

# Macroeconomic Effects of Increased Annuitization: A Quantitative Assessment

Allen Sinai, Cary Leahey, and Chip Curran  
Decision Economics, Inc.\*

## Executive Summary

### Introduction

The long-time decline in U.S. household savings as a percent of income, the increased use of debt drawn against real estate to finance current consumption in excess of current disposable income, increased use of equity in real estate, increasing debt loads, and rising prospective federal budget deficits indicate a looming shortage of funds for the growing retirement needs of an aging population. In addition, the retired population will increasingly face the challenge of managing the “spend down” of their 401ks and IRAs during their retirement.

To fund that gap, either 1) consumption will have to be cut back, leading to losses of jobs and slower growth in economic activity thus penalizing *all* households in the U.S. economy; 2) the federal government will have to step up and provide more support, increasing an already very large and daunting stream of expected future outyear budget deficits; 3) taxes will have to be raised; 4) the international economy will have to increase further its funding of U.S. financial needs, although perhaps only with declines in the value of the U.S. dollar, rises of interest rates, and a weaker stock market; or 5) the political and social system must respond with new innovations and changes, some of them potentially radical, in the ways that retirement is financed.

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\* Boston, New York, London. Chief Global Economist; Senior Managing Director, U.S. Economy and Public Economics; Managing Director and Director of Macroeconometric Modeling. Partial support of the research for this paper was provided by the American Council for Capital Formation (ACCF), Washington, D.C., October 10, 2006.

Though not a complete answer to America's looming retirement funding crisis, increased use of annuities provides a way to increase retirement support from the private sector and the wealth accumulation of individual households rather than calling upon the federal, or state and local, governments to provide significant increases in outlays or entitlements.

### **The Potential Role of Annuities in Retirement Saving**

What might be the macroeconomic effects of increased annuitization? Would a switch by households from current means of financing retirement to increased use of annuities have any noticeable impact on the economy, the pattern of consumption, savings, household financial well-being, jobs and the standard-of-living of retired Americans—for that matter all Americans?

One legislative proposal, H.R. 2951, the Lifetime Pension Annuity for You Act (Lifetime PAY), introduced by Congressman Earl Pomeroy, provides an exclusion from taxable income each year for a portion of the income from a life annuity (\$5,000 per individual; \$10,000 per couple). For future years, the cap is indexed for inflation.

To assess the macroeconomic effects of the Pomeroy bill, the Sinai-Boston (SB) large-scale macroeconometric model of the U.S. was utilized. The SB Model is quite suitable for analyzing proposals like the Lifetime PAY bill because its framework allows for effects on consumption, personal savings, household balance sheets and flow of funds, and the potential impact of tax policies to increase annuitization.

### **Impact of Incentives for Annuitization: The SB Model Results**

The method of analysis used in this research was “counterfactual simulation.” Counterfactual simulation refers to analysis where a particular policy (in this case the Lifetime PAY bill) is assumed to have been enacted. The model results answer the question of what would have happened to the economy and to households if the program had been in effect. The

model simulates the behavior for the variables of interest upon implementation of the policy in history compared to what actually happened in history.

An 11-year time span was used to allow the effects of the Lifetime PAY bill to evolve given the many adjustment and expectations lags in the Model and to provide enough time for the buildup of funds in the household sector from increased annuitization to occur. Two different simulations were done, differing only in the assumptions about the tax costs of the bill to the federal government. In this brief summary we present results based on the Decision Economics, Inc. (DE) assumptions about the marginal tax rates of the population at large.

The macroeconomic effects of the Pomeroy bill are quite positive. GDP averages \$34.3 billion higher per year; consumption is \$36 billion higher; an average 239,000 more jobs are created; corporate profits improve; and the S&P500 is higher (see Table 1). While personal saving declines according to the National Income and Product Accounts definition, the SB Model results show that using DE's preferred definition for saving, household balance sheets and the financial well-being of households improve under the Pomeroy bill. The federal budget deficit increases by a relatively modest \$5.9 billion per year, after all feedback effects on tax receipts from the stimulus. The SB calculations of the dynamic (versus static) revenue costs of the Pomeroy bill indicate that slightly more than half the static revenue loss is made up by the "feedback effects" on all categories of tax receipts from stronger economic growth.

**Table 1**  
**Increased Annuitization in the Macro Economy:**  
**A Macroeconomic Assessment—The Pomeroy Bill\* \*\***  
**(Changes Relative to Baseline)**

Macroeconomic Dimension	1995-99 Avg.	2000-05 Avg.	1995-2005 Avg.
Economy			
Real GDP (Bils. '00 \$s.)	12.2	52.7	34.3
Consumption (Bils. '00 \$s.)	12.3	55.6	36.0
Business Capital Spending (Bils. '00 \$s.)	1.2	6.2	3.9
Inflation			
CPI-U (%)	0.0	0.0	0.0
Consumption Deflator Ex-Food & Energy (%)	0.0	0.0	0.0
Employment & Unemployment			
Nonfarm Payroll (Thous.)	92	361	239
Unemployment Rate (%)	-0.1	-0.2	-0.1
Business Profits			
S&P500 EPS (\$/Share)	0.17	0.63	0.42
Aftertax Corp. Profit (\$ Bils.)	1.9	5.3	3.7
Stock Market			
S&P500 (Index)	0.2	0.5	0.4
Personal Savings (\$ Bils.) (1)	-3.3	-33.6	-19.8
Budget Deficit (\$ Bils.)	-3.9	-7.6	-5.9

\* Counterfactual simulations (11 years, 1995-2005) with the SB Model of the U.S. Economy; Full Feedback; Federal Reserve Monetary Accommodation, No Change in the Federal Funds Rate from Historical Levels.

\*\* Ex-ante tax costs estimated by Decision Economics, Inc. (DE).

(1) National Income and Product Accounts (NIPA) definition—Disposable Income less Consumption less Non-Mortgage Interest less Transfer Payments to Government and Rest-of-the World.

Table 2 shows the effects on saving from the Pomeroy bill using the DE preferred way of looking at household savings. Compared to the Baseline, the Pomeroy bill increases the financial assets held by households an average \$59 billion per year and holdings of real estate and consumer durables increase by \$10.7 billion per year. Total savings increase by an average of \$84.7 billion per year. The savings rate calculated this way is a sizeable 0.6 to 1.6 percentage points higher than in history.

**Table 2**  
**Increased Annuitization in the Macro Economy:**  
**A Quantitative Assessment—Balance Sheet “Savings”—The Pomeroy Bill\* \*\***  
**(Changes Relative to Baseline)**

“Savings” Flows (\$ Bils.)	1995-99 Avg.	2000-05 Avg.	1995-2005 Avg.
Financial Assets	23.9	88.2	59.0
Money & Deposits	2.5	4.6	3.7
Misc. Assets	0.2	0.7	0.5
Bonds	5.8	22.6	15.0
Stocks (1)	14.2	44.5	30.8
Life Insurance	1.7	10.8	6.7
Pensions (Including Annuitized Assets)	-0.6	4.9	2.4
Financial Liabilities (Debt)	-3.5	-15.8	-10.2
Physical Assets (2)	5.2	15.4	10.7
Consumer Durables	2.9	0.4	1.5
Real Estate	2.3	15.0	9.2
Net “Earnings” (\$ Bils.) (3)	0.8	7.9	4.7
Interest and Dividends	1.0	5.8	3.6
Borrowing Costs	0.2	-2.1	-1.1
“Savings—Total” (Finan. Assets less Liabs. plus Phys. Assets plus Net “Earnings”)	33.3	127.3	84.7
“Savings” Rate (Pctg. Pts.) (4)	0.6	1.6	1.2

\* Counterfactual simulations (11 years, 1995-2005) with the SB Model of the U.S. Economy; Full Feedback; Federal Reserve Monetary Accommodation, No Change in the Federal Funds Rate from Historical Levels.

\*\* Ex-ante tax costs estimated by Decision Economics, Inc. (DE).

(1) Market value-based.

(2) Principally residential real estate and automobiles, light trucks—all at market value.

(3) Interest and dividends earned on the additional financial assets and stock plus reductions in borrowing costs.

(4) Defined as “Savings—Total” divided by disposable income.

## Conclusions

The magnitudes found in this study are not necessarily large in the context of an \$11 trillion U.S. economy, but they are positive and quite noticeable in direction and absolute amounts. The quantitative effects from the Lifetime PAY bill provide one example of what the effects of increased annuitization could mean for macroeconomic growth, consumption, jobs and unemployment, household saving and household financial positions in the aggregate, and not just for retirees.