A FRAMEWORK OF ASSET-ACCUMULATION STAGES AND STRATEGIES

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ABSTRACT

We propose that asset accumulation occurs in three stages. In the first stage (reallocation), current resource inflows must exceed current outflows. To do this, people reallocate resources from current consumption or leisure or from future consumption or leisure. In the second stage (conversion), people may convert resources from liquid to illiquid forms. In the third stage (maintenance), people resist temptations to dissave. We theorize that people adopt psychological and behavioral strategies to achieve each of these objectives. Putting psychological and behavioral strategies together with the stages of reallocation, conversion, and maintenance results in six strategy groups. We provide real-world examples of each strategy group and discuss implications for encouraging account ownership among the unbanked, improving asset-accumulation programs, and improving financial-education curricula.

Financial assets are a base for family economic security and development. Saving and asset accumulation are almost universally viewed as desirable goals, and much effort has been devoted to the development of financial-education curricula that include practical strategies for saving and asset accumulation. In this paper, we propose a framework of asset-accumulation strategies that assumes that asset accumulation occurs in three "stages" (reallocation, conversion, and maintenance) and that individuals engage in two broad categories of asset-accumulation strategies (behavioral and psychological). If validated by future research, this framework can provide a structure for thinking systematically about asset-accumulation programs. It may also provide new—or more specific—rationales for particular interventions. For example, the framework identifies new strategies that may be taught in financial-education curricula. The framework also strongly reinforces the idea that having a bank account facilitates saving and asset accumulation.

We begin with some definitions. *Saving* occurs when current income exceeds current consumption and therefore when total resources increase. We focus here on financial resources. Financial resources that last through time are financial *assets*. *Dissaving* occurs when current consumption exceeds current income and when total resources decrease. Dissaving is the opposite of saving. *Asset accumulation* is an increase in assets, and saving leads to asset accumulation as long as saving is greater than dissaving. The rest of the paper describes existing theory and research related to strategies for saving and asset accumulation, proposes a framework of stages and strategies, and describes implications related to the unbanked, asset-accumulation programs, and financial education.

ASSET-ACCUMULATION STRATEGIES: THEORY AND RESEARCH

What strategies do people use to save and accumulate assets? Scholars have developed theory in this area, and some research has identified saving and asset-accumulation strategies. Existing theory and research address strategies used to resist spending temptations, to earmark resources for saving, and to finance savings deposits and cope with budget shortfalls.

Strategies to Resist Spending Temptations

The most well-developed theoretical framework related to strategies of saving and asset accumulation is the behavioral life-cycle hypothesis proposed by Shefrin and Thaler (1988; 1992; see also Thaler, 1990; Thaler & Shefrin, 1981). These scholars stress that individuals are tempted to spend and that saving requires effort and self-control. Thus, to reduce the need to exercise self-control, individuals may choose to alter their incentives or to create their own constraints.

In some cases, people adopt simple rules such as restricting borrowing to certain types of purchases, paying off credit card bills every month, or setting a goal to save a certain amount each month. In other cases, individuals use "precommitment constraints," techniques that—once adopted—make it difficult to choose current pleasure at the expense of future pleasure (Maital, 1986; Maital & Maital, 1994; Shefrin & Thaler, 1988). A common precommitment constraint is payroll deduction. For example, when pension-plan contributions are deducted from a person's paycheck, the person no longer has to make, on a monthly or weekly basis, a conscious decision

to save. Other precommitment constraints include Christmas and vacation accounts; automatic debits from savings or checking accounts to purchase stocks, bonds, or mutual fund shares; over-withholding of income taxes (Neumark, 1995); and even mortgage-financed home purchases (Maital & Maital, 1994).[1] In short, behavioral theory implies that household saving is at least in part "the result of the successful and sophisticated imposition of welfare-improving, self-imposed constraints on spending" (Maital & Maital, 1994, p. 7).

Strategies to resist spending temptations are relevant to households of all income levels.[2] However, these strategies may be particularly important to low-income families because they consume less than high-income families and thus have higher marginal utility of consumption and because they may face greater pressures to transfer resources to less-advantaged social-network members (see, e.g., Chiteji & Hamilton, 2000; Edin & Lein, 1997). Several qualitative studies provide insight into strategies used by low-income households to resist spending temptations. Observed strategies include:

(1) choosing to receive the federal Earned Income Tax Credit (EITC) as a lump-sum, rather than choosing the advance-payment option (Olson & Davis, 1994);[3]

(2) postponing the cashing of checks (Finn, Zorita, & Coulton, 1994);

(3) giving money to trusted individuals to avoid spending it (Caskey, 1997);

(4) making rent, child care, or other payments in advance (Caskey, 1997; Romich & Weisner, 2000);

(5) choosing not to have an ATM card (Caskey, 1997);

(6) choosing a savings account that charges per withdrawal (Caskey, 1997); and

(7) opening a bank account at a branch that is inconveniently located (Romich & Weisner, 2000).

[1] Mortgage-financed home purchases can be seen as precommitment constraints because mortgage payments are a contractual obligation and because part of each payment goes toward principal and increases home equity (Maital & Maital, 1994).

[2] For example, in a focus group conducted as part of the pretest of the 1995 Survey of Consumer Finances, several high-income individuals mentioned the need to put money "out of reach" to avoid spending (Kennickell, Starr-McCluer, & Sunden, 1997, p. 4).

[3] The federal EITC is a refundable tax credit for low-income workers. For tax year 2000, the maximum refund was $3,888. Through the advance-payment option, the Internal Revenue Service allows EITC-eligible individuals to receive a portion of their credits through their paychecks, but virtually all EITC recipients receive a lump-sum refund after they submit their tax returns (Hotz & Scholz, 2001).

Strategies to Earmark Resources for Savings

A second proposition of the behavioral life-cycle hypothesis is that people use systems of mental accounts (Shefrin & Thaler, 1992). A simple mental accounting scheme might consist of two accounts: "spending money" and assets. Shefrin and Thaler posit that the source and the amount of resources received largely determine whether resources are earmarked as spending money or assets. Large gains in economic resources, relative to "regular" income, tend to be designated as assets. Asset income and other inflows not considered "regular" income also tend to be earmarked as assets (Thaler, 1990).

Two small studies using survey data provide some evidence that people do indeed use mental accounts (Shefrin & Thaler, 1988; Winnett & Lewis, 1995). In addition, in ethnographic research with 30 low- and moderate-income families, Caskey (1997) found that several families had accumulated savings because they had received recent lump-sum payments (see also Lazear, 1999). This behavior is consistent with the behavioral proposition that "irregular" income is more likely to be earmarked for savings.

Strategies to Finance Savings Deposits and to Cope with Budget Shortfalls

Besides the literature on resisting spending temptations and earmarking resources for savings, there is some literature on strategies to finance savings deposits. Financial-education materials—for example, Cooperative Extension publications—have long recommended numerous specific strategies to reduce expenditures and to increase income.[4] Research suggests that consumption changes are the most common strategy for financing savings deposits. Using data from a survey of about 300 low-income participants in a matched-saving program, Moore, Beverly, Schreiner, et al. (2001) found that the most common strategies for setting aside money for savings were shopping more carefully for food, eating out less, spending less on leisure, and buying used clothing.

Evidence regarding strategies to cope with budget shortfalls may also be relevant to saving because both behaviors involve finding "extra" or creating "new" financial resources. Research shows that families adopt a variety of strategies to cope with budget shortfalls; drawing down existing assets and changing consumption are especially common. For example, Rhine and Toussaint-Comeau (1999) surveyed 194 households in a middle-income south Chicago neighborhood. Fifty-six households (29 percent) had experienced a financial setback (e.g., unemployment, large increases in living expenses, death or illness of a family member) in the previous five years. To cope with these setbacks, twenty percent of the 56 households used existing assets; 16 percent sought financial assistance from family, friends, or social organizations; 16 percent postponed paying bills; and 13 percent reduced consumption. Bond and Townsend (1996) surveyed 210 (mostly Hispanic) households in Chicago. Sixty-four percent reported a financial setback in the previous five years. Fifty-nine percent of these households

[4] See, for example, "Starting Your Investment Program With $1 To $1000" from the University of Georgia College of Family and Consumer Sciences Extension, available at www.fcs.uga.edu/extension/fm/investmentguide, and "66 Ways to Save Money" from the Consumer Literacy Consortium, available at www.ftc.gov/bcp/conline/pubs/general/66ways.

used existing assets, 46 percent reduced consumption, between 32 and 46 percent received financial assistance from family, friends, or social organizations, and 31 percent delayed payment on bills or debt. Varcoe (1990) surveyed 934 households in California regarding methods for meeting unexpected expenses. Forty-four percent said they used regular savings; 27 percent did without new clothes, entertainment, or other items; 22 percent used emergency savings; 14 percent borrowed money from a financial institution; 11 percent postponed paying other bills; and 8 percent borrowed from friends or family.

ASSET-ACCUMULATION STRATEGIES: A PROPOSED FRAMEWORK

In this section, we propose a framework of asset-accumulation strategies. The strategies are not original; they have long been discussed in personal-finance texts and taught by financial educators. The framework makes a contribution, however, by classifying strategies into six strategy groups, based on "stage" of asset accumulation and strategy type. This classification scheme emerged from a study of participants in a matched-saving program for low-income people. About 300 participants completed a survey that included both closed-ended and open-ended questions. These data are described in more detail in Moore, Beverly, Schreiner, et al. (2001) and Moore, Beverly, Sherraden, et al. (2001).

Stages of Asset Accumulation

We find it useful to assume that asset accumulation occurs in three stages. First, current resource inflows must exceed current outflows. To do this, people often reallocate resources from consumption, but they may also increase resource inflows without reducing consumption, for example, by working more. The latter constitutes a reallocation of time and effort from leisure to labor. Individuals may also reallocate resources through time. We refer to this first stage of asset accumulation as *reallocation*.

In the second stage of asset accumulation, resources may be converted from some easy-to-spend form to a more difficult-to-spend form. For example, cash may be converted to resources in a bank account or to cash held by a trusted friend. Although asset accumulation can occur without this second step (if resources are saved and maintained in liquid forms), the theoretical literature summarized previously implies that asset accumulation is more likely when resources are converted to less-liquid forms. We refer to this stage as *conversion*.

Finally, in the third stage, for saving to lead to asset accumulation, individuals must resist pressures to dissave. We refer to this stage as *maintenance*. Maintaining assets is not an end in itself, but a means to prepare for retirement, to prepare for financial crises, or to obtain certain goods and services, such as education, a house, a car, or a vacation.

Types of Strategies

Next, we theorize that people often use two types of strategies: psychological and behavioral. Psychological strategies are grounded in saving goals, asset goals, and/or self-imposed rules about making deposits and maintaining assets. They may be viewed as mental "tricks" that reduce the deliberation and self-control required to save and maintain assets. Behavioral

strategies represent efforts to change economic actions, especially efforts to control consumption and to make deposits and withdrawals. Data from a matched-saving program confirm that low-income individuals use both behavioral and psychological strategies as they accumulate assets (Moore, Beverly, Schreiner, et al., 2001).

Strategy Groups

Putting the two types of strategies together with the three stages of asset accumulation results in the two-by-three matrix in Table 1. Each of the six cells represents an asset-accumulation strategy group, and the bulleted items are types of strategies within each group. The framework shows the diversity of strategies that people may use in order to save and accumulate assets. As the next section shows, it also provides a specific rationale for encouraging account ownership among the unbanked, criteria for describing and evaluating saving programs, and recommendations for improving financial-education curricula.

—Table 1 About Here—

Psychological Reallocation Strategies

Psychological reallocation strategies include setting a goal for saving or asset accumulation, mentally focusing on the goal, and seeking encouragement from family, friends, and program staff (e.g., extension agents and social service agency caseworkers). These strategies aim to make saving goals primary; they encourage people to meet savings targets and to consume what remains, rather than to meet consumption targets and to save the residual. Psychological reallocation strategies also include mental accounting, such as earmarking as savings unexpected income, earnings from a specific job or a specific earner, or tax refunds. These strategies involve mentally reallocating resources from “spending money” to “assets.” Financial-education curricula typically encourage people to focus on saving and asset goals, but the other strategies mentioned here probably receive less attention.

Behavioral Reallocation Strategies

Behavioral reallocation strategies include increasing efficiency (i.e., spending less on the same quantity of goods and services, perhaps by shopping more carefully or eating out less often), reducing consumption, or increasing income (e.g., working more or working harder). Two other strategies, selling assets and increasing debt, involve a reallocation of resources but may not increase net worth. Thus, these are strategies for reallocating resources toward a particular saving vehicle; they produce not new savings but rather asset shifts.

As noted above, people may also reallocate resources through time. For example, they may choose to receive lump-sum EITC payments or arrange for over-withholding of income taxes. If behavioral theory is correct, these choices help people to reallocate resources from consumption to saving (because lumpy inflows are likely to be earmarked as saving). Budgeting—that is, monitoring resource inflows and outflows and then making decisions about how to reallocate resources toward saving—is an additional behavioral reallocation strategy, one that generally

precedes the others. Financial-education curricula typically emphasize budgeting, reducing consumption, and increasing efficiency. Other appropriate topics for financial education include the evaluation of costs and benefits of postponing income in order to receive lump-sum payments and the evaluation of the costs and benefits of selling assets and increasing debt to finance saving.

Psychological Conversion Strategies

Psychological conversion strategies are likely to involve conceptualizing savings deposits as bills. In other words, people may deliberately trick themselves into believing that saving is obligatory, that is, that deposits are "bills." Financial-education curricula often encourage this strategy.

Behavioral Conversion Strategies

Behavioral conversion strategies are likely to involve "paying savings accounts first." People might simply make deposits immediately after receiving income, before making any other purchases or payments. The most effective strategy, however, is likely to be arranging for some type of automatic transfer. A common example of automatic transfer is direct deposit of earnings into a savings or investment account. Another example is the U.S. Savings Bonds EasySaver plan.[5] Participants in this plan arrange to purchase bonds at regularly-scheduled intervals through automatic transfers from checking or savings accounts. These strategies combine—and make automatic—reallocation and conversion activities. The idea is to make conversion passive, and thus low effort, rather than active. Financial-education curricula usually encourage the use of direct deposit.

The conversion options available to the unbanked involve storing money informally. Examples include giving cash to trusted friends and family members, postponing the cashing of checks, and hiding cash from oneself. Cash stored informally is less secure—and perhaps also more likely to be "withdrawn"—than money deposited in formal accounts, and this is an important rationale for encouraging account ownership among the unbanked.

Psychological Maintenance Strategies

Psychological maintenance strategies involve adopting simple rules regarding the uses of savings. For example, people may decide that savings is "off-limits" or may be used only in emergencies. Psychological maintenance strategies change decisions from active to passive. Financial-education curricula typically encourage these rules, and this strategy is available to the unbanked as well as the banked.

[5] The EasySaver website address is http://www.publicdebt.treas.gov/mar/mareswhat.htm.

Behavioral Maintenance Strategies

For the banked, behavioral maintenance strategies include choosing financial services that increase the cost of withdrawals and avoiding financial services that facilitate withdrawals. Examples include choosing an account that restricts withdrawals and choosing not to have an ATM card. Adopting behavioral maintenance strategies is probably more difficult for those who do not have formal accounts. Moreover, money stored informally may be "visible" to relatives and friends, and they may pressure the saver to share resources. Money in bank accounts is presumably more private and therefore more protected from the demands of social-network members. Vonderlack and Schreiner (2001) suggest that access to bank accounts and safe-deposit boxes is likely even more valuable for low-income women than for low-income men because women are subject to greater social demands on their resources and so have a greater use for these aids with behavioral maintenance.

DISCUSSION

Although this framework is grounded in theory and empirical research, more validation is needed. One existing source of data is the Survey of Consumer Finances, which asks about saving strategies such as saving what is left over at the end of the month, saving the income of one family member, saving irregular income, and putting aside money each month. Also needed, however, are new data on more specific strategies used by families to save and maintain assets, decision-making processes surrounding saving and spending decisions, and the perceived salience of this framework from the point of view of savers and potential savers. If research demonstrates the validity of this framework, we believe the framework may be used to justify efforts to encourage account ownership among the unbanked, to think systematically about the design of asset-accumulation programs, and to improve financial-education curricula.

Encouraging Account Ownership

According to data from the 1998 Survey of Consumer Finances, about 10 percent of all U.S. families had neither a checking nor savings account (Kennickell, Starr-McCluer, & Surette, 2000). Estimates from other data sets suggest that as many as 20 percent of all U.S. households are unbanked (Carney & Gale, forthcoming; Hurst, Luoh, & Stafford, 1998). The framework provides a specific rationale for efforts to develop formal accounts that appeal to the unbanked. Account ownership greatly facilitates conversion and maintenance, the second and third stages of asset accumulation. Those who do not have checking or savings accounts have fewer opportunities to convert resources to less-liquid forms and therefore are likely to have more trouble resisting pressures to dissave.

Thinking Systematically about Asset-Accumulation Programs

The framework also provides a structure for thinking systematically about the design of asset-accumulation programs. Two examples illustrate this function: Individual Development Account (IDA) programs and "savings-building" accounts. IDA programs are matched-saving programs for low-income individuals (Edwards, 1997; Sherraden, 1991). Participants earn matching contributions as they save toward approved asset purchases, typically home ownership, post-

secondary education, and microenterprise. Program staff also encourage participants to set monthly saving goals. Thus, IDA programs encourage psychological reallocation strategies by helping individuals focus on saving and asset goals and by providing encouragement for saving efforts. Because withdrawals for "unapproved" purchases are restricted, IDA programs also help individuals to maintain assets. Moreover, IDA participants are usually required to attend financial-education classes, and, depending on content, these classes may encourage and teach strategies in all six strategy groups.

To bring the unbanked into the financial mainstream and help this group accumulate savings, Caskey (2000) has encouraged financial institutions to offer a savings-building account. To open this type of account, people would pledge to make regular, fixed-value deposits, say, $20 a month for 12 months. Account-holders would be encouraged to arrange for automatic deposit into these accounts, and they would incur some financial penalty (such as a reduced interest rate) for repeated missed deposits. Also, funds in savings-building accounts would be kept separate from funds in other accounts, so that people mentally distinguish money designated for savings from money designated for short-term transactions. Thus, the savings-building account incorporates psychological reallocation strategies and psychological and behavioral conversion strategies.

We believe that programs that facilitate all three stages of asset accumulation will be more effective than programs that facilitate only one or two stages. If this assumption is true, then one could evaluate asset-accumulation programs by examining the extent to which they facilitate reallocation, conversion, *and* maintenance. Moreover, if future research shows that individuals who adopt a range of strategies are the most successful savers, then programs that encourage both psychological and behavioral strategies would be desirable.

Improving Financial-Education Curricula

The framework proposed here may also have implications for financial education. First, families (just like program planners) may benefit from thinking concretely about the three stages of asset accumulation. In particular, it may be helpful to remind people that accumulating assets requires more than putting cash in the bank and that it is difficult for most people to resist spending temptations, but that certain strategies may help them to maintain their assets.

Second, the example strategies discussed above include strategies that may be under-used by financial educators. Financial-education curricula should continue to emphasize saving and asset goals, simple rules, budgeting, direct deposit, and careful consumption choices. However, curricula might also explicitly teach mental-accounting techniques such as earmarking as savings tax refunds or earnings from a specific job. Financial educators might also encourage people to find family members or friends who will "check in" each pay period to see if saving goals have been met.

Finally, for the reasons noted previously, financial educators should emphasize the importance of account ownership, regardless of balance. Because multiple types of accounts are available—for example, savings accounts, basic checking accounts, IDAs, and "Christmas club" accounts—financial-education curricula should help people identify accounts with features that match their needs and goals.

CONCLUSION

Asset accumulation is a much more complex process than conventional economic models assume. Individuals are not perfectly rational and omniscient economic agents. Instead, they sometimes have trouble choosing behaviors that are in their own best interests. The framework presented here suggests that a number of psychological and behavioral strategies may help individuals to accumulate assets. It also provides a rationale for encouraging account ownership among the unbanked. Finally, it provides a structure for thinking systematically about financial-education curricula and asset-accumulation programs.

Table 1. A Framework of Asset-Accumulation Stages and Strategies

Stages of Asset Accumulation	Types of Strategies	
	Psychological	**Behavioral**
Reallocation	• Set and mentally focus on a saving or asset goal • Use mental accounting • Seek encouragement for saving	• Increase efficiency • Reduce consumption • Increase income • Sell assets • Increase debt • Postpone income in order to receive lump-sum payment • Monitor resource flows
Conversion	• View deposits into savings accounts as obligatory	• Pay savings account first • Arrange for automatic transfers to saving vehicles • Store money informally
Maintenance	• Adopt simple rules regarding the uses of savings	• Choose financial services that increase the costs of withdrawals

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