

Who Manages Household Finances in Married and Cohabiting Couples? The Role of Relative Income and Gender

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Abstract Managing financial matters is a task typically handled by one member of a couple in a household. Prior studies of male-female married couples show that women who earn more income than their partners are more likely to take responsibility for general household tasks, like cooking, cleaning, and childcare. Other studies that focus on financial tasks find that the higher-earning partner typically assumes more responsibility for these tasks, regardless of gender. Using panel data from the Survey of Consumer Payment Choice, this study examines how relative income and gender influence who takes responsibility for two types of financial tasks: (1) paying monthly bills, a routine financial task, and (2) managing savings and investments, a non-routine task. Higher income rank positively influences the likelihood a person will take responsibility for household financial decisions. The influence of income rank does not vary by gender of the higher earner. An exploration of the heterogeneity of this relationship across households reveals that the main finding is driven by households with low measured financial literacy and low-income. Income rank has a greater influence on the likelihood a person will take responsibility for finances in these households. Finally, I find that who the couple decides to make financial decisions does not influence financial outcomes.

Keywords Financial literacy · Household finance · Intra-household bargaining · Gender

1 Introduction

Managing the household cash flow and planning for the future through saving and investment decisions are central to a family's financial well-being. These tasks become more complex in an economic environment characterized by increasing privatization of risk and income volatility. Couples coordinate these complex

decisions for the household, in the process amplifying or mitigating any individual strengths and weaknesses. Researchers studying household financial decision making often focus on the behavior of individuals rather than considering the joint decision-making process that occurs within couples. Even fewer studies consider how these choices are made in cohabiting households, versus married couples, despite the growing rate of cohabitation occurring along with the decline in marriage. As a result, little is known about how couples coordinate with one another to manage their finances and how that coordination influences economic well-being.

An important aspect of coordination within a couple on these household financial decisions is determining who will be responsible. Studies often consider the role of relative income in the division of responsibility for household chores. Recent studies have begun incorporating identity into economic models of decision making. Of particular interest for this study are gender identity norms. A similar study looks at how gender identity norms impact the gender gap in household work, wife's labor force participation and wages, divorce, and marital satisfaction.

This article explores two factors that may be associated with the allocation of responsibility for financial management tasks in married and cohabiting households: (1) who earns more, and (2) gender identity norms. Two household financial tasks, managing savings and investments, a non-routine task, and paying monthly bills, a routine task are explored using panel data from the Survey of Consumer Payment Choice (SCPC). I also examine the heterogeneity of these associations by measured financial literacy level and income. Examining heterogeneity points to differences in how couples divide financial management responsibility when they face a disadvantage – a financial knowledge deficit or less income to spend, save, and invest. Finally, I examine how households in which the higher earner manages the finances fare on measures of emergency savings, financial difficulties, use of account overdraft services, and creditworthiness.

This study finds that income rank—a proxy for intra-couple bargaining power—is a strong predictor of who is responsible for financial management. Violating gender prescriptions is not a strong predictor of responsibility, but this relationship differs for households with low measured financial literacy and low income. The main findings from this study align with predictions from economic theory. The important predictor for financial management responsibility is who earns more in the household regardless of their gender.

2 Literature Review

Becker (1981) proposed a model with an altruistic head of the household who makes decisions to maximize the household utility function. This model assumes all resources are pooled, regardless of which household members contributes the income, and that decisions reflect the preferences of all members of the household, regardless of who takes responsibility for managing choices. In this model, it does not matter who makes the financial decisions because choices would always be made in the best interest of all household members. Becker suggests that, in this model, household members will specialize according to their comparative advantages, so the individual with the strongest financial capability would manage the finances.

Later work expanded Becker's model to include cooperative and noncooperative bargaining (Manser and Brown, 1980; Lundberg and Pollak, 1993). This approach suggests that individual preferences and individual contributions to household resources are important determinants of responsibility. In the cooperative bargaining model, a utility function for each member is maximized through an allocation of household resources based on the threat point or utility level that is available outside the household. In the noncooperative bargaining model each individual exercises. The higher the income a partner brings into the household, the greater that individual's bargaining power.

Over the last three decades more women have begun participating in the labor market and earning higher salaries, and men have taken on more household responsibilities. However, there is evidence that men and women specialize in different household work. Women tend to take responsibility for routine household chores like cooking, cleaning, and child care while men take on more of the non-routine tasks like managing finances and household repairs (Bianchi et al, 2012; Borra et al, 2017). Research exploring the role of gender norms in determining who takes responsibility for household work shows that, counter to standard economic theory, women typically do more than their male counterparts when they earn more (Bertrand et al, 2015; Bittman et al, 2003). These studies show that the important difference is that the woman earns more than her partner, not the extent to which she earns more. This finding runs counter to the prediction from economic theory that the size of the difference between partners' incomes will have an influence the allocation of responsibilities.

Empirical studies find that relative income largely drives differences in who executes financial decisions on behalf of the household. Carman and Hung (2017) find that the husband or primary earner tends to manage retirement assets. Hitczenko (2016) finds that the higher earner is more likely to take on greater responsibility for financial decisions, regardless of gender. Bernasek and Bajtelsmit (2002) find that

women's involvement in savings and investment decisions is positively related to their contribution to the total household income. In other words, relative income appears to matter for household financial decision making.

But financial management involves more than just decision making. Literature in sociology and economics divides household financial management into two components: orchestration and task management (Safilios-Rothschild, 1976; Mederer, 1993; Woolley, 2003). Orchestration of household finances involves making decisions about what tasks need to be accomplished to reach higher-level objectives for household financial well-being. Task management is the implementation of those decisions. In this study, I will instead consider the classification of routine for task management and non-routine for orchestration.

Financial tasks are another category of household work, and substantial research shows that gender influences how household work is divided within couples. Although there has been substantial change in how households divide these tasks, women continue to carry the most responsibility for household chores (Bianchi et al, 2012; Hersch and Stratton, 1997). Recent work shows that married men do an additional two hours of non-routine household work than their single counterparts, including managing finances with no change in non-routine tasks. However, married women do eight more hours of routine tasks, like cooking and cleaning (Borra et al, 2017). The gender gap in household work is exacerbated when women deviate from traditional gender roles, for instance by earning more than their partners or working in male-dominated occupations (Bertrand, Kamenica, & Pan, 2015; Bittman, England, Sayer, Flobre, & Matheson, 2003; Brines, 1994; Schneider, 2012). The size of the difference in incomes is not significant in this dynamic; any deviation from the social norm is sufficient to influence who will assume responsibility for routine household chores. Women take on more routine chores in an effort to compensate their partners for violating gender norms. Given that managing household finances is categorized as a non-routine task in past studies and gender norms would point to men managing these tasks, women who earn more than their partners may substitute away from these tasks to routine tasks. Taken together, these studies suggest that the 'second shift' women take on when they earn more may vary depending on the nature of the task.

Gender differences in who does household financial work, whether routine or non-routine, may also reflect differences in risk aversion and financial literacy. Women are more risk averse than men and may therefore avoid taking on financial tasks, if their risk preferences do not reflect those of the household (Jianakoplos and Bernasek, 2008; Arano et al, 2010). There is also a well-documented gender gap in measured financial literacy; women tend to have lower financial literacy, fewer financial skills, and less confidence to make financial decisions (Bucher-Koenen et al, 2016; Lusardi and Mitchell, 2008; Zissimopoulos et al, 2008;

Lusardi and Mitchell, 2009). That difference appears to develop over time; it is less pronounced among adolescents (Lusardi et al, 2009a; Lusardi and Tufano, 2009; Chen and Volpe, 2002) and particularly stark among older women (Lusardi et al, 2009b).

Overall, this literature suggests two important factors that could predict financial decision making: (1) who earns more, and (2) traditional male/female gender roles. It also suggests that there may be variation in who assumes responsibility for particular types of financial tasks, routine versus non-routine. This study aims to better understand the role of each factor based on a longitudinal dataset of relatively affluent married or cohabiting couples followed from 2009 to 2014.

3 Model

How do couples decide who will be responsible for paying the monthly bills or choosing how much to save for retirement? Standard economic theory suggests that the household member who contributes the most resources will have more control over how resources are allocated. At the same time, the individual who is contributing more to the household, and likely dedicating more of his or her time to market work to generate those resources will have less time to spend on household tasks. In light of these two conflicting mechanisms, this study explores the roles of bargaining power and gender norms in allocating responsibility for household finances.

The first mechanism, bargaining power, is measured by individual's income rank relative to his or her partner. The prediction is that the household member who brings in more resources to the household will exert more power over household financial decisions, evidenced by a higher level of responsibility for those decisions, although gender norms may also play a role in determining who will make these decisions.

In this study, the role of gender norms, specifically violating the male-breadwinner model, on the allocation of financial management responsibility is analyzed. This mechanism is measured by whether or not the woman earns more than her partner. The prediction is that in households where the woman has higher income relative to her partner, the woman will be more responsible for routine household financial tasks and less responsible for non-routine tasks.

Another factor explored in this study is the variation in the role of bargaining power and gender norms by the type of task. In this study, two types of financial tasks are explored, routine and non-routine. Routine financial management includes tasks like paying household bills, updating the household budget, and depositing checks into a joint bank account; non-routine tasks encompass higher-level management of

household finances, like selecting stocks to invest in, making large purchases, and deciding whether and how much to borrow and save.

It is expected that those who earn more will be more likely to take responsibility for orchestrating finances through non-routine tasks, but they will not take on more responsibility for routine, day-to-day financial tasks. However, when it is the woman who earns more, she will do more of the routine tasks and assume less responsibility for non-routine financial decisions. Doing more in the task management realm compensates her partner for violation of the gender norm; doing more in the orchestration realm may result in further disutility.

Figure 1 illustrates the empirical model used to analyze the relationship between relative earning, gender norms, and responsibility for household finances. The model takes into account the endogeneity of relative income and gender norm violation with household financial task responsibility. I rely on a fixed-effects approach to identify the relationships of interest. In Figure 1, the top level of rounded squares represents observed responsibility for household finances, Y_{it} , and the second level represents income rank, X_{it} . The grey square represents a vector of unobserved, time-invariant confounders, U_i , including, for example, gender, financial capability, risk aversion, and health.

Arrows represent potential relationships; the absence of an arrow indicates no relationship. The arrows from X_{it} to X_{it+1} show that past income rank influences current income rank. The absence of arrows from X_{it-1} to Y_{it} illustrates the assumption that past income rank does not directly influence current financial responsibility and from Y_{it-1} to X_{it} shows that past financial responsibility does not directly influence current income rank. Using a fixed-effects approach, all observable and, more importantly, unobservable time-invariant characteristics that influence responsibility for household finance tasks, income rank, or gender norm deviation are absorbed by the household fixed effect. The estimates from this model are interpreted as the change in responsibility resulting from a change in relative income and gender norm deviation absent omitted variable bias resulting from time-invariant characteristics.

This paper attempts to disentangle the role of bargaining power, measured by income rank, and gender norm violation, measured by whether or not the woman earns more than her partner, in determining who is responsible for two realms of household financial decision making: (1) paying bills and (2) managing savings and investments. There is not an obvious identification strategy to isolate relative income within a couple by gender. However, observing couples over a six-year period, changes in income rank and gender norm deviation offer an opportunity to identify the influence of these two factors on responsibility for household finances.

4 Data, Measures, and Methods

4.1 Data

This study uses data from the annual Survey of Consumer Payment Choice (SCPC) from 2009 to 2014 to analyze how married and cohabiting couples decide who will be responsible for household finances. The Federal Reserve Bank of Boston has conducted the Survey of Consumer Payment Choice since 2008 to measure consumer use of financial products and services. SCPC is a nationally representative, longitudinal consumer panel conducted online as part of the RAND American Life Panel (ALP). ALP is a nationally representative, probability-based panel whose participants are regularly interviewed online. Respondents without access to an Internet-connected computer are provided with one to participate in the study. The SCPC is matched to the ALP's MyHousehold Questionnaire (MHQ) in the most recent quarter of the MHQ's collection each year; the MHQ includes questions about a rich set of demographic characteristics. Respondents' spouses or partners may also participate. If a spouse or partner is not available at the time of interview, the main respondent answers questions on behalf of the partner and other members of the household.

The sample is restricted to households heads in male-female couples who are married or cohabiting and who participated in the survey each year, 2009 to 2014. The resulting dataset used for this empirical analysis is a panel of 940 households that responded in at least two of the six survey years. Table 1 details the summary statistics for the sample in the first year that they are observed, 2009. Over half of the sample assumes all or most of the responsibility for paying monthly bills and managing savings and investments. The sample has high income and education levels; more than a third have income above \$100,000 and more than half have at least one postsecondary degree. Most are employed. Only 10% are minorities and the average age for the sample is 51.52 years. Summary statistics for several household financial outcomes are detailed as well; 39% percent of the sample had a change in income rank during the study period.

Table 2 details summary statistics by whether or not income rank changes and by gender. Across all groups, more than sixty percent earn a family income at or above \$60,000. Two-thirds or more have at least some college education. Across subgroups eighty percent or more are white, and more than seventy percent are employed in the first survey year. When responsibility is broken out by whether or not there is a change in income rank, fewer men, 50% and 52%, take on responsibility for paying bills than women, 62% and 61%. While women are more likely responsible for paying household bills, men are more likely than women to be responsible for saving and investing. The gender gap in responsibility is more pronounced for

saving and investing than paying bills. The table also includes information on emergency savings, use of alternative financial services, revolving credit card debt, and experience of financial hardship. Households with changes in income rank are more likely to have a financial difficulty or overdraw their bank account than those without a change in income rank.

It may be a concern that health is an unobserved variable that influences switching– changing income rank. However, only 4.41% of couples have a disabled member. Of those couples with a change in income rank over the study period only 4.99% have a disabled member; 4.24% of those who do not change income rank include a disabled member. One-fifth of the couples with a change in income rank have a retired member the same proportion as those who do not have a change in income rank. Given the balance of disability and retirement for those who do and do not switch income rank, health status and retirement should not confound the relationships analyzed in this study.¹

4.2 Measures

The data include responses to survey items that ask about the respondent and other members in the household, including the household member's level of responsibility for managing savings and investments and paying bills (see Appendix for survey questions). Marital status, employment, gender, family income, highest educational attainment, family size, and age are also available, as are the key explanatory variables, income rank and gender. Unlike other studies that use a continuous measure of relative income, the data include only a categorical ranking of the respondent's income relative to the incomes of others in the household. From this income rank variable, a dummy variable is constructed, *Earns More*, to capture whether or not the individual is the top earner in their household; *Earns More* equals one if the member earns the highest income, zero otherwise. A dummy variable for female is interacted with *Earns More* to explore the role of gender identity on responsibility for financial tasks.

4.3 Methods

The equation below, which expresses the model presented in Figure 1 as a linear regression formula, serves as the baseline model to estimate the association between changes in relative income and responsibility for household finances relative to time-invariant factors, including gender. An interaction between income

¹ A Pearson's chi-squared test fails to reject the null that the two groups, whether or not experience a change in relative income, are independent for both disability status and retirement.

rank and gender are included to estimate the influence of gender norm deviation. The specification includes household controls, including family income and household size, and a vector of individual-level characteristics for the primary household respondent, including employment status, education level, and an indicator for respondents older than 55 years. Estimates are computed using a linear probability model with household fixed effects, year indicators, and robust standard errors clustered at the household-level. The econometric specification is:

$$\Pr(\text{Responsibility}_{it}) = \beta_1 \text{Earns More}_{it} + \beta_2 (\text{Female}_i * \text{Earns More}_{it}) + \mathbf{X}_{it} + c_i + \tau_t + \epsilon_{it}$$

$\Pr(\text{Responsibility}_{it})$ is a dichotomous variable that equals one if the respondent assumes all or most responsibility for financial management tasks in the household. Two dependent variables are used in this analysis: responsibility for paying bills and responsibility for managing savings and investments. Using these two dependent variables allows for analysis of how the roles of income rank and gender norm deviation differ for routine and non-routine financial tasks. β_1 captures the influence of having greater bargaining power (earning more income than one's partner), Earns More_{it} , on responsibility for financial management. β_2 captures the influence of having a higher-earning female partner on how responsibility for finances is divided. $\text{Female}_i * \text{Earns More}_{it}$ is an indicator that equals one when the household violates the traditional male breadwinner model. \mathbf{X}_{it} is a vector of time-varying covariates. c_i is an individual fixed effect that captures the influence of time-invariant individual characteristics, like gender. τ_t is a vector of year fixed effects included to control for differences across survey years. ϵ_{it} is an error term that is clustered by household and year.

5 Results

The empirical analysis reveals that income rank influences responsibility for both routine and non-routine financial tasks more strongly than does deviation from social gender norms. Deviating from the social norm—the woman earning more than her partner—negatively influences responsibility for financial decisions; women who earn more than their partners tend to take on less responsibility for household finances, captured by the coefficient, β_2 , on the interaction term, $(\text{Female}_i * \text{Earns More}_{it})$. However, the coefficient is insignificant,

indicating that the higher earner is likely to assume more responsibility for household finances regardless of gender.

Thus, income rank is an important predictor of household financial management. This result suggests that the way couples allocate household financial tasks differs from the allocation of responsibility for other types of household tasks explored in previous studies. Past studies have found that income rank in itself is not an important influence on responsibility for routine household chores, but deviation from the social norm does matter (Bertrand et al, 2015). But it appears that women do not take on more routine financial management tasks when they earn more. Rather, women who earn more may be slightly less likely to be responsible for either paying bills or making savings and investment decisions (although this finding is statistically insignificant). This difference may reflect the fact that financial management is traditionally a male-gendered task; thus, it may be gender-affirming for men to retain responsibility even for routine financial tasks. Men gain utility from performing this gender-affirming task when their partners earn more. Thus, controlling more of the household financial decisions may compensate the male partner for contributing less to the family income.

5.1 Who Manages the Household Cash Flow?

First, I examine the role of relative income and deviation from traditional gender roles on a routine household financial task, paying monthly bills. Table 3 presents the estimated association of income rank and gender norm deviation on responsibility for paying bills across four different specifications. Column 1 is the base fixed-effects model where income rank and gender norm deviation are regressed on responsibility for household bill pay excluding year dummies and demographic controls. The higher-earning partner is 9.7 percentage points more likely to take on the responsibility for paying routine bills. In Column 2, the coefficient on income rank decreases slightly to 9.6 percentage points. When demographic controls for individual- and household-level characteristics are included, the higher earning partner is 10.3 percentage points more likely to be responsible. In the final column, the estimate for the specification that includes year dummies and demographic controls decreases to 10.2 percentage points. Estimates for the role of income rank are significant at the 1% level across the four specifications. Across all specifications, the role of deviation from the male-breadwinner model of the household is negative and statistically insignificant ranging from -4.7 percentage points to -5.3 percentage points. This indicates that

the decision about who manages the money is driven by who contributes more to the household income rather than the gender of the partner who earns more.

Figure ?? depicts the empirical relationship presented in Table 3. The dashed line in the graph shows that when the higher-earning partner experiences a drop in income rank, the probability that he or she is responsible for paying monthly bills in the year following the change decreases. The decline persists in the second year after the change. Correspondingly, partners who experience an increase in income rank are more likely to be responsible for managing the household cash flow in the following years, as shown by the solid line in the graph. The likelihood of responsibility for paying bills increases in the year following the rise; after that first year, there is a slight decrease in the likelihood of responsibility. These responses to a rise or fall in income rank provide visual evidence that the higher-earning partner is likely to take greater responsibility for the routine task of paying household bills.

Figure 3 breaks out the results for couples who experience a temporary change in relative income rank during the study period. Changes in income rank may arise from two sources: the higher-earning partner loses income, or the lower-earning partner experiences a rise in income. Those changes may be transitory due, for instance, to a job loss or short-term income source, or permanent. For couples who experience a transitory reversal in relative income rank as a result of the higher earner losing income, the probability that the person responsible for paying household bills changes is lower than it is for those who experience a persistent change in relative income rank. Once income rank returns to its previous state, the likelihood that the higher earner will assume responsibility for paying bills rises back to the same levels as before the change. A parallel story can be told for those who experience a reversal of income rank arising from a temporary rise in the lower earner's income. The change in income rank is accompanied by an increase in the probability that the new higher earner will manage the household bills; the rise is slightly smaller than it is for those whose change in income rank is lasting. However, unlike for those who experience a reversal of income rank as a result of income loss, when income rank falls back to its initial level, these couples do not revert to the same probabilities with regard to responsibility for bills that held prior to the change. Instead, the now lower-earning partner retains a higher probability of being responsible for household bills than before the temporary rise in income.

In other words, partners who have a short-term drop in income that changes their income rank within the household experience a decrease in the probability that they will be responsible for paying bills, but they quickly regain their initial probability of responsibility, generally within a year of regaining income. However, those with a transitory rise in income rank experience a steep increase in the probability they

will be responsible for bills, followed by a fairly rapid decline when their income rank reverts to the original arrangement. However, that decline doesn't return all the way to the previous state; these partners retain a higher probability that they will be responsible for paying household bills than before the change. This suggests that households that experience temporary changes in relative income rank may become more equal in their division of responsibility for paying household bills even after the initial relative income rank has been restored.

5.2 Who Makes Savings and Investment Decisions?

Savings and investment decisions have important implications for household wealth and for financial preparation for retirement. Table 4 repeats the estimation from the previous table with responsibility for the non-routine financial task, managing savings and investments, as the dependent variable. Columns 1 and 2 present estimates of the influence of being the highest earner and diverging from the male-breadwinner model on responsibility for saving and investing, excluding demographic controls. The top earner in the household has a 7.3 percentage point greater probability of being the primary decision maker relative to the lower-rank earner. When year indicators are included in the specification, the estimate increases by 0.3 percentage points. Next, controls for demographic characteristics of the household and its members are included. Column 3 shows that the higher earner is 7.9 percentage points more likely than the lower earner to decide how the household saves and invests its resources. Column 4 shows that in the fully specified fixed-effects model that includes demographic controls and year indicators the higher earner is an estimated 8.2 percentage points more likely to be responsible for savings and investment decisions. Defying the male-breadwinner model has a positive and statistically insignificant influence on responsibility for this non-routine financial task.

Figure 4 illustrates that, similar to the relationship shown for paying monthly bills, a change in relative income rank is positively associated with a change in responsibility for managing savings and investments, with responsibility moving in the same direction as the income rank change increasing (decreasing) with a rise (fall) in income rank. Those who begin as top earners (dashed line) and those who begin as lower earners (solid line) have similar trends at different levels of probability of responsibility for managing savings and investments in the periods preceding the change in income rank. One period after the change in income rank, the probability of responsibility for managing savings and investments is reversed. Those who experience a drop in relative income rank are less likely to be responsible for savings and investment; their probability

of making these decisions declines to that of the initially low-earning partner. Partners who become the top earners in their household experience an increase in responsibility for savings and investment; however, they reach a probability of managing saving and investment that is below that of higher earners prior to any change. Thus, it appears that bargaining power, measured in this study by relative income rank, has a sizable influence on who decides how household resources will be saved and invested for the future; those who experience a drop in relative income rank see greater changes in their likelihood of responsibility than do those who experience a rise.

Figure 5 shows that households who have a temporary change in relative income rank during the study period experience changes in who is responsible for managing savings and investments that largely follow the findings for those who have permanent changes. When a partner experiences a transitory drop in income, they experience a drop in the probability they will be responsible followed by a rebound in probability of responsibility; however, that rebound does not rise all the way back to its initial level. Those who experience a transitory rise in income rank reach a probability of responsibility near that of the original higher earner. When income rank falls back to its initial configuration, there is a steep decline in probability that the partner who experienced the rise in income will manage household saving and investment decisions. However, the probability that that person will be responsible remains higher than both the initial probability of their being responsible and the probability of responsibility for those with a lasting drop in income rank. It appears that a transitory rise or fall in relative income rank has a lasting influence on the probability of responsibility even years after the change. Those who experience a rise maintain a higher probability of responsibility after their relative income rank falls, and those who initially experience a drop do not return to their pre-change probability of responsibility after a rise. This suggests that just as a change in income rank may lead households to become more equal in distributing responsibility for routine financial tasks, households may also become more equal in division of responsibility for non-routine financial tasks after a change in income rank.

5.3 Do These Relationships Vary across Households?

Next, I analyze the heterogeneity of income rank and gender's influence on responsibility for household decision making. Responsibility for financial management tasks could vary by the measured financial literacy in the household; couples who have a low level of measured financial literacy may decide who will manage their household finances differently than households who have high measured financial literacy. To answer

this question, I use a supplemental survey of the RAND ALP fielded in 2009 that includes a three-question financial quiz (included in the Appendix). The supplementary survey was only completed by a subset of the sample. Households are categorized as low financial literacy if they score below the median score of 3 on the quiz (all questions correct). The results in Table 5 reveal that couples with a partner who has low measured financial literacy are 17.5 percentage points more likely while those with a partner who scores above the median are 5.9 percentage points more likely to assign responsibility for paying monthly bills to the highest earner. Both couples with high and low measured financial literacy are more likely to assign responsibility for saving and investing to the partner with the higher income, 10.7 percentage points and 18.3 percentage points respectively. Figure 6 and Figure 7 illustrate these results for each financial task by measured financial literacy. It appears that relative income rank matters for savings and investment decisions. This evidence suggests that households with lower financial literacy place greater weight on bargaining power when they decide who will manage finances than do households with higher financial literacy.

Heterogeneity by income is also analyzed to explore how the relationship varies by a measure of socioeconomic status. Table 6 includes results for the analysis, broken out by whether or not the household is low income. Low income is defined in this study as a family income of \$59,000 or less. Relative income has a stronger influence on responsibility for both financial tasks in low-income households. The higher earner is 18.0 percentage points more likely to be responsible for paying monthly bills and 10.6 percentage points more likely to manage the household's savings and investments in these households. Figure ?? and Figure ?? depict these results for each financial task. On the other hand, high-income households are not influenced by relative income when they assign responsibility for household financial tasks. The direction of the association for bill pay and saving/investing responsibility is similar, but it is not statistically significant and smaller in magnitude. These results align with the financial literacy results, in that those households that have a disadvantage, in financial knowledge or income, place more importance on relative income rank than households that do not have these disadvantages.

Overall, the results show that households with low measured financial literacy and low household income are more likely to appoint the higher earner to be the main decision maker for both routine and non-routine household financial tasks. This finding suggests that there is less equality in financial decision making in these households. More power over financial decisions is held by the main contributor to household resources regardless of gender. The main results are driven by the behavior of low-income households.

5.4 Does the Decision Maker Influence Household Financial Well-being?

Ultimately, does it matter who takes responsibility for these tasks? Does the income rank or the gender of the decision maker have an effect on household financial well-being? Economic theory suggests that the partner who makes the financial decisions for the household should not matter. Findings from this study largely support the theoretical prediction that the identity of the decision maker, in terms of gender or earning status, does not matter on measures for financial outcomes, like experiencing a financial difficulty, overdrawing on a credit card, or creditworthiness. However, there is evidence that the decision maker affects whether or not the household holds emergency savings. The influence of the decision maker on this financial outcome is estimated separately, for responsibility for bill paying and responsibility for savings and investments. The influence of the gender and relative income rank of decision makers on household financial outcomes is estimated using the model:

$$\Pr(\text{Household Finances}_{it}) = \beta_1(\text{Earns More}_i * \text{Responsible for finances}_{it}) + \beta_2\text{Earns More}_{it} + \beta_3\text{Responsible for finances}_{it} + \mathbf{X}_{it} + c_i + \tau_t + \epsilon_{it}$$

The results for this analysis vary across financial task. Table 7 shows that neither high income rank and responsibility for paying monthly bills, represented by the interaction $\text{Earns More}_i * \text{Responsible for finances}_{it}$ nor responsibility for paying bills alone influences household finance outcomes. Table 8 details the estimated association of responsibility for savings and investments on household finance outcomes. Higher earners are 5.0 percentage points more likely to have emergency savings. No other financial outcomes are influenced by relative income or responsibility for saving and investing.

These findings suggest that the higher earner positively influences the likelihood that a household saves for emergencies. However, there is no evidence that the household is any better or worse off when the higher earner is responsible for financial tasks.

6 Discussion

Relative income rank is the strongest predictor of household financial management responsibility. These findings suggest that bargaining power, at least as measured by relative income rank, influences the choice of which member of a couple is the financial decision maker for routine tasks. Earning more than one's

partner positively influences involvement in financial decisions, regardless of gender. There is no evidence that deviation from the male-breadwinner model influences responsibility for either routine or non-routine household finance tasks. However, when households are analyzed by measured financial literacy and family income, a large negative association emerges between violating this gender norm and responsibility for financial decisions. Women who earn more in a household with a disadvantage, whether in the form of low measured financial literacy or low income, are significantly less likely to be responsible for either routine or non-routine financial tasks.

In other words, households decide who will manage financial decisions based on relative income rank, but the strength of that effect varies by financial literacy and family income. This finding supports other research. For instance, a recent study focusing specifically on retirement savings found that contributions to and the location of retirement accounts among couples are driven by relative earnings, with the higher earner holding a majority of the couple's retirement savings (Carman and Hung, 2017). Taken together, these findings show that relative income rank matters both for who is responsible for making savings and investment choices and for how couples actually allocate retirement savings between accounts. These results suggest that employer-provided financial education may be more effective if it is offered to both employees and their partners. Providing information to both partners together may better equip the decision maker to act in his or her partner's best interest. Further, targeting couples rather than individuals for education will likely expose the partner to information he or she may not otherwise have encountered. The result may be better coordination in financial decision making that impacts the household.

An important extension of work in this area is to explore the financial well-being of these households. A natural question arising from the examination of how couples divide responsibility is how that division of responsibility affects their financial lives. This study has attempted to provide evidence to this end, but it is not clear to what extent the decision maker matters in terms of household finance outcomes. Some important financial outcomes that come to mind are retirement savings, whether or not families have an emergency fund, consumer credit debt, and use of alternative financial services. It may not matter who has responsibility if the choices are optimal for the household regardless of the decision maker. Future work should look at whether the choice of decision maker matters for household financial well-being across a broader range of household finance outcomes.

Finally, although the sample used for this study includes both married and cohabiting couples, I am not able to differentiate between these two relationship types to analyze how the division of responsibility for financial decisions differs by type. Recent research that explores financial decision making of cohabiting

couples reveals that their behavior is distinct from married couples (Addo, 2014). It will be important to understand the distinction, since marriage is on the decline and rates of cohabitation are rising.

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Tables and Figures

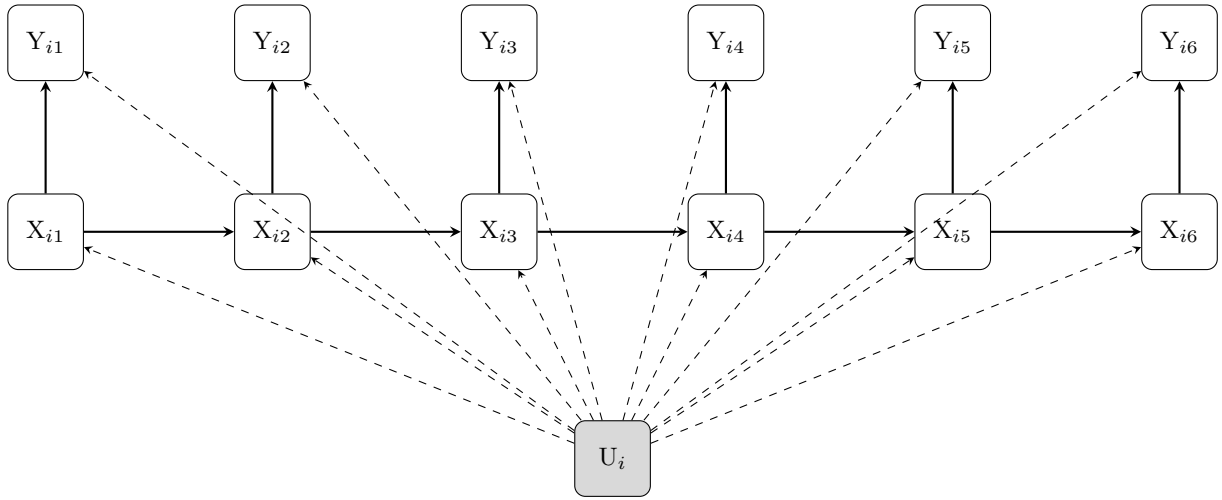


Fig. 1: Graph of Regression Model with Unit Fixed Effects based on Six Time Periods

The figure provides a graphical representation of the fixed effects regression model used to estimate the influence of X_{it} , income rank and gender norm deviation, on Y_{it} , responsibility for paying monthly bills and managing savings and investments. The figure illustrates the two identification assumptions of fixed effects regression: (1) X_{it} are strictly exogenous conditional on the unobserved effect; (2) X_{it} vary over time for at least some households and are not collinear. Adapted from Imai and Kim (2016).

Table 1: Descriptive Statistics for Full Sample in First Period, 2009

	Mean/Prop.	Standard Deviation
Responsible for bills	0.566	0.496
Responsible for save/invest	0.457	0.498
Female	0.519	0.500
Relative income rank changes	0.394	0.489
Earns More	0.463	0.499
Family Income		
0-59K	0.322	0.468
60-99K	0.346	0.476
100K+	0.332	0.471
Education		
HS Grad or Less	0.157	0.364
Some College	0.329	0.470
College Degree	0.280	0.449
Graduate/Prof. Degree	0.234	0.424
Employed	0.771	0.420
White	0.900	0.300
Age	51.524	12.735
Household size	2.009	1.081
Have Emergency Savings	0.290	0.454
No financial difficulty	0.893	0.310
Never overdrawn	0.735	0.441
Credit score 700+	0.538	0.499
Observations	940	

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The table shows summary statistics for each household in the first period of the study, 2009. Responsible for X are binary variables that indicate whether or not the respondent assumes all or most of the responsibility for the corresponding task.

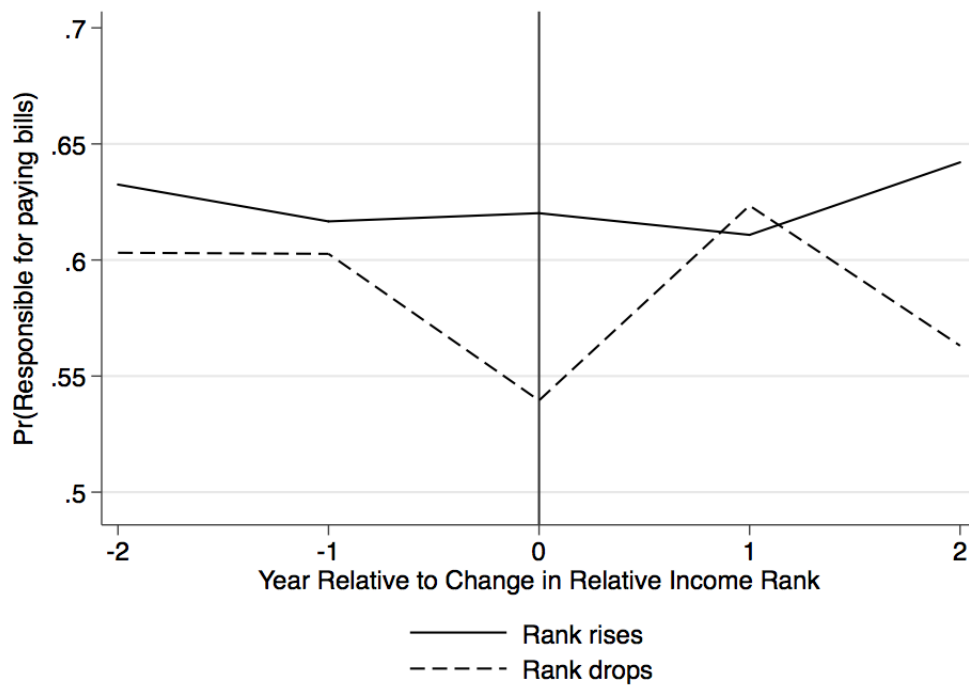
Table 2: Summary Statistics by Whether or Not income rank Changes and by Gender in First Period, 2009

	No Change in Relative Income		Change in Relative Income	
	Male	Female	Male	Female
Responsible for bills	0.502	0.622	0.525	0.606
Responsible for save/invest	0.622	0.339	0.544	0.326
Earns More	0.748	0.193	0.599	0.355
Family Income				
<i>0-59K</i>	0.259	0.317	0.357	0.388
<i>60-99K</i>	0.348	0.343	0.341	0.351
<i>100K+</i>	0.393	0.340	0.302	0.261
Education				
<i>HS Grad or Less</i>	0.111	0.160	0.143	0.234
<i>Some College</i>	0.315	0.320	0.346	0.346
<i>College Degree</i>	0.322	0.263	0.280	0.245
<i>Graduate/Prof. Degree</i>	0.252	0.257	0.231	0.176
Employed	0.789	0.737	0.764	0.809
White	0.919	0.907	0.890	0.872
Age	53.767	50.807	52.538	48.468
Household size	1.996	2.050	1.956	2.011
Have Emergency Savings	0.296	0.247	0.258	0.383
No financial difficulty	0.896	0.923	0.863	0.867
Never overdrawn	0.807	0.710	0.730	0.676
Credit score 700+	0.563	0.520	0.567	0.503
Observations	270	300	182	188

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

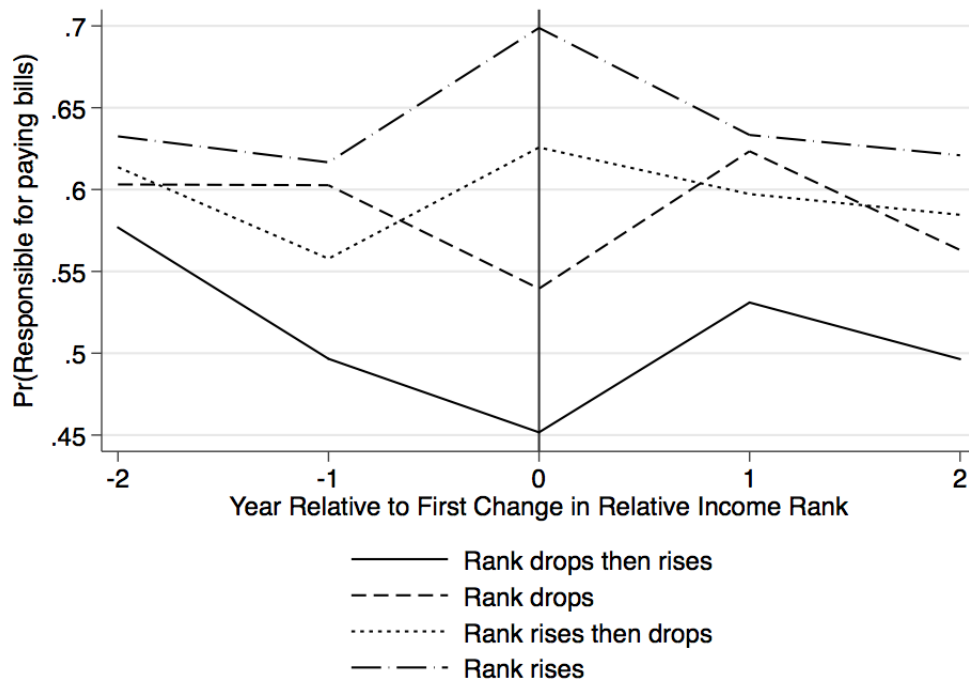
Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The table shows summary statistics for each household in the first period of the study, 2009. Responsible for X are binary variables that indicate whether or not the respondent assumes all or most of the responsibility for the corresponding task.

Source: Survey of Consumer Payment Choice (SCPC).



Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

Fig. 2: Probability Responsible for Paying bills by Initial Income Rank



Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). Sample includes individuals with more than one change in income rank over the study period.

Fig. 3: Probability Responsible for Paying Bills by Initial Income Rank

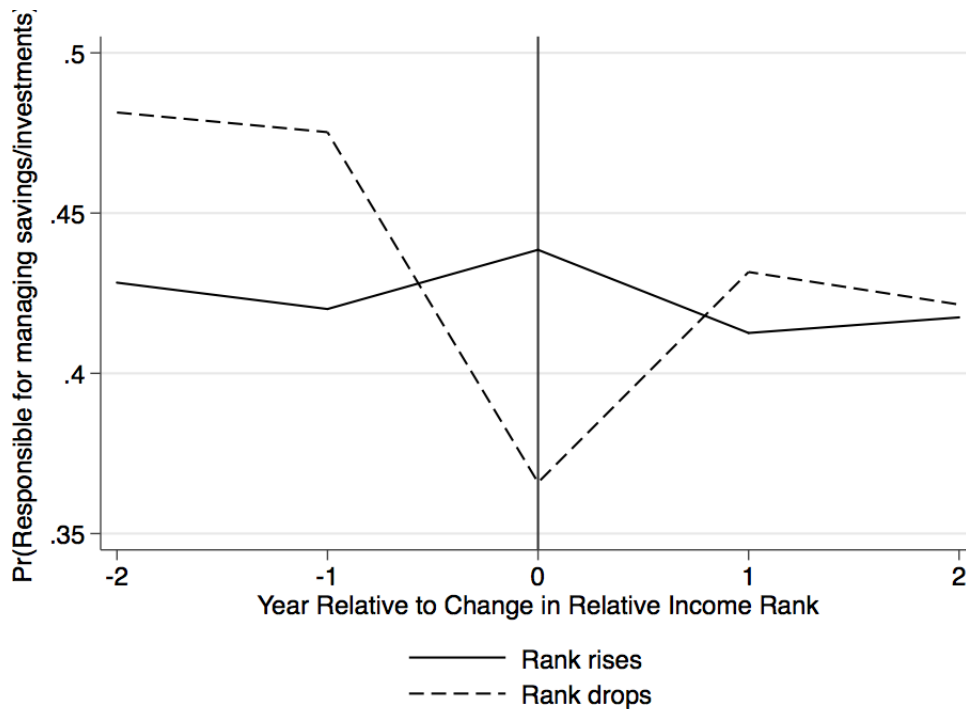


Fig. 4: Probability Responsible for Managing Savings and Investments by Initial Income Rank
Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

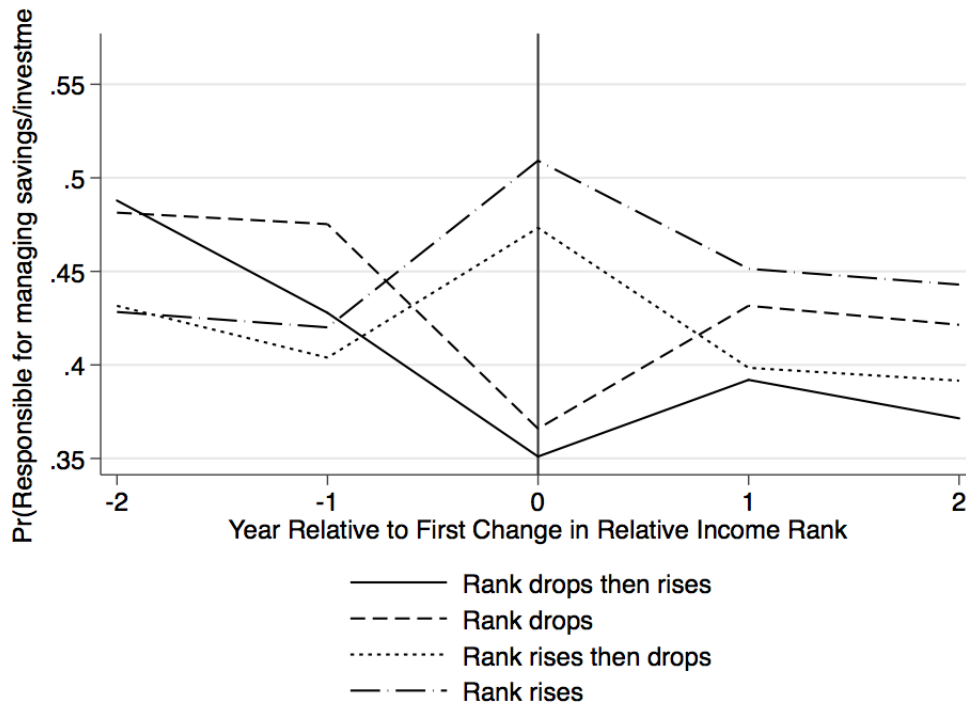


Fig. 5: Probability Responsible for Managing Savings and Investments by Initial Income Rank
Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). Sample includes individuals with more than one change in income rank over the study period.

Table 3: Estimated Association of Income Rank and Gender Norm Deviation on Responsibility for Paying Bills

	(1)	(2)	(3)	(4)
Earns More	0.097*** (0.000)	0.096*** (0.001)	0.103*** (0.000)	0.102*** (0.000)
Female × Earns More	-0.047 (0.314)	-0.046 (0.319)	-0.053 (0.252)	-0.052 (0.263)
Year dummies	No	Yes	No	Yes
Controls	No	No	Yes	Yes
Mean	0.588	0.588	0.588	0.588
Standard Deviation	0.492	0.492	0.492	0.492
Observations	5146	5146	5146	5146

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Female × Earns More* is an indicator that equals one if the woman earns more than her male partner in the household. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification.

Table 4: Estimated Association of Income Rank and Gender Norm Deviation on Responsibility for Saving and Investing

	(1)	(2)	(3)	(4)
Earns More	0.073** (0.032)	0.076** (0.028)	0.079** (0.022)	0.082** (0.018)
Female × Earns More	0.016 (0.757)	0.014 (0.785)	0.012 (0.813)	0.010 (0.848)
Year dummies	No	Yes	No	Yes
Controls	No	No	Yes	Yes
Mean	0.438	0.438	0.438	0.438
Standard Deviation	0.496	0.496	0.496	0.496
Observations	5142	5142	5142	5142

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Female × Earns More* is an indicator that equals one if the woman earns more than her male partner in the household. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification.

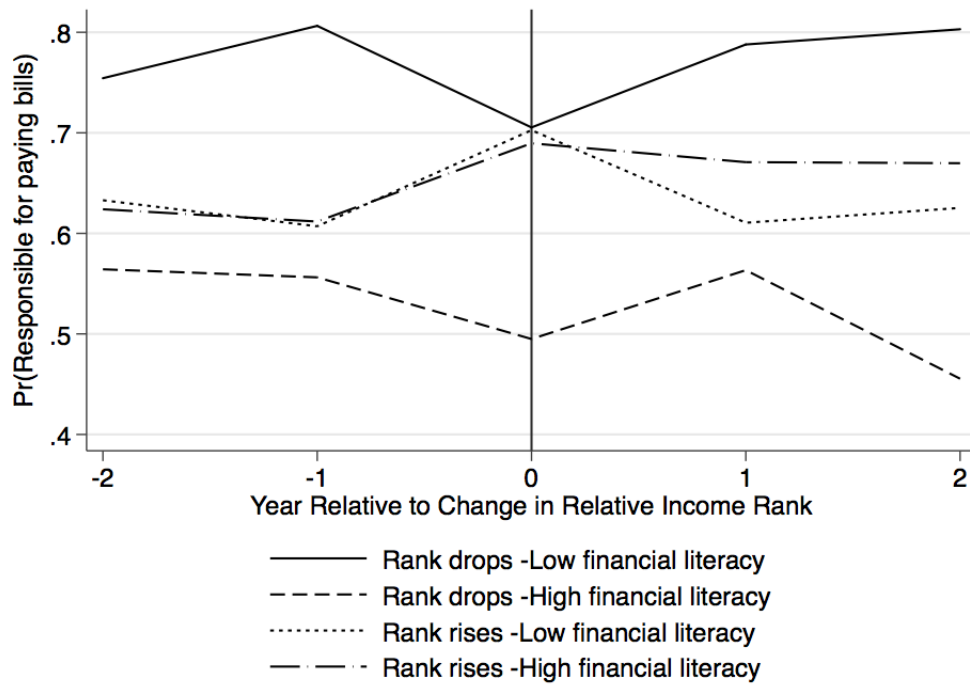


Fig. 6: Probability that responsible for paying bills by financial literacy

Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

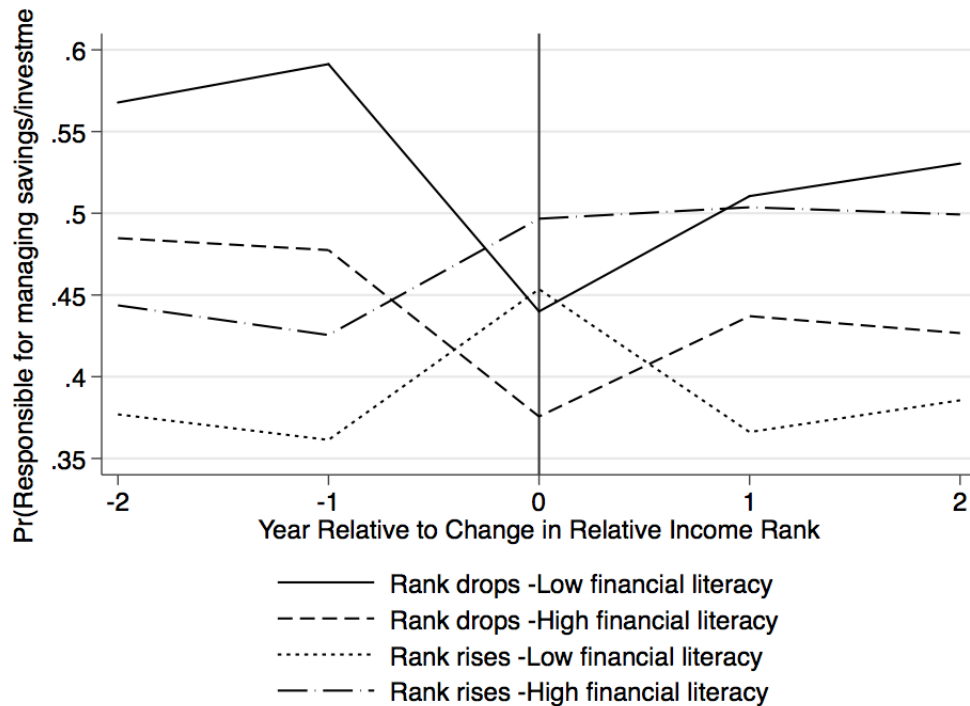


Fig. 7: Probability Responsible for Managing Savings and Investments by Financial Literacy

Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

Table 5: Estimated Association of Income Rank and Gender Norm Deviation on Household Financial Task Responsibility by Financial Literacy

	Pay bills		Save/invest	
	High financial literacy	Low financial literacy	High financial literacy	Low financial literacy
Earns More	0.059* (0.080)	0.175** (0.021)	0.107** (0.033)	0.183** (0.043)
Female \times Earns More	0.049 (0.478)	-0.137 (0.150)	-0.005 (0.957)	-0.075 (0.508)
Year dummies	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean	0.592	0.562	0.491	0.343
Standard Deviation	0.492	0.496	0.500	0.475
Observations	2231	1171	2231	1169

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Female \times Earns More* is an indicator that equals one if the woman earns more than her male partner in the household. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification. Source: .

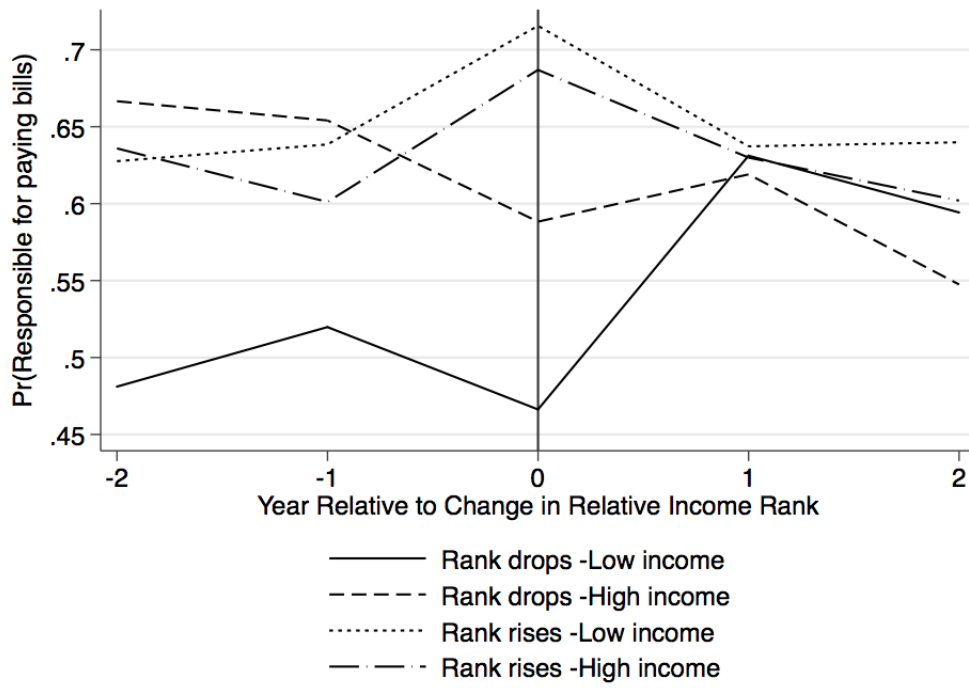


Fig. 8: Probability Responsible for Paying Bills by Income

Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

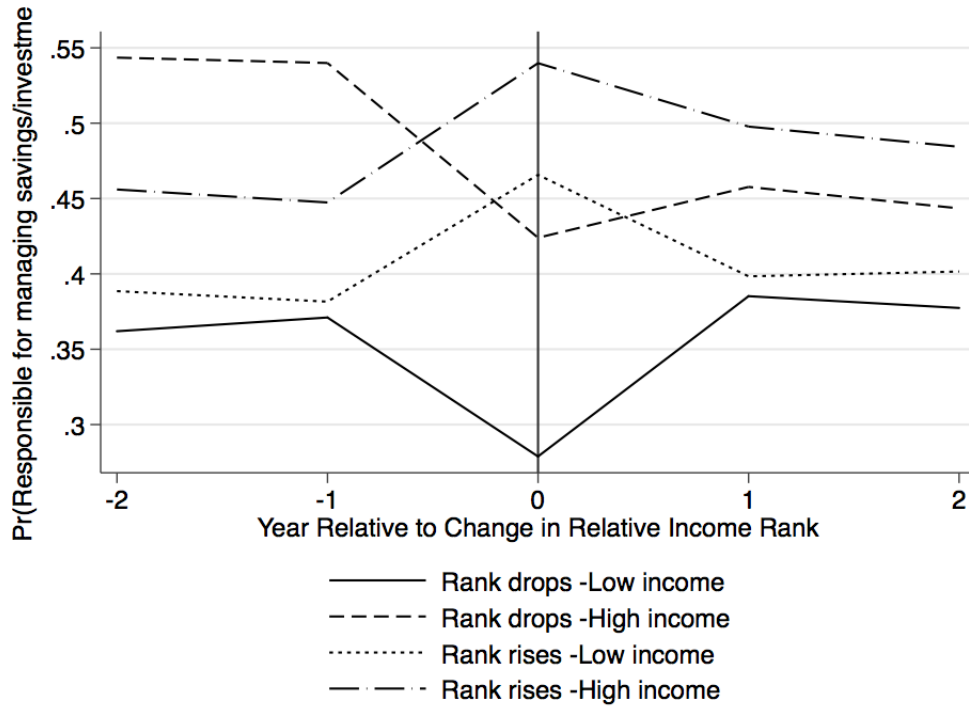


Fig. 9: Probability Responsible for Managing Savings and Investments by Income

Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC).

Table 6: Estimated Association of Income Rank and Gender Norm Deviation on Household Financial Task Responsibility by Low Household Income

	Pay bills		Save/invest	
	High income	Low income	High income	Low income
Earns More	0.046 (0.103)	0.180*** (0.000)	0.069 (0.134)	0.106** (0.045)
Female \times Earns More	-0.041 (0.477)	-0.082 (0.269)	0.035 (0.596)	-0.043 (0.615)
Year dummies	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean	0.596	0.573	0.444	0.427
Standard Deviation	0.491	0.495	0.497	0.495
Observations	3318	1828	3318	1824

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Female \times Earns More* is an indicator that equals one if the woman earns more than her male partner in the household. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification.

Table 7: Estimated Association of Income Rank and Responsibility for Household Financial Tasks for Paying Bills on Household Finance Outcomes

	Have Emergency Savings	No financial difficulty	Never overdrawn	Credit score 700+
Earns More \times Responsible for bills	0.060 (0.147)	0.030 (0.291)	0.005 (0.876)	-0.021 (0.507)
Earns More	-0.003 (0.943)	-0.002 (0.922)	-0.017 (0.556)	0.039 (0.124)
Responsible for bills	-0.008 (0.816)	-0.003 (0.908)	-0.009 (0.749)	0.019 (0.428)
Year dummies	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean	0.334	0.912	0.752	0.576
Standard Deviation	0.472	0.283	0.432	0.494
Observations	5146	5146	5115	5138

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More \times Responsible for bills* is an indicator that equals one if the individual who pays bills earns more than his/her partner in the household. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Responsible for bills* is an indicator that equals one if the respondent is responsible for 'All or most' of the bill pay, 0 otherwise. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification.

Table 8: Estimated Association of Income Rank and Responsibility for Household Financial Tasks for Savings and Investments on Household Finance Outcomes

	Have Emergency Savings	No financial difficulty	Never overdrawn	Credit score 700+
Earns More \times Responsible for save/invest	-0.042 (0.258)	0.022 (0.381)	-0.011 (0.689)	-0.022 (0.439)
Earns More	0.050* (0.089)	0.004 (0.869)	-0.010 (0.670)	0.033 (0.133)
Responsible for save/invest	0.043 (0.109)	0.012 (0.556)	0.011 (0.614)	0.025 (0.253)
Year dummies	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
Mean	0.334	0.912	0.753	0.577
Standard Deviation	0.472	0.283	0.431	0.494
Observations	5142	5142	5111	5134

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Standard errors are clustered at the household level. Means and standard deviations for the dependent variable are provided in each column. Data is from the 2009 to 2014 Survey of Consumer Payment Choice (SCPC). The unit of observation is an individual (the partner that responds to the survey). The sample is restricted to partners in male-female couples who are married or cohabiting and who participated in the survey each year. *Earns More \times Responsible for save/invest* is an indicator that equals one if the individual who manages savings and investing decisions earns more than his/her partner in the household. *Earns More* is an indicator that equals one if the respondent earns the highest income in their household, 0 otherwise. *Responsible for save/invest* is an indicator that equals one if the respondent is responsible for 'All or most' of the saving and investing decisions, 0 otherwise. *Controls* include variables for employment status, educational attainment, age, family income, and household size. *Year dummies* indicates that controls for survey year are included in the specification.

Appendix: Survey of Consumer Payment Choice (SCPC) Items

Responsibility for household finances:

- In your household, how much responsibility do you have for paying monthly bills (rent or mortgage, utilities, cell phone, etc.)?
 - None or almost none, Some, Shared equally with other household members, Most, All or almost all
- In your household, how much responsibility do you have for making decisions about saving and investments (whether to save, how much to save, where to invest, how much to borrow)?
 - None or almost none, Some, Shared equally with other household members, Most, All or almost all
- In your household, how much responsibility do you have for doing regular shopping for the household (groceries, household supplies, pharmacy, etc.)?
 - None or almost none, Some, Shared equally with other household members, Most, All or almost all
- In your household, how much responsibility do you have for making decisions about other household financial matters (where to bank, what payment methods to use, setting up online bill payments, filing taxes)?
 - None or almost none, Some, Shared equally with other household members, Most, All or almost all

Income rank:

- What does your own personal income rank within your household?
 - Highest in my household
 - About equal to the highest (roughly the same as another household member)
 - Second highest
 - Third highest or lower

Financial Literacy Quiz:

- Compound interest: "Suppose you had \$100 in a savings account and the interest rate is 20% per year and you never withdraw money or interest payments. After 5 years, how much would you have in this account in total?";
- Inflation: "Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?";
- Diversification: "True or False. Buying a single stock [mutual fund] usually provides a safer return than a mutual fund [single stock]."