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Discussion of the gift-giving behavior in rural and urban area respectively: Empirical evidence in China

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Abstract

Sending gifts in specific festivals and events is a universal phenomenon. One major concern is the motivations behind the sizable and significant gift expenses. The purpose of this research is to compare the gift-giving motives between rural and urban households. Three hypotheses are formulated: baseline altruism hypothesis, social norm hypothesis, and continuation reciprocity hypothesis. All these hypotheses are then tested empirically base on the data from the 2010 China Family Panel Studies Survey (CFPS). The results show that urban households are more motivated by the social norm and baseline altruism, while rural households are more motivated by continuation reciprocity. To further assess the motivations for different income groups, the threshold regression model is applied. The estimates suggest distinct motives between the relatively higher income group and relatively lower income group. The results show that households in the relatively lower income group are not motivated by social norm motive at all. Instead, the continuation reciprocity motive seems to be dominating for them. These findings demonstrate that households in the urban and rural area with different income level react to gift-giving differently.

Keywords: gift-giving, motive, altruism, reciprocity, social norm, China

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1. Introduction

As Monaghan and John (2003) states, "Gift is an elementary social principle whose origins lie at the beginnings of collective life." People all more or less have experiences in sending gifts or receiving gifts under different social contexts. For example, families and friends send gifts to each other on Christmas Day. Moreover, we always show up at other's birthday party with an exquisitely prepared present. It is a common social norm to express affection, love, and respect with a gift.

The study of gift exchange can date from anthropology theory. *The gift* (Mauss, 1924) was the first systematic study of exchanging gifts. This study finds that gift exchange is an essential social bond in so-called archaic societies, and it pervades every aspect of society. Humans are in social norms to give, receive gifts, and repay them. Though gift-giving behavior is more relevant in anthropology, sociology, and the ethnology realm, it is also worthy of studying from the economic aspect since gift purchasing behavior is highly involved in household's economic lives and the monetary value of gifts purchasing is significant. People in America typically spend 3%-4% of their income on purchasing gifts (Prendergast, C. and Stole, L., 2001). In China, households on average spend 7.9% of their income on sending gifts related to festivals and social events (Li, 2018). Moreover, gifts also matter for the economic life of the poor. Banerjee, A.V. and Duflo, E. (2007) study the economic life of poor people in 13 countries across from Asia to Africa to Latin America. The survey data suggests that spending on festivals is an important part of the budget for many impoverished households.

It is frequently wondered why humans spend enormous money on gifts and how exactly do humans interact with each other in social networks from the view of economic. In the very beginning, researches are concentrated on private transfers and indicate that altruism and exchange reasons are the two main motivations. (Becker, 1974; Cox, 1987). Later on, some authors propose that reciprocity also plays an important role (Fehr, E. & Gächter, S., 2000). Moreover, Mitrut, A. and Nordblom, K (2010) find evidence that social norm is a crucial element for explaining gift giving behavior in Romania. The conclusion from the previous researches shows that altruism, reciprocity or exchange and social norm more or less jointly influence the way humans interact in social networks and the study needs to be analyzed under specific social context since there are massive distinction in economy, culture and traditions across different societies and by times. From this point, unlike Becker (1974) and Cox (1987), this paper is focusing on one specific transfer-gift. Loans and exchange induced transfers are

not included because I am more interested in how households behave under unconditional situations. More precisely, my study base on China society in the 21st century and will have a distinction between rural and urban households. Overall, this paper aims to find the motivations behind gift giving behavior in rural and urban China, respectively. I will mainly test three motives: altruism, reciprocity and social norm.

China is a traditional society with thousands of years reciprocal gift giving cultures: reciprocal gift behavior history can be traced back to the Spring and Autumn Period (770-476 BC) refer to the book of rites and the history of sending red paper containing money inside as a gift to the children can be dated back to Han dynasty (206 BC–220 AD). Meanwhile, the gift giving behavior changes enormously considering the amount, the symbol meaning and the relationship it connects thanks to the rapidly rising economics and globalization in the 21st century. Both traditional customs and novelty phenomena contain in gift giving behavior for Chinese households. Yan (1996) conducts systematic research on gift giving behavior in rural China from the anthropology view, regarding the items of gifts, the types of gift-giving activities, and the hierarchical relationship between the giver and the receiver. The research shows the adapted gift behavior in response to the radical social change at that time and mainly focuses on the household in a rural area. Yan (1996) clarifies several motivations that affect the village household gift giving behavior: to maintain social networks, keep the relationship with others, and reciprocity intention that is eliciting a further gift/help in the future. Back to the 21st century, some researches are conducted from the economic aspects, analyzing data to find the motives. Chen (2014) finds that the share of spending on gifts purchasing grew by 18-45% annually from 2005 to 2009 compared with 10% annual income growth among rural households in Guizhou Province. The study of Li (2018) also supports this escalation gift giving phenomenon: households, on average, spend 7.9% of their income on gift purchasing, while notably, this amount rises to 11.4% of income for the households in the rural area. Both the gift spending amount and the escalation phenomenon is bewildering and interesting since it is highly incompatible with household income, especially in the rural area. However, there are few studies systematically compare the difference of household gift giving behavior between the rural and urban areas in China. In this paper, I will discuss the distinctions across the amounts of gift giving and receiving, the factors which influence the giving behavior and the behind motivations for rural and urban household respectively.

For further discussion on gift giving behavior, some definitions need to be specified initially. Firstly, this paper distinguishes gift giving from exchange though both are private transfers. Exchange is considered mutually conditional, while gift giving considered here is a voluntary unconditional act in favor of someone else (Kolm, S.-C and J. M. Ythier, 2006). When you send gifts to your friends, you won't obligate your friends to send back, though it usually happens due to the sense of fairness. Secondly, gifts have two types: in-kind and money. Some authors distinguish these two kinds of gifts, considering the unique meaningful message that non-monetary can convey (Mitrut, A. and Nordblom, K., 2010; Ju, S. & Rawski, Thomas, 2015). However, due to the limited source of data, the gift amount discussed here is comprised of both the monetary gift and non-monetary gift. Thirdly, this paper makes a distinction between one-way transfers and two-way transfers: the former one contains no real social interactions and mostly are anonymous, for example, contributions to the charity; the latter one refers to interhousehold and intrafamily transfers which connect certain social relationship. In this paper, I am going to concentrate on the latter one, and the one-way transfer will be used as a proxy for baseline altruism¹.

A contribution with this thesis is to compare the gift behavior between urban and rural households. As I mentioned before, most Chinese researches concerning gift behavior base on only either urban households or rural households. However, China is going through a period of rapid development, in which the gap between the urban area and rural area becomes larger and larger. The concentration of people, the fast pace of life, the rapid economic development as well as the better educational resources are observed in the urban area. Meanwhile, the rural area is considered to be more traditional. Therefore, it is interesting to study the gift giving behavior for urban and rural households, respectively, identify the similarities and differences.

By briefly discussing previous literature as well as the altruism and reciprocity theory, I formulate three hypotheses: baseline altruism hypothesis, social norm hypothesis and continuation reciprocity hypothesis. Baseline altruism and social norm hypotheses both predict higher gift sending occurrence and amounts. The continuation reciprocity hypothesis expects higher occurrence and larger amounts for gift receiving. All these hypotheses are then tested empirically base on the data from the 2010 China Family Panel Studies Survey (CFPS). I first run probit regressions with two binary dependent variables for the urban sample and rural

¹ Baseline altruism indicates human being's altruism level for strangers. The formal explanation will be introduced in section 3.

sample separately to estimate the effect of social norm and baseline altruism on the probability of sending gifts and the impact of recipient's income on the likelihood of receiving gifts. I assume that households may have different motivations to decide whether to send a gift and choose how much to send. Next, I will implement the OLS regression model with gift sending amounts and gift receiving amounts as dependent variables and conditional on having sent and received a gift in the previous year. Previous literature indicates that households at different income levels react to gift transfer to different extents. (Mitrut and Nordblom, 2010; Li, 2018). To deal with such non-linearity, I subsequently use the threshold regression model to first group the observations by income variable and then estimate the effects separately for different groups. My empirical results suggest that urban households are more motivated by the social norm and baseline altruism, while rural households are more motivated by continuation reciprocity. Moreover, after the observations are grouped, I find that the lower the income, the stronger the relative importance of the reciprocity motive seems as compared to the social norm and baseline altruism motive.

The remainder of the paper is organized as follows. In section 2, relevant literature is discussed, after which I present the underlying theory and formulate the hypotheses in section 3. Section 4 presents the data as well as introduces my methods to construct the social norm and baseline altruism measures. The methodology will then be presented in section 5. In section 6, the results will be displayed. Finally, section 7 concludes the paper.

2. Literature Review

There are many economic kinds of literature regarding gift giving or sharing, or more broadly sense, pro-social behavior. We can distinguish at least three streams of literature: theoretical analysis, experimental analysis and empirical analysis.

The first is theoretical analysis, which builds economic models to analyze interactions between individuals. The approach by Becker (1974) is to value the relevant characteristic of others as monetary and add it to the individual's utility function since the outside environment can profoundly influence one's utility level. Social income is comprised of the individual income and income from the social environment. Individuals are assumed to be available to increase their utility level by making an effort to the social environment. By changing the definition of the social environment, this model can apply to different types of social interactions. Cox (1987) managed to build a model containing both altruistic and exchange motives. He concentrated on the intra-family transfers, and by including children's utility level and services provided to

parents in the parent's utility function, the altruistic and exchange motives can be directly analyzed using comparative statics approach. Both altruism and exchange cases of the model predict an inverse relationship between the income and the receiving amounts of the recipient. However, when given that a transfer is received, the exchange regime predicts a positive relationship while the altruism predicts an opposite direction. The above two models make behavior predictable and give me a good insight on how to model a household's decision on gift giving. The model of Cox (1987) is consistent with his later empirical application. Moreover, data support the exchange hypothesis, while the pure altruism hypothesis is rejected, which implies that altruism cannot alone explain giving behavior even under intra-family context. People are selfish and won't put themselves into a disadvantaged position in general and even inside the family.

The question is, what are the reasons and factors behind the selfish consideration? In this paper, I will consider a broader sense of selfish interest: reciprocity – people send gifts expect to receive a return gift in the future. Altruism motive will also be added. Though pure altruism hypothesis was generally rejected (Cox, 1987), altruism motive is still a major concern on pro-social behavior (Kolm, S.-C and J. M. Ythier, 2006). It might jointly affect household's gift giving behavior with other motives. Moreover, the relationship between income and the gift amount (both sending and receiving) will be tested in this paper considering income is an essential factor affecting both altruism and reciprocity motivation (Cox, 1987; Cox and Hansen, 2004).

Except for building predictable economic models, there is a wide range of studies based on experimental games suggested that individuals care not only about their own payoffs but also about fairness, equity and reciprocity (Boyd, R., 2004). Forsythe (1994) design the simple bargaining game to test whether fairness alone can explain the proposers' offer. The resulted offers of the ultimatum and the dictator game are significantly different, which implies that fairness cannot explain the proposer's sharing behavior by itself. Another experiment that was done by List (2007) find an impressive result that individuals avoid the most selfish allocation. These two studies are consistent with the predictions from the previous models: social preference is not affected by one single motivation. Güth, Kliemt, and Ockenfels (2003) want to observe how fairness and efficiency influence sharing behavior by conducting two games: a dictator game (one-sided gift giving) and a dictator dilemma game (two-sided gift giving). The outcome shows that the participant didn't choose the efficient distribution when it is not fair to himself, which implies that the individual didn't consider altruism towards others when he is in

a disadvantageous position. The two-sided experiment also supports this fairness concern; specifically, reciprocal fairness is prominent when the sharing is a mutual simultaneously decision. This result is consistent with the social phenomena that individuals care about the potential receive amount when deciding how much to give. Fehr and Gächter (2000) conducted a public good experiment and find that cooperators will punish the free-riders even when punishment is costly and have no benefits for the punishers. In society, people may punish the individuals that don't send gifts at all when attending events like weddings, and these people may not be invited anymore. Individuals will send gifts to avoid this situation, and the receiver will also send back when the situation comes to his. By times, this will develop into a social norm. That's why social norm is essential to discuss in pro-social behavior since individuals' behaviors are highly correlated.

The participants in the above experiments are anonymous to each other during the experiment. These experiments outcomes provide a baseline implication for pro-social behavior. To observe behavior under real social networks such as neighbors, colleagues, friends, relatives, and families, then the social relationships need to be taken into account in the experiment. Leider (2009) conducted an online field experiment and distinguish the baseline altruism (towards strangers), directed altruism (towards friends), and reciprocity intentions by managing one anonymous dictator game and a non-anonymous dictator game. The result shows that participants show more directed altruism than baseline altruism, which implies that individuals show different degrees of altruism to different relationships. The outcome also acknowledges the reciprocity motivations, which is consistent with the theory mentioned. With the same implement, Ligon and Chechter (2012) try to find what motivated rural people to share, and the result is that baseline altruism and directed altruism account for the most substantial proportion of observed sharing. However, Ligon and Chechter (2012) later find that it is only the reciprocity motive that is consistent with real-world sharing outside the experiment, which contradicted the experiment finding. One may argue that it is probably the experiment setting that induces individuals to behave better, or it is because the sharing amount set is too small, which cannot induce the real reciprocity intention. Those arguments are hard to verify, but there is no doubt with the importance of empirical analysis of specific social interaction based on localized data, which is what this paper is going to do and what has already been done frequently in the previous researches.

The empirical analysis is based on different societies. De Weerd, J. and Dercon, S. (2006) conduct a study based on household survey data in Nyakatoke, a village in Tanzania. They find

that sickness, funeral, ceremonies, and lumpy expenditures were reported to be the major shocks that interviewed individuals ever experienced, and risk-sharing was the most frequently mentioned strategies to face these shocks. Informal risk sharing help households to copy with these major shocks through transfers and gifts. Noteworthy, private gifts are the most popular form of risk-sharing. Mitrut, A. and Nordblom, K (2010) used Romania's inter-household survey data to find why individuals send gifts to each other. This study measures the social norm successfully, and the empirical results acknowledge the importance of social norm and the dominance of the reciprocity norm to explain Romanian household gift behavior. Similar with Cox (1987), Mitrut, A. and K. Nordblom (2010) estimated how income influence these motivations and find that reciprocity norm only can explain why rich people receive; the reason why the poor people receive is more due to impure altruism than reciprocity concerns. However, they only estimate the motivations why people receive, the gift giving behavior is not estimated. Zhang (2011) conducted empirical research with localized data from 18 selected natural villages in rural Guizhou, China. The study tried to answer why poor people spend a large share of income on gifts, even at the expense of primary consumption by mapping dyadic relationships. By matching gift givers and receivers of each transaction and compared with detailed income information, Zhang (2011) was able to decompose reasons behind reciprocity intentions: peers' effect, status-seeking and risk-pooling. The empirical results supported the former two explanations and denied the risk-pooling hypothesis, which supported that gifts behavior in China is generally reciprocal. Moreover, by identifying a total of 8074 gift links, the author finds that gift exchanges are more prevalent within a clan than across clans. It shows the geographic influence on gift giving and the importance of community sense. Ju (2015) examines the factors behind giving behaviors (monetary gifts) within individual relationships. Instead of on rural area households, this paper is focusing on an urban city in China, and the most interviewed individuals belong to the high-income group. Based on 912 wedding gift transactions from 33 individuals, the results show that kinship and better relationships are often associated with both larger initial and return gifts, which is consistent with what Leider (2009) found in the online field experiment. Unlike Zhang (2011), Ju stated that the size of monetary gifts grows slower than the income. Comparing Ju (2015) and Zhang (2011), we can suspect that households in rural and urban areas behave differently on gift giving. Therefore, in this paper, I will systematically study the difference in gift giving behavior between the rural and urban areas in China.

Indeed, it is worthy and pivotal to distinguish every single dyadic relationship and track the relationship it is connected, the amount of receiving and giving from both sides and the income distribution among the social network as Zhang (2011) did when the objective is to find the motivations behind household gift behavior. Unfortunately, I cannot track every dyadic relationship due to the limitation of my data. Therefore, what I am focusing on is a one-side gift behavior: what motivates the household to give gifts and what factors influence the gift giving and receiving amounts for the household.

Other than reciprocity, altruism and social norm, informal risk sharing is a vital focus to explain the sharing behavior among the rural area. In much of the developing countries, poor people face income fluctuations due to weather shocks, disease affecting crops and so on. They are lack access to the formal insurance, therefore, informal risk sharing through transfers and gifts are widespread (Ambrus et al., 2014). Though fully risk-pooling hypotheses is generally denied (Jalan and Ravallion, 1999; Townsend, 1994; Zhang, 2011). Jalan and Ravallion (1999) prove that partial risk-pooling exists for certain wealth group in China. In their reasearch, consumption is largely protected of an income shock for the richest third of households. Besides, Attanasio et al., (2012) find that trust is a key element when people choose who to share risks with. So risk sharing motive is still essential for at least part of households. Therefore, I won't test the fully risk-pooling hypothesis in this paper. Instead, I will consider household's risk awareness into empirical analysis. More precisely, I will use whether the household ever bought commercial insurance in the year before as a proxy for household's risk awareness and test whether a household's risk awareness impact gift giving behavior.

To sum up, under the guidance of the existing literature within the field, this paper mainly discusses the motivations behind gift giving behavior in rural and urban China, respectively. Three motives are tested: social norm, reciprocity and altruism. Two factors are mainly focused on: income and risk awareness.

3. Theoretical Framework and Hypothesis

3.1 Altruism Theory

Kolm (2006) states the definition of altruism in his book: "Altruism is the preference for the good of some other people in itself, and it also denotes acting in favor of this good for this motive." Altruism is a common sense in our daily social life: we will be happy with other people's happiness and be sad from other people's sorrows. It turns out that humans are not purely selfish, and individuals' utility functions are correlated. Therefore, it is not appropriate

when assessing an individual's utility by assuming pure selfishness, especially when we want to estimate an individual's utility in the social environment.

There are mainly two types of altruism: natural altruism and normative altruism, which are distinguished by different causes. Natural altruism is induced by humans' natural sentiments: empathy, sympathy, affection, compassion and pity. The one I mentioned before that people sometimes are happy or sad as a consequence of the happiness or sorrow of other people is typical natural altruism. Compared to natural altruism, normative altruism is more complicated. Briefly, it is moral sentiment and social justice that induce people's normative altruism. Sometimes people care about the judgment from people around and want to seek for a good image; sometimes people donate because of the social moral norm rather than empathy or pity feeling for the receiver. We can see social norm and normative altruism is kind of related: social norms induce normative altruism and extend the degree of it.

It is hard to distinguish natural altruism and normative altruism because people won't reveal their true sentiments most times. For simplicity, I won't discuss these two separately and assume the altruism motivation here will simple induce the giver to feel better from the receiver's higher utility. The simple structure can be presented as following: $u_i = u(x_i, u_{-i})$.

3.2 Reciprocity Theory

Kolm (2006) stated the definition of reciprocity in his book: "A gift or favor motivated by another gift, for instance, the return gift of an initial gift, constitutes the very important social relations of reciprocity." Reciprocity is quite common in our society, and it is called "one of the human rocks on which societies are built" by Mauss (2002) in his book, the gift.

Reciprocity can be discussed in 3 different types according to three basic reasons: balance reciprocity, liking reciprocity and continuation reciprocity. Balance reciprocity is caused by a sense of fairness. People return gifts due to feeling "in debt". Therefore, balance reciprocity predicts that people tend to send gifts to the people who have ever sent him/her gifts. Liking reciprocity induces individuals to send gifts because they simply like the receiver or want to be liked by the receiver. Then liking reciprocity predicts that people tend to send gifts to the more intimate people, for example, relatives and close friends. Continuation reciprocity happens when people send gifts mainly to induce another gift, or some further status derived from the relationship. Continuation reciprocity predicts that people tend to send gifts to people with higher income or higher status from whom they can obtain some benefits in the future.

Noteworthy, the liking reciprocity discussed here is similar to the altruism induced by affection. And it is similar to what described as "directed altruism towards relatives and close friends" in some literature mentioned before (Leider, 2009; Ligon and Chechter, 2012). Indeed, empirical studies also prove that people send more gifts to relatives and close friends (Ju, 2015). For simplicity, the altruism discussed in this paper is the baseline altruism humans have for strangers. And the giving induced by closer relationships are defined as liking reciprocity.

Balance reciprocity, liking reciprocity, and continuation reciprocity are considered into a household's utility function and be formulated as follows:

$$u_i = u \left(\underbrace{x_i - g_{ij} + g_{ji}}_{+}; \underbrace{|g_{ij} - g_{ji}|}_{-}; \underbrace{prob\{g_{ji} > 0\}}_{+}; \underbrace{(\theta + \sigma) * (x_j - g_{ji} + g_{ij})}_{+} \right)$$

Where x_i and x_j denote the initial endowments of goods or services or households i and j , respectively. g_{ij} denotes the gift amount that household i give to j while g_{ji} denotes the gift that household i receives from j . The first argument $x_i - g_{ij} + g_{ji}$ indicates for household's utility for consumption. $|g_{ij} - g_{ji}|$ shows the fairness reciprocity concern: when the gift amounts household i gives to j is higher than the gift received from household j , it will make household i feels unfair and may reduce the gift amount to j in the future; while when considering the opposite situation that household i receives more which will make household i feels in debt and also reduce household i 's utility function considering household i will "have to" send back more in response. $prob\{g_{ji} > 0\}$ denotes the continuation reciprocity concern that the household's utility will be lower when there are no return gifts. $(\theta + \sigma) * (x_j - g_{ji} + g_{ij})$ comprises both the baseline altruism and liking reciprocity: θ denotes the baseline altruism level while σ denotes the liking reciprocity level.

3.3 Hypothesis

Altruism theory and the reciprocity theory give a general theoretical insight into the motivations behind household gift giving behavior. Due to the limitation of my data, it is impossible to test balance reciprocity and liking reciprocity since I can't distinguish every single dyadic relationship and track the connected relationship, the amount of receiving and giving from both sides. Moreover, it is indeed hard to verify the true sentiments behind gifts, which makes the normative altruism and pure altruism can't be distinguished. Therefore, in this paper, I will mainly test three motivations based on the above theory: baseline altruism hypothesis (hereafter

Hypothesis 1), social norm hypothesis (hereafter *Hypothesis 2*), and the continuation reciprocity hypothesis (hereafter *Hypothesis 3*), which is formulated as follows:

Hypothesis 1: Household with higher baseline altruism level on average send more gifts. In this paper, I will use the donation amounts for strangers as a proxy for baseline altruism.

Hypothesis 2: Household in the community with higher social norm level on average send larger amounts for gifts.

Hypothesis 3: Household, on average, send more to the people with higher income to keep relationships or derive further status by the motivation of continuation reciprocity. In other words, the household with higher income receives higher amounts of gifts.

4. Data

I will be using the China Family Panel Studies Survey (CFPS), which is a nationally representative and annual longitudinal survey of Chinese communities, families and individuals. The survey was launched in 2010, and the follow-up survey for the same sample is collected biennial. In this paper, I will only use the 2010 survey data considering it contains information on both gift giving and receiving amounts for households. This is the first nationally representative survey contains information about gift expenses, which provide a chance to analyze the gift giving behavior based on a nationally representative sample. Moreover, it distinguishes the gift transfer amounts from donations as well as the loans, which allows studying the gift giving behavior alone.

The 2010 data is a nationally representative sample consisting of 14798 households throughout 25 provinces of China. Due to item non-response for some questions, the sample is reduced at 12721 households, among which there are 6640 rural households and 6081 urban households.

Section 4.1 presents the general picture of gift transfers for urban and rural households, respectively. Section 4.2 introduces my methods to construct social norm measures. Section 4.3 presents my approach to construct baseline altruism measures. Besides the gift transfer variables as well as the proxies for the social norm and baseline altruism, I also include some household-level and community-level variables into the regression models, which will be introduced in section 4.4.

4.1 Inter-household Gift Transfers

Sending gifts to families, friends, and neighbors in festivals and important events such as weddings and birthday parties is an important and common tradition throughout entire China. However, compared to urban households, rural households are considered to be more traditional, and then most previous literature (Zhang, 2011; Chen, 2014; Li, 2018) analyzes the gift giving behavior only on the rural household sample. I focus on the comparisons of rural households and urban households gift giving behavior. Therefore, I include both rural and urban household samples into analysis to compare the gift giving behavior, identify similarities and differences among them.

The percent of households who have ever given gifts in the previous year is 86.86% in the urban area, while the percent is 89.79% in the rural area. The percentages are similar, and both are quite large, which indicates that sending gifts is very prevalent for both rural and urban households. The percent of households that have ever received gifts in the year before is 38.99% in the urban area and 42.88% in the rural area. Both the gifts sending rate and receiving rate are slightly higher in the rural area, which implies that sending gifts are on average more prevalent in the rural area than in the urban area. Surprisingly, it shows that the gift receiving rate is way lower than the gift giving rate. This imbalance phenomenon indicates a concentrated gift giving flow. One possible explanation could be the gifts are sent to certain part of households. Perhaps poor people are receiving more because of the altruism motive. Or the households with higher income and status receive more because of the reciprocity motive.

Next, I also consider the amount of gift giving and receiving. Table 1 shows the gift giving and receiving amounts per se and the shares of gift giving and receiving amount in household pre-transfer annual income for the rural and urban households, respectively. It turns out that households in the urban area on average have higher gift giving and receiving amounts. However, one possible reason could be that urban households have, on average, higher income. Note that the household annual income here includes the pre-transfer income of all household members. The percentages indicate that rural area households, on average, spend 17.66% of their income on gifts purchasing, which is higher than the urban households (14.52%). Therefore, it is concluded that rural households, on average, spend more on gifts giving as a share of their income than urban households.

Table 1: Summary statistics for gifts giving/receiving amounts and shares in income

	Urban		Rural	
	(N= 6081 observations)		(N= 6640 observations)	
	Mean	Std. Dev.	Mean	Std. Dev.
Household pre-transfer annual income*	44235.35	58789.16	23549.87	42076.67
Gift giving amounts*	2448.35	3729.01	1674.63	2339.92
Share of gift giving amounts in total household income	14.52%	2.07	17.66%	1.94
Gift receiving amounts *	1201.56	5288.56	794.94	3180.36
Share of gift receiving amounts in total household income	3.29%	0.11	4.39%	0.14

Source: 2010 China Family Panel Studies Survey

Notes: * Monetary values are in 1 Yuan (CNY), 1 USD = 6.77 Yuan (Bank of China, 2010)

4.2 Social Norm Measures

Sometimes people send gifts mainly because they feel they have to do it and the surroundings are doing in this way. On the one hand, this social phenomenon is due to the traditions. For example, sending Christmas gifts to friends and families is a tradition in western countries while sending red paper containing money inside as a gift to children in the Spring Festival is a tradition in China. On the other hand, this social phenomenon may be due to the peers' effect (Zhang, 2011). People care about their images in other people's eyes, which influence the household's decision on whether to send a gift and how much money spent on the gift purchasing. The "reasonable" gift value is mostly decided by the community common sense. Therefore, it is essential to add social norm into the empirical analysis (see also Mitrut and Nordblom, 2010).

Considering the social norm is an abstract concept, the measures need to be considered carefully. In what follows, I construct two measures of the social norm at the community level, since it is proved that gift exchanges in China are more prevalent within a community than across communities (Zhang, 2011). A community in my data is defined as a village in the rural area and a neighborhood committee in the urban area.

My first measure (hereafter *social norm 1*) is the mean value at the community level of the amounts of contacting types for the household. There is a multiple-selection question in the survey: "Last month, did your family have any of the following contacts with your neighbors?", where the selective answers are as follows: 1. Entertainment/dine together 2. Give food or gifts 3. Help each other 4. Pay a visit 5. Face-to-face chatting 6. Other 7. None of these. This question can reveal the household's relationship with its neighbors. More types selected indicates a closer and more intimate relationship. I firstly sum the contacting types for each household. If one household says yes only to answer 1 and 2, then the household will have a sum of 2 and so on.

After that, I calculate the mean value at the community level. The higher mean value of contacting types in a community indicates a more related relationship between households in the community, which further implies stronger spillover effect to each other inside the community. Therefore, it is a good proxy for the social norm in a community.

However, gifts in my data contain the gifts sent to neighbors as well as the gifts sent to families. Households in the rural area tend to live nearby their families. In other words, many families live in the same community, particularly in rural China. Then using *social norm 1* may have bias, that it may only capture the social norm between neighborhoods and ignore the traditional concept towards families. Therefore, I use a second measure (hereafter *social norm 2*), which is the mean value at the community level for the answer to the question: "Last year, did your family participate in ancestor worship/tomb-sweeping activities?". The reason why I use this activity as a proxy is that it is a traditional, meaningful and memorial activity in China, and most Chinese households do it periodically. Households participate in ancestor worship activity in certain holidays annually to show respect for ancestors. Whether or not a household engages in ancestor worship activities is a proxy for the household's traditional family concept. Therefore, using *social norm 2* can show the average traditional family concept in a community and further reveal the social norm influenced by traditional concepts.

Table 2 presents the descriptive statistics of the above two social norm measures. The average of *social norm 1* for the urban household is 1.41, with values varying from 0.11 to 3.63. The mean value indicates that the urban communities, on average, have 1.41 contacting types between households. The average of *social norm 2* for the urban household is 0.66, with values varying from 0 to 1. The mean value shows that urban communities, on average, have 66% percent of households who have ever participated in the ancestor worship activities in the year before. Compared with urban households, the rural households are on average have a slightly larger value for every social norm measure, which implies that rural households on average are closer and more intimate with each other and are more traditional. The correlation between *social norm 1* and *social norm 2* is 0.23 and statistically significant at the 1 percent level, which implies that these two social norm measures are not highly correlated. The reason is that these two measures reflect different aspects of social norms. Hence, in the later empirical analysis, I will use these two social norm measures separately to test *Hypothesis 2*.

4.3 Baseline Altruism Measures

I will use the donation amounts to strangers as the proxy for the baseline altruism. The 2010 survey data contains both the general donation amounts to the charity, and the contribution amounts to the "Earthquake Relief Program" for the 2008 Wenchuan Earthquake in Sichuan Province. The general donation measures the household's annual donation amounts to the charity institution in the year before, and the earthquake donation amount is asked separately due to its specific condition, i.e., the earthquake donation amount is not included in the general donation amount.

There are 20.36% of rural households that ever donated to regular charity institution in the year before. And the percentage rises to 61.76% when it is towards earthquake donation. Regarding the urban households, the rate is 36.19% for the general donation, and the rate increases to 79.92% when it is for earthquake donation. The above numbers indicate a higher percentage of households donate for the earthquake compared to the general donation. The 2008 Wenchuan earthquake was a big disaster. Over 69000 people lost their lives, and over 370000 people were reported injured ("Casualties of the Wenchuan Earthquake", 2008). The news about it was going everywhere in China. That's why relatively more households donated for it. Nowadays, donation information is spread quickly through the Internet. But back to that time, households didn't have much related information about donations, primarily rural households. Thus, the lower donor percentage for general donation might be because of a lack of relevant information. Therefore, the information about the donation for the earthquake may reveal the household's baseline altruism for the strangers more accurately. However, since most earthquake donations are collected in public, for example, in class and company. One may argue that the donations to the earthquake may be influenced by the peer's effect, i.e., people donate mainly because most people in the surroundings have donated. Hence, I will use both the amounts of general donations (hereafter *baseline altruism 1*) and the amounts of donations to the earthquake (hereafter *baseline altruism 2*) as measures for the baseline altruism.

Table 2 presents the descriptive statistics of the two baseline altruism measures. The average amount of *baseline altruism 1* for the urban household is 110.21, which indicates that urban households, on average, donate 110.21 Yuan (16 USD)² to charity institutions. The average amount of *baseline altruism 2* for the urban household is 229.63, which shows that urban

² 1 USD = 6.77 Yuan (Bank of China, 2010)

households, on average, donate 229.63 Yuan (34 USD) to the "Earthquake Relief Program". Compared with urban households, the rural households are, on average, donate lower amounts for both the general donation as well as the earthquake donation. The correlation of these two baseline altruism measures are 0.32 and statistically significant at the 1 percent level, which shows these two baseline altruism measures are not highly correlated. Therefore, I will use these two baseline altruism measures separately to test *Hypothesis 1* and see what the difference is.

4.4 Summary Statistics of Main Variables

Table 2 presents the descriptive statistics for the main variables. In the later empirical analysis, I will run the regressions on the urban household sample and the rural household sample separately to compare and discuss the motivations behind household gift giving behavior; thus, the summary statistics are presented independently for urban and rural households as well.

Except for the gift transfer variables, household pre-transfer annual income (in thousands of Yuan), social norm measures and baseline altruism measures, I also include the risk awareness dummy variable, which equals 1 when the household ever bought commercial insurance in the year before. As I already discussed in the literature review section, the risk sharing motive is an important factor when study gift giving issues. It is expected that households with higher risk awareness will have stronger reciprocity motive and send more gifts. Whether or not bought commercial insurance in the previous year can reveal the household's risk awareness to some extent. Therefore, I include it in the regression to test its effect on the household's gift giving behavior. It shows that 14% of urban households have ever bought commercial insurance while the percentage for rural households are only 8%, which implies that urban households on average have higher risk awareness. I also add household size and community size as control variables. It shows that rural households, on average, have a relatively larger household size and smaller community size. Moreover, I include some standard socio-economic individual characteristics for the head of each household: marital status, gender, age and education levels.

Table 2: Descriptive statistics for main variables₂

	Urban (N= 6081 observations)				Rural (N= 6640 observations)			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
Dependent variables								
Gift giving amounts (Yuan)*	2448.35	3729.01	0	100000	1674.63	2339.92	0	50000
Gift receiving amounts (Yuan)*	1201.56	5288.56	0	180000	794.94	3180.36	0	90000
Whether sent a gift (dummy=1 if household ever sent a gift in the year before)	0.87	0.34	0	1	0.89	0.3	0	1
Whether received a gift (dummy=1 if household ever received a gift in the year before)	0.39	0.49	0	1	0.43	0.49	0	1
Independent variables								
<i>Community-level variables</i>								
Social norm 1	1.41	0.59	0.11	3.63	1.55	0.7	0	3.33
Social norm 2	0.66	0.23	0	1	0.72	0.28	0	1
Community size (amounts of households)	1996.39	1627.21	103	16000	508.72	414.77	38	3560
<i>Individual-level variables</i>								
Baseline altruism 1	110.21	341.59	0	6000	23.73	122.1	0	5000
Baseline altruism 2	229.63	791.53	0	30000	60.01	542.12	0	40000
Household pre-transfer annual income (in thousands of Yuan) *	44.24	58.79	0.005	2042.1	23.55	42.08	0.005	1406
Risk awareness (dummy=1 if household ever bought commercial insurance in the year before)	0.14	0.34	0	1	0.08	0.27	0	1
Household size (household member amounts)	3.42	1.50	1	16	4.17	1.81	1	26
Marital Status (dummy=1 if household head is married)	0.84	0.36	0	1	0.88	0.32	0	1
Gender (dummy=1 if household head is male)	0.54	0.5	0	1	0.66	0.47	0	1
Age (of the household head)	48.95	14.39	16	97	48.96	13.14	16	91
Education level of the household head (dummies for the following five categories)								
Illiterate	0.17	0.37	0	1	0.36	0.48	0	1
Elementary school	0.16	0.37	0	1	0.28	0.45	0	1
Secondary school	0.32	0.47	0	1	0.28	0.45	0	1
Technical/High school	0.2	0.4	0	1	0.08	0.27	0	1
Higher education	0.15	0.35	0	1	0.01	0.11	0	1

Source: 2010 China Family Panel Studies Survey

Notes: * Monetary values are in Yuan (CNY), 1 USD = 6.77 Yuan (Bank of China, 2010)

5. Methodology

I will first run probit regressions with two binary dependent variables for the urban household sample and rural household sample separately. The probit model will be presented in section 5.1. Next, I will implement the OLS regression model with gift giving amounts and gift receiving amounts as dependent variables and conditional on having sent and received a gift in the previous year. The OLS regression will be structured in section 5.2. Finally, since some studies have already proved the non-linear effect on the gift giving behavior due to the different income level (Cox, 2004; Mitrut and Nordblom, 2010), I implement the threshold model to deal with the non-linear effect issue. By using the threshold regression model, the observations will be grouped firstly, and then the effects are estimated separately for different groups. The threshold regression model will be introduced in section 5.3.

5.1 Probit Model

As I have mentioned in section 3, I have three hypotheses to test. The first one is the baseline altruism hypothesis (hereafter *Hypothesis 1*), which predicts that higher altruism level is associated with larger gift giving amounts. The second one is the social norm hypothesis (hereafter *Hypothesis 2*), which predicts that households in the community with higher social norm level, on average, send larger amounts for gifts. The third one is the continuation reciprocity hypothesis (hereafter *Hypothesis 3*), which predicts that the household with higher income receives more substantial amounts of gifts.

The probit model to test *Hypothesis 1* and *Hypothesis 2* is structured as follows:

$$\Pr(G_{iv}^* = 1 | Y_{iv}, \eta_v, \theta_{iv}, \mathbf{X}_{iv}) = \Phi(\beta_0 + \beta_1 Y_{iv} + \beta_2 \eta_v + \beta_3 \theta_{iv} + \beta' \mathbf{X}_{iv}) \quad (1)$$

Where the dependent variable G_{iv}^* is binary, which reflect whether the household ever sent gifts in the previous year; Φ is the cumulative standard normal distribution function; Y_{iv} is the household's pre-transfer annual income; η_v reflects the average social norm strength in community v ; θ_{iv} reflects the baseline altruism measure for each household; and \mathbf{X}_{iv} is a vector of all the other independent variables indicated in Table 3. This probit model will be estimated for the urban sample and the rural sample separately.

The probit model to test *Hypothesis 3* is structured as follows:

$$\Pr(R_{iv}^* = 1 | Y_{iv}, \mathbf{X}_{iv}) = \Phi(\alpha_0 + \alpha_1 Y_{iv} + \alpha' \mathbf{X}_{iv}) \quad (2)$$

Where the dependent variable R_{iv}^* is binary, which reflects whether the household ever received gifts in the previous year; Φ is the cumulative standard normal distribution function; Y_{iv} is the household's pre-transfer annual income; and \mathbf{X}_{iv} is the same vector in the

equation (1). This model will also be estimated for the urban sample and the rural sample separately.

5.2 OLS Regression Model

Conditional on having sent gifts in the previous year, the OLS regression model to test *Hypothesis 1* and *Hypothesis 2* is estimated on the restricted sample:

$$G_{iv} = \beta_0 + \beta_1 Y_{iv} + \beta_2 \eta_v + \beta_3 \theta_{iv} + \beta' \mathbf{X}_{iv} + (\epsilon_{iv} | G_{iv} > 0) \quad (3)$$

Where the dependent variable G_{iv} is the household's total gift giving amount in the previous year; ϵ_{iv} indicates the error term; and the other variables are defined as the same as in the equation (1).

Conditional on having received gifts in the previous year, the OLS regression model to test *Hypothesis 3* is estimated on the restricted sample:

$$R_{iv} = \alpha_0 + \alpha_1 Y_{iv} + \alpha' \mathbf{X}_{iv} + (u_{iv} | R_{iv} > 0) \quad (4)$$

Where the dependent variable R_{iv} is the household's total gift receiving amount in the previous year; u_{iv} indicates the error term; and the other variables are defined as the same as in the equation (2).

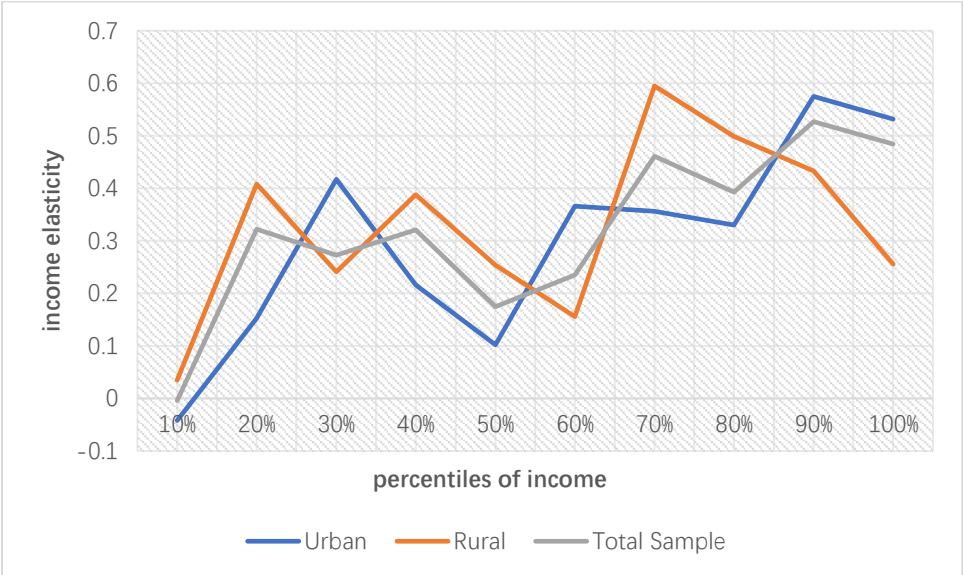
Note that the regression model (3) and (4) will be estimated for the urban and rural areas separately as well. The reason why I use the OLS regression model after the probit model to evaluate the effects on the restricted sample is that I assume households have different motivations to decide whether to send a gift and choose how much to send given on the decision of whether to send has been made.

5.3 Threshold Regression Model

The above OLS regression models can indicate the general relationship between the dependent variables and the independent variables, which further can imply the motivations behind gift giving behaviors for the rural and urban areas, respectively. However, the OLS linear regression model considers the marginal effect of the variables as constant, which is not reliable in this case since the literature of previous empirical evidence, for example, Li (2018) and Mitrut and Nordblom (2010), already indicated that the different income group's gift giving behavior reacts differently to their income and social norms. Back to my sample data, I first estimate the income elasticity of gift giving amounts for the total sample, rural households, and urban households in different percentiles of income. It is presented in Graph 1, and it shows that households in different income levels indeed have distinct income elasticity towards gift giving amounts. Then using OLS regression models across the full observation will make bias. One solution to it is to

divide the sample into several income levels and to do the regression separately, as Mitrut and Nordblom (2010) did. Another way is to implement the threshold regression model, which uses an observed variable to divide observations into different groups and then further to do the regression, as Li (2018) did. The threshold regression model is formally structured by Hansen (1999). In this paper, I will use the threshold regression model to group the observations and then estimate the effects for different groups separately. The reason why I choose the threshold regression model is that it estimates the threshold value by using the least residual sum of squares, i.e., when there is only one threshold, compute the residual sum of squares for each possible threshold values and pick the one with the least residual sum of squares. By doing that, the observations are grouped more reasonably than simply using medium or mean income to group the observations.

Graph 1: Income elasticity of gift giving amounts 3



Source: 2010 China Family Panel Studies Survey

By observing the Graph 1, we can see several turning points for both urban and rural samples. For example, one possible threshold for the rural sample is at 60% percentiles of income level and one possible threshold for the urban household is at 50% percentiles of income level. Therefore, there is at least one threshold in each sample. For simplicity, I will group the urban sample and rural sample each into two groups (with one threshold) and further estimate the effects of independent variables on gift giving/receiving amounts for different groups. Note that the following threshold models are also estimated for urban and rural areas separately and are also estimated on the restricted sample like in the OLS regression model.

The threshold model to test *Hypothesis 1* and *Hypothesis 2* on the restricted sample is formulated as following:

$$G_{iv} = \beta_0 + \beta_1 \mathbf{Z}_{iv} I(Y_{iv} \leq q) + \beta_2 \mathbf{Z}_{iv} I(Y_{iv} > q) + (\epsilon_{iv} | G_{iv} > 0) \quad (5)$$

Where the dependent variable G_{iv} is the gift giving amounts; \mathbf{Z}_{iv} is a vector of all the independent variables used in equation (1) and (3); $I(\cdot)$ is the indicator function; Y_{iv} is the household's pre-transfer annual income which acts as the threshold variable in this case; q is the threshold value; ϵ_{iv} indicates the error term.

The threshold regression model to test *Hypothesis 3* on the restricted sample is formulated as following:

$$R_{iv} = \alpha_0 + \alpha_1 \mathbf{H}_{iv} I(Y_{iv} \leq c) + \alpha_2 \mathbf{H}_{iv} I(Y_{iv} > c) + (u_{iv} | R_{iv} > 0) \quad (6)$$

Where the dependent variable R_{iv} is the gift receiving amounts; \mathbf{H}_{iv} is a vector of all the independent variables used in equation (2) and (4). $I(\cdot)$ is the indicator function; Y_{iv} is the household's pre-transfer annual income, which also acts as threshold variable in this case; c is the threshold value; and u_{iv} indicates the error term.

6. Results

6.1 Probit Regression Analysis

6.1.1 Gifts given

Estimates for the probit equation (1) are presented in Table 3. The dependent variable takes the value one if the households ever sent gifts in the previous year. Columns 1 to 2 are the estimates for urban sample, and columns 3 to 4 are the estimates for the rural sample.

I observe that household income has a positive and significant effect on the probability of sending gifts both for rural and urban samples. Noteworthy, the effect of the income variable is relatively larger for the rural sample, which implies that when the income increases by the same unit, the probability for the rural household to send gifts is higher than the urban household. For both the rural and urban samples, the effect of the *social norm 1* is positive and significant at the 1 percent level. In contrast, *social norm 2* has no significant effect. As mentioned in section 4, *social norm 1* and *social norm 2* presents the different aspects of the social norm: the *social norm 1* shows the relationship between the neighbors and the *social norm 2* reflects the traditional concept. Hence, the result indicates that households decide whether to send a gift motivated by the social norm related to neighborhood relationships. For urban households, *baseline altruism 1* has a positive and significant impact on the probability of sending a gift. However, it has no significant effect on rural households. The same results are obtained when

using *baseline altruism 2*.

In addition, the estimate of risk awareness shows that for all households, the risk awareness has a positive and very significant effect on the probability of sending gifts, moreover, as household size increases, the likelihood of sending gifts increases for both samples. Also, I find that when the household head has married, the probability of sending a gift is much higher for both samples. Moreover, the probability of sending a gift follows an inverse-U shape over the life cycle for both samples. What's more, the gender and education level of the household has no significant effect on the rural household. However, for urban households, the male household head is associated with a higher probability of sending a gift, and a higher education level of the household head is associated with higher probability. Besides, smaller community size is associated with a higher likelihood of sending gifts in general for both samples.

In a word, regarding the results from Table 3, I find that *social norm 1* increases the probability of sending a gift for both rural and urban households, which proves that the social norm related to neighborhood relationships is indeed essential for the occurrence of a gift. However, the social norm related to the traditional concept has no significant effect on the likelihood of sending gifts. Besides, baseline altruism increases the probability of sending a gift only for the urban sample. So, for now, we can conclude that the social norm related to neighborhood relationships motivates both urban and rural households to send a gift, while baseline altruism only motivates urban households to send a gift.

Table 3: Probit regression results for gifts given ⁴

	Urban		Rural	
	(1)	(2)	(3)	(4)
Household pre-transfer income (in thousands of yuan)	0.001** (0.0006)	0.001* (0.0006)	0.008*** (0.001)	0.009*** (0.001)
Social norm 1	0.114*** (0.039)		0.141*** (0.033)	
Social norm 2		0.129 (0.095)		-0.074 (0.08)
Baseline altruism 1	0.0002** (0.0001)	0.0002** (0.0001)	-0.0001 (0.0002)	-0.0009 (0.0002)
Risk awareness	0.281*** (0.08)	0.294*** (0.079)	0.431*** (0.121)	0.439*** (0.12)
Household size	0.03** (0.016)	0.032** (0.016)	0.031** (0.013)	0.032** (0.013)
Marital Status	0.386*** (0.06)	0.387*** (0.059)	0.38*** (0.064)	0.368*** (0.063)
Gender	0.08* (0.045)	0.082* (0.045)	-0.011 (0.049)	-0.0007 (0.049)
Age	0.02** (0.009)	0.02** (0.009)	0.049*** (0.01)	0.048*** (0.01)
Age ²	-0.0003*** (0.0001)	-0.0003*** (0.0001)	-0.0006*** (0.0001)	-0.0006*** (0.0001)
Elementary school	0.12* (0.071)	0.113 (0.072)	0.051 (0.057)	0.054 (0.057)
Secondary school	0.125* (0.067)	0.119* (0.066)	0.111* (0.063)	0.112* (0.063)
Technical/High school	0.189** (0.076)	0.175** (0.076)	0.054 (0.098)	0.063 (0.098)
Higher education	0.323*** (0.093)	0.308*** (0.093)	0.715* (0.397)	0.698* (0.396)
Community size	-0.00003* (0.00001)	-0.00003** (0.00001)	-0.0002*** (0.0001)	-0.0002*** (0.0001)
No. of observations	6081	6081	6640	6640
Pseudo R ²	0.076	0.074	0.104	0.1

Notes: Standard errors in parentheses. *, ** and *** denotes significance at the 0.1, 0.05 and 0.01 level, respectively.

6.1.2 Gifts received

Next, I focus on the regression results for the probit equation (2), which is presented in Table 4. The dependent variable takes the value one if the households ever received gifts in the previous year. Column 1 is the estimates for the urban sample, and column 2 is the estimates for the rural sample.

I observe that the household income has a positive and very significant effect on the probability of receiving gifts for both samples. It is noticed that the income variable has larger effect for rural households, which implies that the reciprocity motivation is more dominating for rural households than urban households. What's more, I find that risk awareness has a positive effect on the probability of receiving gifts for both samples. It might be the reason that households with higher risk awareness will send gifts as informal insurance and hoping to get a return gift when the situation comes to themselves. For example, people send gifts when someone is married, and in this situation, most gifts are monetary. Therefore, the gifts can share the host's expenses to throw a wedding. When the big day comes to themselves, they will also receive gifts and share their expenses in this way. Besides, the larger household size is associated with a higher probability of receiving a gift for both samples. Also, when the household head is male and married, the likelihood of receiving gifts increases for both samples. The probability of receiving a gift follows a U-shaped over the life cycle, which is consistent with previous findings (Mitrut and Nordblom, 2010). The education level of household head, in general, has no significant effect on both samples.

In summary, regarding the results from Table 4, I find that higher household income implies a higher likelihood of receiving gifts for both samples, which is consistent with the continuation reciprocity hypothesis. Besides, the effect of income is relatively larger for the rural sample. Overall, the estimates suggest that continuation reciprocity motivation is dominating for both samples, and especially for the rural sample.

Table 4: Probit regression results for gifts received ⁵

	Urban	Rural
	(1)	(2)
Household pre-transfer annual income (in thousands of yuan)	0.002*** (0.0003)	0.004*** (0.0006)
Risk awareness	0.134*** (0.05)	0.245*** (0.06)
Household size	0.034*** (0.012)	0.044*** (0.009)
Marital Status	0.201*** (0.052)	0.09* (0.054)
Gender	0.07** (0.035)	0.092*** (0.035)
Age	-0.053*** (0.007)	-0.037*** (0.008)
Age ²	0.0005*** (0.0001)	0.0004*** (0.0001)
Elementary school	0.06 (0.06)	-0.105** (0.042)
Secondary school	-0.023 (0.055)	-0.061 (0.043)
Technical/High school	0.016 (0.061)	0.026 (0.065)
Higher education	0.014 (0.069)	0.224 (0.153)
Community size	0.00001 (0.00001)	-0.0004*** (0.00004)
No. of observations	6081	6640
Pseudo R^2	0.018	0.029

Notes: Standard errors in parentheses. *, ** and *** denote significance at the 0.1, 0.05 and 0.01 level, respectively.

6.2 OLS Regression Analysis

6.2.1 Gifts given

OLS estimates on the restricted sample for the equation (3) are presented in Table 5. The dependent variables are the gift giving amounts. Columns 1 to 2 are the estimates for urban sample, and columns 3 to 4 are the estimates for the rural sample.

I find that gift giving values increase with household income. Regarding social norm variables, *social norm 1* has no significant effect on the gift giving amounts for both samples. Noteworthy, the coefficients of social norm 2 variable are significant but predicts different signs for urban and rural samples. It indicates that the strength of *social norm 2* increases the gift giving amounts for the urban households while it decreases the gift giving amounts for rural households. This finding is opposite to what I find in the probit model. In the probit model (1), *social norm 1* has a positive and significant effect, while *social norm 2* has no significant effect. This fact implies that urban households and rural households on average are both influenced by social norm related to neighborhood relationships when deciding whether to give gifts. When the issue is to determine how much money spent on gift purchasing, they might be more influenced by social norm related to the traditional concept. In other words, it might be the reason that traditional urban household spent more money on the gifts while traditional rural households spend less money on the gifts or it might be the reason that rural households are not motivated by either social norms when deciding how much money to give considering its relatively lower significance level. *Baseline altruism 1* has a significant and positive effect on the household's gift giving amounts for both samples. The same results are obtained when using *baseline altruism 2*.

Quite interestingly, when study on the giving amounts, some covariates like household size and age of the household head are not that significant compared to the probit model estimates. However, education level turns to have a significant effect on the gift giving amounts for the rural sample. This could be interpreted as evidence of different motivations for deciding whether to give and how much values to give.

In summary, the estimates of both baseline altruism measures support the baseline altruism hypothesis. Estimates of the two social norm measures are different. Considering these two social norm measures present different aspects of the social norm, for now, I can conclude that gift giving amounts are mostly motivated by social norm related to traditional concepts for

urban sample, while rural households gift giving amounts might not be motivated by either social norm measures.

Table 5: OLS regression results for gifts given ϵ

	Urban		Rural	
	(1)	(2)	(3)	(4)
Household pre-transfer income (in thousands of yuan)	15.82*** (0.9)	15.69*** (0.9)	8.79*** (0.72)	8.79*** (0.72)
Social norm 1	85.74 (86.69)		-5.65 (44.24)	
Social norm 2		598.69*** (219.24)		-169.37* (108.28)
Baseline altruism 1	2.16*** (0.16)	2.16** (0.16)	1.09*** (0.25)	1.09*** (0.25)
Risk awareness	643.42*** (147.21)	640.92*** (146.92)	318.23*** (111.78)	326.84*** (111.8)
Household size	-61.59* (37.18)	-63.13* (37.07)	-1.09 (18.22)	-1.44 (18.16)
Marital Status	543.85*** (161.47)	539.28*** (161.35)	398.4*** (108.99)	397.44*** (108.93)
Gender	-76.89 (103.38)	-81.61 (103.27)	-194.59*** (66.97)	-195.65*** (66.94)
Age	5.84 (23.06)	5.75 (23.04)	-1.44 (15.66)	-0.58 (15.66)
Age ²	-0.13 (0.23)	-0.13 (0.23)	-0.06 (0.16)	-0.07 (0.16)
Elementary school	181.96 (183.06)	165.19 (182.99)	245.19*** (80.32)	247.96*** (80.33)
Secondary school	317.66** (166.37)	317.17** (166.18)	364.12*** (82.38)	366.47*** (82.37)
Technical/High school	429.7** (183.76)	423.13** (183.26)	413.58*** (123.99)	419.1*** (123.99)
Higher education	410.49** (210.22)	404.83** (209.44)	860.15*** (281.3)	856.34*** (281.25)
Community size	0.1*** (0.03)	0.1*** (0.03)	0.46*** (0.08)	0.46*** (0.07)
No. of observations	5282	5282	5962	5962
R-squared	0.159	0.16	0.062	0.062

Notes: Standard errors in parentheses. *, ** and *** denotes significance at the 0.1, 0.05 and 0.01 level, respectively.

6.2.2 Gifts received

Next, let's turn to the OLS regression results for equation (4), which are presented in Table 6. The dependent variables are the gift receiving amounts. Column 1 is the estimates for the urban sample, and column 2 is the estimates for the rural sample.

When study on the value received, the household income still has a significant and positive effect on the receiving amounts for both samples. Surprisingly, household size, marital status and age of the household head have no significant effect. While in the probit model, these covariates have a significant effect on the probability of whether receiving a gift. This fact demonstrates that it is the recipient's income rather than other household characteristics being important.

In brief, the estimates from Table 6 proves that higher recipient's income is associated with higher receiving values. Recall that the probit model for equation (2) predicts that higher income implies a higher possibility of receiving a gift. Hence, I conclude that continuation reciprocity motivation is the dominating motive for both urban and rural households.

Table 6: OLS regression results for gifts received ₇

	Urban (1)	Rural (2)
Household pre-transfer annual income (in thousands of yuan)	30.63*** (2.5)	11.85*** (1.55)
Risk awareness	1426.22*** (460.64)	458.48 (300.7)
Household size	-132.21 (116.41)	0.3 (50.99)
Marital Status	549.45 (526.24)	468.54 (303.6)
Gender	-692.22** (336.24)	-441.59** (194.59)
Age	-134.09* (69.42)	23.75 (40.99)
Age ²	1.01 (0.69)	-0.3 (0.41)
Elementary school	-559.84 (590.17)	526.1** (232.01)
Secondary school	-547.53 (550.65)	606.95*** (236.89)
Technical/High school	674.84 (603.37)	1206.72*** (341.93)
Higher education	1321.01** (657.02)	279.25 (702.1)
Community size	-0.066 (0.1)	0.62*** (0.23)
No. of observations	2371	2847
Pseudo R^2	0.11	0.041

Notes: Standard errors in parentheses. *, ** and *** denote significance at the 0.1, 0.05 and 0.01 level, respectively.

6.3 Threshold Regression Analysis

As I mentioned in section 5, the threshold regressions are also estimated on a restricted sample like the OLS regression model.

6.3.1 Gifts given

The estimates for equation (5) are presented in Table 7. The dependent variable is the gift giving amounts. Columns 1 to 4 are the estimates for urban sample. Column 5 to 8 are the estimates for the rural sample. More precisely, there are two threshold regressions for each sample, one with *social norm 1* as a proxy while the other one with *social norm 2* as a proxy. Each threshold regression will firstly estimate the threshold value and then divide the observations into two groups. Therefore, for each threshold model there are two groups of estimates.

As I mentioned in section 5, the household pre-transfer income acts as the threshold value. The threshold value estimated for the urban sample is 80.4 thousand Yuan (11876 USD)³, and the threshold value estimated for the rural sample is 45.95 thousand Yuan (6787 USD). Surprisingly, the threshold value is approximately 90% percentiles of income level for both samples, which is much higher than the possible turning point I mentioned in section 5. It might be the reason that Graph 1 only reflects the relationship between household pre-transfer annual income and gift giving amounts, while the threshold regression models include many other independent variables such as social norm and baseline altruism. Another possible explanation of this high threshold value is the large gap between the rich and the poor in China. This threshold value reflects that the households in top income level behave differently from the households with relatively lower income.

The observations are grouped into two groups for each sample by the threshold. To be clear, the group with relatively higher income is categorized as "Rich", and the group with relatively lower income is categorized as "Poor".

I observe that the household pre-transfer income has a significantly larger effect on the gift giving amounts for the "Poor" group independent of which social norm measure to choose for both samples. Noteworthy, the impact is most significant for the "Poor" group of the rural sample: 1 thousand Yuan (148 USD) increase of the household income associated with about 41 Yuan (6 USD) increase on the gift giving amounts. Besides, I find that the gap of marginal

³ 1 USD = 6.77 Yuan (Bank of China, 2010)

effect for the income variable between the "Poor" group and "Rich" group is relatively larger for the rural sample.

Regarding social norm variables, the estimates show a consistent sign with the estimates in OLS regression. Moreover, with the help of threshold regression, we can see the distinct estimates between groups. For the "Rich" group in the urban sample, the estimates of both social norm measures show positive and significant effects. For the "Rich" group in the rural sample, both social norm estimates show significant and negative effects. However, for the "Poor" group in both samples, neither of the two social norm estimates show a significant effect. This suggests that "Poor group" in both samples are not motivated by social norm to decide the amounts of gifts. This distinct effect between groups can partly explain the non-significant results for *social norm 1* in OLS regression.

In addition, the estimate of *baseline altruism 1* indicates that higher baseline altruism level is associated with higher gift giving amounts for both groups of the urban sample. Nevertheless, for the rural sample, only the "Rich" group is significantly motivated by baseline altruism. The same results are obtained when using *baseline altruism 2*.

Quite interestingly, the education level of household head, in general, is not statistically significant after I group the observations using the household income variable. On the contrary, they are quite significant in the OLS regression. It could be interpreted as evidence of income is important rather than the education level of the household head.

In summary, the estimates of the threshold regression model (5) reflect the significant effect of household income on gift giving values, especially for the "Poor" group in the rural sample. The "Rich" group of the urban sample are motivated by both social norm and baseline altruism while the "Poor" group of the urban sample are motivated by baseline altruism but not by social norm. The "Rich" group of the rural sample are motivated by baseline altruism while they are inversely influenced by social norm. The "Poor" group of the rural sample are neither motivated by social norm or baseline altruism. These findings confirm that income is an essential factor for the household's gift giving behavior. Moreover, households in relatively lower income group are more motivated by the continuation reciprocity motive rather than the social norm and baseline altruism motives.

Table 7: Threshold regression results for gifts given ^s

	Urban				Rural			
	Poor (1)	Rich (2)	Poor (3)	Rich (4)	Poor (5)	Rich (6)	Poor (7)	Rich (8)
Household pre-transfer annual income (in thousands of Yuan)	32.67*** (3.1)	12.17*** (1.18)	32.52*** (3.1)	12.02*** 1.18	41.07*** (3.07)	1.79** (0.8)	40.99*** (3.06)	1.77** (0.8)
Social norm 1	24.78 (91.54)	533.39** (255.74)			-33.89 (45.32)	-231.3** (136.1)		
Social norm 2			360.92 (228.27)	2457.1*** (739.19)			-164.56 (110.12)	-643.19* (344.8)
Baseline altruism 1	1.25*** (0.26)	2.56*** (0.2)	1.24*** (0.26)	2.56*** (0.2)	0.24 (0.3)	1.31*** (0.41)	0.23 (0.3)	1.33*** (0.41)
Risk awareness	470.3*** (168.94)	729.35** (310.09)	427.26*** (168.38)	719.17** (309.73)	92.42 (123.58)	123.22 (234.9)	96.59 (123.58)	172.16 (236.17)
Household size	-61.21 (39.95)	-416.98** (110.05)	-62.97 (39.81)	-402.5*** (109.57)	-83.52*** (19.91)	10.58 (44.15)	-84.73*** (19.86)	2.95 (44.02)
Marital Status	290.16* (169.42)	1874*** (534.42)	289.76* (169.24)	1845.9*** (533.94)	320.6*** (110.02)	72.38 (395.43)	322.34*** (109.94)	68.16 (395.38)
Gender	-62.42 (110.08)	-52.9 (291.69)	-67.85 (109.95)	-19.53 (291.16)	-208.9*** (68.69)	402.24** (200.03)	-210.6*** (68.65)	382.65* (199.99)
Age	22.18 (24.47)	-57.68 (68.84)	22.05 (24.45)	-56.96 (68.78)	6.04 (16.14)	-146.5*** (45.61)	6.94 (16.14)	-147.6*** (45.49)
Age ²	-0.33 (0.24)	0.51 (0.71)	-0.33 (0.24)	0.48 (0.71)	-0.12 (0.16)	1.07** (0.46)	-0.13 (0.16)	1.1** (0.46)
Elementary school	128.97 (186.64)	412.16 (836.39)	119.97 (186.53)	292.36 (835.11)	147.86* (81.52)	-200.12 (276.33)	150.53* (81.53)	-209.47 (276.24)
Secondary school	226.21 (172.36)	297.03 (712.06)	230.77 (172.15)	94.08 (712.9)	235.2*** (84.96)	-652.05* (268.93)	237.78*** (84.96)	-674** (209.06)
Technical/High school	105.99 (196.49)	1361.75* (715.64)	109.49 (194.93)	1189.67* (715.67)	27.97 (132.7)	292.07 (300.87)	33.53 (132.73)	265.61 (320.55)
Higher education	184.98 (236.59)	430.97 (719.43)	192.14 (235.75)	265.41 (718.44)	154.5 (376.76)	-435.49 (444.96)	155.1 (376.65)	-479.4 (445.45)
Community size	0.06* (0.03)	0.27*** (0.08)	0.06* (0.03)	0.27*** (0.08)	0.29*** (0.08)	0.45** (0.21)	0.29*** (0.08)	0.49** (0.21)
Threshold value (in thousands of Yuan)		80.4		80.4		45.95		45.95
SSR		6.167e+10		6.156e+10		2.903e+10		2.902e+10
No. of observations		5282		5282		5962		5962

Notes: Standard errors in parentheses. *, ** and *** denotes significance at the 0.1, 0.05 and 0.01 level, respectively.

6.3.2 Gifts received

Next, I will focus on the threshold regression results for equation (6), which is presented in Table 8. The dependent variable is the gift receiving amounts. Columns 1 and 2 are the estimates for urban sample, and columns 3 and 4 are the estimates for the rural sample.

The threshold value estimated for the urban sample is 101 thousand Yuan (14919 USD)⁴, and the threshold value estimated for the rural sample is 52.87 thousand Yuan (7809 USD). Both threshold values are approximately 92% percentiles of income level, which are slightly higher than the threshold value estimated in equation (5). This is expected since the percentage of the household who ever received a gift is much lower than the share of the household who ever sent a gift. Moreover, the probit regression and OLS regression estimates have consistently shown the significant positive effect of household income on gifts receiving.

Regarding the estimates for the rural sample, I observe that the household income has a significant and positive effect on the "Poor" group. In contrast, it has no significant impact on the "Rich" group. Moreover, few of the other covariates have a significant effect. For the urban sample, I find that the effect of household income is higher for the "Poor" group, and none of the other covariates have a significant effect on the "Poor" group. Together with the finding from the probit model and the OLS model, I conclude that continuation reciprocity is a dominating motivation for the "Poor" group in both samples and especially for the "Poor" group in the rural sample.

⁴ 1 USD = 6.77 Yuan (Bank of China, 2010)

Table 8: Threshold regression results for gifts received 9

	Urban		Rural	
	Poor (1)	Rich (2)	Poor (3)	Rich (4)
Household pre-transfer annual income (in thousands of yuan)	52.62*** (7.83)	12.36*** (3.4)	64.16*** (7.57)	-1.27 (1.63)
Risk awareness	616.09 (499.84)	2519.23** (1108.75)	158.58 (317.87)	-1007.5 (643.49)
Household size	-91.95 (120.01)	-1720.66*** (419.23)	-139.65*** (53.84)	-230.6* (122.53)
Marital Status	-141.64 (538.43)	3488.51** (1774.59)	349.48 (295.95)	654.94 (1044.79)
Gender	-213.43 (345.66)	-4333.19*** (1036.66)	-366.11* (190.63)	662.81 (615.91)
Age	-56.67 (71.83)	-352.69 (235.61)	-2.22 (40.22)	-11.41 (136.02)
Age ²	0.32 (0.71)	1.98 (2.53)	0.06 (0.4)	-1.55 (1.42)
Elementary school	-690.41 (584.26)	3346.08 (3231.9)	278.98 (224.9)	-2574.57*** (896.24)
Secondary school	-588.88 (552.76)	-517.35 (2830.49)	408.48* (234.61)	-5389.77*** (881.72)
Technical/High school	-243.02 (620.94)	6931.55** (2792.02)	195.75 (350.14)	-1349.19 (1002.79)
Higher education	-433.31 (704.1)	6951.89** (2766.3)	-1168.32 (907.27)	-6828.39*** (1210.3)
Community size	0.01 (0.1)	-0.9*** (0.32)	0.09 (0.23)	0.67 (0.68)
Threshold value (in thousands of Yuan)		101		52.87
SSR		1.239e+11		5.019e+10
No. of observations		2371		2847

Notes: Standard errors in parentheses. *, ** and *** denotes significance at the 0.1, 0.05 and 0.01 level, respectively.

7. Conclusion

This paper aims to discuss and compare the motivations behind gift transfers for rural households and urban households in China. Thanks to the China Family Panel Studies Survey, I am able to study on the gift transfers alone. I formulated three motivations based on the previous literature as well as the reciprocity and altruism theory: baseline altruism, social norm and continuation reciprocity. Three accordingly hypotheses are tested on CFPS 2010 data.

The probit model and OLS model give a general insight into what motives the household's gift giving behavior. I find many similarities between rural and urban household gift giving motivations. Firstly, higher household income is associated with a higher likelihood of both sending and receiving gifts and higher values of both giving and receiving amounts, which confirm the continuation reciprocity motive. Secondly, the social norm related to neighborhood relationships has a positive effect on the household's likelihood of sending gifts, which supports the importance of social norm motive. Thirdly, a higher baseline altruism level implies higher giving amounts, which demonstrates the baseline altruism motive. Besides, I also observe the differences between rural and urban households' gift behavior. One unit increase in household income leads to a larger possibility of sending and receiving gifts for rural households. Moreover, urban households are more influenced by the social norm and baseline altruism. Hence, rural households are more motivated by continuation reciprocity compared with urban households.

The threshold model considers the non-linearity issue and predicts distinct estimates between different income groups. The threshold value is approximately 90% percentiles of income level, which indicates that the households in the top 10% of income level act differently. After the observations are grouped, I find that continuation reciprocity is the dominating motive for households with relatively lower income. In contrast, the households in the top income level are more influenced by the social norm and baseline altruism. Moreover, the lower the income, the stronger the relative importance of the reciprocity motive seems as compared to the social norm and baseline altruism motive.

My finding is opposite to what Mitrut and Nordblom (2010) found in Romanian Society, which demonstrates that households in a different society, context, and period act differently. Therefore, it is pivotal and meaningful to analyze gift giving behavior in different countries. However, the study of my empirical analysis has some drawbacks. I use existing data and extract useful information. It will be more cogent if the survey data is designed specifically for

the paper research question. Moreover, my analysis only concerned with static effects in 2010. However, China grew rapidly in the 21st century with dramatic social change, such as the spread of education and the Internet. Nowadays, people, especially the younger generation, pay bills through mobile payments such as Alipay instead of cash. With the development of mobile payment, the traditional way to send monetary gifts changed. People, even the elders, tend to send "red paper" through mobile payment. Moreover, with the development of globalization, more and more western cultures are being prevalent in China. People celebrate Christmas and Valentine's Day as well as the Spring Festival. Meanwhile, the expenses of the gift may change too. Hence, for future research, dynamic analysis for gift giving behavior and field experiments specific related to gift behavior are needed.

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