

Social Security and Savings Behavior

Among the most important issues facing the United States economy today is whether existing public policy discourages saving. A central aspect of the problem of insufficient saving and capital formation is the role of the social security system. Many people believe that the United States social security system serves to depress the level of saving in the economy. They point out that a major motivation for saving by individuals is to provide income for retirement. If the need for such saving is reduced because of the existence of Government-sponsored transfers of income to the elderly, then the level of saving may be reduced as well.

The proposition is indeed disturbing because it implies that growth of the social security system may result in reduced levels of saving and capital formation and, as a consequence, lower productivity growth and real output growth. Clearly, if these trade-offs exist, the social security system needs to be reexamined. However, it is first necessary to evaluate the logic and evidence underlying the proposition. As it turns out, its veracity is not self-evident on either grounds. The effect of social security on saving involves a diverse and complex set of issues, of which retirement saving is only one. Consequently, the popularity of the proposition that the social security system depresses saving is not justified.

In addition to private retirement saving, the social security system can affect a broad range of household decisions. Thus, its effects on savings behavior remain ambiguous. In particular, social security may affect retirement decisions by inducing earlier retirement, in which case saving during working years may be increased. Additionally, social security interacts with a whole variety of household investment decisions, such as those involving human capital—schooling, job training, health, etc. In this context, social security, which reduces the need for retirement saving, may lead to a shift in the composition of saving toward human capital investments. Any apparent negative effect of social security on saving, then, may be because broad areas of capital formation are omitted from measured saving. A related issue, which also implies that social security has a potentially ambiguous effect on saving, is the way in which social security affects the level of intergenerational transfer payments, such as gifts and bequests to children by parents and support to elderly parents by their adult children.

Finally, even if the hypothesis that social security reduces savings incentives is true, it is important to consider fully the effects on society of any changes in the social security system. The usually suggested remedy for the savings offset of the existing social security system is to reduce benefits or to increase social security taxes. Both of these could have profound effects on the level of economic activity and the distribution of income. In the light of these broad consequences, it is not clear that the suggested changes in the system are warranted.

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The social-security-depresses-saving proposition

The argument why social security substitutes for private saving is deceptively simple. It is best explained by examining the lifetime patterns of households' consumption and saving. Typically, individuals' earnings increase with work experience and then decline at retirement. By saving during the most productive years and dissaving during retirement, individuals can maintain a smooth pattern of consumption over their lifetime.¹ If income increases with age until retirement, while consumption is relatively constant, then there are periods of dissaving early in life and after retirement and a period of saving during mid-life.

With such a lifetime allocation, consumption depends on total wealth or command over resources rather than being constrained by income at any particular time. In this context, the concept of wealth is a broad one. In addition to net financial assets and physical assets, wealth includes the present values of future earnings and of benefits to be received from the social security system. These latter items are the value today of earnings or benefits to be received in the future. They are included in wealth because they are part of the individual's lifetime command over economic resources. When social security benefits are increased, every individual's overall wealth or lifetime command over resources also increases. As a result, the typical individual will raise the current level of consumption. Thus, an increase in social security benefits is an increase in wealth which can lead the typical household to reduce the proportion of current income that is saved.

The relationship is not, however, quite so simple. It is complicated by the existence of social security taxes, by the effect of social security on retirement decisions, by the role of intergenerational transfer payments, and by the interaction of social security with human capital investment decisions. An examination of these issues reveals that an increase in social security benefits can cause either an increase or a decrease in personal saving. Ultimately, the question of whether social security reduces saving must be settled by empirical investigation. However, the existing empirical evidence does not address all the issues raised.

Social security taxes

The role of social security taxes will be examined first. If the social security system were fully funded, which means that the present value liabilities of the

system are offset exactly by its assets, an increase in future retirement benefits would be matched by an equivalent increase in lifetime tax liabilities. The typical individual pays taxes that accumulate in a social security fund. At retirement, this fund is just large enough to pay out retirement benefits over the expected remaining lifetime. In the case of such a fully funded system, the individual's wealth and therefore savings behavior would be unaffected by a benefit change. This is because a benefit increase which adds to wealth would be offset by wealth-reducing increases in taxes.²

Although the social security system as originally envisioned was a fully funded system, this is no longer the case. Generally speaking, social security taxes are set at a level sufficient to pay for current benefits. Since both the size of the population and labor productivity are growing, taxes levied to provide current benefits are less than the present value of future benefits. Thus, expansion in benefits has increased the net social security wealth held by those currently alive. The opposite effect can occur, if the retired population is large relative to the working population or if benefits accrue to nonearners. It is then possible that an expansion in the benefit structure can require tax increases for current workers, which are more than equivalent to the increase in their expected benefits. Changes in the age structure of the population after the year 2000 are likely to bring such a situation about, since the number of retirees will be approaching the size of the working population

Retirement decisions

Social security can also affect the decision to work. The current system provides strong inducement to retire at age 65 because retirement benefits are reduced by about 50 cents for every dollar earned over a certain ceiling for those under age 72. Thus, the social security system induces people to retire earlier. To take advantage of the benefit structure, individuals may accumulate additional assets during their working years to provide more retirement income. With a shorter working life, and the prospect of only partial earnings replacement from social security, wage earners may increase their pre-retirement saving.

Thus, for the typical worker, an increase in the social security benefit structure has a wealth effect which reduces saving and a retirement effect which increases

¹ In the economics literature, this approach is known as the life-cycle theory of consumption. For a more complete development see, for example, Rudiger Dornbusch and Stanley Fischer, *Macroeconomics* (New York: McGraw-Hill, Inc., 1978), pages 146-54.

² This argument also relies upon some additional rather heroic assumptions, often favored by economists but hardly likely to be true. For example, the rate at which individuals discount future benefits must be equal to the rate of return on saving. In a complex world where taxes and financial market imperfections intervene, individuals may not be indifferent to present taxes as opposed to equivalent future benefits.

saving. However, it is unlikely that the additional saving due to induced earlier retirement would be as large as the saving replaced by the social security system. This is because social security benefits are likely to be received for a number of years, while retirement is likely to be only a few years earlier than it would be in the absence of social security. Thus, the value of benefits will be larger than the additional saving needed for earlier retirement. This comparison assumes that individuals have a clear perception of the magnitude of the increase in wealth due to changes in social security benefits. Such an assumption is unwarranted as the benefits to be received by an individual are not known with certainty; they depend on his or her earnings and length of life. Thus, the effect of social security on the age of retirement can have important implications for savings behavior.

The induced retirement effect of the social security system has an ambiguous effect on aggregate saving for an additional reason. The retirement effect would change the savings behavior of workers and also increase the relative size of the nonworking population. The total effect on the income and saving of the entire population has not been explored.

Intergenerational transfers

The discussion of lifetime planning of consumption patterns did not refer to bequests or to private intergenerational transfers of income. These phenomena are widely observed in the real world, and the latter one is of particular concern. Intergenerational transfers of income may well be an important means of providing for retirement. Thus, Government provision of retirement income through the social security system may substitute for private intergenerational income transfers rather than substituting for the intragenerational deferral of consumption (retirement saving).³ To be specific, a situation can be envisioned where, in the absence of social security, elderly persons are provided for by income transfers from their working children. With a social security system, the working children make tax payments instead of direct transfers and retirement income for the parents is provided by the Government. It is conceivable that the two systems are equivalent and the disposable income and saving of both parents and children are the same in each case.

³ This idea has been emphasized by Robert Barro, "Are Government Bonds Net Wealth?", *Journal of Political Economy* (November/December 1974), pages 1095-1118. However, aggregate social security benefits are so large that it is difficult to imagine that, in the absence of social security, private transfers would approach the same magnitude.

This is an important possibility because it suggests that social security has displaced private transfers rather than private saving and capital formation. The consequences for saving of such an income redistribution have not been adequately explored but are probably less severe than the wealth effects indicated by the life-cycle approach.

Along these lines, it is interesting to note that the social security system may have widespread influences on the living patterns of the elderly and the relationship between the generations. For example, social security may encourage the elderly to live alone rather than to share living arrangements with the young. Alternatively, social security may be viewed as a social response to these changes in mores.

Social security and human capital

The final complication to the basic life-cycle proposition that social security offsets private saving involves an important element of household savings decisions and lifetime planning that is by and large overlooked in discussions of the social security system. That is, the interaction between social security and capital formation in the form of human capital investments.⁴ Introducing human capital, particularly investments in education, adds a degree of complexity that has not been explored. This is a serious omission since it is possible that the interaction of human capital investments with social security is strong.

The strength of the relationship is suggested by the similarities between human capital wealth and social security wealth. Both are nonfungible assets, unlike the financial and physical assets which are viewed as social security substitutes in existing empirical studies. Thus, it is possible that the relationship between these types of assets is as important as their relationship to the standard forms of saving. Additional similarities are that human capital investments, along with retirement saving, are an important form of life-cycle planning by the family unit and, also, that human capital investments are an important form of intergenerational transfers.

It is not evident whether social security wealth and human capital investments should be viewed as substitute or complementary assets. In the first case, social security which provides retirement income could be viewed as an alternative to educating one's children so that they will have the income to provide retirement support to their parents. This does not seem to be the appropriate argument because the tendency

⁴ Sherwin Rosen suggests the possibility of a relationship in "Social Security and the Economy", *The Crisis in Social Security* (San Francisco, California: Institution for Contemporary Studies, 1977).

to invest in human capital has increased a great deal since the inception of social security. It is more likely that social security wealth and human capital are complementary assets. In this case, the advent of the social security system, which reduced the burden of saving for retirement, made it possible for the typical individual to devote more resources to saving in the form of human capital.⁵

Although these hypotheses have not been tested, perhaps an effect of the social security system has been to induce the household sector to channel its resources into human capital investments. Thus, by standard measures, saving did decline, although, due to increases in human capital investments, overall capital formation need not have declined. This argument does not obviate the entire issue, if policymakers feel that the induced move from physical to human capital formation has been excessive.

There is yet another interrelation between social security and human capital investments. An individual can provide for retirement by accumulating ordinary assets over his working life or by investing in education with the hope that the returns to human capital investment will provide retirement income. As the returns to human capital investments are highly variable among individuals, there may well be a preference for a less risky means of lifetime planning. Since social security reduces the risk of being without income in one's old age, it may encourage individuals to make investments in human capital.

Because of the unavailability of data, there have not been any empirical studies of the relationship of social security to both private intergenerational transfers and investments in human capital. Although there is some evidence indicating that financial support from children to parents is relatively small, it is not clear whether this is a consequence of social security. Data on intergenerational transfers of human capital and the relationship between human capital and other forms of wealth are almost totally lacking.

Social security policy

If the proposition that social security depresses saving is in fact true, then some changes in social security policy would be appropriate.⁶ Supporters of the proposition have suggested changes in the way in which the

system is financed. However, such modifications would have additional undesirable effects on the economy. In general terms, the overall issue is whether the system should be one of intergenerational transfers, essentially pay as you go, or whether it should be a fully funded annuity system.

As the social security system grew, it evolved into a pay-as-you-go system. The trust fund of Government securities, which accumulated in the early years when there were few beneficiaries relative to workers subject to the payroll tax, eroded as the Congress increased benefits. An error made when the 1972 Social Security Act was drafted, compounded the problem by double-indexing the benefit structure.⁷ Without large increases in payroll taxes, the trust fund was well on its way to bankruptcy. This was rectified by the amendments legislated in 1977 which put social security back on a sound pay-as-you-go system.⁸

Changes in the demographic structure of population over the next fifty years will still put serious financing strains on the system. After the year 2000, there will be a substantial growth of the population above retirement age relative to the working-age population. The number of persons retired as a percentage of the working population will increase from the present level of about 19 percent to about 30 percent in 2030. The increase will not start until after 2000 and will be even larger if fertility continues at its present low level. Thus, there is a long-term problem of an increasing burden on financing social security pensions, even though the amendments in 1977 reduced the immediate crisis by stopping the growth of the so-called replacement rate. The replacement rate—the ratio of the median pension benefit at retirement to the median wage prior to retirement—had increased from about 0.3 to over 0.4 in the 1970s because of the indexing procedures. The current legislation will maintain the rate at a constant level of about 0.42. If it had continued to increase, much larger increases in the payroll tax would have been necessary.

Proponents of the social-security-retards-private-capital-formation proposition argue that the system

⁷ The problem arose from linking both benefits paid and the wage base used to determine initial benefits to changes in consumer prices

⁸ The system is still not without its financial problems. There is considerable pressure in the Congress to roll back the scheduled increases in the payroll tax rate. In addition, continued high inflation could create a cash flow problem for the trust funds by the mid-1980s. In either case, short-run financing from general revenues may be necessary. For a historical analysis of the social security system, see Martha Dethrick, *Policy Making for Social Security* (Washington, D.C. The Brookings Institution, 1979) and Rita Campbell, *Social Security Promise and Reality* (Stanford, California: Hoover Institution Press, Stanford University, 1977)

⁵ An elaboration of this argument is found in "Social Security and Investment in Human Capital" by Thomas F. Pogue and L. G. Sgontz, *National Tax Journal* (June 1977), pages 157-70. They also present some empirical evidence that the advent of social security has increased human capital investments.

⁶ For a complete review of all the policy issues, see Bruno Stein, *Social Security and Pensions In Transition* (New York: Free Press, 1980)

should pay pensions from an actuarially appropriate trust fund, rather than on a pay-as-you-go basis. In this case, social security wealth would not be fictional but instead would be backed by existing assets. Such a proposal would require substantial tax increases for the fund to accumulate sufficient assets. In essence, there would have to be a larger Government surplus on the consolidated budget as the trust fund accumulated outstanding Government debt. The idea behind this is that it would release funds to the private capital markets. However, the effect of such tax increases, in the short run, on aggregate demand and output could be devastating. A basic lesson of Keynesian macroeconomics is that, although a surplus reduces government demands on the capital market, it can induce a recession and lower the overall private-sector demand for capital goods. These latter caveats are understood by the proponents of the trust fund approach who argue that social security should move toward a funded system gradually, as short-term macroeconomic policy permits.

The idea that social security should be funded can be criticized on additional grounds best explained by describing the development of the system.⁹ When the social security system began, the initial generation of beneficiaries received a considerable net transfer since their benefits exceeded their payments. If the argument is that this reduced their saving, then the current generation is producing with a deficiency in the capital stock. By increasing taxes and further decreasing the standard of living of the current generation, we may in the long run be able to accumulate a fund and also make up the capital deficiency. This transition may take several generations but, from then on, the system will be funded in the sense that each generation's benefits are the taxes it accumulated plus interest. Such a proposal imposes the burden of reducing consumption to accumulate a fund on the current generation. This was not viewed as desirable forty years ago when the system conferred benefits on the initial generation and does not seem any more appropriate now.

If the current capital stock is considered deficient, there are many other policy approaches to influencing the level of investment, including reduced taxation of capital income. If there is concern about making the overall tax structure less progressive, it hardly seems appropriate to use payroll tax increases to in-

fluence capital formation. There is no specific reason why a society has to make up any capital stock deficiency that developed when intergenerational transfers were introduced. It is instead a question of equity and fairness in the design of an overall tax system. Clearly, changes in the distribution of the tax burden promote capital formation, but a society with a concept of distributional equity might not make such choices.

Perhaps the most telling blow to the proposal of funding is its impracticality. At current benefit levels and interest rates, the fund would have to approach \$1,000 billion, more than the total privately held public debt. Even a gradual fund accumulation would require large changes in the tax structure, with distributional consequences that are not likely to appeal to the public or political decision-making bodies. The current generation is not likely to volunteer to reduce its living standard substantially in order to enlarge the productive capital stock for its heirs. Rather than dwelling upon the relative merits of a pay-as-you-go or funded transfer system, perhaps society should address the issues concerning taxation and capital formation directly.

Review of the evidence

One of the most problematic aspects of the hypothesis that social security curtails saving and capital formation is that casual observation of structural developments in the economy since the inception of the social security system provides scant evidence of any such effect. In a sense, the legislation created vast sums of wealth in the economy while the physical assets in the country were unchanged. Over time, one would expect major adjustments in the structure of the economy in response to these changes. If there has been an effect on saving, researchers should also be able to detect the effect on capital intensity and on the rates of return to capital. For example, the creation of social security wealth makes physical assets relatively scarce which should lead to larger returns on such assets. Similarly, if social security displaces saving, some downward secular trend in rates of saving and capital formation should have emerged. However, economists have not observed either phenomenon.¹⁰ It would be difficult to argue that savings rates have been remarkably steady because increased real returns have offset the depressing effects of social security. Most economists have argued that, if anything, real returns to

⁹ The line of argument that follows draws upon the discussion by Mordecai Kurz and Marcy Arvin in "Social Security and Capital Formation: The Funding Controversy", *Working Papers of the President's Commission on Pension Policy*, 1979

¹⁰ There is evidence that the rate of return to schooling, a major component of human capital investments, increased for many years and declined in recent years. This could support the interaction between social security and human capital suggested earlier

capital have declined in the postwar period.¹¹

More formal tests of the proposition that social security depresses saving have been conducted, largely in the context of the life-cycle approach, discussed earlier, which showed that wealth is a key determinant of consumption. Econometricians attempt to measure the impact of social security on saving and consumption by specifying an equation that relates consumption expenditure to social security wealth. Social security is a savings depressant if the estimated impact of social security wealth on consumption is positive and can be statistically distinguished from a zero effect. A brief description of the results follows. A fuller, but still nontechnical, summary is presented in the accompanying appendix.

Current interest in the effect of social security on saving was sparked by Martin Feldstein's 1974 econometric study.¹² His conclusion that there is a very strong depressing effect has been the basis for all discussion and argument since then. However, an attempt by Dean R. Leimer and Selig D. Lesnoy of the Social Security Administration to replicate his data uncovered a data error.¹³ When the social security wealth variable is corrected, the results are strikingly different. Feldstein's conclusion that social security has reduced personal saving by one half and the stock of capital by one third is completely unsubstantiated with the corrected data. This is important because the enormous depressing effect on saving has been widely quoted and supported by many economists for six years.

Empirical studies have also attempted to measure the effect on labor supply and retirement decisions. Social security may affect saving because it provides an incentive for retirement. The advent of social security makes much of the working public plan for retirement by increasing their saving during working years. Alicia Munnell's tests of this hypothesis found that the sizable decline in the labor force participation rate for men aged 65 and over (from just under 50 percent when social security was introduced to less than 25 percent by the mid-1970s) had a substantial positive

effect on saving. Even if this entire increase were attributed to social security, the induced increase in saving would offset only about one half of the reduction of saving due to social security wealth.¹⁴

Clearly, it is difficult to make definite judgments based on aggregate savings data. Since economists do not conduct controlled experiments, it may not be possible to determine what the world would be like without the social security system. The historical comparison of the present economy with the depression era may be inadequate for isolating the effect of the creation of the social security system from all the other changes in the structure of the economy over the past forty years.

There are two other types of data which also can be used to investigate the effects of the social security system on saving: data on the savings behavior of different individuals (cross-section data) and data on the savings behavior in different countries.

Cross-section data have been used to investigate the effect of differences among individuals in private pension plans and social security benefits and taxes on savings behavior. The evidence concerning the wealth effect of social security on saving is weak.¹⁵ Lawrence Kotlikoff suggests that the savings offset predicted by theory is not found in the data because individuals are unable to forecast their social security benefits and their age of retirement. Others argue that reduced intergenerational transfers and induced retirement effects of social security are unlikely to offset the negative effect of social security on wealth accumulation. However, even the cross-section results, indicating that individuals with relatively higher social security save less, do not necessarily imply that, after aggregation over the entire population, an increase in the scale of the social security program reduces total saving.

Another path of empirical investigation examines differences in both savings behavior and social security systems among countries. Virtually all industrialized nations have some form of government-sponsored program for transfers to the elderly. Since the cross-national differences in savings behavior are large, some analysts have asked whether these differences in savings behavior are to any extent due to differences in social security benefits. Most recently, Robert

¹¹ It should also be noted that social security is only one type of fictional wealth. Social security wealth—the present value of future benefits—is fictional because it is not matched either by future contributions or by the expected earnings from existing assets. The vast unfunded liabilities of private (for some large corporations such liabilities exceed net worth) and government (civil service, military, etc.) pension systems are also forms of fictional wealth. Even more than social security, these wealth components have grown very rapidly in recent years, without any obvious effect on aggregate saving.

¹² "Social Security, Induced Retirement, and Aggregate Capital Accumulation", *Journal of Political Economy* (September/October 1974), pages 905-26

¹³ Their results were presented to the annual meeting of the American Economic Association in Denver, September 5-7, 1980. For a report, see "Economic Diary", *Business Week* (September 22, 1980)

¹⁴ In the Munnell study, "The Effect of Social Security on Personal Savings" (Cambridge, Massachusetts: Ballinger Publishing Co., 1974), the income coefficient in the consumption relation depended on the labor force participation rate for men aged 65 and over

¹⁵ For example, see the studies by Lawrence Kotlikoff, "Testing the Theory of Social Security and Life Cycle Accumulation", *American Economic Review* (June 1979), pages 396-410, and by Martin Feldstein and Anthony Pellechio, "Social Security and Household Wealth Accumulation: New Microeconomic Evidence", *The Review of Economics and Statistics* (August 1979), pages 361-68

Barro and Glen McDonald examined the effect of international differences in the ratio of real social security benefits per person over 65 to real income per capita on savings rates.¹⁶ They conclude that available cross-national data are not rich enough to allow any inferences about the effect of social security on saving.

At this juncture, it is useful to draw some conclusions concerning the empirical evidence on the effect of social security on savings behavior. One can only say that there is some highly tentative empirical support for the hypothesis that social security substitutes for private retirement saving. Since private retirement saving represents wealth accumulation which results in capital formation, while unfunded social security programs are backed only by the accumulation of "fictional" wealth, it is possible that overall capital formation is depressed. However, there is a complex set of other effects of social security which makes it impossible to give unqualified support to this hypothesis. These effects that the empirical literature has been unable to isolate adequately include retirement decisions, the private provision of pensions, other forms of intergenerational transfers, and other types of capital formation.

Conclusions

Although this discussion of social security involves a complex and diverse set of issues, two threads do seem to emerge.

Social security should not, at this juncture, be viewed as a substitute for private retirement saving. The issue is an empirical one, and the existing evidence offers only some tentative statistical support for the hypothesis. Furthermore, the evidence is deficient because it omits any serious consideration of the complex relationships between social security and other forms of intergenerational transfers, such as human capital investments.

The unfunded, or pay-as-you-go, public transfer system should not be viewed as the culprit that has caused a lower than desired capital stock and lagging productivity growth. Social security is just one part of an overall system of public expenditure and income redistribution that interacts with private savings decisions in many ways. The desirability of inducing more capital formation is a broad policy issue that should be dealt with in a larger framework, particularly since the extent of any capital formation effect of social security is, as yet, uncertain.

Appendix: The Effect of Social Security on Saving

There have been several empirical studies of the effect of social security on saving which fail to reach any consensus. A thorough technical survey of these studies was made, one by Louis Esposito, "Effect of Social Security on Saving: Review of Studies Using United States Time Series Data", *Social Security Bulletin* (May 1978), pages 9-17, and one by N. Bulent Gultekin and Dennis Logue, "Social Security and Personal Saving: Survey and New Evidence", *Social Security versus Private Saving*, George M. von Furstenberg, ed. (Cambridge, Massachusetts: Ballinger Publishing Co., 1980). A brief, nontechnical summary of the methodology, results, and sources of the disagreement is presented here.

There is broad agreement among economists about the general specification of a life-cycle consumption function estimated from time series data. Typically, it takes the following form:

$$C_t = \alpha_0 + \alpha_1 YD_t + \alpha_2 YD_{t-1} + \alpha_3 W_t + \alpha_4 SSW_t + \mu_t$$

where:

- C = real per capita consumption expenditures,
- YD = real per capita disposable personal income,
- W = real per capita personal sector net worth,
- SSW = real per capita social security wealth, and
- μ_t = residual or error term.

The parameter estimates enable the econometrician to predict the effect on consumption (and hence on saving) of the variables on the right-hand side of the equation. For the question being considered—the effect of social security on saving—the coefficient on the SSW variable defined in the text is of crucial interest. The econometric literature includes many variations on this equation, and there is some controversy concerning which, if any, additional explanatory variables should be included in the consumption relationship. This is important because the coefficient of SSW is sensitive to the inclusion of other variables, such as the unemployment rate, and to changes in the time period of historical data used for estimation.

Important for evaluating the magnitude of any particular coefficient is the concept of statistical significance. Without providing a technical explanation, a coefficient is statistically significant if the results provide reasonably substantial evidence that the estimated coefficient differs from zero. Changes in the specification of an equation can affect both the magnitude of the coefficients, as stated above, as well as their statistical significance. In our context, social security is a savings depressant if the coefficient on SSW is positive (i.e., increases in SSW raise consumption) and significantly different from zero.

¹⁶ "Social Security and Consumer Spending in an International Cross Section", *Journal of Public Economics* (August 1979), pages 275-89