Proceedings of the 3rd International Conference on Business and Policy Studies
DOI: 10.54254/2754-1169/66/20241210

Private Equity Development and Investment Research in China under the Background of Sino-U.S. Decoupling

Yankai Feng[1, a,*]
[1]The Athenian school, Danville, California, United States
a. pf395689@gmail.com
**corresponding author*

Abstract: This paper focuses on exploring the development and investment directions of China's private equity funds against the backdrop of Sino-U.S. decoupling. This includes U.S. dollar-denominated private equity funds, Renminbi-denominated private equity funds, and corporate venture capital. The study reveals that the enthusiasm for U.S. dollar-denominated private equity funds in the domestic market has significantly decreased, while the market size of Renminbi-denominated private equity funds has grown. Private equity fund investments have shifted towards advanced manufacturing and domestically developed alternative enterprises. Corporate venture capital has also transitioned from being primarily dominated by internet giants to focusing on high tech industry leaders. In light of adapting to the new landscape of Sino-U.S. decoupling, investments in high-tech industries and advanced manufacturing, support for domestic alternatives, and independent innovation are expected to become the market's primary trends. Government guidance and support will wield a profound influence on market development, with Renminbi-denominated private equity funds poised to capture larger market shares and investment opportunities.

Keywords: private equity, technology investment, venture capital, decoupling

1. Introduction

1.1. Background

Since the year 2000, China's economy has experienced robust growth, rapidly ascending to become the world's second-largest economy. Upon its accession to the World Trade Organization (WTO), China further opened its markets, attracting a significant influx of foreign investment. This influx of foreign capital not only propelled the rapid growth of Chinese enterprises but also contributed to the rapid development of China's capital market. The market capitalization of the stock market continued to climb, and within this landscape, private equity funds emerged as a prominent component of the capital market.

However, in recent years, the global economic landscape has undergone profound changes, characterized by a rising tide of anti-globalization sentiment and the escalating trend of Sino-U.S. decoupling. Trade disputes, technological competition, and geopolitical tensions between China and the United States have led to increased uncertainty and risks, introducing new challenges to China's economy and capital market. In this context, investigating the investment strategies and directions of

China's private equity funds under the backdrop of anti-globalization and Sino-U.S. decoupling becomes notably crucial.

1.2. Related Research

Within the research on private equity funds, scholars have placed significant emphasis on the inherent operational logic and market returns of these funds. GW et al. [1] primarily analyzed the fundamental logic and economic structure of the private equity market, identifying advantages and disadvantages in the forms of Limited Partners (LP) and General Partners (GP) through data analysis. RS. Harris et al. [2] conducted data analysis to determine the factors influencing the returns of Venture Capital/Private Equity (VC/PE) investments, as well as the relationship between the returns in the private markets and those in the public trading markets. They concluded that within a given year, calculations based on investment capital and the multiple of Internal Rate of Return (IRR) could effectively predict the performance of the private equity fund market relative to the public market.

In China, the VC/PE market is primarily composed of U.S. dollar-denominated funds and Renminbi-denominated funds, making it crucial to study the historical development trends and logics of both types of funds due to their differing sources of funding, which in turn influence their investment directions. Chen Zhi [3] analyzed the potential development prospects and investor distribution of Renminbi-denominated funds and U.S. dollar-denominated funds in the Chinese market. This study indicated that overseas PE investors hold high expectations for domestic Renminbi-denominated funds, anticipating returns above the average. However, the enthusiasm for U.S. dollar-denominated funds has declined, although they still hold a significant position in the domestic market. Corporate strategic investments within the VC/PE field also occupy a notable share. Therefore, understanding the historical patterns and logics of domestic corporate venture capital investments becomes a focal point in researching China's private equity fund market. Mike and Ken [4] conducted business analyses on recent developments in corporate investments within the private equity fund sector, primarily discussing the internal dynamics and decisions that enterprises must make in balancing their internal operations and investments in venture capital.

Lastly, private equity, as a relatively specialized branch within the broader financial system, is also influenced by macroeconomic developments and the environment. Taking the example of China and the United States, Tu Xiaojie et al. [5] analyzed the impact of Sino-U.S. decoupling on the economies of both countries, finding that the decoupling affects China's Gross Domestic Product (GDP) more than that of the United States, with China's ICT industry being the most affected. They also discovered that foreign-invested enterprises are more affected than domestic enterprises. Yi Jinwen [6] studied the impact of Sino-U.S. decoupling on China's stock market. She found that the timing of the decoupling significantly affects China's high-tech industry stock market, but the impact is less pronounced in the Information Technology and Communication Services sectors due to the resilience of IT-related enterprises. Zhu Wentao [7] analyzed the current development status of China's private equity funds and highlighted some issues, such as the launch of the Science and Technology Innovation Board (STAR Market), the registration-based system for the Growth Enterprise Market, and the impact of the COVID-19 pandemic on the industry's development. This article also provided suggestions for private equity funds in terms of fundraising and exit strategies, such as increasing the emphasis on guiding funds during fundraising and enriching the exit pathways in the capital market.

1.3. Objective

Currently, research on China's private equity funds tends to be relatively theoretical, with limited emphasis on data analysis and explorations of influencing factors. Moreover, articles investigating the reasons behind the development changes of private equity funds are comparatively scarce. This

DOI: 10.54254/2754-1169/66/20241210

paper aims to study the changing development trends of domestic private equity funds based on economic environments, data analysis, and factor explorations. It also aims to make judgments about the future development trends of China's capital market under the backdrop of anti-globalization and Sino-U.S. decoupling. The goal is to provide theoretical and practical guidance for investment decisions within the realm of private equity funds.

2. Methodology and Data Processing

To begin with, this paper utilized the Zero2IPO[1] Rankings to identify the top 25 fund companies in China. These companies were then categorized based on their funding sources into U.S. dollar-denominated private equity funds, Renminbi-denominated private equity funds, and corporate venture capital funds. In order to select the subjects of our study, we chose four high-activity and stable investment tracks: healthcare, enterprise services, production manufacturing, and advanced manufacturing. These tracks were deemed to hold the potential to attract investments from the leading fund companies.

To ensure comprehensive research outcomes, the time frame for our study was determined to span from 2017 to 2023. Specifically, the choice to begin from 2017 is grounded in the fact that the number of newly registered private equity funds reached its peak during this year, rendering the investment activities during this period more representative.

By collecting annual investment data for each private equity fund across the identified tracks of healthcare, enterprise services, production manufacturing, and advanced manufacturing, we conducted data processing and analysis. Subsequently, we calculated the average investment count of the top funds in these tracks for each year. Simultaneously, we also computed the average investment counts separately for U.S. dollar-denominated private equity funds, Renminbi-denominated private equity funds, and corporate venture capital funds within these tracks.

3. Results and Discussion

3.1. Data Preparation and Processing

In this study, we first collected investment data from the top 25 private equity funds in China spanning the years 2017 to 2023. This data encompassed the total number of investments made each year as well as the number of investments in different tracks. These top 25 private equity fund institutions comprise three primary types of private equity funds. The first type consists of U.S. dollar-denominated funds, with IDG Capital representing this category. The second type consists of Renminbi-denominated funds, with Shenzhen Capital Group representing this category. The third type represents corporate venture capital funds, with Tencent Investment as the representative fund. Subsequently, we conducted a statistical analysis to determine the total investments made by these top investment funds across various tracks from 2017 to 2023. This analysis identified the four tracks with the highest concentration of funds, namely: healthcare, enterprise services, production manufacturing, and advanced manufacturing. We further conducted a unified and comparative analysis of the following data points.

[1] A company that specifically focuses on research in China's private equity market.

3.2. Private Equity Investment Trends

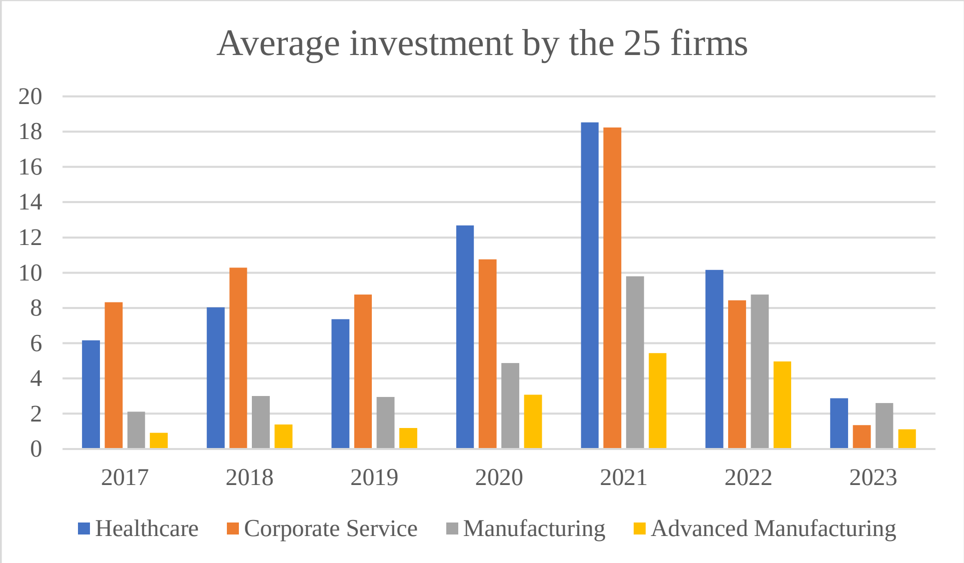

Figure 1: Average Yearly investment by Top 25 PE firms in China.

Through data charts and graphs, it is evident that within the four most active investment tracks by the top 25 private equity funds in China from 2017 to 2023, there are distinct points of quantity changes and trends. By averaging the investments made by U.S. dollar-denominated funds, Renminbi-denominated funds, and corporate venture capital funds in these tracks, we generated the following chart.

Firstly, upon amalgamating the aforementioned three different types of private equity funds, discernible trends in investment tracks become apparent. In the overall trend, from 2017 to 2021, private equity investment demonstrated a growing momentum in both enthusiasm and quantity. However, from 2021 to 2023, the data suggests a pronounced contraction within China's capital market.

Upon examining individual industries, the advanced manufacturing sector witnessed a noteworthy trend shift. From an average annual investment in only 1.12 advanced manufacturing enterprises in 2017, the average annual investment surged to 5.44 enterprises in 2021, representing a 121% compound annual growth rate. Additionally, during this period, the number of investments made in the advanced manufacturing sector exhibited steady annual growth. In contrast to the significant declines in investment numbers observed in other tracks from 2021 to 2022, such as a 45% decrease in healthcare and a 53.7% decrease in enterprise services, the decline in the advanced manufacturing sector was only 8%. This suggests that the advanced manufacturing track is gradually becoming a focal point for leading domestic investment institutions.

The recent market contraction can be attributed to several factors. Firstly, in an economic environment characterized by relatively sluggish development, fundraising within the private equity market faces challenges, leading to a decline in investment enthusiasm. Beyond economic conditions and broader environmental influences, Sino-U.S. relations are among the factors influencing private equity fund investments. The recent trend between China and the United States is marked by a shift towards deglobalization and decoupling. Beginning with the trade tensions in 2018, the U.S. has displayed a discernible trend of decoupling from China's development. Consequently, substantial support from the government has been directed towards many high-tech and advanced manufacturing industries. With consideration for factors such as investment returns, IPO timeframes, exit strategies, and government policies, the primary market investment orientation has shifted towards domestic

DOI: 10.54254/2754-1169/66/20241210

high-tech and advanced manufacturing enterprises. The observation of the number of companies listed on the Science and Technology Innovation Board (STAR Market) in the past two years indicates that these listings are primarily related to domestic replacements. This data further emphasizes the strong government support for domestic alternatives in the advanced manufacturing and high-tech sectors. Additionally, between 2017 and 2021, investments in healthcare and enterprise services remained focal points for top private equity funds.

Furthermore, the establishment of the Science and Technology Innovation Board and the reforms related to the Growth Enterprise Market have increased the enthusiasm for primary market investments in the advanced manufacturing sector. The Science and Technology Innovation Board primarily addresses significant national needs and serves emerging industries such as core technology breakthroughs, high-end equipment, new materials, and new energy. As a result, its establishment in 2019 significantly heightened investment enthusiasm for high-tech industries. The 2020 reforms related to the Growth Enterprise Market registration-based system further augmented support for technology innovation companies. For this reason, the primary market exhibited increased enthusiasm for investing in high-tech industries in 2021.

Ultimately, beginning in 2022, it is evident that China’s domestic capital market entered a period of contraction. This phase is characterized by the continuous decrease in the scale of investments across various fields, presenting a challenging landscape. In this market environment, even formerly robust sectors like advanced manufacturing and technology faced the necessity to realign their investment directions to accommodate new challenges.

Observing the distribution of primary market investments in 2023, a significant contraction of the capital market becomes apparent. A prominent influencing factor cannot be overlooked: the global outbreak of the COVID-19 pandemic in 2022. This worldwide health crisis inflicted enormous shocks on economies around the globe. Many countries imposed lockdown measures, leading to reduced production activities, disrupted supply chains, and struggling enterprises. This situation directly impacted corporate profitability and growth prospects, generating unease among investors who adopted a cautious stance.

The lackluster performance of the stock market is another notable manifestation of the capital market’s winter season. Influenced by the pandemic, many listed companies experienced impaired performance, resulting in substantial stock price declines. Investor confidence was shaken, leading to mass stock selling and causing an imbalance between supply and demand, which contributed to an overall weakened stock market. This subdued situation further impeded companies’ financing plans and expansion strategies, exacerbating the trend of market contraction.

Moreover, the U.S. policy of raising interest rates added an additional layer of chill to the capital market’s winter. The decision to increase interest rates by the United States translates to higher funding costs and more expensive investments in China. This not only impacts companies’ financing costs but also influences investor preferences for risk assets. Due to the appreciation of the U.S. dollar, numerous emerging market countries faced pressure from debt defaults and capital outflows, further exacerbating the instability of global capital markets.

Taken together, the entry of the capital market into a winter phase is not solely attributed to the impact of the pandemic; it is also constrained by the sluggish stock market and the U.S. interest rate hike policy. These intertwined factors collectively contribute to increased uncertainty in the investment environment, gradually eroding the confidence of U.S. dollar investors in the market.

3.3. Fund Comparison and Analysis

3.3.1. U.S. Dollar-denominated Private Equity Funds

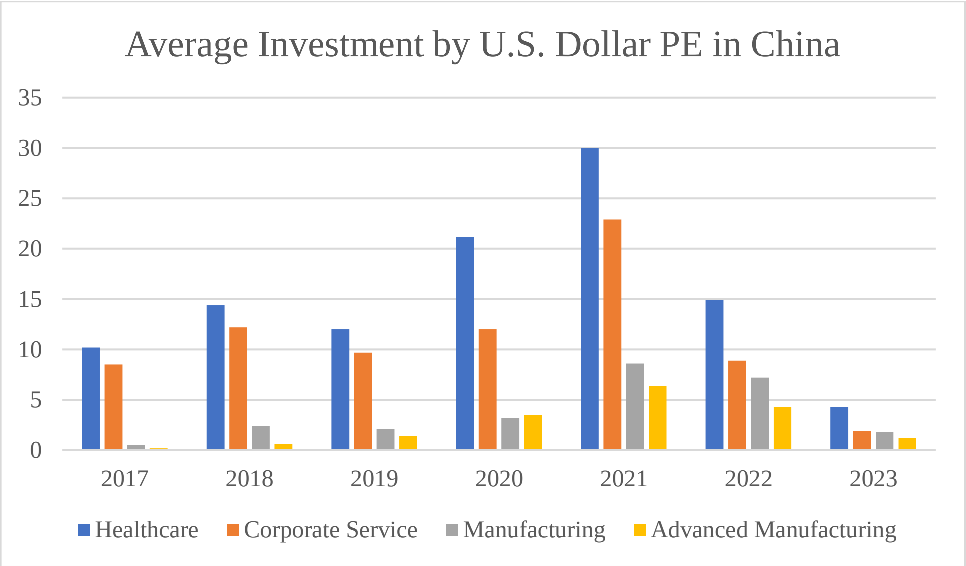

Figure 2: Average Yearly investment by U.S. Dollar PE firms in China.

The above data represents the investments made by U.S. dollar-denominated private equity funds in the respective tracks from 2017 to 2023. Observing the most distinct trends, it becomes evident that healthcare is a focal point for investment by U.S. dollar-denominated private equity funds. From the perspective of investment returns and timelines, these funds prioritize investments that yield returns in U.S. dollars, given that the majority of their capital comes from U.S.-based investors. Healthcare companies possess the characteristics of global technological breakthroughs and applications, making them more likely to go public on U.S. stock markets compared to enterprise services or domestic manufacturing, thereby facilitating exits for U.S. dollar-denominated private equity funds. By contrast, the advanced manufacturing sector faces challenges due to scrutiny from U.S. stock markets regarding Chinese companies, the preferential policies of the Science and Technology Innovation Board (STAR Market), and domestic market premium issues. Consequently, the motivation for external listings in this sector is insufficient, explaining why U.S. dollar-denominated private equity investments predominantly focus on the healthcare industry.

However, from 2017 to 2021, we also observed a 155% annual average growth in U.S. dollar-denominated private equity fund investments in the advanced manufacturing sector amid an unstable investment landscape, reflecting a sustained annual growth. This aligns with the swift growth brought about by the Sino-U.S. decoupling, encouraging investment in domestic alternatives to high-tech products.

Furthermore, it is evident from the data that U.S. dollar-denominated private equity fund activities in China significantly decreased by more than half between 2022 and 2023. One contributing factor is the economic contraction resulting from the U.S. interest rate hikes. This policy leads to increased investment costs domestically due to higher local investment rates and the corresponding outflow of U.S. dollars from the Chinese market. Moreover, the COVID-19 pandemic also led to a reduced investment layout for U.S. dollar-denominated funds within China.

Lastly, it can be observed that U.S. dollar-denominated private equity fund investments in the advanced manufacturing sector experienced a temporary decline from 2021 to 2023. This decline can be attributed to overvaluation in the secondary market due to preferential support and funding ease

DOI: 10.54254/2754-1169/66/20241210

provided to advanced manufacturing enterprises by the government, resulting in a contraction in primary market financing.

3.3.2. Renminbi-denominated Private Equity Funds

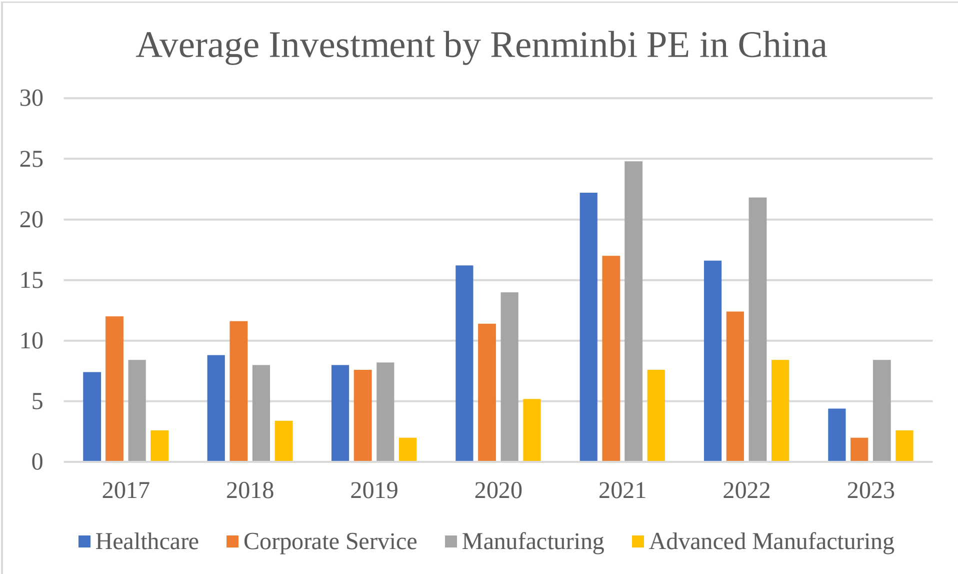

Figure 3: Average Yearly investment by Renminbi PE firms in China.

In contrast to U.S. dollar-denominated private equity funds, Renminbi-denominated private equity funds exhibit a stronger national orientation, as approximately 90% of their funding originates from local or central government sources. By examining investments in the advanced manufacturing and manufacturing sectors, it is evident that Renminbi-denominated private equity funds far exceed U.S. dollar-denominated counterparts. In the investment landscape of 2022, Renminbi-denominated private equity funds invested in manufacturing and advanced manufacturing sectors 21.8 and 8.4 times, respectively, significantly higher than U.S. dollar-denominated funds' investments of 7.2 and 4.3 times. Thus, within the context of Sino-U.S. decoupling, the direction and intensity of Renminbi-denominated private equity fund investments are more aligned with the specific development goals of the nation, based on the funders. The rapid development of Renminbi-denominated private equity funds is closely tied to policy direction. As of 2023, the total scale of China's mother fund management is 4,883.5 billion yuan, of which government-guided funds account for 3,896.1 billion yuan, while market-oriented mother funds only make up 972.2 billion yuan.

It is also evident that Renminbi-denominated private equity fund investments are predominantly focused on the manufacturing and advanced manufacturing sectors, primarily related to hard technology and manufacturing. This is because these industries exhibit promising development prospects, substantial domestic market potential, government support, and the potential to foster technological accumulation and industrial chain effects. Additionally, manufacturing enterprises, with their higher likelihood of generating employment, possess strong appeal for government-guided funds at the local level.

DOI: 10.54254/2754-1169/66/20241210

3.3.3. Corporate Venture Capital (CVC)

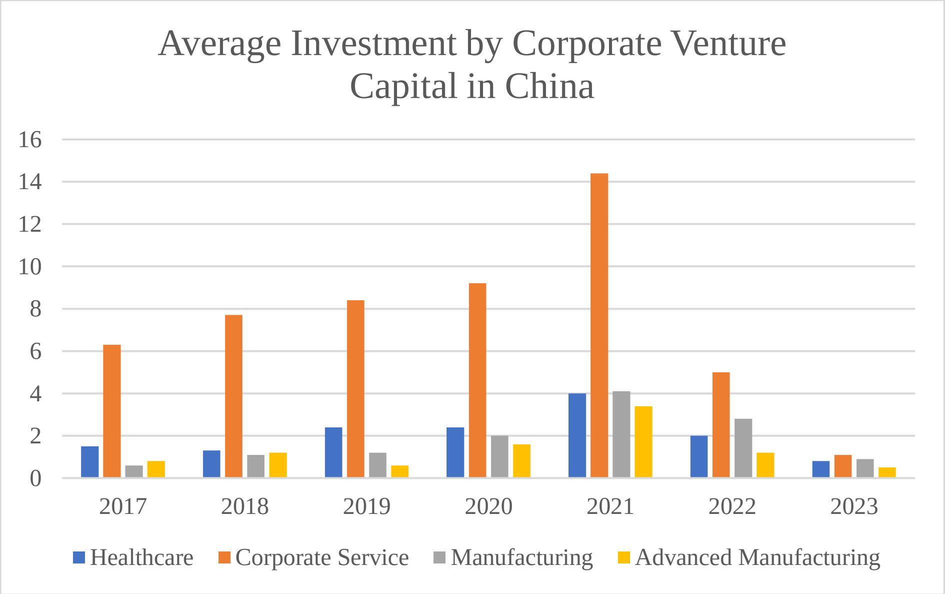

Figure 4: Average Yearly investment by Corporate Venture Capital in China.

Compared to U.S. dollar and Renminbi-denominated private equity funds, CVC exhibits a clear focus on enterprise services and internet servers. The primary reason is that CVC investments are geared towards a company's core business, with an emphasis on ecological layout rather than financial returns. For instance, Tencent's investments mainly extend the WeChat ecosystem, and its primary purpose is not solely financial returns but rather enhancing the quality of leading products through investment to ultimately increase product revenue.

China has reaped significant benefits from the information technology revolution, giving rise to several internet giants. After years of consolidation, these giants have become substantial in scale and profitability, serving as the main force behind CVC. Simultaneously, these giants are actively expanding into different fields to compete with rivals, making risk investments a crucial element of their strategies.

However, the overall downward trend in investment from 2021 to 2023 reflects the regulatory impact on the internet sector, as evidenced by substantial penalties imposed on companies such as Alibaba and Meituan. In recent years, the unruly expansion of internet companies disrupted various industries linked to people's livelihoods, leading to disarray in long-term development. The introduction of anti-monopoly regulations and related policies significantly curtailed these companies' wide-ranging business endeavors. As a result, as of 2023, the enthusiasm of leading CVC funds is severely lacking, causing CVC firms focused on internet-based enterprises to be replaced by those concentrated on advanced manufacturing or technology-based businesses.

With strong governmental support for new energy and semiconductor sectors, a new group of hard-tech giants, such as Huawei and CATL, has emerged. These companies are significantly investing in familiar domains, backed by policy support. Their investment domains differ from those of internet-based investments, requiring long-term accumulation and nurturing, thus escaping government scrutiny. This ability positions these hard-tech giants to potentially become leading CVC firms.

DOI: 10.54254/2754-1169/66/20241210

4. Trends and Prospects

4.1. U.S. Dollar-denominated Private Equity Funds

In the context of the current Sino-U.S. decoupling, it is probable that the future of Sino-U.S. trade relations will follow a pattern of initial competition followed by cooperation. Furthermore, despite the U.S. Federal Reserve's interest rate hikes, the U.S. economy remains in a state of gradual recovery. It is likely that U.S. dollar interest rates will remain higher than Renminbi rates for a considerable period. Therefore, it is foreseeable that U.S. dollar-denominated private equity funds will primarily seek higher returns on investments within the United States. As a result, the continuous reduction of domestic contributors to U.S. dollar-denominated private equity funds is anticipated, further contributing to the contraction of the domestic market. Additionally, the exit path of U.S. dollar-denominated private equity funds within China is significantly impacted by the decoupling between China and the United States. This heightened risk associated with investing in China will lead to a sustained decrease in domestic contributors to U.S. dollar-denominated private equity funds and a significant reduction in their activity within the domestic market.

4.2. Renminbi-denominated Private Equity Funds

Against the backdrop of Sino-U.S. decoupling, Renminbi-denominated private equity funds will emerge as a pivotal force in the market due to their closer alignment with governmental directives and industrial policies. The role of the government in industry guidance and regulation will be strengthened, and the close collaboration with Renminbi-denominated private equity funds will expedite the upgrading and transformation of Chinese industries. It is expected that the investment focus of private equity funds will shift predominantly toward high-tech industries and advanced manufacturing to cater to the domestic market's demand for indigenous innovation and domestic alternatives. Government support and guidance in these sectors will intensify, driving technological upgrading and enhancing global competitiveness for Chinese industries. This segment will undoubtedly be driven by investments led by Renminbi-denominated private equity funds. As a result, Renminbi-denominated private equity funds are poised to significantly surpass U.S. dollar-denominated funds in terms of investment quantity, activity, and scale.

4.3. Corporate Venture Capital (CVC)

In recent years, following the strengthening of government regulations on internet giants and the introduction of more anti-monopoly treaties, internet companies have faced severe challenges. Consequently, risk investments in internet enterprises have witnessed a decline in activity. In the future, risk investments centered around internet giants are expected to continue to decrease substantially, while those focused on advanced manufacturing and high-tech companies will gradually rise. Presently, there are risk investment sectors predominantly oriented towards advanced manufacturing, such as companies like CATL, a leading lithium-ion battery research and development firm. This company has rapidly become a supplier for many new energy industries, driven by government guidance. Therefore, with robust governmental support, advanced manufacturing and high-tech industries will gradually become the main driving forces behind corporate venture capital, replacing the era of internet-based venture capital dominance.

5. Conclusion

This paper has conducted an analysis of China's private equity fund investments under the backdrop of Sino-U.S. decoupling, focusing on U.S. dollar-denominated private equity funds, Renminbi-

DOI: 10.54254/2754-1169/66/20241210

denominated private equity funds, corporate venture capital, and the overall private equity fund market. The investigation into China's private equity fund investments amidst the context of Sino-U.S. decoupling holds significant importance. By delving into the developmental trends and investment strategies of private equity funds during an era of deglobalization and Sino-U.S. decoupling, this study contributes to an understanding of the new dynamics within China's capital market. It also provides valuable insights and references for investors and relevant policy makers.

The primary findings of this paper revolve around the investment orientations and prospects of U.S. dollar-denominated and Renminbi-denominated private equity funds, as well as corporate venture capital, within the current context. Overall, private equity fund investments have gradually shifted their focus to sectors like high-tech and advanced manufacturing, which involve domestic alternatives to imported products, largely due to robust government support and guidance. Consequently, Renminbi-denominated private equity funds have demonstrated greater activity in domestic investments compared to U.S. dollar-denominated funds. Challenges such as U.S. dollar interest rate hikes, limited exit paths, high risks, and complexities associated with domestic-to-U.S. IPOs have led some U.S. dollar-denominated funds to withdraw partially from the domestic market. The remaining U.S. dollar-denominated funds have also markedly reduced their investment activities within the domestic landscape. Additionally, corporate venture capital, initially led by investments in internet enterprises, is gradually being surpassed by investments in hard-tech ventures. Stringent government regulations on internet enterprises have diminished the vigor of risk investments in these entities. The expanding risk investment landscape within advanced manufacturing and hard-tech ventures can be attributed to effective government guidance.

In conclusion, China's private equity market demonstrates promising future development prospects while simultaneously facing diverse challenges. Adapting to the evolving dynamics of Sino-U.S. decoupling, emphasizing investments in high-tech industries and advanced manufacturing, and supporting domestic alternatives and independent innovation are poised to become predominant trends in the market. Government guidance and support will exert profound influence on market development, and Renminbi-denominated private equity funds will play an increasingly pivotal role in this process.

References

[1] *Fenn, G. W., Liang, N., & Prowse, S. (1996). The economics of the private equity market. Fed. Res. Bull.,82, 26.*

[2] *Harris, R. S., Jenkinson, T., & Kaplan, S. N. (2015). How do private equity investments perform compared to public equity?*

[3] *Chen, Z. (2023, February 27). Trying out the RMB fund market: Adjusting the USD fund LP structure. 21st Century Economic Report, 010.*

[4] *Wright Robbie, M. K. (1998). Venture capital and private equity: A review and synthesis. Journal of Business Finance & Accounting,25(5-6), 521-570.*

[5] *Tu, X., Ren, L., & Xing, Y. (2023). Potential impacts of China-US trade decoupling: A scenario simulation based on distinguishing domestic and foreign input-output tables. China Price (05), 26-31.*

[6] *Yi, J. (2022). Study on the impact of the U.S. tech decoupling from China on the Chinese stock market (Master's thesis, Jilin University). Retrieved from https://kns.cnki.net/KCMS/detail/detail.aspx?dbname=CMFD202301&filename=1022531680.nh*

[7] *Zhu, W. (2023). Analysis of the current development and countermeasures of China's private equity funds. China Management Informatization (03), 133-137.*