

Research on the relationship between the impact of private equity investment fund and systemic financial risk

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Abstract: Private equity investment funds, as an important investment tool, have been widely used around the world. They provide investors with diversified investment opportunities to help enterprises to finance and achieve growth. The leverage operation of private equity funds, asset allocation strategy and market liquidity risk and other factors may lead to the increase of systemic financial risks. However, as a diversified investment tool, private equity funds can also alleviate systemic risks to a certain extent.

1. Introduction

In the context of the current global financial market, private equity funds have gradually emerged as an important way to invest. With the continuous expansion of private equity investment funds and the increasing market share, their role and influence in the financial system have become more and more important. At the same time, as one of the important indicators of financial stability, systemic financial risks have an important impact on the stability and development of the financial market. Therefore, it is of great theoretical and practical significance to study the relationship between private equity investment funds and systemic financial risks.

2. Analysis of private equity investment funds

2.1 Definition and concept

The relationship between private equity investment funds and systemic financial risk has been closely concerned. Private equity funds are those composed of private investors and unincorporated institutions (rather than public investors). These investors give the funds to professional fund managers, who make equity investments on behalf of the investors. The development of private equity investment funds not only provides financing channels for enterprises, but also defuses financial risks, thus promoting economic development.

2.2 Type and characteristics

Private equity investment fund is a large classification, which can be divided into different types and subtypes. Generally mainly includes three kinds: equity investment fund, venture fund and equity merger and acquisition fund. These fund investment object are start-ups, mature enterprises, emerging enterprises, etc., these companies may have been listed or not listed, therefore, private

equity funds in investment risk has certain risk resistance and higher yield, but at the same time, also may increase the systemic risk of the whole financial market^[1]. Its characteristics are mainly as follows: (1) the nature of private placement, that is, only raising funds from specific investors; (2) equity investment, that is, to obtain returns through the purchase of equity of non-listed enterprises; (3) the form of limited partnership, that is, the term of limited partnership and the distribution method of return agreed when the fund is established.

2.3 The development process of private equity investment funds

The development of private equity investment funds can be divided into three stages: 1) the initial stage, mainly from the late 1970s to the early 1980s, represented by the United States; 2) the rapid development stage from the early 1990s to 2008, before the rapid expansion and the institutionalization of the industry; 3) the mature stage, mainly after the financial crisis in 2008, the private equity investment industry faced the stricter regulation and market risk pressure, strengthening the risk management and compliance operation.

China's private equity investment industry has been rising rapidly since 2004. With the increasing demand for innovative and high-growth enterprises, private equity investment funds have also ushered in a period of rapid development. However, the differences in the scale and investment standards of the industries and enterprises of private equity investment funds also increase their impact on systemic risk^[2].

2.4 Participants and operation modes of the private equity investment funds

2.4.1 Participants

Participants of private equity investment funds mainly include entrepreneurs, investment fund managers, limited partners and strategic investors, etc. The entrepreneur is the financing demanders, the investment fund management institution is responsible for the fund operation, the limited partner is the investor, and the strategic investor is the strategic cooperation or resource support party.

2.4.2 Operation mode

The operation mode of private equity investment fund generally includes three stages: raising, investment and exit. In the fundraising stage, the fund management institution raises funds from the limited partners through invitation and marketing; in the investment stage, the fund management institution selects and manages the investment project according to the provisions of the fund contract; in the exit stage, the fund management institution transfers or lists the investment project through the exit strategy to realize the investment return.

3. The concept and characteristics of systemic financial risk

3.1 Definition and classification of systemic financial risks

Systemic financial risk refers to the universal, infectious and asymmetric financial risk caused by the internal or external factors of the financial system. It is different from the specific risks of individual financial institutions, but refers to the risks of the entire financial system.

According to the different scope and sources of influence, systemic financial risks can be divided into two categories: systemic financial risks caused by macro factors and systemic financial risks caused by internal problems in the financial system. The former includes the fluctuation of the

global financial market, economic recession, monetary policy changes, etc., while the latter is related to the operation, management and regulatory policies of financial institutions.

3.2 The characteristics of systemic financial risks

Systemic financial risk refers to the chain reaction and influence of risk events in the financial market on the whole financial system. The following are the main features of systemic financial risks: (1) a wide range: Systemic risks usually have a broad impact on the entire financial market, affecting not only financial institutions and market participants, but also the real economy, financial stability and social welfare.(2) Interconnectivity: There is a close connection and interdependence between various entities and institutions in the financial market, and the occurrence of risk events will often spread and spread rapidly, leading to problems in the entire financial system.(3) Difficult to predict: The occurrence of systemic risk is usually caused by the complex interaction of multiple factors, so it has high uncertainty and is difficult to predict.(4) Non-linear effects: systemic risk may present non-linear effects in the process of development, that is, to a certain extent, it will have an exponential impact on the financial system, far exceeding the impact degree of a single risk event^[3].

3.3 The manifestation of systemic financial risks

The embodiment of systemic financial risks mainly includes the following aspects: (1) the outbreak of financial crises: systemic risks often lead to the occurrence of financial crises, such as the 2008 global financial crisis, which led to the global financial market turbulence and the bankruptcy of financial institutions.(2) Spread of the contagion effect: systemic risk will spread and spread rapidly through the contagion effect, causing problems in other institutions and markets in the financial system.(3) Shock in the financial market: systemic risks often lead to large fluctuations in the financial market and a rapid decline or rise in prices.(4) Disorder of the financial system: systemic risk may lead to the disordered operation of the financial system, such as the freezing of the credit market or the abnormal fluctuations of the money market.

3.4 The transmission mechanism of systemic financial risks

The transmission mechanism of systemic financial risk refers to the way and path of financial risk spreading within the financial system. There are two mainly kinds of propagation mechanisms: conduction and amplification. Transmission refers to the process in which financial risks spread from one financial institution to other institutions or financial markets. This transmission can be realized through the correlation and interdependence between financial institutions. When a financial institution has a problem, its impact may be transmitted to other institutions through debt default, falling asset prices, etc., thus triggering a wider range of financial risks. Amplification refers to the phenomenon that systemic financial risks are amplified in the transmission process. This amplification can be achieved through factors such as excessive leverage ratio, the negative effects of financial innovation and the behavior of market participants^[4]. The conference will gradually make the smaller financial risks accumulate and expand, and eventually evolve into systemic financial risks.

3.5 Factors affecting systemic financial risks

Systemic financial risks are affected by many factors, including macroeconomic factors, financial market factors, financial institution factors and policy factors. Macroeconomic factors such as economic cycle, inflation rate and interest rate level all may have an important impact on

systemic financial risks. When the economy is unstable, systemic risks may worsen. Financial market factors such as stock market fluctuations, exchange rate risk, and interest rate curve will all have an impact on systemic financial risks. These market fluctuations may trigger a chain reaction and expand the spread and amplification of financial risks. The factors of financial institutions include the scale, debt structure and operating status of financial institutions. Some risks are concentrated in certain systemically important financial institutions, whose problems could have a serious impact on the entire financial system. Policy factors, such as regulatory policies and monetary policies, will have an impact on systemic financial risks. The strictness and effectiveness of regulatory policies, as well as the stability and transparency of monetary policies, may affect the formation and dissemination of financial risks.

4. The association between private equity investment funds and systemic financial risk

4.1 Potential impact of private equity investment funds on systemic financial risks

As a private equity investment fund and a non-public market investment tool, private equity investment fund has a certain potential impact on systemic financial risks. First of all, in the financial market, private equity investment funds often involve high-risk investment projects, such as start-ups and high-tech industries. The profitability and stability of these projects are relatively low, which may pose a certain threat to the stability of the whole financial system. In addition, the leverage ratio of private equity investment funds is relatively high. Once the market fluctuates sharply, it may lead to the debt default of private equity investment funds, thus leading to systemic financial risks.

4.2 The performance and role of private equity investment funds in systemic financial risks

Private equity investment fund has certain characteristics and functions in systemic financial risks. First, private equity funds are more flexible than other investment instruments and can quickly adjust their portfolios to better cope with market volatility and systemic risks. Secondly, the investment decisions of private equity investment funds are usually more independent and rational, and they are more able to prevent systemic risks than traditional financial institutions. However, private equity investment funds are also somewhat speculative, and when the market fluctuates, they may aggravate the transmission of systemic risk.

4.3 Research results related to private equity investment funds and systemic financial risks

At present, the related research on private equity investment funds and systemic financial risks has gradually increased. Some studies have found that there is a positive relationship between the size of private equity investment funds and systemic risk, that is, the larger the size of private equity investment funds, the greater the impact on systemic risk. In addition, some studies also found that there is a certain correlation between the leverage ratio of private equity funds and systemic risk, and a high leverage ratio may exacerbate systemic risk. However, some research results are inconsistent and need to be further discussed.

5. The impact of systemic financial risk on private equity investment funds

5.1 The transmission mechanism of systemic financial risks

Systemic financial risk refers to the risk that a series of risk factors are transmitted and

accumulated to each other in the financial market, leading to the impact of the whole financial system. Common systemic risk factors include economic recession, financial market crash, political instability, etc. Systemic financial risks can be transmitted to private equity investment funds through various channels, among which the main transmission mechanism includes market volatility transmission, credit risk transmission and liquidity risk transmission.

5.2 The impact of systemic risk on private equity investment funds

Systemic financial risk has an important impact on private equity investment funds. On the one hand, systemic risk can lead to drastic fluctuations in the financial market, thus affecting the return rate and value of private equity investment funds. On the other hand, systemic risk may lead to the exhaustion of liquidity in the financial market, making private equity investment funds face redemption pressure and capital difficulties. In addition, systemic risk may also lead to less diversity in private equity fund portfolios, thus increasing their risk exposure.

5.3 Private equity investment funds shall respond to systemic financial risks

Private equity investment funds can take a series of risk management measures when facing systemic financial risks. First, by building a diversified portfolios, private equity funds can reduce the risk of systemic risk impact. Secondly, the reasonable planning and management of the capital structure, such as setting an appropriate leverage level, can help the private equity investment funds to reduce their sensitivity to systemic risks^[5]. In addition, compared with public offering funds, private equity investment funds have low liquidity, which also makes them have a certain degree of defense and can better cope with the impact of systemic risks.

6. Investment strategy and operation mode of private equity investment fund

6.1 Operation process of private equity investment funds

The operation process of private equity investment fund includes fund establishment, fund raising, investment management, exit investment and fund liquidation. Among them, the establishment of the fund is the first and most critical step in the operation of the private equity investment fund. The establishment of the fund involves the objectives, strategy, management team and fund share of the fund operation. Raising funds is the second step of private equity investment funds, which issue fund shares to investors through various channels to raise funds. Investment management is the core link of private equity investment fund, including the formulation of investment strategy, project selection, investment implementation, post-investment management and other aspects, and is the key factor for private equity investment fund to achieve excess returns. Exit investment is the fourth step of private equity investment funds, which is generally realized through IPO or secondary market transfer. Fund liquidation is the last step of private equity investment fund, which involves the repurchase of fund shares, the liquidation of fund assets and other aspects.

6.2 Investment strategy and portfolio construction of private equity investment funds

The investment strategy and portfolio construction of private equity funds are an important way for private equity funds to realize excess returns. The investment strategy of private equity investment fund mainly includes value investment, growth investment, arbitrage trade and other aspects. The choice of specific strategies should be considered comprehensively according to the

market environment, industry characteristics and investor needs. The portfolio construction of private equity funds generally adopts diversified strategies such as dispersing the portfolio in different industries, investment types, company size and other aspects, so as to reduce risk and improve returns.

6.3 The performance evaluation of the private equity investment funds

The performance evaluation of private equity investment funds is an important method to evaluate the success of their operation. The performance evaluation of private equity investment fund mainly includes two aspects: internal return rate and external return rate of the fund. The internal rate of return refers to the return on investment achieved by the private equity investment fund management team, while the external return on the fund refers to the excess return achieved by the private equity investment fund relative to the average market level. Performance evaluation is important for both investors and management teams of private equity funds, helping them to better understand how the fund operates and evaluate future investment opportunities.

7. Suggestions on reducing systemic financial risks

7.1 Improve the relevant regulatory system

Perfecting the relevant regulatory system is the key to reduce the systemic risk of private equity investment funds. First of all, the registration and filing management of private equity investment funds should be strengthened to ensure their legal operation and standardized operation. Secondly, it is necessary to establish a sound risk management and evaluation system, including strengthening the due diligence, risk assessment and risk control of investment projects. In addition, the operation behavior of private equity investment funds should be strictly regulated, such as limiting the leverage ratio and setting up risk reserves, so as to reduce their impact on systemic risks.

7.2 Strengthening information disclosure and transparency

The information disclosure and transparency of private equity investment funds is an important means to reduce their systemic risk. First of all, private equity investment funds should be required to disclose the information of their fund operation, investment strategies, investor entry threshold and other information in accordance with relevant requirements, so as to provide investors with more comprehensive information. Secondly, investor protection institutions can be established to help investors understand the risks and returns of private equity investment funds, strengthen investor education and training, and enhance investors' risk awareness and investment ability. In addition, the supervision and inspection of private equity investment funds should also be strengthened to ensure the authenticity and integrity of their information disclosure.

7.3 Provide the necessary liquidity support

Private equity investment fund because of its special operation mode, there are high liquidity risk. In the event of severe market volatility or a financial crisis, private equity funds may face rapid redemption pressure, leading to the spread of systemic risk. In order to reduce this risk, a liquidity support mechanism should be established, such as providing necessary liquidity loans and liquidity relief, so as to stabilize the operation of private equity investment funds and market confidence.

8. Conclusion

As a diversified investment tool, private equity fund can alleviate systemic risks to a certain extent. The diversity of its investment fields can reduce its correlation with traditional financial markets and reduce the spread of systemic risks. In addition, private equity funds usually adopt medium-and long-term investment strategies, which can reduce the overreaction taken by investors due to short-term market fluctuations, thus stabilizing market sentiment.

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