

**Buying Out of Familial Obligation: the Tradeoff between Living With  
versus Financially Supporting Elderly Parents in Urban China**

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# **Buying Out of Familial Obligation: the Tradeoff between Living With versus Financially Supporting Elderly Parents in Urban China**

## **Abstract**

For Chinese families, co-residence with elderly parents is both a form of support and a moderator of financial support. Previous literature on the intergenerational support in Chinese societies has studied either co-residence or financial support, but not the joint nature of the two forms of support. Using a recent dataset ("Study of Family Life in Urban China") collected in 1999 in three cities, Shanghai, Wuhan, and Xi'an, we examine whether or not children (especially sons) with high socioeconomic status buy out of fulfilling the obligation of living with parents by providing more financial support. We first perform the analyses by estimating between-family and within-family models. To account for the potential selection bias associated with co-residence, we further treat co-residence and financial transfer as joint outcomes by using endogenous switching regression models.

# **Buying Out of Familial Obligation: the Tradeoff between Living With versus Financially Supporting Elderly Parents in Urban China**

## **Introduction**

In this paper, we examine gender and socioeconomic status (SES) differences in relation to the co-residence of adult children with parents and the financial support given to parents by children. More specifically, we focus on whether or not adult children (especially sons) in high SES groups buy out of the obligation of living with their elderly parents by providing more financial support, while their counterparts in low SES groups choose to co-reside and share resources with parents.

We begin our analyses using between-family models, which have been employed in most previous studies. Then we estimate within-family models by using the fixed-effects regression to eliminate the unobservable intra-family differences. Finally, we consider co-residence and financial support as joint outcomes by estimating endogenous switching models. Previous studies have considered either co-residence or financial support individually, but not the joint nature of the two forms of support. In the final step of our analyses, we treat co-residence and financial support as joint outcomes, because co-residence and financial support may be simultaneously related, creating a selection bias. Our use of endogenous switching regression models allows us to account for the selection bias.

## Background

Rapid population aging has made China an ideal place to explore intergenerational support (Lee and Xiao 1998). It is reported that there were about 130 million persons aged 60 and older in 2002, accounting for 39.7 percent of the Asian elderly population and 21.34 percent of the world elderly population as a whole (China Population and Development Center 2002). As a result, providing support for such a large elderly population has been a challenge.

Traditionally family members, especially adult children, have been the primary support providers, offering not only financial support but also social and emotional support. Financial support is primarily important for the elderly parents' living expenses and medical care. Statistics from the Survey on Support System for the Elderly in China show that 49 percent of urban residents and 73 percent of rural residents received financial support from children in 1992 (Lee & Xiao 1998). In addition, adult children's co-residence with elderly parents has been a crucial part of family support in China, and it plays an important role in affecting elderly parents' psychological, physical, and economic well-being (Knodel and Ofstedal 2002). According to the 2000 Census, about 65.3%<sup>1</sup> of elderly persons aged 60 and older lived with their children. As previous studies suggest, significant gender differences exist in living arrangement patterns with parents: married sons are more likely to live with parents than are married daughters (Lee et al. 1994; Logan and Bian 1999; Xie and Zhu 2006). Based on a survey in three large Chinese cities in 1999, Xie and Zhu (2006) found that 38.1% of married sons lived with parents while only 15.2% of married daughters lived with parents. The percentage of sons

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<sup>1</sup> This percentage is calculated based on the 0.1% micro 2000 Census data.

co-residing with parents in rural areas is even higher (Lee and Xiao 1998), given the stronger traditional obligation values.

There are two major reasons for why family support prevails over other support options in China. First, family support for the elderly has been a tradition over many centuries. The essence of this tradition is filial piety and family obligation; that is, grown children should care for their elderly parents, and in particular, sons should take more responsibility than daughters (Whyte 2004; Whyte and Xu 2003). In general, daughters move to their husbands' families upon marriage, without obligation to live with and support their parents. Therefore, married sons rather than daughters are primarily expected to support their parents by providing financial transfer and/or co-residing (Xie and Zhu 2006). Given this tradition, we expect married sons and daughters to behave differently in living arrangement patterns and in the provision of financial support.

The second reason for the prevalence of familial support is the underdevelopment of commercial and government social support systems. As Leung (1997) points out, "the heart of the problem for China is that formal and professional personal social services for the elderly are extremely underdeveloped." As a result, the rate of institutionalization of the elderly is very low, only about 0.5% in 1994 (Leung 1997). In other words, the majority of the elderly live in homes with their families. In addition, public pensions are only available to those in higher social strata (Walder 1992), primarily restricted to urban residents (Lee and Xiao 1998). However, in urban areas, according to Lee and Xiao (1998), while the number of retired persons has increased largely since the 1970s, retirement benefits have become unstable and the price of

medical care has increased in the transition from a planned to a market economy.

Therefore, adult children take the main responsibility in caring for their elderly parents.

However, the traditional extended family system is in the process of shifting to the nuclear family system. Under influences of modernization, industrialization, and westernization, younger generations tend not to live with parents. A study conducted in the Philippines, Thailand, Taiwan, and Singapore finds that the percentage of children's co-residence with elderly parents declined from the 1980s to the 1990s (Knodel and Ofstedal 2002). For example, the percentage of elders co-residing with children has decreased from 81.6 in 1980 to 69 in 1989 in Taiwan. Although rapid demographic, social, and economic changes have been eroding traditional values, especially in urban areas, family support continues to prevail (Whyte 2003). However, children may choose not to live with parents by providing more financial support to parents to fulfill the obligation. In other words, non-co-residential children, especially sons, may provide more compensation in the form of financial support, compared to their co-residential counterparts (Logan and Bian 2003).

The role of gender difference in family support has been examined in previous studies on co-residence and financial transfer (Lee et al. 1994; Knodel and Ofstedal 2002; Whyte and Xu 2003; Xie and Zhu 2006). Lee, Parish, and Willis' study (1994: 1027) on intergenerational transfer in Taiwan shows that married sons in high SES strata are less likely to live with parents, and instead they may provide more financial transfer. This finding indicates that rich sons may "buy their way out of living with parents." Another study on gender differences in financial support, conducted in three large Chinese cities by Xie and Zhu (2006) also found similar patterns in regard to gender differences in

relation to co-residence and financial support. In both studies, they use similar analytical approaches, that is, they treat co-residence and financial transfer as separate outcomes.

However, the hypothesis that children with high SES may buy out of living with parents by providing more financial support has not been really examined in previous literature. Results based on the analyses in which co-residence and financial support are separated outcomes are not convincing, as Xie and Zhu (2006: 8) argue, in the sense that rich sons “may buy themselves out of the obligation of living with elderly parents by providing more financial support ... [Thus,] co-residence and financial support are joint outcomes.” In other words, co-residence and the amount of financial support may be simultaneously related. On the one hand, lower SES children may choose to co-reside with parents, since they can share resources with parents and do not need to provide more financial transfer; on the other hand, high SES children may choose to provide more financial support to parents to fulfill the obligation of support, because they do not need to co-reside. Given this fact, the decision of whether children co-reside with parents is affected by the expected financial outcome — the financial obligation under different living arrangement patterns. Consequently, a potential selection bias associated with co-residence exists. To account for this bias, we should consider that co-residence and financial support are jointly determined.

Our study uses an endogenous switching regression to treat co-residence and financial transfer as joint outcomes. In addition, unlike previous studies in which only between-family models are estimated, we also estimate within-family models. Earlier studies suggest that the decision of co-residence and financial support involves multiple family members, especially depending on siblings’ characteristics (Hermalin et al. 1992a;

Hermalin et al. 1992b; Knodel and Ofstedal 2002). However, due to lack of data, most previous studies do not take siblings' characteristics into account. To reduce the endogeneity bias, we estimate fixed-effects models in this study, given available information on siblings' demographic and socioeconomic status.

## **Research Design**

### **Data**

The data we use are from a survey called “Study of Family Life in Urban China,” which was conducted in 1999 in three large cities: Shanghai, Wuhan, and Xi’an by Xie and his collaborators<sup>2</sup>. The survey initially aimed to reach 1,300 households in each city using a two-stage probability sampling method, and an adult aged 18 or older was randomly selected in each selected household. The survey uses a unique matching design: if a respondent was younger than 60, he/she was interviewed using Questionnaire A, and his/her parent was also interviewed with Questionnaire A+, which is particularly designed for the elderly. If an initial respondent was 60 years or older, he/she was interviewed using Questionnaire B, which is similar to Questionnaire A+, and one of his/her children was randomly selected and interviewed using Questionnaire B+, which is similar to Questionnaire A<sup>3</sup>. Therefore, there is a matched sample with adult-parent pairs,<sup>4</sup> and information from both parties is obtained.

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<sup>2</sup> The principal investigators for this project include Yu Xie (University of Michigan), Zhongdang Pan (Chinese University of Hongkong), and Xuejun Yu (Center of Population Information and Research, China), in collaboration with Institute for Market Information and Beijing Broadcasting Institute.

<sup>3</sup> For more detailed information on the survey design, see Xie and Zhu (2006)



In this study, we use the matched sample to perform analyses, since it includes family structure information such as number of siblings, gender and birth order, collected from the parent's side<sup>5</sup>. We have 1,191 parent-child pairs in total. In addition, we restrict our analyses to married adults with at least one surviving parent, because gender differences in co-residence and financial support tend to increase significantly after marriage, as suggested by previous literature (Lee et al. 1994; Xie and Zhu 2006). Marriage is a turning point where daughters contribute to their husbands' families, but sons continue to support their own parents.

### **Measures and Methods**

Financial transfer from children to parents is the net amount exchanged between the respondent and the respondent's parents, with parents' transfer being subtracted from children's transfer. Although the survey collected information from both an elderly person and his/her adult child (if available), in this study we only use information from parents, because the sibling's information was also obtained from parents, which is necessary in estimating within-family models. Co-residence is a dummy variable, with non-co-residing with parents coded 0 and co-residing with parents coded 1.

We run separate models for daughters and sons. The major independent variables are children's socioeconomic status (SES). The SES variables include children's education, measured by years of schooling, personal income in 1998, and the

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<sup>4</sup> All pairs live in the same city.

<sup>5</sup> The assessment of the quality of reported information with respect to overreporting or underreporting is discussed in this paper.

International Socioeconomic Index value of the respondent's occupation (SEI). In addition, the covariates include father's socioeconomic status, parents' survival status, parents' average age, respondent's age, and city. Father's socioeconomic status is measured by SEI. Further, within-family variables mainly include sibling's age, birth order, gender, education, and financial status.

Our analyses involve three steps. We begin the analyses with between-family models in which we present the differences in financial support between children who live with parents and those who do not live with parents, given children's SES and relevant covariates. In this step, we also report the differences in co-residence between children with high SES and those with low SES. In the second step, to eliminate the unobservable intra-family differences and reduce the threat of the endogeneity bias problem, we present results based on fixed-effects models in which sibship structure is included. In the third and final step, we treat co-residence and financial support as joint dependent variables by estimating an endogenous switching regression model. The endogenous switching regression is defined as follows (Maddala 1983):

$$y_{1i} = X_{1i}\beta_1 + u_{1i} \quad (1) \text{ for children co-residing with parents}$$

$$y_{2i} = X_{2i}\beta_2 + u_{2i} \quad (2) \text{ for children not co-residing with parents}$$

$$I_i^* = Z_i\gamma - \varepsilon_i \quad (3) \text{ co-residence decision function}$$

$$I_i = 1 \text{ iff } I_i^* > 0$$

$$I_i = 0 \text{ iff } I_i^* \leq 0 \quad (4)$$

$$y_i = y_{1i} \quad \text{iff } I_i = 1$$

$$y_i = y_{2i} \quad \text{iff } I_i = 0 \quad (5)$$

The outcome variable,  $Y$ , is the net amount of financial transfer provided by children.  $X$  is a vector of variables that predict the outcome variable. The switching variable,  $I$ , is co-residence.  $I=1$  if children co-reside with parents, while  $I=0$  if children do not co-reside with parents. Formula (3) is the co-residence decision function.  $I^*$  is a latent variable.  $Z$  is a vector of variables that predict  $I^*$ .  $X$  can be a subset of variables included in  $Z$ . An instrument variable (i.e., a variable predicts  $I^*$  but is not in  $X$ ) for  $I^*$  still needs to be identified. The observed outcome,  $y_i$ , is defined by the equations in (5).

In summary, this study examines whether or not children (especially sons) with high SES buy out of the obligation of living with their elderly parents by providing more financial support, based on a data set collected in three large Chinese cities. The analyses particularly treat co-residence and financial support as joint outcomes by using endogenous switching models to account for a potential bias associated with co-residence. The findings will help us to understand intergenerational relations and the social and economic well-being of the elderly in contemporary urban China.

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