

Exploring the Model of Combining Equity Investments and Bank Loans in Commercial Banks

—A Case Study of Silicon Valley Bank

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Abstract

Specialized, refined, differential and innovative (SRDI) small and medium-sized enterprises (SMEs) are the major driving forces of technological innovation, and their growth heavily relies on investments and loans from commercial banks. However, these enterprises generally do not meet the traditional criteria for bank financing. This paper analyzes the practices of Silicon Valley Bank (SVB) in the United States, focusing on its client profiles, venture debt offerings, and risk control strategies. Drawing on the SVB experience, this study aims to provide insights for Chinese commercial banks on innovating their financial service models to support technology-driven SMEs.

Keywords

Commercial Banks, Combining Equity Investments and Bank Loans, Silicon Valley Bank

1. Introduction

Technology-driven enterprises, especially technology-based SMEs, are the major driving force of technological innovation. These enterprises are typically asset-light, requiring significant investments while carrying substantial risk. With no tangible collateral yet long investment cycles, they often fall short of the traditional criteria set by commercial banks for assessing and controlling credit risks. Consequently, such enterprises are frequently excluded from conventional financial models, despite their critical need for growth funding. This situation underscores the need for innovative financial models to foster the development of science and technology.

Silicon Valley Bank (SVB), once ranked as the 16th largest bank in the United States, has long been regarded as a benchmark for “banks supporting technological innovation” in the industry. Although SVB was taken over by the Federal Deposit Insurance Corporation (FDIC) in 2023 due to liquidity shortages and insolvency, its mature exploration and practice in the business model of combining equity investments and bank loans still provide valuable experience and insights for commercial banks on how to serve technology innovation enterprises. The case of SVB not only demonstrates the potential of the model in supporting tech enterprises but also triggers the industry’s interest and demand for in-depth research on this model.

Overseas scholars’ discussions on the model of combining equity investments and bank loans primarily focus on the expansion of financing channels, the innovation of financial instruments, and the strengthening of bank-enterprise relationships to facilitate credit. They have conducted an in-depth analysis of the mechanism of combining equity investments and bank loans. In the research by [Fiet & Fraser \(1994\)](#), they explored the model where commercial banks collaborate with venture capital firms and angel funds to invest in enterprises, pointing out that such cooperation not only significantly increases the financing amount for enterprises and broadens their financing channels but also brings higher returns to banks compared to traditional investments. [Feakins \(2004\)](#) analyzed and emphasized that the loan composition and financing strategies of commercial banks have a positive impact on the growth path of small and medium-sized enterprises (SMEs). Meanwhile, financial institutions, through financial innovation, provide richer financial services for SMEs, effectively promoting their development. [Rupeika-Apoga & Danovi \(2015\)](#) focused on the innovative financing dynamics of SMEs in Italy and Latvia, revealing that a good enterprise ecosystem enables SMEs to more easily obtain alternative financing, especially “smart financing” implemented through cooperation between banks and venture capital institutions. For startups, this support model is crucial in optimizing their entrepreneurial environment.

In China, the innovative financial service model of combining equity investments and bank loans has also attracted widespread attention from scholars and the industry. [Zhao \(2016\)](#) was the first to analyze the motivations behind this model and, through case studies of several Chinese commercial banks, revealed its initial achievements and challenges in practice. Following that, [Zhang \(2016a\)](#) further refined the research, summarizing several main models explored by domestic commercial banks in the business of combining equity investments and bank loans, providing a practical reference framework for the industry. [Wang & Qiu \(2016\)](#) demonstrated the positive effects of this model in promoting SME financing and optimizing resource allocation and put forward targeted policy suggestions based on their findings. In the same year, [Xiao & Xu \(2017\)](#) further focused on technology-based SMEs, pointing out that while combining equity investments and bank loans provides new financing channels for these enterprises,

the imperfect risk compensation and exit mechanisms are key constraints to their development, emphasizing the urgency of mechanism innovation.

Zhou & Wang (2017) reviewed the development history of China's business of combining equity investments and bank loans, summarized past experiences, and prospectively pointed out the conditions and potential advantages for China to further develop this business, providing macro guidance for subsequent research and practice. Ouyang (2018) again focused on technology innovation enterprises, deeply analyzing the institutional barriers and legal constraints faced by the business in this field, and called for corresponding institutional reforms to unleash its potential.

Wang & Guo (2018) broadened the international perspective, emphasizing the significance of learning from mature market experiences in the United Kingdom and the United States for China through an examination of their service models for combining equity investments and bank loans, especially regarding service model innovation. Based on this, Zhou (2021) further summarized the progress and successful experiences of developed countries such as the UK and the USA in combining equity investments and bank loans and systematically proposed new strategies and suggestions for promoting the development of this business from multiple dimensions, including external policy support, internal reform and innovation, strengthening external cooperation, and innovative product design.

Building on the existing research by domestic and foreign scholars on the model of combining equity investments and bank loans, this paper focuses on the model adopted by SVB, deeply analyzing its innovative practices in customer positioning, business characteristics, and risk management, and summarizing the characteristics and advanced experiences of its model. This paper selects a different research angle from previous studies by focusing on (SRDI) SMEs, a special type of technology-based SMEs, which represent a new economic growth point. The aim is to provide a set of service strategies for Chinese commercial banks to serve SRDI enterprises through combining equity investments and bank loans, thereby addressing financing challenges and facilitating their rapid development. Through this research, this paper aims to contribute new ideas to promote the integration and innovation of China's technology and finance and support high-quality development.

2. Silicon Valley Bank's Model of Combining Equity Investments and Bank Loans

2.1. Overview of Silicon Valley Bank

SVBFG is committed to delivering a full range of financial solutions to PE/VC firms, tech companies, high-growth industries like life sciences, and high-net-worth individuals including executives. The group's operations comprise four main segments: Silicon Valley Bank, SVB Private, SVB Capital, and SVB Securities, each targeting specific financial needs of tech-focused clients.

-Silicon Valley Bank (SVB), the core corporate financial services division of SVBFG, provides comprehensive banking and wealth management services for

high-net-worth clients.

-SVB Private, also under SVB's licensed charter, offers personalized wealth management solutions to private clients.

-SVB Capital, the venture fund management arm of SVBFG, specializes in fund-of-funds (FOF) and direct investment activities, facilitating tech innovation and growth.

-SVB Securities, acquired by SVBFG in 2019, provides in-depth financial services such as equity and convertible debt financing for companies in healthcare, M&A advisory, equity research, sales, and trading.

2.2. Client Base and Service Strategy

SVBFG's core clientele consists of high-growth enterprises, private equity (PE)/venture capital (VC) firms, and high-net-worth individuals including corporate executives. These clients operate a range of cutting-edge industries, such as hardware and frontier technology, software and internet, life sciences and healthcare, and clean energy. SVB, in particular, holds a prominent position in the high-growth enterprise segment. According to statistics, approximately 50% of U.S. VC-backed tech companies partner with the bank. By the end of 2019, SVB's loan balance reached RMB 33.2 billion. In terms of loan distribution, the majority of this lending (53%) was directed towards PE/VC firms, typically secured by payment commitments from PE/VC investors. Direct loans to tech companies accounted for 31%, while personal loans to individuals linked to PE/VC firms and tech companies represented 10%, highlighting SVB's strong commitment to supporting individual entrepreneurs and executives.

1) High-growth enterprises

SVBFG offers customized service strategies designed to meet the needs of high-growth enterprises at different stages of their development, as shown in **Table 1**. These strategies are mainly coordinated by SVB and its subsidiaries. The specific strategies are outlined as follows:

SVB Accelerator is designed for startups with annual sales under \$5 million. These companies are often focused on research and development and are still testing their products and services in the market, typically in the seed or first round of venture capital funding. SVB Accelerator provides services as follows: 1) Deploying expert advisers to collaborate with startup teams to evaluate and address their banking needs; 2) Offering competitive venture debt and other financial products to combine equity investments and bank loans; 3) Building a commercial banking platform to connect startups with investors, incubators, industry experts, and entrepreneurial talent.

SVB Growth caters to companies with annual sales between \$5 million and \$75 million. These companies have more established products or services and are in the mid-to-late stages of market expansion, often relying on VC funding and sometimes approaching or having completed an IPO. SVB Growth helps these companies scale up quickly by offering: 1) Flexible mezzanine financing, medium-

term secured financing, and accounts receivable financing; 2) A global fund management platform to support international operations, including offshore account management, foreign exchange transactions, and payment settlements; 3) Customized investment plans and direct equity investments through SVB Capital, targeting companies with high growth potential and strong IPO prospects.

SVB Corporate Finance is tailored for mature large enterprises with annual sales exceeding \$75 million. These companies usually offer a wide range of products and services and have established financing channels along with various banking and wealth management products. At this stage, SVB offers highly customized and specialized services: 1) Restructuring and M&A financing, as well as bond investments to provide stable funding for public companies; 2) Securities investment services, allowing public companies to indirectly invest in securities through funds and holdings managed by SVB Capital; 3) Bespoke advisory services, which cover investment and M&A financial strategies, business insights and expansion recommendations, industry resource sharing, and interactive engagements to assist companies in achieving industry leadership.

Table 1. Services provided by SVB for enterprises at different stages.

Business Stage	SVB Accelerator	SVB Growth	SVB Corporate Finance
Development Stage	Startup to early stage	Mid-stage	Building for scale stage
Annual Sales Revenue	Below \$5 million	\$5 - 75 million	Over \$75 million
Product Progress	With a focus on R&D	With products under market promotion	Global product launch
Management Structure	Founder + Founding team	Professional managers	Professional management
Main Financial Products	Startup loans	Working capital loan, venture capital	Cash management, global investment services
SVB's Product Offerings	<ol style="list-style-type: none"> 1. Startup loans (approx. 3 years) 2. Warrants (more frequent) 3. Direct equity investments (less frequent) 4. Startup and development consulting 	<ol style="list-style-type: none"> 1. Short-term working capital loans (under 1 year) 2. Warrants (less frequent) 3. Direct equity investments (more frequent) 4. Private banking and wealth management 5. Foreign exchange and global payments 6. Industry resource sharing 	<ol style="list-style-type: none"> 1. Syndicated loans and trade finance 2. Bond investments 3. Restructuring and M&A financing 4. Private banking and wealth management 5. Transaction banking services 6. Customized consulting
SVB Market Share	50%	10% - 12%	<10%

2) PE/VC Firm Clients

Since its inception, SVB has established strong partnerships with the PE/VC

community, which represents a significant segment of its tech-focused investor clientele. SVB provides these firms with a wide range of financial services, including direct loans, deposit management, liquidity management solutions, and multi-currency financial services to support their cross-border funding needs. These services fully support the operational and investment strategies of its PE/VC partners.

3) High-end winemaking clients

Beyond the tech and financial sectors, SVB vigorously expanded its services to include premium wine producers in the western United States as part of its high-end winemaking clientele. The bank provides these clients with tailored financial support and services.

4) Private banking clients

SVB's private banking clientele primarily comprises senior executives from high-growth enterprises and seasoned professionals in the PE/VC sectors, who have high net worth and complex financial needs. Through its private banking division, SVB offers its clients personalized wealth management, investment planning, and tax planning services.

2.3. Model of Combining Equity Investments and Bank Loans

Deeply involved in the venture capital industry, SVBFG has developed an efficient and risk-controlled model that effectively combines advantages of both bank loans and equity investments.

1) "Venture debt + Warrant"

At critical stage when startups are pursuing their first or second round of equity financing, SVB collaborates closely with PE/VC firms to offer venture debt to target companies. These loans usually account for 25% to 35% of the company's latest equity financing, typically ranging from \$1 million to \$2 million. The specific loan amount depends on factors such as the company's scale of operations, the level of equity financing, and the reputation of the investing institutions. Due to the high risk associated with startups, the interest rates for these loans are generally above the market average.

SVB's venture debt repayment structure is uniquely designed to primarily rely on the company's financing cash flow—funds derived from subsequent equity financing—rather than operating cash flow. This approach highlights SVB's confidence in and commitment to the company's future growth prospects.

A unique feature of SVB's venture debt is the inclusion of warrants, as shown in **Figure 1**, which provides SVB with the option to acquire a small percentage of the company's future equity, typically around 1% to 2% of the total share capital. This mechanism allows SVB to mitigate risk by potentially earning returns from equity appreciation, thereby offsetting the risks associated with the loan. Furthermore, it aligns SVB's interests with those of the companies, fostering long-term collaboration and growth. In case where a company goes public or its equity value rises significantly, SVB can benefit from substantial capital appreciation.

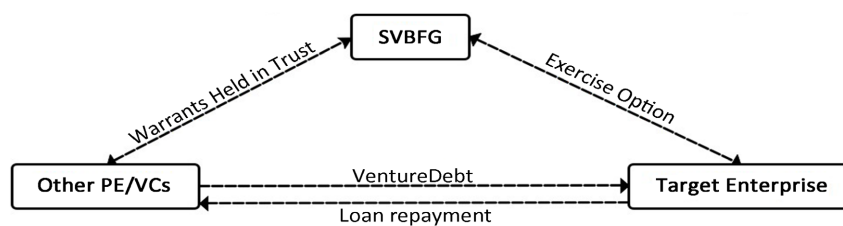


Figure 1. Model 1—“Venture Debt + Warrant”.

2) “Loan + Investment by the Subsidiary”

As illustrated in **Figure 2**, SVB Capital engages in direct investment in startups, with SVB offering supporting credit funds. For companies in which SVBFG has high confidence, SVB Capital provides direct financing through its private equity funds, in addition to credit funding from SVB. SVB Capital employs the two following typical direct financing methods: 1) Direct equity participation: acquiring equity stakes in target companies, usually with a lower PE/VC ratio compared to other institutions; 2) Indirect participation: investing in target companies through FOF while leveraging investments with other PE/VC firms.

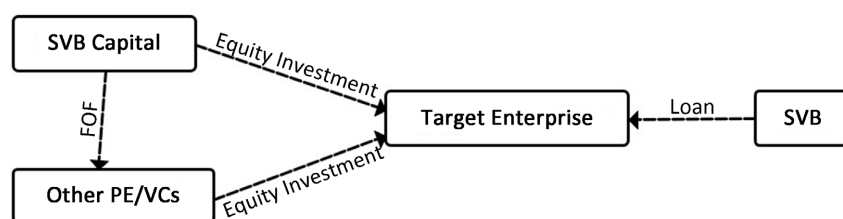


Figure 2. Model 2—“Loan + Investment by the Subsidiary”.

3) Credit funds for PE/VC firms as the indirect support for startups

As described in **Figure 3**, SVB has established strong partnerships with numerous PE/VC firms, offering them credit funds. This lending primarily centered around “credit lines for fund clawback”. Given the extended investment horizons of PE/VC funds, SVB Capital, in its role as a fund LP, usually disburses payments in installments, beginning with an initial contribution and committing to subsequent payments over time. PE/VC firms use these funding commitments as collateral to secure credit lines from the bank, with repayments mainly sourced from returns generated by the fund. These loans typically exceed \$30 million and have terms of up to one year.

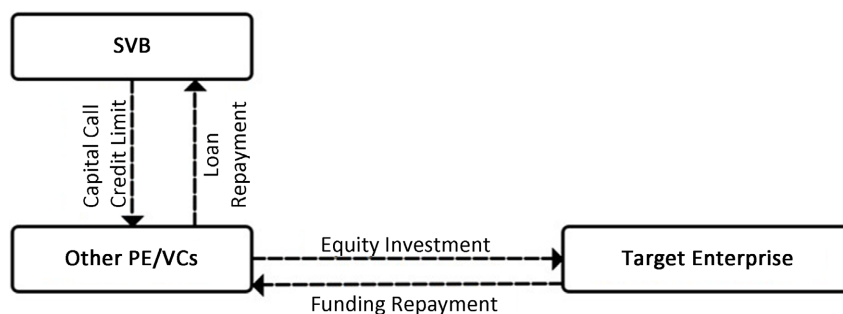


Figure 3. Model 3—Credit Funds for PE/VC.

PE/VC firms are the primary borrowers from SVB. As illustrated in **Figure 4**, more than 50% of SVB's loans were allocated to PE/VC institutions from 2019 through the end of 2022.

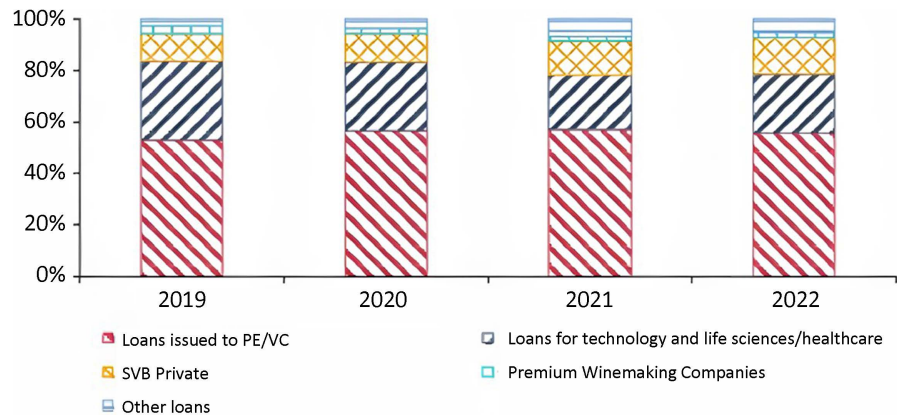


Figure 4. SVB loan distribution breakdown (2019-2022).

2.4. Analysis of Risk Management Strategies

SVB has developed a robust and efficient risk management system for its credit services to tech startups, addressing three critical phases: pre-loan assessment, ongoing monitoring during the loan term, and post-loan management. This strategy allows SVB to effectively minimize credit risks and confidently enter the startup market, an area often avoided by other banks.

1) Refined pre-loan management

Before granting a loan, SVB employs a two-step filtering process. First, it leverages the investment expertise of PE/VC firms by extending credit loans only to companies that have already garnered the interest of these investors, ensuring that it targets high-quality projects. Second, SVB enhances the expertise of its credit approval team, equipping them with a solid understanding of the tech industry to make well-informed decisions.

2) Differentiated and value-added management during the loan term

SVB customizes loan conditions based on a company's growth stage. For example, early-stage startups might be asked to pledge intellectual property as collateral, while companies with steady revenue might use more stable assets like accounts receivable. Furthermore, SVB includes warrants with its loans, enabling the bank to achieve potential high returns without disrupting the company's regular operations. Prioritizing debt repayment also serves to safeguard the bank's interests.

3) Standardized and proactive post-loan management

In managing loans after they're issued, SVB implements a series of measures to protect its interests. It establishes dedicated accounts to track cash flow, requiring both borrowers and venture capital funds to open accounts with SVB and maintain retained capital to mitigate liquidity risk. The bank maintains close communication with PE/VC firms to stay informed about the progress of the companies.

SVB also adopts a flexible loan recovery strategy, utilizing direct repayment or the sale of existing shares when the company secures new financing. Additionally, SVB actively assists companies in raising equity financing, thereby improving their ability to repay debt.

3. Characteristics of SVB's Model of Combining Equity Investments and Bank Loans

3.1. Deep Strategic Collaboration with VC/PE Firms

SVBFG has developed an in-depth comprehensive collaboration framework with VC/PE institutions, emphasizing “partner alignment, project selection, and services for executives”. First, over half of SVB's loans are directed toward the PE/VC sector, building strong partnerships with more than 500 top-tier PE/VC firms across the U.S. Second, in its venture debt projects, SVB leverages the expertise of PE/VC institutions, ensuring that loan recipients have completed at least a Series A funding round before receiving venture debt, which typically accounts for 25% to 35% of their most recent equity round. Lastly, SVB Private caters specifically to senior management within PE/VC firms, further enhancing strategic trust and cooperation between the parties.

3.2. Full-Cycle Empowerment for Tech Enterprises through “Financing + Expertise”

SVB's approach to serving tech enterprises transcends the traditional bank model of simple creditor-debtor relationships by integrating financial support with expert guidance throughout the company's lifecycle. On the financing side, SVB offers innovative solutions such as venture debt and intellectual property-backed financing for early-stage companies. Additionally, SVB employs warrants and direct equity investments, sharing both risks and rewards, thereby fostering deeply collaborative partnerships. In terms of expertise, SVB has created an entrepreneurial platform that directly engages with startups, offering comprehensive support such as CEO training, introductions to investors, and assistance with equity financing. For growth-stage and later-stage companies, SVB provides value-added services such as market expansion, international collaboration, and talent acquisition, helping to drive sustained growth.

3.3. Balance Sheets: A Trend toward Integration and VC

Through its business operations, SVB has demonstrated an increasing focus on VC, as PE/VC becomes a crucial component of its balance sheets. In terms of liabilities, SVB attracted deposits from PE/VC firms and technology executives. Beyond that, through collaborations between tech companies and PE/VC firms, the bank also accumulated a large volume of highly liquid deposits, the majority of which were demand deposits. Together, these two types of deposits accounted for nearly 80% of SVB's total liabilities by the end of 2022. On the asset side, SVB's portfolio primarily consisted of bridge loans provided to PE/VC firms and loans

to tech startups, which together represented nearly 80% of its total assets by the end of 2021. This asset-liability structure created a tight-knit ecosystem connecting SVB, PE/VC firms, and tech startups, facilitating the efficient fund circulation and resource allocation.

In summary, SVBFG's financial service model for tech companies seamlessly integrates venture capital principles. This approach involves a thorough analysis of equity investment information and structures loans to align with the growth trajectories of startups, ensuring a balanced distribution of risks and returns throughout the development process. Moreover, SVB's equity investments foster relationships that extend beyond traditional creditor-debtor dynamics, forming a closer, more flexible community of shared interests.

4. Analysis of the Effectiveness and Limitations of the Silicon Valley Bank (SVB) Model

4.1. Effectiveness of the SVB Model

The SVB's model of combining equity investments and bank loans has demonstrated remarkable effectiveness in alleviating financing difficulties for SMEs engaged in scientific and technological innovation. Empirical data shows that by the end of 2019, SVB's loan balance reached RMB 33.2 billion, with 53% of loans to private equity/venture capital (PE/VC) firms and 31% directly to technology-based enterprises. These figures indicate that SVB has successfully channeled significant capital into the technology innovation sector, providing robust support for numerous SMEs' growth. Furthermore, through direct investments by its subsidiary, SVB Capital, the bank has further intensified its support for technology enterprises. This model has infused SMEs with critically needed funds and accelerated their growth through comprehensive financial services.

1) Effective Alleviation of Financing Constraints

SVB's unique financing model, which combines venture capital with warrants, has successfully addressed the financing constraints faced by SMEs in technological innovation. According to SVB's annual reports, from 2000 to September 2021, the bank actively adjusted its venture capital portfolio, reducing the proportion of credit assets from 30% to 3%, while maintaining an exceptional non-performing loan ratio below 1%. This achievement demonstrates SVB's ability to manage risks prudently while actively providing necessary funding to startups. Additionally, through the effective use of warrants, SVB generated a net income of \$965 million over the past 20 years, not only offsetting potential initial loan losses but also generating additional returns for the bank.

2) Promotion of Rapid Enterprise Growth

As previously mentioned, SVB provides financial support while also leveraging its deep industry insights and extensive professional resources to offer comprehensive intellectual support to SMEs in technological innovation, assisting them in achieving rapid growth. The SVB Accelerator has successfully helped hundreds of startups gain market recognition, many of which have subsequently become

industry leaders.

3) Cultivation of an Entrepreneurial Ecosystem

SVB has established an effective integration and sharing of capital, resources, and information by building an entrepreneurial ecosystem for technological innovation. Within this ecosystem, SVB collaborates closely with PE/VC firms, technology enterprises, and various professional service agencies to jointly promote technological innovation and industrial upgrading. The construction of this ecosystem not only enhances SVB's comprehensive service capabilities but also provides SMEs in technological innovation with a broader development platform and more diversified cooperation opportunities, further promoting the prosperity and development of the entire technological innovation ecosystem.

4.2. Limitations of the SVB Model

Despite the SVB model's significant effectiveness in addressing financing constraints for SMEs in technological innovation, it also has certain limitations, primarily reflected in the following aspects:

1) Geographical and Ecological Limitations

The success of the SVB model heavily relies on Silicon Valley's unique entrepreneurial ecosystem. In Silicon Valley, numerous technology enterprises, PE/VC firms, and professionals provide strong support for SVB's business development. However, in other regions, especially those lacking similar ecosystems, replicating the SVB model may pose significant challenges and difficulties.

2) Differences in Regulatory Environments

Financial regulatory environments vary across countries and regions, which may pose obstacles to the promotion and application of the SVB model. For example, some regions may have stricter regulatory requirements for banks' equity investment activities, limiting their business expansion and innovation in this field.

5. Major Challenges Faced by The Development of Combining Equity Investments and Bank Loans in China

Despite the broad development prospects for combining equity investments and bank loans in China, banks and financial institutions still face multiple challenges and difficulties in practical operations.

5.1. Legal and Regulatory Constraints and Compliance Risks

China's Commercial Bank Law explicitly prohibits banks from investing in non-bank financial institutions and enterprises. This legal constraint significantly restricts banks' equity investment activities in the business of combining equity investments and bank loans. Although the Guiding Opinions provide opportunities for some banks to conduct pilot projects, the scope of these pilots is still limited, and most banks have not obtained the qualifications for direct equity investments. According to an in-depth survey of 175 banking institutions in Guangdong

Province in 2022, 44% of the sampled banks believed that “the restrictive provisions of current laws and regulations on bank institutions’ engaging in the business of combining equity investments and bank loans” were the main obstacle to implementing this business. These legal constraints not only increase banks’ compliance risks but also severely restrict the scale and standardization of this business.

5.2. Inadequate Risk Prevention and Control Mechanisms and Mismatch of Returns

Compared with traditional credit businesses, the business of combining equity investments and bank loans involves more complex and diverse risk factors, including credit risk, market risk, operational risk, and the unique risks of equity structure changes and equity pledge associated with equity investments. However, current bank risk prevention and control mechanisms are primarily designed for traditional credit businesses, making it difficult to effectively address the new risk challenges in the business of combining equity investments and bank loans. Additionally, banks primarily earn fixed loan interest income in this business, making it difficult to fully share in the equity appreciation benefits from the growth of enterprises. This mismatch between returns and risks significantly reduces banks’ enthusiasm and motivation for engaging in this business. According to survey results, 48% of the sampled banks believed that “the traditional credit risk prevention model poses constraints on the promotion of the business of combining equity investments and bank loans”. Meanwhile, 37% of the sampled banks believed that “commercial banks’ current risk control levels are difficult to adapt to the unique operational characteristics of the business of combining equity investments and bank loans” [Ouyang \(2018\)](#).

5.3. Lack of Professional Talent Teams and Insufficient Business Experience

The business of combining equity investments and bank loans requires bank employees to possess cross-disciplinary expertise and technical literacy, covering fields such as finance, technology, and law. However, the current talent structure of banks primarily consists of professionals with backgrounds in finance and accounting, with relatively limited knowledge of emerging industries and sectors. This results in significant capability gaps for banks in identifying and selecting high-growth potential enterprises and assessing the value of technology innovation enterprises. For example, many SVB employees have professional backgrounds in high-tech industries or venture capital, while domestic banks generally lack such professionals [Zhang \(2016b\)](#). Additionally, due to the relatively late start of the business of combining equity investments and bank loans in China, banks have insufficient accumulation of relevant business experience and cases, making it difficult to form mature and effective business operation models and risk management strategies.

6. Strategies and Recommendations

Since 2016, under the active guidance of policies and strong market demand, China's commercial banks have gradually initiated pilot explorations of the business of combining equity investments and bank loans and continuously deepened their practices. However, considering the differences in the financial environments across various regions in China and the unique challenges faced by startup technology enterprises, as well as the regulatory environment, commercial banks must adopt more flexible and differentiated strategies when promoting this business. In light of the current challenges and difficulties faced by the development of the business of combining equity investments and bank loans in China, and drawing on the experience of the SVB model, this paper proposes the following suggestions for domestic commercial banks.

6.1. Active Participation in the Top-Level Design and Institutional Innovation of Combining Equity Investments and Bank Loans

In the face of this emerging financial business model of combining equity investments and bank loans, commercial banks should proactively collaborate with the government to jointly promote the improvement and optimization of top-level institutional design. To this end, commercial banks should actively participate in policy discussions, suggesting to the government to revise the Commercial Bank Law to allow them to directly invest in a minority equity stake of technology enterprises up to a certain proportion of their net assets and establish subsidiaries for combining equity investments and bank loans or asset management, thereby supporting the growth and development of technology enterprises in a more flexible and diverse manner.

At the same time, commercial banks can propose a series of supportive policies to the government, including establishing incentive mechanisms, providing tax reductions, exemptions, and subsidies, aimed at encouraging and safeguarding the steady promotion of the business of combining equity investments and bank loans. The introduction of these policies will help create a more favorable external environment for commercial banks, reduce business risks, and enhance their enthusiasm for the business [Xiao, Xu, & Chen \(2017\)](#). Furthermore, commercial banks should thoroughly research and fully utilize various policy tools provided by the government, such as loan interest subsidies, risk compensation, and investment guidance funds. By optimizing internal management mechanisms, they can ensure that these policies precisely address the financing needs of technology enterprises, convert policy advantages into practical momentum for serving technology enterprises, maximize the policy effects, and provide strong financial support for the vigorous development of technology enterprises.

6.2. Building Commercial Banks' Equity Fund Business Brands and Exclusive Financial Products that Link Equity and Debt

Commercial banks should deepen their strategic partnerships with government

agencies, industries, and professional investment institutions to jointly initiate and manage equity investment funds with clear investment directions and strategic intentions. These funds should focus on regional technological innovation funds, major industrial investment funds, and funds of funds, and effectively enhance their influence and authority in the industry by continuously expanding their scale. On this basis, commercial banks should actively explore innovative vehicles such as S funds (i.e., secondary share transfer funds), merger and acquisition funds, and major project investment funds to accelerate the innovation process of fund operation models. They should collaborate with partners to carry out comprehensive fund cooperation covering various investment stages, broaden the application boundaries of funds, highlight the unique investment value and brand characteristics of funds, and thereby build an equity investment business brand system with prominent banking characteristics, significantly enhancing the brand's market recognition and reputation.

To more effectively serve technological innovation enterprises in their early and mid-stage development and alleviate their financing constraints, commercial banks should actively develop customized financial products that combine equity investments and bank loans. Firstly, commercial banks should establish strict screening mechanisms, select and build a cooperation network of high-quality investment institutions, and achieve precise marketing by importing their invested enterprise resources in bulk. Secondly, commercial banks should improve the technology evaluation system for technological innovation enterprises, innovate intellectual property pledge financing models, and make them key considerations in enterprise credit evaluation and credit approval, helping enterprises obtain necessary credit support through their technological innovation capabilities. In addition, commercial banks should develop a comprehensive quota model that integrates quantitative indicators (such as financial performance and market potential) with non-quantitative indicators (such as technological innovation capabilities and management team quality) around the multi-dimensional aspects of equity financing. This model will scientifically and precisely measure the financing needs of enterprises in scenarios combining equity investments and bank loans, providing them with more personalized and efficient financial services, and further consolidating and enhancing the brand influence and market competitive advantage of commercial banks in the field of equity investment.

6.3. Strengthening the Endogenous Mechanism of Risk Management for Combining Equity Investments and Bank Loans in Commercial Banks

When providing financing services to (SRDI) SMEs, commercial banks face restrictions on capital appreciation gains imposed by the Commercial Bank Law, as well as the challenge of loan interest being insufficient to fully cover potential risk losses [Zhou \(2021\)](#). This results in commercial banks being discouraged from promoting the combining equity investments and bank loans business when returns cannot effectively offset risks. Therefore, commercial banks need to take proactive

measures to strengthen risk management for combining equity investments and bank loans: First, innovate the revenue model. For loans to early- and mid-stage (SRDI)SMEs, commercial banks should explore, under the premise of legal compliance, signing agreements with enterprises to obtain a certain proportion of equity or stock options, thereby sharing the premium returns from enterprise growth to compensate for the insufficiency of traditional loan interest income. Second, build a diversified risk buffering system. Commercial banks can actively collaborate with government departments to seek policy support, participate in or promote the establishment of risk compensation funds, industrial guidance funds, etc., to provide additional risk mitigation layers for the combining equity investments and bank loans business. At the same time, commercial banks can also leverage their own resources and advantages to establish or participate in equity investment funds and further diversify and reduce loan risks through equity investments. Third, strengthen cooperation with insurance companies. Commercial banks can seek cooperation with commercial insurance companies to introduce loan liability guarantee insurance mechanisms. In this way, when (SRDI)SMEs are unable to repay principal and interest on time, commercial banks can obtain corresponding compensation from insurance companies, thereby effectively reducing loan losses and improving risk tolerance.

6.4. Tailoring Services to Local Conditions and Enhancing Full Lifecycle Service Capabilities for Technology-Based Enterprises in Different Regions

Commercial banks should provide differentiated and distinctive financial services that combine “equity, loans, and debt”, closely aligning with the needs and characteristics of technology-based enterprises at different lifecycle stages. Given the significant differences in the financial environments of various regions in China and the unique challenges and regulatory dilemmas faced by startup technology-based enterprises, commercial banks need to thoroughly study the economic characteristics, industrial structure, financial needs, and regulatory policies of each region when formulating financial service plans, emphasizing differentiation and adaptive adjustments. For example, local commercial banks represented by Nanjing Bank have established a comprehensive financial service system covering the full lifecycle of “credit resources + equity investment + policy support” for technology-based enterprises by adopting an external model combining equity investments and bank loans through close cooperation with diverse entities such as equity investment funds and local governments. In the startup phase, commercial banks focus on investing and lending to early-stage and small enterprises, supporting stable operations through equity fund investments and inclusive micro-loans; in the growth phase, they promote enterprise development and growth, emphasizing both financing and intellectual support, meeting enterprise industrial integration needs through industrial funds or merger and acquisition funds, and providing diversified loan products and advisory and consultation services; in the maturity phase, they focus on enterprise structural optimization and transformation and

upgrading, supporting large financing needs through major project funds and bond underwriting and investment services.

7. Conclusion

This paper delves into the model combining equity investments and bank loans of Silicon Valley Bank, summarizing its outstanding achievements in addressing the financing challenges of (SRDI) SMEs, accelerating enterprise growth, and building a vibrant entrepreneurial ecosystem. At the same time, the paper also analyzes the main challenges encountered in the practice of the model combining equity investments and bank loans in China, and based on the above research findings, puts forward corresponding countermeasures and suggestions for domestic commercial banks to effectively implement the model.

The research value of this paper lies in not only systematically reviewing the characteristics and practices of the model combining equity investments and bank loans of Silicon Valley Bank but also proposing specific suggestions for Chinese commercial banks in serving (SRDI)SMEs in light of China's national conditions. These suggestions have important practical guiding significance for promoting financial service innovation in Chinese commercial banks and facilitating the integration of technology and finance. However, this study also has certain limitations. It has not conducted empirical testing to verify the applicability of its propositions and suggestions in the Chinese market.

Looking ahead, with the continuous development of technology finance, the model combining equity investments and bank loans is expected to become an important tool for commercial banks to serve (SRDI)SMEs. Future research can further explore the differences in the application of this model in different countries and regions, as well as its interaction with factors such as the policy environment and market environment. At the same time, attention can also be paid to the challenges and opportunities of this model in risk management, income distribution, and other aspects, providing more comprehensive and in-depth guidance for commercial banks.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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