

# Do We Have



# a Saving Crisis?

By Kevin L. Kliesen

“// We sit here absorbed in a debate about how to maintain Social Security—and, more important, Medicare—when the baby boomers retire. But right now, those same boomers are spending like there’s no tomorrow. If we can believe the numbers, personal savings in the United States have practically disappeared. //”

— Former Federal Reserve Chairman Paul A. Volcker, writing in *The Washington Post*, April 10, 2005

Over time, a country enhances its living standards by saving and investing. With the nation’s personal saving rate currently about 1 percent, many economists and policy-makers are becoming increasingly concerned.<sup>1</sup> If this low rate persists, it could lead to much lower investment rates, and hence, lower growth rates of labor productivity and real income.

Saving by households, though, is only one component of the nation’s saving rate; the other two are saving by the government and saving by the business sector. When viewed in this context, the overall trend in national saving, while still below rates that persisted 30 or 40 years ago, looks measurably better because saving by businesses has actually been rising over time. Also helping to finance domestic investment rates is a sizable influx of foreign saving.

Despite these positives, households in the long term may have to boost their saving to offset potential declines in future retirement benefits from Social Security and Medicare.

## Why Saving Is Important

To the layperson, saving and investment probably mean the same thing: squirreling away a certain portion of one’s income and then buying financial assets (i.e., “investing”) such as stocks, bonds or mutual funds with the hope that they grow at rates exceeding inflation. To economists, saving and investment mean something a bit different. In this case, saving is the idea of setting aside part of current income, or output, so that one can consume and produce more in the future. Investment, then, is the purchase of a capital good, like machinery, not the purchase of a financial asset. In both instances, though,

the idea is to yield a future income. A useful way to characterize this relationship is by considering the farmer who withholds part of this year’s crop (saving) to use as seed (investment) for next year’s crop (future income).

On a national scale, income that is not spent is used by businesses—via loans, undistributed profits or the issuance of stocks and bonds—to buy machinery, equipment and software. Increases in the amount of investment goods (capital) per worker eventually mean higher productivity growth rates, a higher rate of increase in real wages over time and, thus, increased living standards. More broadly, we can also think of investment as expenditures on research and development or on employee training programs; we can also think of it as the income that students forgo to acquire skills in college or trade schools to boost future incomes.

## Saving and Investment: The Basics

Many of the nation’s most important macroeconomic statistics are found in the national income and product accounts (NIPAs). Underpinning these statistics are basic accounting identities, like that for gross domestic product (GDP). In a simplified world without international trade, a nation’s domestic saving would be determined solely by its propensity to save out of current income. Conceptually, then, one can think of saving as that part of the nation’s total income (or, equivalently, GDP) that is not consumed by households or by the government. The residual is, thus, that amount that is left over for businesses to invest in equipment, machinery or people (training), which we term gross domestic investment.

In reality, GDP has a foreign component because countries (households, firms and governments) trade with one another and buy and sell one another's financial and nonfinancial assets. This means that firms and, by extension, a country, have access to foreign saving to finance their capital investment projects. For example, U.S. residents acquire foreign assets when they buy into a mutual fund that holds shares of a company that trades, say, on the Japanese stock market. Similarly, many foreign central banks hold U.S. government securities, or foreign residents may use part of their saving to invest in U.S. stocks or in bonds issued by the U.S. Treasury or by companies like General Electric. In 2004, for example, purchases of U.S.

The table shows the basic saving-investment accounting identity and how trends in U.S. saving and investment rates have changed since World War II. Over this period, the amount of the nation's income devoted to purchases of equipment, software and structures (gross domestic investment) has remained relatively constant at about 20 percent of GDP. By contrast, the nation's saving rate has steadily declined over time, from an average of 20.3 percent of GDP from 1947 to 1982, to just over 15 percent over the past five years.

There are two ways to measure investment: on a gross and on a net basis. Measures of gross investment include estimates of depreciation, which is the assumed dollar amount of the nation's capital stock that wears out over time (and which must be replaced). Net investment, then, is gross investment less depreciation. In principle, net investment is the preferred measure because it measures the change in the nation's available capital stock over time, which affects economic growth. However, measuring depreciation at the aggregate level is difficult, which may be important because an increasing portion of the nation's capital stock is composed of relatively short-lived assets (high-tech equipment and software) that have high depreciation rates.

Accordingly, some have argued that gross investment better captures the improvement in the capital stock over time.<sup>2</sup> As the table shows, it does make a difference. Although both gross and net domestic saving have been trending lower over the postwar period, gross domestic investment rates have held rather steady, but net domestic investment rates generally have not.

### National Saving Trends

Many people view the nation's total saving rate in terms of the personal saving rate. (The personal saving rate mentioned in the financial press is personal saving divided by disposable personal income; in the table, the personal saving rate is divided by GDP.) But as the table shows, national saving in the NIPAs is the sum of saving done by the three major economic sectors: households, businesses and the government (federal, state and local). In terms of their magnitudes, aggregate business saving is considerably larger than household saving. Indeed, over time business saving becomes the dominant component of gross private saving: from about 65 percent in the early 1950s to about 93 percent in 2003-04. Throughout most of the postwar period (1947 to 1999), gross private saving, which is the sum of household and business saving, remained at about 17.25 per-

## U.S. Gross Saving and Investment Rates

### Shares of Gross Domestic Product

	1947-1982	1983-1999	2000-2004
Gross Domestic Investment	20.5	19.4	19.3
<b>EQUALS:</b>			
National Saving	20.3	16.9	15.2
Private	17.3	17.2	14.4
Household	6.0	4.8	1.3
Business	11.3	12.4	13.1
Government	3.1	-0.3	0.8
Federal	1.4	-1.7	-0.5
State and Local	1.6	1.4	1.2
<b>PLUS:</b>			
Net Foreign Capital Inflows	-0.2	-2.6	-4.1
<b>MEMO:</b>			
Net Domestic Investment	11.0	8.5	7.9
Net Domestic Saving	10.8	5.6	3.3
Real Corporate Bond Rate	1.7	5.6	4.0
Real Short-term Rate	0.3	2.7	0.1
Household Asset-to-Income Ratio	3.4	3.7	4.2

NOTE: Corporate bond rate is the yield on the Aaa-rated corporate debt; short-term rate is the three-month Treasury bill rate. Interest rate data begin in 1948; household asset income data begin in 1952.

SOURCE: Bureau of Economic Analysis and author's calculations

government securities by foreign central banks or other official institutions totaled about \$262 billion. The financial transactions used to facilitate these and other cross-border transactions are called international capital flows. In the international transactions data, these flows are measured in the Financial and Capital Account.

cent of GDP because increased saving by businesses roughly offset declining saving rates of households. (Personal saving is simply the difference between total personal consumption expenditures and disposable personal income; business saving is largely undistributed corporate profits and the allowance for capital consumption [depreciation].) Indeed, since reaching a 37-year high of 8.2 percent in 1982, the personal saving rate declined to 0.9 percent in 2004 (yearly averages); from 2000 to 2004, it averaged 1.3 percent.

Besides private saving, national saving includes saving by the government sector. This includes both the federal government and—taken together—state and local governments. In this case, a budget surplus is recorded as positive government saving, while a deficit (outlays greater than receipts) is recorded as negative saving (dissaving). According to the table, government gross saving has usually been positive in the postwar period, primarily because state and local governments tend to run budget surpluses.<sup>3</sup> Except for a brief period from 1997 to 2001, periods of positive federal government saving since the early 1970s have been infrequent. In fact, from 1975 to 1996, there was only one year (1979) when federal government saving was positive; over this period, federal government saving averaged about -2 percent, only slightly less than its average of about -2.25 percent from 2002 to 2004. In contrast, state and local saving as a percent of GDP has remained relatively constant since 1975, averaging about 1.5 percent.

Although government saving at all levels is less today than, say, 30 or 40 years ago, it is also the case that government saving tends to be a relatively small percentage of the gross national saving rate—even during periods of budget surpluses. For example, in 2000, federal saving was about 2.75 percent of GDP, its highest level since 1963; yet, this was only about a quarter of gross business saving.

### Accounting for Foreign Saving: Is It Worrisome?

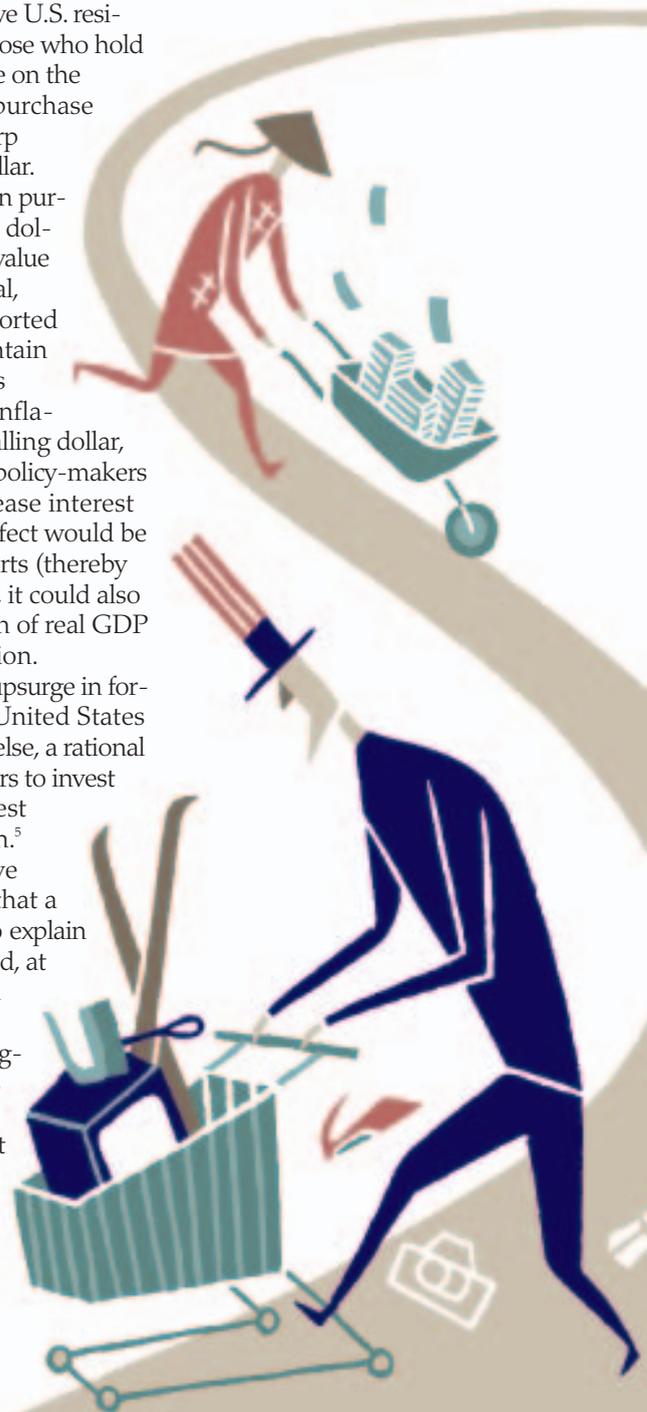
In an integrated world economy where financial and nonfinancial assets can freely move across borders, a mismatch between a country's saving and investment must be balanced by either capital inflows or outflows. Hence, if a nation saves more than it invests, it is accumulating claims on foreign assets. When the opposite occurs, foreigners are accumulating claims on U.S. assets. Hence, the current account deficit, which is mostly the goods and services trade deficit, is the international trade equivalent of the mismatch between the country's saving and investment. In other words, when a nation imports more than it exports, its

saving falls short of its capital investment; it must make up this difference by importing foreign saving (borrowing).

As seen in the table, to keep the U.S. gross domestic investment rate relatively stable, the nation has had to increasingly turn to foreign sources of saving. From 2000 to 2004, net foreign capital inflows averaged 4 percent of GDP, which is the equivalent percentage point gap between the gross saving and investment rates. In 2004, however, the current account deficit measured about 5.75 percent of GDP. This is the largest deficit since 1929 (the first observation of the official statistics) and perhaps the largest in U.S. economic history.

Is the upsurge in foreign capital flows into the United States worrisome? It depends on whom you listen to. Some commentators are alarmed about the nation's use of foreign saving to bridge the gap between the nation's gross saving and investment rates—they believe U.S. residents must save more.<sup>4</sup> To those who hold this view, a sudden reluctance on the part of foreign residents to purchase U.S. assets will lead to a sharp decline in the value of the dollar. (More dollars will be sold than purchased, thereby lowering the dollar's price.) A decline in the value of the U.S. dollar, all else equal, raises the dollar-price of imported goods and services. To maintain its allure to foreign investors and to offset the potential inflationary consequences of a falling dollar, some think Federal Reserve policy-makers would have to sharply increase interest rates. Although the likely effect would be to reduce spending on imports (thereby reducing the current deficit), it could also dramatically slow the growth of real GDP or lead to an outright recession.

To other economists, the upsurge in foreign flows of saving to the United States reflects, more than anything else, a rational portfolio decision by foreigners to invest in assets that offer the highest (risk-adjusted) rates of return.<sup>5</sup> For example, Federal Reserve Gov. Ben Bernanke argues that a "global saving glut" helps to explain the current account deficit and, at some level, the low personal saving rate.<sup>6</sup> In particular, many developing and emerging economies (like China's and India's) have built up considerable current account surpluses in recent years compared with their historic averages. By directing a large chunk of their domestic saving into U.S. dollar-denominated assets, they have helped to lower long-term interest rates.



The decline in interest rates has been a boom to the U.S. housing industry and to other producers of interest-sensitive products, like cars and trucks, many of which are imported from overseas.

### **Does It Really Matter How Much We Save?**

The table shows that the ratio of household assets to income has risen markedly over time. Its average of 4.2 from 2000 to 2004 was a 13.5 percent increase over the period from 1983 to 1999 and a 24 percent increase from the 1947 to 1982 period. Some economists attribute the decline in personal saving since 1984 to financial market developments. As the value of their portfolios of stocks and bonds rises (capital gains), household wealth increases, a portion of which is spent on such things as home improvements, vacations or trading up to a larger house.<sup>7</sup> Hence, it appears that consumers have viewed this increased wealth as permanent and have, accordingly, decided to spend part of it by saving less (or spending more of their current wage income).<sup>8</sup>

Because of this wealth effect, some economists believe that the saving rates that flow out of the NIPAs are ill-suited to accurately measure the level of aggregate saving.<sup>9</sup> (See sidebar below for alternative measures of the personal saving rate.)

Regardless, current U.S. saving rates are low by historical standards and may need to be

raised significantly. Why? Because the United States and most of the world's developed countries will soon be in a situation where the percentage of those who are drawing down their accumulated saving (retirees) will begin to rise relative to the percentage of those who are saving (workers).<sup>10</sup> According to the intermediate assumptions in the 2005 Annual Report of the Trustees of the Social Security Program, the number of workers per each Social Security beneficiary is expected to fall from about 3.25 in 2004 to 2 in 2060. Without sharp increases in taxes and/or reductions in benefits, it is likely that government budget deficits will rise sharply, further lowering the national saving rate.

Thus, if for no other reason, the possibility of reductions in future benefits implies that today's workers may need to boost their current saving rates. Yet, according to a recent survey released by the Employee Benefits Research Institute, the number of workers who have reportedly saved some money for retirement declined from 78 percent in 2000 to 69 percent in 2005. Moreover, the percentage who report that they are not currently saving for retirement has held steady at about 40 percent over the past five years.<sup>11</sup>

According to recent data from the Organization for Economic Cooperation and Development (OECD), saving rates in the United States are much lower than in other well-developed economies, most of which face demographic challenges greater than those of the United States.

Consider some of the U.S.'s largest trading partners. From 1995 to 2004 (projected), the net



## **Are We Measuring Personal Saving Correctly?**

The most-cited measure of personal saving flows from the national income and product accounts (NIPAs). However, the NIPAs are constructed to measure production (GDP) and its statistical equivalent measure of income (gross domestic income). Thus, changes in asset prices or sales of stock (capital gains) that can affect saving are not included in the table. If these realized capital gains are added back into personal income, then the adjusted personal saving rate would have equaled about 4 percent in 2000 vs. about 2.25 percent for the official published saving rate. By 2002, the

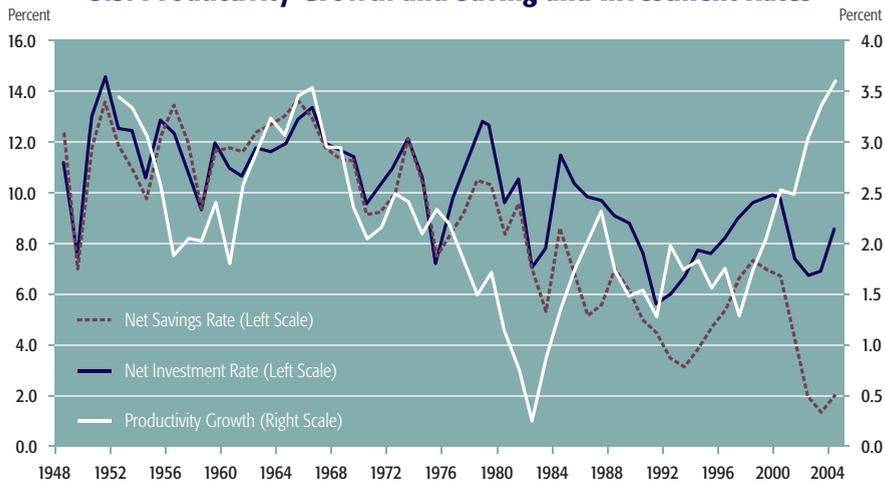
last year for which realized capital gains data are available, the adjusted saving rate had fallen to about 2.75 percent, compared with 2 percent for the official rate.<sup>1</sup>

A second criticism of the official personal saving rate is that it excludes the value of household durable goods that provide a flow of services over time, like the implicit rental income (shelter service) that residential homeowners received. Although the NIPAs do account for rental income of owner-occupied housing, which, in large measure, is the implicit rental value of the property less cash expenses and an imputed

expense for consumption of fixed capital, the NIPAs do not account for the similar flows of income derived from (net) investment in consumer durable goods like cars or appliances. If these flows are added to the personal savings, then the personal saving rate would have measured about 5.25 percent in 2000 and 4.5 percent in 2002. Although both of these adjusted measures of the personal saving rate are well above the official measure, they still show a downward trend in personal saving over time.

<sup>1</sup> Reinsdorf (2004).

## U.S. Productivity Growth and Saving and Investment Rates



NOTE: Labor productivity growth measured on a five-year moving average basis.

household saving rate averaged 10.5 percent in Germany, 11 percent in France and about 8.75 percent in Japan. By contrast, over the same period, the U.S. net household saving rate averaged 2.75 percent, which was modestly below Canada's rate (4.5 percent) but still above Australia's rate (1.75 percent). Although international capital flows weaken the link between national saving and domestic economic growth rates, one would expect that economic growth would be highest in the high-saving rate countries and weakest in the low-saving rate countries. However, this has not been the case in recent years.

Consider the economic growth rate of each of these countries from 1995 to 2004 (using OECD data). In the low-saving countries, annual economic growth was about 3.75 percent per year in Australia and about 3.5 percent per year in the United States and in Canada. By contrast, economic growth averaged about 1.25 percent per year in Germany, 1.5 percent in Japan and about 2.25 percent in France.<sup>12</sup>

This result is especially interesting for the United States since national saving rates, whether measured on a net or gross basis, have been falling since the early 1980s—and rather sharply since 2000. At the same time, it appears that the U.S. economy's long-term, or potential, economic growth rate has been accelerating because of relatively large and, to this point, sustained increases in labor productivity growth.

The figure shows that, measured on a five-year moving average basis, which removes the rather large year-to-year volatility in productivity growth, the economy's performance has been improving at a rapid rate despite falling saving and investment rates. Indeed, the U.S. net

saving rate has fallen to levels not seen since the Great Depression (when saving rates turned negative) while the productivity growth rate has reached its highest rates in the postwar period.

As one would suspect, there was a fairly strong positive correlation between productivity growth and saving and investment rates from 1952 to 1994. As seen in the figure, though, the correlation between saving and productivity growth has turned strongly negative since 1995. This development may be evidence of the boom in U.S. economic conditions caused by the massive inflows of foreign saving mentioned by Bernanke. From this perspective, globalization has clearly benefited the United States.

### Conclusion

Recently, many economists and policymakers have expressed concern over the near-record low personal saving rates in the United States. Economists tend to believe that persistently low saving rates eventually mean lower growth rates of investment, slower labor productivity growth and smaller increases in living standards. However, what matters is total saving, which includes saving by the government and businesses. Although total saving rates look measurably better than the personal saving rates, the United States is still saving significantly less now than it was in the 1950s, '60s and '70s and at a much lower rate than many of our largest trading partners. Despite these low saving rates, U.S. economic growth rates have been considerably faster than those of other high-saving countries.

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### ENDNOTES

- Gramlich (2005).
- See Council of Economic Advisers (1990), pp. 109-42.
- The majority of state and local governments operate under balanced budget rules, and, moreover, many run surpluses for "rainy day" funds. See Garrett and Wagner (2004) for more information.
- Kuttner (2005).
- Poole (2003).
- Bernanke (2005).
- Juster et al. (2004).
- Peach and Steindel (2000).
- See Gale and Sabelhaus (1999) and the references therein.
- Poole and Wheelock (2005).
- Helman et al. (2005).
- These growth discrepancies hold even when viewed over a slightly longer period, 1990 to 2004, and using per capita real GDP growth rates.

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