# Fatalistic Tendencies:
# An Explanation of Why People Don't Save

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**Abstract**

This paper uses data from the 2001 Survey of Consumer Finances (SCF) and the 2000 World Values Survey (WVS) to analyze the role of fatalism in determining household savings behavior. SCF respondents who feel that luck has played an important role in their financial affairs are more likely to realize their need to save, but are less likely to actually do so. Cross-country evidence from the WVS shows that those who believe they have little freedom and control over their lives are also less likely to save. The results hold after controlling for a number of demographic and behavioral factors, and are consistent across income and wealth levels.

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## 1. Introduction

The causes and consequences of fatalistic thinking have been studied quite extensively in a number of fields, though to a much lesser degree in the area of economics. Fatalism may be defined as "a doctrine that events are fixed in advance so that human beings are powerless to change them" (Merriam-Webster 2005), a so-called "throwing in the towel" effect. This paper takes a closer look at this psychological phenomenon and tests to see whether fatalism can partly address a still open question in the economics literature: why do people save so little?

There is a large literature analyzing fatalism, and the research spans several different disciplines. Several papers in the medical and epidemiological literature discuss the role of fatalism. There is evidence that those who are most at risk for certain diseases are often the least likely to get preventive screens for them (Kash and Dabney 2001 and Wu 2003). Caplan and Schooler (2003) highlight the role of fatalism in the aging process. Their results indicate that greater fatalism measured in a particular year predicts greater difficulty in everyday cognitive tasks twenty years later. Olmsted et al. (1991) link fatalism during adolescence with increased future substance abuse problems. Kremer (1996) incorporates behavioral choice into an epidemiological model of AIDS. He shows that increases in the probability of AIDS infection for people with high sexual activity may make these individuals fatalistic, leading them to only minimally decreasing, or perhaps even increasing their activity level.

Fatalism has also been shown to be an important factor in disaster preparedness. McClure, Allen and Walkey (2001) show that people are less likely to prepare for earthquakes and other disasters if they believe that their preparedness levels will not have a meaningful effect on the expected damages that actually occur. Likewise, Norris et al. (1999) show that the effects of exposure to a deadly hurricane (Hurricane Hugo in 1989) on future preventive behavior are largely dependent on the perceived usefulness of those behaviors. Interestingly, the effects of the exposure generalize to self-protective acts other than hazard preparedness. In a related finding, reaction to a California earthquake predicted response to a different type of natural disaster – a slow onset El Niño weather pattern (Siegel et al. 2003). The suggestion here is that fatalistic thinking in one realm may translate to similar thinking in another.

A number of other fields also address the issue of fatalism. Harrell (1995) studies the effects of having histories of occupational mishaps on fatalism towards occupational accidents and perceived hazardousness of one's present occupation. Petterson (1999) uses data from the NLSY to show that fatalism has a positive effect on subsequent joblessness, with a particularly pronounced effect for poorer and more disadvantaged workers. In the area of political science, Goodwin and Allen (2000) demonstrate strong relationships among fatalism, attitudes toward

democracy, and democratic participation in several republics of the former Soviet Union.

The common theme among these studies is that those with fatalistic tendencies believe that their current and past actions have limited, or no effect in determining future outcomes and their actions reflect this. This is analogous to the athlete who when faced with the prospect of losing "throws in the towel" in admission of defeat. In this paper, I test to see whether fatalism is an important factor in explaining household savings behavior. The empirical evidence, drawn from the 2001 Survey of Consumer Finances and the 2000 World Values Survey, supports the claim that fatalism is relevant in explaining low savings rates, both domestically and in other countries as well.

An issue of great concern to economic policy makers is the low rates of household saving. A large body of evidence shows that many households enter retirement with little or no savings (Diamond and Hausman 1984 and Banks, Blundell and Tanner 1998). Why do people save so little? Numerous hypotheses have been proposed to address this question. Several papers analyze the role of information and knowledge in planning for retirement years. For example, Gustman and Steinmeier (2005) show that many households are not well-informed about their future Social Security and pension benefits. Bernheim and Garrett (2003) find that employer-based financial education stimulates greater saving, while Duflo and Saez (2003) show that participation in 401K plans increases when individuals attend information fairs, or when they know a co-worker who has attended one. Other models predict that individuals rationally choose not to plan and therefore save less due to the high costs of absorbing information. Allen and Carroll (2001) argue that approximating optimal savings behavior is an extremely difficult mathematical problem and the amount of time necessary to calculate reasonable rules of thumb for consumption is "absurdly large". Reis (2004) assumes that there are non-trivial costs to gathering, absorbing and processing information. Because of this, consumers only infrequently revise their expectations and re-compute their optimal consumption plans. Expectations are still rational, but are only sporadically updated.

Other papers explain low savings rates using behavioral arguments such as self-control problems, inertia and status quo bias. Laibson, Repetto and Tobacman (1998) and Diamond and Koszegi (2003) use hyperbolic discounting to formally model the self-control problem in relation to the empirical findings on household savings behavior. O'Donoghue and Rabin (1999, 2001) examine self-control issues using a model where some individuals are aware of their self-control problems (sophisticates), but others are not (naïfs). There is also evidence that default behavior is quite prevalent in deciding how to invest and save. Madrian and Shea (2001) find that a significantly large portion of employees retain a default contribution rate and allocation for their retirement funds and do

not reallocate their funds due to "participant inertia". Choi et al. (2004) analyze a program that forces employees to actively make a choice between participating and not participating in a 401k plan with no default option. This active decision approach significantly increases participation rates by addressing the problem of participant inertia. In this setting where decision-makers have issues of inaction and/or self-control, one policy implication is that a simple increase in information about planning and saving for retirement may not be sufficient in affecting actual behavior.

This paper builds on the existing household savings literature by analyzing the effects of fatalism on attitudes toward saving and actual savings behavior. I begin by introducing a conceptual model of fatalism which explains the causes and consequences of this psychological phenomenon. I discuss the concept of beliefs, and make a distinction between two types of fatalism, a naïve type and a sophisticated type. I then compare fatalism to other explanations of under-saving.

I proceed to empirically test the hypothesis that fatalism plays a role in determining saving habits using two independent data sets. Evidence from the 2001 Survey of Consumer Finances (SCF) shows that controlling for income and a number of demographic characteristics, people who attribute a large role to luck in determining their current financial status are more likely to have a shortfall in savings. Specifically, I use the role of luck (either good or bad) in determining one's finances as the main independent variable of interest. This variable is used symmetrically and is contrasted with other variables that may affect savings behavior such as optimism or pessimism (which are included as separate regressors, but are not deemed to measure fatalism). The SCF provides evidence for a "naïve" type of fatalism, where individuals exhibit fatalistic tendencies, but are not fully aware of their problem. Using data from the 2000 World Values Survey (WVS), I also show that there is also a strong positive link between the degree of perceived control an individual has over her life and the likelihood of saving. Here, the empirical results suggest a "sophisticated" type of fatalism, where individuals are fully aware of their tendencies toward fatalism.

For each data source, I test several alternative explanations for the lack of saving. In the empirical analysis, I distinguish fatalism from other potential explanations by including controls for risk preferences, myopia, financial satisfaction, pessimism, and self-control. I discuss the distinction between the effects of self-control and fatalism on savings behavior. While there is evidence linking these other explanations to household savings behavior, the relationship between fatalism and low saving rates continues to hold even after controlling for these factors. The remainder of the paper proceeds as follows. Section 2 outlines a conceptual model of fatalism. Section 3 describes the empirical specification and the data used in the analysis. Section 4 presents the main results of the paper and Section 5 concludes.

## 2. A Conceptual Model of Fatalism

What is the nature and source of fatalistic thinking? At the heart of the issue is how people perceive the effects of past and current actions on future outcomes. The psychological literature has extensively analyzed the effects of "counterfactual thinking". Counterfactuals are alternative representations of the past – a typical "what might have been" mode of thinking.[1] Mandel and Lehman (1996) suggest that counterfactuals are important in determining the perceived cause of an event or outcome. Roese (1997) states that while counterfactuals may have both positive and negative aspects, the net result is an overall benefit for the individual. He writes that the key to this conclusion is that "upward counterfactual comparisons may suggest causal conclusions that illuminate paths to future success," an idea that is consistent with O'Donoghue and Rabin (2001). Thus, it is not simply the fact the individuals will dwell on "what could have been", but may be spurred on to prevent future negative outcomes or enhance performance through their learning from past experiences. Hypothetically, a student may realize that studying more for a test would have improved his performance greatly, which may inspire him to work harder the next time. Similarly, someone who undergoes serious auto or home repair expenses may realize, after the fact, that a small dose of prevention would have eliminated many of these unnecessary costs.

However, a crucial element to how people respond to negative experiences is whether they perceive them to be preventable or not. Current theories of self-protective behavior suggest people need to believe that a threat is controllable in order for behavior to be affected (Norris et al., 1999; Weinstein, 1989 and 1993; Maddux and Rogers, 1983). Davis et al. (1996) find that individuals react differently depending on whether they believe the event is preventable or unavoidable and that self-blame is positively related to individuals' belief that they could have prevented the accident. Whether the event is *actually* preventable or not is less important than one's *belief* about it. Thus, it is possible that saving now would enhance one's well-being during later years in life, but a person who does not actually believe this may choose not to save because of this fatalistic mentality.

In modeling fatalism, I consider three types of individuals: consequentialists, sophisticates (sophisticated fatalists), and naifs (naive fatalists). This is analogous to the characterization of O'Donoghue and Rabin 1999 who model naïve and sophisticated individuals with regards to self-control problems. Consequentialists believe that their future outcomes are fully a product of their own past and present actions. Sophisticates do not believe that their past and

[1] There are two basic types of counterfactuals. Upward counterfactuals contemplate circumstances that are better than reality, while downward counterfactuals focus on alternatives that are worse than what actually occurs.

current actions have any bearing on their future outcomes and they are fully aware of these fatalistic beliefs. Meanwhile, naifs will take actions that show that they do not truly believe that those actions will affect future outcomes, but they may not be fully aware or conscious of their fatalistic tendencies.

While the two fatalistic types will both refrain from saving, or save very little, their understanding and beliefs about saving will differ. To fix ideas, consider first the difference in responses to a question about attitudes toward saving for the future. In asking whether one "should" save for the future, a sophisticated fatalist would answer no (given her ability to truly understand her fatalism) whereas the naïf may answer that she believes that people should save for the future, even though she decides not to. The naïve individual is unaware of her tendencies toward fatalism and/or does not believe that it is relevant to her decision process, even though it ultimately does have a profound effect on her behavior. Meanwhile, if asked whether or not they believe that they have freedom and control in determining the outcomes of their lives, sophisticates will claim that they do not, while pure naïfs will respond affirmatively.

In conceptualizing fatalism, one may be tempted to confuse this phenomenon with a problem of self-control (either the naïve or sophisticated form). The distinction lies in the fact that those with self-control problems are simply *unable* to control their behavior, whether they realize this (sophisticated) or not (naïve). This problem with self-control in saving and consumption decisions stems from the intense urge to purchase now and have instant gratification. Fatalism does not involve some uncontrollable urge to consume today, but rather stems from the belief that whether one saves more or consumes more does not have a bearing on one's future financial situation. One should also note the distinction between fatalism and overall pessimism about finances or life in general. While there may be a correlation between pessimism and a lack of saving (as one's general disposition and outlook on life could affect the willingness to save for the future) a fatalistic person could either be optimistic or pessimistic. The problem of fatalism is solely focused on the lack of any connection between past or current actions and future outcomes. In the empirical analysis, I account for these alternative possibilities by including measures of self-control and general optimism/pessimism as independent variables in the regressions that follow.

## 3. Data and Methodology

The data used for this study are derived from two sources: the 2001 Survey of Consumer Finances (SCF) and the 2000 World Values Survey. The SCF is conducted every three years by the Federal Reserve Board and samples from a broad age range of households, providing information on income, assets, pensions, and other demographic characteristics of U.S. families. The survey also

gathers information on investments, credit and borrowing and asks a number of attitudinal questions regarding consumption and savings behavior. The 2001 sample contains approximately 4,400 observations with non-missing information. I restrict the sample to respondents over the age of 25, as many below that age are likely to be students or not fully in the workforce yet, leaving a final sample size of 4,255 individuals.[2] The SCF surveys both married and single individuals, and the household head (in almost all cases this is assumed to be the husband) of married couples is the one that is primarily interviewed (though some limited spousal information is provided).

The World Values Survey (WVS) is performed on nationally representative samples, representing almost 80 countries. There are currently four available waves of the survey, with the most recent one conducted in 2000. A primary goal of the survey is to better understand the relationship between various attitudes towards political, economic and social issues, and to see how these vary across countries. Survey respondents are asked questions regarding their values and beliefs about a variety of issues including religion, the environment, and the effectiveness of governmental leadership. The data enables researchers to examine links between personal and social attitudes and a wide variety of behavior and institutions.

One shortcoming of these data sets is that both are cross-sectional surveys, rather than panel studies. Thus, it is difficult to determine whether a change in an individual's fatalistic tendencies has a causal impact on that same individual's attitudes toward saving and saving habits. However, the argument for reverse causality is not entirely convincing. It seems much more likely that one's degree of fatalism would affect her savings behavior, rather than the other way around.[3] I also address the problem of omitted variable bias by controlling for economic, demographic and behavioral characteristics as discussed above. I begin the empirical analysis using data from the SCF to estimate the following equation:

$$(1) \qquad \textit{Saving Attitude} = \beta_0 + \beta_1 \textit{fatalism} + \beta_2 X + \varepsilon$$

In equation 1, the dependent variable I use for *Attitude* is the answer to the following question from the SCF: "About how much do you think you (and your family) need to have in savings for emergencies and other unexpected things that may come up?" I estimate an ordinary least squares model with the logarithm of the amount of needed savings as a dependent variable.[4]

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[2] The substantive results of the paper are also robust to further restrictions, such as trimming those with high or low incomes or assets.

[3] Nonetheless, given the data limitations, I cannot rule out the presence of reverse causality.

[4] A value of zero is given for those who say they do not need any stock of savings for emergencies.

While the SCF does not provide a direct measure of fatalism, it does ask the following question: "Compared with other people of my generation and background, I have been lucky in my financial affairs." Respondents can answer along a 1-5 scale, ranging from "strongly agree" to "strongly disagree". I use an indicator variable, *luck_important*, equal to one for those who either strongly agree or strongly disagree with this statement. Those who feel that luck (either good *or* bad) has been an important factor in determining financial status are more likely to be fatalistic in the sense that their financial outcomes are based more on idiosyncratic luck rather than the fruit of their prior actions. Note that this variable is used symmetrically and is thus different than simply a measure of rosiness towards personal finances or life in general. The vector *X* represents a set of demographic and economic variables that include age, race, gender, self-reported health, marital status, education, income, and variables measuring degrees of planning behavior and risk tolerance.[5] To address to possibility that optimism and/or pessimism may partly explain the lack of savings, some regressions add variables that account for an individual's subjective forecast of the future economy.[6]

While beliefs about saving are important, it is crucial to analyze whether fatalism actually affects savings behavior. Thus, I also estimate the following equation:

$$(2) \qquad \textit{Savings Behavior} = \beta_0 + \beta_1 \textit{fatalism} + \beta_2 X + \varepsilon$$

For the SCF data, I use as a dependent variable the logarithm of the difference between one's desired buffer stock and actual saving stock (as proxied by liquid wealth). The measure of fatalism is the same as before and similar demographic controls are included. If fatalism is an important predictor of behavior, then this gap between desired and actual saving stock should be higher for those that place a large role of luck on their financial outcomes.

The WVS data does not have a measure of "desired savings", as attitudes toward saving are not directly asked in the survey. Thus, it is not possible to estimate equation (1) for this sample. In estimating equation (2), the dependent variable used is an indicator equal to one if the individual claims to have saved some money in the past year.[7] An advantage of the WVS data is that there is a

[5] As a robustness check, I also include additional controls such as industry and occupation indicators and union status.

[6] Granted, this is not a perfect measure of optimism/pessimism; declaring that economy is likely going to go downhill may simply reflect an accurate assessment of the future rather than a degree of pessimism. On average, however, the more optimistic an individual is, the more likely she will have a positive outlook of the future economy.

[7] Unfortunately, the WVS does not contain information about how much an individual has saved. Asset and income variables are quite limited in the study.

very direct measure of fatalism. The survey asks the following question, "Some people feel they have complete free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale where 1 means "none at all" and 10 means "a great deal" to indicate how much freedom of choice and control you feel you have over the way your life turns out." I estimate a linear probit model where the dependent variable is whether a family saved any money in the previous year and the independent variable of interest is the perceived degree of control, where a higher number signifies more control of one's life, and a lower number exhibits a greater of fatalism.

The WVS also contains a number of demographic characteristics such as education, income decile[8], marital status, self-reported health, age, and gender of respondent. Similar to the SCF analysis, I include these variables as controls in the WVS regressions. While there are no variables related to one's degree of myopia (like the planning horizon variable in the SCF), there is a variable assessing risk preferences. I code people as being risk-averse if they claim that an important characteristic in looking for employment is that it is a "safe job with no risk of closing down or unemployment". To measure overall optimism/pessimism, some specifications include variables assessing the satisfaction with one's financial situation.[9]

## 4. Results

Tables 1a and 1b show the summary statistics of the variables used in the analysis. The SCF sample has a wide age distribution, with an average age slightly below 50. Almost 60 percent of respondents are married (where the husband is almost always the primary interviewee) and roughly 10 percent are black. Although this is a fairly wealthy sample (median net worth is over $150,000), only 82 percent claim to be currently saving. The perceived amount needed for buffer stock saving has a high mean of over $200,000, but this is due to the large number of outliers at the top end of the distribution; the median value is $10,000. Respondents of the WVS represent a large cross section of countries, including many developing nations. This is reflected in some of the variable means: 18 percent of the sample have not even completed a primary school education, and only 14 percent have a university degree. Meanwhile, only 21 percent of the individuals surveyed had a positive amount of savings in the past year.

Starting with the SCF, I estimate equation 1 using as a dependent variable the logarithm of the amount of savings an individual claims to need for

[8] The survey does not contain actual dollar amounts of income, but asks respondents to rank themselves according to income deciles, relative to others in their home country.

[9] Unfortunately, no appropriate measure of self-control is contained in the WVS.

emergencies and unexpected events. The results in Table 2 show that those who place significant important on luck in determining their financial status (these individuals are interpreted to be more fatalistic) have a desired stock of saving that is significantly larger than those who do not think luck is relevant. This result is true holding an individual's income and other demographics constant. The magnitude of this effect is quite large – those that strongly attribute their financial success or failure to luck claim to need 50 percent more in buffer stock savings than other individuals, *ceteris paribus*.

To test whether this result may be due to risk preferences or one's degree of myopia, the regression in column 2 includes these independent variables. While these variables are indeed significant (coefficients not shown in table), the significance and magnitude of the fatalism variable is essentially unchanged. Finally, in column 3, I include controls for optimism and pessimism. Those that believe the economy will become worse in the future are significantly more likely to realize their need to save than those who believe the economy will remain the same. The results with regard to outlook of the economy are not symmetric, however, as those that think that economy will improve do not claim to need more buffer stock savings than those that believe the economy will remain at the status quo. Nonetheless, including these optimism and pessimism variables does not affect the coefficient on fatalism.

Next I estimate equation 2 using the SCF, employing the same set of independent variables as in equation 1. Here, the dependent variable is now the logarithm of the difference between the stock of target saving and actual saving (as measured by liquid wealth). This is a measure of an individual's savings shortfall. The results in column 1 of Table 3 show that those who feel luck has played a large role in their finances have a significantly greater shortfall of savings (approximately 30 percent) relative to their target amount than those that do not feel luck has not been an important factor. Including controls for risk preferences and planning horizon (see column 2) reduces the magnitude of this effect by 2 percentage points, and the coefficient is now only significant at the 10% level rather than the 5% level. Still, the effect is present and the magnitude is large. In column 3, I add controls for outlook on the overall economy. Those that think the economy will be heading south are more likely to have a shortfall in savings (though the coefficient is not statistically significant), but the coefficient on fatalism remains unchanged.

Given the conceptual framework laid out in Section 2, it is helpful to consider how the different types of individuals would respond to these questions. Consequentialists would indicate that luck does not play a strong role in determining their finances, while fatalists would. Thus, the coefficients on the dichotomous variable *luck_important* shows how fatalism (both naïve and sophisticated types) affects attitudes and behaviors. In distinguishing between

naïve and sophisticated fatalists, a sophisticated fatalist would not indicate a need to have savings as she would realize that it is futile to save given the lack of connection between actions and consequences. However, a naïve fatalist might still think that she should have savings for emergencies, but then not ultimately engage in saving. Thus, the combined results in tables 2 and 3 is consistent with a naïve type of fatalism. The fact that these individuals think they "should" have money saved for emergencies, but then do not actually follow through shows that they are not fully aware of their tendencies toward fatalism.

We now turn to the evidence from the World Values Survey. Table 4 estimates equation (2) entering the degree of control variable linearly (scale from 1-10). Holding household characteristics constant, a one unit increase in the perceived degree of control over one's life situation corresponds to an increase of 0.9% that a household saved money last year (see column 1) and the result is statistically significant at the 1% level. In column 2, I include a control for risk aversion and the results are identical. Column 3 adds controls for financial satisfaction (proxies for optimism and pessimism). The more satisfied an individual is with her financial situation, the more likely she is to have saved in the past year (the direction of causality may go both ways in this case). Including these controls does decrease the magnitude of the coefficient on fatalism from 0.9% to 0.3%, though the result is still statistically significant. One possibility is that since the WVS includes people from a diverse set of countries, past economic shocks and future economic prospects will vary across these countries. Column 4 adds fixed country effects to the regressions to account for these differences, but again the fatalism result continues to hold.

The regressions in Table 5 follow the same pattern as in Table 4 but use separate indicator variables for each of the possible values of the degree of control. Once again, more fatalistic individuals are less likely to save. Those in one of the lowest 5 categories for the *control* variable (1-5) are approximately 5-7% less likely to save than those in the omitted category (the greatest perceived amount of control over their lives), though the effects are not monotonic for each category. The regression in column 2 includes controls for risk preferences, but there is no change in the substantive results. One's general disposition towards her financial situation is strongly correlated with the propensity to save, but again the fatalism result remains. While the magnitude of the coefficient is decreased, it is still significant at the 5% level. Finally, including country specific effects does not alter the fatalism result either. These results show strong support that fatalistic attitudes are correlated with a lack of savings.

While the SCF results suggest the existence of naïve fatalists, the results in Table 4 and 5 point toward the existence of sophisticated fatalists. The WVS directly asks individuals whether they believe their actions affect future outcomes and whether they have control over their lives. Only sophisticated fatalists would

be fully aware of this tendency and answer "yes" to this question. Recall that naïve fatalists would not fully understand (or firmly believe) that they are fatalistic, even if they acted in a manner consistent with fatalism.

Are there other potential explanations for these findings? One possibility is that fatalism is correlated with an *inability* to save due to financial constraints, even if they realize the need to do so. Note, however, that all of the regressions have controlled for household income as an independent variable. As a sensitivity check, I have experimented with different functional forms of the income variable, and the results are unchanged. In addition, when splitting the data between those in the top half of the wealth distribution and the bottom half of the wealth distribution, I obtain similar results for both groups. It is particularly striking that the results of Tables 2-5 hold for even the wealthiest households. It is not simply the poor that exhibit this type of behavior, but also those households with significant net worth and income.[10]

Another possibility is that people whose financial circumstances have worsened (perhaps due to bad luck) may be accustomed to a higher level of consumption (Pollak 1970), so even though their resources are lower, a rational individual may be unwilling to change her consumption habits. To address this issue, I augment the SCF regressions by including an indicator variable for whether income was unusually low for the current period relative to normal income. While those with unusually low incomes in the year of the survey are less likely to be currently saving and more likely to have significant shortfalls between target and actual savings, the inclusion of this variable has no effect on the fatalism variable. Also, interacting these variables yields no significant results. The marginal effect of the *luck_important* variable is no different for those with recent economic shocks than for those without. Granted, the SCF does not have a variable that controls for all types of financial shocks, but the evidence here strongly suggests that habit formation alone cannot fully explain the results. While the WVS does not contain information on individual financial shocks, recall that the inclusion of country fixed effects (which would take into account macro level shocks) did not affect the results with respect to the fatalism variable.

Given that respondents in the SCF sample realize the need to save but do not do so, one is led to believe that issues of self-control and/or procrastination may be relevant. As discussed earlier, there is a large literature that documents the presence of self-control problems in economic decision making. While it is difficult to find an empirical measure of procrastination or self-control, the SCF does provide a few variables that may serve as close proxies. One question asks whether people generally pay off their full credit card bills or leave a balance on

[10] Venti and Wise (1998) show that there are a significant number of non-savers among high-income households, just as there are a large number of low-income households that save a great deal.

them.[11] Another series of questions involve people's attitudes toward borrowing money to pay for certain expenditures including educational expenses, luxury items, and daily living expenses. In particular, the question asks, "People have many different reasons for borrowing money which they pay back over a period of time. For each of the reasons I read, please tell me whether you feel it is all right for someone like yourself to borrow money to…" The results (not presented here) show that those who tend to leave a balance on their credit cards and those who believe it is acceptable to borrow money to pay for luxury items such as vacations, jewelry and fur coats are indeed more likely to have a larger savings shortfall. However, when I include these controls in the main regressions, the coefficients on *luck_important* are unchanged and remain statistically significant. Thus, the combined results from these two datasets are strongly consistent with the hypothesis that fatalism is important in influencing household savings behavior.

## 5. Conclusion

A variety of disciplines including medicine, psychology, sociology and political science have shown fatalism to be an important determinant of human behavior. This paper shows that fatalism can also partly address an important question in the economics literature: why do people save so little? Specifically, there is empirical evidence for both a naïve type of fatalism and a sophisticated type of fatalism. Individual respondents in the Survey of Consumer Finances who believe that luck (good or bad) has been very import in influencing their finances are more likely to realize their need to save, but are significantly less likely to actually be saving for them. These "naïve fatalists" think they need to save more, but do not actually do so, reflecting their ignorance of their own fatalistic tendencies. These effects persist after controlling for income as well as a host of other control variables including overall pessimism, risk preferences, planning horizon and self-control. Evidence from the World Values Survey is consistent with a story of "sophisticated fatalism". Those that claim to have little control over the outcomes of their lives (they must be sophisticates since they are aware of their problem with fatalism) are much less likely to have saved in the past year. Controlling for differences in risk preferences, overall outlook on life and country-wide financial shocks diminishes the magnitude of the effect, but the coefficient on fatalism remains statistically significant.

One policy implication is that in an effort to influence savings behavior, it may be just as important (if not more) to affect people's preference parameters as it is to increase their level of information regarding savings and retirement. In addition, the way that information about saving is presented may be equally or

[11] While this might reflect liquidity problems, note that I am already controlling for income.

more important than the actual content. With respect to fatalistic individuals, it may be helpful to provide indications how saving a little today can lead to much better retirement years and to show how small actions today can greatly affect the future. The idea is to get people to believe that they have more "control" of their well being during future retirement years than they might initially think in order to combat fatalistic beliefs. As economists continue to incorporate findings in the psychology literature in modeling savings behavior, policy makers will be better equipped to address the issues surrounding retirement and the well being of the elderly.

Table 1a: Summary Statistics for 2001 Survey of Consumer Finances

| Variable | Mean | Standard Deviation |
|---|---|---|
| Married | 0.61 | 0.49 |
| Female | 0.22 | 0.41 |
| Black | 0.10 | 0.31 |
| Age | 50.21 | 16.17 |
| High School Graduate | 0.24 | 0.43 |
| Some College | 0.20 | 0.40 |
| College Graduate | 0.22 | 0.41 |
| Post College Degree | 0.21 | 0.41 |
| Log (Normal Household Income) | 11.17 | 1.82 |
| Index of Planning Horizon (1-5 scale) | 3.28 | 1.31 |
| Index of Risk Aversion (1-4 scale) | 2.96 | 0.88 |
| Index of Self-Reported Health (1-4 scale) | 1.90 | 0.83 |
| Perceived Necessary Buffer Saving Stock | 208,900 | 1,220,507 |
| Future Economy Will Perform Worse | 0.34 | 0.47 |
| Future Economy Will Perform Same | 0.39 | 0.49 |
| Future Economy Will Perform Better | 0.28 | 0.45 |
| Luck Important in Financial Affairs | 0.14 | 0.35 |
| Saving At All? | 0.82 | 0.38 |
| Observations | 4,442 | |

Table 1b: Summary Statistics for 2000 World Values Survey

| Variable | Mean | Standard Deviation |
|---|---|---|
| Married | 0.70 | 0.46 |
| Female | 0.49 | 0.50 |
| Age | 42.66 | 13.72 |
| Primary School Complete | 0.17 | 0.37 |
| Technical/Vocational Secondary Degree | 0.25 | 0.43 |
| University Preparatory Secondary Degree | 0.20 | 0.40 |
| Some University | 0.06 | 0.24 |
| University Degree | 0.14 | 0.35 |
| Income Decile | 4.59 | 2.32 |
| Index of Risk Aversion (0-2) | 1.02 | 0.84 |
| Index of Self-Reported Health (1-4 scale) | 2.19 | 0.86 |
| Particularly Unsatisfied about Financial Situation | 0.28 | 0.45 |
| Particularly Satisfied about Financial Situation | 0.33 | 0.47 |
| Saving At All? | 0.21 | 0.41 |
| Observations | 34,007 | |

Table 2: Fatalism and Buffer Stock Saving
Evidence from Survey of Consumer Finances
Dependent Variable is Logarithm of Necessary Buffer Stock

| Variable | (1) | (2) | (3) |
|---|---|---|---|
| Married | 0.566*** | 0.527*** | 0.533*** |
| | (0.083) | (0.083) | (0.083) |
| Female | -0.305*** | -0.231** | -0.228** |
| | (0.098) | (0.097) | (0.097) |
| Black | -0.366*** | -0.269*** | -0.274*** |
| | (0.104) | (0.103) | (0.103) |
| Age | 0.116*** | 0.101*** | 0.099*** |
| | (0.013) | (0.013) | (0.013) |
| Age Squared | -0.001*** | -0.001*** | -0.001*** |
| | (0.000) | (0.000) | (0.000) |
| Log (Normal Income) | 0.207*** | 0.180*** | 0.177*** |
| | (0.019) | (0.019) | (0.019) |
| High School Graduate | 0.508*** | 0.383*** | 0.392*** |
| | (0.105) | (0.104) | (0.104) |
| Some College | 0.765*** | 0.544*** | 0.544*** |
| | (0.110) | (0.111) | (0.110) |
| College Graduate | 1.415*** | 1.101*** | 1.094*** |
| | (0.111) | (0.114) | (0.114) |
| Post College Degree | 1.763*** | 1.389*** | 1.358*** |
| | (0.115) | (0.119) | (0.119) |
| Good Health | -0.199*** | -0.177*** | -0.173** |
| | (0.069) | (0.068) | (0.068) |
| Fair Health | -0.352*** | -0.256*** | -0.256*** |
| | (0.096) | (0.095) | (0.095) |
| Poor Health | -0.694*** | -0.500*** | -0.522*** |
| | (0.154) | (0.153) | (0.153) |
| Future economy will perform worse | ... | ... | 0.265*** |
| | | | (0.070) |
| Future economy will perform better | ... | ... | 0.018 |
| | | | (0.074) |
| Luck Important in Financial Affairs | 0.517*** | 0.498*** | 0.490*** |
| | (0.061) | (0.061) | (0.060) |
| Controls for Planning Horizon and Risk Aversion? | No | Yes | Yes |
| Observations | 4,255 | 4,255 | 4,255 |
| R-Squared | 0.315 | 0.335 | 0.337 |

Notes: Omitted category for health status is excellent. Omitted category for expectations of future economy is same. For non-positive values of normal income and desired saving, the logarithmic values are set equal to zero. *Significant at 10% level. **Significant at 5% level. ***Significant at 1% level. Standard errors are in parentheses.

Table 3: Expectations and Difference Between Target and Actual Saving Stock
Evidence from Survey of Consumer Finances
Dependent Variable is Log (Desired Buffer Stock - Liquid Wealth)

| Variable | (1) | (2) | (3) |
|---|---|---|---|
| Married | 0.324 | 0.358* | 0.363* |
| | (0.207) | (0.209) | (0.209) |
| Female | 0.210 | 0.191 | 0.194 |
| | (0.243) | (0.244) | (0.244) |
| Black | 0.464* | 0.415 | 0.406 |
| | (0.259) | (0.260) | (0.260) |
| Age | 0.063** | 0.069** | 0.067** |
| | (0.032) | (0.032) | (0.032) |
| Age Squared | -0.001** | -0.001** | -0.001** |
| | (0.000) | (0.000) | (0.000) |
| Log (Household Income) | -0.036 | -0.024 | -0.026 |
| | (0.047) | (0.048) | (0.048) |
| High School Graduate | -0.147 | -0.043 | -0.036 |
| | (0.261) | (0.263) | (0.263) |
| Some College | -0.590** | -0.434 | -0.437 |
| | (0.272) | (0.278) | (0.278) |
| College Graduate | -0.245 | -0.058 | -0.066 |
| | (0.277) | (0.288) | (0.288) |
| Post College Degree | -0.319 | -0.119 | -0.145 |
| | (0.285) | (0.299) | (0.300) |
| Good Health | -0.025 | -0.033 | -0.028 |
| | (0.171) | (0.171) | (0.171) |
| Fair Health | 0.336 | 0.280 | 0.284 |
| | (0.239) | (0.240) | (0.240) |
| Poor Health | 1.097*** | 0.946** | 0.931** |
| | (0.382) | (0.386) | (0.386) |
| Future economy will perform worse | ... | ... | 0.248 |
| | | | (0.176) |
| Future economy will perform better | ... | ... | 0.078 |
| | | | (0.185) |
| Luck Important in Financial Affairs | 0.305** | 0.285* | 0.277* |
| | (0.152) | (0.152) | (0.152) |
| Controls for Planning Horizon and Risk Aversion? | No | Yes | Yes |
| Observations | 4,255 | 4,255 | 4,255 |
| R-Squared | 0.009 | 0.012 | 0.013 |

Notes: Omitted category for health status is excellent. Omitted category for expectations of future economy is same. For non-positive values of normal income and desired saving, the logarithmic values are set equal to zero. *Significant at 10% level. **Significant at 5% level. ***Significant at 1% level. Standard errors are in parentheses.

Table 4: Fatalism and Likelihood of Saving -- Evidence from World Values Survey
Dependent Variable Equals One if Family Saved Money in Past Year
Coefficients for Linear Probability Model

| Variable | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Married | -0.021*** | -0.021*** | -0.021*** | -0.001 |
| | (0.005) | (0.005) | (0.005) | (0.005) |
| Female | -0.011*** | -0.012*** | -0.018*** | -0.011*** |
| | (0.004) | (0.004) | (0.004) | (0.004) |
| Age | -0.002** | -0.002** | -0.001 | -0.002** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Age Squared | 0.000*** | 0.000*** | 0.000 | 0.000** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| Income Decile | 0.041*** | 0.041*** | 0.035*** | 0.041*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Primary School Complete | 0.011 | 0.010 | 0.010 | 0.013* |
| | (0.007) | (0.007) | (0.007) | (0.007) |
| Technical/Vocational Secondary Degree | 0.029*** | 0.025*** | 0.023*** | 0.019*** |
| | (0.007) | (0.007) | (0.007) | (0.007) |
| University Preparatory Secondary Degree | 0.058*** | 0.055*** | 0.046*** | 0.033*** |
| | (0.007) | (0.007) | (0.007) | (0.007) |
| Some University | 0.092*** | 0.090*** | 0.081*** | 0.062*** |
| | (0.010) | (0.010) | (0.010) | (0.010) |
| University Degree | 0.129*** | 0.128*** | 0.115*** | 0.103*** |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| Good Health | -0.050*** | -0.050*** | -0.039*** | -0.022*** |
| | (0.005) | (0.005) | (0.005) | (0.005) |
| Fair Health | -0.093*** | -0.094*** | -0.073*** | -0.050*** |
| | (0.006) | (0.006) | (0.006) | (0.006) |
| Poor Health | -0.109*** | -0.109*** | -0.078*** | -0.039*** |
| | (0.009) | (0.009) | (0.009) | (0.009) |
| Particularly Unsatisfied about Financial Situation | ... | ... | -0.028*** | -0.019*** |
| | | | (0.005) | (0.005) |
| Particularly Satisfied about Financial Situation | ... | ... | 0.130*** | 0.115*** |
| | | | (0.005) | (0.005) |
| Index of Control Over One's Life Situations | 0.009*** | 0.009*** | 0.003*** | 0.003*** |
| | (0.001) | (0.001) | (0.001) | (0.001) |
| Controls for Risk Aversion? | No | Yes | Yes | Yes |
| Controls for Country Effects? | No | No | No | Yes |
| Observations | 34,007 | 34,007 | 34,007 | 34,007 |
| R-Squared | 0.107 | 0.108 | 0.131 | 0.188 |

Notes: Omitted category for health status is excellent. *Significant at 10% level. **Significant at 5% level. ***Significant at 1% level. Standard errors are in parentheses.

Table 5: Fatalism and Likelihood of Saving -- Evidence from World Values Survey
Dependent Variable Equals One if Family Saved Money in Past Year
Coefficients for Linear Probability Model

| Variable | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Control 1 | -0.062*** | -0.060*** | -0.024** | -0.021** |
| | (0.010) | (0.010) | (0.010) | (0.010) |
| Control 2 | -0.109*** | -0.103*** | -0.068*** | -0.009 |
| | (0.011) | (0.011) | (0.011) | (0.012) |
| Control 3 | -0.062*** | -0.061*** | -0.021** | -0.030*** |
| | (0.010) | (0.010) | (0.010) | (0.010) |
| Control 4 | -0.078*** | -0.077*** | -0.033*** | -0.024** |
| | (0.010) | (0.010) | (0.010) | (0.010) |
| Control 5 | -0.059*** | -0.059*** | -0.021*** | -0.018** |
| | (0.007) | (0.007) | (0.007) | (0.007) |
| Control 6 | -0.025*** | -0.025*** | -0.002 | -0.011 |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| Control 7 | -0.026*** | -0.025*** | -0.013 | -0.011 |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| Control 8 | -0.009 | -0.009 | -0.006 | -0.009 |
| | (0.008) | (0.008) | (0.008) | (0.007) |
| Control 9 | -0.037*** | -0.033*** | -0.033*** | -0.005 |
| | (0.008) | (0.008) | (0.008) | (0.008) |
| Particularly Unsatisfied about Financial Situation | ... | ... | -0.025*** | -0.020*** |
| | | | (0.005) | (0.005) |
| Particularly Satisfied about Financial Situation | ... | ... | 0.132*** | 0.115*** |
| | | | (0.005) | (0.005) |
| Controls for Risk Aversion? | No | Yes | Yes | Yes |
| Controls for Country Effects? | No | No | No | Yes |
| Observations | 34,007 | 34,007 | 34,007 | 34,007 |
| R-Squared | 0.108 | 0.109 | 0.132 | 0.188 |

Notes: The following independent variables are included in each regression: education, income decile, marital status, age, age squared, health status, and sex of respondent. Omitted category is control 10 (a great deal of control). *Significant at at 10% level. **Significant at 5% level. ***Significant at 1% level. Standard errors are in parentheses.

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