

Essays on financial decision making

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5. Summary

Household financial decision making is complex, and the complexity of choice and financial products is ever more increasing (see e.g. Vohs et al., 2008; Remund, 2010). Our technology-driven and internationally connected world provides a plethora of information virtually available for everyone within just a few mouse clicks or a single online search command. This additional information might be valuable and helpful to enrich household decision making. From a traditional economic point of view, each additional piece of information will bring a decision-maker one step closer towards an optimal decision. In reality, however, all the information cannot be absorbed and processed by a household. Individuals that comprise households have limited cognitive abilities and a certain, limited, attention span (cf. Hauser and Wernerfelt, 1990; Agnew and Szykman, 2005). An ever increasing choice set can result in information overload, suboptimal decision making or even lead to the decision “not to choose” (Shafir and Tversky, 1992; Dhar, 1997). Instead of making a decision, thus committing to a certain outcome, households might shy away from decision making entirely (e.g. Thompson, Hamilton, and Rust, 2005). This effect can be exacerbated with complexity of choice (cf. Scheibehenne, Greifeneder, and Todd, 2010). If the household would make a decision, it needs to face the consequences and might feel regret. Postponing or deferring a decision results in not feeling responsible, since no action was taken. In the context of household savings, no explicit decision on "how" or "how much" to save can still lead to "accidental" or residual savings at the end of the month

In Chapter 2 we observe the outcome of households' accumulated decision making regarding savings and analyze their savings behavior. Since households are diverse, we take a structured approach to identify how psychological characteristics influence savings behavior. Policymakers are mainly focused on financial literacy programs to improve financial decision making. Our findings show that policymakers need to also incorporate psychological characteristics of households in order to design effective financial literacy programs. Additionally, in a related

vein, policymakers need to acknowledge the inherent latent heterogeneity across households. A “one size fits all” approach is unlikely to be effective, and instead, programs should be tailored based on households’ heterogeneity (cf. Eberhardt et al., 2016). Taking such heterogeneity into consideration and actively incorporating it into policy programs will most likely increase the programs’ effectiveness. Psychological characteristics have different relationships and impact on savings behavior. A focus on self-control would be a promising avenue towards improved savings behavior, but only for a certain segment of households, not for the entire population. For “the striving”, who are a particularly vulnerable segment of the population, with rather low savings and income, a focus on a positive savings attitude is a more promising way, instead of focusing on self-control.

Since latent heterogeneity is not directly observable based on demographic variables, it is important for future research and policymakers alike to adopt a structured way to approach segmentation of data. Our Finite Mixture Partial Least Squares (FIMIX-PLS) approach used in Chapter 2 has the advantage of being free from potential investigator bias. For certain research questions it might not be suitable, as it is not designed to test a priori hypotheses due to its data-driven approach. We aim to advocate taking heterogeneity explicitly into account, and encourage other researchers to analyze in more depth the complexity between psychological characteristics and decision making (outcomes).

The data we utilized on household savings reflects the outcome of multiple decisions over time. Those decisions are (partially) made based on beliefs. As such, each and every household decision, be it consciously or subconsciously, reflects to some extent the decision maker’s beliefs. In Chapter 3, we focus on investment decisions and monitor beliefs, as proxied by return expectations and risk perception. Past research has identified both as significant determinants of belief formation, which in itself influences decision making outcomes. We focus on the impact different default information horizons have on the magnitude of individual investor belief updating. The fewer individuals update their beliefs, the less likely they are to issue or execute trades. Since overtrading is a common behavior of individual investors, which is a major source of wealth destruction, we conjecture that less trading activity is beneficial for most households. As such, lower belief updates are also beneficial for investors, and if the choice of a certain default has the potential to impact belief updating, this might be an easily adoptable policy intervention. Using an experimental approach, we show that on average, the default does not have

an impact on the strength of belief updating. However, we show that when the data is partitioned into those experiment participants who decide to stay with the default information horizon presented to them versus those who decide to actively opt out of their default, we find important differences. A longer information horizon reduces belief updating magnitude for individuals who stay in the default condition. However, the opposite result emerges for individuals who opt out of the default. Thus, contrary to some general recommendations that longer information horizons are always beneficial, our findings would support such notion only in case the individual is not presented with the decision to opt out. In such case, the longer information horizon has a mitigating effect and reduces belief updates. While this holds true in case individuals cannot opt out of their default condition, as we just explained, the situation needs to be more carefully examined when it comes to situations where individuals can indeed opt out of the default.

Additional analyses show that financial literacy is positively related to individuals' tendency to opt out of the default. A long default information horizon might thus be seen as effective for individuals with low financial literacy. Our findings raise awareness for the importance of personal characteristics. Such characteristics need to be taken into account, especially when making policy decisions about, for example, what default to present to individual investors. Chapter 3 shows that relying on average effects might not necessarily be beneficial, and an insignificant effect might be due to two contrary and offsetting effects.

Chapter 4 studies reverse mortgage decision making. Reverse mortgages are a specialized product only available to elderly homeowners, and are barely known outside of the U.S. (even though they exist in most European countries, too). Theoretically appealing and welfare enhancing for a certain target group, actual demand is lacking far behind theoretical predictions. We survey elderly U.S. homeowners and assess in detail their knowledge about the most common reverse mortgage product in the U.S. Based on that data, we are able to determine intention to use a reverse mortgage. We relate this to product knowledge and several socio-economic household characteristics which are conjectured to be influencing factors for reverse mortgage demand. We find that almost all of our sample respondents are aware of the existence of reverse mortgages and have heard of them. However, actual knowledge about the product is limited. Reverse mortgage are highly complex products, and a decision to take on a reverse mortgage is a long-lasting and serious commitment. As such, a lack of product knowledge and misunderstanding of crucial characteristics can be seen as a determinant of low demand for

reverse mortgages. For example, only one third of our surveyed respondents understand the safety feature a reverse mortgage provides, in that it is a non-recourse loan and the lender cannot force the borrower to move out of his home, even if the accrued loan balance exceeds the home value.

We find that households with higher financial literacy and exposure to reverse mortgages – either through direct experience or by knowing others who have a reverse mortgage – have higher product knowledge. The main target group of reverse mortgages, the so-called “cash poor, home rich”, do not exhibit higher knowledge about the product terms. Product knowledge is, however, positively related to the intention to use reverse mortgage products. Chapter 4 has shown that those households who could theoretically benefit most from reverse mortgage usage are actually more likely to use them. Their low product knowledge, however, may hinder them from reaching a well-informed decision and might lead to insufficient evaluation of available options and alternatives. Financial literacy programs are unlikely to work for such complex products like reverse mortgages. To achieve a higher demand, it might be needed to decrease the product’s complexity in and by itself.

Overall, the three essays presented in this thesis enhance our understanding of household financial decision making. The findings enrich existing theories of economic decision making and show the importance of further connecting different research disciplines to gain a better understanding of an increasingly important aspect of people’s lives, managing their financial affairs. Generalizing to broader contexts, they serve as a foundation on which future research can build.