

A Study on the Impact of Financial Literacy on the Urban-Rural Income Gap

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ABSTRACT

This article aims to investigate the relationship between financial literacy and the urban-rural income gap, based on the current social development situation and previous research by scholars. Utilizing CHFS data, we first selected the independent variables, dependent variables, and control variables, conducted descriptive statistics, and subsequently constructed a regression model. The analysis of the data reveals a negative correlation between financial literacy and the urban-rural income gap in both the entire region and the western region. Enhancing financial literacy contributes to narrowing the urban-rural income gap. Finally, we propose beneficial suggestions from the perspectives of the government, residents, and enterprises.

KEYWORDS

Financial Literacy; Rural-urban divide; Common prosperity

1. INTRODUCTION

After more than 30 years of rapid growth, China's economy is entering a new cycle, with economic growth shifting from high-speed growth to medium-high growth, the demand for financial and wealth management products among residents has gradually increased. Whether residents can correctly carry out investment and financial management behavior depends on the level of personal financial literacy. Low financial literacy can lead to incorrect financial decisions, such as blind investment, or complete resistance to financial activities. However, both behaviors have a negative impact on residents' personal wealth. With the introduction and promotion of poverty alleviation and rural revitalization policies, the urban-rural income gap has gradually narrowed. The National Bureau of Statistics' report also pointed out that the growth rate of disposable income of rural residents continues to outpace that of urban residents. Nevertheless, issues of urban-rural income disparity still persist in some regions. As a crucial aspect of achieving common prosperity, studying how to reduce the urban-rural income gap is of practical significance. Due to inadequate educational facilities and underdeveloped rural financial industries, compared to urban residents, rural residents generally have lower educational levels and financial literacy. Therefore, studying the relationship between the two is conducive to achieving common prosperity.

2. LITERATURE REVIEW

The current research on financial literacy is primarily defined in terms of both knowledge and ability. The Global Economy Education Committee and Qiao Lu [1] define financial literacy theoretically, focusing on the accumulation of financial knowledge. A person's financial literacy depends on whether they understand financial common sense and comprehend specific financial terminology

such as premium, bear market, and compound interest. On the other hand, Chen Jing [2], Zhang Lin, and Xie Bojie [3] tend to define financial literacy in terms of the ability to solve problems. Some scholars also define financial literacy from both aspects, as Tong Shanshan [4] argues that financial literacy should be a comprehensive indicator combining knowledge and ability. On the other hand, the urban-rural income gap is a crucial obstacle that must be overcome to achieve common prosperity. Duan Juan [5] has pointed out that overcoming the wealth gap requires increasing the income level of vulnerable groups, specifically raising the income of rural residents and promoting balanced and coordinated development. As a form of human capital, financial literacy contributes to increasing the number of bank depositors (Shawn Cole et al [6] 2017). Xing Dawei [7] and others also believe that the improvement of financial literacy indicates an enhancement in residents' asset management capabilities, thereby increasing rural residents' participation in financial markets. Yao Yongming [8] also pointed out that increased participation in financial markets contributes to an increase in residents' property income.

As an essential form of human capital, financial literacy has been extensively studied, and existing research has confirmed its positive impact on financial behaviors such as insurance and wealth management. Although numerous scholars have studied the positive effects of financial literacy on rural insurance and wealth management, they have not further analyzed its impact on the urban-rural income gap. Most studies on the urban-rural income gap focus on emerging factors such as digitalization and financial innovation, and there is currently no literature that deeply explores the impact of financial literacy on this issue. Therefore, this article aims to study the relationship between financial literacy and the urban-rural income gap under the goal of achieving common prosperity, providing references for improving residents' financial literacy and reducing the urban-rural income gap.

3. RESEARCH METHODOLOGY

3.1. Explanatory Variables

Yang Jinbo [9] pointed out in his research that there are no precise and unified measurement indicators for financial literacy in existing studies, but there are common methods to measure it from both cognitive and utilization perspectives. Zhao Chengfu [10] analyzed the current status of financial literacy using this method and concluded that the financial literacy of urban residents in China is higher than the average level of rural residents. Through analyzing the distribution of financial literacy levels, it is indicated that financial literacy in China is generally low but easy to improve. Liu Yunfang [11] noted that, although the level of financial literacy has been increasing year by year under the promotion of the government and society in recent years, there are still residents who are extremely lacking in financial knowledge and still at a low level. Comprehensive improvement of residents' financial literacy is of great significance to the current situation of low financial literacy levels.

Most existing studies have used questionnaires to measure financial literacy. In this study, we borrowed from the 2019 CHFS data, scoring based on respondents' answers to questions related to financial knowledge. There are three questions in total, with two points for correct answers, one point for incorrect answers, and zero points for no answer.

The descriptive statistics of the question answers are presented in Table 1.

Table 1. The situation in which the question is answered.

Encoded Question	Obs	Mean	Std. dev.	Min	Max
h3105	34,046	0.637989779	0.809969167	0	2
h3106	33,957	0.8023677	0.901672665	0	2
e3005dg	34,591	0.979416611	0.618294492	0	2

The three questions are related to interest rate calculation, interest rate and inflation, and compound interest calculation. In today's society, bank deposits and loans involve compound interest calculations, which are closely linked to the lives of ordinary people. Therefore, questions related to compound interest calculation received the highest scores, while questions about pure interest rate calculation received the lowest scores.

3.2. Explained Variables

Zhao Weixun [12] believes that there are many factors that contribute to the gap in wealth between urban and rural areas, such as educational opportunities and resources, employment opportunities, and income disparities. Among these factors, the urban-rural income gap plays a dominant role. As the primary factor causing the wealth gap between urban and rural areas, income disparities not only bring about social disharmony and sluggish imports and exports, but also hinder economic development (Wang Fushuai 2018 [13] This, in turn, leads to the separation of urban and rural areas. Given the above analysis, this study measures the wealth gap between urban and rural areas using the urban-rural income gap.

The urban-rural income gap is generally measured using indicators such as the urban-rural income ratio, Gini coefficient, and Theil index. However, the Gini coefficient and Theil index are more sensitive to different income levels, respectively. Therefore, the urban-rural income ratio is adopted to measure the urban-rural income gap. Referring to the model selection and indicator selection of Liu Yongtian [14] for the urban-rural income gap, the formula selected is the ratio of urban residents' annual disposable income (UIC) to rural residents' annual net income (RIC).

A total of 31 provinces and cities were selected as samples, and the descriptive statistics are shown in Table 2.

Table 2. Descriptive statistics of the explanatory variables

	Obs	Mean	Std. dev.	Min	Max
Rural-urban income ratio	31	2.512465	0.3397864	1.859337	3.356839

As shown in the descriptive statistics in Table 2, there are significant differences in the urban-rural income ratio across different regions, with both the range and standard deviation being relatively large.

3.3. Control Variables

There are numerous factors that can influence the urban-rural income ratio. To ensure the accuracy and rationality of the research results, it is necessary to control the effects of other variables. The following variables are included as controls: economic development level, urban-rural population ratio, industrial structure, degree of openness to the outside world, government revenue, scientific and technological expenditure, and regional policies.

A detailed description of the variables and their measurement methods are shown in Table 3.

Table 3. Variable interpretation and calculation.

Variable type	Variable name	Variable symbol	Measurement method
Control variable	Degree of economic development	lnGDP, GDP	Take logarithm of GDP per capita, GDP per capita
	Urban-rural population ratio	urbanpd	Urban population density
	Industrial structure	is	Added value of the tertiary industry
	Degree of opening up	op	Financial industry added value /GDP
	Government revenue	G	Government revenue (ten thousand yuan)
	Expenditure on science and technology	tech	Science and technology expenditure (ten thousand yuan)
	Regional policy	reg	Number of Yangtze River economic belt in the province

The descriptive statistics for the control variables are presented in Table 4.

Table 4. Descriptive statistics of control variables.

Variable	Obs	Mean	Std. dev.	Min	Max
fin	17,054	1.53014	1.85592	0	6
G	270	5669.519	3025.467	922.48	18247.01
is	270	14366.94	12272.63	689.15	69146.82
lnGDP	270	1.735502	0.4182379	0.8394529	2.912242
reg	31	0.3548387	0.4863735	0	1
GDP	270	6.223106	2.943433	2.3151	18.398
urbanpd	270	2937.737	1115.733	1059	5541
op	110	0.270608	0.2820092	0.0076402	1.253081
ed	270	943.8854	583.9318	112.9532	3796.686

3.4. Data Selection

To ensure the timeliness and practical significance of the results, this study selected questionnaire results related to financial literacy from the 2019 China Household Wealth Survey, as well as data from the China Statistical Yearbook and various provincial statistical yearbooks.

3.5. Model Design

This paper primarily examines the impact of financial literacy on the urban-rural income gap and assumes a linear relationship between the two. Therefore, a linear regression model is adopted for estimation. The specific linear model is as follows:

$$\text{finlit} = \theta_1 \text{gap} + \sum_{i=1}^n \rho_i \text{control} + \mu_i \quad (1)$$

In this model, "finlit" represents the respondent's score, indicating financial literacy, "gap" represents the income ratio between urban and rural residents, used as a proxy for the urban-rural wealth gap, "control" represents the control variables, and " μ_i " represents the error term.

4. CONCLUSIONS AND SUGGESTIONS

4.1. Conclusions

Among the 31 provinces, financial literacy has a significant negative impact on the urban-rural wealth gap. An improvement in financial literacy will lead to a narrowing of the urban-rural wealth gap, indicating a negative correlation between the two. Even in the less developed western regions, this negative correlation is more pronounced, suggesting that enhancing residents' financial literacy in these regions can achieve more significant results. As seen from the regression results, improving financial literacy is of great significance for reducing the urban-rural income ratio. Among the control variables, the industrial structure, specifically the value-added of the tertiary industry, has a negative impact on the urban-rural wealth gap. The financial industry, which is part of the tertiary industry, relies on an increase in sales and a higher proportion in the industrial structure, which in turn depends on the improvement of residents' financial literacy. Therefore, in regions where the industrial structure is dominated by primary and secondary industries, enhancing residents' financial literacy is even more beneficial and meaningful.

Table 5. Significance analysis results.

Variables	All regions gap	Western region gap
fin	-0.0552843**	-0.0644893**
	(-2.38)	(-3.59)
G	0.0000628	-0.0001422
	(0.48)	(-0.58)
is	-0.0000838	-0.0000944
	(-1.69)	(-1.32)
lnGDP	-0.6151054*	-1.4479734
	(-1.76)	(-1.20)
reg	0.1574750	0.9126855**
	(1.40)	(3.75)
GDP	0.2197353**	-0.1351437
	(2.79)	(-0.34)
urbanpd	0.0003230**	-0.0029832*
	(2.76)	(-2.64)
op	0.8478261	8.0451799**
	(1.58)	(3.75)
ed	0.0006135	0.0064703**
	(0.63)	(3.66)
Constant	1.4980622**	7.6621835*
	(2.13)	(3.02)
Observations	31	13
R-squared	0.724	0.963
t-statistics in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

4.2. Suggestions

Firstly, the government should actively promote the popularization of financial knowledge.

To fundamentally enhance residents' financial literacy, government agencies should introduce corresponding policies to improve the financial education system, focusing on both knowledge and

application. In terms of knowledge dissemination and teaching, financial knowledge should be integrated into daily life. Starting with youths, basic financial knowledge should be included in college education, and fun competitions should be organized. For middle-aged individuals, financial literacy campaigns can be promoted, with regular seminars and thematic parks established. For the elderly, courses can be added to senior citizen universities, with a focus on diversity and flexibility to effectively help them understand financial knowledge. Financial-specific programs can also be included in community activities for the elderly. In terms of ability application, to reassure residents in purchasing financial products, government supervision of financial institutions is crucial. Increasing regulatory oversight can make the financial industry more open and transparent, encouraging residents' enthusiasm for purchasing.

Secondly, residents should actively learn financial knowledge and correctly understand the financial industry.

Promoting financial literacy solely from the government's perspective will have limited effect. Only through collaboration between the government and residents can better results be achieved. Residents should take the initiative to learn actively and utilize various learning methods, whether through fragmented learning via new media or systematic learning through government-provided training and seminars to deepen their understanding of financial knowledge. Only when residents have a certain understanding of the financial industry and possess relevant knowledge can they change their inherent savings mindset, diversify investments, and adopt multiple investment strategies to achieve a balance between risk and return that suits their individual situations.

Lastly, financial product companies and enterprises should innovate and launch financial products that better meet the needs of the general public.

As the financial industry continues to develop, financial companies must constantly innovate and adapt to the changing investment and wealth management needs of the public. While strictly adhering to government regulatory rules, they should launch products with simple rules and clear yield-to-risk ratios. This will have a positive impact on the public's understanding of financial products and enhance the accessibility of financial knowledge, thereby contributing to the improvement of residents' financial literacy. Only through the joint efforts of these three parties can a comprehensive and specific framework for improving financial literacy be established, with government promotion, active participation of the people, and corporate responsiveness. This approach can rapidly enhance residents' financial literacy from both depth and breadth, thereby narrowing the urban-rural wealth gap and achieving common prosperity.

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