

Who Has Emergency Saving Goals?

According to the U.S. Department of Commerce, the personal saving rate in the U.S. decreased from the 1960s, 1970s, and 1980s to a negative rate in 2005. Only a minority of U.S. households have recommended levels of monetary assets saved for emergencies. This study investigates factors related to whether households have emergency savings goals. About 35% of U.S. households in 2004 listed emergency fund related savings motives. A logistic regression analysis showed that those who had a savings habit were less likely to have an emergency related savings motive, and those with incomes of \$60,000 and above were more likely than low income households to have the motive.

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Literature

Xiao and Noring (1994) assumed saving motives can be hierarchical along with increase of family financial resources. Saving for emergency was the most frequently mentioned motive. Merrigan and Normandin (1996) found that precautionary savings plays important in households' saving behavior. Hefferan (1982) found that income, wealth, and family characteristics influence the decision to save and level of saving. Davis and Schumm (1987) concluded that income, education, and family size affect levels of savings. There is a relationship between motivations to save and saving and satisfaction with saving. Households with middle income, black household head, 1-3 children, and age younger than 45 are more likely to save for emergency (Xiao & Noring, 1994). Households with greater income uncertainty are more likely to have larger current saving (Merrigan & Normandin, 1996). Households with heads working in manufacturing industry are more likely to have precautionary saving to protect against income uncertainty. However, occupations of heads have no significant effect on the strength of precautionary motives. Guariglia and Rossi (2002) found that the larger a household size is and the higher the educational level the head has, the larger change in consumption, which implies a precautionary saving motive.

Alessie and Lusardi (1997) found that past saving affects level of saving. Consumers with stronger habit are less likely to be influenced by future income changes, but more likely to be influenced by past saving. Guariglia and Rossi (2002) found that the larger changes in past consumption, the less current consumption changes a household would have. Households do have strong precautionary saving motives. As Hubbard, Skinner, and Zelder (1995) stated, the expectation of decreases in future earnings or out-of-pocket medical expenses can influence saving. They found strong evidence that with presence of significant uncertainty about earnings and medical expenditures, lower-income households may rationally accumulate proportionately less than higher-income households because of the existence of an asset-based, means-tested social insurance "safety net." Starr-McCluer (1996) also found that insured households were with higher value than those of the uninsured no matter what measures of savings were considered, and that many of the uninsured had no savings. Lunt and Livingstone (1991) found that those who save feel better off than they did a year ago, think they manage their finances better than their parents, feel better off than their parent were at similar ages, expect to be better off in a year's time, and think the economy as a whole is doing well. Saving is thus related to optimism about personal economic circumstances and the economy.

We therefore conclude that families have different saving goals according to their self-control, willingness to save, and family characteristics. Our focus is on finding factors related to having saving for emergency as a goal.

Theoretical framework

Behavioral Life Cycle Theory

Shefrin and Thaler (1988) described the Behavioral Life-Cycle Theory as an enrichment of Life Cycle Hypothesis (LCH). The theory offers a way of grappling with some of the important issues in the critique of Life Cycle Hypothesis. They incorporated self-control, mental accounting, and framing in the theory. It is assumed that households treat components of their wealth as non-fungible, even without taking credit rationing into consideration.

Savings, and therefore savings goals, should be related to self-control factors, expectations, and household characteristics. Rha, Montalto and Hanna (2006) found that self-control factors were related to whether households spent less than income.

Methods

In order to test the relationship between demographic, self-control, and willingness to save variables and having emergency fund as a saving motive, we used data from 2004 Survey of Consumer Finance.

The dependent variable, having an emergency savings goal, was defined based on whether the respondent mentioned one of the following reasons for saving:

in case of unemployment;

in case of illness, medical and dental expenses;

in case of emergencies, "rainy days", other unexpected needs, and "security" and independence;

for liquidity, for having cash available and on hand

Independent variables were self-control variables, including resources from outside and self-imposed control, such as saving habit. Willingness to save was measured by expectation about economy, optimistic or pessimistic attitudes toward economy, and past experience (unemployment).

Hypotheses

H1: Households with saving habits (self-imposed control) are less likely to list emergency fund as a saving goal.

H2: Households able to borrow from a friend or relative are less likely to list emergency fund as a saving goal.

H3: Households that have positive expectations about economy are less likely to list emergency fund as a saving goal.

H4: Households with positive attitudes toward their luck (feeling they have been lucky about their financial affairs) are less likely to list emergency fund as a saving goal.

H5: Households that had experienced emergency events (having past unemployment) in the past are more likely to list emergency funds as their saving goals.

Since our dependent variable was dichotomous, we used a logistic regression to analyze the effect of independent variables. We use the 2004 Survey of Consumer Finances (SCF) (Bucks, Kennickell, & Moore, 2006).

Results

Descriptive Results

Table 1 shows the results of analyses of the 2004 SCF. Among 4,519 households, 34.9% had emergency fund as a saving motive. Respondents whose age is between 65 and 74 had the highest percentage of having emergency fund saving motives. Widowed, Black, not working, and female respondents had the highest percentage of having the saving motive. Also, respondents who had worse expectation about economy, had more than 37 weeks of unemployment experience, and reported excellent health condition had the highest percentage.

Logit Results

Table 2 shows the logit results of whether households had emergency fund saving motives. Partner households are more likely to have an emergency fund saving motive than married couples. Households with a line of credit are more likely to an emergency fund saving motive than those that did not have a line of credit. Households with incomes above \$60,000 per year are more likely to have an emergency fund saving motive than those with incomes less than \$10,000 per year. Households with a head in excellent health are more likely to have an emergency fund saving motive than those with a head in poor health. Households with savings habits, that is, who reported usually saving money each month, are less likely to have an emergency fund saving motive than those that did not save. It is possible that multicollinearity caused some independent variables to not have significant results, so we also tried a stepwise logit, but the results are similar to the results shown in Table 2, except that retired households are more likely to have an emergency fund saving motive than those with other employment situations. Lifecycle variables such as whether income was below the usual level or having been unemployed in the past year were not related to have an emergency fund saving motive. Having an emergency fund saving motive does not seem strongly related to the possible need for such a fund, as being able to borrow from a friend or relative was not

related to having the motive, and those with a line of credit are more likely than those without a line of credit to have the motive. Having everyone in the household covered by private or public health insurance is not related to having the motive, though having excellent health is related to a somewhat lower likelihood of having the motive. Those who do save regularly are less likely to have the motive, indicating that once the need is perceived to have been met, it is not a salient motive.

Hypotheses

H1: Households with saving habits (self-imposed control) are less likely to list emergency fund as a saving goal.
Accepted.

H2: Households able to borrow from a friend or relative are less likely to list emergency fund as a saving goal.
Not accepted.

H3: Households that have positive expectations about economy are less likely to list emergency fund as a saving goal.
Not accepted.

H4: Households with positive attitudes toward their luck (feeling they have been lucky about their financial affairs) are less likely to list emergency fund as a saving goal.
Not accepted.

H5: Households that had experienced emergency events (having past unemployment) in the past are more likely to list emergency funds as their saving goals.
Not accepted.

Conclusion

Given the inconsistent results, our model does not appear to capture the causal relationships for having a saving motive. A more complex structural model testing both the impact of the motive on having enough emergency savings and the impact of having enough emergency savings on whether households have the motive, may provide greater insights. The lack of significant effects of key demographic variables, including age, education, and race, suggest that the emergency fund motive does not differ much across different groups. However, the income effect does suggest that low and moderate income households may implicitly rely on social safety nets rather than emergency funds, as suggested by Hubbard et al. (1995).

Reference

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Appendix

Table 1. Having emergency related saving goals by independent variables, 2004

Variable	Distribution	Had Emergency Saving Motives
Age of respondent		
Less than 35	22.91%	35.18%
35~44	21.11%	32.15%
45~54	21.00%	33.13%
55~64	14.89%	30.89%
65~74	10.10%	45.57%
More than 74	9.99%	39.42%
Sex of respondent		
Male	45.08%	34.05%
Female	54.92%	35.68%
Education of respondent		
Less than High school	14.43%	36.19%
High school	30.60%	34.98%
Some college	18.37%	35.55%
College degree	36.61%	34.12%
Presence of children under 19		
Presence	43.77%	33.85%
No child	56.23%	35.80%
Marital status		
Married	50.49%	34.11%
Partner	7.49%	26.45%
Divorced	16.82%	38.02%
Widow	10.44%	39.32%
Never Married	40.78%	35.48%
Race of respondent		
White	71.82%	34.17%
Black	30.41%	40.16%
Hispanic	11.17%	35.50%
Asian and other	3.61%	29.27%
Job status		
Self-Employed	11.63%	31.79%
Employed	56.83%	33.32%
Not Working	14.19%	35.25%
Retired	17.35%	42.13%
Income		
Less than \$10,000	8.99%	37.28%
\$10,000~\$15,000	6.45%	41.77%
\$15,000~\$20,000	6.82%	38.07%
\$20,000~\$25,000	7.02%	35.84%
\$25,000~\$30,000	6.72%	34.48%
\$30,000~\$40,000	11.40%	41.33%
\$40,000~\$50,000	10.18%	34.37%
\$50,000~\$60,000	7.92%	37.43%
\$60,000~\$80,000	11.78%	33.91%
\$80,000~\$120,000	11.68%	30.32%
More than \$120,000	11.04%	24.97%
Self-control		
Have saving habit (X3017=1 or X3018=1 or X3019=1 or X3020=1)	76.70%	36.14%
Do not have saving habit	23.30%	31.00%
Resource from outside		
All household members covered by health insurance	79.43%	34.75%

Variable	Distribution	Had Emergency Saving Motives
Could get \$3,000 or more from friend or relative?	65.79%	33.83%
Have credit card	74.94%	34.58%
Have line of credit	15.18%	26.39%
Expectation about Economy		
Better	44.09%	35.32%
Worse	18.21%	37.14%
Same	37.70%	33.45%
Feeling lucky about financial affairs	70.52%	36.05%
Head and/or spouse/partner unemployed during past 12 months	17.06%	33.66%
Health condition of respondent		
Excellent	27.93%	36.93%
Good	46.99%	33.93%
Fair	18.07%	36.29%
Poor	7.00%	30.31%
Income last year compared to usual		
Higher than normal	8.68%	32.08%
Lower than normal	19.77%	33.10%
Same as normal	71.55%	35.80%

Table 2. Logistic Analysis of Having Emergency Saving Motives

Parameter	Coefficients	P-value
Intercept	1.2371	0.0001
Age of respondent	-0.00240	0.4588
Sex of Respondent (1=female, 0=male)	0.000150	0.9984
Household type: reference category=married couples		
Partner	0.3679	0.0141
Spouse divorced	-0.0456	0.6613
Widow	0.0493	0.7320
Never married	0.0187	0.8778
Racial/ethnic group of respondent: reference category=white		
Black	-0.1439	0.2019
Hispanic	-0.0535	0.6567
Asian and other	0.3200	0.0815
Education of respondent: reference category=less than high school diploma		
High school	0.00103	0.9934
Some college	-0.0880	0.5245
College degree	-0.1509	0.2654
Job: reference category=employed		
Self-employed	-0.0879	0.3374
Not working	-0.0879	0.4276
Retired	-0.2597	0.0671
Expectation about economy: reference category=same		
Better	-0.00357	0.9604
Worse	-0.0645	0.4993
Everyone in household covered by private or government medical insurance (1=yes, 0=no)	0.0550	0.5734
Could get \$3,000 or more from friend or relative?	0.0343	0.6629
Presence of children under 19	-0.0910	0.2314
Have credit card	-0.0614	0.5369
Line of credit	0.3048	0.0008
Feeling lucky about financial affairs	-0.0682	0.3900
Head and/or spouse/partner unemployed during past 12 months	0.00426	0.9670
Have saving habit	-0.3514	0.0001
Self-reported health of respondent :reference category=poor health		
Excellent health	-0.4376	0.0099
Good health	-0.2834	0.0826
Fair health	-0.3140	0.0647
Income: reference category=less than \$10,000		
\$10,000~\$15,000	-0.0979	0.5972
\$15,000~\$20,000	0.1096	0.5585
\$20,000~\$25,000	0.1925	0.3066
\$25,000~\$30,000	0.2891	0.1335
\$30,000~\$40,000	0.0693	0.6832
\$40,000~\$50,000	0.2832	0.1161
\$50,000~\$60,000	0.2086	0.2836
\$60,000~\$80,000	0.3826	0.0383
\$80,000~\$120,000	0.6055	0.0016
More than \$120,000	0.7444	<.0001
Income last year compared to usual: reference category=same as usual		
Higher than normal	0.00492	0.9639
Lower than normal	0.0566	0.5241

Endnotes

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