The Wealthier, The Psychologically Healthier?

Assets, Debt, and Depressive Symptoms in Urban and Rural China

Jiaowei Gong[1], Wanying Ling[2], Yang Zhang[3]

Introduction

Socio-economic status (SES) has long been recognized as a fundamental cause of health inequality(Link and Phelan 1995; Phelan et al. 2010). In the past two decades, the influence of wealth, a key indicator of SES, on health inequality has garnered significantly more attention(Bialowolski et al. 2021; Boen 2016; Boen et al. 2020). Compared to other SES indicators (e.g., education, income, and occupation), wealth is a more stable measure of socio-economic conditions, representing an accumulation of assets over time and even across generations. Wealth is also a more comprehensive measure, encompassing multiple components such as assets and debt, which carry distinct economic and symbolic meanings. Assets can be used not only to access high-quality healthcare, nutritious diets, and favorable living environments, but also to signify a stable and affluent lifestyle(Keister and Moller 2000; Spilerman 2000), all of which are beneficial for psychological well-being(Boen et al. 2020; Miao and Wu 2023). However, the impact of debt on depressive symptoms may depend on whether it is perceived as "good" or "bad"(Bialowolski et al. 2021; Brown et al. 2005). Although there is a growing number of studies examining the relationship between wealth and depressive symptoms, few comprehensively investigate the association in the context of wealth's multi-compositional and multi-meaning nature. This study aims to address this gap.

China provides a unique social context for our study. The Chinese place high value on wealth, particularly asset ownership, such as homeownership. Home assets, which account for approximately 70% of a household's total wealth(Xie and Jin 2015), symbolize strong social standing and ensure a stable and privileged lifestyle, which may influence an individual's psychological well-being. In contrast, Chinese individuals often have a complex and generally negative attitude toward debt, including home debt, which is typically viewed as "good debt" in Western societies. These differing attitudes toward assets and debt, along with possible variations in perspectives on different types of assets and debt, necessitate an examination of the associations between various wealth components and depressive symptoms, rather than viewing wealth as a homogeneous concept (e.g., total household worth). Moreover, the longstanding rural-urban divide leads to significant differences in total household wealth and wealth portfolios between rural and urban Chinese families (Xie and Jin 2015). Therefore, it is unclear whether the relationships between wealth and depressive symptoms vary across urban and rural Chinese populations.

Drawing on four waves of data from the China Family Panel Studies (CFPS), this study aims to address three research questions. Firstly, what is the association between total household wealth and depressive symptoms? Secondly, what are the associations between different components of wealth and depressive symptoms? Thirdly, do these associations differ between rural and urban Chinese? Answering these questions contributes to a better understanding of the fundamental causes of psychological health inequality through a thorough examination of wealth, while also offering guidance for addressing the rural-urban divide in depressive symptoms.

Data and Method

We used data from CFPS, a longitudinal survey covering 25 provinces and 95% of China's population(Xie and Hu 2014). This study analyzed four waves (2012, 2016, 2018, and 2020) to examine the relationship between household wealth and depressive symptoms. The CFPS provides

[1] T.H. Chan School of Public Health, Harvard University
[2] Faculty of Social Sciences, The University of Hong Kong
[3] School of Population and Health, Renmin University of China. Email: zhyoung@ruc.edu.cn

detailed information on household assets (e.g., homes, durable goods, financial assets, savings) and debt (e.g., housing and non-housing debt). Depressive symptoms were measured using the CES-D scale, normalized to ensure comparability across waves. The sample was restricted to adults aged between the legal marriage age and 60, resulting in 19,056 individuals and 54,270 individual-year observations, with rural and urban subsamples. Wealth measures included total assets, total debt, and net worth, adjusted to 2020 prices and transformed using the inverse hyperbolic sine to address skewness(Killewald et al. 2017). Covariates included age, education, hukou status, political identity, marital and employment status, health behaviors (smoking/drinking), and household income.

We used two-way fixed effects models to account for time-invariant individual characteristics and national trends. Standard errors were clustered at the household level. To address potential reverse causality and omitted variable bias, we conducted robustness checks using two-stage least squares regression. To address endogeneity concerns, we employed two instrumental variables: the proportion of land with a slope greater than 15 degrees (measuring housing supply constraints) and a Bartik-style IV capturing labor market shocks.

Results

As shown in Table 1, we examine the associations between household wealth components—assets and debt—and depressive symptoms using FE and IV models. For assets, savings are negatively and significantly associated with depressive symptoms (FE: $\beta = -0.078$, $p < 0.01$; IV: $\beta = -0.833$, $p < 0.05$). Housing assets are significant only in the IV model ($\beta = -0.581$, $p < 0.05$), while no significant relationship is found for financial assets. In China, housing and consumption play key roles in social stratification. Housing property is closely linked to social status and life stability, while savings, being more financially flexible, significantly influence consumption levels and expectations. Our findings suggest that housing and fluid assets, which determine social status and consumption, are more important for predicting mental well-being.

Table 1. The effect of wealth components on depressive symptoms.

	Panel A. FE			Panel B. IV			
Explained variable: Depression	**Coef.**	**Std. Error**	**Adjusted R sq.**	**Coef.**	**Std. Error**	**First-stage F-statistics**	**Hansen J. stats: *p*-value**
Asset							
Housing asset	-0.037	[0.030]	0.428	-0.581*	[0.253]	30.546	0.273
Financial asset	-0.012	[0.023]	0.428	-1.554	[2.689]	0.66	0.006**
Saving asset	-0.078**	[0.024]	0.428	-0.833*	[0.346]	21.055	0.778
Debt							
Housing debt	0.050*	[0.023]	0.428	0.287*	[0.142]	49.099	0.105
Non-housing debt	0.104***	[0.023]	0.428	0.631*	[0.278]	28.423	0.223
Observation				54,270			
# of unique person				19,056			
# of unique household				10,453			

Notes. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

For debt, both housing (FE: $\beta = 0.050$, $p < 0.05$; IV: $\beta = 0.287$, $p < 0.05$) and non-housing debt (FE: $\beta = 0.104$, $p < 0.001$; IV: $\beta = 0.631$, $p < 0.05$) are positively associated with depressive symptoms, indicating that increased debt harms mental health. The effect of non-housing debt is nearly double that of housing debt, and the coefficient on savings is greater than that on housing assets. This suggests

that non-housing wealth, tied to daily and short-term consumption (e.g., education, healthcare), has a stronger impact on mental health than housing wealth.

Figure 1 shows that the associations between wealth (total assets, total debt, and net wealth) and depressive symptoms are stronger among rural residents. Despite urban residents having higher wealth, increases in unit wealth improve rural residents' mental health more significantly, while debt exacerbates their depressive symptoms.

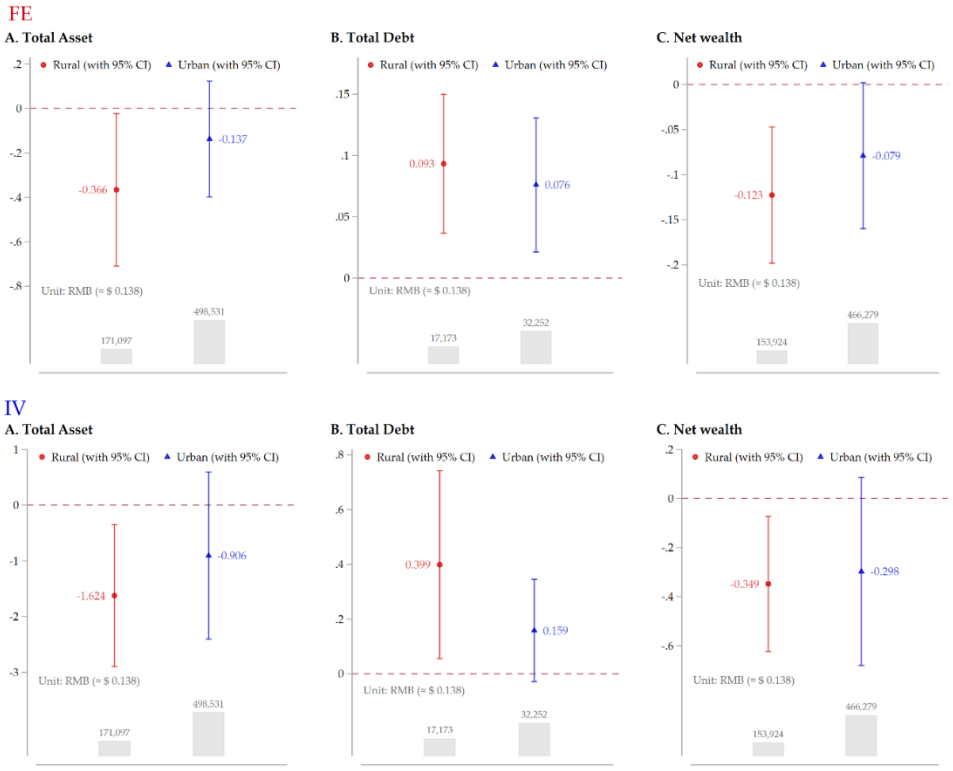

Figure 1. Urban-rural heterogeneity in the effect of wealth on mental health.

Conclusion

This study presents three key findings. Firstly, higher household wealth is associated with fewer depressive symptoms, consistent with previous research. Wealth, as a cumulative resource, provides long-term financial security, enabling access to healthcare, nutritious food, and safe housing. In both rural and urban areas, a significant portion of household wealth is tied to home ownership, highlighting the importance of housing in China, where it holds substantial social and economic significance.

Secondly, the composition of wealth matters. Savings have a stronger negative association with depressive symptoms than housing assets. While housing provides stability, liquid savings offer more immediate financial flexibility, which appears more critical for psychological well-being. On the other hand, debt negatively affects psychological well-being, with non-housing debt being more harmful than housing debt, likely because housing debt is tied to a tangible, long-term asset.

Lastly, the relationship between wealth and depressive symptoms differs between rural and urban areas. Wealth has a more pronounced positive effect on psychological well-being in rural areas, where residents benefit more from assets and suffer more from debt compared to their urban counterparts. This disparity may stem from rural residents' limited access to public healthcare, making wealth a crucial factor in securing health services and psychological security.

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