

Research Department  
Federal Reserve  
Bank of  
San Francisco

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## Is the Government an Honest Borrower?

Over the last three years, the private U.S. economy has benefitted from one of the largest federal personal income tax cuts in U.S. history. The strong and continued growth in personal consumption since early 1983 is often attributed to this tax cut. Over the same period of time, the U.S. economy has faced a major related change in the financial status of its federal government—a federal deficit that has risen from about \$28 billion in fiscal 1979, the economic peak of the previous recovery, to \$195 billion in fiscal 1983, the first year of recovery in the current cycle.

While a large portion of the deficit in 1982 and 1983 may be related to changes in the business cycle (deficits automatically rise during recessions), a significant part of current and future deficits is not. That is, the United States will have a large federal deficit even when the economy reaches a point where its labor and capital stocks are at or near "full employment." The Office of Management and Budget (OMB) in April estimated that the federal government will be in deficit to the tune of \$193 billion in 1985, when the economy is expected to be near such conditions of full employment. The OMB expects the federal deficit to remain in the area of \$164 billion as far into the future as 1988, even if Congress and the Administration agree on a "down payment" to reduce the deficit.

The rise in the federal deficit has triggered an enormous debate both in academic circles and in the financial and popular press. Some argue that the stream of future deficits threatens to undermine long-term U.S. economic growth, and point to the current level of real (inflation-adjusted) interest rates and the large deterioration in the net export position of the United States since 1980. Others claim that the deficit has not caused the current high interest rates and will not jeopardize future U.S. economic growth.

It must seem unusual to the non-economist that such an important issue as the effect of the financial status of the federal government on the behavior of the private economy is still unresolved among professional economists and, more important, macro-economic policymakers. Yet, this issue is part of an economic and political science debate that has raged for the last 150 years: to what extent can the government alter private market behavior and to what extent does the private market consider government financial behavior, that is, the choice between taxation and borrowing, in making its consumption and investment decisions?

### Ricardo and Puviani

Much of the theory about how government affects private market behavior revolves around the private market's perceptions of government behavior and its response in the marketplace. To distinguish two opposing positions on this issue, we will consider one well-known view in academic circles and another that is very little known.

The first view is associated with the camp that argues that alternative means of financing the government are irrelevant to the determination of interest rates and to private market behavior. This so-called "neo-Ricardian" school of thought argues that the private sector perceives government deficits to be a sequence of future tax liabilities that will be needed to service the continuing government debt. Thus, where the deficit is caused by a tax cut, the private sector is viewed as perceiving that taxes really haven't been cut. It therefore saves the entire tax cut because it knows that later on it will have to pay higher taxes to service the additional principal and interest on the new debt. Because the extra saving exactly matches the new borrowing the government has to undertake, the end result is no change in interest rates. The private sector's consumption behavior does not change one iota

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because its "true" income—taking into account the higher taxes that will have to be paid later—is the same as before. Perceived real disposable personal income, in other words, remains unchanged.

In this rarefied picture of the government deficit, government financial behavior is completely neutral. It does not affect private market consumption or investment decisions because the deficit does not effectively alter the resources individuals will have at their disposal over a suitably defined horizon. This horizon covers not only the individual's lifetime, but that of his heirs.

The neo-Ricardian argument requires a forward-looking public, and one which is benevolent in considering the welfare of its heirs. Hence, current generations do not, in this story, attempt to "exploit" future generations by reaping the benefits of current deficit-financed expenditures while leaving the cost of servicing the newly created debt to them.

To the academic economist, the Ricardian argument may seem elegant and consistent, but to the general public, it probably appears unrealistic. Given that long-term interest rates have risen in recent years more in step with movements in the federal deficit than with observed inflation, financial market participants seem to be signalling some concern over the future costs of financing the deficit (see chart).

A fiscal theory quite unlike the Ricardian theory, based on the argument that the financial status of the government does indeed alter private market economic behavior, is that of the turn-of-the-century Italian fiscal theorist, Amilcare Puviani. Puviani argued that government financial behavior can be best understood by starting with the hypothesis that government will always attempt to hide the burden of financing the government and extol the benefits of its expenditures. This type of government behavior, he thought, was often successful

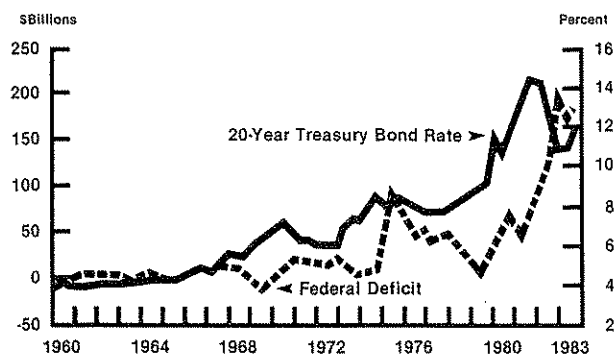
in fooling the public into substantially altering its private market behavior.

Puviani stated his theory in his book, *Teoria della illusione finanziari/Theory of Financial Illusion*, which was published in Palermo in 1903. Later fiscal theorists, such as Mauro Fasiani in Italy and James Buchanan in the United States, paid attention to Puviani's arguments because they seemed to be consistent with actual government behavior, such as the preference for indirect over direct taxation. However, because Puviani's comprehensive arguments are not available in English, and also because of the lack of mathematical formalism, Puviani's theory has had little if any direct impact on public finance theory in the United States.

The "neo-Ricardian" fiscal arguments and Puviani's theory differ in one specific area. Whereas the neo-Ricardian arguments assume individuals know that the capitalized (discounted present) value of future taxes needed to service the new debt associated with a tax cut exactly equals the value of the new debt held by the public (such that there is no increase in the net wealth of the public), Puviani argued that the public has difficulty figuring out what the capitalized value of future tax payments will be. As a result, using deficits or current taxes to finance government expenditures results in different impacts on private economic behavior.

According to Puviani, the public suffers from "fiscal illusion." Part of this illusion results from governments that actually keep their financial dealings secret. In addition, the use of public enterprises to generate revenue and government preferences for indirect over direct taxation made it difficult, Puviani argued, to calculate the true individual tax burden. Individuals in Puviani's world would indeed spend a large portion of a tax cut and disregard the future servicing costs, and associated future taxation, connected with the tax cut.

## Federal Deficit and Long-term Interest Rates



### Is the government a good risk?

There is another side to the government deficit issue which Puviani did not consider—the default risk of government debt. With any private loan, default is always an option for the borrower. The choice of this option implicitly involves determining whether the cost of default is greater than the value to the borrower of not repaying the loan.

In private financial markets, lenders attempt to vary the cost of borrowing according to the default characteristics of the borrower. However, it has been argued that imperfect information leads lenders to charge more to “good borrowers” than if good information were available on the risk characteristics of all borrowers. This is somewhat analogous to the more familiar auto insurance problem where “good drivers” pay higher premiums because premiums are based on average risks and the insurance companies cannot isolate the “bad risks” before these bad risks result in auto accidents.

There is, in addition, one major difference between loans to private and government borrowers. Private lenders do not have the same enforcement powers over the federal government as they do over private borrowers. They have, for example, few means of enforcing repayment.

No one seriously believes that the U.S. government will formally default on any of its obligations. Nonetheless, governments may be able to “default” on part of their loans when they pursue inflationary policies that cause the real, or inflation-adjusted, return on government debt to be less than investors had expected. Inflation history is, then, one way of assessing the creditworth-

ness of the federal government. However, it is difficult for the private sector to judge the true “default characteristics” of the federal government because it does not know what sorts of inflationary policies future administrations may undertake.

The private market can, however, reveal its fears of possible future inflation by requiring a substantial premium in interest rates considerably above the observed inflation rate. If the neo-Ricardian argument were correct, the federal deficit should have little, if any, impact on long-term interest rates since an increase in the federal government’s supply of securities would be automatically matched by an equivalent private demand. An alternative view of the government suggests that the private sector realizes it may be taxed via inflation if future inflation is greater than that currently expected. One way for the private sector to reduce the risk of this form of taxation is for it to treat the government as a bad insurance risk and raise the premium required to hold long-term government debt. Recent interest rates appear to reflect the private market’s difficulty in evaluating the inflation-related credit-worthiness of the federal government.

Puviani’s “model” of the government attempting to hide the true costs of its financial policies while exaggerating the benefits of these policies may help us to understand why financial markets witnessed a rise in the 20-year Treasury bond rate from about 10.50 percent in May 1983 to over 13.50 percent in early June 1984, when there was no significant change in observed inflation.

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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount	Change	Change from 12/28/83	
	Outstanding 5/30/84	from 5/23/84	Dollar	Percent Annualized
Loans, Leases and Investments <sup>1 2</sup>	179,543	- 132	3,518	4.7
Loans and Leases <sup>1 6</sup>	160,057	- 216	4,702	7.1
Commercial and Industrial	48,331	- 305	2,368	12.1
Real estate	59,882	27	983	3.9
Loans to Individuals	28,191	149	1,540	13.6
Leases	4,985	- 3	78	- 3.6
U.S. Treasury and Agency Securities <sup>2</sup>	11,945	81	562	- 10.6
Other Securities <sup>2</sup>	7,541	3	622	- 18.0
Total Deposits	187,606	1,493	3,391	- 4.1
Demand Deposits	44,505	1,480	4,732	- 22.7
Demand Deposits Adjusted <sup>3</sup>	27,773	- 218	3,558	- 26.8
Other Transaction Balances <sup>4</sup>	12,112	118	663	- 12.2
Total Non-Transaction Balances <sup>6</sup>	130,989	- 105	2,004	3.6
Money Market Deposit Accounts—Total	39,373	70	224	- 1.3
Time Deposits in Amounts of \$100,000 or more	39,526	72	1,361	8.4
Other Liabilities for Borrowed Money <sup>5</sup>	19,807	158	3,200	- 32.8
<b>Weekly Averages of Daily Figures</b>	Week ended 5/21/84	Week ended 5/7/84		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	- 16	89		
Borrowings	55	147		
Net free reserves (+)/Net borrowed(-)	- 71	- 58		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

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