

Research on the influencing factors and economic effects of China's household leverage ratio

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Abstract

This study explores the influencing factors and economic effects of my country's household leverage ratio. In recent years, my country's household leverage ratio has risen rapidly, which has had a profound impact on the stable development of the economy. This paper first sorts out the main factors affecting the household leverage ratio through literature review and theoretical analysis, including macroeconomic factors (such as economic growth rate, monetary policy, real estate market, etc.), microeconomic factors (such as household income level, consumption habits and savings rate, credit availability, etc.) and social factors (such as population structure, education and financial literacy, etc.). On this basis, this paper analyzes the specific impact of household leverage ratio on economic growth, financial stability, real estate market and household consumption behavior. The study found that a moderate household leverage ratio can promote economic growth and consumption, but an excessively high leverage ratio may trigger financial risks, inhibit long-term consumption capacity, and aggravate the volatility of the real estate market. Finally, this paper puts forward a series of policy recommendations, including reasonably guiding the household leverage ratio, strengthening financial supervision and promoting financial education, in order to provide reference for the government and financial institutions and promote the sustainable development of the economy. Through this study, it is hoped that new perspectives and ideas can be provided for academics and policymakers, and theoretical and practical support can be provided for solving the problem of household leverage ratio in my country.

Keywords

Household leverage ratio, influencing factors, economic effects, financial stability.

1. Introduction

1.1. Research background

The household leverage ratio refers to the ratio of household debt to disposable income, and is an important indicator for measuring household debt burden and debt repayment capacity. As an important part of the financial system and macroeconomics, the household leverage ratio not only reflects the financial health of the household sector, but also has a profound impact on economic operation and financial stability. In the process of economic development, a moderate household leverage ratio helps to increase consumption and investment and promote economic growth; however, an excessively high leverage ratio may lead to the accumulation of financial risks, inhibit consumption growth, and affect economic stability. Therefore, in-depth research on the household leverage ratio and its influencing factors is of great significance for understanding and grasping the laws of economic operation and preventing systemic financial risks.

1.2. Research objectives

This study aims to explore the main influencing factors of China's household leverage ratio and analyze its specific impact on the economy. First, by combing and summarizing the existing literature, we identify the macroeconomic factors (such as economic growth rate, monetary policy, real estate market, etc.), microeconomic factors (such as residents' income level, consumption habits and savings rate, credit availability, etc.) and social factors (such as population structure, education and financial literacy, etc.) that affect China's household leverage ratio. Secondly, through theoretical analysis and case studies, we deeply analyze the specific effects of household leverage ratio on economic growth, financial stability, real estate market and residents' consumption behavior. Through this study, we hope to fully reveal the changing mechanism of household leverage ratio and its economic effects under different economic backgrounds, and provide a scientific basis for policymakers and financial institutions.

1.3. Research significance

This study is of great significance both in theory and practice. On the theoretical level, this paper enriches the existing financial economic theory, especially the interactive relationship between the household leverage ratio and the macroeconomy, by systematically analyzing my country's household leverage ratio and its influencing factors, and fills the gap in related research. On the practical level, the research results of this paper will provide valuable reference for policymakers and financial institutions. By identifying and analyzing the main factors affecting the household leverage ratio, the government can formulate more targeted policy measures to guide residents to reasonably indebtedness and prevent financial risks. At the same time, financial institutions can optimize credit policies, improve risk management levels, and promote the healthy and stable development of the economy based on the research results. Overall, this study not only helps to deepen the understanding of the household leverage ratio issue, but also provides theoretical support and practical guidance for achieving sustainable economic development.

2. Literature review

2.1. Research on factors affecting the household leverage ratio

Wu Zaihua and Zhang Xiong (2016) conducted an empirical study using panel data from 30 provinces and cities in China and found that as the level of urbanization increases, the level of financial development in the region where residents live also increases, and the leverage ratio of residents also increases significantly. Li Xinpeng and Yu Xiaofang (2021) used panel data from 28 provinces and cities across the country to conduct an empirical analysis of the factors affecting the leverage ratio of residents. The empirical results show that the level of urbanization and the scale of financial development are the main factors affecting the leverage ratio of residents in the eastern region. Wan Guangcai and Chen Xinxin (2022) used the bootstrap rolling window causal analysis to analyze the mutual influence between housing prices and the level of residents' leverage ratio, and found that there is a limited and significant mutual promotion and spiral relationship between the increase in housing prices and the leverage ratio of residents.

2.2. Research on the growth effect of household leverage ratio

Cheikh (2016) proposed that there is a significant "inverted U" relationship between debt leverage ratio and economic growth. Liu Xihe et al. (2017) explored the impact effect of household leverage ratio fluctuations by constructing a heterogeneous dynamic general equilibrium model, and found that the consumption level can be effectively improved to achieve economic growth through the rebalancing of corporate sector deleveraging and household

sector leverage. Wu Ge et al. (2018) believe that the increase in residents' leverage ratio has a certain "income effect" and thus drives economic growth. Gui Wenlin and Cheng Hui (2021) conducted an empirical analysis by constructing the MF-MS-VAR model, i.e., the mixed Markov region switching vector autoregression model. The results show that moderate leverage of the resident sector is due to the guarantee of stable growth of asset prices and macroeconomics.

2.3. Research on the income effect of household leverage ratio

Wu Ge (2018) conducted an empirical study on factors such as household debt and disposable income and found that the increase in household leverage ratio can stimulate household consumption level and macroeconomic growth, and further increase household income level and disposable income. Zhou Li and Wang Cong (2018) believe that household borrowing can ease the current liquidity constraints and supplement the total wealth of residents. Zhang (2020) showed through empirical research that the increase in household leverage has a suppressive effect on residents' consumption level. Household leverage has a positive impact on household survival consumption, but has a suppressive effect on development consumption. At the same time, the increase in household leverage investment will also have an crowding-out effect on consumption, thereby having a significant suppressive effect on total household expenditure. Wang Xia and Ma Rui (2022) believe that in terms of savings, there is a significant U-shaped relationship between the savings rate and the leverage ratio, and the impact of the household leverage ratio on the household savings rate first decreases and then increases.

2.4. Research on the risk effect of household leverage ratio

Ma Yong and Chen Yulu (2017) analyzed the dynamic panel data of 68 countries in the world from 1981 to 2012 and found that excessive leverage will affect financial stability. Tian Guoqiang et al. (2018) found that the increase in the leverage ratio of China's household sector has a certain crowding-out effect on output and is transmitted to other sectors through the macro-financial network, thereby increasing macro-financial fragility and economic risks by constructing a dynamic general equilibrium model and conducting numerical simulation analysis. Liu Lijuan and Jiang Hongli (2020) used a total of ten years of data from 2008 to 2018 to find that there is an obvious two-zone "ratchet effect" between China's household leverage ratio and systemic financial risk, and there is a significant impact relationship between household leverage ratio and systemic financial risk. Ji Yang et al. (2021) analyzed the sectoral leverage ratios of 42 economies from 1980 to 2017 and found that the leverage ratio of the private sector has a greater impact than that of the government sector.

3. Theoretical basis

3.1. Financial Accelerator Theory

The financial accelerator theory was proposed by Bernanke and Gertler in the 1990s, emphasizing the interactive relationship between financial markets and the real economy. The theory holds that financial market conditions will affect the real economy through the amplifier effect. Specifically, during economic prosperity, asset prices rise, the balance sheets of enterprises and residents are improved, and credit supply increases, which in turn promotes investment and consumption and drives economic growth; conversely, during economic recessions, asset prices fall, balance sheets deteriorate, and credit supply decreases, which inhibits investment and consumption and exacerbates economic downturns. Related to the household leverage ratio, the financial accelerator theory explains the fluctuations in the leverage ratio during the economic cycle. When the economy is on the rise, residents are more likely to obtain loans and the leverage ratio rises; when the economy is on the decline, credit tightens and the household leverage ratio falls. The existence of the financial accelerator

mechanism makes the household leverage ratio not only the result of economic operation, but also an important driver of economic fluctuations.

3.2. Life Cycle Hypothesis

The life cycle hypothesis was proposed by Friedman and Modigliani in the 1950s to explain residents' consumption and savings behavior. The theory holds that residents will make rational plans based on expected income and consumption needs during their life cycle: in youth, income is low but consumption needs are high, and residents tend to smooth consumption through borrowing; in middle age, income increases, and residents begin to save to repay previous debts and prepare for retirement; in old age, residents use savings for consumption. The life cycle hypothesis explains the changing pattern of residents' leverage ratio at different stages of life: young people have higher debts and higher leverage ratios; middle-aged people gradually reduce their leverage ratios; and the elderly have the lowest leverage ratios. The theory provides an important perspective for understanding residents' leverage ratios, explaining that household debt behavior is adjusted according to expected income and consumption needs during the life cycle.

3.3. Keynesian consumption theory

Keynesian consumption theory was proposed by John Maynard Keynes, who believed that residents' consumption depends mainly on current income rather than expected income or life cycle planning. Keynes believed that there is a stable marginal propensity to consume between consumption and income, that is, an increase of one unit in income will cause an increase in consumption but the increase is less than one unit. Keynesian consumption theory explains the short-term fluctuations in residents' leverage ratio. When the economy is booming, residents' income increases, consumption also increases, but savings and borrowing behavior will also increase accordingly, leading to an increase in leverage ratio; conversely, when the economy is in recession, residents' income decreases, consumption decreases, savings and borrowing behavior are suppressed, and leverage ratio decreases. In addition, Keynesian theory emphasizes the important role of government policies in regulating economic cycles, indicating that through appropriate fiscal and monetary policies, the government can influence residents' consumption and borrowing behavior, thereby regulating the level of leverage ratio. This theory provides a macroeconomic policy perspective for understanding residents' leverage ratio, emphasizing the regulatory role of policies on residents' consumption and debt behavior.

4. Factors affecting the household leverage ratio

4.1. Macroeconomic factors

Economic growth rate, monetary policy and real estate market are the main macroeconomic factors affecting the household leverage ratio. First, there is a significant relationship between economic growth rate and household leverage ratio. When economic growth rate rises, residents' income expectations increase and their willingness to consume increases, which in turn leads to an increase in borrowing demand and drives up the leverage ratio. On the contrary, when the economy is in a downturn, income expectations decline, consumption and borrowing demand decrease, and the leverage ratio tends to decline. Secondly, monetary policy directly affects the household leverage ratio through interest rate level and money supply. When the central bank lowers interest rates, borrowing costs decrease, and residents are more inclined to meet their consumption needs through loans, thereby increasing the leverage ratio; on the contrary, rising interest rates will suppress borrowing demand and reduce the leverage ratio. In addition, an increase in money supply will also drive up the household leverage ratio by increasing credit supply. Finally, changes in the real estate market have an important impact on the household leverage ratio. When housing prices rise, residents' demand for housing loans

increases and the leverage ratio rises; while falling housing prices may lead to a decrease in housing demand and a decrease in leverage ratio. Therefore, macroeconomic factors work together through multiple channels to affect changes in the household leverage ratio.

4.2. Microeconomic factors

Residents' income level, consumption habits, savings rate and credit availability are important microeconomic factors that affect residents' leverage ratio. First, income level directly affects residents' borrowing ability and willingness. Residents with higher income levels are usually more likely to obtain loans because they have stronger repayment ability, and their leverage ratio is relatively high. On the contrary, residents with lower income levels have limited borrowing ability and lower leverage ratio. Second, consumption habits and savings rate have a significant impact on leverage ratio. Residents with stronger consumption habits tend to meet their consumption needs through borrowing, and their leverage ratio is higher; while residents with stronger savings tendencies are less dependent on borrowing and have lower leverage ratios. Credit availability also plays a key role. Financial institutions' lending policies, such as loan interest rates, approval standards and repayment periods, directly affect residents' borrowing behavior. Loose credit policies can increase residents' opportunities to obtain loans and increase leverage ratios; while strict credit policies will suppress borrowing demand and reduce leverage ratios. Therefore, microeconomic factors determine the level of leverage ratio by affecting residents' borrowing ability and willingness.

4.3. Social factors

Population structure and education and financial literacy are important social factors that affect residents' leverage ratio. First, population aging and changes in family structure have a significant impact on residents' leverage ratio. In an aging society, the proportion of the elderly population increases, the demand for borrowing decreases relatively, and the leverage ratio may decrease. At the same time, changes in family structure, such as the increase in single-person households and two-income childless households (DINK), these households usually have higher consumption demand and borrowing capacity, and higher leverage ratio. Secondly, the impact of education and financial literacy on residents' leverage ratio cannot be ignored. Residents with higher education and rich financial knowledge can better understand and manage their personal finances, make more rational borrowing decisions, and have a more moderate leverage ratio; while residents with lower financial literacy may over-borrow due to lack of financial planning ability, resulting in excessive leverage ratio. In addition, changes in social culture and values, such as attitudes towards consumption and savings, will also have an impact on residents' borrowing behavior. Therefore, social factors affect the level of overall leverage ratio by changing residents' borrowing demand and behavior patterns.

5. The economic effect of household leverage ratio

5.1. Impact on economic growth

The increase in household leverage has a dual effect on economic growth. In terms of positive effects, a moderate increase in leverage can promote consumption and investment. Through borrowing, residents can consume in advance and improve their quality of life, thereby stimulating consumer demand; at the same time, residents can use loans to invest in housing, education, and entrepreneurship, which can promote the diversified development of the economy and enhance the overall economic vitality. For example, when residents purchase houses through mortgage loans, they not only drive the development of the real estate market, but also promote the prosperity of related industries such as construction and home furnishing. However, the rapid increase in leverage also brings negative effects. When the level of household debt is too high and the pressure of debt repayment increases, it may lead to a

reduction in consumption and investment, inhibiting economic growth. In addition, excessive leverage increases the fragility of the financial system, which is prone to triggering financial crises and then causing shocks to the economy. Therefore, it is particularly important to maintain a moderate increase in leverage and balance its positive and negative effects on the economy.

5.2. Impact on financial stability

High leverage ratios pose a serious threat to the stability of the financial system. When the household leverage ratio is too high, the debt repayment capacity is weakened, which can easily lead to an increase in non-performing loans and bad debt ratios of financial institutions, which in turn affects the asset quality and profitability of financial institutions. For example, during economic downturns, reduced income and increased unemployment make it more difficult for residents to repay loans on time, and the default risk faced by financial institutions increases. In addition, high leverage ratios make the financial system more fragile and prone to systemic financial risks. When residents are generally highly indebted, once the economy fluctuates or the financial environment deteriorates, it may trigger a chain reaction, leading to large-scale defaults and the bankruptcy of financial institutions. Therefore, keeping the household leverage ratio within a reasonable range and strengthening risk management and supervision of financial institutions are important measures to maintain the stability of the financial system.

5.3. Impact on the real estate market

The household leverage ratio has an important impact on the fluctuation of the real estate market. High leverage ratios are often accompanied by a large demand for mortgage loans, pushing up housing prices. For example, during the booming real estate market, residents' enthusiasm for buying houses through borrowing is high, housing prices continue to rise, and asset bubbles are formed; once the leverage ratio is too high, housing prices may fluctuate violently, and the risks in the real estate market will increase. High leverage ratio mortgage demand also makes the real estate market more sensitive. Once the economic environment changes or interest rates rise, it may trigger a sharp drop in housing prices, leading to a large number of loan defaults, and further exacerbating the turmoil in the financial market. In addition, excessive reliance on leverage ratios to promote real estate market growth is not conducive to the healthy development and long-term stability of the real estate market. Therefore, it is the key to maintaining economic and financial stability to reasonably control the household leverage ratio, prevent the real estate market from overheating, and maintain the smooth operation of the real estate market.

5.4. Impact on residents' consumption behavior

The leverage ratio has a significant impact on the structure of residents' consumption expenditure. A high leverage ratio causes residents' financial resources to be used more to repay loan principal and interest, limiting the ability to make other consumption expenditures. For example, in order to repay housing loans, residents may reduce their spending on education, medical care, travel, etc., affecting their quality of life and sense of happiness. In addition, a high leverage ratio also has a negative impact on residents' future consumption capacity. Excessive debt increases residents' financial pressure, reduces future consumption expectations and confidence, and suppresses long-term consumption demand. In the long run, a high leverage ratio may lead to an irrational consumption structure, a decline in residents' savings rate, and a deterioration in financial health. Therefore, controlling residents' leverage ratio within a reasonable range and promoting rational consumption and reasonable debt will not only help improve residents' quality of life, but also promote sustainable economic development.

6. Policy suggestion

6.1. Rationally guiding the residents' leverage ratio

The government should use a variety of policy tools to reasonably guide the growth of residents' leverage ratio to ensure economic stability and financial security. First, the government can use monetary policy to regulate interest rates and money supply and moderately increase residents' credit supply. In the period of economic growth, the interest rate should be appropriately lowered to encourage residents to borrow reasonably and promote consumption and investment; in the period of economic downturn, the interest rate should be appropriately raised to curb excessive borrowing and prevent financial risks. Secondly, the government should implement differentiated policy measures and adopt targeted guidance strategies for different income groups. For low-income groups, more financial support and preferential policies should be provided to help them obtain necessary loan support; for high-income groups, financial supervision should be strengthened to prevent excessive borrowing and speculative behavior. At the same time, the government can encourage residents to increase savings, reasonably allocate consumption and savings ratios, and optimize the leverage structure through tax incentives. These measures can help form a stable leverage growth path and avoid financial crises caused by excessive borrowing.

6.2. Strengthening financial supervision

Improving the risk management level of financial institutions and preventing financial risks are important means to ensure that the household leverage ratio is controllable. First, financial regulators should strengthen supervision of financial institutions to ensure that they strictly abide by risk management standards when issuing loans and prevent the increase of non-performing loans. For example, regulators can formulate and implement stricter loan approval and risk assessment standards to ensure that financial institutions fully consider the borrower's repayment ability and loan purpose when issuing loans. Secondly, strengthen supervision of the use of household loans to prevent excessive leverage and ineffective allocation of funds. Financial institutions should strictly review the actual needs and uses of loan applicants to prevent borrowed funds from being used for high-risk investments or improper consumption. At the same time, a sound information sharing mechanism should be established so that regulators can obtain and monitor residents' borrowing information in a timely manner and discover and deal with potential risks in a timely manner. Through these measures, systemic financial risks caused by excessive borrowing by residents can be effectively prevented to ensure the stability and healthy development of the financial system.

6.3. Promoting financial education

Improving residents' financial literacy and enhancing risk awareness are important measures to control residents' leverage ratio. First, the government and financial institutions should vigorously promote financial education, popularize financial knowledge to the public through various channels, and help residents understand and master basic financial concepts and tools. For example, financial knowledge courses can be introduced into school education to cultivate young people's financial literacy; at the same time, the concept of rational consumption and moderate debt can be spread to the general public through community lectures, online courses and media publicity. Secondly, the government should encourage and support non-profit organizations and social groups to carry out financial education activities, provide professional consulting and guidance services, and help residents conduct scientific financial planning and risk management. In addition, financial institutions should strengthen customer education, provide borrowers with comprehensive loan information and risk warnings, and help them make rational borrowing decisions. By improving residents' financial literacy, their risk awareness can be enhanced, and blind borrowing and over-consumption behaviors can be

reduced, thereby effectively controlling residents' leverage ratio and promoting sustainable economic development.

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