

# Design and Risk Control of Incentive Compatibility Mechanism for Small and Micro Enterprises Venture Capital Provident

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## Abstract

Small and micro enterprise venture capital accumulation fund effectively integrates resources of all parties, based on market mechanism, with government Guided by the assistance, try to start from the self-help (financing to their own future) and his assistance (cooperation) as the guiding ideology, set up a small and micro enterprise venture capital provident fund institution, and innovate financial products suitable for small and micro enterprises, and upgrade to small The financial service capability of micro-enterprises enables the common development of banks, guarantees and enterprises.

## Keywords

Small and Micro Enterprises; Venture Capital Provident Fund; Incentive Compatibility; Risk Control.

## 1. Introduction

The party's 18th National Congress report "supporting the development of small and micro enterprises, especially small and micro enterprises of science and technology"[1], making small and micro enterprises once again become China's economic development The focus. Small and micro enterprises, which are the foundation of China's social and economic structure, play an important role in technological innovation[2], solving urban and rural employment and employment, providing final products and services[3], and paying taxes to the state. However, for a long time, small and micro enterprises have become financially unregulated, have weak profitability, and have high operational risks[4]. Financing difficulties have become an obstacle to the development of small and micro enterprises. According to the calculation of the China Banking Regulatory Commission in 2011, China's bank loans are mainly invested in large and medium-sized enterprises[5]. The coverage rate of large enterprises is 100%, that of medium-sized enterprises is 90%, that of small enterprises is only 20%, and that of micro-enterprises is almost zero (Li Rixin, 2012[6]. Although the bank has made some attempts around the Micro-enterprise financial business, the entrepreneurial financing dilemma of small and micro enterprises has not been fundamentally resolved. Therefore, solving the financing difficulties of small and micro enterprises cannot be solved by banks alone, but requires the government, financial institutions and small and micro enterprises to jointly promote this work.

## 2. Literatures Review

Review of the status quo of foreign research.

The Bankruptcy Reform Bill has changed the living environment of small businesses and lowered the threshold for small and micro enterprises to obtain credit (Berkowitz and White, 2004)[7]. The Credit Rating System (SBCS) simplifies information processing procedures, reduces information processing costs, improves information identification efficiency, and protects against financial risks. Berger, Frame, and Miller (2005) discovered the expansion of small business credits below \$100,000 by analyzing SBCS. The quantity, the higher average

price and the higher risk level are highly correlated. Berger and Udell (2002)[8] used the model to analyze the internal workings of relational lending, the meaning of bank organizational structure, and the impact of economic environmental shocks on the availability of small business relationship credits. The information revolution has promoted the steady development of the US financial sector and profoundly changed the existing commercial credit model, so that more distant borrowers can get rid of the previous space restrictions and obtain bank loans, which explains the long distance. Increase in credit activity (Berger, Frame, and Miller, 2005).

### **2.1. Review of the Status Quo of Domestic Research**

At present, the literature research on small and micro enterprise financing mainly focuses on four aspects: First, external financing, Wang Guocai (2010); Zheng Jiuge (2012); Yao Chang cun (2012) believes that formal financial prices are high, and there are more implicit constraints. To curb the financing of small and micro enterprises, commercial credit can alleviate the financing difficulties of small and micro enterprises. Second, the endogenous financing of small and micro enterprises, Liu Xueping (2011); Zhang, Heshan Dong Yun long achieve (2012) believe that the financing of small and micro enterprises is difficult to their own operating efficiency, the cost of financing units is higher, credit is not good, and the risk of loans is large. Enterprise innovation ability is not strong. The third is the asymmetry of information, Xiao Lanhua, Jin Xuejun (2010); Yin Mengbo et al (2011) believe that the core factor of financing difficulties for small and micro enterprises is the asymmetry of information. The key to solving information asymmetry is to establish a credit guarantee mechanism and effectively share Bank credit risk. Fourth, in terms of mutual assistance between small and micro enterprises, Li Rixin (2012) proposed to establish a small and micro enterprise financing cooperation alliance to form a "three-in-one" collective guarantee model for government assistance, institutional guarantees, and enterprise mutual protection, to alleviate the financing dilemma of SMEs.

In summary, domestic and foreign experts and scholars mainly propose to solve the financing difficulties of small and micro enterprises from the aspects of innovative bank credit policy, improvement of small and micro enterprises' own credit information, mitigation of information asymmetry and mutual assistance of small and micro enterprises. This topic will try to integrate the financing problem of small and micro enterprises into an effective financing system - "Small and Micro Enterprise Rong chuang Investment Provident Fund", effectively integrate all resources, based on market mechanism, with government guidance as an aid, try to self-help (to yourself) In the future, the financing and financing (cooperation) supplemented this guiding ideology, set up a small and micro enterprise venture capital provident fund institution, in order to provide an alternative and highly operational solution for small and micro enterprise financing.

## **3. Literature the Nature and Mechanism of Financing Micro-enterprise Financing and Enterpri-neurship Provident Fund**

Small and micro enterprise venture capital provident fund (hereinafter referred to as: venture capital provident fund) is under the guidance of local governments, by residents, small and micro enterprises, small and micro enterprises venture capital, commercial banks, Cooperative organizations such as guarantee companies participate in cooperative economic organizations that provide small and micro enterprises with venture financing, and increase the channels for residents' entrepreneurial financing.

### **3.1. The Nature of Venture Capital Provident Fund**

stable and available. Establish a venture capital provident fund system to provide stable and available venture capital funds for Chinese residents.

mutual assistance. The establishment of a venture capital provident fund system can effectively establish and form the mechanisms wealthy residents to help entrepreneurs and small and micro enterprises and channels for, reflecting the mutual assistance of venture capital provident funds;

long-term. Every Chinese resident can make a contribution to the provident fund after he has participated in the work until a certain number of years (such as after paying 25 years or after the age of 55).

return From the date of participation in the work of our country to a certain number of years (such as after 20 years of payment or 50 years of age), if the account is moved out or settled, the paid venture capital reserve will be returned to the employee.

universality. Residents of our country, regardless of the nature of their work units, the high or low income of their families, and whether they have housing, can deposit their VCs in accordance with the provisions of the Regulations.

### **3.2. The Mechanism of Action of Venture Capital Provident Fund**

Financing the "future itself" financing for the small and micro enterprise venture capital fund is mainly based on financing the "future itself". That is to say, Chinese residents can only finance after paying a certain amount of small and micro enterprise venture capital accumulation fund (compared to 1/3 of contract savings) or satisfying a certain number of years (metagram for 3 years). After the financing, in addition to continuing to pay the funds for the Micro-enterprise venture capital fund every year, after the 1–2-year buffer period, the principal and interest of the loan shall be paid monthly. This is actually to "funding yourself in the future", that is, using the power of the future to accelerate the current development. In this way, it avoids the problem of inconsistency between foreign financing institutions such as banks and small and micro enterprises (financial institutions such as banks aim to maximize their profits or minimize risks, while small and micro enterprises are small in their own assets and risky. ). Therefore, this solves the problem of the source of venture capital provident fund for small and micro enterprises, which is predictable, extensive, long-term and sustainable.

### **3.3. Mutual Assistance and Cooperation Financing is Supplemented by Small and Micro Enterprises**

The venture capital fund is mainly through appropriate measures to gather temporary idle resources of our residents, to be allocated to members of society who need some help according to certain rules, and to support qualified through mutual aid loans. Low- and middle-income people solve the problem of entrepreneurial financing. Of course, in the implementation of mutual assistance and cooperation, the two principles are very important. First, the principle of large numbers. According to the law of large numbers, since everyone's entrepreneurship is not synchronized and scattered in various industries, the complementary effect can be achieved. The more, the better the mutual help. The second is the long-term principle. Because of the long time, the participating members are equivalent to saving, so they basically finance the "future themselves". At the same time, the participating members can also stagger the centralized financing from time to time to achieve sustainability.

### **3.4. Adopting the Project Mortgage Model, Standardizing Credit Resources**

As a venture capital fund for small and micro enterprises, and adopting project mortgage loans, that is, resident loans should provide relevant proof of entrepreneurship, for example, relevant industry has been certified for more than 2 years, and relevant entrepreneurial qualifications are available. , have their own business premises, relevant investment in the pre-starting investment assets, and at least a considerable proportion of the previous capital investment (for example, the initial investment accounted for more than 1/5 of the project funds). At the same time, the venture capital provident fund loan is also paid by the resident provident fund

to a considerable amount (or years), and the resident repayment is based on the monthly fixed amount plus interest, which makes the scattered credit standardized, which reduces the information asymmetry and reduces the transaction cost is essentially to upgrade the credit of small and micro enterprises and complete the standardization of credit resources. Therefore, the establishment of small and micro enterprise venture capital accumulation fund changes the credit of small and micro enterprises, so that small and micro enterprises can standardize credit resources.

### **3.5. Reduced Financing Risks and Regulatory Internalization**

Due to the prior selection and check of the VC funds, the investigation, review and follow-up inspection of the guarantee company, and mutual guarantee between the members of the provident fund (and only a few of the members who have not been financed can be eligible for guarantee), effective for the members of the provident fund Supervising and achieving multiple filtering of risks is not only more effective than simply assessing credit risk by financial institutions, but also greatly reducing the cost and risk of credit risk assessment. In addition, because they are in the same region, members and enterprises know each other better, and malicious malpractice will not only lose the trust of the members of the alliance, but also directly link the relevant guarantee members, making the cost of default high, prompting members to pay more attention to credit and enhance compliance awareness. And thus internalize the regulation. Since this mechanism internalizes supervision, it is much more effective than financial institutions' external supervision of enterprises.

## **4. The Micro-enterprise Venture Capital Accumulation Fund Incentive Compatibility Mechanism Analysis**

Cooperation is voluntary, and is based on self-interest and mutual benefit, its role is to bring benefits to the cooperation. However, there is inevitably a problem of target conflict of interest and information asymmetry between the cooperating entities, which creates the need for incentive compatibility. Especially in the case of target conflicts of interest, it is especially important to design an incentive-compatible financial contract, which is directly related to the success or failure of the program. Through the venture capital provident fund model, local governments, residents, small and micro enterprises, commercial banks, guarantee companies, etc., build an incentive compatibility mechanism. That is to say, through the venture capital provident fund, the benefits of all parties are greater than the benefits of individual actions, which reduces the risks and costs borne by all parties and achieves Pareto improvement.

### **4.1. The Internal Motivation of Residents and Small and Micro Enterprises**

Most of our residents have strong entrepreneurial desires, but they lack the corresponding financial support. Although some people can solve the financial problems through private loans (or family support), they lack stability and informality for most people. Poor sex, and because there is no corresponding asset collateral, the risk is high, it is difficult to get relevant funding (especially formal financial institutions). By participating in the venture capital fund, members can use the VC funds to finance, which is equivalent to "financing themselves in the future" to meet the difficult financing needs of the residents' venture capital and small and micro enterprises, because it is institutionalized and conventional. Chemical, stable and predictable. This naturally attracts a large number of dispersed individuals and small and micro enterprises to gather for financing needs, and seeks to form or join venture capital provident funds. From the whole process, after joining the venture capital provident fund, the members of the venture capital provident fund will receive a small number of deposits, and obtain reliable and large amount of preferential fund support when they urgently need financing (such as entrepreneurship, major technological transformation, and expansion of scale). If the member

does not raise funds, he can voluntarily withdraw after a certain period, and the funds he pays will be returned together with the interest rate and will not suffer losses. "The housing provident fund realizes that residents have their own houses, and the venture capital fund makes everyone happy." It will naturally attract more and more residents and small and micro enterprises to join the alliance.

#### **4.2. The Internal Motivation of the Local Government**

Small and micro enterprises have a vital position in the development of local economy, employment and fiscal revenue. However, due to limited financial resources, local governments cannot (and do not need to) meet their funding needs. The establishment and development of the venture capital provident fund cater to the needs of the government. The government can solve the problem of entrepreneurship financing for residents and small and micro enterprises, promote the development of local economy, and enhance the performance of local governments without (or less) money. Therefore, the establishment and development of the actively promoted venture capital provident fund has considerable internal motivation for local governments.

#### **4.3. The Internal Motivation of Commercial Banks**

Since China's accession to the WTO, the pace of China's financial market opening has continued to increase, and China's commercial banks are bound to face increased competition with foreign counterparts. China's commercial banking business tradition is mainly deposit and loan business, its profit mainly comes from the deposit and loan spreads and the business model of large companies as credit services, this model is inevitably greatly impacted. Venture capital provident fund loans are intermediate businesses and have the characteristics of low risk, low cost and high profit. Banks can use the credit innovation of venture capital provident fund loans, which not only has low risk and low cost, but also may form new profit growth points, of course, with great internal motivation.

#### **4.4. The Internal Motivation of the Guarantee Company**

The dilemma faced by China's commercial guarantee companies is that "there is no suitable loan guarantee", and large and medium-sized enterprises with good credit directly establish a reliable credit relationship with commercial banks, with little or no commercial guarantee. Small and micro-enterprises with poor creditworthiness are not willing to provide guarantees because of the high risks, so that their guarantee business is difficult to carry out. After joining the venture capital reserve fund, the guarantee company will not only improve its situation, but also obtain a relatively small amount of risk business (confederation fund and government guarantee), which will help the guarantee company's business to become normalized and tracked.

### **5. The Operation Mechanism of Small and Micro-enterprise Venture Capital Provident Fund**

Small and micro enterprise venture capital provident fund is a cooperative economic organization focusing on "future itself" financing. The key to the operation of small and micro enterprise venture capital provident fund is the design of sustainable development incentive compatibility system and the stable cooperation between members.

#### **5.1. Daily Management**

Under the guidance of the local government (prefecture-level), the small and micro enterprise venture capital provident fund center is responsible for daily operation management and responsible for specific business activities. Mainly for residents and small and micro

enterprises to join the venture capital reserve review, loan applications and repayments, the preservation and appreciation of the provident fund and other activities.

## **5.2. Membership Management**

Chinese residents and small and micro enterprises applied for it, and after being examined and approved by small and micro-Enterprise Venture Capital Provident Fund, they were absorbed as members of the venture capital reserve fund.

## **5.3. Loan Management**

Only provide loans to residents of the Fund and members of small and micro enterprises. The residents or members of the company shall submit the loan plan and relevant information (the key is to carry out the qualification certificate of the industry, the contract of the previous project and the certificate of capital contribution, and the three internal funds of the provident fund. The loan member guarantee certificate or the guarantee company's guarantee certificate), and then publicized, if there is no objection, the guarantee is provided by the banking institution inside the venture capital fund. Of course, the auditing and approval department of the provident fund loan must strictly control, prevent and less risk.

## **5.4. Internal Supervision and Management**

The venture capital reserve fund should strengthen internal supervision and management, strengthen accounting and management, pay attention to the education and training of CPF staff, strictly enforce professional norms, implement clear accountability system, improve business management information system, and improve the management means and level of venture capital provident fund.

## **6. Risk Control of Small and Micro Enterprise/ Venture Capital Provident Fund**

The small and micro enterprise venture capital provident fund is mainly based on the financing of "future self", supplemented by cooperation, and the loan requires "project mortgage loan" and requires residents or enterprise guarantee. This greatly reduces the risk of loans, makes up for the shortcomings of the traditional guarantee model, and has unique advantages for controlling risks.

### **6.1. Funding for "Future Self", Which has Largely Realized Risk Self-bearing**

Like a housing provident fund, a VC fund member must pay a certain amount before financing (or a payment period of 3 years) before financing, and after a 1-2-year buffer period, the principal and interest must be repaid monthly (of course, Paying the original venture capital reserve), this is financing the future, for today's development, and achieving risk self-responsibility.

### **6.2. Implementing Project Mortgage Loans Reduces the Risk of Financing.**

When the members of the provident fund are financing, they also implement the "project mortgage loan". For example, residents (or small and micro enterprises) are prepared to start a business (or financing). First, they must provide proof of relevant qualifications, and have a business plan report, and issue a certain amount of money (1/5) of the previous venture capital investment certificate (if there is corresponding Business place, equipment purchase contract). The use of project mortgages not only has considerable asset collateral, but also has a clear target for entrepreneurship (or investment). In addition, because residents, provident funds, and banks are more familiar in the same region, information transmission between enterprises, institutions, and governments is easy, and a certain range of "acquaintance communities" has

basically been formed. This greatly simplifies the financing risk assessment and reduces the cost of credit evaluation.

### 6.3. The Advantage of Multiple Guarantees

In the "Venture Investment Provident Fund" guarantee model, the implementation of multiple guarantee modes for residents (or small and micro enterprises) project mortgage, mutual insurance, government and institutional guarantees greatly reduces the financing risk, not only meets the financing needs of small and micro enterprises, it also effectively reduces the cost of financing small and micro enterprises.

### 6.4. Establish a Risk-sharing Mechanism

Through the establishment of a risk cooperation fund, a risk coordination and sharing mechanism will be formed to achieve a certain proportion of the ratio of risk and risk responsibility of residents (or small and micro enterprises), governments and financial institutions, so that the loan risk of the residents (or small and micro enterprises) can be effectively resolved, and finally the internal rights and responsibilities of the venture capital fund are equalized. Capital.

## 7. Conclusion

In summary, the venture fund realizes the resource integration of the residents (or small and micro enterprises) in the same geographical area. To alleviate the problems caused by information asymmetry, realize the internal control of credit risk of small and micro enterprises, and increase the possibility of small and micro enterprises to obtain credit funds.

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