Saving Rates in the United States: Calculation and Comparison

Craig K. Elwell
Specialist in Macroeconomic Policy

September 14, 2010

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

The amount of money saved has important economic consequences. Nationally, the amount of saving affects how much can be invested and ultimately the size of the capital stock. Increasing the size of the capital stock is believed to be one way to raise the productivity of the labor force and the economy's long-term growth rate. Individually, saving is critical to accumulating sufficient wealth to maintain living standards after retirement. This report explains how national saving is measured, presents recent estimates of saving rates in the United States, and, for comparison, provides those of other major industrial countries.

The pace of economic growth is likely to be a matter of particular importance in the decades just ahead as the economy confronts the need to effect unprecedented generational transfers of income to pay for the retirement of the baby-boom generation. A larger economic pie makes such transfers easier for the economy to bear. Because the national rate of saving has implications for the pace of economic growth and the country's capacity to meet these long-term obligations, it is likely to be matter of ongoing concern to Congress.

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Introduction

Anyone with income and a future must decide how much to spend and how much to save. Individuals may save a fraction of their income for precautionary reasons, as well as to provide for themselves in retirement. Businesses retain a fraction of their profits in order to finance new investments. Governments save (or dis-save) as a consequence of policy decisions about how much to tax and how much to spend.

The amount of money saved as a nation has important economic consequences. If individuals save too little during their working lives to avoid falling living standards in old age, that may influence policymakers' views about the appropriate level of Social Security taxes and benefits. National saving, the sum of individual, business, and public saving, has important consequences for the balance of trade, economic growth, and future standards of living.[1]

Although economic theory gives no reason to prefer one saving rate over another, it may still be useful to examine trends in saving and to compare U.S. saving rates with those in other countries. This report provides a brief explanation of how saving is measured, and it provides current data on saving rates in the United States and for selected foreign countries.

Measuring Saving

Saving, in a nutshell, is after-tax income minus consumption. In an economic sense, however, consumption is not the same as expenditures. Translating the theoretical notion of saving into a statistical measure is a challenge.

The source for U.S. saving data is the national income and product accounts (NIPA) published by the Department of Commerce, Bureau of Economic Analysis (BEA). The NIPA constitute the accounting framework which is used to produce estimates of gross domestic product (GDP). GDP is the total value of goods and services produced, and it can be calculated in two different ways. One way is to add up the value of all the goods and services produced (the product side of the accounts), and the other way is to add up all of the income earned in the production of those goods and services (the income side of the account).

On the product side, GDP is the total value of those goods and services produced for personal consumption (C), investment (I), government (G), as well as for export (X). On the income side, the income earned in the production of those goods and services can be accounted for as consumer spending (C), taxes (T), private saving (S), and spending for imported goods and services (M).

Since each of these approaches measure the same variable (GDP), they can be set equal to each other, in this way:

$C + I + G + X = C + T + S + M$

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[1] For a discussion of public policy and saving, see CRS Report RL32119, *Can Public Policy Raise the Saving Rate?*, by Brian W. Cashell.

Subtracting consumption (C) from both sides simplifies the equality:

$I + G + X = T + S + M$

This can now be rearranged by subtracting government spending (G) and exports (X) from both sides, which gives:

$I = S + (T—G) + (M—X)$

This equation illustrates the importance of saving. Total investment is equal to the sum of private saving (S), public saving (T-G), and the net inflow of capital from abroad (M-X).[2]

Gross and Net Saving

In the broadest sense, saving is income less consumption. Consumption is typically taken to mean spending on goods and services by households. But consumption can also refer to the wear and tear (depreciation, or capital consumption) on the capital stock that occurs in the production of those goods and services. Thus, some saving must be allocated to the replacement of the existing capital stock as it wears out. Only if saving is more than sufficient to replace the existing capital stock as it wears out can the capital stock grow.

For this reason, saving data distinguish between "gross" and "net" saving. The difference between the two measures is the estimated deterioration in the existing capital stock. In some cases, such as computers, capital may be completely depreciated in a very short period of time, whereas in others, such as buildings or heavy equipment, capital may take a long time to wear out.

Saving and Economic Growth

Economic growth, in the long run, is determined by three factors: the growth rate of the labor force; the rate of technological progress; and the rate of growth of the capital stock. The productivity of the labor force depends on both the level of technology and the size of the capital stock. The more capital there is, the more productive the labor force can be. The size of the capital stock, in turn, depends on the rate of investment.

Investment is directly related to saving. Saving more can lead to increased investment, resulting in a larger stock of capital and higher levels of productivity. Consuming less now enables more consumption in the future.

Thrift is considered by many to be a virtue, but economic theory gives no reason to prefer one saving rate over another. The amount saved is seen simply as a reflection of the trade-off made between a desire to consume now and a willingness to consume less than one's current income to provide resources for the future.

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[2] Just as there is a balance between the income and product sides of the NIPA, there is a balance in international payments. If Americans buy more goods and services from abroad than they export, then (at least in this simplified example) the net outflow of dollars will be used by foreigners to buy dollar-denominated assets, which thus helps to finance domestic investment.

Historical Saving Data

Table 1 presents historical estimates of U.S. saving rates since 2000. The data in the top third of the table relate to the contribution of the private sector (personal or household saving, and business saving) to national saving, followed by data indicating the saving of the public sector, with separate accounting for the federal and state and local (S&L) government. The bottom third of the table shows both total gross and net national saving, the amount of saving imported from abroad, and total investment as a percentage of gross domestic product.

The U.S. gross personal saving rate had averaged about 7% of GDP through the 1960s, 1970s, and 1980s. In the 1990s, the personal saving rate decreased, averaging about 4.5% of GDP. In the 2000s, the personal saving rate continued to fall, reaching a low of 1.1% by 2005.[3] It is likely that the evaporation of household saving over the past two decades was in large measure a consequence of the sizable increase in household net worth associated with increased house and stock prices occurring at that time. Substantial increases in household wealth made it less urgent to divert current income to saving. However, the sharp reduction of household net worth during the recent recession dramatically changed the financial circumstances of households, reducing the use of debt-financed spending. The need to repair household balance sheets is likely to induce households to increase their rate of saving and to pay down debt. The poor prospect for the appreciation of house prices will sharply limit the ability to use rising equity as a substitute for saving. As the economic decline intensified, the personal saving rate increased, climbing to 2.0% in 2008 and 6.7% in 2009.[4]

The financial imperatives behind greater personal saving are going to persist for some time, and with the recovery of household income the ability to save will also improve, suggesting that the personal saving rate could continue to increase for several more years.

The U.S. gross public (government) saving rate has been negative for most of the past three decades because of persistent federal government budget deficits. The recent recession has caused federal budget deficits to increase sharply, reducing public saving accordingly (making it more negative) in 2008 and 2009. The recent large increases in federal budget deficits reflect changes in fiscal policy to stimulate aggregate demand in an effort to counter the recession and support an economic recovery. Those policy changes occurred partly through the action of "automatic stabilizers" that occur without deliberative action, such as falling tax revenue and rising spending for unemployment benefits, and partly through discretionary fiscal stimulus measures, such as the American Recovery and Reinvestment Act of 2009 (P.L. 111-5).

With economic recovery, the public saving rate is likely to increase as the automatic stabilizers work in the opposite direction and as the one-off stimulative spending runs its course. However, pending some resolution of the long-term budget problem of rising government spending for entitlements, public saving is likely to remain negative over the medium-term.

The U.S. gross business saving rate has historically been relatively stable, typically as a percentage of GDP staying within a range of 12% to 14%. This steadiness is largely attributable

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[3] See CRS Report R40647, *The Fall and Rise of Household Saving*, by Brian W. Cashell.

[4] U.S. Department of Commerce, Bureau of Economic Analysis, *National Accounts*, Table 5.1, http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N.

to the large capital consumption component (depreciation) of business saving, which is relatively insensitive to the ups and downs of the business cycle. The second and smaller component of business saving is undistributed profits (retained earnings). Undistributed profits are affected by the business cycle; nevertheless, such saving flows do not fluctuate widely and rebound quickly with economic recovery.

Net foreign investment is a measure of inflows of foreign saving into the United States. Because domestic saving has persistently been insufficient to fully finance domestic investment, the United States has attracted foreign saving to fill that shortfall. Inflows of foreign saving as a percentage of GDP reached a record high of 7.0% in 2006. Since then foreign inflows of saving have decreased due in part to the dampening effects of the recent recession.

If with economic recovery domestic saving does not rise above its pre-recession level, foreign inflows of saving are likely to again increase.

Table 1. Accounting for Saving in the United States

(all figures as a percentage of gross domestic product)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Gross Personal saving	2.1	2.0	2.7	2.6	2.6	1.1	2.1	1.3	2.0	6.7
Gross Business saving	11.7	12.3	12.9	13.0	13.4	14.1	16.0	12.7	13.3	13.7
Private Capital Consumption	9.9	10.2	10.3	10.2	10.1	10.2	12.2	10.4	10.6	10.8
Gross Private Saving	13.8	14.3	15.6	15.6	16.0	15.1	18.0	14.0	15.2	17.0
Net Private Saving	3.9	4.0	5.3	5.4	5.8	4.9	5.8	3.6	4.6	6.2
Gross Federal Saving	2.7	1.3	-1.5	-2.6	-2.4	-1.4	-0.9	-0.9	-3.6	-7.7
Federal Capital Consumption	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.9
Net Federal Saving	1.9	0.4	-2.4	-3.4	-3.2	-2.2	-1.8	-1.7	-4.4	-8.6
S&L Government Saving	1.5	1.0	0.6	0.8	1.1	1.4	1.9	1.4	1.0	1.3
S&L Capital Consumption	1.1	1.1	1.1	1.1	1.2	1.2	1.4	1.3	1.3	1.4
Net S&L Saving	0.4	-0.2	-0.5	-0.3	-0.1	0.2	0.4	0.2	-0.3	-0.1
Gross Public Saving	4.3	2.2	-0.9	-1.8	-1.3	-0.1	1.0	0.5	-2.6	-6.4
Net Public Saving	2.3	0.2	-2.9	-3.7	-3.3	-2.0	-1.3	-1.5	-4.7	-8.7
Gross National Saving	18.1	16.5	14.7	13.9	14.5	15.1	19.1	14.5	12.6	10.6
Net National Saving	6.2	4.3	2.4	1.8	2.5	2.9	4.5	2.0	-0.2	-2.5
Net Foreign Investment	4.1	3.8	4.2	4.6	5.3	5.9	7.0	5.1	4.9	3.0
Total Gross Domestic Investment	22.2	20.3	18.9	18.6	19.8	20.9	26.1	19.6	17.5	13.6

Source: Department of Commerce, Bureau of Economic Analysis.

International Comparisons

Just as it is sometimes argued that the saving rate is a matter for concern because it has fallen over time, it is argued that it is too low because it is below that of other countries. **Table 2** presents data showing how national saving in the United States compares with that in other major industrial countries. These data differ somewhat from those presented in **Table 1** because the Organization for Economic Co-operation and Development (OECD) uses a different set of economic accounting rules and because the OECD data are not revised on the same schedule as the NIPA data. The advantage of OECD data is that they are comparable across countries.

Table 2. Gross National Saving for Selected Countries

(as a percentage of gross domestic product)

	United States	Canada	France	Germany	Italy	Japan	United Kingdom
1998	18.5	19.1	21.0	20.9	21.6	28.8	18.0
1999	17.9	20.7	21.8	20.3	21.1	27.2	15.7
2000	17.8	23.6	21.6	20.2	20.6	27.5	15.0
2001	16.2	22.2	21.3	19.5	20.9	25.8	15.4
2002	14.3	21.2	19.8	19.4	20.8	25.2	15.3
2003	13.5	21.4	19.1	19.5	19.8	25.4	15.1
2004	14.1	23.0	19.0	22.0	20.3	25.8	15.0
2005	14.6	23.8	18.5	22.1	19.5	26.8	14.6
2006	15.8	24.4	19.3	24.3	19.6	26.9	14.2
2007	14.0	23.7	19.9	26.3	20.0	27.0	15.5
2008	12.1	23.7	18.9	25.8	18.0	n.a.	15.4

Source: Organization for Economic Co-operation and Development.

Over the period shown, Japan saved at a higher rate than any of the other countries, although its saving rate has been falling. The United Kingdom and the U.S. saving rates were the lowest of these seven countries.

Table 3 presents data comparing historical household saving rates for the same countries. The OECD household saving data are based on the most recent internationally comparable data, but are available only as a percentage of disposable household income rather than as a percentage of GDP.

Table 3. Household Saving for Selected Countries

(as a percentage of disposable income)

	United States	Canada	France[a]	Germany	Italy	Japan	United Kingdom[a]
1998	5.3	4.9	12.4	10.1	11.4	11.3	7.4
1999	3.1	4.0	12.1	9.5	10.2	10.0	5.2
2000	2.9	4.7	11.9	9.2	8.4	8.6	4.7
2001	2.7	5.2	12.7	9.4	10.5	5.0	6.0
2002	3.5	3.5	13.9	9.9	11.2	4.9	4.8
2003	3.5	2.6	12.6	10.3	10.3	3.9	5.1
2004	3.4	3.2	12.6	10.4	10.2	3.5	3.7
2005	1.4	2.1	11.7	10.5	9.9	3.9	3.9
2006	2.4	3.5	11.6	10.5	9.1	3.8	2.9
2007	1.7	2.5	12.2	10.8	8.2	3.3	2.2
2008	2.7	3.7	11.8	11.2	8.6	2.7	1.7
2009	4.3	5.0	16.3	11.3	8.4	2.3	7.0

Source: Organization for Economic Co-operation and Development.

a. France and the United Kingdom report gross saving, the others are net saving rates.

Author Contact Information

Craig K. Elwell
Specialist in Macroeconomic Policy
celwell@crs.loc.gov, 7-7757

Acknowledgments