Evaluating the Impact of Commitment Savings Accounts Linked to Mobile Money - Extended Abstract

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1 Introduction

The recent increase in mobile-phone based financial products in sub-Saharan Africa has led to great advances in financial inclusion. This increase in access has been seen most dramatically for women, who have traditionally been underbanked. Among other things, mobile accounts can help women to save for large purchases or small business investment. However, the ability to save also depends on bargaining power within the household. In this study, we offered a new mobile-phone based bank savings product to married men and women in Ghanas Volta region. We designed this intervention to increase understanding of how intra-household dynamics and gender impact savings, and we randomly varied multiple elements of the intervention to identify causal relationships. The study is still ongoing, but we have found interesting preliminary results. Firstly, demand for commitment devices does not differ significantly by gender. Secondly, when husbands and wives have information about their spouse's commitment device, husbands deposit less money into their savings accounts. Finally, we surprisingly see limited effects of the COVID-19 pandemic on savings behavior.

2 Experimental Design

The World Bank Gender Innovation Lab worked in conjunction with the North Volta Rural Bank to develop and advertise a new mobile savings product. In order to answer our research questions, we randomly varied three elements: (i) whether a liquidity restriction on the account is binding; (ii) spousal information

regarding which liquidity restriction is in place; and (iii) the value of incentive payments for choosing a binding versus non-binding liquidity restrictions. The first set of research questions looks at the demand curve for hard vs soft commitment; the correlation between baseline characteristics and demand for hard vs soft commitment; the extent to which the spousal information treatment impacts demand for hard vs soft commitment; and how all of these vary by gender. The second set of research questions will look at impacts on savings, including: how the spousal information treatment impacts savings; how the hard commitment treatment impacts savings; the interaction between the hard commitment treatment and the spousal information treatment; and the impact of perceived (but not actual) binding commitment from the perspective of the spouse.

The study sample was formed of couples within which at least one person was interested in opening a mobile-phone based bank savings (m-savings) account with North Volta Rural Bank (NVRB). The sample is composed of 1456 married couples in Ghanas Volta Region. Within each couple, both husband and wife were interviewed. The same survey was administered to both husband and wife, with some questions asked only to the husband, and some asked only to the wife. Study participants were told about two different forms of m-savings accounts: accounts with a hard, fixed, and mandatory withdrawal restriction feature (henceforth referred to as "hard commitment"), and accounts with a soft, flexible, and optional withdrawal restriction feature (henceforth referred to as "soft commitment"). Each person was asked to specify which type of account he/she would prefer (this choice was incentivized, with incentive amounts randomly varied). The research team then randomized which type of account each person was offered, giving individuals a 2/3 chance of being offered their preferred type. They also randomized the spousal information treatment; that is, whether the offer was made in the presence of the persons spouse ("publicly"), or privately.

3 Preliminary Results

We use the randomization of incentive payments to estimate demand curves for the two products. We find that demand curves for soft and hard commitment accounts do not differ significantly by gender. This is surprising given that the literature suggests that men and women exhibit different savings behavior and preferences. Soft commitment is more popular than hard commitment. 39% of individuals prefer soft commitment, 21% of individuals prefer hard commitment, and 40% prefer no account. The spousal information treatment, i.e. whether the offer is made publicly or privately, does not have a significant effect on demand or takeup.

We use administrative data from NVRB on transactions to answer questions about impacts of treatment on savings. This data includes all functions performed on the app, including successful and failed deposits, withdrawals, and activation of savings targets. The data includes all transactions from registration in 2018 to the present day. We find that the hard commitment treatment

increases deposit amounts significantly, but very few individuals set a new savings target after reaching their initial goal, calling into question the effectiveness of commitment devices in savings accounts. Saving behavior does not differ dramatically by gender.

We have interesting preliminary findings about household dynamics. The spousal information treatment decreases monthly deposits by men. There are multiple possible mechanisms driving this phenomenon, and more work needs to be done to identify the correct mechanism. However, we hypothesize that when wives are aware that their husbands have no commitment device, they are more likely to ask their husbands for money. In many countries in sub-Saharan Africa, wives feel pressure to give money to their husbands. In Ghana, the literature has shown that the reverse largely holds; husbands give their wives money from their business or other income sources. Thus, our hypothesis is consistent with cultural and economic norms in Ghana.

The ongoing nature of transactions data allows us to monitor the effects of the COVID-19 pandemic on household savings. We will use this data in conjunction with the baseline survey to determine whether individuals of certain demographics, geographical locations, or employment type are affected more strongly than others. We can also use this data to track the severity of the crisis over time. In our preliminary analysis, we surprisingly see little impact of the pandemic on deposit and withdrawal behavior. We are currently investigating the reasons behind this, and we are evaluating how much of this phenomenon can be explained by the fact that commitment devices are preventing individuals from accessing savings during an emergency.