https://doi.org/10.62836/emi.v5i2.0016

Global Science Publishing

EMI

Economics & Management Information

https://ojs.sgsci.org/journals/emi

Article

The Operation Mode and Core Challenges of Venture Capital in China: Fund Raising and Investment

Yingxin Zhen

Cape Cod Academy, Osterville, MA 02655, USA

Abstract: China's venture capital (VC) industry is becoming an important engine to finance technology-driven innovation under China's domestic innovative development strategy, but VC fundraising is contracting, the policy/regulatory environment is increasingly uncertain, and the exit market is deteriorating. This paper researches the fundraising, business decision operation and funding operation situation of China's VC operation system. The analysis indicates that exit channels have caused a negative feedback loop, i.e., compressed returns, declining Limited Partner (LP) confidence, fundraising difficulties, investment shrinkage, and internal capability deficiencies in technical assessment and value-added post-investment support all exacerbate portfolio growth and exit performance. In order to overcome the obstacles, the paper suggests two-track solutions. Institutional improvement via interdisciplinary research capability, Artificial Intelligence (AI)-driven risk management and timely, on-the-spot, post-investment monitoring, as well as a solid partnership with industry and capital. Optimizing the external environment by providing more foreseeable exit-related policy signals, upgrading the VC information infrastructure, bringing in more long-term funding participants, and systematically developing the talent ecosystem. This study gives real ideas to VC groups and people who make decisions about making things happen.

Keywords: venture capital; fundraising; investment; operational model; Chinese market

1. Introduction

In the past couple of years, the VC industry in China has taken on an ever-growing role in assisting with tech-intensive entrepreneurship and speeding up industrial upgrading, especially under national strategies of innovation-driven development and tech self-reliance. Compared to the market-centered fundraising landscape in the US and Europe, China's VC capital supply shows a stronger policy orientation and institutional embedding. Government-guided funds and other government-affiliated capital are key pillars for fundraising and are policy instruments to bridge financing gaps in strategically important tech sectors [1,2]. On the other hand, greater macroeconomic volatility, changes in regulations, and capital markets have all brought about the contraction in fundraising since 2021, leading more and more scarce capital into the hands of top managers, which is intensifying the "Matthew Effect" in resource distribution [3]. Under these conditions, it is both theoretically and practically useful to systematically analyze China's VC model from each of the four different stages of fundraising, investment, ongoing management and exit, and so can help understand how capital is allocated towards new innovations under different institutional conditions.

The extant studies on China's VC ecosystem can be mainly divided into the following three related strands. First, research concerning fundraising structure and LP composition points to the fundamental position of policy-guided

Received: 14 May 2026; Accepted: 29 May 2026.

Corresponding: Yingxin Zhen (cz27@s.capecodacademy.org)

funds and their leading role towards investment choices, but it is noted that diverse LP objectives can cause a heavier burden for General Partner (GPs) to align strategies, govern risks, and disclose information [1,3]. Second, investment model studies focus on very strong sectors and institutionalized decisions. Capital has flown unevenly into sectors akin to hard-tech and strategic ones, such as semiconductors, artificial intelligence technology, advanced manufacturing, biopharmaceuticals, and new energy, plus multi-dimensional due diligence systems have grown alongside more robust investment committees set up to handle the challenges of technological ambiguity and compliance [4,5]. Third, from the existing literature on post-investment management and value creation, it can be seen that value added engagement such as strategy advice, follow-up round financing support, industrial resources connection, corporate governance enhancement and compliance assistance, has become a competitive difference between Chinese VCs. But capabilities are still wide open, and lots of folks are just monitoring (periodic reporting) instead of sector-specific empowerment. Recently, studies indicated that digital transformation has been changing post-investment activities thanks to real-time monitoring and the early warning system but the supply of hybrid talents who have deep technical skills and business acumen is still limited [6,7].

But the industry's way of doing business has become more and more shaped by the combination of tighter exit conditions and greater liquidity strain. If Initial Public Offering (IPO) pathways slow down or get disrupted, it lowers the exit expectations, makes LPs less confident, and starts rules like buying back stock or changing price, making startup and VC liquidity harder. And it is easy to form a vicious circle--the exit is hard, so the return will be tight, the fundraising is difficult, and the investment will tighten, which will ultimately harm the larger entrepreneurial ecosystem [4].

2. The Operation Mode of Venture Capital in China

2.1. Fundraising Models of China's Venture Capital

The venture capital industry in China presents an overall pattern of diversified capital sources, highly concentrated head offices and limited partnerships. Under the background of the country's vigorous promotion of innovation-driven development, the government-guided fund has become the core force of venture capital supply and undertakes the policy function of making up for the lack of financing in key core technology fields. According to the Preqin report, the proportion of government background capital in the total amount of venture capital and private equity fundraising in China has exceeded 40%, which is significantly higher than that in mature markets in Europe and America. This structural feature reflects the strong dependence of domestic venture capital industry on policy capital, and it is also obviously different from the market-oriented capital-oriented model in western markets [8].

In addition to government funds, industrial capital, insurance funds, social security funds, high-net-worth individuals and overseas limited partners also constitute important funding channels. However, since 2021, due to macroeconomic fluctuations, regulatory policy adjustments and the capital market cycle, the overall fundraising scale of China's venture capital and private equity markets has shrunk significantly, and the total fundraising from 2022 to 2023 has dropped by over 30% year-on-year. It is worth noting that the trend of industry differentiation continues to intensify, and the performance of head institutions is outstanding against the trend. The scale of fund raising in the top 20 accounts for more than 60% of the whole market, and the "Matthew effect" of resource concentration to the head is constantly strengthened.

At present, the limited partnership system is still the main organizational form in the market. Its advantage lies in providing flexible exit channels for general partners and establishing an incentive mechanism linked to performance. But at the same time, the types of limited partners are increasingly diverse, which also brings more complex management challenges. Different investors have different demands in return period, compliance requirements and investment direction, which further increases the pressure on managers in strategic coordination, risk management and information disclosure. Generally speaking, China's venture capital fund-raising model is deeply influenced by policy orientation, industrial structure and capital market preference. In recent years, the access and fundraising rules of global and domestic private equity investment industries have undergone profound adjustments. These changes are not only important measures for regulators to regulate the

market, but also profoundly reshape the investment rhythm of the industry.

At present, the limited partnership system is still the main organizational form in the market. Its advantage lies in providing flexible exit channels for general partners and establishing an incentive mechanism linked to performance. But at the same time, the types of limited partners are increasingly diverse, which also brings more complex management challenges. Different investors have different demands in return period, compliance requirements and investment direction, which further increases the pressure on managers in strategic coordination, risk management and information disclosure. Generally speaking, China's venture capital fund-raising model is deeply influenced by policy orientation, industrial structure and capital market preference.

Overall, the evolution of fundraising qualification requirements has driven the industry from "wild growth" to "standardized maturity"—although it may bring pain to small and medium-sized institutions in the short term, in the long run, it is conducive to improving the industry's professionalism and risk resistance ability, and allowing capital to concentrate on higher quality projects and managers.

2.2. Investment Models of China's Venture Capital

China's VC investment paradigm is distinguished by pronounced industry clustering and institutionalized, data-driven investment decision-making frameworks. Aligned with the national goal of technological self-reliance, capital inflows have increasingly concentrated in strategic high-tech sectors. hard technology, biopharmaceuticals, new energy, AI, semiconductors, and advanced manufacturing. Moore's 2024 Venture Pulse report shows that VC investments in China's technology sector accounted for 77% of total investments in 2023, with financing in national strategic priority areas registering countercyclical growth—closely linked to targeted policy incentives [4].

With the tightening of regulatory review and the rising uncertainty of technical prospects, venture capital institutions have generally increased their resources investment in due diligence. At present, multi-dimensional optimization has become a common practice in the industry, which mainly includes technical feasibility verification, comprehensive ability evaluation of founding team, rationality test of business model, market space calculation, supply chain stability analysis, competition pattern combing, compliance risk review and financial model prediction.

Investment decision-making committee (IC) occupies the core position in the decision-making system of domestic venture capital institutions, and is generally composed of senior partners, industry experts, legal advisers, etc., to ensure that the investment decision-making process is standardized and transparent, and the boundaries of powers and responsibilities are clear. Institutions usually adopt different investment strategies according to the development stage of the project: early projects pay more attention to team strength, technical barriers and long-term business imagination; Growth projects focus on market expansion ability, revenue growth trend, profit realization path and large-scale operation efficiency. As Chen observed, domestic investment institutions focusing on the field of science and technology are increasingly adopting "multi-dimensional risk mitigation framework" to cope with the multiple risks brought by policy changes, market fluctuations and technological iterations [5].

2.3. Post-Investment Management Models of China's Venture Capital

Post-investment management has become a key link for venture capital institutions in China to build their core competitiveness. At present, the mainstream models are divided into two categories: value-added service type and monitoring management type. Value-added post-investment management emphasizes deep and active growth support for invested enterprises, including assisting in formulating strategies, connecting with follow-up financing, integrating industry resources, optimizing supply chain, expanding market channels, improving financial governance, providing compliance guidance and improving the ability of senior management team. Relevant academic comments in 2024 show that value-added services can significantly improve the survival rate and exit success rate of invested enterprises, especially in technology-intensive industries such as biomedicine and semiconductors.

However, on the whole, there are still obvious gaps in the post-investment management capabilities of domestic institutions. Limited by the lack of team size or industrial experience, many institutions only adopt the "light supervision" mode, focusing on regular reporting, financial auditing and KPI tracking, and it is difficult to

provide systematic and vertical professional support.

In recent years, digital transformation is profoundly changing the way of post-investment management. Wei pointed out that the rapid development of digital government and digital economy has accelerated the post-investment management process to be digital and intelligent [7]. The popularity of real-time operation monitoring platform, risk early warning systems and digital performance kanban has obviously improved management efficiency and risk response speed. Nevertheless, the industry still faces a serious shortage of talents after professional investment, especially in the field of hard science and technology, and compound talents with technical background and business judgment are still scarce.

3. Core Challenges Facing China's Venture Capital Industry

The above-mentioned operation mode of China's VC industry (capital dependence policy, investment focus on hard technology, and uneven post investment capabilities) has gradually exposed a series of core challenges under the dual effects of external environmental fluctuations and internal capacity constraints.

3.1. External Environment Challenges

In recent years, China's venture capital industry as a whole is facing great systemic pressure, which is mainly influenced by multiple factors such as macroeconomic fluctuation, regulatory policy adjustment and tightening of the capital market environment, among which the most prominent problems focus on two aspects: blocked exit channels and liquidity risk diffusion [9].

A particularly obvious phenomenon is that the A-share and overseas IPO markets have been in a downturn for a long time, which directly weakens the expectation of the listing exit of science and technology-based enterprises and greatly affects LP's confidence in the overall income of venture capital funds. The persistent weakness of IPO market significantly suppressed the exit space of innovative enterprises, which made the market investment sentiment continue to decline. At the same time, many start-ups failed to go public as planned, which triggered many clauses in the early financing agreement, including gambling, income compensation and compulsory repurchase, which directly led to the sharp rise of LP redemption pressure faced by institutions.

This concentrated wave of redemption has caused a double dilemma: for start-ups, being forced to buy back shares has brought unbearable financial pressure; For venture capital institutions, it further aggravates their own liquidity tension. As an important supplementary exit channel, the M&A market is also in a downturn, which makes it difficult to make up for the gap caused by the stagnation of IPO, and the overall valuation of the secondary market is down, and the exit income continues to be compressed. Moore reported that in 2023–2024, the exit scale of venture capital market in China fell to the lowest level in recent ten years, and the average exit rate dropped sharply [4]. This also further reduces LP's willingness to contribute to the new fund, thus forming a vicious circle: withdrawal is blocked, income declines, fundraising is difficult, and investment slows down, which eventually leads to the continuous weakening of the entire entrepreneurial innovation ecology.

3.2. Operational Challenges

In addition to the constraints brought by the external environment, China venture capital institutions also have obvious structural shortcomings in internal capacity building, which further magnifies the systemic risks faced by the industry.

First of all, under the background of rapid technology iteration, the bottleneck of project screening and due diligence has become increasingly prominent. In artificial intelligence, biomedicine, semiconductor and other hard technology tracks, the professional threshold of technology assessment is constantly improving, and the complexity of due diligence is greatly increased. However, most domestic venture capital funds lack a compound team with both technical background and in-depth industrial research ability, so it is difficult to effectively distinguish real technical barriers from false innovations, which further aggravates the risk of project misjudgment.

Secondly, the lack of post-investment value-added service capacity is still a common pain point in the industry. Most domestic venture capital institutions are still in the passive management mode, mainly relying on

regular financial statements, KPI monitoring and other ways to supervise, lacking the awareness and ability to actively empower enterprises. Start-ups are often not effectively supported in key links such as compliance operation and supply chain optimization, which not only affects the follow-up financing and large-scale development, but also further reduces the possibility of project withdrawal.

Third, the continuous poor exit channels directly led to a sharp decline in the internal rate of return (IRR) of funds, which significantly aggravated the operational pressure of fund managers. With the tightening of IPO and the downturn of M&A market, many funds are forced to extend their duration, and at the same time, they have to deal with the share redemption requirements put forward by LP. This concentrated redemption tide has brought unprecedented liquidity pressure to domestic venture capital institutions.

Generally speaking, the shortcomings of China venture capital institutions in core competence, such as technology optimization, are further amplified in the environment where external withdrawal is blocked, and internal and external pressures are superimposed, which together constitute a double challenge that restricts the sustainable development of the industry.

4. Optimization Strategies & Recommendations

4.1. Institutional-Level Optimization

Faced with multiple systemic pressures, China venture capital institutions can make targeted transformation from four strategic directions, so as to enhance their resilience and core competitiveness.

Institutions should set up interdisciplinary research teams, integrate technical experts, industry analysts and policy researchers, and establish a trinity analysis framework of technology, market and policy. For hard science and technology fields such as semiconductors and biomedicine, this framework can more accurately identify real technical barriers, such as patent layout and R&D iteration efficiency, and reduce investment misjudgment caused by information asymmetry.

At the same time, institutions can deploy a digital operation system driven by artificial intelligence to achieve data-centric risk control management. Before the investment, machine learning is used to build a multi-dimensional risk scoring model to comprehensively evaluate technology maturity, competition pattern and compliance risk. After the investment, a real-time monitoring billboard covering financial, supply chain and policy changes will be set up to automatically warn the cash flow gap, patent risks and other abnormal situations.

Institutions need to shift from passive financial supervision to active value-added services covering the whole life cycle of enterprises. Build an all-round empowerment system including strategic docking, talent construction and compliance optimization, match the development direction of start-ups with national industrial policies, and introduce professional counseling and management support for the core team.

Finally, institutions should promote the diversification of fundraising channels, actively connect with long-term capital such as insurance funds and pensions, and design more flexible product cycles, such as “10 + 2” year funds for hard technology to meet the needs of long-term R&D. At the same time, ESG evaluation criteria are introduced to attract influential capital to enter the market, which is more in line with the national sustainable development strategy while expanding the source of funds.

4.2. Government & Market Environment Optimization

The healthy development of China’s VC industry relies on a stable policy framework and mature market infrastructure, with four key priorities.

Policy transparency & exit mechanism stabilization. Regulatory predictability. Establish a regular policy communication mechanism (e. g., quarterly regulatory briefings for VC institutions) to reduce uncertainty in areas like IPO approval and industry supervision. Exit channel diversification. Promote IPO review normalization (e. g., optimizing registration-based issuance processes for Sci-Tech Innovation Board and ChiNext) and expand M&A exit channels (simplify cross-border M&A approval procedures for high-tech startups). Support the development of S-funds (secondary market funds) to imp Market infrastructure improvement. Accelerating the construction of a national VC information sharing & due diligence database,

integrating technical patent data, enterprise credit records, regulatory compliance files, and industry statistics. Entrust third-party professional institutions (e. g., industry associations, credit rating agencies) with database operation to ensure data authority and real-time updates, reducing due diligence costs by 30%+ for small and medium-sized VC institutions.

Long term capital (such as insurance funds and family office funds) has the characteristics of long investment cycles and high risk tolerance, which can provide stable financial support for VC funds, enabling them to dare to layout cutting-edge technology projects with long research and development cycles and complex commercialization paths, effectively alleviating the short-term performance evaluation pressure of funds, and thus helping to improve the long-term investment return rate (IRR). Long-term capital supply expansion. Relaxing market access for long-term capital. Allow pension funds and insurance capital to increase their allocation ratio to VC funds (targeting 10%+ for qualified institutions). Introducing tax incentives. Offer income tax deductions for VC investments held for over 5 years in strategic emerging sectors, as empirical research shows that a 10% increase in long-term capital share can lift fund IRR by 3–5 percentage points [10].

Building an industry-academia-capital collaborative talent training system. Supporting universities to launch specialized courses (e. g., technical due diligence, VC valuation models) and establish joint training programs with global VC hubs (e. g., Silicon Valley, Israel). Setting up industry talent incentive funds to attract cross-disciplinary professionals (with both technical background and capital operation experience) to join VC institutions, addressing the shortage of "tech-savvy investors". This framework balances institutional capability upgrading and external environment optimization, providing a feasible path for China's VC industry to break through current bottlenecks and achieve sustainable development.

5. Conclusions

This passage explains how the VC industry's orientation, institutional ability and exit activity all together work as a part of the resilience and sustainability of Chinese VC. This is observed with the lens of Chinese venture capital Industry fundraising, investment decision making and post-investment management Employing a structured literature review and descriptive triangulation from major industry reports and public data sources, the paper first maps the structure of Chinese funds that is characterized by the dominant presence of government-linked capitals, diverse LP compositions, and increasing concentration at the top managers. It then discusses Chinese investment models which are showing strong clustering in strategic "hard tech" areas and a rising institutionalisation of data driven due-diligence and investment committee governance.

China VC companies are suffering under two sets of restraints externally speaking, the existence of weak departure avenues like postponed IPO routes and scant M&A alternatives has lowered expectations about exiting and increased the dangers spreading via redemption and repurchase processes. It forms a vicious circle going from troubles while leaving to cuts made in return, funds that are lacking, and investments which become narrower. Internally, technical due diligence and value-added post-investment empowerment are constrained by capability gaps, leaving the funds unable to identify real tech-based problems, to support scaling, and to achieve good exits. Moreover, the digitalisation and shortfalls of hybrid talent are not even, thus these issues arise.

Based on the above findings, this paper puts forward a dual track optimization framework. At the institutional level, VC firms should enhance interdisciplinary research and professional judgment, deploy AI-powered risk control and real-time post-investment tracking, deepen cooperation with industrial capital to optimize the support for commercialization, and transition post-investment management from passive supervision to full-life cycle value empowerment. At the ecosystem level, policy and market reforms should focus on predicting exit-related regulation, widening pathways for multi-channel exits (such as fostering S-funds' development), reinforcing national-level information infrastructure for lowering due diligence expenses, diversifying long-term capital participation (e.g., pension or insurance money), and building a sustainable talent-development system via industry-academia-research integration.

In general, this paper gives an overall, integrated mechanism-based understanding of China's VC during the current cycle as well as policy lessons for practitioners and policymakers. Future studies could further test the framework with fund-level or deal-level data, compare RMB- and USD-denominated funds, and assess the

quantitative impact of digital post-investment tools and industrial ecosystem collaboration on the success rate and outcome of follow-on financing.

Funding

This research received no external funding.

Institutional Review Board Statement

Not applicable.

Informed Consent Statement

Not applicable.

Data Availability Statement

Not applicable.

Conflicts of Interest

The author declares no conflict of interest.

References

1 Preqin. Preqin | Alternative Assets Data, Solutions and Insights. 2023. Available online: https://www.preqin.com/insights/research/reports/private-equity-and-venture-capital-in-greater-china-2023-preqin-territory-guide-chinese (accessed on 12 November 2025)

2 Block JH, Fisch C, Diegel W. Schumpeterian Entrepreneurial Digital Identity and Funding from Venture Capital Firms. *The Journal of Technology Transfer* 2024; **49**(**1**): 119–157.

3 Lerner J, Liu J, Moscona J, *et al. Appropriate Entrepreneurship? The Rise of China and the Developing World*; National Bureau of Economic Research: Cambridge, MA, USA, 2024

4 Moore C, Chadwick F, Hull L, *et al.* Global Analysis of Venture Funding. 2024. Available online: https://assets.kpmg.com/content/dam/kpmg/uk/pdf/2024/01/venture-pulse-q4-2023.pdf (accessed on 8 November 2025)

5 Chen J. Venture Capital Research in China: Data and Institutional Details. *Journal of Corporate Finance* 2022; **81**: 102239.

6 Shen H. The Impact of Post-Investment Management in Venture Capital on the Sustainable Development of Startups: A Literature Review framework. *Advances in Economics Management and Political Sciences* 2025; **208**(**1**): 32–38.

7 Wei X, Jiang Y, Gan T, *et al.* One Click into Capital: The Impact of Digital Government on Venture Capital. *Pacific-Basin Finance Journal* 2025; **91**: 102709.

8 Peng H, Bumailikaimu S, Feng T. The Power of Market: Venture Capital and Enterprise Digital Transformation. *The North American Journal of Economics and Finance* 2024; **74**: 102218.

9 Salgado-Criado J, Mataix-Aldeanueva C, Nardini S, *et al.* How Should We Govern Digital Innovation? *A Venture Capital Perspective. Technological Forecasting and Social Change* 2024; **200**: 123198.

10 Li X, Ban C. Global Development Policy Center. Financing Technological Innovation in China: Neo-Developmental Financial Statecraft through Government Guidance Funds. 2025. Available online: https://www.bu.edu/gdp/files/2025/04/GCI-WP-41-GGFs-FIN.pdf (accessed on 21 November 2025).