But since there is no need to borrow further from the public, there is no change in the publicly-held column.

When the unified budget shows a surplus, but the on-budget portion is still showing a deficit, then the off-budget surplus is greater than the on-budget deficit. The proceeds of the GAS securities sales to the surplus-earning agencies exceed the tax shortfall for the remainder of the budget. The Treasury has leftover funds that it can use to buy back publicly-held securities. In this scenario, the federal debt still continues to grow as the GAS securities column keeps growing, but the publicly-held column begins to shrink slowly. That is what happened in 1998. Should the on-budget portion of the total budget be exactly balanced, as was virtually the case in 1999, all of the surplus funds collected from the off-budget surplus are left over and can be used to buy back publicly-issued securities at a more rapid pace.

In 1999 and 2000, surpluses finally occurred in both the off-budget and on-budget portions of the budget. These surplus funds freed even more funds that could be used to reduce the amount of publicly-held debt, which dropped by a whopping $229 billion in

2000 alone. The relentless climb in the publicly-held debt peaked in late 1997 and began to decline thereafter. Projections by the Office of Management and Budget call for continued growth in both the on-budget and off-budget surpluses through at least the upcoming decade and rapid reductions in the publicly-held debt. The on-budget surpluses will be subject to the vagaries of politics and the future state of the economy, and could, therefore, exceed or fall short of expectations, or even turn into deficits. On the other hand, the Social Security surpluses are a near certainty for at least the next fifteen years. These surpluses, along with those in Medicare, are projected to be so large so as to virtually guarantee that the unified budget will show sustained surpluses. That means the publicly-held debt is destined to fall so rapidly over the next five to ten years that it may disappear as soon as 2008.[17]

In spite of these reductions in the publicly-held debt, the total debt continues to grow, so far. The off-budget surpluses at Social Security plus the many surpluses of all of the on-budget, income-earning agencies cause the federal debt in the form of GAS securities to continue to grow rapidly. That growth promises to last well into the following decade. The Social Security trust fund is projected to grow from near $1 billion in 2000 to a peak of near $3 billion in 2023. These accumulated surpluses, along with the many of the other on-budget trust funds could pile up past $6 or $7 trillion. Thus, if we extended Table One ten to twenty years into the future, the publicly-held debt will have disappeared, and the entire total debt will be in the form of GAS securities. Whether the total debt does actually grow or not depends on whether the rise in GAS securities outpaces the decline in publicly-held securities. Projections by the Office of Management and Budget show those two opposing trends in a virtual dead heat in the near future. Thus, in spite of the fact that both sides of the budget are in the black, the size of the total federal debt may actually continue to grow. But one way or the other, all those surpluses on- and off-budget, are projected to decrease the publicly-owned portion of the debt at such a rapid pace that within the next ten years, there could be no more publicly-held, marketable Treasury securities available.

Federal Reserve Ownership

Let us now concentrate on the portion of the debt that is "publicly-held." First of all, this is a very misleading title that refers to all federal debt that is owned by people and institutions outside the federal government—that is, in what economists often call the "private sector." Since the Federal Reserve is actually privately owned, their holdings of the debt are included in this subcategory. As we saw earlier in Table One, the Federal Reserve owns a significant and growing quantity of Treasury securities that has reached beyond $500 billion worth. That puts the Fed's share of the publicly-held debt near 14%, and climbing. These securities have been acquired over time in the process of conducting open market operations. The Fed increases reserves and the money supply when it buys Treasury securities, and it reduces reserves and the money supply when it sells them. Appropriate monetary policy goals prescribe that the money supply should

grow each year in order to facilitate the natural tendency for economic activity to expand. Therefore, the Fed's holdings of Treasury securities should rise every year, without exception. And, given the downward trend for the debt as a whole, the Fed's slice of the federal debt pie is destined to grow.

When the Federal Reserve opened for business in 1914, the Congressional architects of the legislation that created the Fed expected member banks' fees to pay the cost of actually operating the new central bank. But the Federal Reserve Board recognized almost immediately that the Fed could earn substantial income from interest-earning assets that it could acquire in the financial markets. These instruments could include rediscounted paper bought from banks in the process of lending the banks reserves as well as any other assets the Fed chose to purchase in the open market.[18] In any case, the Fed would be paying for these assets with reserves that it can create out of thin air. Since there is an unlimited supply of thin air, there was no limit to the Fed's ability to accumulate income-earning assets. The Fed would never have to worry about paying for its expenses. The Fed need only be concerned that it did not acquire these assets too quickly at any time, and thereby add reserves to the banking system at too rapid a pace. That would cause the growth of the money supply to race ahead of the growth rate of output and trigger inflation.

No sooner had the Fed opened its doors than war broke out in Europe. In the process of helping the Treasury finance the war, the Fed accumulated a sizeable pile of assets that it primarily acquired from banks through rediscount loans of reserves. The banks, in turn, used the reserves that the Fed lent them to provide loans to their customers, who went out and bought war bonds from the Treasury. These massive purchases of bank paper, which was primarily in the form of commercial paper, fueled the doubling of prices that occurred during the wartime period. By the end of this period, the Fed had more than enough income-earning assets to pay its bills. It biggest concern was stemming inflation. It did so with discount rate increases that set off the recession of 1920-21.

Throughout this process, the Fed relied on its one and only known tool, changes in the discount rate to influence the pace at which the money supply grew. As the Fed began exerting its policy-making independence in 1921, it discovered the powers of a second tool, open market operations. As Lester Chandler reports in *Benjamin Strong, Central Banker*, when the Fed went into the open market to purchase a variety of paper, including Treasuries, the Board observed that the purchases and sales of securities had a noticeable effect on credit conditions. When the Fed bought securities, the demand for reserve loans at the Fed's discount window dropped off, and when the Fed sold securities, reserves became scarcer and demand at the discount window picked up. This pattern was called the "scissors effect." More importantly, the Fed had found a way to control credit conditions and the growth of the money supply proactively that was far more responsive and predictable than adjustments to the discount rate. The next year, the Federal Reserve banks began to carry out their purchases and sales of government securities in a coordinated fashion, and by 1923 the Federal Open Market Investment Com-

mittee was formed to conduct the operations. This new tool was destined to become the primary tool, and the assets of choice were to be Treasury securities – and more specifically, Treasury bills.[19]

The choice of Treasury bills makes sense. Treasury bills became popular assets not just for the Fed, but also for the entire financial system. Since trading activity was high and the market was deep, T-bills were highly liquid. No diversified portfolio was complete without a layer of Treasury bills. As we discussed earlier, it became popular for banks to hold them as secondary reserves and to trade them to other banks for reserves as a method of adjusting liquidity needs. As for the fed, Treasury bills were the perfect choice for an asset it could buy and sell in the open market. It did not need to inquire about the quality of this instrument like it did when it rediscounted commercial paper. And the market was deep and active enough to absorb transactions of the size the Fed would conduct. Thus, the Fed has always kept a portion of its holdings of Treasury securities in the form of T-bills for the purpose of carrying out open market operations.

Over the years the Fed's holding of Treasury securities has grown steadily. Since the economy's real and nominal growth is exponential, it stands to reason that the growth of the money supply should be exponential as well. For example, total M2 growth almost matched nominal GDP growth from 1959 to 1990. The fact that both of these growth rates greatly exceeded total output growth explains the inflation of those decades, but that is another story. Regardless, the fact remains that whether the Fed accomplishes a long-term average growth rate that is too fast, too slow, or just right, the money supply grows exponentially. That means reserves will grow exponentially at a similar rate. And if reserves must grow exponentially, so must the Fed's holdings of Treasury securities, because the method of injecting all those reserves is the purchase of Treasury securities. Until the Fed chooses another asset to purchase or another means of adding reserves to the banking system, the Fed's holdings of Treasury securities are certain to keep on growing.

The Fed's holdings of Treasury securities have indeed followed an exponential growth path since 1953—that is, approximately doubling during each of the last three decades, a pace that converts into an annual growth rate of just over seven percent. Assuming that the growth of the Fed's assets will continue at the same pace for the next decade—and there is no reason to think otherwise—we can project that the Fed's holdings of Treasury securities will double again to near $1 trillion by the year 2010. Given the downward trend in publicly-held debt discussed in the preceding section and the concurrent nonstop upward trend in Fed ownership of debt, the total of privately-held debt is falling even faster than that of publicly-held debt. Table One shows a drop of over $460 billion in privately-held debt since 1997. Since there conceivably is a point in the not-too-distant future when there would be no more publicly-held Treasury securities available, there would also be none left for the Fed to buy in the open market. This situation will present the Fed with a decision of how to change its process of conducting open market operations, or at least the securities it trades.

Foreign Ownership

We can now turn to those Treasury securities that are held by private investors. As Table One showed us, this portion of the debt can be broken down into two categories, domestic-owned and foreign-owned. From the birth of the country, foreign investors have owned a significant portion of American debt, both public and private. The American financial markets drew investors from Europe in its early days much as they have from Japan in more recent years. What has drawn the world's investors to this country has been the relative stability and reliability of both the economy and government as well as the historically strong rates of return on bonds. British, German, and Dutch savings financed a considerable share of the growth in the capital stock, both public and private. The railroad and canal bonds of the nineteenth century, which produced real rates of return in the range of ten percent, are the most obvious examples. Since the country spent virtually its first 135 years running a trade deficit, it is no surprise that capital flowed into the financial markets. Whether the trade deficits begat the capital inflows or vice versa, the country was a net debtor right up to World War I. Thus foreign ownership of American securities was common and crucial to economic growth.

Throughout this same history, Treasury securities have been included in the foreign investors' portfolios of American securities. The attraction has been their perfect track record for repayment. Today Treasury securities are said to have such a negligible probability of default that they are treated as free of default risk, and bond rating services do not even bother to rate them. The reliability of Treasury securities over the last two centuries has made them very attractive to foreign investors in search of default-risk-free investments with predictable rates of return. In an unpredictable financial world, the U. S. Treasury market is a safe haven.

We have Alexander Hamilton to thank for the birth and early development of the Treasury market. As a result of his efforts, the U. S. Treasury has made good on all of its debts since the post-constitution government was formed. In addition to its many patriotic creditors, the fledgling United States government owed money to European lenders who helped pay for the Revolution by buying bonds issued by individual states as well as the Continental Congress. Hamilton's efforts to establish a sound financial footing for the new country emphasized sending a signal to Europe that they could trust this country's federal government to pay its debts. After much debate among the Founding Fathers, it was declared that all current holders of war debt, both state and federal, would be paid back in full by the newly formed federal government.[20]

As the United States made good on that promise, it became a popular place for European investors to buy bonds of all types, including corporate, as well as state and federal government. This country's credit rating rose from the ashes of the Revolution to the top of the list in Europe by 1794. John Steele Gordon points out in *Hamilton's Blessing* that, at the turn of the century, the finances of the government and the funding of its bonds were considered so sound due to Hamilton's efforts that there could be no doubt of the solvency of the country's bonds. By 1801, as a measure of foreign confi-

dence in the U. S. government's finances, Europeans held $33 million or 40% of American federal debt.[21]

U. S. government securities had become very popular among foreign investors in the 1790s not only because of their merits, but also because most of Europe was enmeshed in war with all its uncertainties. Two hundred years later in the 1990s, when financial crises struck the Mexican and Asian markets, Treasuries experienced another surge of popularity among risk-averse foreign investors. But, Treasuries had already become increasing popular among foreign investors over the preceding two decades. Let us look at that trend.

Foreigners really only began building up large holdings of federal debt in the late 1970s. Double-digit interest rates in the United States began attracting foreign investment and the flow of capital began to turn inward. By 1980, the foreign holdings of Treasuries had climbed to over $120 billion, and the share of foreign-owned privately-held debt had crept up to 20%. Then, when the growth of the federal debt exploded in the 1980s and early 1990s, foreign buyers kept up a similar pace. A combination of restrictive monetary policy and burgeoning budget deficits pushed U. S. real interest rates well above those in Europe and Japan, increasingly drawing investors from around the world searching for the highest rate of return. Treasury securities became particularly attractive to the high-saving Japanese because their interest rates were so much lower. It was not unusual for thirty to forty percent of the sales at Treasury auctions to go to Japanese investors.

By 1994, foreign-held debt had increased over five fold to $650 billion, and the share was up a bit to 21%. That is when a real foreign buying binge began in the U. S. Treasury market. Foreign economic crises, first in Mexico and then in Asia, fueled a flight to the safety of U. S. Treasury securities. Over just the next four years, the amount of foreign-owned federal debt doubled to over $1,200. This surge of foreign ownership was occurring just as the privately-held debt was peaking and beginning to shrink. As a result, the foreign-owned share of the privately-held debt doubled to over 40%.[22]

As the twentieth century came to an end, the foreign-owned debt began showing signs of leveling off. It is difficult to predict whether foreign holdings will return to their growth path, stay steady, or begin to shrink. Unlike the Fed, whose purchases of assets necessarily have to continue, foreign capital inflows could go in either direction, depending on a wide variety of variables. But, unless foreign holdings begin to shrink rapidly, their percentage share of total privately-held debt is likely to continue growing as the total itself declines. It appears that domestically-owned, marketable Treasury securities are endangered species.

Life without Treasuries

One thing that appears assured is that as long as the government lives up to its own projections and continues to run budget surpluses, the quantity of marketable securities will continue to decline. This will be accomplished in two ways. One method is simply

to retire bonds as they mature and are turned back into the Treasury. When surplus funds are used, the owners of the securities are paid back the face value, and the old securities are retired, not replaced. The debt shrinks. Beginning in 2000, the surplus funds were mounting faster than the value of the securities that were maturing. At that time, the Treasury implemented the second method of retiring debt by buying back marketable securities in a process known as "reverse auction." Those same Treasury security dealers with whom the Fed does business in its open market operations were called upon to sell securities to the Treasury.[23] Unlike in an open market operation, in which the Fed buys the securities with newly created reserves and keeps them, in this transaction, the Treasury buys them with surplus tax revenues and then figuratively tears them up. The money supply does not change, because the Treasury is using "old money" in the form of tax revenues. But the debt shrinks further.

What are the implications of the continued retirement of marketable Treasury securities? As we saw earlier, the current projections for budget surpluses point to a depletion of all publicly-held Treasury securities as early as 2008. But the crunch could come even sooner. As Hassett and Hubbard warn, there are many holders of securities who are not ready to part with them until they actually mature.[24] If one examines a breakdown of the privately-held debt, one can see that close to one-fourth of what is currently in existence matures in over five years.[25] While the Treasury may have the funds to buy back the securities, the owners of the longer-term securities may not be ready to sell. Furthermore, are foreign investors ready to part with their precious Treasury securities? That reluctance of owners of longer-term securities to sell will only hasten the depletion of the sooner-to-mature bills and notes. Are banks and money market mutual funds ready to trade in their T-bills for commercial paper? While banks predate the T-bill market, money market mutual funds do not. A money market mutual funds without Treasury securities in its portfolio would be a different animal from the ones we are used to seeing given that T-bills have traditionally been the most actively traded of all securities.

One institution that is keenly aware of the impending scarcity of Treasuries is the Federal Reserve. The Fed could be forced into an accumulation of private assets well before the total debt disappears, since the supply of privately-held securities is shrinking so fast. As we saw earlier, the Fed does have a distant history of owning commercial securities, and it could return to them. But one of the beauties of Treasuries has been their neutrality. One could anticipate the outcry from Ford if the Fed bought General Motors bonds and not theirs, or vice versa.[26] One of the other beauties of trading Treasury securities in open market operations and accumulating them over time has been the enormous breadth and depth of the Treasury market. The commercial bond market may not be big enough for such Fed activity. Another alternative for the Fed would be to trade in the mortgage-backed securities issued by government-created, agencies such as Ginnie Mae, Freddie Mac, and Fannie Mae. The fact that the latter two agencies are now privately owned means the Fed does not avoid the concerns of trading of corporate paper by choosing that tactic. Or it may be that the Fed will have to go back to relying more on the discount window, like central banks in other countries that do not have large government securities markets.[27] That still requires the Fed to own commercial paper.

An additional ramification of the shrinking quantity of Treasury securities is the reduced importance of Treasury interest rates as benchmarks for the rate on other securities. Given their lack of default risk, Treasury securities hold a unique status in the bond market. Their after-tax yield should be the lowest of any of the securities with the same term to maturity available in the market. One can always measure the degree of default risk associated with a bond by comparing its yield to a Treasury security with the same maturity. Take away the Treasuries and the market must choose a new benchmark. Already, the market has shifted its attention from 30-year Treasury bonds to 10-year Treasury bonds as an indicator of longer-term interest rates. This is because as the quantity of the "long bonds" has fallen and as the Treasury has indicated their desire to phase them out, the 30-year bonds have become even more prized possessions. This hoarding, for a time in 2000, drove their yields downward to such an extent as to make those yields no longer indicative of other long-term yields. They ceased to serve as benchmarks. How will the market react to this potential loss of benchmark status? A spate of research on the subject, exemplified by articles authored by Michael Fleming, David Jones, Albert Wojnilower, and Steven Zamsky, suggests that the market has already begun to evolve in the direction of using government-created agency debt and corporate debt to replace Treasuries as benchmarks. One suggested option is to use an index of bonds rates including both forms of debt. [28]

Who would have thought that the process of reducing the federal debt would have so many drawbacks associated with it? It definitely raises a number of questions. If we really do succeed in eliminating the debt and the budget surpluses persist, where will the Treasury put all those surplus funds? We cannot simply keep the surplus funds in a "lock box." Will the Treasury have to turn like everyone else to owning corporate debt? Or maybe even corporate equity? What will happen when the Social Security Administration's trust fund begins to decline and they start redeeming their GAS securities? Was it wise to allow an agency to build up such an enormous fund in the first place? Since we either do not know or do not like the answers to these questions, one might suggest a simpler alternative. Now that we are beginning to realize that the debt may indeed be the blessing Hamilton said it would be, maybe we should stop trying so hard to retire it.

There are actually some very attractive alternatives to retiring the debt. The most obvious choice to some is to eliminate some of the surplus through increased government spending. While there is an infinite number of programs that would get in line for more funds, one could certainly make a strong pro-growth argument in favor of channeling funds into a massive investment into the economy's long-neglected transportation superstructure. The more obvious choice to others is to eliminate part of the surplus through tax cuts. This was an option immediately chosen by the George W. Bush administration. Taking the tax tack in a slightly different direction, an alternative is to take advantage of the surpluses to implement the kind of fundamental tax reform that the budget supposedly could not afford five to ten years ago. For example, a flat tax system with a rate below twenty percent now appears doable.[29] Another reform plan, which appeared to be too expensive before but might be affordable with the surpluses, is a

reform of the social security system. It is the transition costs to a semi-private system that stand in the way of such reform. The contributions shortfall that a partial switch to privately-held funds would trigger could be at least partially covered by surplus funds.[30] Of course, all of these suggestions depend on the existence of those projected surpluses. Projections, by their very nature, are speculative and subject to changes in the economic variables that are plugged into the projection formulas. The terrorist attacks of September 11, 2001 and the economic slowdown that the attacks exacerbated may have permanently altered the levels of spending and economic growth in such a way as to eliminate the surpluses and to make this entire discussion moot.

Notes

1. Hamilton made this declaration in a letter to Robert Morris. John Steele Gordon, *Hamilton's Blessing: The Extraordinary Life and Times of Our National Debt* (New York: Penguin, 1997), 20.

2. Ibid. 174-203.

3. Robert M Sharp, *The Lore and Legends of Wall Street* (Homewood, Illinois: Dow Jones-Irwin, 1989), 69.

4. Gordon, *Hamilton's Blessing*, 42.

5. Bureau of the Public Debt, "Historical Debt Outstanding" in *The Public Debt Online* (www.publicdebt.treas.gov/opd/opdhisto2.htm).

6. Ibid.

7. Gordon, *Hamilton's Blessing*, 209.

8. Bureau of the Public Debt, "Historical Debt Outstanding."

9. Gordon, *Hamilton's Blessing*, 209.

10. Ibid.

11. Bureau of the Public Debt, "Historical Debt Outstanding," Office of Management and Budget, "The Budget for Fiscal Year 2001, Historical Tables," in *Budget of the United States Government* (www.whitehouse.gov/omb/budget/index.html), 21 – 24; 116-17.

12. Bureau of the Public Debt, "Historical Debt Outstanding;" Office of Management and Budget, "The Budget for Fiscal Year 2001, Historical Tables," in *Budget of the United States Government* (www.whitehouse.gov/omb/budget/index.html), 21 – 24; 116-17.

13. "The Budget for Fiscal Year 2001, Historical Tables," 21 –24. *Economic Report of the President* (Washington, D.C.:U.S. Government Printing Office, 2001), 367; 373.

14. Department of the Treasury, *Treasury Bulletin* (Washington D.C.: U.S. Government Printing Office (March 2001), 25.

15. Bureau of the Public Debt, "Treasury Securities at a Glance" in *The Public Debt Online* (www.publicdebt.treas.gov/com/comgas.htm).

16. William L. Holahan and Mark C. Schug, "A Simple Exposition of the Social Security Trust Fund." *Journal of Economic Education* (Fall 2000): 342-43.

17. Gary Gensler, "Fiscal Policy in a Era of Surpluses." *Federal Reserve Bank of New York Economic Policy Review* (April 2000): 83-85; Office of Management and Budget, *FY Economic Outlook, 2001*, 9; Kevin A. Hassett and R. Glenn Hubbard, "Where Do We Put The Surplus?" *The Wall Street Journal* (January 29, 2001): A 26.

18. Thomas M. Hoenig, "Monetary Policy in a Changing World," *Economic Review of the Federal Reserve Bank of Kansas City* (Fall 2000): 7.

19. Lester V. Chandler, *Benjamin Strong, Central Banker* (Washington, D. C.: The Brookings Institution, 1958), 205; 238-39.

20. Gordon, *Hamilton's Blessing*, 23-32.

21. Gordon, *Hamilton's Blessing*, 39.

22. Department of the Treasury, *Treasury Bulletin* (Washington D.C.: U.S. Government Printing Office (March 2001), 51-52.

23. Yochi J. Dreazen and Gregory Zuckerman, "Treasury Announces Its Plan to Buy Back Debt Of as Much as $30 Billion, Above Expectations." *The Wall Street Journal* (January 14, 2000): C 14; Dominique Dupont and Brian Sack, "The Treasury Securities Market: Overview and Recent Developments." *Federal Reserve Bulletin* (December, 1999): 804-805.

24. Hassett and Hubbard, "Where Do We Put the Surplus?" A 26.

25. Department of the Treasury, *Treasury Bulletin* (Washington D.C.: U.S. Government Printing Office (March 2001): 26.

26. Greg Ip, "Fed Studies Shrinking Treasuries Supply and Its Effect on Board's Own Portfolio," *Wall Street Journal* (January 30, 2001): A 4; Gregory Zuckerman and John D. McKinnon, "Mixed Blessings: Cutting National Debt Sounds Cool but Upsets Some Well-Laid Plans," *Wall Street Journal* (February 3, 2000): A1.

27. Hoenig,"Monetary Policy in a Changing World," 7.

28. Michael J. Fleming, "The Benchmark U.S. Treasury Market: Recent Performance and Possible Alternatives." *Federal Reserve Bank of New York Economic Policy Review* (April 2000): 129-45; David M. Jones, "The Demise of the 30-Year Treasury Bond as a Benchmark for Pricing Fixed-Income Securities." *Business Economics* (October 2000): 16-24; Albert M. Wojnilower, "Life Without Treasuries." *Business Economics* (October 2000): 10-15. Steven A. Zamsky, "Diminishing Treasury Supply." *Business Economics* (October 2000): 25-32.

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