Order Code RL32049

Reintroduction of the 30-Year Treasury Bond: An Economic Analysis

Updated August 8, 2005

Marc Labonte
Specialist in Macroeconomics
Government and Finance Division

Reintroduction of the 30-Year Treasury Bond: An Economic Analysis

Summary

Facing projections of burgeoning surpluses, the Treasury decided to stop issuing the 30-year bond in 2001. It was reasoned at the time that the government would not need to borrow long-term when it planned to retire the entire publicly held national debt within a few years. Since then, the projections of large surpluses have been transformed into large deficits. On August 3, 2005, the Treasury announced that the 30-year bond would be reintroduced in the first quarter of 2006. To evaluate the merits of this change, it is useful to consider how the reintroduction of the 30-year bond would affect the cost of government borrowing, the macroeconomy, and financial market efficiency.

Reintroduction of the 30-year bond could reduce government borrowing costs, but the circumstances under which 30-year bonds would be less costly than shorter-term debt would be rare. The government could lower its interest costs only when the yield on 30-year bonds is lower than the yield on present and expected future yields on shorter-term debt. This occurs infrequently because when long-term rates fall, short-term rates typically fall even further. Actively changing borrowing patterns to reduce interest costs would be a departure from current Treasury debt management policy and would run counter to its goal of promoting efficient financial markets. Reintroduction of the 30-year Treasury bond would not be expected to have any significant effect on the macroeconomy. Economic theory suggests that government budget deficits have important effects on economic growth and interest rates, but there is thought to be little significance to the maturity at which the debt is financed.

U.S. Treasuries are important to the functioning of the financial system through their roles as a benchmark security and a safe haven. The benchmark role refers to the tendency of the financial sector to use U.S. Treasuries to price other financial securities and as collateral in other financial instruments. The safe haven role refers to the large capital flows into Treasuries at times of financial unrest. The effect of reintroducing the 30-year Treasury bond on financial efficiency revolves around whether it would enhance the benchmark and safe haven role. Treasuries serve these roles effectively because they are highly liquid and predictable. Reintroducing the 30-year bond would reduce the liquidity and predictability of other Treasury securities only if future budget deficits are small. Before its discontinuation, the 30-year Treasury bond served in the benchmark role; since its retirement, it has been replaced by the 10-year Treasury note.

The government borrows across many maturities to neutralize the effect on private borrowing patterns. If the government borrowed disproportionately at the short or long end of the market, it could force private borrowers out of that end. Reintroduction of the 30-year bond would enhance the government's neutrality with respect to maturity length. Some also argue that the private supply for very long-term debt falls short of private demand, which is driven by institutions such as banks, insurance companies, and pension funds. Reintroduction of the 30-year bond could fill that gap. This report will not be updated.

Contents

List of Figures

List of Tables

Reintroduction of the 30-Year Treasury Bond: An Economic Analysis

The history of 30-year Treasury bonds stretches back to World War I. In the post-World War II era, the Treasury began to issue 30-year bonds in 1977. In the decades before 1977, long-term federal government borrowing was limited by mandated interest rate ceilings that were often lower than market rates. After the repeal of interest rate ceilings, the issuance by the Treasury of 30-year bonds and other long-term bonds increased rapidly in the 1980s along with the growth in the budget deficit.

New issues of the 30-year Treasury bond were discontinued in November 2001 based on budget projections at the time that the publicly held national debt would be retired within a matter of years.[1] It was reasoned at the time that it would not be in the nation's interest to issue debt that would still be outstanding after the national debt had been retired and the budget had entered a period of sustained surplus. The drawbacks to discontinuing the 30-year bond were seen to be insignificant. The Treasury also discontinued other maturities, such as the 20-year bond and the 3-year note, in the surplus years in order to increase liquidity in the remaining maturities as borrowing needs dwindled.

Since then, the projections of large surpluses have been transformed into large deficits. On August 3, 2005, the Treasury announced that the 30-year bond would be reintroduced in the first quarter of 2006.[2] To evaluate the merits of this change, it is useful to consider how the reintroduction of the 30-year bond would affect the cost of government borrowing, the macroeconomy, and the efficiency of financial markets. Before doing so, it is useful to define the goals of Treasury debt management.

The Goals of Treasury Debt Management

The federal government currently borrows across the yield curve, from bills that mature in three months to notes that mature in 10 years. In 2004, the average length

---

[1] Although the government stopped issuing new 30-year Treasuries, the effort to retire outstanding 30-year Treasuries prematurely was limited. At the time the 30-year program was discontinued, the last outstanding 30-year bond would have matured in 2032.

[2] U.S. Department of Treasury, "August 2005 Quarterly Refunding Statement," press release js-2671, Aug. 3, 2005.

of maturity on outstanding Treasuries was 4 years and 11 months.[3] The Treasury identifies three major principles guiding its debt management decisions:

(1) to provide sound cash management in order to ensure that adequate cash balances are available at all times;
(2) to achieve the lowest cost financing for the taxpayers; and
(3) to promote efficient capital markets.[4]

At times these principles are mutually compatible; at others they conflict with one another. For example, issuing long-term bonds helps the government achieve the first goal because it adds predictability to its revenues by reducing the uncertainty of future interest costs. But it will often raise interest costs to the taxpayer. While the reintroduction of the 30-year Treasury bond would increase predictability, it is arguable whether sufficient predictability cannot already be achieved with 5-year and 10-year securities. The remainder of the report will explore the effects of the reintroduction of the 30-year bond on the other two goals of Treasury debt management and its macroeconomic effects.

Effect on the Federal Government's Finances

Reducing interest costs frees up government revenues for lower taxes or higher government spending. Issuing 30-year bonds could reduce interest costs to the government when long-term rates are low both in absolute terms and relative to short-term rates. To determine whether 30-year bonds will lower interest costs, it is necessary to compare their yields not only to short-term yields today, but also to expected future short-term yields. The alternative to issuing a long-term bond is to issue a short-term security and continue to roll it over into new short-term securities as it matures. Thus, long-term bonds are financially preferable to short-term securities only if long-term rates are lower than the (discounted) sum of current and future short-term rates. This is most likely to be the case when the yield curve shifts down and flattens; but it is rare for both to happen simultaneously.

To understand why this is true, it is necessary to understand movements in the yield curve. The yield curve is a plot of interest rates by maturity. Typically, it is sloping upward, such that long-term rates are higher than short-term rates. Thus, when an interest rate of any given maturity changes, there can be two sources of the change: a shift of the yield curve (with no change in slope), as shown in **Figure 1**, or a change in the slope of the yield curve, as shown in **Figure 2**. As economic conditions improve, the yield curve tends to both shift upward (so interest rates are higher at all maturities) and flatten (so that the difference between short term and long term rates diminishes), all else equal. It is common for the yield curve to become inverted (long-term rates are lower than short-term rates) at relatively high

---

[3] U.S. Department of Treasury, *Treasury Bulletin*, June 2005, Table FD-5.

[4] Testimony by Treasury Assistant Secretary Lee Sachs before the House Committee on Ways and Means, Sept. 28, 1999. These principles have not been changed by the current Administration.

interest rates directly before a recession begins. By contrast, rates are typically low (i.e., the yield curve has shifted downward) when the yield curve is relatively steep.[5]

Figure 1. Example of a Shift in the Yield Curve

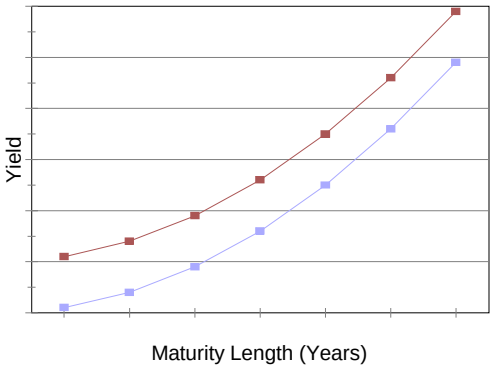
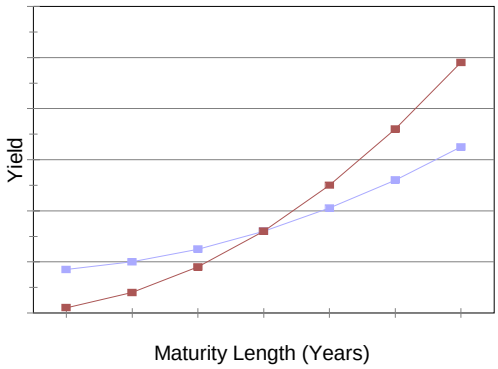


Figure 2. Example of a Change in the Slope of the Yield Curve



This suggests that the reintroduction of the 30-year bond could lower interest costs in rare instances if the government aggressively pursued a cost-minimizing strategy. The Treasury does not currently pursue such a strategy, however, because it would undermine the other two principles of debt management.[6] As will be discussed below, the other goals of debt management rely on maintaining neutrality, predictability, and liquidity. Pursuit of these goals inhibits the Treasury from exploiting movements in the yield curve through changes in issuance patterns. Undoubtedly this leads to higher interest costs in the short run. But some argue that pursuing an aggressive least-cost strategy would *not* necessarily lower borrowing costs in the long term. U.S. Treasuries have lower interest rates than any other asset because they are perceived as safer than any other asset. Part of this safety derives from their predictability and liquidity, and were these features to be reduced by erratic and idiosyncratic issuance patterns, Treasuries would be less desirable to investors, who would therefore demand higher yields to hold them. Borrowing across the yield curve may also extend the appeal of Treasury securities to a broader

---

[5] This relationship is borne out in the data: from 1977 to 2002, the annual correlation between 30-year Treasury yields and the spread between 10-year Treasury yields and 30-year yields was -0.72.

[6] The last time the Treasury made a major change in borrowing patterns to lower interest costs was 1993, when 45% of its long-term financing was shifted to short-term securities. However, this was done at a time when long-term interest rates were at their lowest nominal level in 16 years. This was a one-time shift in policy toward shorter maturities, and borrowing patterns were not continuously altered to take advantage of subsequent movements in interest rates. See "Treasury Shift Toward Short-Term a Bet on Future Rates," *Christian Science Monitor*, May10, 1993; Thomas Watterson, "Treasury Plan a Negative in Long Term," *Boston Globe*, May 10, 1993, p. 11; "Big Change in Treasury Sales," *San Francisco Chronicle*, May 6, 1993, p. C1.

class of investors, increasing demand for U.S. Treasuries and, hence, lowering their interest costs.[7]

From a debt management perspective, the Treasury is concerned not only with minimizing the cost of interest payments, but also with minimizing the risks associated with uncertain interest payments. For example, if the Treasury borrowed exclusively on a short-term basis, its average cost over time would be lower, but the volatility of its interest payments would be higher. This would lead to larger income transfers from taxpayers to bond owners in years when interest rates are high, and smaller transfers in years when rates are low. Borrowing on a longer-term basis reduces interest payment volatility by locking in a given interest rate over the life of the bond, smoothing the transfers from taxpayers to bondholders over time. Issuing 30-year bonds again would increase the Treasury's ability to smooth interest payments over time.[8]

The argument, explained below, that interest payments are not burdensome to the economy as a whole since "we owe it to ourselves" suggests that there is no economic rationale for the goal of minimizing interest payments on domestically held debt through variable issuance strategies. However, a valid economic argument can be made in favor of minimizing interest payments for the portion of the national debt owned by foreigners.

There is also the issue of whether the reintroduction of the 30-year bond would impose one-time administrative costs on the Treasury. At the time of its discontinuation, Treasury Undersecretary Peter Fisher said that the 30-year bond could be reintroduced "at no cost to the Treasury."[9] Since there are administrative costs associated with every bond issuance, rolling over short-term bonds, in general, entails higher administrative costs than issuing long-term bonds; however, administrative costs are tiny compared to the amounts borrowed.

Effect on the Macroeconomy

Economic theory suggests a clear effect of the budget balance on the economy.[10] In the short run, budget deficits may stimulate aggregate spending in the economy, particularly if the economy is in a recession. In the long run, deficits reduce the sustainable rate of growth by "crowding out" private investment, all else equal.[11] This reduces U.S. living standards in the long run from what they otherwise would be.

---

[7] Testimony by Treasury Assistant Secretary Gary Gensler before the House Committee on Ways and Means, June 23, 1998.

[8] Professor John Campbell, "Testimony before the Committee on Ways and Means," June 24, 1998.

[9] John Berry, "Treasury to Stop 30-Year Bond Sales," *Washington Post*, Nov. 1, 2001, p. E1.

[10] See CRS Report RL31235, *The Economics of the Federal Budget Deficit*, by Brian Cashell.

[11] Borrowing from abroad can offset the loss in American saving, but the income from that investment will flow to foreigners, rather than Americans.

By contrast, the maturity at which the deficits are financed is thought to have a negligible effect on the economy and has received little attention from macroeconomists. Because long-term rates are thought to have a greater effect on investment spending than short-term rates, some macroeconomists have posited that if the government concentrates its borrowing at the short end of the market, it can flatten the yield curve by pushing down long-term rates and pushing up short-term rates. They argue that this would lead to more investment spending, and hence a higher economic growth rate, for a given budget deficit.[12] This would argue against the reintroduction of the 30-year bond. There does not seem to be much empirical evidence supporting this theory, however, so if it is correct, the effect does not appear to be large. Furthermore, financial markets are more dynamic than their reasoning implies. Since investment levels are ultimately determined by national saving, which is not affected by changes in the yield curve, it is not clear why an increase in long-term borrowing by corporations would not be exactly offset by a decrease in short-term borrowing by corporations. If this is the case, a reintroduction of the 30-year bond would have no effect on private investment, and hence, economic growth.

It is often argued that the economic burden of the debt comes from the interest payments that must be paid on the debt since these interest payments make taxpayers worse off. Economists reject this argument on the grounds that higher interest payments make bondholders equally better off. Therefore, the debt represents a transfer from one American (the taxpayer) to another (the bondholder) with no net effect on the economy. In this case, reintroducing the 30-year bond as a means of lowering interest costs (the merits of which were analyzed in the previous section) would redistribute income from bondholders to taxpayers but would have no effect on the nation's overall welfare. This argument does not hold for the approximately one-half of the national debt held by foreigners, however. For this portion of the debt, proposals to minimize interest costs would raise U.S. welfare on net, since less U.S. income would be transferred to foreign bondholders.[13]

Effect on Financial Markets

The last of the Treasury's three main principles guiding debt management is the promotion of efficient capital markets. U.S. Treasuries are a popular investment option for a wide range of individual and institutional investors, many of whom would be pleased to see the 30-year Treasury bond return.[14] If this were their only significance, then one could not say they had either a positive or negative effect on the financial system as a whole. It is the fact that Treasuries play two special roles in financial markets, as a benchmark and a safe haven, that makes them of special

---

[12] Benjamin Friedman, "Debt Management Policy, Interest Rates, and Economic Activity," National Bureau of Economic Research, working paper 830, Dec. 1981.

[13] See CRS Report RL30520, *The National Debt: Who Bears Its Burden?*, by Marc Labonte and Gail Makinen.

[14] In this section, the term Treasuries will be used for statements applying to Treasury securities of all maturities, and 30-year Treasury bond will be used for statements specifically applying to the 30-year bond.

importance to the overall functioning of the financial system. The merits of reinstating the 30-year bond are therefore judged in terms of these two roles.

(1) Role of Treasuries as Benchmark. Treasuries play an important role in the financial system as a financial benchmark. Treasury benchmark status is manifested in its role in providing information about general market conditions, the pricing of other securities relative to Treasuries, their universal acceptance as collateral in a myriad range of financial transactions, and their underlying role in the creation of other financial instruments, such as derivatives. Treasuries are able to serve as a benchmark because of their predictability, liquidity, and risk-free status, three features that will be discussed below.

Before the late 1990s, the 30-year Treasury bond was the preferred security for benchmark status. Since 30-year bond sales dwindled with growing surpluses, and ultimately ended, the 10-year Treasury note has replaced it as the new benchmark.[15] While the role of the benchmark is a strong argument in favor of predictable, liquid Treasuries in general, it is unclear whether returning the 30-year bond to that role would have any advantages over maintaining the 10-year Treasury note as the benchmark. Perhaps the fact that, when previously given the choice, investors preferred the 30-year bond to the 10-year note as a benchmark is evidence that investors would favor its return to the benchmark role.

(2) Role of Treasuries as Safe Haven. In times of financial unrest and turmoil, large volumes of capital often flow abruptly into Treasuries. (This occurred, for example, in October 1998 following the Russian default.[16]) Some would argue that this has a stabilizing effect that helps to restore calm to the markets. Financial turmoil abroad also frequently leads to foreign capital inflows into U.S. Treasuries as foreigners look for a safe haven for their savings. Although the result of these inflows is an increase in the trade deficit, economists tend to believe that on balance foreign capital inflows are advantageous for the U.S. economy since they help to offset the negative effect of the United States' chronically low (public and private) savings rate on private investment. Reinstating the 30-year bond would enhance the role of Treasuries as a safe haven, although the enhancement may be marginal since investors already have an array of Treasuries at other maturities from which to choose.

Now that the roles played by Treasuries have been defined, it is useful to consider how the Treasury's debt management policy supports these roles, and how the 30-year bond fits into this picture. To promote efficient capital markets, the Treasury must pursue a number of goals, including the following.[17]

---

[15] Gregory Zuckerman, "Ring in a New Bond Bellwether," *Wall Street Journal*, May 2, 2000, p. C1.

[16] Michael Fleming, "The Benchmark U.S. Treasury Market," *Economic Policy Review*, Federal Reserve Bank of New York, Apr. 2000, p. 132.

[17] Adapted from Testimony by Treasury Assistant Secretary Gary Gensler before House Committee on Ways and Means, June 23, 1998.

- *Neutrality*. Bond issuance should have a minimal effect on the economy's natural yield curve, accomplished by borrowing evenly across the yield curve.

- *Liquidity*. The government should make Treasury markets as liquid as possible by standardizing the characteristics of the bonds issued. This minimizes short term volatility in bond markets following a large issuance or retirement of a certain type of Treasury bond.

- *Predictability*. Bond issuances should be announced far in advance and follow a predictable pattern. For example, three-month bills are auctioned every week, and the five-year note is issued four times a year.

The rest of this section analyzes how the reintroduction of the 30-year Treasury bond would affect each of these factors.

Effect on Neutrality. In the absence of government borrowing, the yield curve on private bonds would be determined by borrowers' needs and lenders' preferences, leading to an economically efficient outcome. Maintaining this economically efficient outcome requires that the government borrow in a way that minimizes the effect on the market-determined yield curve. This suggests that the government should borrow evenly across the broadest range of maturities, such that it does not crowd private borrowers out of any portion of the market. Reintroduction of the 30-year bond should help the government to achieve this by increasing its role at the long end of the market and reducing its effect on the short and medium range of the market.

Furthermore, some argue that the very long end of the market is under-supplied by the private sector. There is significant demand for 30-year bonds from private sector participants with long-term liabilities such as banks, insurance companies, and pension funds. There is also significant foreign demand for long-term government bonds, particularly among official institutions such as foreign central banks. Yet, as seen in **Table 1**, there is little supply of very long-term bonds from the private sector because most corporations prefer to borrow on a shorter-term basis. This may be because risk premiums become unprofitably high for corporations that far into the future. If the long end of the market is under-supplied, reintroduction of the 30-year bond can step in and fill the gap between demand and private supply. Clearly, investors with long-term liabilities, such as banks, insurance companies, and pension funds, would benefit since it would give them a lower cost method (although it is not the only method) for hedging against risks related to maturity mismatch.

Table 1. Corporate Issuance By Maturity Length

Maturity Length	2000	2001	2002
30+ years (total in millions)	$25,496.3	$61,285.2	$49,906.4
30+ years as a % of total corporate debt	2.4%	5.5%	5.7%
30+ years as a %of all corporate bonds	3.4%	7.0%	7.6%

Source: Thomson Financial Securities Data, provided to CRS by The Bond Market Association.

Note: Total corporate debt includes bonds and commercial paper. For this table, bonds are defined as all corporate bonds with a maturity of one year or greater. Data in the chart do not include the debt of government sponsored enterprises.

Some argue that this reasoning is backwards. The reason, they argue, that private borrowing is limited at the long end of the market is that previous Treasury borrowing crowded corporate borrowers out of the long-term market. They argue that 30-year corporate bonds were more widespread in the post-war period before 30-year Treasuries were introduced in 1977.[18] After the 30-year bond was discontinued, a few corporations, such as Fannie Mae, Freddie Mac, and Ford did increase their issuance of long term bonds; however, 30-year bonds comprise only a small portion of their total debt. As can be seen in **Table 1**, there was a big jump in issuance at the long end of the private market in the year the 30-year Treasury bond was discontinued.

Effect on Liquidity. One characteristic that makes Treasuries unique is that they are significantly more liquid than other financial instruments. That is primarily because government borrowing is so much larger than the borrowing of any private corporation. As a result, Treasuries are sold at a lower bid-ask spread than other instruments. All else equal, greater liquidity reduces price volatility, and this reinforces the role of Treasuries as a riskless asset and a benchmark. Its high degree of liquidity is also essential to its role as a safe haven because investors can move into them quickly without bearing large losses. Some economists argue that liquid Treasury markets enhance general financial market efficiency.[19]

During the surplus years (FY1998-FY2001), liquidity in the overall Treasury market was maintained by focusing new issues in a narrower range of maturities and discontinuing new issuances in other maturities, such as the 30-year bond. Essentially, high liquidity was maintained at a few key maturities by sacrificing

---

[18] Benjamin Friedman, "The Treasury Threatens Corporate Balance Sheets," *Harvard Business Review*, Sept./Oct. 1982, p. 20; Jonathan Fuerbringer, "U.S. Will End Regular Sale of Long Bond," *New York Times*, Nov. 1, 2001, p. C1.

[19] For example, see Michael Woodford, "Public Debt as Private Liquidity," *American Economic Review*, vol. 80, no. 2, 1990, pp. 382-388.

liquidity in maturities such as the 30-year bond. The usefulness of bringing back the 30-year bond hinges crucially on two points. First, whether enough 30-year bonds would be issued to restore liquidity to the 30-year market. Second, whether this could be accomplished without sacrificing liquidity in Treasuries of other maturity lengths. Given the size of current deficits, neither should be a concern.[20]

Effect on Predictability. Predictability is a necessary characteristic of a benchmark and a safe haven asset. Predictability takes many forms, such as regular issuances, minimal price fluctuation, and maintenance of the risk-free status. Reintroducing 30-year Treasuries could enhance or reduce predictability, depending on the size of future budget deficits. Relatively small deficits could reduce predictability by spreading the Treasury market too thin over too many maturity lengths. But given the size of current deficits, the 30-year bond should increase predictability because the issuance of long-term debt reduces the unpredictability caused by rolling over debt, as discussed above.

Conclusion

The efficacy of the decision to reintroduce the 30-year Treasury bond depends first on the future direction of fiscal policy. If future budget deficits are sizable and long-lasting, as they are projected to be under current policy,[21] then it is as sensible to issue 30-year bonds now as it was in the 1980s and 1990s. Alternatively, if the budget moves quickly back to surplus because of future policy changes or errors in budget projections, then there would be little purpose in reintroducing the 30-year bond, and the reasoning behind its discontinuation in 2001 would apply again.

With that qualification, if one assumes that current budget policy will follow current projections, most analysts see few drawbacks to reintroducing the 30-year bond, and a number of advantages. Before reviewing the proposed advantages, it may be useful to note that if the Treasury had deemed them important, it presumably would not have discontinued the 30-year bond in 2001.

From the perspective of budgetary finance, the reintroduction of the 30-year bond might lower the government's interest costs. This would depend on the government aggressively altering its borrowing patterns as interest rates change, however, which would be a radical departure from current debt management policy. Furthermore, since 30-year bond yields are typically the highest of any Treasury security, the occasions on which issuing 30-year bonds would lower costs would be relatively limited. Specifically, they would be limited to times in which interest rates are low and the yield curve is relatively flat or inverted. Some argue that a debt-management policy of aggressive cost-minimization would ultimately be self-

---

[20] It should be noted that liquidity is a relative term: even if few 30-year Treasury bonds were issued, making them relatively illiquid compared to other Treasury securities, they could still be more liquid than corporate bonds.

[21] See CRS Report RL31414, *Baseline Budget Projections: A Discussion of Issues*, by Marc Labonte.

defeating since the loss in predictability and liquidity would ultimately reduce investor demand, raising bond yields.

There is little persuasive evidence that the reintroduction of the 30-year bond could have any effect on overall interest rates, investment levels, or economic growth.

It is likely that the greatest benefit from reintroducing the 30-year bond would lie in its effects on financial markets (assuming future deficits are large enough that reintroduction of the 30-year bond would not result in less liquid markets for Treasuries overall). There is significant demand for 30-year bonds from private-sector participants with long-term liabilities such as banks, insurance companies, and pensions funds. There is also significant demand for 30-year bonds among foreigners, notably foreign central banks. Yet there is little supply of very long-term bonds from the private sector because most corporations prefer to borrow on a shorter-term basis. By reintroducing the 30-year bond, the government may step in and fill that gap. Before it was discontinued, the 30-year bond also played an underlying role in certain financial derivatives. If issued in sufficient quantity, the 30-year bond could also fulfill the role it previously played as a financial benchmark, now held by the 10-year note.