

Household Finance Issues and Marital Instability

Angela C. Lyons, University of Illinois at Urbana-Champaign¹

Yunhee Chang, University of Mississippi²

Jeffrey Dew, Pennsylvania State University³

Jonathan Fisher, U.S. Bureau of Labor Statistics⁴

Urvi Neelakantan, University of Illinois at Urbana-Champaign⁵

A growing body of literature examines the role that different types of financial strain play within a marriage. Few of these studies, however, use rigorous empirical techniques to control for the joint relationship between financial strain and marital instability. Fewer, yet, provide a theoretical framework from which to test the empirical hypotheses. A special session was held at the 2006 conference of the American Council on Consumer Interests to highlight some of the latest research studies that examine the link between financial strain and marital instability. Four papers were presented during the session. The first three papers provided examples of recent empirical and theoretical techniques being used to increase the rigor of research in this area. The final presentation discussed competing theories that could be used to explain the financial management behavior of married couples.

The research presentations set the stage for an open discussion at the end of the session that focused on the theoretical and empirical challenges facing researchers in this area, and the direction that future research needs to take with respect to modeling the interactions between financial strain and marital instability. Better theoretical models need to be developed to empirically test the relationship and direction of causality between marital status and financial strain using longitudinal and cross-country data. Below is a brief summary of each paper and some of the highlights from the discussion that followed.

Till Debt Do Us Part: A Model of Divorce and Personal Bankruptcy

(Jonathan Fisher and Angela Lyons)

Previous research finds a positive correlation between marital instability and financial strain. Yet, the direction of causality is far from clear. On the one hand, a number of studies show that marital instability is likely to lead to financial strain (i.e., Greg Duncan and Saul Hoffman, 1988; Pamela Smock, 1993; Saul Hoffman and Greg Duncan, 1995). According to this research, households experience a significant decline in income and assets and/or a sharp rise in debts upon divorce, and the financial consequences of divorce are often severe and long-term, especially if the divorcee does not remarry. Some of these studies provide additional insight into the role that specific types of income such as child support, alimony payments, and public assistance can play in helping to offset the financial consequences of divorce. Yet, even with supplemental income sources, a household may still be unable to recover financially from the divorce. The end result for these and other households may be default and/or even bankruptcy.

Other studies find that financial strain leads to marital instability. These studies show that financial problems begin before divorce and often precipitate the divorce (i.e., Sullivan, Warren, and Westbrook, 1995, 2000). For example, Duncan and Hoffman (1988) find that couples who divorce have lower pre-divorce incomes than couples who do not divorce. David Caplovitz (1979) shows that among couples with increased financial strain, 14 percent report that their marriage is worse, and 34 percent of couples with debt problems report increased marital discord. Other researchers find that sharp declines in income and wealth brought about by events such as unemployment lead to divorce (i.e., William Johnson and Jonathan Skinner, 1986).

These studies, however, do not capture the potential *joint relationship* between divorce and financial strain in that they only estimate single-equation probit models. In addition, they only model the impact of financial strain by examining changes in income and wealth post-divorce. While financial strain can be defined in a number of ways, it is of particular interest to focus on bankruptcy as a measure of financial strain. Since 1990, the number of personal bankruptcy filings per year has more than doubled, with more than 1.6 million households filing for bankruptcy in 2003. At the same time, the demographic profile of bankruptcy filers has changed, with a significantly higher proportion of divorced and single households filing for bankruptcy (Sullivan, Warren, and Westbrook, 1995, 2000; Fisher and Lyons, 2005).

Research shows that bankruptcy and divorce are positively correlated, such that the unconditional probability of bankruptcy is high after a household becomes divorced (i.e., Sullivan, Warren, and Westbrook, 1995; Scott Fay, Erik Hurst, and Michelle White, 2002). There are reasons why divorce may be a likely contributor to bankruptcy: 1) divorce imposes high costs on the family (e.g., lawyer fees) causing bankruptcy to become a financially viable option or 2) lawyers cross market products during their counseling (i.e., inform the participants of the divorce about the benefits of bankruptcy). However, it may just be the case that the factors that drive the bankruptcy decision are the same factors that drive the divorce decision. Therefore, to determine whether divorce is a cause of bankruptcy, we need to control for the potential endogeneity of both divorce and bankruptcy and the impact that the household's financial situation has on both.

The first presentation focused on discussing the results of a paper that was recently published by Fisher and Lyons (2006). This research contributes to the literature by developing a better understanding of whether there is a causal relationship between divorce and bankruptcy. The findings show that the relationship between divorce and financial strain, specifically bankruptcy, is more complicated than previous research, which investigates the economic causes and consequences of divorce, suggests. It is particularly timely to focus on bankruptcy given the recent rise in the number of divorced households filing for bankruptcy.

Fisher and Lyons (2006) use data from the 1989-1995 *Panel Study of Income Dynamics (PSID)* to estimate traditional probit models for bankruptcy and divorce. They then instrument for both using state and individual-level variables and estimate a simultaneous two-equation probit model. Using single-equation probits, they find that divorce significantly increases the probability of bankruptcy and bankruptcy significantly increases the probability of divorce. These findings are consistent with previous literature which has found that divorce has a large and statistically significant effect on bankruptcy. After controlling for the endogeneity of each decision, the results suggest that an increase in the likelihood of divorce does not significantly affect the bankruptcy decision and an increase in the likelihood of bankruptcy does not significantly affect divorce. Moreover, the magnitudes of the effects fall substantially in the simultaneous model.

These findings contradict earlier single-equation results and suggest that divorce may serve as a proxy for other variables that affect the bankruptcy decision such as individual preferences or other measures related to income and wealth that are unobservable. Similarly, the bankruptcy variable in the divorce equation may also be a proxy for preferences or other measures of financial strain that are unobservable. For example, while they were able to control for factors related to income, wealth, and the life-cycle, there may be unobservable factors not included in the model such as information on how financial decisions are being made within the household and who is making those decisions. It could also be that some households have an unobserved propensity to use the legal system to solve problems such as marital and financial troubles. In addition, a couple seeking the advice of a divorce lawyer may also get advice from the lawyer to file for bankruptcy. Or, if there is a stigma attached to divorce and to bankruptcy, filing for one may lower the stigma associated with the other. Regardless, the findings from this study suggest that future research on marital disruption needs to more carefully model the role that financial distress plays within a marriage, especially given the growing number of divorced households filing for bankruptcy.

The Relationship Between Consumer Debt Behavior and Marital Relations in Newlyweds

(Jeffrey Dew)

The main goal of the second presentation was to demonstrate how theory, data, and empirical analyses converge to provide a rigorous analysis of the relationship between consumer debt and recently married couples' marital conflict and satisfaction. One challenge in studying debt and marital outcomes is using existing theory to generate hypotheses. Another challenge is the lack of data sets that contain measures of both consumer debt and marriage variables. Consequently, two aims of this presentation were to discuss different theories on debt and how the National Survey of Families and Households (or NSFH) can be a viable source of data for investigating the debt behavior by married couples.

Two theories that might explain relationships between non-economic phenomena and consumer debt are the life-cycle model of consumption and the family stress model of economic pressure and marital distress. Under the life-cycle model of consumption, consumer debt is a problem if couples borrow money at a point where the marginal cost of assuming debt exceeds the marginal utility of assuming that debt. The family stress model posits that debt-to-asset ratios predict feelings of economic pressure, which then go on to increase marital distress (Conger, Ge, and Lorenz, 1994). Therefore, in the family stress model consumer debt is always problematic in as much as it increases the nominator of the debt-to-asset ratio.

These theories share two problems. First, neither theory offers satisfactory mechanisms that link consumer debt and non-economic outcomes. Under the assumption of rational agents, hypotheses derived from the life-cycle

consumption model assert that consumer debt can have a beneficial effect on economic well-being. Unfortunately, this assumption conflicts with findings in the literature that indicate that consumer debt is positively related to anxiety, feelings of economic pressure, and marital conflict (Conger et al., 1994; Dew, 2005; Drentea, 2000). Economic stress links consumer debt and marriage in the family stress model, but the model does not account for age differences or family life-cycle transitions. Families differ in their need for and their ability to service consumer debt at different points in their lives (Baek and Hong, 2004). To date, studies have not been able to adequately account for these factors.

The second problem is that these two theories fail to differentiate between types of debt. This is problematic because certain types of debt can be beneficial. For example, a home mortgage provides important benefits. Credit card debt, on the other hand, is associated with higher interest rates and is an unsecured loan that is not tied to any property or collateral. Further, payments on consumer debt often last longer than the utility of the good that is purchased (Prelec and Lowenstein, 1998).

The analysis for Dew's research was based on family development theory (FDT). FDT centers on transitions in the family (Gerson, 1995). When a transition occurs, the family members enter a new phase. At each new phase, family members face developmental challenges. Tangible and intangible resources and liabilities assist or hinder couples as they attempt to meet the developmental challenges of a transition. Success in meeting the challenges leads to satisfaction with the relationship and a desire to maintain and invest in the relationship.

Recently married couples were studied in this analysis, because consumer debt may relate most closely to the tasks they face. One of the tasks that recently married individuals face is forming their sense of identity as a couple. Developing a sense of couple identity requires spending time together. Another task that recently married couples face is establishing their financial foundation.

Consumer debt might make spending time together and establishing a financial foundation more difficult. Debt predicts working more hours than desired (Clarkberg and Moen, 2001). Consequently, if a couple assumes debt, they may have to work more hours, spend less time together, and have a more difficult time establishing their identity. Consumer debt may also weaken recently married couples' ability to balance financial demands with their limited resources. If consumer debt interferes with these two tasks, couples with debt may experience marital conflict and dissatisfaction. Furthermore, couples that pay down debt may experience marital benefits, and couples who assume more consumer debt may experience negative marital changes.

Because family development theory is concerned with individual change that takes place within relationship contexts, the analysis was conducted using multi-level modeling (MLM). MLM is an extension of a mixed model analysis that allows for the correction of the autocorrelation that exists in clustered data (Raudenbush and Bryk, 2002). MLM is useful for this project, because it allows tests of the influence of debt on both the intercept and the slope of change in marital satisfaction and conflict. In addition, it yields unbiased estimates of the average within-person change. A three-level analysis with observation points being clustered within spouses, who are clustered within couples, was used.

This research used data from the 1988 and 1993 waves of the National Survey of Families and Households (NSFH). The NSFH is a nationally, representative longitudinal data set that began in 1988. Multiple reports are used since the NSFH asks questions of respondents' spouses. The NSFH also includes information on consumer debt such as the total amount of credit card debt owed, the total amount of installment debt owed, and whether the respondent has past due bills. The NSFH also has questions about marital satisfaction, conflict, abuse, and attitudes about the institution of marriage. A unique feature of the NSFH is that it oversamples recently married individuals, which is the sample of interest for this research.

During the presentation, Dew presented his research findings. Results indicated that on average individuals increase their marital conflict in the early years of marriage. Initial debt levels predict the intercept of conflict, with those on Wave 1 who had no debt to be about 4% lower in conflict than those who had debt. Staying debt free is the only debt change variable that predicted a change in conflict. Although marital conflict increased on average, those who stayed debt free had a 7% lower increase in conflict than those who assumed or paid down debt. Although 7% seems relatively small, the coefficient is one of the few that is statistically significant, and it predicts more of the slope than other variables such as the presence of children. Although these findings support the first hypothesis that debt and change in debt predict change in conflict, none of the variables associated with FDT mediate this relationship.

Debt change also predicts marital satisfaction. On average, marital satisfaction declines over time for recently married couples. Paying down the median amount debt is related to a 4% lower decline in satisfaction relative to those who assumed the median amount of debt. Again, 4% may not seem significant, but this debt change variable explained more of the decline than other well-known variables.

When the mediators of work hours, time spent together, and fairness in monetary decision-making were added to the model, the statistical significance of debt change was reduced to zero. The variables related to financial well-being were not significant. The main conclusion is that variables that relate to spending time together mediate the relationship between a change in debt and a change in marital satisfaction as FDT would predict.

The Impact of Changes in Child Support Policy for Divorced Mothers

(Urvi Neelakantan)

When marital strain results in a divorce, some amount of interaction between the couple continues, particularly when children are involved. One parent, usually the mother, receives physical custody of the children. In most cases the father is required by law to contribute to the children's economic maintenance by making child support payments to her.

How do parents interact and make decisions following a divorce? How do policy changes affect these decisions and thereby the financial well-being of divorced mothers? These questions were addressed in the third presentation, which presented findings from Neelakantan (2005). The focus was on child support receipts and decreasing welfare dependency as contributors to the mothers' financial well-being.

First, consider the behavior of parents after a divorce. Several papers in the literature assume that divorced parents behave non-cooperatively and model interaction between the parents as a Stackelberg game (Weiss and Willis, 1985, 1993; Del Boca and Flinn, 1995). Even in cases where the mother receives physical custody, it is assumed that the father continues to derive utility from the well-being of his children while allowing for the possibility that the weight placed on children's well-being differs across fathers. Strain thus arises from the fact that the well-being of the children continues to be a public good for both parents.

This research adds to the existing theoretical structure in two ways. First, it allows for fathers to take the probability of being caught for non-compliance into account when making their child support payment decisions. Specifically, it assumes that fathers know that as they pay a higher fraction of what they owe, they are less likely to be taken to court for non-compliance. Second, this research also includes in the mother's decision a choice between participating in the labor force and being on welfare. This allows us to study the effect of fathers' child support payments on mothers' welfare dependency.

Next, consider the impact of policy changes on the parents' behavior and the resulting outcomes for divorced mothers. With the passage of child support enforcement amendments in 1984, major changes were made to US child support policy. Before 1984, judicial discretion determined child support awards. Decisions were criticized for being inadequate, inconsistent, and unpredictable, and poor enforcement was blamed for the growing number of divorced mothers dependent on welfare programs. The 1984 amendments required each state to formulate uniform guidelines to calculate child support award amounts. They also aimed at improving enforcement by withholding child support directly from the wages of delinquent payers.

Court Record Demonstration Project (CRD) data from the Institute for Research on Poverty provides an opportunity to study the impact of the amendments on the economic well-being of families in Wisconsin between 1981 and 1993. The data shows that from 1984 onwards, child support payments to divorced mothers increased and the percentage of mothers on welfare decreased.

To understand the role of policy reforms on the well-being of divorced mothers and children, it is important to ask what contributed to the changes in child support payments and welfare dependency. To answer the question quantitatively, the theoretical model is calibrated to CRD data on divorce cases from 1981. The model is then used to simulate the outcomes of various policy changes.

In real (1982-84) dollars, child support payments increased from \$2487.60 in 1981 to \$3771.55 in 1992. The simulations measure the individual contribution of the new guidelines and the new enforcement system to the observed increase. Results show that the introduction of the guidelines accounts for 31% while the new enforcement system accounts for 56% of the total increase in child support payments.

What was the contribution of policy changes to welfare dependency among divorced mothers? The CRD data shows that 29% of mothers who divorced in 1981 were on welfare. By 1992, the figure had fallen to 14.4%. It is important to note that welfare benefits also declined over the same period. Results show that the increase in child support receipts alone, with no change in welfare benefits, was responsible for a 3.9 percentage-point decline in welfare participation rates. The decrease in welfare benefits alone, with no change in child support receipts, would have caused the welfare participation rate to fall to 21.8%, a decline of 7.2 percentage points. If both child support payments and welfare benefits had changed, the welfare participation rate would have fallen by 13.5 percentage points. Increasing child support receipts and declining welfare benefits thus account for over 93% of the actual decline in the welfare participation rate. While it is true that higher child support payments led to a fall in the

percentage of divorced mothers on welfare, this result shows that it is important to consider the role of declining welfare benefits as well.

The findings are relevant to the evaluation the impact of past reforms on the well-being of divorced mothers. The theoretical model can also be used to analyze policy changes that are currently being considered, which is one avenue for future research to explore.

Household Financial Strain and Marital Instability

(Yunhee Chang, Angela Lyons, Jonathan Fisher, and Urvi Neelakantan)

The fourth presentation provided session attendees with an overview of existing economic theories of household behavior that could be used to theoretically model the relationship between household financial strain and marital instability. The challenges of empirically testing such models were also discussed along with strategies for how to define and include alternative measures of household financial strain within various frameworks. Additional discussion focused on the need for researchers to make cross-cultural comparisons.

Qualitative literature and demographic statistics indicate that an individual's financial strain is associated with his or her marital status (i.e., Fisher and Lyons, 2006; Sullivan et al., 2000). This may be either because financial strain damages marital stability, or because (an anticipation of) divorce creates financial problems. As financial and marital decisions are likely to be made simultaneously, the underlying mechanism between household financial strain and marital instability may be more complicated. With the exception of Fisher and Lyons (2006), developing a conceptual framework to account for such a dual mechanism has not been adequately addressed in the current literature.

Economic theory of marriage and divorce predicts that financial strain can both increase and decrease marital stability. On one hand, divorce could result from financial strain if (i) financial burden is a deviation from the initial expectation and thus acts as a destabilizing factor in the marriage (Weiss and Willis, 1997); (ii) the common law practice, as opposed to the community property law, sets limits on the transferability of financial liability; and (iii) excessive financial burden intensifies emotional conflict between spouses (Sullivan et al., 2000). On the other hand, financial strain could result in stronger marital stability if (i) marriage serves as a risk-pooling institution in times of financial strain (Cubeddu and Rios-Rull, 1997; Lehrer, 2003) and (ii) the couple uses marriage as a way to protect against financial crisis.

The life-cycle income hypothesis, which has been conventionally used to explain individual consumers' financial decisions, has limitations with respect to modeling intra-household dynamics of financial and marital decisions (Browning, 2000). Alternative frameworks proposed for the study of household finance include unitary models of household behavior and household bargaining models (Browning, 2000; Dobbelsteen and Kooreman, 1997; Vermeulen, 2002). Both the unitary and non-cooperative bargaining models can generate testable hypotheses about the effects of certain household characteristics – including marital instability – on household financial management decisions and resulting financial strain. Recent empirical research tends to favor bargaining models over unitary models of household behavior, since the former allow both partners to have different preferences and separate utility functions (Dobbelsteen and Kooreman, 1997; Elder and Rudolph, 2003). However, it remains to be investigated how bargaining power should be defined and how the relationship between marital instability and financial strain should be incorporated into these models.

Most existing studies approach the problem assuming particular social, economic, and cultural contexts. This makes it difficult to pin down the relationship between household financial strain and marital instability free of macroeconomic influences and overall demographic trends, especially when current research primarily uses U.S. data. A better understanding of the dual relationship not only requires a solid theoretical model, but would benefit from empirical analysis that tests the theory using data from multiple countries. South Korea makes an interesting case for a comparative study. In South Korea, both the divorce rate and the total household debt have increased dramatically since the late 1980s. This contrasts with the U.S. experience, where the average financial obligations ratio of households began to rise after the divorce rate leveled off in the 1980s. The Korean Labor and Income Panel Study (KLIPS), which is modeled after the U.S. Panel Study of Income Dynamics (PSID), offers a dataset that is directly comparable to U.S. data.

Another empirical shortcoming from existing literature arises from imperfect measurements of household financial strain. Some studies measure financial strain by the amount of household debt (i.e., Chang and Lee, 2006), which may signal the household's borrowing ability rather than strain. Others use a household's decision to file for bankruptcy as a signal of financial strain (i.e., Fisher and Lyons, 2006), which may be highly correlated with unobservable characteristics and may create spurious correlation with the divorce probability.

Future research needs to consider alternative measures of financial strain developed from financial ratios and guidelines established within the personal finance literature (i.e., DeVaney, 1994; DeVaney and Lytton, 1995). In particular, future research should consider comparing conventional definitions of financial strain to new alternative definitions. Also, there is a need to construct a solid theoretical model to adequately explain what researchers know from the data about the relationship and direction of causality between marital and financial strain.

Discussion and Concluding Remarks

A discussion between the presenters and the session attendees followed the presentations. The discussion focused on two key questions: (i) What are the theoretical and empirical challenges facing researchers in the area of marital instability and financial strain? (ii) What direction should future research take with respect to modeling the interactions between financial strain and marital instability? There was general consensus that research in this area needs to build a better link between the theory and empirics. Specifically, the discussion focused on how researchers might develop and empirically test various theoretical frameworks. There was debate about how one might go about doing this, especially given the limitations of existing data sets. It is difficult to find large data sets that include both detailed financial information and marital histories. It is also difficult to adequately investigate the direction of causality when most existing data sets that include both financial information and marital status are cross-sectional or span relatively few years. Even if the data does exist, there are additional challenges in determining how “financial strain” and “marital instability” should be defined. Overall, the discussion provided useful insight into the direction that future research should take with respect to modeling the interactions between financial strain and marital instability.

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Endnotes

¹ Assistant Professor, University of Illinois at Urbana-Champaign, Department of Agricultural and Consumer Economics, 421 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801, 217-244-2612, anglyons@uiuc.edu

² Visiting Assistant Professor, University of Mississippi, 202 Lenoir Hall, PO Box 1848, University, MS 38677, 662-915-1352, chang@olemiss.edu

³ Ph.D. Candidate, Pennsylvania State University, S-110 South Henderson, State College, PA 16802, 814-863-0092, jpd197@juno.com

⁴ Research Economist, U.S. Bureau of Labor Statistics, 2 Massachusetts Ave., NE, Room 3105, Washington, DC 20212, 202-691-6596, fisher.jonathan@bls.gov

⁵ Assistant Professor University of Illinois at Urbana-Champaign, Department of Agricultural and Consumer Economics, 431 Mumford Hall, 1301 W. Gregory Drive, Urbana, IL 61801, 217-333-0479, urvi@uiuc.edu