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# FRBSF WEEKLY LETTER

September 28, 1984

## Impervious Saving Behavior

One argument made a few years ago by proponents of large federal tax cuts was that the resulting massive federal deficits could automatically be financed by the private sector. In part, the argument relied on the hypothesis that the fall in tax rates would create an incentive for the private sector to increase its saving rate, and that the increase in private saving would finance the federal deficits and obviate any increase in market interest rates.

Such arguments no longer appear in the financial press because the reality is that we live in a country of deficient domestic saving. This deficiency is easily measured. It is simply the difference between gross *private domestic* investment and gross domestic saving in our national income accounts. Gross saving is the sum of gross private saving (personal and business) and the saving of the government sector.

In the second quarter of this year gross *private* saving totalled \$663 billion. Added to the \$54 billion surplus of state and local governments and the \$167 federal deficit—the “dissaving” of the federal government, we find that the gross saving of the entire economy in the second quarter of 1984 amounted to \$550 billion, at an annual rate. In contrast, gross private domestic investment totalled \$626 billion. Domestic investment therefore exceeded domestic saving. The balance of about \$76 billion was made up in essence by borrowing from abroad. Foreigners can be viewed as having provided about 12 percent of the funds needed to finance U.S. private investment in the second quarter, or as having financed about 45 percent of the federal deficit.

### How the private sector sees the government

Before the proponents of large federal tax cuts made their claims about probable private sector responses to increased federal deficits and higher after-tax rates of return, they should have studied the post-war behavior of gross domestic private saving. Despite recent economic events such as changes in federal income tax rates and high real interest rates, the gross domestic private saving rate whether measured as a percent of GNP or of national income has remained relatively stable.

From 1975 to 1983, gross domestic private saving as a percent of gross national product varied between 16.5 percent and 18.2 percent. In the last three years, its rate has moved narrowly between 17.1 and 17.3 percent. The same stability does not describe the government saving rate. Since 1975, federal, state and local financial positions combined have yielded a government saving rate (as a percent of GNP) that has ranged from about zero in 1979 to negative 4 percent in 1983. Gross domestic private saving, has, then, seemed insensitive to the financial position of the government sector as well as to the extraordinarily high level of real interest rates in recent years. (See Chart 1.)

While the gross domestic private saving rate has been relatively stable, its two components—personal saving and business saving have not. As noted by Edward F. Denison three decades ago, personal saving and corporate saving often appear to move in opposite directions. In a sense, the personal sector appears to incorporate the saving behavior of the corporate sector in its own decisions to save and to consume. This is not unreasonable. Since the non-business (personal) sector “owns” the corporate sector, it considers corporate saving, composed of undistributed corporate profits and depreciation of corporate and noncorporate business, a close substitute for personal saving. This implies, as noted by Denison, that personal consumption expenditures are unaffected by corporate dividend behavior.

The offsetting saving behavior of the personal and corporate sectors leads to stability in the gross private domestic saving rate. The relationship is clearly observable in the two saving rates in just the last few years (Chart 2). Business saving as a percent of GNP grew from 12.6 to 13.7 percent between 1981 and 1983. Personal saving as a percent of GNP, on the other hand, fell from 4.6 to 3.6 percent from 1981 to 1983. The net effect was to produce gross private saving rates (as a percent of GNP) of 17.24, 17.07, and 17.30 percent in 1981, 1982 and 1983, respectively.

Domestic private saving has truly been impervious to the level of real interest rates in recent years and to the financial status of the federal government,

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whose deficits have nearly tripled during the period from 1981 to 1983. While the personal sector seems to continue to incorporate the saving status of the business sector in its own saving decisions, it appears to have disregarded the financial status of the government sector.

## **Not internalizing government financial behavior**

The debate over the effect of the federal government deficit on the real economy centers on the degree to which taxpayers recognize any current and future costs associated with paying for government expenditures with the sale of bonds rather than through immediate taxation. At the local community level, one might argue that taxpayers quickly recognize that bond issuance will involve a future financial burden to the local residents. These residents would alter their saving behavior in recognition of the future financing burden. In a sense, bond finance may be viewed as deferred taxation. A similar argument applied to federal deficits has gained popularity recently among some academic economists. However, it is difficult to observe any major change in private domestic saving behavior in response to the outbreak of large federal deficits.

The stability of the gross private saving rate in the face of federal budget deficits amounting to 5-6 percent of GNP, and expected to remain in the 3-4 percent range for the next several years, is inconsistent with recent arguments promoted by some academics that current federal deficits, entailing future principal and interest servicing costs, are equivalent to and interpreted by consumers as future taxes. Their argument presupposes that consumers realize that the only real "tax cut" is a government spending cut. Since they recognize this equivalence, according to the argument, they would not have interpreted recent personal income tax cuts as real tax cuts. Instead, they would have recognized the need to obtain additional interest-earning assets in order to pay for the future costs of servicing the increased federal deficit and saved *all* of the tax cut. The result should be a rise in the gross private saving rate. Chart 1 shows that in 1969 and 1975, for example, the gross private saving rate and the government saving rate moved in opposite directions, as suggested by the theory. Recent facts, however, do not support this argument. Between 1981 and 1983, the gross private saving rate averaged 17.20 percent compared with an average saving rate of 17.18 percent of GNP between 1975 and 1980. The tax cut and resulting

federal deficits do not appear to have disturbed the general stability of the gross private saving rate.

## **The saving gap**

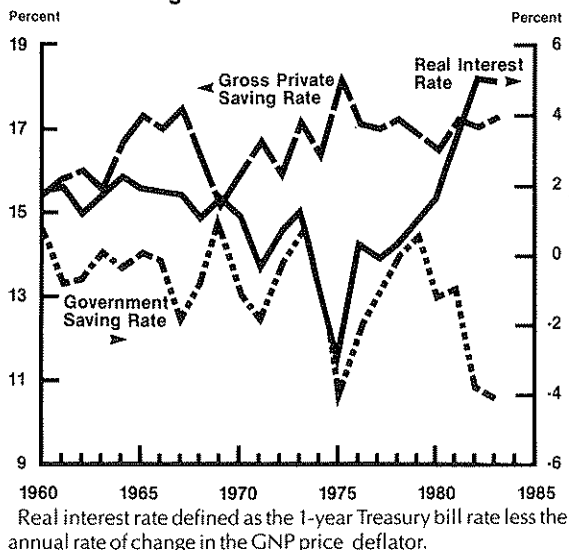
The apparent insensitivity of the gross private saving rate to changes in after-tax rates of return means that gross domestic saving likely will fall short of gross private domestic investment if the federal government goes substantially into deficit. The resulting shortfall may be called the "domestic saving gap." This gap totalled about \$34 billion in 1983 and was closed by importing foreign capital, observable in our large and growing current account deficit.

The existence of both large federal deficits and large current account deficits has sometimes led to the claims that the former "causes" the latter. This is not necessarily true. The current account deficit could decline significantly, that is, the saving gap could close, even in the face of large federal deficits if domestic private investment would decline—the textbook case of "crowding out." Eliminating the domestic saving gap therefore requires either a fall in domestic investment or a reduction in the federal deficit.

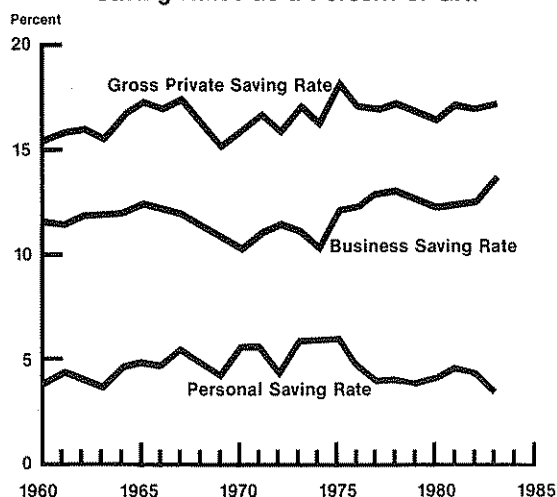
But is the current saving gap necessarily pernicious, something to be avoided? Not necessarily. What we observe in the United States is that capital investment is more cyclical and more interest-sensitive than private saving. Hence, the saving gap is altered by cyclical swings in investment. For example, between 1978 and 1982, the ratio of gross private domestic investment to GNP fell from almost 18 percent to 13.5 percent, while the gross private saving rate was 17.3 and 17.1 percent.

The cyclical recovery beginning in late 1982 coupled with the reduction in after-tax interest costs of business capital investment and the resulting pick-up in investment led to the emergence of a saving gap and the need for the U.S. to import capital to finance what has turned out to be almost a capital investment boom in 1984. The saving gap currently reflects the very strong cyclical growth in business capital investment as well as the deficit status of the federal government. But unlike earlier recoveries, the saving gap is not expected to decline because the government saving rate is not expected to become less negative as it did between 1975 and 1979.

**Chart 1**  
**Saving and Real Interest Rates**



**Chart 2**  
**Saving Rates as a Percent of GNP**



In part, the present situation is not unlike what occurred after the Civil War, when rapid U.S. economic growth and a declining price level led to massive importation of foreign capital. From 1861 to 1899, the United States was more often than not a financial capital importer. Only in nine years during this period did the United States experience a capital outflow. And not until the end of the 19th century did the United States turn from importing to exporting financial capital. This comparison of saving behavior in the 19th century with that in 1984 is meant simply to emphasize the fact that rapid economic growth and low inflation is often accompanied by capital importation, particularly if rates of return on real and financial investments are higher than they are abroad, which now appears to be the case.

The stability of the gross domestic private saving rate in the United States means that a significant pick-up in capital investment would lead to a cyclical shortfall of private domestic saving available to finance private investment. The private saving gap can be filled either by saving in the government sectors or by importing of foreign capital. In the long-run, it makes a considerable difference how the private saving gap is closed. Interest payments on the federal debt to foreign bond holders represent a real future tax burden to U.S. citizens. One could argue that the heavy importation of foreign capital is financing current government consumption and not private invest-

ment and hence the deficit represents the mortgaging of future income to pay for this excess consumption.

#### **Tax policy implications**

Changes in neither the personal income tax structure nor real after-tax interest rates have affected the U.S. gross domestic private saving rate. As a result, a large and possibly structural, that is, non-cyclical, domestic saving gap has emerged, resulting in U.S. dependence on foreign capital to finance both capital formation and the deficit of the federal government.

Should aggregate tax policy be changed to reduce the saving gap? This is obviously a sensitive and politically charged question, but we can conjecture that as the tax cut seems to have had no effect on the gross private saving rate, so a personal tax increase would most likely leave it unchanged. If the corporate tax rate is left unchanged, it is possible, although quite conjectural, that a tax increase on consumers alone might help close the saving gap without greatly affecting the growth of capital investment. That is, a tax increase on consumers might contribute to lowering the federal deficit without changing the gross private saving rate. Such a change in tax policy would recognize the insensitivity of the gross private saving rate to changes in taxes and real interest rate and the sensitivity of capital investment to both.

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**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding	Change from	Change from 12/28/83	
	9/12/84	9/05/84	Dollar	Percent Annualized
Loans, Leases and Investments <sup>1 2</sup>	182,490	- 214	6,465	5.1
Loans and Leases <sup>1 6</sup>	163,448	- 314	8,093	7.3
Commercial and Industrial	48,660	30	2,697	8.2
Real estate	60,908	85	2,009	4.7
Loans to Individuals	29,734	84	3,083	16.2
Leases	5,047	24	- 16	- 0.4
U.S. Treasury and Agency Securities <sup>2</sup>	11,876	86	- 631	- 7.0
Other Securities <sup>2</sup>	7,165	13	- 998	- 17.1
Total Deposits	192,998	- 359	2,001	1.4
Demand Deposits	47,172	- 162	- 2,065	- 5.8
Demand Deposits Adjusted <sup>3</sup>	29,290	- 40	- 2,041	- 9.1
Other Transaction Balances <sup>4</sup>	12,644	- 240	- 131	- 1.4
Total Non-Transaction Balances <sup>6</sup>	133,182	43	4,197	4.5
Money Market Deposit Accounts—Total	37,985	- 13	- 1,612	- 5.7
Time Deposits in Amounts of \$100,000 or more	41,120	4	2,955	10.8
Other Liabilities for Borrowed Money <sup>5</sup>	21,923	1,710	- 1,084	- 6.6
<b>Weekly Averages of Daily Figures</b>	Period ended 9/10/84	Period ended 8/27/84		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	23	60		
Borrowings	39	68		
Net free reserves (+)/Net borrowed(-)	- 15	7		-

<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