

## Influencing Factors and Approaches of Public Capital Income under the Guidance Fund Mode

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### ABSTRACT

In order to drive private capital to participate in venture capital investment, public capital takes equity as the incentive, to give private capital profit transfer and compensation when making profits and losses respectively. This form has option characteristics, which make the public capital's income change along with the project value, equity stake negotiation during making profits and losses, and shown its uncertainty. In order to reveal the public capital income and its influencing factors under the guidance fund mode, this paper established the public capital income model under the guidance fund mode, estimated the real option value of the public capital income under the guidance fund mode, and reach a conclusion that when the invested project makes profits, public capital income is only affected by the profit transfer equity share proportion, and if the profit transfer equity is higher, the public capital income will be less; when the invested project suffers losses, public capital income is only affected by the compensation proportion, and if the compensation proportion is higher, the public capital income will be less. When the invested project makes profits, and public capital transferred equity stake proportion is less than compensated equity stake proportion, then the income public capital get will always higher than that under making losses condition; and when the invested project makes profits, and the public capital equity stake transferred profit is more than compensated equity stake proportion, the public capital income will be higher than that in making losses condition only when the invested project value is higher than a certain threshold value; and when the invested project suffers losses, and the public capital transferred profit is more than compensated proportion, the income that public capital get will be higher than that in making profit condition only when invested project value is higher than another threshold value. Finally, this paper will further verify this conclusion according to related numerical simulation.

**Keywords:** private capital, guidance fund, profit transfer, compensation proportion, public capital

### INTRODUCTION

The lasting vigor of Chinese economy development cannot live without innovative medium and small enterprises' development. As the effective solution of innovative medium and small enterprise financing market failure, setting up public capital guidance fund, which is the policy funds that set up and operate according to marketization mode, which mainly through assisting venture capital development, to guide the social funds into venture capital investment fields, and to boost sci-tech innovation development, and have won successes in most countries and regions, e.g. Israel, Singapore and Tai Wan, etc. All the continuous economic increase that are driven by fast development of the hi-tech industry, are attributed to the venture capital investment project support which is initiated by public capital.

### Contribution of this paper to the literature

- The perfection of that public capital's compensation mechanism for private capital in guiding fund is the very important to drive private capital to participate in venture capital investment. However, the form and the quantity of public capital's compensation mode are still not clearly. This paper, based on option characteristics of public capital's compensation mode, established the public capital income model under guidance fund, estimated the real option value of the public capital income, revealed public capital income and transferred equity stake proportion to private capital and their influencing factors under guidance fund mode, from uncertainty point of view provided basis for investment decision-making for the public capital.

To support the innovative medium and small enterprises that took a ground-breaking innovative leading role, to solve their financing difficulties, and to specify their financing channels, beginning from year 2005, up to now, Chinese government successively published "Venture Capital Investment Enterprise Management Temporary Rules", "Guiding Opinion on Venture Capital Guidance Fund Standard Setup and Operation", "Sci-Tech Department's Comments on Further Encouraging and Guiding Private Capital Enter Sci-tech Innovation Fields", and other series rules and regulations such as "Innovation Guidance Fund Management Provisions" published by each local government, to gradually make clear each basic mechanism of the guidance fund such as setup, operation, excitation, exit, and cleared the regulation obstacles for private capital on entering sci-tech field. Thus, the scale of leading private capital to participate in venture capital via the guidance fund realized leap-forward development.

Along with the economy structure entering into deep adjustment period, sci-tech innovation is in the core position of the China development, and the needs of public capital on exciting private capital entering into sci-tech innovation fields is increasing, however, the real situation is that there is no effective solution for the conflict between profit-driven private capital and non-profit guidance fund, especially after the world finance crisis shock in year 2008, the economy is in sluggish situation for a long period, and the profit-driven private capital commonly took evading attitude toward the uncertain sci-tech innovation project, investment on sci-tech innovation field was more cautious, especially in year 2012, the private investment in domestic venture capital fund pool reduced 4 percentage compared with year 2011, which is the lowest during year 2007~2012. The guidance fund became more and more popular, but it still cannot effectively guide the private capital. Chinese government guidance fund risk compensation strength is not enough, cannot realize private capital excitation is one of the important reasons.

In order to compensate the investment risk for private capital, usually the public capital has loss compensation, income compensation, public capital stable income and other various composite compensation modes (see [Table 1](#)). The reason that many foreign guidance fund can succeed, is having direct relations with its flexible investment policy and risk compensation mechanism.

Through public capital investment portion and private capital compensation modes comparison of Australian, British and Chinese guidance fund we can see that those successful foreign innovation guidance funds, the public capital investment portion and profit transfer scope for private capital are large, however, in Chinese provincial guidance fund, public capital investment portion is small, and the need to excite private capital is large, comparatively public capital mostly take short-term (3-5 years) stable income plus same share same equity mode for risk compensation. The lock-up period of venture capital investment usually more than 8 years, and cannot get considerable profit in 3-5 years, so that the guidance fund compensating private capital in stable income form in short-term cannot realize the expected excitation effect. Under current economy environment, if public capital would like to realize innovation project to push the reaction chain of industry upgrade, structure adjustment, and national economy transformation, the guidance fund still need to fulfill its action mechanism, especially the risk compensation mechanism. All of these have very important realistic meaning for guidance fund to give full play to its guidance effect and leverage effect.

Through comparison between Chinese and foreign public capital, we can make a conclusion that public capital need to implement excitation measures to the private capital to realize its driven effect. Usually the profit transfer when making profit, and compensation when making loss, are the common public capital excitation measures. From [Table 1](#) we can also see that, when foreign (Australian, British) successful innovation guidance fund were setting up, the public capital investment proportion and its profit transfer scale to private capital are large. For domestic provincial guidance fund, the public capital investment proportion is small, the excitation need to private capital is large.

**Table 1.** Comparison between Guidance Fund Investment and Income Proportion

	Share Participation	Income Distribution Plan
Australia	IIF 66%	Private Investor get 90% Excess Profit <b>(Income compensation)</b>
	PSF 70%	25% of investment income <b>(Income compensation)</b>
Britain	VC 66%	Sub-fund excess profit 20%, also provide 20% loss compensation <b>(Composite compensation: compensation when making profit+ compensation when in loss)</b>
China	Beijing 30%	Transfer according to original investment amount in 3 years 3 years to duration end, original investment amount plus 1-year loan standard interest rate; Duration expire will be principal plus equity income <b>(3-year stable income)</b>
	Jiang Su 30%	Other shareholders purchase the equity of public capital share in negotiated discount price in duration, and when expired should be same share same equity. <b>(stable income in duration)</b>
	Hei Long jiang 30%	Transfer according to original investment amount in 3 years After 3 years will transfer according to market equity price <b>(stable income in 3 years)</b>
	Shan Dong 35%	Principal plus interest in 5 years, interest rate refer to corresponding public debt or bank loan interest rate, will be same share same equity after 5 years, and collect risk preserve fund from income to establish risk compensation mechanism. <b>(stable income in 5 years)</b>
	An Hui 30%	80% of total income, distribute according to the investment proportion; 20% is for fund management agency, investment in province, the public capital income will encourage to the fund management agency; and when investment lose, will be given 30% of the loss, the maximum compensation should be 10 million Yuan. <b>(Composite compensation: compensation when making profit+ compensation when in loss)</b>

Data Source: Cumming (2007, 2009), Liu Jian jun (2006), "Beijing Medium & Small Enterprise Venture Capital Investment Guidance Fund Implement Temporary Measures", "Jiang Su Province New Industry Venture Capital Investment Guidance Fund Management Measures", "An Hui Province Venture Capital (Risk) Investment Guidance Fund Implement Measures", "Hei Long jiang Province Venture Capital Investment Government Guidance Fund Management Measures", "Shan Dong Province-Level Venture Capital Investment Guidance Fund Management Measures".

However, the public capital's risk compensation mostly take comparatively short (3-5 year) duration, stable income, same share same equity, which cannot reach the expected excitation effect. Under current economy environment, the action mechanism of guidance fund needs further be fulfilled, especially the risk compensation mechanism, which has very important realistic meaning to the implement of the guidance effect and leverage effect of the guidance fund.

This paper makes research on public capital income change curve and its affected factors, which has not been paid much attention in former researches. The revealing of this issue can help realize public capital value increase, give full play to the long-term guidance effect of public capital, and has scientific value for public capital's policy of exciting private capital to participate in innovation investment.

## LITERATURE REVIEW

Guidance fund derives from US SBIR project, and won significant success at that time, thereafter, many countries such as Israel, New Zealand, Canada, the European Union, and even India, China, and other Asian countries all actively search for the mode of public capital getting involved in venture capital investment, and the operation result mingled hope and fear. Therefore, whether public capital participation can draw active effect on national venture capital investment fund pool enlargement, whether public capital can have crowding-out effect on private capital participate in innovation field, how public capital affect investment project effect will draw people's attention and consideration. Scholars hope through answering these questions to find the advantage and limitation of public capital participation, and also try to through the research to provide scientific suggestions for questions such as public capital participation form, guidance fund operation mode, and investment field chosen.

**Analysis of guidance fund operation variables chosen impact on fund operation effect.** Cumming (2002) made a research on Canada Labour-Sponsored Venture Capital Companies (LSVCCs) project, and used the variables of financing business's characters (phase participation, joint investment, convertible bond), innovation enterprise's character (hi-tech, development phase), venture capital investment fund's character (fund-raising

amount, duration, management project quantity), venture capital investment fund type (corporation, limited corporation, public capital setup, agency, LSVCCS), and according to the statistical analysis on 214 samples, we can make a conclusion that the value-added service amount LSVCCs can provide is limited, and this will affect the fund operation result to some extent. Furthermore, Cumming (2007) made a comparison between Australian Innovation investment fund (IIF) project and other Australian venture capital investment fund, and through the analysis on IIF's risk preference on early hi-tech project investment; scale control on phase equity participation, joint investment and every fund manager; and exit effect, we can make a conclusion that IIF is an official channel which can provide convenient innovation enterprise financing. In 2009, Cumming also made systematical analysis on another guidance fund—Pre-Seed public capital venture capital funds (PSFs), and bring forward the important function that the risk compensation mechanism arrangement to guidance fund effect, and finally make the conclusion that PSFs fund will have crowding-out effect on IIF fund.

**Influence effect analysis on public capital initiated VC fund to the invested project.** Lerner (2012) made a comparison on the development change of Jamaica and Singapore from 1860s until now, put forward that public capital policy have many advantages on innovation enterprise development, and make an arrangement on opinion of government intervention have no effect on innovation enterprise development, point out that misunderstandings on government allocation of funds and support and government official's private interest is the restriction factors to realize government intervention effectiveness. Also through the successful Israel and New Zealand case analysis, he put forward the effectiveness and appropriateness standard and principle of public capital investment realizing VC investment enterprise and innovation enterprise development from aspects such as exciting local scientific institute development, avoid public capital positivity out of control, agency problems which cannot be ignored, and cultivate local VC investment market and risk investor. Cumming (2013) made empirical research on relations between establish, die out, risk investment and US current public policy, and the result shows that, low-level labor conflict and high-level SBIR reward are related to more projects' establishment and high average risk investment level.

**Estimation on influence that public capital intervention draws on private capital.** Leleux and Surlemont (2003) selected 8-year panel data of 15 countries, and made analysis on the influence that public capital to VC industry, research shows that public capital need to provide protection for weaker investor to develop comparatively small VC investment industry, and stronger government intervention cannot lead to the weakness of the VC industry, public capital's participation will increase the fund pool of the VC to some extent, however, it cannot effectively solve employment problems. Cumming and Macintosh (2003) made overall comparison for aspects such as VC investment fund distribution in LSVCCs fund and limited partnership mother fund, the investment combination scale of private mother fund and LSVCCs fund, and put forward that the failure of LSVCCs fund is due to non-successive fund-raising procedure, short fund lockup period, weak management level, also mentioned that tax compensation made investor gain without pains, which made LSVCCs fund can not realize public capital disbursing effectiveness, and had crowding-out effect on other private investor, and this crowding-out will clearly reduce the total amount of the fund pool. According to data came from Australia, Brazil, Canada, India and Israel, Brander, Duand and Hellmann (2010) made a conclusion that when public capital participated in VC together with private capital, total investment amount is much higher, public & private capital are not crowding-out but complementary; they also made another conclusion that there are positive relations between public capital and private capital composite investment and successful exit, while there are negative relations between pure public capital investment and successful exit; also, the influence public capital to investment agency takes investment amount as the control variables.

**Research on risk compensation approaches public capital to private capital and its excitation effect.** Meng Weidong, Wang Liming and Xiong Weiqin (2010) compared the excitation strength for four compensation mechanisms—minimum loss, loss compensation, income compensation and risk/income exclusive right (i.e. public capital stable income) that public capital to private capital through solving optimal investment maneuver of private capital investment in VC investment fund, and made a conclusion that when the expected income of VC fund is not enough to attract enough private investment, the compensation that public capital to private capital is essential, also they point out that will have excitation reaction for the loss of private capital, and income compensation is prompt to have the opposite effect. Xiong Weiqin (2013) made analysis on three compensation ways of loss compensation, income compensation and public capital stable income in the excitation theory analysis frame, and he thought that loss compensation will weaken the excitation to the enterprise investor, and will make against increasing VC investment efficiency and scale, while income compensation and public capital stable income compensation will promote the VC investment cooperation relations, and will have same excitation effect for the scale and efficiency of VC investment.

**Simulation estimation for adjusting capability of public capital on financing market invalid field.** Mikko, Markku and Gordon (2007) thought that when public capital make reactions for failed innovation financing market, public capital and private capital together composite the VC investment fund and commit it to professional fund

management agency for operation is an effective form. They use dynamic simulation to profit distribution and performance salary arrangement of public capital, private capital and fund management agency in same share same equity, follow-up investment (public capital come first, and private investor later), stable income, income compensation, and loss compensation, to make research on profit distribution and fund management agency's remuneration structure when public capital and private capital together participated VC fund; policy maker use these structure to increase the expected income capability in the invalid field in the financing market, to attract private capital and fund management agency, finally make a conclusion that compared with other modes, follow-up investment mode will have best income effect on limited partner, and will be the most attracted mode in market failure. They also put forward that the asymmetry profit distribution structure of public capital transferred profit can only solve the comparatively gentle market failure, except that the project can attract capable fund management agency to make a total income high than the average level.

In the stock market or bond market uncertainty or utility research has been relatively rich, such as Wen et al. (2014), Liu et al. (2014). Wen, F., He, Z., Dai, Z., Yang, X. (2014), the public capital and private capital in the form of joint investment due to the particularity of its investment form, uncertainty about the specific investment research compare deficient, this also is this article to solve the problem.

## METHODOLOGY

### Public capital Risk Compensation Mode Composite Option Model

#### *Basic hypothesis*

In order to build fund compensation mode under public capital and private capital joint investment, here we will provide the basic hypothesis and simplified form of compensation mode that public capital to private capital, and will make this simplified form has the popularity.

#### *Public capital income option model*

Through the public capital investment and income procedure analysis we can see that, in order to excite the private capital to participate in VC investment, the public capital transfer profit to private capital when investment is making profit (investment income is more than investment cost). At this time, public capital transferred  $a$  share of equity stake from original equity stake distribution proportion; meanwhile, due to the uncertainty of the innovation enterprise, public capital will compensate  $b$  share of equity stake to the private capital from original equity stake distribution proportion when the investment is making loss (investment income is less than investment cost), to reduce the private capital investment risk. From the above we can see that the income that public capital got from the guidance fund investment has option character.

#### *Public capital income option model analysis*

Under public capital's excitation measures, the public capital income will have the turn over when  $V_t = M$  (investment income is equivalent to the cost). From [Figure 2](#) we can see that the turn over extent is depend on public capital profit transfer extent. The more the profit transferred, the smaller the public capital income, even in certain range, it will be less than the income got when the investment is making loss.

## RESULTS

See [Figure 1](#), public capital and private capital together invested to form the VC fund, which is entrusted to fund management agency for management, and then the fund management agency will invest the fund into innovation enterprise. The innovation enterprise will have two operation situations – good or bad, and the investor (including public capital and private capital) get income, and when, the investment will get profit, and public capital will award private capital  $a$  share of equity stake, and public capital will get  $(e - a)$  share of equity stake, among which, if , the investment will making loss, then public capital will compensate private capital  $b$  share of equity stake, and public capital will get  $(e - b)$  share of equity stake. For easy calculation, here we ignore the time value of public capital and private investment, which will not affect our conclusion.

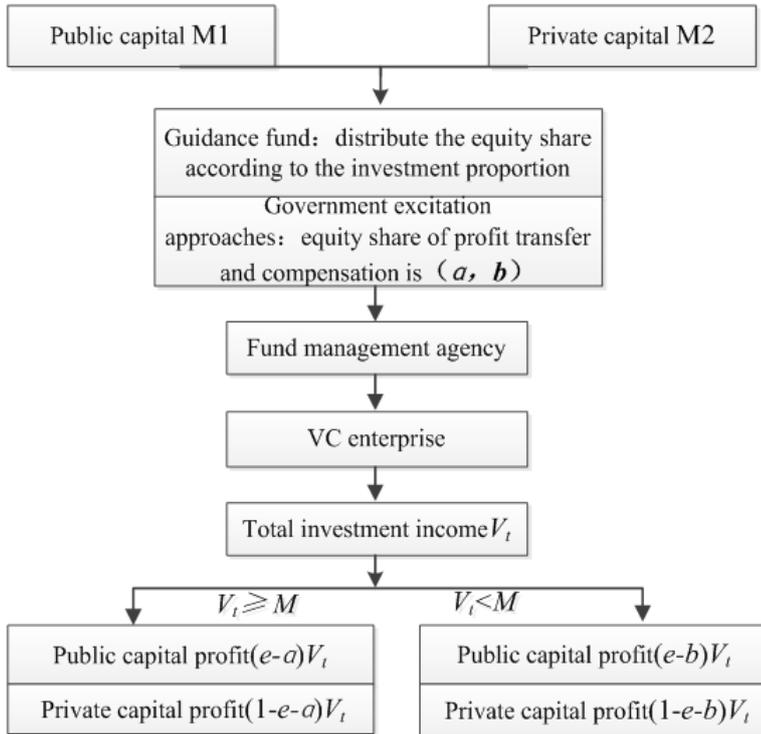


Figure 1. Public capital Investment and Income Procedure

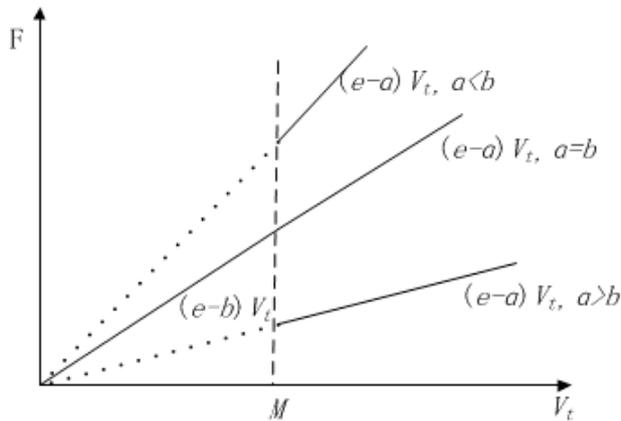


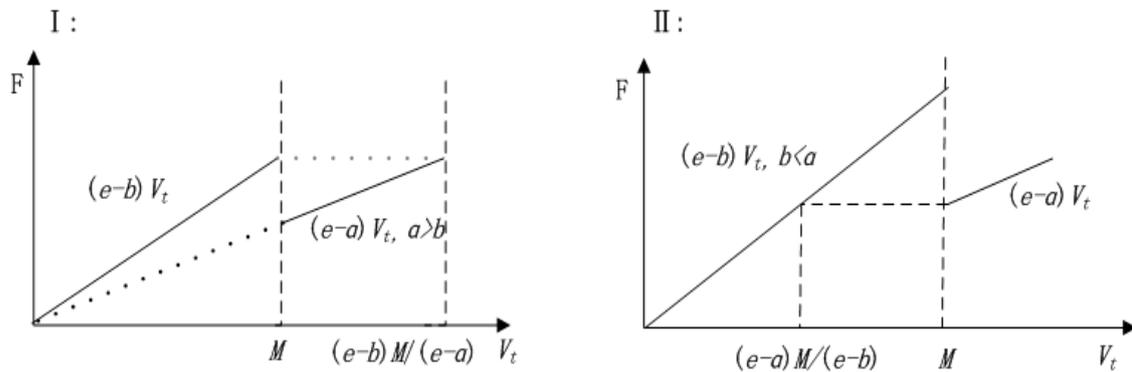
Figure 2. Public capital Income Diagram

Public capital will get income as the following form;

$$F(V_t) = \max((e - a)(V_t - M), 0) - \max((e - b)(M - V_t), 0) + \frac{IA}{V_t - M} (e - a)M + \frac{IA}{M - V_t} (e - b)M$$

where,

$$F(V_t) = \max((e - a)(V_t - M), 0) - \max((e - b)(M - V_t), 0) + \frac{(e - a)M}{V_t - M} \max((V_t - M), 0) + \frac{(e - b)M}{V_t - M} \max((M - V_t), 0)$$



**Figure 3.** Public capital Income Making Profit/Loss Turn Over Diagram

**Proposition 1:** Public capital income have been affected by total investment income, and also affected by profit transfer and compensated equity stake proportion,

When the invested project is making profit, and the public capital profit transfer proportion is less than compensation proportion, the income that public capital can get will always higher than that is under making loss condition.

When the invested project is making profit, and public capital profit transfer is more than compensation proportion, public capital can get more income than that is under making loss condition only when the value of the invested project is higher than the threshold value  $(e - b)M / (e - a)$ .

When the invested project is making loss, and public capital profit transfer is more than compensation proportion, public capital can get more income than that is under making profit condition only when the value of the invested project is higher than threshold value  $(e - a)M / (e - b)$ .

**Proof:** From **Figure 3** we can see that, when , the investment is making profit, the income the public capital can get is  $(e - a)V_t$ , and when  $a > b$ , the profit transfer that the public capital made to private capital is higher than risk compensation proportion, so from **Figure 3 (I)**,we can see that, when  $M < V_t < (e - b)M / (e - a)$ , though the investment is making profit, the income that public capital can get will be less than the highest income level under making loss condition, and only when  $V_t > (e - b)M / (e - a)$ , the income the public capital can get will be more than that is under making loss condition.

When, the investment is making loss, and the income the public capital got is  $(e - b)V_t$ , when  $b < a$ , the income profit transfer the public capital made to the private capital is higher than risk compensation proportion, so we can see from **Figure 3 (II)**, when  $\frac{(e - a)M}{e - b} < V_t < M$ , though the investment is making loss, the income the public capital can get will be higher than the lowest income level under making profit condition.

**Proposition2:** Suppose venture enterprise project value is following  $dV_t = V_t(\alpha + \delta)dt + V_t\rho\sigma dB_t$ , where  $r$  is no-risk interest,  $\lambda$  is venture market price,  $\alpha$  is drift rate,  $V_t^2\sigma^2$  is transient square deviation,  $B_t$  is standard Wiener process,  $\delta$  is venture capital investment agency added role value.

Thus the public capital real option value is:

$$p_t = p_1(V_0, 0) = (V_0 + (e - a)M)N(d_1) - MN(d_2)$$

where:

$$d_1 = \left[ \ln \frac{V_0}{K} + \left( r + \frac{1}{2}\sigma^2 \right) T \right] / \sigma\sqrt{T}$$

$$d_2 = \left[ \ln \frac{V_0}{K} + \left( r - \frac{1}{2}\sigma^2 \right) T \right] / \sigma\sqrt{T} = d_1 - \sigma\sqrt{T}$$

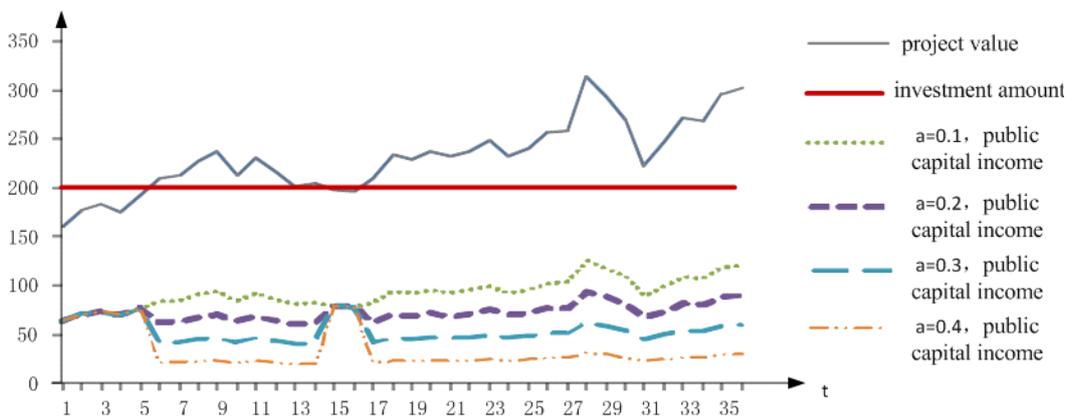


Figure 4. Fixed compensation proportion  $b = 0.1$ , public capital income when the transferred profit proportion is changed

Proof: because

$$\begin{aligned}
 F(v_t) &= \max((e - a)(V_t - M), 0) - \max((e - b)(M - V_t), 0) + \begin{matrix} IA & (e - a)M \\ V_t - M \geq 0 \end{matrix} \\
 &+ \begin{matrix} IA & (e - b)M \\ M - V_t \geq 0 \end{matrix} \\
 &= (e - b)(V_t - M) + \max((e - a)(V_t - M), 0) \\
 &- \max((e - b)(V_t - M), 0) + \begin{matrix} IA & (e - a)M + (e - b)M \\ V_t - M \geq 0 \end{matrix} \\
 &- \begin{matrix} IA & (e - b)M \\ V_t - M \geq 0 \end{matrix} \\
 &= (e - b)V_t + (b - a)\max(V_t - M, 0) + \begin{matrix} IA & (b - a)M \\ V_t - M \geq 0 \end{matrix}
 \end{aligned}$$

According to the option pricing formation we can get that:

$$p_1 = p_1(V_0, 0) = (e - b)V_0 + (b - a)[(V_0 + M)N(d_1) - MN(d_2)]$$

At this time

$$\begin{aligned}
 d_1 &= d_1 = \frac{\left[ \ln \frac{V_0}{K} + \left( r + \frac{1}{2} \sigma^2 \right) T \right]}{\sigma \sqrt{T}} \\
 d_2 &= d_1 = \frac{\left[ \ln \frac{V_0}{K} + \left( r - \frac{1}{2} \sigma^2 \right) T \right]}{\sigma \sqrt{T}} = d_1 - \sigma \sqrt{T}
 \end{aligned}$$

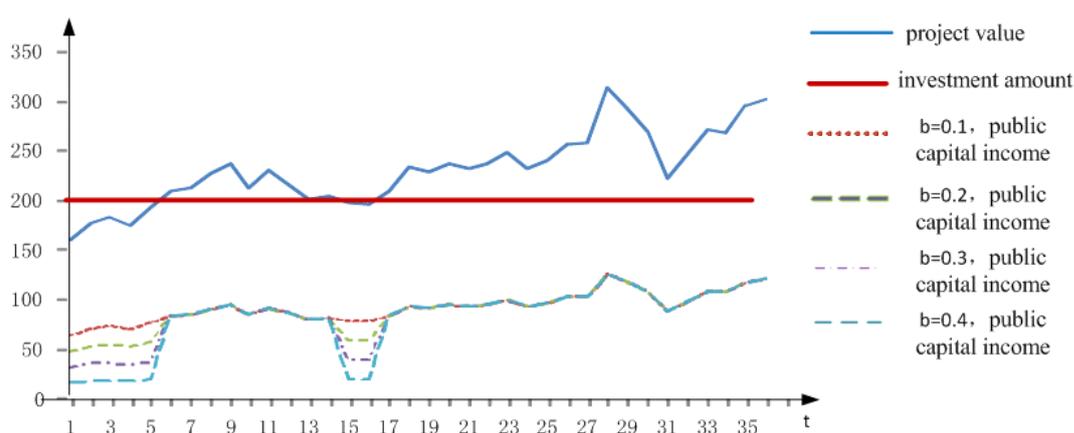
**Calculation Example**

According to proposition 2, make  $a = 0.3$ ,  $V_0 = 200$ ,  $\alpha + \delta = 0.00001$ ,  $e = 0.5$   
 $\sigma = 0.2$ ,  $c = 0.6$ , then:

According to the analysis to Figure 4 and 5, under the guidance fund mode, the public capital income shown its uncertainty, also we can get that:

In order to excite private capital to participate in VC investment, public capital cannot only get fixed equity stake in VC investment, but also release equity stake to private capital both when making profit and loss. This shows the non-profit character of public capital investment in VC enterprise which gave full play to its guidance effect. Public capital income is together affected by the project value and released equity stake.

When the invested project is making loss, no matter how big the public capital's profit transfer proportion, the public capital income is only related to loss compensation proportion, and with no relation with profit transfer proportion. The more the compensation, the lower is the public capital income. When the invested project is making profit, the public capital income is only related to, and with no relation with loss compensation proportion. The more the profit transfer proportion, the lower is the public capital income. This is because that when the investment is in different areas of making loss and profit, public capital's equity stake profit transfer and risk subsidy will



**Figure 5.** Fixed transferred profit proportion  $a = 0.1$ , public capital income when the compensation proportion is changed

appear respectively, so that the public capital income will be affected by equity stake profit transfer proportion and equity stake compensation proportion in making profit and loss areas respectively.

Based on this, when setting excitation measures for private capital, public capital needs to consider both the excitation to private capital and the added value of the fund and use it with high efficiency. When the prospect of the invested project is ideal, private capital's focus is to get more equity stake when making profit.

## DISCUSSION

Through comparison of Chinese and foreign public capital, this paper made the conclusion that public capital needs to implement excitation measures, transfer profit and make compensation to private capital, to give full play to its driving effect. These compensation modes are actually public capital made to private capital when certain conditions are triggered. From the public capital point of view, it is when VC fund income reaches the trigger condition, different income the public capital can get under different opportunities, which has the real option character (Wen et al. (2014), Liu et al. (2014)). However, the existing research didn't pay much attention to risk compensation. This paper made research on the public capital income variation curve under these excitation measures, and made the following conclusion:

In order to drive private capital to participate in VC investment (Cumming 2007), public capital will release equity stake to private capital when the invested project is making profit or loss. This form has an option character, which made public capital income change along with the project value and the transferred equity stake size under making profit or loss conditions, which indicates the uncertainty.

Usually it was thought that the higher the transferred equity stake, the less the income the public capital can get. However, this is not true. When the value of the invested project is making profit, there is no relation between public capital income and compensation proportion, and will only be affected by the profit transfer, the higher the profit transfer equity is, the less the public capital income; when the invested project is making loss, there is no relation between public capital income and transferred profit equity stake proportion, and will only be affected by the compensation proportion, the higher the compensation proportion is, the less the public capital income.

When the invested project is making profit, and public capital profit transfer proportion is less than compensation proportion, the public capital income will always be higher than that under making loss condition; and when the invested project is making profit, and public capital profit transfer proportion is more than compensation proportion, the public capital can get higher income than that under making loss condition only when the value of the invested project is higher than a certain threshold value; and when the invested project is making loss, and public capital profit transfer is higher than compensation proportion, the public capital can get higher income than that under making profit condition only when the invested project value is higher than another threshold value.

## CONCLUSIONS

This paper made estimation on the option value of public capital income under the guidance fund mode, from uncertainty point of view, provide basis for investment decision-making for the public capital. This paper also had some deficiency, such as didn't consider about the time value of the investment, only indicates the excitation that public capital provide to the private capital from equity release point of view. There are many excitation methods that public capital can apply to private capital, and this will have further development in future research.

## RECOMMENDATIONS

Public capital should be cautious when designing the profit transfer proportion, and to seek balance between driving private capital and adding value to public capital. When the prospect of the invested project is with high uncertainty, the focus of private capital is on loss attempt, at this time, public capital excitation policy should be more cautious, because if public capital always caters to the requirements of the private capital, it may probably cause public capital drain, which will affect the sustainability of the public capital's guidance action. However, it should also be paid much attention that, not the higher the profit transfer and compensation level, the lower the income that public capital can get.

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