Journal of Development Economics 109 (2014) 73–86

Contents lists available at ScienceDirect

Journal of Development Economics

journal homepage: www.elsevier.com/locate/devec

The determinants of bargaining power in an empirical model of transfers between adult children, parents, and in-laws for South Korea ☆

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ARTICLE INFO

Article history:
Received 11 October 2012
Received in revised form 28 February 2014
Accepted 9 March 2014
Available online 17 March 2014

Keywords:
Family transfers
Bargaining
Marriage market
Maximum likelihood estimation
Old-age support
Korea

ABSTRACT

We derive a bargaining model of transfers between adult children and their parents, and then estimate the model using data from South Korea. Our analysis extends the literature on family bargaining by i) arguing that transfers from the couple represent semiprivate consumption (e.g. it is plausible that the wife cares more about her parents than about the husband's parents, and vice-versa) and ii) using results from laboratory experiments to help identify the model.

We find that women have slightly more bargaining power than men in the couple's decision making. We also find that when an adult child receives an extra dollar of income, she transfers half of it to her parents; this result is consistent with previous work. Finally, we reject the null hypothesis that bargaining power within the family depends only on the potential wage of each spouse.

1. Introduction

There is a large and rapidly growing empirical literature on estimating models of family decision making; see, e.g., Behrman and Rosenzweig (2006), Blundell et al. (2007), Browning et al. (1994), and Mazzocco (2007).[1] Here we argue that this literature can be improved in three ways. First, many papers examine goods that both spouses care about, such as spending on children, clothing or leisure/home production by each spouse. For example, Lundberg et al. (1996) and Rubalcava and Thomas (2000) use expenditure on children's food and children's clothing respectively. Browning et al. (1994) consider each partner's consumption of clothing. The leisure activities of the marital partners are other important subjects to analyze. There have been numerous studies using this measure, including Blundell et al. (2007) and Chiappori et al. (2002). Apps and Rees (1997) incorporate home production into a collective model framework. Mazzocco (2007) considers household consumption and saving behavior in a dynamic model. However, as Behrman and Rosenzweig (2006) stress, this makes it difficult to separate taste parameters from bargaining parameters, and they argue forcefully that researchers use a measure of semiprivate consumption; they proceed by considering a couple's number of visits to the husband's parents and wife's parents as their measures of semiprivate consumptions. We continue and complement their work by using monetary transfers to and from an adult couple to their parents. We argue that such transfers do indeed represent semiprivate consumption, since it is plausible that the wife cares more about her parents than about the husband's parents, and vice-versa.

Further, structural econometric models of bargaining power often have to identify the parameters of interest by making arbitrary assumptions on preferences. For example, Behrman and Rosenzweig (2006)

☆ We thank Xiaochen Bian, Eleanor Choi, Monica Das Gupta, Hanan Jacoby, Tarun Jain, John Kagel, Saima Khan, Sooyhung Lee, Maurizio Mazzocco, Jeffrey Nugent, Aloysius Siow, John Strauss, Naomi Utgoff and Lise Vesterlund for many important conversations and comments, as well as seminar participants at the Korea Development Institute, the Korea Institute for International Economic Policy, the Korea Institute of Public Finance, the Korea Labor Institute, the Maryland, NEUDC (2009), the Seoul Summer Economics Conference at Seoul National University (2010), the Econometric Society World Congress (2010) and the USC for helpful comments. Two anonymous referees and a co-editor made numerous comments that substantially improved the paper. We would also like to thank Professor H. Kazianga for providing us with his computer program. Ham's research was partially supported by the NSF (SES 0627934). We are responsible for all errors, and this paper reflects the views of the authors and in no way represents the views of the NSF.

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[1] See Del Boca et al. (2014) and the papers cited therein for a somewhat different approach to family decision making.

http://dx.doi.org/10.1016/j.jdeveco.2014.03.004
0304-3878/

must assume that men and women have an equal degree of altruism. This assumption is also an exactly identifying one in our main model, but the question remains as to whether it is a reasonable one. To investigate this, we examine evidence from the Experimental Economics literature on the relative altruism of men and women; here Andreoni et al. (2007) find that, among their American subjects, men and women do indeed have equal altruism. Under an assumption of equal altruism, we estimate male bargaining power equal to 0.4646, with a 95% confidence interval [0.4482, 0.4811]; since this is significantly less than 0.5, we can reject the null hypothesis of equal bargaining power.

Of course, Koreans may have different altruism parameters than Americans, so we also consider the experimental evidence in Johnson et al. (1989), which is applicable to the very Korean cohort that we study here. Johnson et al.'s (1989) results imply that the ratio of the male altruism parameter to the female altruism parameter is 1.0615 with a 95% confidence interval of [1.003, 1.120], and thus one (barely) rejects the null hypothesis of equal altruism. With unequal altruism, our estimate of male bargaining power is a function of our estimated parameters, the ratio of male and female altruism, and two other parameters we must calibrate. Conditional on these two other parameters, we can obtain a point estimate and confidence interval for male bargaining power that incorporates estimation error both in the parameters we estimate from our data and in the parameter taken from Johnson et al. Then, for a range of reasonable values of the calibrated parameters, we present the relevant point estimate of male bargaining power and its standard error. For all values of the calibrated parameters we reject the null hypothesis of equal bargaining power in favor of the alternative that men have less bargaining power.

Our paper also extends the work of Kazianga (2006) and Raut and Tran (2005) on intergenerational transfers in developing countries by considering transfers between a married couple and *both* sets of parents. Raut and Tran found that, for Indonesia, adult children transfer about half of any increase in income to their parents, and our results are consistent with their results. Kazianga made an extensive investigation of the motives for household private transfers in Burkina Faso. However, he did not try to impute the donor or recipient's missing income in his data and just considered omitted variable bias. In contrast, we impute (missing) parents' income by using a second data set.

Finally, our results have implications for reducing the fraction of the Korean elderly living in poverty. Korea has the one of the best records in terms of this fraction among OECD when only family transfers are considered, but the poorest performance among the OECD countries when both family and government transfers are taken into account. Thus, it would seem that significant change will come only with increased government expenditure on the elderly. However, when choosing the level of increased expenditure, the government needs to take into account that if it transfers ₩100,000 to each elderly person, our results indicate that the children will claw back half of this increase.

2. Within-family transfers, tradition, and institutional features in South Korea

Because structural models are abstract approximations of reality, it is important to consider whether it is reasonable to use such a given model in a particular empirical context. In this section we attempt to describe the environment in Korea with regard to intergenerational transfers to help readers make this assessment concerning our model. We first review the basic facts on within-family transfers in Korea, where, unlike many developed countries, transfers tend to flow from the children to the parents. We then discuss Korean beliefs and customs about the nature of parental support. Finally, since such transfers do not take place in a vacuum, we also consider support to the elderly from the government.

2.1. Basic facts on within-family transfers in South Korea

To see the importance of transfers from children to parents in the rapidly developing economies in S.E. Asia, including Korea, relative to that in many Western economies, consider Fig. 1. For each country, the first (blue) line shows the percentages of the elderly (age ≥ 50) who receive net positive transfers from their children, while the second (brown) line shows the fraction of the elderly (age ≥ 50) who make net positive transfers to their adult children. For example, in Austria about 7% of parents receive a net transfer from their adult children, while about 26% make a net transfer. (Approximately 67% of elderly couples who have children do not make or receive a net transfer.) In all of the Western countries, the percentage of elderly making net transfers is *at least* twice as large as the percentage receiving a net transfer, and *on average* the percentage making a net transfer is about five times as large as the percentage receiving a transfer. On the other hand, Korean parents are twice as likely to receive a net transfer from their children as to make one.[2]

Table 1 shows the contribution of net transfers from children to the total income of elderly parents in Korea relative to Taiwan, Japan, the US, and Germany, focusing on both frequency and magnitude of transfers from adult children to their elderly parents. Korea and Taiwan show similar patterns. However, the difference between Korea and the Western countries is dramatic: transfers from children make up over half the total income of elderly Koreans, while these transfers constitute less than ten percent of the income of the elderly in the Western countries.

Table 2 shows the percentage distribution of adult children across different net transfer behaviors toward parents for the years 2001–2005 in the Korea Labor and Income Panel Study (KLIPS). For example, column 1 indicates that, on average, 40% of Korean couples make net transfers to both sets of parents, while column 2 indicates that 14% make a net transfer only to the husband's parents and do not receive a net transfer from the wife's parents. Further, column 3 indicates that, on average, 3% of couples make a net transfer only to the wife's parents and do not receive a transfer from the husband's parents, while column 4 indicates that, on average, 22% of couples neither make nor receive a net transfer from either set of parents. Finally, column 5 indicates that, on average, 21% of couples receive a net transfer from at least one set of parents. Four points may be observed from the table. First, because first sons, and sons over 40, are dropped, the disparity between making a transfer only to the husband's parents and to the wife's parents is not due to first sons, or sons over 40, facing social pressure to take care of the husband's parents.[3] However, it is worth noting that husbands are generally older than their wives, and thus the husband's parents are generally older (and poorer) than the wife's parents. Second, almost 60% of the couples make a transfer to at least one set of parents. Third, a substantial fraction of couples have zero net transfers to or from parents, and a substantial fraction of couples receive a positive net transfer from the parents. The econometric model we use below allows for all of these features of the data.

Columns 1 and 2 of Table 3 indicate that, conditional on a couple making a transfer to both sets of parents, the transfer to the husband's parents is, on average, about 50% greater than the transfer to the wife's parents. Further, column 4 indicates that among these couples approximately 6% of a couple's *before-tax* household income is allocated to transfers to the parents. This amount is substantial and indicates that if, as we argue below, transfers to parents represent semiprivate consumption, the level of this consumption is important relative to household income.

[2] Transfers from adult children to their parents are an important component of the elderly's income in other S.E. Asian countries and tend to be considerably larger than transfers from parents to children in these countries — see Kagitçibasi (1982, 2007), Lee et al. (1994) and Lillard and Willis (1997), Mason et al. (2006), and the National Transfer Accounts (NTA) website (http://www.ntaccounts.org) for the general pattern of the intergenerational transfers in various countries such as China, India, Indonesia, Japan, the Philippines, South Korea, Taiwan, Thailand and Vietnam.

[3] As we discuss below, social norms in Korea dictate that men in these groups have special responsibilities to their parents.