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# How well do children insure parents against low retirement income? An analysis using survey data from urban China ☆

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## Abstract

As population aging becomes more pronounced in the developing world, the uneven implementation of social safety nets raises important questions as to how well traditional family-based mechanisms insure elderly incomes when pension systems fail. Using a unique dataset from a recent household survey conducted in urban China, we find evidence that private transfers respond to low household income of retired workers when income falls below the poverty line. This finding is consistent with an altruistic motive for transfers at low levels of household income. At the same time, however, the transfer response to elderly pre-transfer income is not sufficient to fully cover shortfalls that arise with severe pension arrears and low retirement income.


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## 1. Introduction

In many countries across the developing world, the introduction of public social insurance and pension systems is growing in importance as rapid demographic transition and urbanization place traditional extended family support mechanisms under increasing pressure. New pension systems are difficult to implement smoothly, however, in a regulatory environment in which employers and employees alike find it advantageous to opt out of "mandatory" participation. Non-compliance in new pension systems may be exacerbated if future support is viewed as uncertain when benefits evaporate with firm bankruptcy or with the inability of the government to collect mandated contributions from current employers. In such a setting, transfers from non-resident adult children may provide insurance against low retirement income.

Urban China presents an interesting environment in which to study the willingness of adult children to support parents facing failure of public or enterprise-based pension systems. First, while pension coverage was quite high prior to reform of the state sector, reform of loss-making enterprises has occurred simultaneously with piecemeal development of a de facto pay-as-you-go (PAYG) system in which current workers support current retirees. A significant share of retirees face pension arrears with bankruptcy of former employers, and for these elderly problems with arrears or non-payment can be expected to last into the indefinite future. Second, fertility controls and increases in life expectancy have accelerated the pace of demographic change in China. Given the expected increases in the elder share of China's population, it is generally acknowledged that the current PAYG system is not sustainable (World Bank, 1997; Whiteford, 2001; Murton, 2002), and there is considerable uncertainty as to how well traditional family-based informal mechanisms of support for the elderly can be expected to perform if the PAYG system should fail.

In this paper we use data from urban China to examine the responsiveness of family transfers to low levels of income per capita in retiree households. Where studies of private transfers are typically concerned that expanded public transfers may "crowd out" private transfers and weaken the distributive impact of new public safety nets, we are motivated to look into the public–private relationship from a somewhat different angle: we want to determine the extent to which private transfers respond to failure of China's city-based pension schemes, and whether altruistically motivated private transfers insure retirees against low income in old age. We find evidence that family transfers to households with elderly residents respond to pre-transfer income, but even at low levels of pre-transfer income, private net transfers into the household are not crowded out with increasing retirement income, suggesting that retirees are far from fully insured against pension system failure. Results from our least restrictive model show that at income levels below half the average urban poverty line, net transfers into households increase by 0.20 to 0.26 yuan per capita for each one yuan reduction in income. Responsiveness falls as income increases so that transfers increase by only 0.10 to 0.16 yuan for a 1 yuan decline in the neighborhood of the poverty line, and fall further to 0.06 to 0.08 by pre-transfer income equal to twice the poverty line. A more restrictive fully parametric estimate suggests that, at cutoffs well below the poverty line, transfers into the household increase by 0.52 to 0.68 yuan per capita for each one yuan reduction, but that above this low cutoff responsiveness to income is close to zero. For current retirees, transfers far from fully insure households with elderly against low retirement income.

The literature on intra-family transfers has focused primarily on efforts to distinguish altruistic and exchange motives for transfers (Barro, 1974; Becker, 1974; Cox, 1987). Much of the empirical research in the US has suggested that inter-generational inter-vivos transfers are