

ECONOMIC COMMENTARY

Federal Reserve Bank of Cleveland

The Decline in U.S. Saving Rates: A Cause for Concern?

by Jagadeesh Gokhale

The surging federal budget deficit and health care reform proposals have been the subjects of choice in recent public policy debates. Relatively little attention, however, has been focused on another significant and ongoing economic phenomenon — the precipitous drop in saving rates in the United States. Should this decline be a cause for concern? The answer, of course, depends on whether the reduction is temporary or permanent and on whether it has the potential to seriously damage the U.S. economy. Moreover, if policymakers choose to address this problem, they should understand the underlying factors that led saving rates to plummet beginning in the past decade.

The approach adopted here defines net national saving as the amount of the net national product (NNP) that remains after private and government consumption spending have been subtracted.¹ Government consumption as a share of NNP shows no upward trend (see figure 1). The reduction in the saving rate thus reflects growth in the share of private consumption.

As figure 2 shows, the net national saving rate, which averaged more than 9 percent in the 1960s, dropped under 4 percent in the late 1980s. For both 1991 and 1992, it came in at less than 2 percent. Such a steep and long-term decline is mysterious, especially because the saving rate had remained between 8 and 9 percent for a long period prior to the 1980s.

What might have caused this sharp contraction in national saving? This *Economic Commentary* argues that demographic changes had little influence and that future demographic changes will probably not restore rates to their pre-1980 levels. Today's lower saving rates are most likely a product of fiscally induced shifts in the intergenerational distribution of wealth plus growth in annuitized forms of saving, which enable higher consumption out of total wealth. Other contributing factors may be slower income growth and capital gains, particularly on the stock of housing wealth.

■ The Importance of Saving

The net national saving rate may be viewed as a weighted sum of individual household saving rates, with the weights representing the proportion of NNP accruing to each household. Because income and saving are the result of each household's own decisions regarding hours of work and consumption, one may justifiably wonder why low saving rates should be a cause for concern. People would work and save more if their own interests so dictated. Why should policymakers be troubled if national saving, which is just an aggregate based on all households' work and consumption decisions, falls?

The reason is simple: History has repeatedly demonstrated that high rates of investment and economic growth can be sustained only on the foundation of healthy domestic saving. First, low saving constrains the amount of investment

After averaging from 8 to 9 percent in the previous two decades, the net national saving rate fell precipitously in the 1980s and early 1990s. This long-term decline is disturbing, in that its continued trend implies lower ratios of capital to labor and a reduction in future productivity and wages. In examining this phenomenon, the author contends that an ongoing, fiscally induced wealth redistribution toward older generations and the sizable growth in annuitized forms of saving may represent the major underlying causes. Moreover, the aging of the baby boomers may not make a significant difference in future saving rates.

in productive capital that the economy can undertake.² Although the constraint on investment may be eased through foreign borrowing, this cannot be a lasting solution, because international capital flows respond fairly rapidly to better earning opportunities elsewhere in the world. Furthermore, although foreign investment helps to sustain current growth in productivity and wages, it can lead to larger future capital outflows as an increasing share of domestic income accrues to foreigners. A glance at the statistics reveals that net domestic investment rates, although higher than rates of net national saving, have also been on the decline (see figure 3).

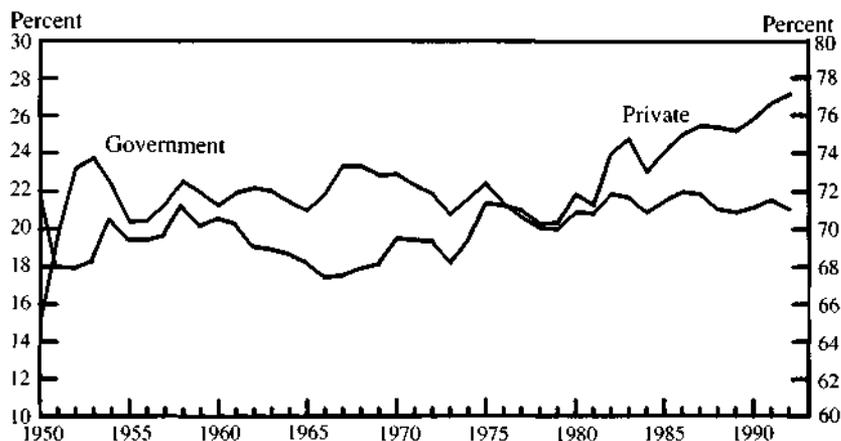
Second, saving and investment connect the present with the future. They not only link consumption possibilities for members of a given generation, but also connect the economic opportunities of members of different generations. Because individuals are at different stages of their economic life cycles, however, they are unlikely to have an equal stake in the economy's future performance. For instance, elderly and retired persons will not be much affected by low future capital-labor ratios because they are no longer employed. On the contrary, these generations may gain because low future capital-labor ratios imply higher rates of return on existing capital assets, which older individuals predominantly own. On the other hand, low current saving will harm younger generations, who will constitute tomorrow's workforce and whose wages will be reduced because of the resulting paucity of capital.

■ Causes of Low Saving

Demographic Change

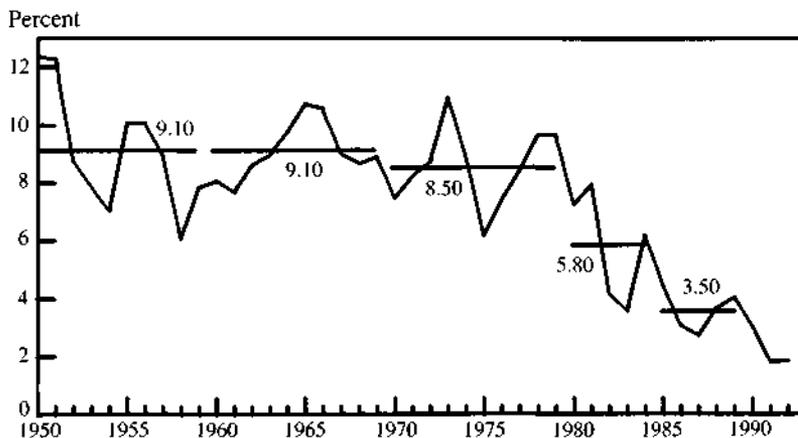
According to the standard life-cycle hypothesis of economic behavior, people tend to save during their middle years when earnings are high and then spend those savings during retirement when earnings are low. Thus, large dependency ratios (the ratio of retirees and children to the total population) should be associated with lower saving rates.

FIGURE 1 GOVERNMENT AND PRIVATE CONSUMPTION AS A SHARE OF NNP, 1950-92



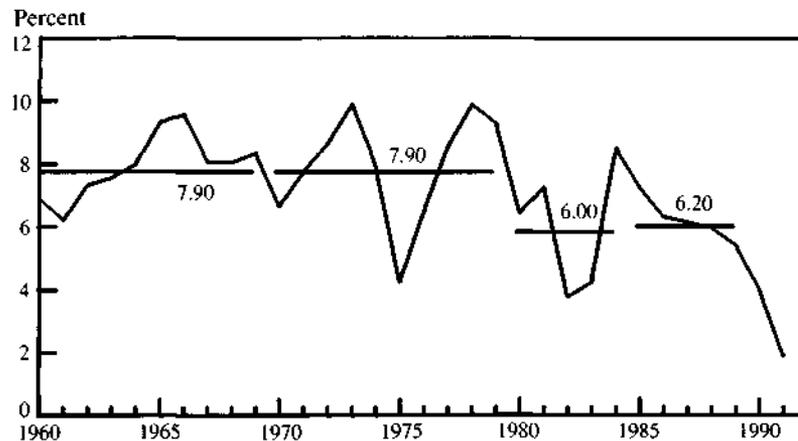
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

FIGURE 2 NET NATIONAL SAVING RATE, 1950-92



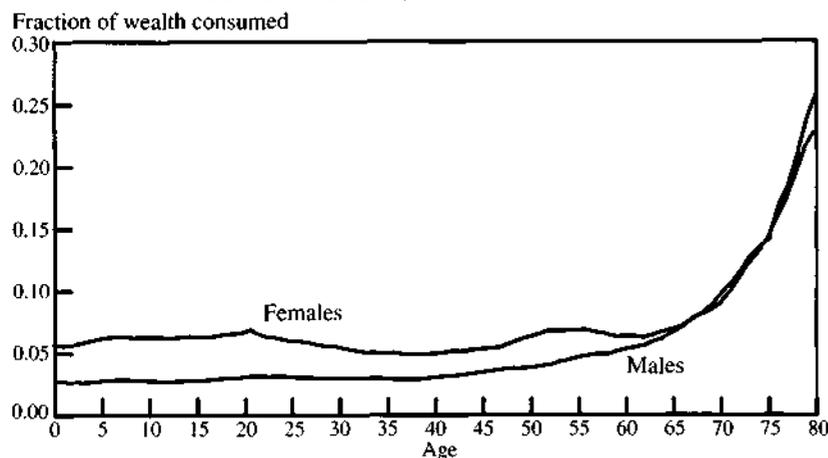
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

FIGURE 3 NET DOMESTIC INVESTMENT RATE, 1960-91



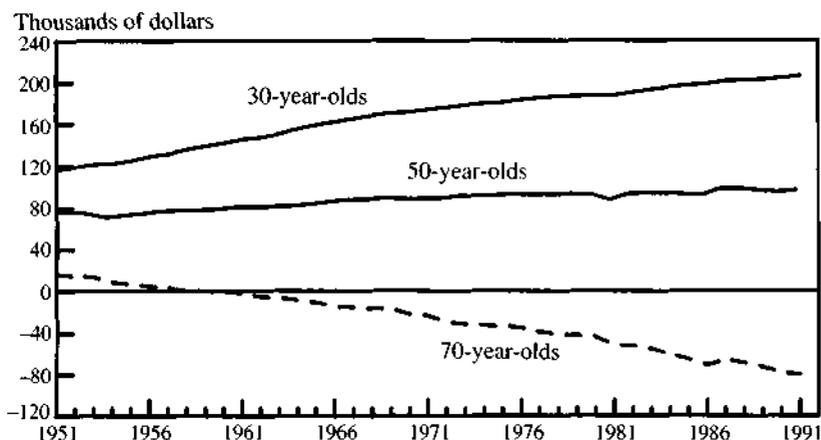
SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

FIGURE 4 AVERAGE PROPENSITIES TO CONSUME OUT OF WEALTH, 1991



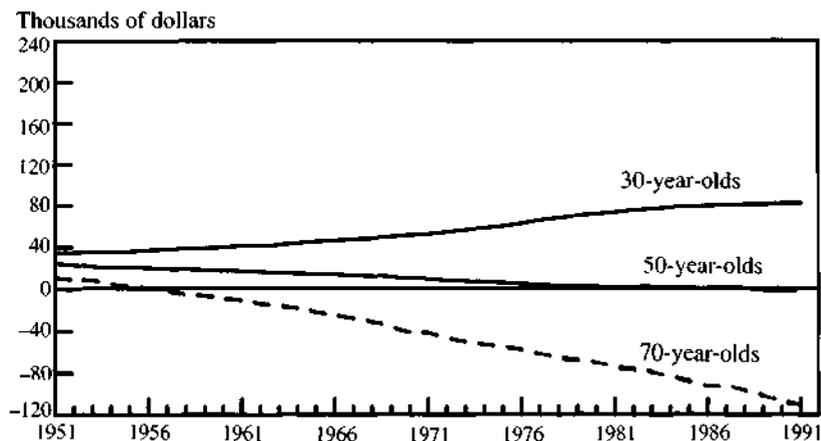
SOURCE: Federal Reserve Bank of Cleveland.

FIGURE 5 NET PAYMENT BURDENS FOR MALES, 1951-91



SOURCE: Federal Reserve Bank of Cleveland.

FIGURE 6 NET PAYMENT BURDENS FOR FEMALES, 1951-91



SOURCE: Federal Reserve Bank of Cleveland.

Indeed, cross-country comparisons of dependency ratios and saving rates suggest that this was true in the 1960s and early 1970s.³ In the 1980s and beyond, however, predicted saving rates based on these studies were far from the actual rates observed in the United States and other industrial nations.⁴ According to the predictions, private saving rates should have risen during this period as larger numbers of younger workers entered the labor force while the proportion of retirees held fairly steady. Instead, saving rates plummeted in the 1980s.

Evidence from microeconomic surveys reveals that most of this decline is the result of lower saving by middle-aged and older Americans.⁵ Saving rates for younger households also fell, but by much smaller amounts. Of particular note is that the decline cannot be attributed to the behavior of the baby boomers, or to changes in the fraction of income earned by various generations. Indeed, more than 85 percent of the shortfall in this period stemmed from a *parallel* reduction in saving rates within age groups: for each age, saving rates in the 1980s were less than they were in the 1960s. The declines were especially large at ages 45 and over. This provides room for skepticism about the prospects for increased aggregate saving as the baby boom generations grow older.

The 1980s Stock Market Boom and Capital Gains

A frequently cited explanation for higher consumption in the 1980s is the wealth effect of the booms in the housing sector and the stock market. Because of the stock market collapse in 1973-74, however, households probably did not make large overall gains from stock holdings in the 1970s. Moreover, the boom in equity prices in the mid-1980s occurred only after steep declines during the 1982 recession and also after saving rates across all age groups had already fallen. Microeconomic surveys

show no evidence of differential saving behavior between owners and nonowners of financial assets, yet the rise in home values in the late 1970s and 1980s is associated with lower saving rates for homeowners relative to nonowners.⁶

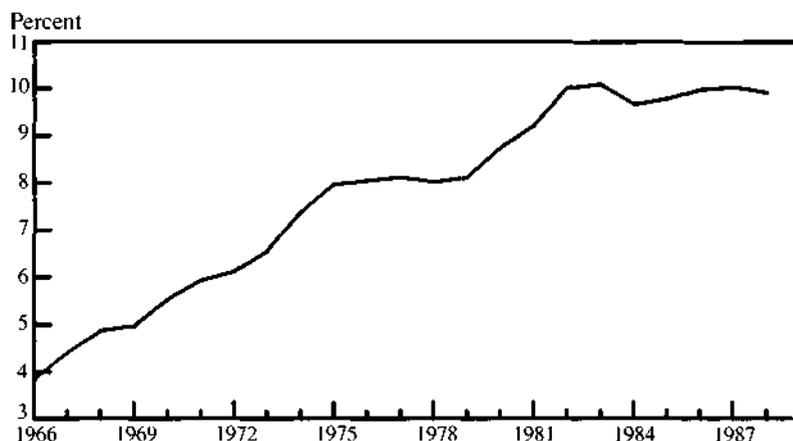
Fiscal Redistribution across Generations

Data from household surveys indicate that older individuals consume greater fractions of their wealth than do younger people (see figure 4). A redistribution of resources from young to elderly generations would therefore boost total consumption. Government entitlement programs — Social Security, Medicare, and Medicaid — have been a major source of wealth redistribution toward the elderly over the last several decades. The extent of this redistribution is documented in figures 5 and 6, which show the present values of prospective net payment burdens for individuals of selected ages in each year since 1951.⁷ Seventy-year-old males, for example, expected to pay more to the government than they received in the early 1950s. Today, their net receipts exceed \$80,000 in present value, on average. In contrast, 30-year-olds today expect to pay substantially more to the government in present value than their same-age counterparts did in the 1950s. Because older individuals consume larger fractions of their wealth, this sizable wealth redistribution toward elderly generations may be a major underlying cause for the saving implosion during the 1980s.

Annuitization of Wealth in the United States

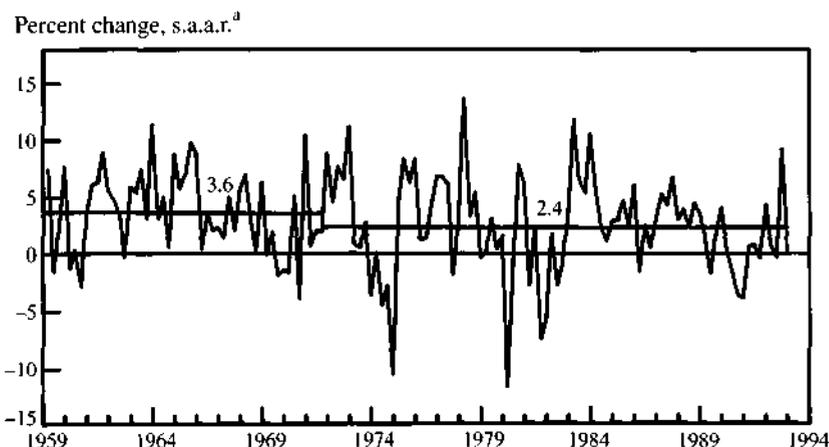
The past three decades have witnessed substantial growth in the use of annuities as vehicles for retirement saving. Figure 7 shows how Social Security, private pensions, and health insurance benefits mushroomed from just under 4 percent of NNP in the mid-1960s to almost 10 percent by the late 1980s. The increased use of such annuities may constitute another explanation for low saving.

FIGURE 7 SOCIAL SECURITY, PENSIONS, AND HEALTH INSURANCE BENEFITS AS A SHARE OF NNP, 1966-88



SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

FIGURE 8 NET NATIONAL PRODUCT, 1959-93



a. Seasonally adjusted annual rate.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

Annuities provide individuals with insurance against consuming at too rapid a rate after retirement, but paradoxically, also permit them to consume more than they otherwise would. Suppose, for example, that people would consume all of their resources if they knew in advance their precise time of death. But given the inability to predict the length of their lifespan and the desire to avoid poverty during old age, these people would be motivated to maintain a stock of wealth until death. This wealth would eventually become an involuntary bequest in the hands of younger generations.

Now imagine that all members of a given generation could deposit their resources in a pool in exchange for annuities. Under this arrangement, the resources of those who died early would be redistributed to the survivors in each year. Because the annuity income is guaranteed until death, each member could consume at a higher rate than would have been possible without access to the annuity. Thus, consumption out of the generation's total wealth pool would be higher and national saving correspondingly lower.

The effect of annuitization on saving is distinct from the effect arising from a fiscal redistribution of wealth toward elderly generations: While the latter reduces saving because older individuals tend to consume more than do younger people, here it is the reduction or elimination of accidental bequests that leads to higher total consumption. An unfunded transfer program like Social Security thus makes both channels operative—it engenders wealth transfers toward elderly generations and does so through the provision of an income stream that has the same characteristics as an annuity.

Slower Income Growth

Compared to economic growth rates of more than 3.5 percent prior to 1970, income growth has averaged 2.4 percent since then (see figure 8). Could the slower income gains underlie the reduction in saving rates? A slowdown in income growth has two opposing effects on aggregate saving rates. A negative effect arises as the weights assigned to high savers decline over time, because their incomes now rise more slowly. A positive effect occurs as these individuals save more today because they expect lower incomes in the future. Because income redistribution seems to explain only a minor share of saving rate changes, the positive effect should dominate.⁸ Hence, the low income growth in the post-1970 period should have led to higher saving rates.

According to an alternative view, households maintain target ratios of wealth to income at each age. If these target ratios are unresponsive to changes in overall income growth, then slower income growth would imply lower wealth targets and, as a result, lower saving rates. This prediction is consistent with the observed simultaneous decline in income growth and saving rates across the broad cross-section of households.⁹

■ Conclusion

The sizable decline in saving in the 1980s is disturbing because continued low levels imply lower capital-labor ratios and a reduction in future productivity and wages. Most of the decrease in the national saving rate can be traced to lower saving rates within age groups, and not much can be ascribed to changes in income or population distribution across age groups.

The drop in saving rates for middle-aged and older Americans appears to be at the root of low national saving. The factors that may have induced this decline include the ongoing, fiscally induced wealth redistribution toward elderly generations and the sizable growth in annuitized forms of saving. Low saving is also correlated with low income growth, but the explanation based on fixed wealth-income ratios seems inconsistent with rational behavior.¹⁰ The slowdown in saving rates was particularly large for households that saw an appreciation in home values in the 1980s.

Although older generations gain from government transfer programs and from the increased access to annuities, they may save little of their gains. And because saving rates at middle and older ages are currently depressed, the transition of the baby boomers into these generations may not increase future saving rates. Saving rates for younger individuals have also declined somewhat. To counteract these negative forces, and in the interest of maintaining future productivity and wage growth, today's younger generations would be well advised to begin saving a greater fraction of their incomes.

■ Footnotes

1. The net national product is the total national output (GNP) minus the consumption (depreciation) of capital structures and equipment. The net national saving rate is defined as the ratio of NNP less private and government consumption to NNP.
2. Investment in physical capital is only part of total investment that includes investment in human capital — better education and skills of the labor force. Here, the focus is limited to investment in physical capital.
3. See Franco Modigliani, "The Life Cycle Hypothesis of Saving and Intercountry Differences in the Saving Ratio," in W.A. Elis, M.F. Scot, and J.N. Wolfe, eds., *Induction, Growth, and Trade: Essays in Honor of Sir Roy Harrod*, New York: Oxford University Press, 1970; Martin Feldstein, "International Differences in Social Security and Saving," *Journal of Public Economics*, vol. 14 (1980), pp. 225–44; Franco Modigliani and Arlie Sterling, "Determinants of Private Saving with Special Reference to the Role of Social Security — Cross-country Tests," in Franco Modigliani and Richard Hemming, eds., *The Determinants of National Saving and Wealth*, New York: St. Martin Press, 1983; and Charles Yuji Horioka,

"Why Is Japan's Private Saving Rate So High?" in Ryuzo Sato and Takashi Negishi, eds., *Developments in Japanese Economics*, Tokyo: Academic Press, 1989.

4. See Barry Bosworth, "The Global Decline in Saving: Some International Comparisons," *Brookings Discussion Papers in International Economics*, No. 83, Washington, D.C.: Brookings Institution, December 1990.
5. See Barry Bosworth, Gary Burtless, and John Sabelhaus, "The Decline in Saving: Some Microeconomic Evidence," *Brookings Papers on Economic Activity*, vol. 1 (1991), pp. 183–256.
6. See Joyce Manchester and James Poterba, "Second Mortgages and Household Saving," National Bureau of Economic Research, Working Paper No. 2853, February 1989; and Bosworth, Burtless, and Sabelhaus, "The Decline in Saving" (footnote 5).
7. The figures show present values of future taxes net of transfers from federal, state, and local governments in 1991 dollars.
8. See Bosworth, Burtless, and Sabelhaus, "The Decline in Saving" (footnote 5).
9. *Ibid.*
10. Rational, forward-looking behavior would imply an adjustment of wealth-income ratios in the face of slower income growth.

Jagadeesh Gokhale is an economist at the Federal Reserve Bank of Cleveland. The author thanks William Gavin and William Osterberg for helpful comments and Lydia Leovic for helpful comments and excellent research assistance.

The views stated herein are those of the author and not necessarily those of the Federal Reserve Bank of Cleveland or of the Board of Governors of the Federal Reserve System.

**Federal Reserve Bank of Cleveland
Research Department
P.O. Box 6387
Cleveland, Ohio 44101**

Address Correction Requested:
Please send corrected mailing label to the above address.

Material may be reprinted provided that the source is credited. Please send copies of reprinted materials to the editor.

**BULK RATE
U.S. Postage Paid
Cleveland, OH
Permit No. 385**