

REINVENTING SAVINGS BONDS

By Peter Tufano and Daniel Schneider

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Savings bonds have always served multiple objectives: funding the U.S. government, democratizing national financing, and enabling families to save. Increasingly, the authors write, that last goal has been ignored. A series of efficiency measures introduced in 2003 make these bonds less attractive and less accessible to savers. Public policy should go in the opposite direction: U.S. savings bonds should be reinvigorated to help low- and moderate-income (LMI) families build assets. More and more, those families' saving needs are ignored by private-sector asset managers and marketers. With a few relatively modest changes, Tufano and Schneider explain, the savings bonds program can be reinvented to help those families save, while still increasing the efficiency of the program as a debt management device. Savings bonds provide market-rate returns, with no

transaction costs, and are a useful commitment savings device. The authors' proposed changes include (a) allowing federal taxpayers to purchase bonds with tax refunds; (b) enabling LMI families to redeem their bonds before 12 months; (c) leveraging private-sector organizations to market savings bonds; and (d) contemplating a role for savings bonds in the life cycles of LMI families.

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Table of Contents

I. Introduction 1

II. An Unusual Problem: Nobody Wants My Money! 1

III. U.S. Savings Bonds: History and Recent Developments 6

 A. A Brief History of Savings Bonds 6

 B. Recent Debates Around the Savings Bond Program and Program Changes 8

IV. Reinventing the Savings Bond 11

 A. Reduce the Required Holding Period for Bondholders Facing Financial Emergencies 11

 B. Make Savings Bonds Available to Tax Refund Recipients 11

 C. Enlist Private-Sector Social Marketing for Savings Bonds 13

 D. Consider Savings Bonds in the Context of a Family's Financial Life Cycle 13

 E. Make the Process of Buying Savings Bonds More User-Friendly 14

Sources 14

Appendix A: Savings Bonds Today 18

Appendix B: Patterns and Trends in Bond Ownership 19

I. Introduction

In a world in which financial products are largely sold and not bought, savings bonds are a quaint oddity. First

Table 1. Fraction of U.S. Households Having Adequate Levels of Emergency Savings^a

	Financial Assets (Narrow) ^b	Financial Assets (Broad) ^c
All Households; Savings adequate to		
Replace six months of income	22%	44%
Replace three months of income	32%	54%
Meet emergency saving goal ^d	47%	63%
Household Income < \$30,000; Savings adequate to		
Replace six months of income	19%	28%
Replace three months of income	25%	35%
Meet stated emergency saving goal	29%	39%
<i>Source:</i> Author's tabulations from the 2001 Survey of Consumer Finances (SCF (2001))		
^a This chart compares different levels of financial assets to different levels of precautionary savings goals. If a household's financial assets met or exceed the savings goals, they were considered adequate. The analysis was conducted for all households and for households with incomes less than \$30,000 per year.		
^b Financial Assets (Narrow) includes checking, saving, and money market deposits; call accounts; stock, bond, and combination mutual funds; direct stock holdings; U.S. savings bonds; and federal, state, municipal, corporate, and foreign bonds.		
^c Financial Assets (Broad) includes all assets under Financial Assets (Narrow) as well as certificates of deposit, IRA and Keogh accounts, annuities and trusts, and the value of all 401(k), 403(b), SRA, Thrift, savings, pensions plans as well as the assets of other plans that allow for emergency withdrawals of borrowing.		
^d Respondents were asked how much they felt it was necessary to have in emergency savings. This row reports the percentage of respondents with financial assets greater than or equal to that emergency savings goal.		

offered as Liberty Bonds to fund World War I and then as baby bonds 70 years ago, savings bonds seem out of place in today's financial world. While depository institutions and employers nominally market those bonds, they have few incentives to actively sell them. As financial institutions move to serve up-market clients with higher-profit-margin products, savings bonds receive little if no marketing or sales attention. Even Treasury seems uninterested in marketing them. In 2003 Treasury closed down the 41 regional marketing offices for savings bonds and has zeroed out the budget for the marketing office, staff, and ad buys from \$22.4 million to \$0 (Block (2003)). No one seems to have much enthusiasm for selling savings bonds.

Maybe that lack of interest is sensible. After all, there are many financial institutions selling a host of financial products in a very competitive financial environment. The very name "savings bonds" is out of touch; it is unfashionable to think of ourselves as "savers." We are now "investors." We buy investment products and hold our "near cash" in depository institutions or money market mutual funds. *Saving* is simply passé, and American families' savings rate has dipped to its lowest point in recent history.

Even if we put aside the macroeconomic debate on the national savings rate, there is little question that lower-income Americans would be well-served with greater savings. Families need enough savings to withstand temporary shocks to income, but a shockingly large fraction don't even have enough savings to sustain a few months of living expenses (see Table 1). Financial planners often advise that families have sufficient liquid assets to replace six months of household income in the event of an emergency. Yet only 22 percent of households, and only 19 percent of low- and moderate-income households, meet that standard. Fewer than half (47 percent) of U.S. households, and only 29 percent of LMI households, have sufficient liquid assets to meet their own stated

emergency savings goals. Families do somewhat better when financial assets in retirement accounts are included, but even then more than two-thirds of households do not have sufficient savings to replace six months of income.

And while the financial landscape may be generally competitive, there are low-profit pockets in which competition cannot be counted on to solve all of our problems. While it may be profitable to sell low-income families credit cards, subprime loans, payday loans, or check-cashing services, there is no rush to offer them savings products. A not insubstantial number of them may have prior credit records that lead depository institutions to bar them from opening even savings accounts. Many do not have the requisite minimum balances of \$2,500 or \$3,000 that most money market mutual funds demand. Many of them are trying to build assets, but their risk profile cannot handle the potential principal loss of equities or equity funds. Many use alternative financial services, or check-cashing outlets, as their primary financial institution, but those firms do not offer asset-building products.

For these families, old-fashioned U.S. savings bonds offer an investment without any risk of principal loss due to credit or interest rate moves, while providing a competitive rate of return with no fees. Bonds can be bought in small denominations, rather than requiring waiting until the saver has amassed enough money to meet some financial institution's minimum investment requirements. And finally, bonds have an "out-of-sight and out-of-mind" quality, which fits well with the mental accounting consumers use to artificially separate spending from saving behavior.

Despite all of those positives, we feel the savings bond program needs to be reinvigorated to enhance its role in supporting family saving. In the current environment, the burden is squarely on families to find and buy the bonds. Financial institutions and employers have little or no incentives to encourage savers to buy bonds. The

government has eliminated its bond marketing program. Finally, by pushing the minimum holding period up to 12 months, the program is discouraging low-income families, who might face a financial emergency, from investing in them. We feel those problems can and should be solved, so that savings bonds can once again become a strong part of families' savings portfolios.

At one point in American history, savings bonds were an important tool for families to build assets to get ahead. They were "designed for the small investor — that he may be encouraged to save for the future and receive a fair return on his money" (U.S. Department of the Treasury (1935)). While times have changed, that function of savings bonds may be even more important now. Our set of recommendations is designed to make savings bonds a viable asset building device for low- to moderate-income Americans, as well as to reduce the cost to sell them to families. The proposal reflects an important aspect of financial innovation. Often financial innovations from a prior generation are reinvented by a new generation. The convertible preferred stock that venture capitalists use to finance high-tech firms was used to finance railroads in the 19th century. Financiers of those railroads invented income bonds, which have been refined to create trust-preferred securities, a popular financing vehicle. The "derivatives revolution" began centuries ago, when options were bought and sold on the Amsterdam Stock Exchange. Wise students of financial innovation realize that old products can often be reinvented to solve new problems.

Here, we lay out a case for why savings bonds, an invention of the 20th century, can and should be reimaged to help millions of Americans build assets now. In Section II, we briefly describe why LMI families might not be fully served by private-sector savings opportunities. In Section III, we briefly recount the history of savings bonds and fast-forward to discuss their role in the current financial services world. In Section IV, we discuss our proposal to reinvent savings bonds as a legitimate device for asset building for American families. An important part of our proposal involves the tax system, but our ideas do not involve any new tax provisions or incentives. Rather, we make proposals about how changes to the "plumbing" of the tax system can help revitalize the savings bond program and support family savings.

II. An Unusual Problem: Nobody Wants My Money!¹

In our modern world, where many of us are bombarded by financial service firms seeking our business, why would we still need or want a 70-year-old product like savings bonds? To answer that question, we have to understand the financial services landscape of LMI Americans, which for our discussion includes the 41

million American households who earn under \$30,000 a year or the 24 million households with total financial assets under \$500 or the more than 18 million U.S. households making less than \$30,000 a year and holding less than \$500 in financial assets (Survey of Consumer Finances (2001)) and Current Population Survey (2002)). In particular, we need to understand asset accumulation strategies for those families, their savings goals, and their risk tolerances. But we also need to understand the motives of financial service firms offering asset-building products.

In generic terms, asset gatherers and managers must master a simple profit equation: Revenues must exceed costs. Costs include customer acquisition, customer servicing, and the expense of producing the investment product. Customer acquisition and servicing costs are not necessarily any less for a small account than for a large one. Indeed, if the smaller accounts are sufficiently "different," they can be quite costly if held by people who speak different languages, require more explanations, or who are not well-understood by the financial institution. The costs of producing the product would include the investment management expenses for a mutual fund or the costs of running a lending operation for a bank.

On the revenue side, the asset manager could charge the investor a fixed fee for its services. However, industry practice is to charge a fee that is a fraction of assets under management (as in the case of a mutual fund that charges an expense ratio) or to give the investor only a fraction of the investment return (in the classic "spread banking" practiced by depository institutions). The optics of the financial service business are to take the fee out of the return earned by the investor in an "implicit fee" to avoid the sticker shock of having to charge an explicit fee for services. Financial services firms can also earn revenues if they can subsequently sell customers other high-margin products and services, the so-called cross-sell.

At the risk of oversimplifying, the asset manager can earn a profit on an account if:

$$\text{Size of Account} \times (\text{Implicit Fee in Percent}) - \text{Marginal Costs to Serve} > 0$$

Because implicit fees are netted from the gross investment returns, they are limited by the size of those returns (because otherwise investors would suffer certain principal loss.) If an investor is risk-averse and chooses to invest in low-risk/low-return products, fees are constrained by the size of the investment return. For example, when money market investments are yielding less than 100 basis points (bp), it is infeasible for a money market mutual fund to charge expenses above 100 bp. Depository institutions like banks or credit unions face a less severe problem, as they can invest in high-risk projects (loans) while delivering low-risk products to investors by virtue of government-supplied deposit insurance.

Given even relatively low fixed costs per client and implicit fees that must come out of revenue, the importance of having large accounts (or customers who can purchase a wide range of profitable services) is paramount. At a minimum, suppose that statements, customer service costs, regulatory costs, and other "sundries" cost \$30 per account per year. A mutual fund that

¹Portions of this section are adapted from an earlier paper, Schneider and Tufano (2004), "New Savings from Old Innovations: Asset Building for the Less Affluent," New York Federal Reserve Bank, Community Development Finance Research Conference.

Table 2. Percent Owning Select Financial Assets by Income and Net Worth (2001)

	Savings Bonds	Certificates of Deposit	Mutual Funds	Stocks	Transaction Accounts	All Financial Assets
Percentile of Income						
Less than 20	3.80%	10.00%	3.60%	3.80%	70.90%	74.80%
20-39.9	11.00%	14.70%	9.50%	11.20%	89.40%	93.00%
40-59.9	14.10%	17.40%	15.00%	16.40%	96.10%	98.30%
60-79.9	24.40%	16.00%	20.60%	26.20%	99.80%	99.60%
80-89.9	30.30%	18.30%	29.00%	37.00%	99.70%	99.80%
90-100	29.70%	22.00%	48.80%	60.60%	99.20%	99.70%
Lowest quintile ownership rate as a percent of top decile	12.80%	45.50%	7.40%	6.30%	71.50%	75.00%
Percentile of net worth						
Less than 25	4.30%	1.80%	2.50%	5.00%	72.40%	77.20%
25-49.9	12.80%	8.80%	7.20%	9.50%	93.60%	96.50%
50-74.9	23.50%	23.20%	17.50%	20.30%	98.20%	98.90%
75-89.9	25.90%	30.10%	35.90%	41.20%	99.60%	90.80%
90-100	26.30%	26.90%	54.80%	64.30%	99.60%	100.00%
Lowest quintile ownership rate as a percent of top decile	16.30%	6.70%	4.60%	7.80%	72.70%	77.20%
<i>Source: Aizcorbe, Kennickell, and Moore (2003).</i>						

charges 150 bp in expense ratios would need a minimum account size of $\$30/.015 = \$2,000$ to just break even. A bank that earns a net interest margin between lending and borrowing activities of 380 bp would need a minimum account size of $\$30/.038 = \790 to avoid a loss (Carlson and Perli (2004)). Acquisition costs make having large and sticky accounts even more necessary. The cost per new account appears to vary considerably across companies, but is substantial. The industrywide average for traditional banks is estimated at \$200 per account (Stone (2004)). Individual firms have reported lower figures. TD Waterhouse spent \$109 per new account in the fourth quarter of 2001 (TD Waterhouse (2001)). T. Rowe Price spent an estimated \$195 for each account it acquired in 2003.² H&R Block, the largest retail tax preparation company in the United States, had acquisition costs of \$130 per client (Tufano and Schneider (2004)). One can justify that outlay only if the account is large, will purchase other follow-on services, or will be in place for a long time.

Against that backdrop, an LMI family that seeks to build up its financial assets faces an uphill battle. Given the risks those families face and the thin margin of financial error they perceive, they seem to prefer low-risk investments, which have more constrained fee opportunities for financial service vendors. By definition, their account balances are likely to be small. Regarding cross-sell, financial institutions might be leery of selling LMI families profitable products that might expose the finan-

cial institutions to credit risk. Finally, what constitute inconveniences for wealthier families (for example, a car breakdown or a water heater failure) can constitute emergencies for LMI families that deplete their holdings, leading to less sticky assets.

Those assertions about LMI financial behavior are borne out with scattered data. Tables 2 and 3 report various statistics about U.S. financial services activity by families sorted by income. The preference of LMI families for low-risk products is corroborated by their revealed investment patterns, as shown by their substantially lower ownership rates of equity products. Low-income families were less likely to hold every type of financial asset than high-income families. However, the ownership rate for transaction accounts among families in the lowest income quintile was 72 percent of that of families in the highest income decile, while the ownership rate among low-income families for stocks was only 6 percent and for mutual funds just 7 percent of the rate for high-income families. The smaller size of financial holdings by the bottom income quintile of the population is quite obvious. Even if they held all of their financial assets in one institution, the bottom quintile would have a median balance of only \$2,000 (after excluding the 25.2 percent with no financial assets of any kind).

The likelihood that LMI family savings will be drawn down for emergency purposes has been documented by Schreiner, Clancy, and Sherraden (2002) in their national study of Individual Development Accounts (matched savings accounts intended to encourage asset building through savings for homeownership, small-business development, and education). They find that 64 percent of participants made a withdrawal to use funds for a non-asset-building purpose, presumably one pressing enough that it was worth foregoing matching funds. In our own work (Beverly, Schneider, and Tufano (2004)),

²Cost per new account estimate is based on a calculation using data on the average size of T. Rowe Price accounts, the amount of new assets in 2003, and annual marketing expenses. Data is drawn from T. Rowe Price (2003), Sobhani and Shteyman (2003), and Hayashi (2004).

we surveyed a selected set of LMI families about their savings goals. Savings for emergencies was the second most frequently named savings goal (behind unspecified savings), while long horizon saving for retirement was a goal for only 5 percent of households. A survey of the 15,000 participants in the America Saves program found similar results with 40 percent of respondents listing emergency savings as their primary savings goal (American Saver (2004)). The lower creditworthiness of LMI families is demonstrated by the lower credit scores of LMI individuals and the larger shares of LMI families reporting having past-due bills.³

Given the economics of LMI families and of most financial services firms, a curious equilibrium has emerged. With a few exceptions, firms that gather and manage assets are simply not very interested in serving LMI families. While their “money is as green as anyone else’s,” the customers are thought too expensive to serve, their profit potential too small, and, as a result, the effort better expended elsewhere. While firms don’t make public statements to that effect, the evidence is there to be seen:

- Among the top 10 mutual funds in the country, eight impose minimum balance restrictions upwards of \$250. Among the top 500 mutual funds, only 11 percent had minimum initial purchase requirements of less than \$100 (Morningstar (2004)). See Table 4.
- Banks routinely set minimum balance requirements or charge fees on low balances, in effect discouraging smaller savers. Nationally, minimum opening balance requirements for statement savings accounts averaged \$97 and required a balance of at least \$158 to avoid average yearly fees of \$26. Those fees were equal to more than a quarter of the minimum opening balance, a management fee of 27 percent. Fees were higher in the 10 largest Metropolitan Statistical Areas (MSAs), with average minimum opening requirements of \$179 and an average minimum balance to avoid fees of \$268 (Board of Governors of the Federal Reserve (2003)). See Table 5. While those numbers only reflect minimum opening balances, what we cannot observe is the level of marketing activity (or lack thereof) directed to raising savings from the poor.
- Banks routinely use credit scoring systems like ChexSystems to bar families from becoming customers, even from opening savings accounts that pose minimal, if any, credit risks. Over 90 percent of bank branches in the U.S. use the system, which enables banks to screen prospective clients for problems with prior bank accounts and to report current

clients who overdraw accounts or engage in fraud (Quinn (2001)). Approximately seven million people have ChexSystems records (Barr (2004)). While ChexSystems was apparently designed to prevent banks from making losses on checking accounts, we understand that it is not unusual for banks to use it to deny customers any accounts, including savings accounts. Conversations with a leading U.S. bank suggest that policy arises from the inability of bank operational processes to restrict a customer’s access to just a single product. In many banks, if a client with a ChexSystems record were allowed to open a savings account, she could easily return the next day and open a checking account.

- Banks and financial services firms have increasingly been going “up market” and targeting the consumer segment known as the “mass affluent,” generally those with over \$100,000 in investible assets. Wells Fargo’s director of investment consulting noted that “the mass affluent are very important to Wells Fargo” (Quittner (2003) and American Express Financial Advisors’ chief marketing officers stated that, “Mass affluent clients have special investment needs . . . Platinum and Gold Financial Services (AEFA products) were designed with them in mind” (“Correcting and Replacing” (2004)). News reports have detailed similar sentiments at Bank of America, Citi-group, Merrill Lynch, Morgan Stanley, JP Morgan, Charles Schwab, Prudential, and American Express.
- Between 1975 and 1995 the number of bank branches in LMI neighborhoods declined by 21 percent. While declining population might explain some of that reduction (per capita offices declined by only 6.4 percent), persistently low-income areas, those that that were poor over the period of 1975-1995, experienced the most significant decline — losing 28 percent of offices, or a loss of one office for every 10,000 residents. Low-income areas with relatively high proportions of owner-occupied housing did not experience loss of bank branches, but had very few to begin with (Avery, Bostic, Calem, and Caner (1997)).
- Even most credit unions pay little attention to LMI families, focusing instead on better compensated occupational groups. While that tactic may be profitable, credit unions enjoy tax-free status by virtue of provisions in the Federal Credit Union Act, the text of which mandates that credit unions provide credit “to people of small means” (Federal Credit Union Act (1989)). Given that legislative background, it is interesting that the median income of credit union members is approximately \$10,000 higher than that of the median income of all Americans (Survey of Consumer Finances (2001)) and that only 10 percent of credit unions classify themselves as “low income,” defined as half of the members having incomes of less than 80 percent of the area median household income (National Credit Union Administration (2004) and Tansey (2001)).
- Many LMI families have gotten the message and prefer not to hold savings accounts, citing high minimum balances, steep fees, low interest rates,

³Bostic, Calem, and Wachter (2004) use data from the Federal Reserve and the Survey of Consumer Finances (SCF) to show that 39 percent of those in the lowest income quintile were credit constrained by their credit scores (score of less than 660) compared with only 2.8 percent of families in the top quintile and only 10 percent of families in the fourth quintile. A report from Global Insight (2003), also using data from the SCF, finds that families in the bottom two quintiles of income were more than three times as likely to have bills more than 60 days past due than families in the top two quintiles of income.

Table 3. Median Value of Select Financial Assets Among Asset Holders by Income and Net Worth (2001)

	Savings Bonds	Certificates of Deposit	Mutual Funds	Stocks	Transaction Accounts	All Financial Assets
Percentile of Income						
Less than 20	\$1,000	\$10,000	\$21,000	\$7,500	\$900	\$2,000
20-39.9	\$600	\$14,000	\$24,000	\$10,000	\$1,900	\$8,000
40-59.9	\$500	\$13,000	\$24,000	\$7,000	\$2,900	\$17,100
60-79.9	\$1,000	\$15,000	\$30,000	\$17,000	\$5,300	\$55,500
80-89.9	\$1,000	\$13,000	\$28,000	\$20,000	\$9,500	\$97,100
90-100	\$2,000	\$25,000	\$87,500	\$50,000	\$26,000	\$364,000
Percentile of net worth						
Less than 25	\$200	\$1,500	\$2,000	\$1,300	\$700	\$1,300
25-49.9	\$500	\$500	\$5,000	\$3,200	\$2,200	\$10,600
50-74.9	\$1,000	\$11,500	\$15,000	\$8,300	\$5,500	\$53,100
75-89.9	\$2,000	\$20,000	\$37,500	\$25,600	\$13,700	\$201,700
90-100	\$2,000	\$40,000	\$140,000	\$122,000	\$36,000	\$707,400

Source: Aizcorbe, Kennickell, and Moore (2003). Medians represent holdings among those with non-zero holdings.

problems meeting identification requirements, denials by banks, and a distrust of banks (Berry (2004)).

- Structurally, we have witnessed a curious development in the banking system. The traditional payment systems of banks (for example, bill paying and check cashing) have been supplanted by nonbanks in the form of alternative financial service providers such as check-cashing firms. Those same firms have also developed a vibrant set of credit products in the form of payday loans. However, those alternative financial service providers have not chosen to offer asset-building or savings products. Thus, the most active financial service players in many poor communities do not offer products that let poor families save and get ahead.

This stereotyping of the financial service world obviously does not do justice to a number of financial institutions that explicitly seek to serve LMI populations' asset-building needs. That includes Community Development Credit Unions, financial institutions like ShoreBank in Chicago, and the CRA-related activities of the nation's banks. However, we sadly maintain that those are exceptions to the rule, and the CRA-related activities, while real, are motivated by regulations and not intrinsically by the financial institutions.

We are reminded about one subtle — but powerful — piece of evidence about the lack of interest of financial institutions in LMI asset building each year. At tax time, many financial institutions advertise financial products to help families pay less in taxes: IRAs, SEP-IRAs, and Keoghs. Those products are important — for taxpayers. However, LMI families are more likely refund recipients, by virtue of the refundable portions of the earned income tax credit, the child tax credit (CTC), and refunds from other sources that together provided over \$78 billion in money to LMI families in 2001, mostly around February (refund recipients tend to file their tax returns earlier than payers) (Internal Revenue Service (2001)). With the exception of H&R Block, which has ongoing pilot programs to help LMI families save some of that money,

financial institutions seem unaware — and uninterested — in the prospect of gathering some share of a \$78 billion flow of assets (Tufano and Schneider (2004)).

“Nobody wants my money” may seem like a bit of an exaggeration, but it captures the essential problem of LMI families wanting to save. “Christmas Club” accounts, in which families deposited small sums regularly, have all but disappeared. While they are not barred from opening bank accounts or mutual fund accounts, LMI families could benefit from a low-risk account with low fees, which delivers a competitive rate of return, with a small minimum balance and initial purchase price, and is available nationally and portable if the family moves from place to place. The product has to be simple, the vendor trustworthy, and the execution easy — because the family has to do all the work. Given those specifications, savings bonds seem like a good choice.

III. U.S. Savings Bonds: History and Recent Developments

A. A Brief History of Savings Bonds

Governments, including the U.S. government, have a long tradition of raising money by selling bonds to the private sector, including large institutional investors and small retail investors. U.S. Treasury bonds fall into the former group and savings bonds the latter. The United States is not alone in selling small-denomination bonds to retail investors; since the 1910s, Canada has offered its residents a form of savings bonds.⁴ Generally, huge demands for public debt, occasioned by wartime, have given rise to the most concerted savings bond programs.

⁴Brennan and Schwartz (1979) provide an introduction to Canadian savings bonds as well as the savings bond offerings of a number of European countries. For current information on Canadian savings bonds, see http://www.csb.gc.ca/eng/resources_faqs_details.asp?faq_category_ID=19 (visited Sept. 26, 2004).

Table 4. Minimum Initial Purchase Requirements Among Mutual Funds in the United States

	Min = \$0	Min < \$100	Min < \$250
Among all funds listed by Morningstar			
Number allowing	1,292	1,402	1,785
Percent allowing	8%	9%	11%
Among the top 500 mutual funds by net assets			
Number allowing	49	55	88
Percent allowing	10%	11%	18%
Among the top 100 index funds by net assets			
Number allowing	30	30	30
Percent allowing	30%	30%	30%
Among the top 100 domestic stock funds by net assets			
Number allowing	11	13	24
Percent allowing	11%	13%	24%
Among the top 100 money market funds by net assets			
Number allowing	6	6	6
Percent allowing	6%	6%	6%
<i>Source: Morningstar (2004) and imoney.net.com (2005).</i>			

The earliest bond issue by the U.S. was conducted in 1776 to finance the Revolutionary War. Bonds were issued again to finance the War of 1812, the Civil War, the Spanish American War, and with the onset of World War I the Treasury Department issued Liberty Bonds, mounting extensive marketing campaigns to sell the bonds to the general public (Cummings (1920)). The bond campaign during World War II is the best known of those efforts, though bonds were also offered in conjunction with the Vietnam War and, soon after the terrorist attacks in 2001, the government offered the existing EE bonds as "Patriot Bonds" to allow Americans to "express their support for anti-terrorism efforts" (U.S. Department of the Treasury (2002)).

During those wartime periods, bond sales were tied to patriotism. World War I campaigns asked Americans to "buy the 'Victorious Fifth' Liberty Bonds the way our boys fought in France — to the utmost" (Liberty Loan Committee (1919)). World War II-era advertisements declared, "War bonds mean bullets in the bellies of Hitler's hordes" (Blum (1976)).

The success of those mass appeals to patriotism was predicated on bonds being accessible and affordable to large numbers of Americans. Both the World War I and World War II bond issues were designed to include small savers. While the smallest denomination Liberty Bond was \$100, the Treasury also offered Savings Stamps for \$5, as well as the option to purchase Thrift Stamps in increments of 25 cents that could then be redeemed for a Savings Stamp (Zook (1920)). A similar system was put in place for the World War II-era War Bonds. While the smallest bond denomination was \$25, Defense Stamps were sold through post offices and schools for as little as 10 cents and were even given as change by retailers (U.S. Department of the Treasury (1981, 1984)). Pasted in albums, those stamps were redeemable for War Bonds.

The War Bonds campaign went further than Liberty Bonds to appeal to small investors. During World War II, the Treasury Department oriented its advertising to focus on small savers, choosing popular actors and musicians

that the Treasury hoped would make the campaign "pluralistic and democratic in taste and spirit" (Blum (1976)). In addition to more focused advertising, changes to the terms of War Bonds made them more appealing to those investors. The bonds were designed to be simple. Unlike all previous government bond issues, they were not marketable and were protected from theft (U.S. Department of the Treasury (1984)).

Many of those changes to the bond program had actually been put in place before the war. In 1935, Treasury had introduced the Savings Bond (the basis for the current program) with the intention that it "appeal primarily to individuals with small amounts to invest" (U.S. Department of the Treasury (1981)). The Savings Bond was not the first effort by the Treasury to encourage small investors to save during a peacetime period. Following World War I and the Liberty Bond campaigns, the Treasury decided to continue its promotion of bonds and stamps. It stated that to:

Make war-taught thrift and the practice of saving through lending to the Government a permanent and happy habit of the American people, the United States Treasury will conduct during 1919 an *intensive movement to promote wise spending, intelligent saving, and safe investment* emphasis added (U.S. Department of the Treasury (1918)).

The campaign identified seven principal reasons to encourage Americans to save including: (1) "advance-ment," which was defined as savings for "a definite concrete motive, such as buying a home . . . an education, or training in trade, profession or art, or to give children educational advantages," (2) "motives of self interest" such as "saving for a rainy day," and (3) "capitalizing part of the worker's earnings," by "establishing the family on 'safety lane' if not on 'easy street'" (U.S. Department of the Treasury (1918)). Against that background, it seems clear that the focus of savings bonds on the small saver was by no means a new idea, but rather drew inspiration from the earlier "thrift movement"

Table 5. Average Savings Account Fees and Minimum Balance Requirements Nationally and in the 10 Largest Consolidated Metropolitan Statistical Areas (CMSAs) (2001)

	Minimum Balance to Open Account	Monthly Fee	Minimum Balance to Avoid Monthly Fee	Annual Fee	Annual Fee as a Percent of Min. Balance Requirement
All Respondent Banks	\$97	\$2.20	\$158	\$26	27%
New York	\$267	\$3.10	\$343	\$37	14%
Los Angeles	\$295	\$2.80	\$360	\$34	11%
Chicago	\$122	\$3.50	\$207	\$43	35%
District of Columbia	\$100	\$3.20	\$152	\$38	38%
San Francisco	\$275	\$2.80	\$486	\$34	12%
Boston	\$44	\$2.70	\$235	\$33	75%
Dallas	\$147	\$3.20	\$198	\$38	26%
Average 10 Largest CMSAs	\$179	\$2.90	\$268	\$35	20%

Source: Board of Governors of the Federal Reserve (2002).

while attempting to tailor the terms of the bonds more precisely to the needs of small savers. However, even on those new terms, the new savings bonds (also called baby bonds) did not sell quickly. In his brief, but informative, summary of the 1935 bond introduction, Blum details how:

At first sales lagged, but they picked up gradually under the influence of the Treasury's promotional activities, to which the Secretary gave continual attention. By April 18, 1936, the Department had sold savings bonds with a maturity value of \$400 million. In 1937 [Secretary of the Treasury] Morgenthau enlisted the advertising agency of Sloan and Bryan, and before the end of that year more than 1,200,000 Americans had bought approximately 4½ million bonds with a total maturity value of over \$1 billion (Blum (1959)).

Americans planned to use those early savings bonds for many of the same things that low-income Americans save for now, first and foremost, for emergencies (Blum (1959)). The intent of the program was not constrained to just providing a savings vehicle. The so-called baby bond allowed all Americans the opportunity to invest even small amounts of money in a government-backed security, which then-Secretary of the Treasury Morgenthau saw as a way to:

Democratize public finance in the United States. We in the Treasury wanted to give every American a direct personal stake in the maintenance of sound Federal Finance. Every man and woman who owned a Government Bond, we believed, would serve as a bulwark against the constant threats to Uncle Sam's pocketbook from pressure blocs and special-interest groups. In short, we wanted the ownership of America to be in the hands of the American people (Morgenthau, (1944)).

In theory, the peacetime promotion of savings bonds as a valuable savings vehicle with both public and private benefits continues. From the Treasury's Web site, we can gather its "pitch" to would-be buyers of bonds focuses on the private benefits of owning bonds:

There's no time like today to begin saving to provide for a secure tomorrow. Whether you're saving for a new home, car, vacation, education, retirement, or for a rainy day, U.S. Savings Bonds can help you reach your goals with safety, market-based yields, and tax benefits (U.S. Department of the Treasury (2004a)).

But the savings bond program, as it exists today, does not seem to live up to that rhetoric, as we discuss below. Recent policy decisions reveal much about the debate over savings bonds as merely one way to raise money for the Treasury versus their unique ability to help families participate in America and save for their future. As we keep score, the idea that savings bonds are an important tool for family savings seems to be losing.

B. Recent Debates Around the Savings Bond Program and Program Changes

Savings bonds remain an attractive investment for American families. In Appendix A we provide details on the structure and returns of bonds today. In brief, the bonds offer small investors the ability to earn fairly competitive tax advantage returns on a security with no credit risk and no principal loss due to interest rate exposure, in exchange for a slightly lower yield relative to large denomination bonds and possible loss of some interest in the event the investor needs to liquidate her holdings before five years. As we argue below and discuss in Appendix B, the ongoing persistence of the savings bond program is testimony to their attractiveness to investors.

As we noted, both current and past statements to consumers about savings bonds suggest that Treasury is committed to making them an integral part of household savings. Unfortunately, the changes to the program over the past two years seem contrary to that goal. Three of those changes may make it more difficult for small investors and those least well served by the financial service community to buy bonds and save for the future. More generally, the structure of the program seems to do little to promote the sale of the bonds.

On January 17, 2003, Treasury promulgated a rule that amends CFR section 31 to increase the minimum holding

period before redemption for Series EE and I Bonds from 6 months to 12 months for all newly issued bonds (31 CFR part 21 (2003)). In rare cases, savings bonds may be redeemed before 12 months, but generally only in the event of a natural disaster (U.S. Department of the Treasury (2004b)). That increase in the minimum holding period essentially limits the liquidity of a bondholder's investment, which is most important for LMI savers who might be confronted with a family emergency that requires that they liquidate their bonds within a year. By changing the minimum initial holding periods, the Treasury makes its bonds less attractive for low-income families.

The effect that policy change seems likely to have on small investors, particularly those with limited means, appears to be unintended. Rather, that policy shift arises out of concern over rising numbers of bondholders keeping their bonds for only the minimum holding period to maximize their returns in the short term. Industry observers have noted that given the low interest rates available on such investment products as CDs or money market funds, individuals have been purchasing series EE and I bonds, holding them for six months, paying the interest penalty for cashing out early, but still clearing a higher rate of interest than they might find elsewhere (Pender (2003)). Treasury cited that behavior as the primary factor in increasing the minimum holding period. Officials argued that this amounted to "taking advantage of the current spread between savings bond returns and historically low short-term interest rates," an activity they believe contravenes the nature of the savings bond as a long-term investment vehicle (U.S. Department of the Treasury (2003a)).

Second, marketing efforts for savings bonds have been eliminated. Congress failed to authorize \$22.4 million to fund the Bureau of Public Debt's marketing efforts and on September 30, 2003, Treasury closed all 41 regional savings bond marketing offices and cut 135 jobs. This funding cut represents the final blow to what was once a large and effective marketing strategy. Following the Liberty Bond marketing campaign, as part of the "thrift movement" Treasury continued to advertise bonds, working through existing organizations such as schools, "women's organizations," unions, and the Department of Agriculture's farming constituency (Zook (1920)). Morgenthau's advertising campaign for baby bonds continued the marketing of bonds through the 1930s, preceding the World War II-era expansion of advertising in print and radio (Blum (1959)). Much of that wartime advertising was free to the government, provided as a volunteer service through the Advertising Council beginning in 1942. Over the next 30 years, the Advertising Council arranged for contributions of advertising space and services worth hundreds of millions of dollars (U.S. Department of the Treasury, Treasury Annual Report (1950-1979)). In 1970 Treasury discontinued the Savings Stamps program, which it noted was one of "the bond program's most interesting (and promotable) features" (U.S. Department of the Treasury (1984)). The Advertising Council ended its affiliation with the bond program in 1980, leaving the job of marketing bonds solely to the Treasury (Advertising Council (2004)). In 1999 Treasury began a marketing campaign for the newly introduced I bonds.

However, that year the bureau spent only \$2.1 million on the campaign directly and received just \$13 million in donated advertising, far short of the \$73 million it received in donated advertising in 1975 (James (2000) and U.S. Department of the Treasury, Treasury Annual Report (1975)).

Third, while not a change in policy, the current program provides little or no incentive for banks or employers to sell bonds. Nominally, the existing distribution outlets for bonds are quite extensive, including financial institutions, employers, and the TreasuryDirect system. There are currently more than 40,000 financial institutions (banks, credit unions, and other depositories) eligible to issue savings bonds (U.S. Department of the Treasury (2004b)). In principle, someone can go up to a teller and ask to buy a bond. As anecdotal evidence, one of us tried to buy a savings bond in this way and had to go to a few different bank branches before the tellers could find the necessary forms, an experience similar to that detailed by James T. Arnold Consultants (1999) in their report on the savings bonds program. That lack of interest in selling bonds may reflect the profit potential available to a bank selling bonds. Treasury pays banks fees of \$0.50-\$0.85 per purchase to sell bonds and the bank receives no other revenue from the transaction.⁵ In off-the-record discussions, bank personnel have asserted that those payments cover less than 25 percent of the cost of processing a savings bond purchase transaction. The results of an in-house evaluation at one large national bank showed that there were 22 steps and four different employees involved with the processing of a bond purchase. Given those high costs and miniscule payments, our individual experience is hardly surprising, as are banks' disinterest in the bond program.

Savings bonds can also be purchased via the Payroll Savings Plan, which Treasury reports as available through some 40,000 employer locations (U.S. Department of the Treasury (2004c)).⁶ Again, by way of anecdote, one of us called our employer to ask about this program and waited weeks before hearing back about this option. Searching the University intranet, the term "savings bonds" yielded no hits, even though the program was officially offered.

Fourth, while it is merely a matter of taste, we may not be alone in thinking that the "front door" to savings bonds, the U.S. Treasury's savings bond Web site,⁷ is complicated and confusing for consumers (though the BPD has now embarked on a redesign of the site geared

⁵Fees paid to banks vary depending on the exact role the bank plays in the issuing process. Banks that process savings bond orders electronically receive \$0.85 per bond while banks that submit paper forms receive only \$0.50 per purchase (U.S. Department of the Treasury (2000), Bureau of Public Debt (2005), private correspondence with authors).

⁶This option allows employees to allocate a portion of each paycheck toward the purchase of savings bonds. Participating employees are not required to allocate sufficient funds each pay period for the purchase of an entire bond, but rather can allot smaller amounts that are held until reaching the value of the desired bond (U.S. Department of the Treasury (1993, 2004d)).

⁷<http://www.publicdebt.treas.gov/sav/sav.htm>.

toward promoting the online TreasuryDirect system). That is particularly important in light of the fact that Treasury has eliminated its marketing activities for these bonds. Financial service executives are keenly aware that cutting all marketing from a product, even an older product, does not encourage its growth. Indeed, commercial firms use that method to quietly “kill” products.

Fifth, on May 8, 2003, Treasury published a final rule on the “New Treasury Direct System.” That rule made Series EE bonds available through the TreasuryDirect system (Series I bonds were already available) (31 CFR part 315 (2003)). The new system represents the latest incarnation of TreasuryDirect, which was originally used for selling marketable Treasury securities (U.S. GAO (2003)). In essence, Treasury proposes that a \$50 savings bond investor follow the same procedures as a \$1 million investor in Treasury bills. The Department of the Treasury seeks to eventually completely phase out paper bonds (Block (2003)) and to that end have begun closing down certain aspects of the savings bond program, such as promotional giveaways of bonds, which rely on paper bonds. Treasury also recently stopped the practice of allowing savers to buy bonds using credit cards. Those changes seem to have the effect of reducing the access of low-income families to savings bonds and depressing demand of their sale overall. By moving toward an online-only system of savings bonds distribution, Treasury risks closing out those individuals without Internet access. Furthermore, to participate in TreasuryDirect, Treasury requires users to have a bank account and routing number. That distribution method effectively disenfranchises the people living in the approximately 10 million unbanked households in the United States (Azicorbe, Kennickell, and Moore (2003) and U.S. Census (2002)). While there have been a few small encouraging pilot programs in BPD to experiment with making TreasuryDirect more user-friendly for poorer customers, the overall direction of current policy seems to make bonds less accessible to consumers.⁸

⁸Working with a local bank partner in West Virginia, the bureau has rolled out “Over the Counter Direct” (OTC Direct). The program is designed to allow savings bond customers to continue to purchase bonds through bank branches, while substantially reducing the processing costs for banks. Under the program, a customer arrives at the bank and dictates her order to a bank employee who enters it into the OTC Direct Web site. Clients receive a paper receipt at the end of the transaction and then generally are mailed their bonds (in paper form) one to two weeks later. In that sense, OTC Direct represents an intermediate step; the processing is electronic, while the issuing is paper-based. While not formally provided for in the system, the local bank partner has developed protocols to accommodate the unbanked and those who lack Web access. For instance, the local branch manager will accept currency from an unbanked bond buyer, set up a limited access escrow account, deposit the currency into the account, and affect the debit from the escrow account to the BPD. When bond buyers lack an email address, the branch manager has used his own. A second pilot program, with Bank of America, placed kiosks that could be used to buy bonds in branch lobbies. The kiosks were linked to the Treasury Direct Web site, and thus enabled bond buyers without their own method of internet access to purchase bonds. However, the

(Footnote continued in next column.)

Critics of the savings bonds program, such as Rep. Ernest J. Istook Jr., R-Okla., charge that the expense of administering the U.S. savings bond program is disproportionate to the amount of federal debt covered by the program. Those individuals contend that while savings bonds represent only 3 percent of the federal debt that is owned by the public, some three-quarters of the budget of the BPD is dedicated to administering the program (Berry (2003)). Thus, they argue that the costs of the savings bond program must be radically reduced. Istook summed up that perspective with the statement:

Savings Bonds no longer help Uncle Sam; instead they cost him money. . . . Telling citizens that they help America by buying Savings Bonds, rather than admitting they have become the most expensive way for our government to borrow, is misplaced patriotism (Block (2003)).

However, some experts have questioned that claim. In testimony, the commissioner of the public debt described calculations that showed that series EE and I savings bonds were less costly than Treasury marketable securities.⁹

In May 2005, Treasury substantially changed the terms of EE bonds. Instead of having interest on those bonds float with the prevailing five-year Treasury rate, they became fixed-rate bonds, with their interest rate set for the life of the bond at the time of purchase.¹⁰ While that may be prudent debt management policy from the perspective of lowering the government’s cost of borrowing, consumers have responded negatively.¹¹ We would hope that policymakers took into consideration the effect that decision might have in the usefulness of bonds to help families meet their savings goals.

Focusing decisions of that sort *solely* on the cost of debt to the federal government misses a larger issue; the savings bond program was not created only to provide a particularly low-cost means of financing the federal debt. Rather, the original rationale for the savings bond program was to provide a way for individuals of limited means to invest small amounts of money and to allow more Americans to become financially invested in government. While that is not to say that the cost of the savings bonds program should be disregarded, this current debate seems to overlook one real public policy purpose of savings bonds: helping families save.

And so while none of those recent developments (a longer holding period, elimination of marketing, and changes to the bond buying process) or the ongoing problems of few incentives to sell bonds or a lackluster public image seem intentionally designed to discourage

design of this initiative was such that the unbanked were still precluded from purchasing bonds.

⁹See testimony by Van Zeck (Zeck (2002)); however, a recent GAO study requested by Istook cast doubt on the calculations that Treasury used to estimate the costs of the program (U.S. GAO (2003)).

¹⁰See <http://www.publicdebt.treas.gov/com/comeefixedrate.htm>.

¹¹See <http://www.bankrate.com/brm/news/sav/20050407a1.asp> for one set of responses.

LMI families from buying bonds, their likely effect is to make the bonds less attractive to own, more difficult to learn about, and harder to buy.

Those decisions about bonds were made on the basis of the costs of raising money through savings bonds versus through large-denomination Treasury bills, notes, and bonds.¹² That discussion, while appropriate, seems to lose sight of the fact that savings bonds also have served — and can serve — another purpose: to help families save. The proposals we outline below are intended to reinvigorate that purpose in a way that may make savings bonds even more efficient to administer.

IV. Reinventing the Savings Bond

The fundamental savings bond structure is sound. As a “brand,” it is impeccable. The I bond experience has shown that tinkering with the existing savings bond structure can broaden its appeal while serving a valuable public policy purpose. Our proposals are designed to make the savings bond a valuable tool for LMI families, while making savings bonds a more efficient debt management tool for the Treasury. Our goal is not to have savings bonds substitute for or crowd out private investment vehicles, but rather to provide a convenient, efficient, portable, national savings platform available to all families.

A. Reduce the Required Holding Period for Bondholders Facing Financial Emergencies

While Treasury legitimately lengthened the savings bond holding period to discourage investors seeking to arbitrage the differential between savings bond rates and money market rates, the lengthening of the holding period makes bonds less attractive to LMI families. The current minimum required holding period of 12 months is a substantial increase from the original 60 days required of baby bond holders. The longer period essentially requires investors to commit to saving for at least one year. A new BPD program suggests that this may not be a problem for some investors. In an effort to encourage bond holders to redeem savings bonds that have passed maturity, the BPD is providing a search service (called “Treasury Hunt”) to find the holders of those 33 million bonds worth \$13.5 billion (Lagomarsino (2005)). The program reveals that bonds are an extremely efficient mechanism to encourage long-term saving because they have an “out of sight, out of mind” quality — perhaps too much so. So, while many small investors may intend to save for the long term, and many may have no trouble doing so, the new extended commitment could still be particularly difficult for LMI families in that they would be prohibited from drawing on the funds even if faced with financial emergency.

If we want to encourage savings bond use by LMI families, Treasury could either (a) exempt small withdrawals from the required holding periods or (b) set up

and publicize existing simple emergency withdrawal rules. Under the first rule, Treasury could allow a holder to redeem some amount (say \$5,000 per year) earlier than 12 months, with or without interest penalty. While that design would most precisely address the need for emergency redemption, it could be difficult to enforce as redeeming banks do not have a real-time link to BPD records and so a determined bondholder could conceivably “game the system” by redeeming \$5,000 bundles of bonds at several different banks. Alternatively, while current rules allow low-income bondholders who find themselves in a natural disaster or financial emergency to redeem their bonds early, that latter provision receives virtually no publicity. The BPD does publicize the rule that allows bondholders who have been affected by natural disasters to redeem their bonds early. Were the BPD to provide a similar level of disclosure of the financial emergency rules, LMI savers might be encouraged to buy savings bonds.

Whether by setting some low limit of allowable early redemptions for all, or merely publicizing existing emergency withdrawal rules, it seems possible to meet the emergency needs of LMI savers while continuing to discourage arbitrage activity.

B. Make Savings Bonds Available to Tax Refund Recipients

The IRS allows filers to direct nominal sums to funding elections through the Federal Election Campaign Fund and permits refund recipients to direct their refunds to pay future estimated taxes. We propose that taxpayers be able to direct that some of their refunds be invested in savings bonds. The simplest implementation of this system — merely requiring one additional line on Form 1040 — would permit the refund recipient to select the series (I or EE) and the amount; the bonds would be issued in the primary filer’s name. Slightly more elaborate schemes might allow the filer to buy multiple series of bonds, buy them for other beneficiaries (for example, children), or allow taxpayers not receiving refunds to buy bonds at the time of paying their taxes.¹³

The idea of letting refund recipients take their refund in the form of savings bonds is not a radical idea, but rather an old one. Between 1962 and 1968, the IRS allowed refund recipients to purchase savings bonds with their refunds. Filers directed less than 1 percent of refunds to bond purchase during that period (Internal Revenue Service (1962-1968)). On its face, it might appear that allowing filers to purchase savings bonds with their refunds has little potential, but we feel that historical experience may substantially underestimate the opportunity to build savings at tax time via our refund-based bond sales for two reasons. First, the size of low-income filers’ tax refunds has increased from an average of \$636 in 1964 (in 2001 dollars) to \$1,415 in 2001, allowing more filers to put a part of their refund aside as savings

¹²For a cost-based view of the savings bond program from the perspective of the BPD, see U.S. Department of the Treasury (2002). For an opposing view also from that cost-based perspective, see GAO (2003).

¹³Our proposal would allow taxpayers to purchase bonds with after-tax dollars, so it would have no implications for tax revenues.

(Internal Revenue Service (1964, 2001)).¹⁴ Those refunds tend to be concentrated among low-income families, for whom we would like to stimulate savings. Second, the historical experiment was an all-or-nothing program — it did not allow refund recipients to direct only a portion of their refunds to bonds. We expect our proposal will be more appealing because filers would be able to split their refunds and direct only a portion towards savings bonds while receiving the remainder for current expenses.

By allowing that option, Treasury would enable low-income filers to couple a large cash infusion with the opportunity to invest in savings bonds. Perhaps the largest single pool of money on which low-income families can draw for asset building and investment is the more than \$78 billion in refundable tax credits made available through federal and state government each year (Internal Revenue Service (2001)). Programs across the country have helped low-income taxpayers build assets by allowing filers to open savings accounts and individual development accounts when they have their taxes prepared. A new program in Tulsa, Okla. run by the Community Action Project of Tulsa County and D2D (a Boston-based non-profit organization) has allowed filers to split their refunds, committing some to savings and receiving the remainder as a check. That program allowed families to precommit to saving their refunds, instead of having to make a saving decision when the refund was in hand and temptation to spend it was strong. While those small sample results are difficult to extrapolate, the program seemed to increase savings initially and families reported that the program helped them reach their financial goals.

Since the short-lived bond-buying program in the 1960s, the BPD has introduced other initiatives to encourage tax refund recipients to purchase bonds. The first of those, beginning in the 1980s, inserted marketing materials along with the refund checks sent to refund recipients. Though only limited data has been collected, it appears that those mailings were sent at random points throughout the tax season (essentially depending on availability as the BPD competed for “envelope space” with other agencies) and that no effort was made to segment the market, with all refund recipients (low-income and higher-income) receiving the materials. In all, the BPD estimates that between 1988 and 1993 it sent 111 million solicitations with a response rate of a little less than 0.1 percent. While that rate may appear low, it is comparable to the 0.4 percent response rate on credit card mailings and some program managers at the BPD deemed the mailings cost effective (Anonymous (2004)). Considering that the refund recipient had to take a number of steps to effect the bond transaction (cash the refund and so forth) those results are in some sense fairly encouraging.

A second related venture was tried for the first time during the tax season 2004. The BPD partnered with a volunteer income tax preparation (VITA) site in West

Virginia to try to interest low-income refund recipients in using the TreasuryDirect system. The tax site was located in a public library and was open for approximately 12 hours per week during tax season. In 2004 the site served approximately 500 people. The program consisted of playing a PowerPoint presentation in the waiting area of the free tax-preparation site and making available brochures describing the TreasuryDirect system. Informal evaluation by tax counselors who observed the site suggests that interest was extremely limited and that most filers were preoccupied with ensuring that they held their place in line and were able to get their taxes completed quickly.

While both of those programs attempted to link tax refunds with savings, they did so primarily through advertising, not through any mechanism that would make savings easier. The onus is still on the refund recipient to receive the funds, convert them to cash (or personal check), fill out a purchase order, and obtain the bonds. In the case of the 2004 experiment, the refund recipient had to set up a TreasuryDirect account, which would involve having a bank account, and so on. While those programs reminded filers that savings is a good idea, they did not make saving simple.

We remain optimistic, in part because of data collected during the Tulsa experiment described above. While the experiment did not offer refund recipients the option of receiving savings bonds, we surveyed them on their interest in various options. Roughly 24 percent of participants expressed an interest in savings bonds and nearly three times as large a fraction were interested when the terms of savings bonds were explained (Beverly, Schneider, and Tufano (2004)). Our sample is too small to draw a reliable inference from that data, but it certainly suggests that the concept of offering savings bonds is not completely ungrounded. Currently, a family wanting to use its refund to buy savings bonds would have to receive the refund, possibly pay a check casher to convert the refund to cash, make an active decision to buy the bond, and go online or to a bank to complete the paperwork. Under our proposal, the filer would merely indicate the series and amount, the transaction would be completed, and the money would be safely removed from the temptation of spending. Most importantly, because the government does not require savings bond buyers to pass a ChexSystem hurdle, that would open up savings to possibly millions of families excluded from opening bank accounts.

While we hope that refund recipients could enjoy a larger menu of savings products than just bonds, offering savings bonds seamlessly on the tax form has practical advantages over offering other products at tax time. By putting a savings option on the tax form, all filers — including self-filers — could be reminded that tax time is potentially savings time. Paid and volunteer tax sites wishing to offer other savings options on-site would face a few practical limitations. First, certain products (like mutual funds) could only be offered by licensed broker-dealers, which would require either on-site integration of a sales force or putting the client in touch via phone or other means with an appropriately licensed agent. More generally, return preparers — especially volunteer sites — would be operationally challenged by the prospect of

¹⁴We define LMI filers as those with incomes of less than \$30,000 in 2001 or less than \$5,000 in the period from 1962-1968 (which is approximately \$30,000 in 2001 dollars).

opening accounts on-site. However, merely asking the question: “How much of your refund — if any — would you like in savings bonds?” could be incorporated relatively easily in the process.

Not only would a refund-driven savings bond program make saving easier for families, it would likely reduce the cost of marketing and administering the savings bond program for Treasury. All of the information needed to purchase a bond is already on the filer’s tax return, so there would be less likelihood of error. It should not require substantial additional forms, but merely a single additional line or two on Form 1040. Treasury would not need to pay banks fees of \$0.50-\$0.85 per purchase to sell bonds.¹⁵ Further, the refund money would never leave the federal government. If subsequent investigation uncovered some tax compliance problem for a refund recipient, some of the contested funds would be easily traceable. Given annual LMI refunds of \$78 billion, savings bond sales could increase by 9.8 percent for each 1 percent of those refunds captured.¹⁶

Ultimately, whether refund recipients are interested in buying bonds will be known only if one makes a serious attempt to market to them at refund time. We are attempting to launch an experiment this coming tax season that will test that proposition.

C. Enlist Private-Sector Social Marketing for Savings Bonds

Right now, banks and employers have little incentive to market savings bonds. If an account is likely to be profitable, a bank would rather open the account than sell the person a savings bond. If an account is unlikely to be profitable, the bank is not likely to expend much energy selling bonds to earn \$0.50 or \$0.85. With a reinvented savings bond program, Treasury could leverage other private-sector marketing.

First, one can imagine a very simple advertising program for the tax-based savings bond program focusing its message on the simplicity of buying bonds at tax time and the safety of savings bond investments. We envision a “RefundSaver” program. Groups like the Consumer Federation of America and America Saves might be enlisted to join in the public service effort if the message were sufficiently simple.¹⁷

With a tax-centered savings bond marketing program, the IRS could leverage paid and volunteer tax preparers

to market bonds. If those tax preparers could enhance their “value proposition” they have with their clients by offering them a valuable asset-building service at tax time, they might have a strong incentive to participate, possibly without any compensation. If Treasury paid preparers the same amount that it offered to banks selling bonds, that would create even greater incentives for the preparers to offer the bonds, although it might create some perverse incentives for preparers as well.

D. Consider Savings Bonds in the Context of a Family’s Financial Life Cycle

As they are currently set up, savings bonds are seen as the means for long-term savings. Bonds are bought and presumably redeemed years (if not decades) later. Treasury data partially bears out this assumption. Of the bonds redeemed between 1950 and 1980, roughly half were redeemed before maturity. Through the mid-1970s, redemptions of unmatured bonds made up less than half of all bond redemptions (41 percent on average). In the late 1970s that ratio changed, with unmatured bonds making up an increasingly large share of redemptions (up to 74 percent in 1981, the last year for which data is reported). However, even without that increase in redemptions (perhaps brought on by the inflationary environment of the late 1970s) early redemptions seem to have been quite frequent. That behavior is in line with the use of bonds as described by Treasury in the 1950s, as a means of “setting aside liquid savings out of current income” (U.S. Department of the Treasury, Treasury Annual Report (1957)). Under our proposal, savings bonds would be a savings vehicle for LMI families who have small balances and low risk tolerances. Over time, those families might grow to have larger balances and greater tolerance for risk; also, their investing horizons might lengthen. At that time, our savings bond investors might find that bonds are no longer the ideal investment vehicle, and our reinvented savings bonds should recognize that eventuality.

We propose that Treasury study the possibility of allowing savings bond holders to roll over their savings bonds into other investment vehicles. In the simplest form, Treasury would allow families to move their savings bonds directly into other investments. Those investments might be products offered by the private sector (mutual funds, certificates of deposits, and so forth). If the proposals to privatize Social Security became reality, those rollovers could be into the new private accounts. Finally, it might be possible to roll over savings bond amounts into other tax-deferred accounts, although that concept would add complexity, as one would need to consider the ramifications of mixing after-tax and pretax investments. The proposal for retirement savings bonds (R bonds) takes a related approach. Those bonds would allow employers to set aside small amounts of retirement savings for employees at a lower cost than would be incurred by using traditional pension systems. R-bonds would be specifically earmarked for retirement and could only be rolled over into an IRA (Financial Services Roundtable (2004)).

¹⁵Fees paid to banks vary depending on the exact role the bank plays in the issuing process. Banks that accept bond orders and payment from customers but send those materials to regional Federal Reserve Banks for final processing are paid \$0.50 per purchase. Banks that do this final level of processing themselves — inscription — receive \$0.85 per bond issue (U.S. Department of the Treasury (2000)).

¹⁶Sales of EE and I bonds through payroll and over-the-counter were \$7.9 billion in 2004. Total refunds to LMI filers in 2001 were \$78 billion. Each \$780 million in refunds captured would be a 9.8 percent increase in savings bonds sales.

¹⁷The BPD commissioned Arnold Consultants to prepare a report on marketing strategy in 1999. They also cite the potential for a relationship between the BPD and nonprofit private-sector groups dedicated to encouraging savings (James T. Arnold Consultants (1999)).

E. Make the Process of Buying Savings Bonds More User-Friendly

There has been a shift in the type of outlets used to distribute U.S. savings bonds. While there are still more than 40,000 locations at which individuals can purchase savings bonds, those are now exclusively financial institutions. Post offices, the original distribution mode for baby bonds, no longer sell bonds. That shift is of particular concern to low-income small investors. Over the past 30 years, a number of studies have documented the relationship between bank closings and the racial and economic makeup of certain neighborhoods. In a study of five large U.S. cities, Caskey (1994) finds that neighborhoods with large African-American or Hispanic populations are less likely to have a bank branch and that in several of the cities, "low-income communities are significantly less likely to have a local bank than are other communities." Post offices, on the other hand, remain a ubiquitous feature of most neighborhoods and could again serve as an ideal location for the sale of savings bonds.

Our tax-intermediated bond program should make savings bonds more accessible for most Americans. In addition, just as Treasury allows qualified employers to offer savings bonds, retailers like Wal-Mart or AFS providers like ACE might prove to be effective outlets to reach LMI bond buyers. Further, Treasury could work with local public libraries and community-based organizations to facilitate access to TreasuryDirect for the millions of Americans without Internet access.

* * * * *

Our proposals are very much in the spirit of reinventing the savings bond. As a business proposition, one never wants to kill a valuable brand. We suspect that savings bonds — conjuring up images of old-fashioned savings — may be one of the government's least recognized treasures. It was — and can be again — a valuable device to increase household savings while simultaneously becoming a more efficient debt management tool. The U.S. savings bond program, when first introduced in the early 20th century, was a tremendous innovation that created a new class of investors and enabled millions of Americans to buy homes, durable goods, and pursue higher education (Samuel (1997)). In the same way, a revitalized savings bond program, aimed squarely at serving LMI families, can again become a pillar of family savings.

In mid-September 2005, Sens. Mary Landrieu, D-La., and David Vitter, R-La., proposed a renewed savings bond marketing effort, aimed at raising funds for the reconstruction of areas damaged by hurricane Katrina (Stone (2005)). The senators alluded to the success of the 1940s War Bond program as inspiration. We think they should focus on bonds not only to raise funds to rebuild infrastructure and homes but also to use the opportunity to help families rebuild their financial lives. These rebuilding bonds could be used to help families affected by the hurricane to save and put their finances in order, perhaps by offering preferred rates on the bonds or by offering matching on all bond purchases. Nonaffected families could simply use the occasion to save for their futures or emergencies. A national bond campaign might

emphasize that bond purchasers can rebuild not only critical infrastructure, homes, and businesses, but also families' savings.

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(Appendixes begin on next page.)

Table 6. Attributes of Common Savings Vehicles, February 9, 2005

	Savings Bonds	Savings Accounts	Certificates of Deposit	Money Market Mutual Funds
Yield	Series EE: 3.25% (2.44%)* Series I: 3.67% (2.75%*)	1.59%	1-month: 1.16% 3-month: 1.75% 6-month: 2.16%	Taxable: 1.75% Nontaxable: 1.25%
Preferential Tax Treatment	Federal taxes deferred until time of redemption. State and local tax-exempt.	None	None	None
Liquidity	Required 12-month holding period. Penalty for redemption before five years equal to loss of prior three months of interest.	On demand	Penalties for early withdrawal vary: all interest on 30-day CD, 3 months on 18-month CD, 6 months on 2-year or longer CD.	On demand, but fees are assessed upon exit from fund.
Risk	"Full faith and credit of U.S." No principal risk.	FDIC insurance to \$100,000	FDIC insurance to \$100,000	Risk to principal, although historically absent for Money market funds.
Minimum Purchase	\$25	Minimum opening deposit average \$100	Generally \$500	Generally \$250, or more
Credit Check	None	ChexSystems sometimes used.	ChexSystems sometimes used.	None
<i>Sources:</i> bankrate.com, iMoneyNet.com, U.S. Department of the Treasury (2005).				
*Rate assuming early redemption in month 12 (first redemption date) and penalty of loss of three months of interest.				

Appendix A: Savings Bonds Today

Series EE and I bonds are the two savings bonds products now available (Table 6 summarizes the key features of the bonds in comparison to other financial products).¹⁸ Both are accrual bonds; interest payments accumulate and are payable on redemption of the bond. Series EE bonds in paper form are sold at 50 percent of their face value (a \$100 bond sells for \$50) and, until May 2005, accumulated interest at a variable "market rate" reset semiannually as 90 percent of the five-year Treasury securities yield on average over the prior six-month period. However, as of May, the interest rate structure for EE bonds changed. Under the new rules, EE bonds earn a fixed rate of interest, set biannually in May and October. The rate is based on the 10-year Treasury bond yield, but the precise rate will be set "administratively" taking into account the tax privileges of savings bonds and the early redemption option.¹⁹ EE bonds are guaranteed to reach face value after 20 years, but continue to earn interest for an additional 10 years before the bond reaches final maturity (U.S. Department of the Treasury

(2003b)). Inflation-indexed I bonds are sold at face value and accumulate interest at an inflation-adjusted rate for 30 years (Treasury (2003c)).²⁰ In terms of their basic economic structure of delivering fixed rates, EE savings bonds resemble fixed-rate certificates of deposit (CDs).

Backed by the "full faith and credit of the United States Government," savings bonds have less credit risk than any private-sector investment. (Bank accounts are protected by the FDIC only up to \$100,000 per person.) Holders face no principal loss, as rises in rates do not lead to a revaluation of principal because the holder may redeem them without penalty (after a certain point). Also, interest on I bonds is indexed to inflation rates.

The holder faces substantial short-term liquidity risk, as current rules do not allow a bond to be redeemed earlier than one year from the date of purchase (although that requirement may be waived in rare circumstances involving natural disasters or, on a case-by-case basis, individual financial problems). Bonds redeemed less than five years from the date of purchase are subject to a penalty equal to three months of interest. In terms of liquidity risk, savings bonds are similar to certificates of deposit more so than to money market mutual fund or money market demand account accounts.

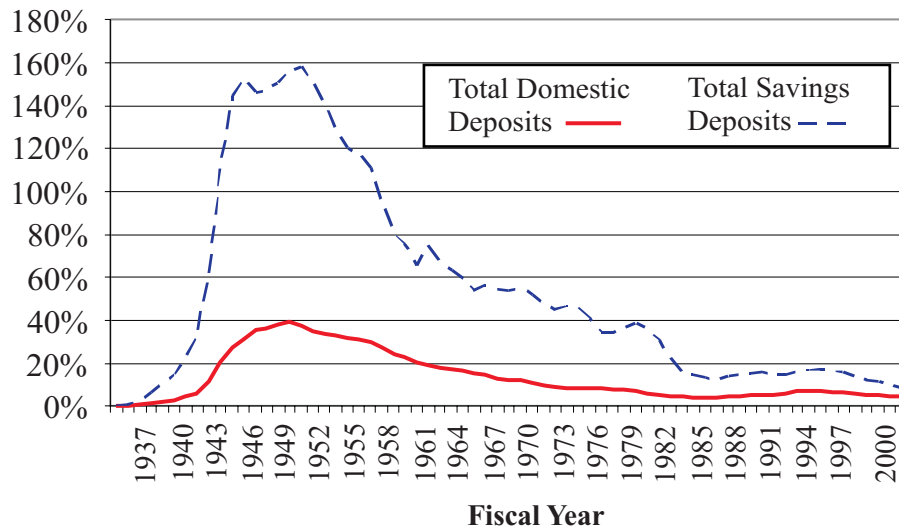
Interest earnings on EE and I Bonds are exempt from state and local taxes, but federal taxes must be paid either when the bond is redeemed, 30 years from the date of

¹⁸The current income bond, the Series HH, was discontinued in August 2004 (United States Department of the Treasury, Bureau of Public Debt, *Series HH/H Bonds*, available online at <http://www.publicdebt.treas.gov>).

¹⁹United States Department of the Treasury, Bureau of Public Debt, "EE Bonds Fixed Rate Frequently Asked Questions," available online at <http://www.treasurydirect.gov/indiv/research/indepth/eefixedratefaqs.htm>, last visited June 23, 2005.

²⁰This inflation-adjusted rate is determined by a formula that is essentially the sum of a fixed real rate (set on the date of the bond issue) and the lagging rate of CPI inflation.

Figure 1. Savings Bonds (All Series) Outstanding as a Percent of Total Domestic Deposits and Total Domestic Savings Deposits at Commercial Banks



Source: U.S. Treasury Department, Treasury Bulletin (1936-2003), FDIC (2004).

purchase, or yearly.²¹ Regarding tax treatment, savings bonds are attractive relative to many private-sector products.

Comparing the actual yields of savings bonds with those of other savings products is not simple. The rates of return on savings bonds vary, as do those on short-term CDs. Further, the true yield of savings bonds is influenced by their partially tax-exempt status as well as the penalties associated with early redemption. To get the most accurate possible estimate of yields, we model realized returns over a five-year period with various assumptions regarding early redemption, yields, and taxes. Generally, EE bond performance is on par with that of average certificates of deposit with a six-month, two-and-a-half-year, or five-year term or a NOW account.²² While their returns are 10 percent less than the Treasury

securities to which they are pegged, savings bond holders do not face the interest rate exposure and principal risk that holders of Treasury securities face and are able to buy them in small convenient denominations. It is more difficult to evaluate the Series I bonds, as U.S. private-sector analogues for those instruments are scarce.

Appendix B: Patterns and Trends in Bond Ownership

Patterns of bond ownership and purchase have changed over time. Savings bond sales rose rapidly in the early 1940s with the onset of World War II but slowed substantially in the postwar period. Savings bond holdings benchmarked against domestic deposits in U.S. commercial banks fell from 39 percent of total domestic deposits in 1949 to 5 percent of domestic deposits in 2002 (See Figure 1). In 1946, 63 percent of households held savings bonds. Over the next 60 years, savings bond ownership declined steadily; dropping to around 40 percent of households in the 1950s, to approximately 30 percent through the 1960s and 1970s, and then to near 20 percent for much of the 1980s and 1990s. The 16.7 percent 2001 ownership rate appears to be the lowest since World War II. See Table 7 for savings bond and other savings product ownership rates over time.

In 2001 high-income and high-wealth households were far more likely to hold savings bonds than low-income and low-wealth households. While gaps nearly as wide or wider appear between income and wealth quintiles for stocks, mutual funds, and CDs (transaction account ownership is closer) the gap for savings bonds is of particular note given the product's original purpose of appealing to the small saver. Historically, ownership of

²¹Under the Education Savings Bond Program, bondholders making qualified higher education expenditures may exclude some or all of the interest earned on a bond from their federal taxes. That option is income-tested and is available only to joint filers making less than \$89,750 and to single filers making less than \$59,850 (IRS (2003)).

²²Historically, when they were offered in the 1940s to support World War II, savings bonds earned better rates than bank deposits (Samuel (1997)). Savings bonds retained that advantage over savings accounts and over corporate AAA bonds (as well as CDs following their introduction in the early 1960s) through the late 1960s. However, while rates on CDs and corporate bonds rose during the inflationary period of the late 1970s, yields on savings bonds did not keep pace and even by the late 1990s had not fully recovered their competitive position (Federal Reserve (2005)).

	1946	1951	1960	1963	1970	1977	1983	1989	1992	1995	1998	2001
Checking Accounts	34%	41%	57%	59%	75%	81%	79%	81%	84%	85%	87%	87%
Savings Accounts	39%	45%	53%	59%	65%	77%	62%	n/a	n/a	n/a	n/a	55%
Transaction Account	n/a	n/a	n/a	n/a	n/a	n/a	n/a	85%	88%	87%	91%	91%
Savings Bonds	63%	41%	30%	28%	27%	31%	21%	24%	23%	23%	19%	17%
Corporate Stock	n/a	n/a	14%	14%	25%	25%	19%	16%	18%	15%	19%	21%
Mutual Funds	n/a	n/a	n/a	5%	n/a	n/a	n/a	7%	11%	12%	17%	18%

Source: Aizcorbe, Kennickell, and Moore, (2003); Avery, Elliehausen, and Canner, (1984); Kennickell, Starr McLuer, and Surette, (2000); Kennickell and Shack-Marquez, (1992); Kennickell and Starr-McLuer, (1994); Kennickell, Starr-McLuer, and Sunden, (1997); Projector, Thorensen, Strader, and Schoenberg, (1966).

	1957	2001	Percent Decrease
Bottom 20	12.80%	3.80%	70.30%
Second	21.30%	11.00%	48.40%
Third	27.40%	14.10%	48.50%
Fourth	35.90%	17.40%	51.50%
Top 20	44.90%	17.20%	61.80%

Source: Hanc (1962) and Aizcorbe, Kennickell, and Moore (2003).

savings bonds was far more equal. While savings bond ownership is down from the 1950s' levels across households of all incomes, that shift is most pronounced among lower-income households. Table 8 summarizes ownership rates by income in 1957 and 2001. Overall, in 2001 savings bond ownership was down 42 percent from 1957. For those in the lowest income quintile, savings bond ownership declined by 70 percent. Interestingly, savings bond ownership was off 62 percent in the highest

income quintile. However, while large shares of high-income households now own stocks and mutual funds, ownership rates for those products are quite low (3 percent to 4 percent) among low-income households. If low-income households have moved savings from savings bonds to other products, it has most likely been into transaction accounts, not the more attractive investment vehicles more common among high-income households.