Stock Ownership and Credit Card Debt

To investigate wealth effects on credit card debt, this study focused on households who invested in stocks. Demographic characteristics, financial resources, experience of unusual for income, expectation for future income, attitudes towards financial issues and financial management behavior are examined based on the life cycle income hypothesis and Bryant's exposition of household consumption and saving. Experience for unusual income, positive expectation about future income, financial management behaviors, education level, and income are found to have significant effects on credit card debt among households who had stock assets.

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Justification

Due to economic growth and favorable stock market shock, the real net worth of U.S. households increased by nearly $15 trillion between 1989 and 1999 (Poterba, 2000). More than 60% of the wealth creation during the 1990s was due to the rising value of household stock holdings. This wealth expansion accelerated consumer spending in the U.S. From 1980 through 1994, the U.S. saving rate averaged 8%, thereafter, it fell steeply, and since mid-2000, it has averaged approximately 1% (FRBSF Economic Letter, 2002). During this time period, consumer debt also grew up from $789 billion to $1,416 billion between 1990 and 1999 (Federal Reserve Board, 2003).

The increase in unexpected wealth tends to give households a positive expectation about their future income (Maki, 2000; Poterba, 2000). According to Bryant, a household's current consumption is expected to increase if its future expected income rises even though the household experiences no increase in its current income (Bryant, 1990). Thus, we hypothesized if households had a positive expectation about their future income by the wealth change but didn't have enough income increase to raise their current consumption, they might borrow money against future. In fact, the average amount of credit card debt grew 53% between 1989 and 2001 (Federal Document Clearing House Congressional Testimony, 2004). Compared to other consumer loans, credit cards are more convenient to use for more general situation. Therefore, investigating outstanding credit card debt might be more useful to examine wealth effects on household's consumption and borrowing.

The purposes of this study are to examine expected wealth effects on household consumption and to investigate factors influencing the amount of the outstanding credit card debt of households with stock assets.

Conceptual Framework

The conceptual model in this study was derived from the life cycle income hypothesis (Ando & Modigliani, 1963) and Bryant's exposition of household consumption and saving (Bryant, 1990). According to these theories and previous empirical studies (Baek & Hong, 2004; Chien & DeVaney, 2001; Kim & DeVaney, 2001), demographic characteristics, financial resources, experience for unusual income, expectation for future income, attitudes toward financial issues, and financial management behavior influence credit card debt were identified.

Data and Sample

Data were drawn from the 2001 Survey of Consumer Finances (SCF) which was sponsored by the Federal Reserve Board of Governors and conducted by the National Opinion Research Center (NORC) at the University of Chicago (Aizcorbe, Kennickell, & Moore, 2003). The 2001 SCF contained comprehensive and detailed financial information from a nationally representative cross-sectional sample of 4,449 households. For this study, only households who had stock or stock mutual funds and positive income in 2000 (N=1,907) were selected.

Variables and Analysis

Since only 25.7% (490 households) of the total households with stockownership had an outstanding credit card debt, an Ordinary Least Squares (OLS) regression analysis of the amount of outstanding credit card debt that included all of the households with stocks would be biased because of sample selection bias (Maddala, 1983). To

correct the sample selection bias of the OLS regression on the outstanding credit card debt on the explanatory variables, the Heckman selection procedure was employed in this study. The dependent variable for the first stage is the likelihood of revolving outstanding credit card debt (coded 1 if households have an outstanding credit card debt and 0 if otherwise). The dependent variable for the second stage is the amount of outstanding credit card debt (measured by the total amount of outstanding credit card debt). Six groups of independent variables are identified: demographic characteristics, financial resources, experience for unusual income, expectation for future income, attitudes toward financial issues, and financial management behavior. Demographic characteristics include age, household size, marital status, education level, and race. Financial resources consist of income, financial assets, non-financial assets, and total debt excluding outstanding credit card debt. Experience for unusual income factors are experience of high income, income from stock, bonds, or real estate and having unusual income from investment or capital. Expectation for future income consists of expectation for income for next year and household's feeling about past financial affairs. Attitudes toward financial issues include attitudes toward credit, risk-tolerance, and the perspective about future interest rate. Financial management behavior includes credit turndown history, spending pattern, and the number of credit cards.

Results

The average value of outstanding credit card debt of households who have stocks or stock mutual funds is about $2,062. The average annual income excluding income from stock, bonds, or real estate is $110,334. The average value of income from stock, bonds, or real estate is $15,176. The average stock assets and other financial assets are $189,639 and $309,691, respectively. The average value of non-financial assets is $525,786 while the average value of total debt excluding outstanding credit card debt is $89,732. Approximately 54% of stock holding households has experienced unusual high income and 6.2% have higher income from capital gains or higher return on investment. About 55.7% of households think that they have been lucky in past financial affairs, and about 75% expect positive future income. A typical head of household is 50 years old with 14.6 years of education.

The findings of Heckman selection procedure indicate that household's experience of high income and having unusual income from investment or capital over this year are positively related to the amount of outstanding credit card debt at the 0.01 and 0.001 level, respectively. Feeling lucky about past financial affairs increases the amount of outstanding credit card debt at the 0.05 level. Both credit turn down history and the number of credit cards have positive effects on the amount of outstanding credit card debt at the 0.001 level. Households spending greater than their income increases the amount of outstanding credit card debt at the 0.05 level. Education level of household's head and annual income have positive effects on the amount of outstanding credit card debt at the 0.05 and 0.001 level, respectively.

Conclusions and Implications

This study shows that households' experience of unusual high income from investment or capital and positive expectation about their future income are significant factors in the amount of outstanding credit card debt of households with stockownership. These results indicate that consumers' positive expectation about their future income caused by the wealth change is more likely to increase their current consumption and to borrow money against future, as we hypothesized. Education level, income, credit turn down history, spending pattern and the number of credit cards are also important factors in the amount of outstanding credit card debt.

Educators keep paying attention to credit card debts over time, understand the factors to increase credit card debts, and develop the tailored programs following each factors. Borrowing more money encouraged by temporary wealth changes might hurt households' financial health due to high interest rates of credit card and changeable investment market.

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Endnotes

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