Literature Review on the Wealth Effect in the Stock Market

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Abstract

On the basis of classic consumption theories such as life cycle theory and the permanent income hypothesis, this paper constructs a comprehensive analysis framework of the wealth effect in the stock market. Through a systematic review of relevant research at home and abroad, the factors that influence the wealth effect, the transmission channels and the differences in their effects in different market environments are discussed. The study revealed that the wealth effect in the stock market has significant regional heterogeneity and structural characteristics and that its transmission efficiency is constrained by the market development stage, investor structure and institutional environment. This study helps to comprehensively understand the association mechanism between financial asset price fluctuations and consumption behavior from the theoretical level and the empirical perspective.

Keywords

stock market, wealth effect, transmission mechanism, consumption behavior

1. Introduction

1.1 Research Background

As the core hub of the modern economy, the stock market has a key influence on macroeconomics operations. With the deepening of finance, the linkage effect of the stock market and the real economy has become increasingly prominent. Research by Dynan and Maki (2021) shows that for households with moderate securities holdings, for every dollar of wealth increase, the increase in consumption is between 5 and 15 cents and is more likely to be close to the lower limit of this range. In China, Xia et al. (2003) concluded that for every 10% increase in stock market value, the long-term consumption level will increase by 0.52%, indicating that the wealth effect of the stock market is growing in importance.

The wealth effect refers to the impact of asset price changes on the consumption behavior of residents. Its theoretical basis can be traced to the "Pigou effect" proposed by Pigou (1949), i.e., a decline in the price level will increase the actual value of financial assets, thereby stimulating consumer demand. This is regarded as the embryonic form of the wealth effect. On this basis, Ando and Modigliani (1963) further elaborated the relationship between wealth and consumption, arguing that family consumption decisions not only depend on current income but are also influenced by lifetime wealth expectations. In the late 20th century, Tobin (1969) formally included financial assets in the analysis framework of the consumption function, and the "financial accelerator" theory proposed by Bernanke (1983) revealed the amplifying effect of financial market fluctuations on consumption. These theoretical developments indicate that, as an

important carrier of wealth, stock market price fluctuations have a systemic effect on consumption behavior by changing residents' wealth expectations, liquidity position, and consumer confidence. With the deepening development of financial markets, wealth effect research has gradually shifted from macro aggregate analysis to micro individual behavioral research, focusing on the differentiated impacts of factors such as different income groups, asset holding structures and market institutional environments on the intensity of the wealth effect.

1.2 Research Significance

At the theoretical level, this study constructs a comprehensive analytical framework by systematically integrating classic consumption theories such as the Keynesian absolute income hypothesis, the Friedman permanent income hypothesis, and the life cycle theory of Modigliani to examine the transmission mechanism of the stock market wealth effect. This theoretical exploration not only helps deepen the understanding of the consumption–wealth relationship but also provides new analytical perspectives for the study of current consumption issues. Especially in the market economy environment with Chinese characteristics, the study of the differentiated responses of different income groups to stock market fluctuations can expand the application boundary of traditional consumption theory.

In terms of practical significance, against the background that consumption has become the main driving force of economic growth, the study of the wealth effect in the stock market has important policy reference value. Aiming at the problems of insufficient effective demand and structural contradiction that China is currently facing, this study, by examining the linkage between stock market and consumption, can provide a scientific basis for the coordination of fiscal policy, monetary policy and income distribution policy. The research results will directly serve the implementation of the strategy to expand domestic demand and provide decision support for promoting consumption upgrading and high-quality economic development.

2. Comparative Analysis of Different Types of Wealth Effects

In the modern economic system, the wealth effect is an important factor affecting the consumption behavior of residents. Owing to the difference in attributes, different types of assets have different impact mechanisms and intensities on consumption. Among them, real estate is the core component of Chinese household assets. From the perspective of the Chinese household property structure, real estate accounts for 70%, and the net value of urban household real estate accounts for 71.35% of family wealth per capita (Economic Daily, 2018). Its wealth effect directly affects residents' consumption and economic stability. An in-depth comparison of the wealth effects of real estate and financial assets helps us understand the internal logic of Chinese residents' consumption decisions and provides a reference for macroeconomic policy formulation.

2.1 Mechanism of the Real Estate Wealth Effect

As a core part of Chinese household asset allocation, real estate affects consumption behavior through multiple channels. (Wang, 2017) shows that an increase in real estate value not only directly increases the disposable income of residents through asset sales but also relieves liquidity constraints through refinancing channels. Zhao et al. (2011) further noted that the improvement in wealth expectations brought about by the appreciation of real estate significantly increases the confidence of residents, and this psychological effect is particularly prominent in the field of durable consumer goods. Notably, the latest research by Shi and He (2023) revealed significant regional heterogeneity in the wealth effect of China's real estate, with the wealth effect of first-tier cities being significantly greater than that of other regions because of the greater liquidity of real estate.

2.2 Analysis of the Characteristics of the Wealth Effect of Financial Assets

With the deepening and development of the capital market, the proportion of financial assets such as stocks and funds in the wealth of residents continues to rise. A cross-country comparative study by Benjamin et al. (2004) revealed that, owing to the high liquidity characteristics of financial assets, the wealth effect of

financial assets often has dual characteristics of immediacy and volatility. The ubiquity of financial investment has caused the rise and fall of stocks and funds to have a greater impact on household consumption. A study by Chen et al. (2011) on the Chinese market found that there is a clear hierarchical difference in the impact of financial asset appreciation on consumption: it mainly affects luxury goods and investment consumption for the high-income group, while it significantly promotes developmental consumption, such as education and tourism, for the middle-income group. In addition, financial assets are also characterized by easy liquidity, and the study by Dvornak and Kohler (2007) highlights that modern electronic trading platforms have greatly improved the efficiency of liquidating financial assets, and that this technological convenience further amplifies the wealth effect.

2.3 A Comparative Study of the Wealth Effects of Stocks and Real Estates

There is ongoing debate in the academic community about the relative strength of the wealth effect of these two types of assets. The "real estate advantage theory" proposed by Case et al. (2005) on the basis of US market data has been partially verified in China, but it is obviously conditional. A comparative study by Chen and Wang (2008) revealed that the wealth effects of the stock market and the real estate market are not significant; however, in comparison, the wealth effect of the real estate market is greater than that of the stock market. In contrast, Dvornak and Kohler (2007) reached the conclusion that the ratio of stock market wealth growth to consumption growth was 100:6, which was significantly greater than the real estate ratio of 100:3, suggesting that the wealth effect of stock market assets is greater than that of real estate. The dynamic study of Ding and Hu (2008) further revealed the interaction of the two types of effects: during the period of loose monetary policy, the stock market effect was more prominent, whereas during the period of tightening regulation, the real estate effect was more persistent. This difference essentially reflects the unique asset allocation logic of Chinese residents of "real estate to protect the bottom line, stocks to increase income".

The above studies show that the wealth effects of the real estate market and the stock market have their own characteristics: the wealth effect of real estate is characterized by strong stability and significant regional differences, whereas the wealth effect of financial assets is characterized by greater immediacy and volatility. The relative influence of the two is not fixed but is dynamically affected by the macroeconomic environment, policy regulation and changes in the asset structure of residents. In China's special market environment, real estate has long been regarded as a "safe asset", whose wealth effect may diminish during periods of policy easing but still plays a stabilizing role during economic downturns, while the stock market is more susceptible to short-term fluctuations, and has a more pronounced pulling effect on high-income groups and specific consumption areas.

3. Theoretical Basis of the Wealth Effect in the Stock Market

The wealth effect in the stock market did not occur in a vacuum. Its internal mechanism is deeply rooted in the development of modern consumption theory. From the early life cycle model to the dynamic heterogeneity analysis framework, economists have gradually built a theoretical system to explain how stock wealth affects consumption behavior.

3.1 Life Cycle Model of Household Consumption Behavior

The theoretical origin of the wealth effect in the stock market is rooted mainly in the development and evolution of modern consumption theory. The life cycle hypothesis proposed by Ando and Modigliani (1963) provides the basic framework for understanding the wealth effect. This theory suggests that rational consumers plan consumption paths on the basis of the present value of lifetime wealth, in which the appreciation of financial assets such as stocks stimulates current consumption by increasing lifetime wealth expectations. This seminal study was further verified by Modigliani et al. (1977) in their follow-up study on the effect of tax policy. They found that the impact of asset value changes on consumption was significantly stronger than that of temporary income changes.

3.2 Wealth Effect Analysis Model of the Permanent Income Hypothesis

Complementary to the life cycle hypothesis is the permanent income hypothesis proposed by Friedman (1957). On this basis, Ludvigson and Steindel (1998) constructed a more operational wealth effect analysis model. Their study shows that the persistent part of the wealth changes in the stock market has a more significant effect on consumption, whereas the impact of temporary fluctuations is relatively limited. This finding has important methodological implications for the differentiation between durable and temporary components in the stock wealth effect.

3.3 Wealth Effect Analysis Model Based on Life Cycle Theory

By making life cycle theory dynamic, Gal í (1990) and Mehra (2001) promoted the innovative development of wealth effect theory. The finite-term bound model established by Gal í (1990) reveals that there are systematic differences in the responses of different age groups to changes in stock wealth: because young households have a longer consumption planning period, their consumption sensitivity to changes in stock wealth is significantly greater than that of elderly household families. The empirical study of Mehra (2001) further quantified this heterogeneity and revealed that the marginal propensity to consume stock wealth of American households under the age of 45 reached 0.05, whereas that of households over the age of 65 was only 0.02, indicating that younger households show a higher marginal propensity to consume.

The above theoretical developments together build a complete analytical framework for the wealth effect in the stock market: first, the intertemporal optimization mechanism based on the life cycle hypothesis reveals the long-run transmission path through which stock wealth affects consumption decisions by altering lifelong wealth expectations; second, the persistence identification method originating from the permanent income hypothesis provides an important analytical tool for distinguishing between the persistent component and the transitory component in the changes in stock wealth; and third, the heterogeneity analysis perspective proposed by the dynamic life cycle model emphasizes the existence of differentiated responses to the wealth effect among different groups of people. The heterogeneity analysis perspective proposed by the dynamic life cycle model emphasizes the characteristic of different populations having differentiated responses to wealth effects. These three dimensions complement each other, and the organic combination not only deepens the understanding of the intrinsic mechanism of the wealth effect but also provides systematic theoretical guidance for subsequent empirical research.

4. Divergence of Empirical Studies on the Wealth Effect of Stock Markets

Empirical research on the wealth effect in the stock market reveals significant national differences and stage characteristics; the academic community has not yet reached completely consistent conclusions on its strength, stability and transmission mechanism. Existing studies mainly focus on the core issue of "effect significance", and have gradually developed three major research perspectives: the significant effect theory based on data from developed countries, the limited effect theory emphasizing the limitations of the effect, and the localized research focusing on the specificities of the Chinese market. These differences reflect not only the differences in the market development stage and the institutional environment but also the evolution process of research methods and theoretical frameworks.

4.1 Significant Wealth Effect Theory

Research supporting the existence of a significant wealth effect in the stock market is mainly based on empirical evidence from mature markets in developed countries. By analyzing data from OECD countries, Laurence et al. (1998) reported that for every dollar increase in stock wealth, household consumption increases by an average of 3--5 cents, and this effect is particularly significant in countries with a high degree of financial deepening. The US study by Davis and Palumbo (2021) further quantified this relationship. The error correction model they constructed showed that the long-term marginal propensity to consume (MPC) of stock wealth reached 0.04 and was statistically significant. These studies suggest that a developed financial system, extensive participation in the stock market, and sound market mechanisms are important prerequisites for a significant wealth effect.

4.2 Finite Effect Theory

Other scholars have questioned the strength and stability of the wealth effect in the stock market. A crosscountry comparative study by Case et al. (2005) revealed that, compared with the real estate market, the wealth effect in the stock market is not only weaker (30%-50% lower elasticity coefficient) but also more volatile. Lettau and Ludvigson (2001) theoretically noted that most of the changes in stock wealth are temporary fluctuations and that only the part that can continuously affect permanent income expectations significantly changes consumption behavior. Their empirical analysis shows that the MPC of U.S. stock market wealth decreases to less than 0.02 after accounting for the persistence factor, and the statistical significance also weakens significantly. These studies emphasize that the actual impact of the stock market wealth effect may be overestimated by earlier studies.

4.3 Study on the Particularity of the Chinese Market

Research by Chinese scholars on the basis of local data has exhibited obvious stage characteristics. Early studies such as Li (2001) reported that the wealth effect in the Chinese stock market was not significant (MPC<0.01) before 2000, mainly because of the small size of the stock market and the low degree of participation. With the development of the market, the study by Chen and Ye (2009) shows that the MPC increased to approximately 0.03 from 2005--2008, but the volatility is significantly greater than that in mature markets. Luo (2008) further revealed the "limited participation" phenomenon with Chinese characteristics: stock market participants, who accounted for only 5% of the population, contributed more than 80% of the wealth effect. This structural characteristic leads to the underestimation of the overall effect. The latest research reveals that, with the diversification of residents' financial asset allocation, the wealth effect of China's stock market is gradually increasing, but it still clearly shows the asymmetry of a "strong bull market and weak bear market."

Empirical research on the wealth effect in the stock market reveals obvious regional differences and staged characteristics, and three main research viewpoints have been formed. On the basis of data from developed countries, the significant effect theory confirms that the wealth of stocks has a stabilizing effect on consumption, which is due to the mature financial system and extensive market participation; the limited effects theory states that the strength of the stock market wealth effect is relatively weak and volatile, with persistence-adjusted MPCs generally below 0.02; on the other hand, the study of the Chinese market has revealed a unique phenomenon of "limited participation" and asymmetric characteristics of a "strong bull market, weak bear market". These research differences reflect not only the institutional differences among economies at different development stages but also the evolution process of research methods. Notably, with the development of China's capital market and the diversification of residents' financial asset allocation, the wealth effect of the stock market is gradually increasing, but it is still significantly different from the characteristics of mature markets. These empirical findings provide an important basis for understanding the formation mechanism of the wealth effect under different market environments and provide references for differentiated policy formulation.

5. Factors Influencing the Wealth Effect in the Stock Market

The wealth effect of the stock market does not exist in isolation, and its magnitude and direction are influenced by a variety of factors. Existing studies have shown that factors such as market size, differences in consumption areas and household leverage all have a significant impact on the transmission mechanism of the wealth effect.

5.1 Stock Market Size

The size of the stock market determines the extent of its impact on the macroeconomy. Through empirical analysis, Xue (2012) reported that as the size of China's stock market expands, its wealth effect on residential consumption gradually increases. This conclusion is consistent with the study by Zhao et al. (2008). They believe that the growth of stock market capitalization will increase the value of residents' financial assets, thereby enhancing consumer confidence and promoting consumer spending. However,

compared with that of developed countries, the wealth effect of China's stock market is still relatively weak, which may be related to market maturity and investor structure.

5.2 Different Consumption Fields

Significant differences exist in the impact of the stock market on different consumption areas. Zhang (2009) noted that the wealth effect of the stock market is more obvious in the consumption of durable goods (such as automobiles and home appliances) and nonessential consumer goods (such as travel and luxury goods), whereas the impact on basic living consumption (such as food and clothing) is smaller. Wang (2017) further studied the impact of the stock market on travel consumption and reported that travel consumption has a "quasiluxury" attribute. When the stock market rises, the growth in travel expenditure of the high-income group is more significant, whereas basic consumption is relatively stable. This shows that the wealth effect of the stock market is asymmetric in the consumption structure.

5.3 Household Leverage Ratio of Residents

The leverage ratio of resident households is a key factor affecting the wealth effect. On the basis of US household data, Johnson and Li (2012) showed that highly leveraged households have low asset liquidity and are more sensitive to consumption adjustment in the face of stock market fluctuations. In contrast, the consumption of low-leverage households is less affected by the stock market due to their greater financial flexibility. This finding is also suggestive of the Chinese market: in recent years, the leverage ratio of the Chinese household sector has continued to rise, especially the increasing proportion of housing loans, which may have inhibited the wealth effect of the stock market because highly indebted households are more inclined to save rather than consume.

The factors influencing the wealth effect in the stock market are complex and varied. The size of the market determines the overall influence. The differences in consumption structure cause the manifestation of the wealth effect to vary in different fields, and the household leverage ratio constrains the transmission efficiency of the wealth effect. Future research can further explore the moderating effects of investor sentiment, policy regulation and other factors on the wealth effect, in order to more comprehensively understand the dynamic relationship between the stock market and consumption.

6. Channels for the Wealth Effect in the Stock Market

The influence of the stock market on the consumption of residents is not the simple conduction of a single dimension but rather the joint action of multiple interrelated channels. These transmission channels not only reflect the basic characteristics of the modern financial system but also reflect the institutional characteristics of different economies. An in-depth understanding of these transmission mechanisms is important for understanding the formation process of the wealth effect.

6.1 Direct Wealth Effect

The direct wealth effect is the most basic transmission channel through which the stock market influences consumption. When the stock price increases, the value of financial assets held by investors increases accordingly, which directly increases the level of disposable wealth of residents. According to life cycle consumption theory (Ando & Modigliani, 1963), rational consumers plan their consumption paths on the basis of the present value of their lifetime wealth. Grant and Peltonen's (2021) study of Italian households shows that for every Euro 1 increase in stock wealth, household consumption expenditures increase on average by Euro 0.03-0.05. In the Chinese market, Liang and Feng (2000) used survey data to study the wealth effect of the 1999 stock market "5-19 market" and found that a sharp rise in the stock market not only increases the immediate expenditures of stock-holding households, but also strengthens investor confidence and expectations for the future. The "5.19 market" showed that there was a direct wealth effect, but that there was a gap between it and the markets of developed countries.

6.2 Collateral Effect

The collateral effect reveals the special affecting mechanism of asset price changes on economic behavior under the condition of an incomplete financial market. Browning et al. (2013), using data from Denmark over the period 1987-1996, find that an increase in the value of property as collateral does significantly improve the balance sheet position of households, reduces credit constraints, and improves the ability to raise finance, which in turn boosts consumer spending. It provides an analytical framework that can be applied to the stock market. Stock asset appreciation may increase the value of investor collateral, reduce credit constraints, and enhance credit ability, thereby driving up consumption. This effect is particularly evident in countries with more developed financial systems, and the magnitude of its influence often exceeds the direct wealth effect. In China, owing to the relatively lagging development of the capital market, the collateral effect is still subject to certain restrictions.

6.3 Signaling Effects

The signaling effect reflects the special function of the stock market as a "barometer" of the economy. On the basis of Chinese data, Hu and Guo (2012) noted that a rise in stock prices often heralds an improvement in future economic prosperity, which would significantly improve consumers' future income expectations, thereby stimulating current consumption spending. Their empirical results show that, in the context of China's transitional economy, the impact of the signaling effect on consumption even exceeds the direct wealth effect. This effect is more evident in periods of high levels of policy uncertainty.

6.4 Asymmetric Effects

The asymmetric effect reveals the influence of investors' behavioral psychology on the wealth transmission process. Research by Apergis and Miller (2004) revealed that investors' response to wealth loss was significantly greater than their response to wealth increase. This loss aversion leads to the magnitude of consumption contraction during bear markets often exceeding the magnitude of consumption expansion during bull markets. In the Chinese market, owing to the relatively high proportion of retail investors, this asymmetric effect is particularly prominent. Luo (2008) shows that the elasticity coefficient of the wealth effect in China's stock market during the bull market period is 2--3 times that during the bear market period.

The transmission mechanism of the wealth effect in the stock market is a complex multidimensional and multilevel system. The direct wealth effect, collateral effect, signaling effect and asymmetry effect together form a complete transmission chain, and these channels are independent and influence each other. In developed economies, the collateral effect and the direct wealth effect usually dominate, whereas in emerging markets such as China, the signaling effect and asymmetric effect are more significant. This difference reflects the institutional characteristics and market structure characteristics of economies at different development stages. Future research should further focus on the synergy mechanism of each transmission channel and the transformation of traditional transmission channels through the development of fintech to provide more comprehensive and accurate theoretical support for policy formulation.

7. Conclusions and Implications

This paper systematically studies the theoretical basis, empirical differences, influencing factors and transmission mechanism of the wealth effect in the stock market and builds a complete analysis framework. The study revealed that the wealth effect in the stock market is a complex phenomenon with multiple dimensions and dynamic evolution. Its strength and transmission mechanism vary with the market development stage, institutional environment and investor structure. In the mature markets of developed countries, the wealth effect is usually more significant and stable, and the marginal propensity to consume remains in the range of 0.03--0.05. In contrast, in emerging markets such as China, the asymmetric characteristics of a "strong bull market and weak bear market" and "limited participation" are structural characteristics. The study reveals that the wealth effect is transmitted through multiple channels, including direct wealth, collateral, signaling and asymmetric effects, among which developed economies are dominated by the collateral effect, while the signaling effect is more prominent in the Chinese market.

These studies have important policy implications. First, the reform of the capital market should be deepened, market quality should be enhanced by improving basic institutions such as the registration system and the delisting mechanism, and institutional investors (those accounting for less than 20% of the capital market) should be developed to optimize the investor structure and reduce the risk of illness. Retail investors dominate irrational market fluctuations. Second, the management of the leverage ratio of residents should be strengthened, a monitoring and early warning system for the debt-to-income ratio (the leverage ratio of Chinese residents has reached 62.2%) should be established, and a differentiated credit policy should be implemented to ease the inhibitory effect of high leverage on consumption (research results show that for every 1 percentage point decrease in the leverage ratio, the wealth effect elasticity increases by 0.03). Finally, a systematic investor education system should be built, financial education should be included in the national curriculum, and digital technology should be used to carry out precise investment education to improve residents' financial literacy (the current qualification rate is insufficient 35%). Studies show that investors' marginal propensity to consume can be increased by 0.02 after training. This study not only expands the application boundary of consumption theory but also provides a valuable decision-making reference for the implementation of the current strategy of expanding domestic demand. Future research can further explore the new characteristics of the wealth effect in the context of digital finance and the regulatory role of different policy instruments in the wealth transmission mechanism to provide more accurate theoretical support for promoting high-quality economic development.

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