

The Impact of Rural Household Wealth on Social Expenditure Burdens: An Empirical Analysis Based on CFPS 2014

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Abstract: As the rural economy develops, the proportion of social expenditures in rural households is gradually increasing, significantly impacting household wealth. This study empirically analyses the influence of rural household wealth levels on social expenditure burdens using data from the 2014 China Family Panel Studies (CFPS). By applying a multiple regression analysis, the study finds that household wealth levels in rural areas significantly affect the burden of social expenditures. Specifically, households with lower wealth levels often face greater financial pressures from these expenditures. The results of this research provide important insights into how economic conditions within households influence consumption behaviour. Understanding this relationship is crucial for developing policies that can alleviate the economic pressures faced by rural families, thereby promoting sustainable development in rural areas. This study offers both theoretical and practical contributions by enhancing the understanding of rural household economic behaviour, particularly regarding the impact of household wealth on social expenditure. The empirical findings provide valuable insights for policymakers seeking to better guide rural consumption patterns and alleviate the financial burden on low-income households. Furthermore, the research introduces a fresh perspective on optimizing social expenditure structures while fostering harmonious social relationships within rural communities.

Keywords: Social expenditure, Household wealth, Rural economy.

1. Introduction

In recent years, with the support of national policies and the prosperity of market economy, the economic development of rural areas has been remarkable, and the income level of farmers has generally increased, which has not only improved the wealth of rural families, but also greatly enriched the social life of rural residents. However, in rural areas, due to the influence of traditional customs, social expenditure is still an important and indispensable part of household expenditure. Social expenditure applies to various social activities, including weddings, funerals, gifts for celebrations, helping relatives and friends, etc. These expenditures not only reflect the family's social relations and interpersonal network, but also are an essential way for rural families to maintain their social status and identity [1].

The social expenditure in rural society has a cultural foundation behind it. In rural areas, relations between people are close, and families maintain relationships through various forms of social exchanges to enhance the cohesion of the rural community. Although this kind of expenditure is a financial burden on the family to a certain extent, it is still an investment in social capital. However, the economic pressure brought by human rights expenditure cannot be ignored. According to the data of China Family Panel Studies (CFPS) in 2014, although the income level has increased, for families with relatively weaker economic foundation, high social expenditure may still cause financial tension, affecting other economic activities of the family, and even affecting the improvement of basic life quality of children's education and elderly medical care.

Existing research shows that people are often confused by the question, "Who gets what?" Why?", this problem is particularly complicated in the context of rural social expenditure [2]. China's resource allocation is deeply influenced by social culture. Both high - and low-income families seem to be equally vulnerable to similar situations. The financial circumstances of rural households significantly affect their social expenditure liability. For example, studies have shown that families with more wealth tend to be more generous in their social spending to maintain and expand their social networks [3]. At the same time, the economic pressure of social expenditure on households also varies with different levels of wealth. For low-income families, high social expenditure may lead to excessive economic burden and even affect their basic living security [4]. Therefore, an in-depth study of the relationship between household wealth and human expenditure is helpful to a more comprehensive understanding of rural households' economic behavior and social interaction patterns.

This study will conduct exploration and analysis from the following aspects: First, literature review is conducted on the influencing factors of social expenditure to explore the reasons that may affect social expenditure that have been verified so far; Secondly, based on OLS model, this paper empirically analyses the influence of rural household wealth on the social expenditure burden, and aims to reveal the balance between wealth accumulation and social expenditure of rural households by exploring the level of household wealth, the social expenditure burden and the relationship between them. Finally, this study hopes to put forward some suggestions to help rural families better balance the relationship between human relations and economic development, reduce the economic pressure caused by traditional customs, and improve the well-being of rural families with effective social and policy support.

This study has important contributions in both theory and practice. Through empirical analysis, the research on rural household economic behaviour is enriched, especially the relationship between household wealth and social expenditure, which provides an empirical sentence for policy formulation. It is suggested that the government should consider how to reasonably guide rural social consumption when formulating rural economic policies, reduce the economic pressure of low-income families, and promote a healthy and sustainable development of rural economy. In other words, this study puts forward a new perspective on how to maintain the harmony of rural social relations and optimize the structure of social expenditure

2. Literature Review

With the rapid development of China's rural economy and the constant change of social structure, social expenditure, as an important form of social interaction, has attracted wide attention from the academic community. Social expenditure not only has multiple meanings such as cultural tradition, social expectation and personal identity, but also plays an important role in maintaining social relations and promoting social capital accumulation. In the research field of social expenditure, scholars mainly focus on rural areas, and carry out in-depth discussions from the aspects of concept definition, social background and economic logic.

"Social expenditure" refers to the consumption expenditure of individuals in order to promote communication in social activities on a daily basis. China is a country that values human feelings and attaches great importance to etiquette, and the expenses associated with maintaining interpersonal relationships is deeply influenced by its culture and moral, which is specifically manifested in daily social occasions such as marriage, celebrations, seeking medical treatment, education, employment etc. [5]. This kind of consumption is a traditional custom in China, reflecting the importance of social relations and interpersonal networks. However, with the development of economy and the society, social expenditure has gradually lost its traditional significance and evolved into a kind of social investment [3].

In the context of Chinese society, social expenditure is not only an economic transaction, but also a social behaviour. It reflects the relationship and trust of members of society and is an important part of social capital [6]. Social expenditure plays an important role in maintaining social relationships and identity, through which individuals and families are able to consolidate and expand their social networks and increase social resources and opportunities [7]. The social capital theory points out that the social capital individuals has depends on their scale of the social network, and social consumption is a means to expand and strengthen the network [8,9].

From an economics perspective, social expenditure can be viewed as a mechanism to lower transaction costs. Coase proposed in the transaction cost theory, in 1937, that in social relations, people generate inevitable transaction costs through communication and exchange activities. Social expenditure can effectively reduce such costs. It is indicated in the study of the impact of social expenditure on non-agricultural employment of rural female labour force that the increase of social expenditure could help rural families expand their interpersonal network, improve the employment probability of family members, and thus save transaction costs [10].

Social networks play a crucial role in understanding social expenditure. Wu, Leng, and Zhu use social expenditure as a proxy for social networks in their research on the relationship between social expenditure and the happiness of rural residents. They highlight the direct connection between social relationships and people's well-being. Social expenditure allows individuals to build social capital, leading to more opportunities and access to resources in social activities. Moreover, establishing a network of relationships and cultivating trustworthy connections can significantly reduce the risk of being deceived or incurring unnecessary transaction costs [11,12].

Although social expenditure plays a significant role in maintaining social relations, its negative effects cannot be ignored. Zou pointed out that social expenditure may lead to the increase of transaction costs and create unfair competition conditions for external members, thus distorting the development of interpersonal relations. Many people are involuntarily involved in a group exchange of gifts in order to nurture their own relationship network [13]; Or under moral pressure to perform tasks according to so-called rules, with the idea that otherwise they will bring misfortune to themselves [14]. As a result, social expenditure has become the so-called "debt of human kindness", which brings a certain degree of burden to people [15]. To preserve their reputation, many individuals are willing to engage in self-harming behaviors, such as borrowing money, cutting back on essential living expenses, and even selling blood [4]. Furthermore, when people remain confined to a limited social network, they risk losing access to valuable external information and opportunities [16].

As an important part of Chinese social culture, social expenditure has a profound impact on social relations, economic behaviour and personal identity. Scholars have conducted detailed studies on social expenditure from multiple perspectives such as sociology and economics. However, most of the existing studies take social expenditure as the independent variable, and relatively few take social expenditure as the dependent variable. According to the cultural dimension theory of Hofstede, there are significant differences in people's consumption behaviours under different cultural backgrounds. In collectivist cultures such as China, social expenditure is particularly important, and reciprocity is

regarded as the basic principle of social communication [17]. In contrast, in Western individualistic cultures, there is relatively little pressure for social expenditure. In addition, economic factors are also important variables affecting social expenditure. Research shows that in areas with high economic development level, the total amount of social expenditure is relatively large, and economic pressure may lead people to make more cautious decisions on social expenditure [1].

To sum up, the current research on social expenditure rarely discusses the explanatory variables of social expenditure, and few quantitative studies are conducted, especially the lack of in-depth discussion on the influence of household wealth on the degree of social expenditure. In short, the study of social expenditure not only helps to understand the uniqueness of Chinese society, but also provides a valuable reference for the formulation and implementation of social policies, which not only enriches theoretical research, but also has important practical significance for practical policies.

3. Data Sources, Variables and Models

The data for this study came from the China Family Panel Studies (CFPS) 2014, which was initiated and implemented by the Institute of Social Science Survey (ISSS) of Peking University to reflect the dynamic changes in China's society, economy, population, education, and health. The data covers families and their members, including adults and children, across the country, providing a wealth of socio-economic information and detailed questionnaire data. The adult database and family economic database in CFPS2014 were mainly used in this study. Only samples of rural residents and families were retained, and samples with missing values in key variables were excluded, including inapplicable, blank, unknown, refused to answer and other missing data. In order to ensure the stability of the data, 5% tail reduction was performed on the variables. That is, the sample values with variable values in the top and bottom 5% are replaced with values in the 5th and 95th percentiles. Based on this, we explore the influence of family wealth on social expenditure.

The independent variable of this study is household wealth, that is, household net worth. According to the data of CFPS2014, household net worth (wealth) = total household assets - total household liabilities. Household net worth includes the value of durable consumer goods, household financial assets, productive fixed assets, household real estate net worth and land assets, and total household liabilities include non-housing liabilities and housing liabilities. At the same time, to solve the problem of skewed distribution of data, the natural logarithm (ln) of household net assets was taken in the regression analysis.

The dependent variable is the proportion of social expenditure in household expenditure. social expenditure refers to the social gifts paid by households in the past 12 months for the social activities of relatives and friends such as marriage, education related, childbirth, death and New Year greetings. Household consumption is the total expenditure of households over the past 12 months. Samples with zero total household consumption are excluded to avoid infinite or non-numerical proportions in the calculation.

At the same time, in order to more accurately assess the impact of household wealth on social expenditure, this study introduced the following control variables with reference to previous relevant studies. This paper applies the Ordinary Last Squares (OLS) regression model to analyze the impact of household wealth on rural household social expenditure. The model incorporates the following variables: health status of the household head, type of occupation, education level, social capital (measured through social participation), family size, company ownership, agricultural machinery ownership, and provincial code (ranked by GDP from highest to lowest) in the equation (1):

$$\text{Social expenditure ratio} = \beta_0 + \beta_1 \text{household wealth (logarithm)} + \beta_2 \text{household size} + \beta_3 \text{cultural area} + \beta_4 \text{agricultural machinery ownership} + \beta_5 \text{company ownership} + \beta_6 \text{social capital} + \beta_7 \text{education level} + \beta_7 \text{occupation type} + \beta_7 \text{health status} + \epsilon \quad (1)$$

4. Results and Discussion

In this study, the Ordinary Least Square (OLS) was used to conduct regression analysis on the proportion of household wealth and social expenditure, and the results are shown in Table 1:

Table 1: Empirical result

Explanatory Variable	Regression Coefficient	Standard Error	T-Test	P-value	Statistical Significance	Lower Bound of Confidence Interval	Upper Limit of Confidence Interval
Household Wealth (logarithm)	-0.114	0.005	-22.525	0.000	***	-0.123	-0.105
Household Size	0.001	0.006	0.229	0.819		-0.01	0.012
Provincial Code	0.003	0.001	2.824	0.005	**	0.001	0.005
Agricultural Machinery Ownership	-8E-06	0.000	-2.594	0.009	**	-1.4E-05	-2E-06
Company Ownership	0.001	0.001	1.494	0.135		-3E-06	0.003
Social Capital	-0.006	0.011	-0.532	0.595		-0.027	0.015
Education Level	0.001	0.002	0.725	0.469		-0.002	0.004
Occupation Type	0.007	0.004	1.614	0.107		-0.001	0.015
Health Status	0.016	0.010	1.641	0.102		-0.003	0.035

As shown in Table 2, the overall statistical information of the model shows that the R square is 0.203 and the adjusted R square is 0.202, indicating that the model explains 20.3% of the dependent variable variation. This result indicates that although household wealth, regional differences and productive assets have significant effects on the proportion of social expenditure, there may still be other variables affecting social expenditure, which need further discussion and reflection. The P-value of the F-statistic is close to 0, which proves that the model has good explanatory power and significance, and these results support the hypothesis of the relationship between household wealth and the proportion of social expenditure in this study.

In general, through the analysis of the relationship between household wealth and the proportion of social expenditure, this study reveals the overall statistical information of the model of household economic status and regional differences on social expenditure behavior, as shown in Table 2.

Table 2: Statistical Magnitude

Statistical Magnitude	Value
R^2	0.203
Adjusted R^2	0.202
F-statistic	115.5
Number of Observation	5720
AIC (Akaike Information Criterion)	-12825.2
BIC (Bayesian information criterion)	-12784.5

The table presents several important statistical magnitudes and their corresponding values. The R-squared (R^2) value is 0.203, indicating that approximately 20.3% of the variability in the dependent variable is explained by the independent variables in the model. The adjusted R-squared is slightly lower at 0.202, which accounts for the number of predictors in the model and adjusts the R^2 value accordingly. The F-statistic is 115.5, which helps to determine if the overall regression model is statistically significant. The model was based on 5,720 observations.

The results of regression analysis show that there is a significant negative correlation between household wealth (logarithm) and the proportion of social expenditure (regression coefficient is -0.114, $p < 0.001$). This finding suggests that as household wealth increases, the share of social expenditure in total household income decreases significantly. This result is theoretically plausible because increased wealth may increase households' economic independence and thus reduce the need to rely on social networks for resource access.

Social networks can offer vital support and resources to individuals and families, particularly in situations where financial resources are scarce. For families with low income or limited wealth, spending on social activities (such as gifts, banquets, etc.) serves as an essential way to maintain and strengthen social ties, ensuring they can receive assistance when needed. However, as household wealth increases, families can rely more on their own resources and less on social networks in the face of economic distress. As a result, high-wealth households spend a lower proportion on social expenditure.

This negative correlation also reflects the difference in consumption behaviour of different income groups. Low-income families may spend a larger proportion of their income on social expenditure to maintain social relations and obtain potential social support. High-income households, on the other hand, devote more resources to self-investment and consumption, and spend less on social expenditure. This finding provides an important perspective for understanding the impact of family economic status on consumption behaviour.

The study also found that there was a significant positive correlation between the provincial code and the proportion of social expenditure (regression coefficient was 0.003, $p < 0.01$), and these results indicated that there were major differences in social expenditure behaviours in different regions. Differences in social expenditure across provinces may stem from variations in economic development, cultural tradition, and social norms. Households in economically developed regions tend to prioritise personal consumption and investment, while those in less economically developed areas often rely more heavily on social networks. Therefore, households in former areas have a lower proportion of expenditure on social expenditure, while households in latter areas have a higher proportion of expenditure on social consumption.

Households with agricultural machinery had a significantly lower proportion of expenditure on social expenditure (regression coefficient -0.000008, $p < 0.01$). This result suggests that households with farm machinery are more likely to use resources for productive investment than for social expenditure. Agricultural machinery is an important productive asset, which can improve the agricultural production efficiency and income level of families. Therefore, households with agricultural machinery may pay more attention to agricultural production and investment and spend less on social expenditure.

This finding is consistent with the result derived from agricultural production. Agricultural production requires a large amount of capital input, including agricultural machinery, seeds, fertilizers and etc. Households with more productive assets are likely to prioritize these investments to increase agricultural productivity and income levels. At the same time, these families are more financially independent and do not have to rely as much on social networks, thus reducing social expenditure.

Family size, company ownership, social capital, education level, occupation type and health status had no major effect on the proportion of social expenditure. Although these factors may affect the

overall expenditure and consumption pattern of households to a certain extent, the direct impact on social expenditure is weak.

5. Conclusion

Through the empirical analysis of the data of China Family Panel Studies (CFPS) in 2014, this study found that there was a significant negative correlation between the wealth level of rural households and the social expenditure liability. Specifically, households with lower levels of wealth tend to face greater spending pressure, indicating that households' economic situation greatly influences their social expenditure behaviour. This study provides a new perspective for understanding the consumption decisions of rural households under economic pressure, and also provides data support for policy makers to better formulate measures to ease the economic burden of rural households and promote the sustainable development of rural society.

However, there are some limitations to this study. First, the data is only from 2014 and cannot reflect the dynamic changes in household wealth and social expenditure behaviour. Secondly, the study did not include all potential factors that may affect social expenditure, and more control variables can be added in future studies to improve the explanatory power of the model.

Future research can consider the following directions to further enrich and improve the understanding of the relationship between household wealth and the proportion of social expenditure:

Longitudinal research: use longitudinal data to track changes in household wealth and social expenditure behaviour and analyse their dynamic relationship. This will help to reveal the long-term impact of changes in household economic conditions on social expenditure.

More comprehensive variable set: introduce more variables that may affect social expenditure, such as career changes of family members, children's education, etc., to improve the explanatory power and accuracy of the model.

Regional comparative study: By comparing the household data of different regions (such as urban and rural areas, eastern and western regions, etc.), the impact of regional differences on household wealth and social expenditure behaviour is analyzed. This has helped to develop more targeted regional policies.

Social network analysis: Further study the influence of family's position in social network and relationship strength on social expenditure. Social network analysis methods can provide a more detailed measure of family social capital.

Policy evaluation: To evaluate the impact of different policies (such as social welfare policies, agricultural support policies, etc.) on household wealth and social expenditure behavior to develop more effective policy interventions.

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