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The impact of the Growth of High-tech companies on Investment income: a study in China

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Abstract:
In China, private equity investment plays an important role in economic growth, and high-tech enterprises are also an important force to promote China's economy. There is a certain connection between the two. With the characteristics of high growth and high return, high-tech enterprises attract the attention of private equity investment. Based on this, this paper focuses on the research on equity investment and enterprise growth of China's gem high-tech enterprises. First, what is the relationship between equity investment, enterprise growth and investment income? The results of equity investment are affected by many factors, not all equity investments can get returns; No matter how excellent and powerful the company is, it may also produce low performance due to the inability to achieve "scale effect". Therefore, this paper studies the relationship between equity investment, enterprise growth and investment income. Second, what is the relationship between equity investment, enterprise growth and internal control? The industry should promote the establishment of a benign investment mechanism in the industry market, guide the society to have a correct understanding of the industry, improve the investment income level of the industry by virtue of the implementation of preferential policies, and reduce the industry risk by using the market-oriented credit mechanism; PE investors should grasp both enterprise growth and internal control.

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INTRODUCTION

Due to the problems of small scale and low credit, the high-tech enterprises listed in GEM are faced with the difficulties of large capital demand, lack of financing channels and high financing cost. Private equity fund is the main driving force for the development of high-tech enterprises listed on the GEM. Based on this, when PE invests in GEM high-tech enterprises, the path and result of the impact of enterprise growth on investment income are the focus of this paper. The purpose of this paper is to sort out the relationship between equity investment, enterprise growth, internal control and investment income. Under the environment of the overall economic downturn and the increasing trend of "financialization" in economic operation, the control of governance structure increases and the scale of equity investment in China decreases. Private equity (PE) is gradually regarded as a new force in the international capital market due to its rapid development. For this reason, local governments in China have issued support policies for private equity funds to encourage and guide the development of private equity funds. The outbreak of COVID-19 has stimulated the market demand of in GEM high-tech industry, attracted relevant equity investment to pay attention to high-tech enterprises listed on GEM, and alleviated the shrinking market size of the whole investment industry to a certain extent.

Macroeconomic background

Looking back at 2019, global trade conflicts have been repeated, market uncertainty has increased, the global economy has been shrouded in clouds, and the global economic trend has changed from "potential downward" to "actual downward", recording the lowest growth rate since the financial crisis in 2008. As shown in Figure. 1-1.

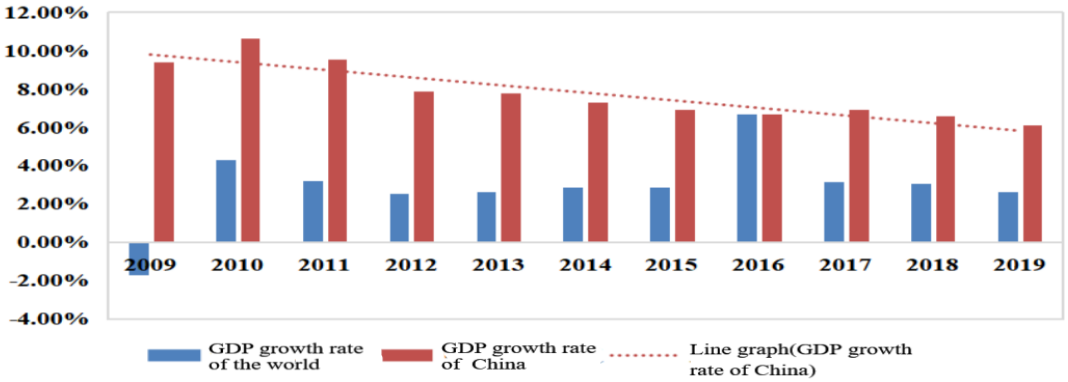

Figure 0-1 Annual GDP growth rate of the world and China from 2009 to 2019

With the decline of GDP growth rate, the economic operation is increasingly showing a trend of "financialization". The market economy is gradually shifting from a entity-driven phase to a financial-driven phase, which is characterized by high liquidity, low growth, low inflation and high bubbles. Since the financial crisis in 2008, the world's central banks have continued to inject a large amount of liquidity into the market. Although the global economy has recovered, the recovery is not strong and the growth rate is always lower than the pre-crisis average. Against the background of weak demand in the real economy, high liquidity did not push up inflation levels in major countries. Instead, funds flowed to capital markets, leading to the gradual accumulation of financial systemic risks of repeated record highs in major stock indexes and high government and private debt. In terms of investment, the market size of China's equity investment industry has experienced fluctuations in the past five years, with 1366.4 billion Yuan in 2015 decreasing to 1109.6 billion Yuan in 2019, with a compound annual growth rate of 5.1% . As shown in Table 1-2.

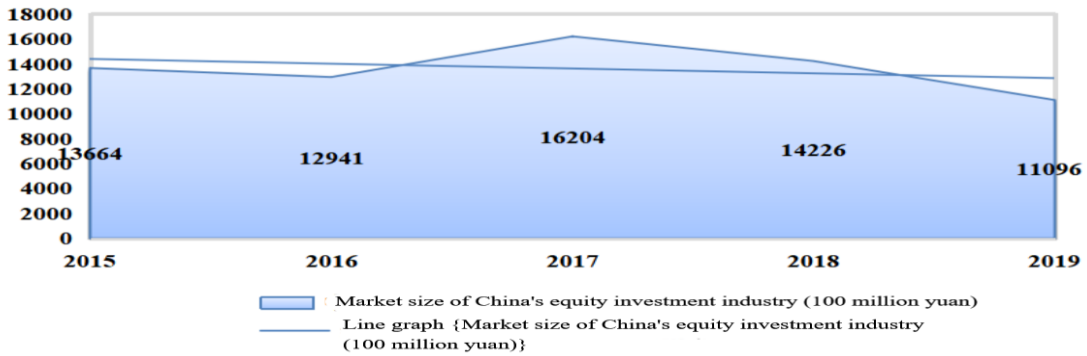

Figure 0-2 Market scale of China's equity investment industry from 2015 to 2019(100 million Yuan)

Since 2018, the decrease in equity investment is mainly due to the decrease in fund raising in the equity investment industry, the lack of sufficient investment projects with good prospects, the increasingly strict and perfect regulatory environment, the risk aversion attitude and the low investment income expectation of institutional investors due to the downturn in the secondary market. In addition, the outbreak of COVID-19 has had an overall negative impact on business operations and social life. Measures taken by the Chinese government nationwide, including city closures, compulsory isolation, travel restrictions and temporary business closures or restrictions, may have a negative impact on the equity investment industry in the short term, resulting in temporary suspension or other restrictions on business transactions and other activities. However, the outbreak of COVID-9 has led to the expansion of high-tech industries listed on GEM (such as medical industry and Internet-related business), which can encourage relevant equity investment and partially offset the contraction of the market size of the entire industry.

The outbreak of COVID-19 during the spring Festival in 2020 has brought a certain impact on China's economic development. However, under the support of information and communication technologies represented by artificial intelligence, big data, cloud computing, Internet of Things, etc., Emerging technologies such as remote office, remote education, online medical care, online games, unmanned distribution, etc., have risen at an unexpected speed under the pressure of major epidemics. In addition, the United States' efforts to crack down on China's core enterprises, key technologies and major projects in the fields of high-tech and high-end manufacturing has not affected China's major breakthroughs in the high-tech field and the export of high-tech products in the slightest. The details are shown in Figure 1-4.

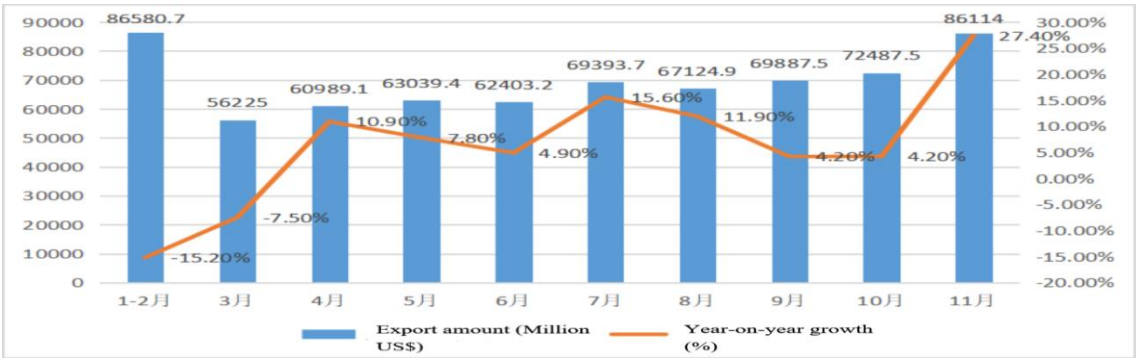

Figure 0-3 Export volume and growth of China's high-tech products from January to November 2020

The formation of such a good development momentum of high-tech industry is due to the state's high attention to high-tech industry, the in-depth promotion of supply-side structural reform, and the in-depth implementation of innovation-driven development strategy. High-tech industry has formed a development pattern of government guidance, market leading and virtuous interaction between production, teaching and research. Despite the downward pressure on the economy, the development of high-tech industries has indeed entered a new spring.

Problem Statement

Since the reform and opening up, after years of development, China's economic development has entered a stable period, but with the reduction of demographic dividend, the marginal benefit of capital gradually decreases, and the economy has entered a new normal, China is facing a critical period of transformation of new and old kinetic energy (Wang et. Al 2020). As a knowledge and technology intensive industry, high-tech industry is the main body driven by innovation in a country or region, which can bring great promotion to economic and scientific and technological development and continuously attract the attention of capital market investors. However, there are some problems that cannot be ignored in private investment in high-tech enterprises listed on GEM. Equity investment: Equity investment has become an investment field that the capital market pays more and more attention to. First, equity investment has a broad choice space advantage. There are more than 1000 high-tech enterprises on China's Growth Enterprise Market every year. Compared with the general investment loss phenomenon caused by the trend of investment synchronization in Shanghai and Shenzhen exchanges, equity investment is in an advantageous position in terms of choice and income (Liu et al 2016).

Research Question

Based on the above background analysis and problem statement, in the face of the COVID-19, the investment community has increased the attention to GEM high-tech enterprises. Only the high-tech enterprises listed on GEM with strong development potential can be favored by investors among many competitors, obtain private equity investment, and win development funds for themselves. Therefore, the research object of this paper selects high-tech enterprises listed on China's GEM. This paper mainly focuses on the core issue of "how does private equity investment and the growth of high-tech enterprises listed on GEM affect the return of private equity investment in the environment of global economic downturn?" specifically, the following problems will be solved: What is the relationship between equity investment, enterprise growth and investment income?

Research Objective

This paper mainly studies the impact of growth of high-tech enterprises listed on GEM and private equity investment on investment income. For the high-tech enterprises listed on GEM, the domestic and foreign research on private equity investment and internal control has achieved a series of valuable research results, and the theoretical discussion on investment income has also been mature, but as far as the influence mechanism of internal control on investment income is concerned, the growth of high-tech enterprises listed on GEM has not been comprehensively considered, so it cannot provide investment suggestions for private equity investment institutions. Therefore, this paper analyzes the mechanism of action between equity investment, growth and investment income of high-tech enterprises listed on GEM by combining theoretical analysis and empirical research, and on this basis, provides path and strategy suggestions for private equity investment institutions in China to improve

investment income in the environment of global economic recession and increased governance structure control.

LITERATURE REVIEW

In recent years, China's high-tech industry has maintained a steady and rapid development, technological innovation has become more active, and preliminary progress has been made in cultivating and developing strategic emerging industries. China's private equity investment has become an important force in promoting China's economic development, and its amazing growth rate has written one after another myth that has amazed the world. In the multi-level capital market, Growth Enterprise Market (GEM) is an important measure for the state to guide the financial system to support the development of science and technology and encourage and support social investment, which provides an important supporting role for the development of independent innovative enterprises and other growth enterprises, and has achieved remarkable results in promoting entrepreneurs' entrepreneurship and enterprise Innovation. Therefore, after the launch of GEM, the topic of private equity investment and the development of high-tech enterprises listed on GEM has undoubtedly become a hot topic in academic and investment circles. Based on the investment theory, information asymmetry theory, innovation-driven theory and enterprise life cycle theory, this paper mainly summarizes the existing relevant literature on enterprise equity investment, enterprise growth, internal control, investment income, etc., defines the main research contents of relevant theories and the possible research directions in the future, and deeply explores the impact of private equity investment on the growth of high-tech enterprises listed on GEM from the theoretical and empirical perspectives. In addition, it also makes thinking and summary of the relevant hypotheses of this paper, laying the groundwork for the empirical analysis later (Zhang et al. 2018).

Investment income

In general, investment income reflects the results of private equity investments. However, the measurement methods of investment income in different industries are not consistent, but through the research of many scholars' viewpoints, it is possible to summarize the definition and measurement methods that conform to the convergence of the investment income of high-tech enterprises on GEM. As for the relevant research of private equity investment, foreign scholars' research on private equity investment income began earlier and the research content is more systematic, mainly focusing on the preservation and appreciation of private equity and the improvement of private equity investment income. As shown in Table 2-1.

Table 0-1 Research on the concept of investment income by foreign scholars

Years	Scholar	Related theories
1993	Drucker	Understand investment income as a comprehensive evaluation of the company's operating capabilities
2006	Chemmanur & Loutskina	Using data from the United Kingdom and France, it is found that the gross profit margin, return on total assets, and sales growth rate of companies with PE support in the three years after listing are higher than those of companies without PE support
2012	Bruton et al.	Using U.S. data from 1980-2009, firms with PE backing can reduce principal-agent risk, and these firms have a trend of better performance after IPO
1995	Gangi & Lombardo	Using data from Italian listed companies from 1995-2014, it is explored that PE improves information transparency and positively affects corporate value
2007	Hadass et al.	Using data from Italian listed companies from 1995-2014, it is explored that PE improves information transparency and positively affects corporate value
2018	Linton	The private equity low-yield investment model should be adjusted to a high-yield portfolio approach, and a high-yield portfolio investment approach should be adopted
2019	Alegre & Chiva	The investment income is defined as the economic result of the company's sales profit in the process of engaging in equity activities

There are also different conclusions in the domestic literature on private equity investment income. Under the current economic situation, China's private equity is facing the problem of difficult investment choice, at the same time, how to choose the appropriate investment client is particularly important (Porter 1997). PE investment will provide advice and suggestions for enterprises in finance, capital, supply chain, production chain and other aspects, which will have an impact on the performance of enterprises' operating income (Yang, 2019). Therefore, the private equity portfolio should be based on the present and make reasonable investment strategies in order to effectively promote economic growth and achieve the investment objectives of private equity (Zheng, 2020). There are also relevant studies by some scholars, as shown in Table 2-2.

Table 0-2 Research on the concept of investment income by domestic scholars

Years	Scholar	Related theories
2011	Jia and Li	Through the relevant data of listed companies on the Shenzhen SME Board from 2004 to 2008, it is found that there is a phenomenon of venture capitalism, i.e., positioning the focus on short-term investment income in order to meet the listing requirements, thus damaging the long-term performance of the enterprise
2012	Wu	Using the data of GEM listed companies as a sample for empirical testing, it is found that companies with PE investment tend to have lower evaluation at the time of IPO, and PE is not able to significantly improve the performance of companies through ex ante selection and ex post supervision
2013	Zhang et al.	Using data on companies listed on the SME and GEM boards as of December 31, 2010, it is concluded that private equity investment is beneficial to increase corporate value
2015	Li et al.	Based on the data of Chinese listed companies from 2008 to 2012 , it is found that the participation of PE has generally increased the corporate value of the invested company at the end of the year when it was listed.
2007	Yang et al.	Using a sample of companies listed on the GEM as of 2014 to examine whether PEs perform their essential functions and findings
2018	Liang	It is concluded that the business performance of listed enterprises with PE participation is significantly better than that of enterprises without PE participation, and PE participation has a significant positive effect on corporate performance

Enterprise growth

Enterprise growth is the ultimate goal of enterprise production and management, the driving factor of the whole industry and the overall economic development, and the core issue of management that academic and industrial circles continue to pay attention to. The service object of GEM is mainly high-tech enterprises listed on GEM. Although foreign scholars' research on the growth of enterprises is getting deeper and deeper with the passage of time, the research on the growth of similar enterprises on GEM is still relatively limited. At present, scholars generally believe that enterprise growth is a sustainable, complex and changeable dynamic development process, which is the internal driving force and core competitiveness to promote enterprise development. Enterprises can continue to grow and optimize resources effectively, and the foundation lies in the ability to grow continuously (Powell, 1997). Business operation is like sailing against the current, if you do not advance, you will fall back. If you want to effectively extend the life of your business, you must make it grow long and lasting. The better the growth of a business, the more outwardly it is manifested in the continued growth of the business (Tunberg, 2014) Therefore, it is necessary to summarize the relevant research literature on enterprise growth and explore the definition of enterprise growth. On the issue of enterprise growth, foreign scholars started earlier. Adam Smith, the founder of classical economics, first defined it. He believed that the professional division of labor in larger enterprises could promote the growth and expansion of enterprises. From the perspective of transaction cost, the New Institutional Economics school thinks that the growth of enterprises originates from the saving of transaction cost. However, both the classical economic school and

the new institutional economic school analyze the factors that affect the growth of enterprises from the perspective of external environment. Since then, the relevant research began to continue to expand. "Enterprise growth" is related to "business growth", which refers to the ability of an enterprise to continuously develop and grow and gradually standardize various management, usually measured by a comprehensive index of sustainability, growth and continuous change (Delmar et al., 1998).

Equity investment

China's private equity investment started in the 1980s, and relying on the development of Zhongguancun, China's Silicon Valley and gradually developed. However, compared with the Western developed countries, China's private equity investment industry started late and the practice of private equity investment is less, which limits the development of theoretical research to a certain extent. Therefore, it is necessary to speed up the relevant research in the field of private equity investment in China on the basis of the relevant research in Western developed countries, to promote the rapid development of private equity investment in China's GEM high-tech enterprises on a national scale.

METHODOLOGY

This paper uses various methods, each method can demonstrate the relevant content of this study, and provide multiple guarantees for the accuracy of the research content.

Firstly, the research methods of this paper are introduced, which include literature research method, questionnaire survey method and empirical analysis method. And according to the actual situation of the development of high-tech enterprises listed on GEM, the paper makes theoretical exploration and empirical analysis by using the methods of literature research, questionnaire survey and empirical analysis. Secondly, this paper defines the variables of investment income, equity investment and enterprise growth, and summarizes and refines the measurement dimensions of the variables on the basis of previous studies. Thirdly, the scale is designed and developed according to the measurement dimensions of investment income, equity investment and enterprise growth. On the basis of the scale, the target population and purpose of the survey are further clarified, the sampling method and sample size are determined, the questionnaire is carefully designed, and the sample data obtained from the questionnaire is used to conduct validity and reliability tests to provide a solid foundation for the empirical tests in the later paper. In addition, the chapter describes the process and results of data collection, mainly introduces the location of the enterprise, the number of employees, whether it is listed, whether it belongs to high-tech enterprises listed on GEM and other information. Finally, this chapter introduces the four methods of descriptive statistical analysis, variable reliability and validity analysis, correlation analysis and regression analysis, and expounds the moral considerations of this dissertation.

Population / Sampling / Unit of Analysis

This paper obtains the required sample data through questionnaire survey, mainly selects the high-tech enterprises listed on China's GEM as the research object, to understand the current situation of the high-tech enterprises listed on GEM in the development process, and the impact of equity investment on their performance. The questionnaires in this paper are mainly issued and collected through online questionnaire filling. The questionnaires are divided into two parts: first, questions on the characteristics of the respondent enterprises, measuring information such as the nature of the enterprise, the region where the enterprise is located, the number of employees, and the total assets of the enterprise; second, measurement of variables related to the research model, including question items on variables such as enterprise equity investment, enterprise growth and investment income. A total of 350 original data samples

were obtained, and 323 valid questionnaires were eliminated, with an effective completion rate of 92.29%.

Design of scale for questionnaire of investment income

Ji (2011) and Lei (2012) both uses return on net assets as a variable of difference comparison when studying the impact of private equity investment on enterprise performance, and consider enterprise performance as an index of enterprise profitability. Tao (2013) used operating profit growth rate, net profit growth rate, net asset growth rate and earnings per share as indicators to measure enterprise performance in the study of the impact of private equity investment on growth enterprises, and the results show that private equity investment can significantly affect the growth of growth enterprises. According to this, this paper integrates the research results of the above scholars, and measures the investment performance from the analysis of investment profitability and operating ability. This study uses the 5-point Likert scale, that is, the problem description for each variable is scored from 1 to 5, where 1 means Strongly disagree, 2 means Disagree, 3 means Neither agree nor disagree, 4 means Agree, 5 means Strongly agree.

Reliability and validity analysis of enterprise growth

According to the design of the scale, this paper expresses the enterprise growth by QYCZ, in which the operational capacity dimension and the development capability dimension are expressed by YY and FZ respectively. This section analyzes the reliability and validity of the enterprise growth. The test results of the reliability are shown in Table 3-8.

Table 0-1 Reliability test results of enterprise growth scale

Dimension	Number of measurement items	Cronbach's alpha coefficient	Reliability
Operational Capacity	3	0.934	Reliable
Development capacity	3	0.933	Reliable

As can be seen from the reliability test results in Table 3-8, the Cronbach's α coefficients of the two dimensions of the enterprise growth scale are above 0.9. Therefore, the measurement results of the enterprise growth scale have reliability, stability and consistency, and also indicate that the data are credible.

The validity test of the enterprise growth scale is conducted by factor analysis of the two dimensions of the enterprise growth scale, and the analysis results are shown in Table 3-9.

Table 0-2 KMO measurement and Bartlett's Test results of enterprise growth

Measurement indicators	KMO	Bartlett's Test Approximate chi-squared value	Degree of freedom	Significance
Measured value	0.840	1798.148	15	0.000

As can be seen from the test results in Table 3-9, the KMO test result of enterprise growth is 0.840 (greater than 0.70), the approximate chi-square distribution of Bartlett's test is 1798.148, the degree of freedom is 15, and the significance level value reaches the significant level ($P=0.000<0.05$), indicating that the data is suitable for factor analysis.

Then, exploratory factor analysis was performed on the enterprise growth scale, as shown in Table 3-10.

FINDINGS & DISCUSSIONS

In this paper, the scales are designed to form the questionnaire, and the questionnaire data is generated by filling in the questionnaire. Therefore, based on the validity and reliability test of the questionnaire, this paper further analyzes the data of the questionnaire to verify the accuracy of the research hypothesis. First, this chapter introduces the respondents of the

questionnaire survey, including the nature of the enterprise where the interviewee is located, the region where the enterprise is located, the number of employees, the total assets of the enterprise and other information, and gives a general introduction to the results of the questionnaire. Secondly, the hypotheses in the research model of this dissertation are tested. These relationship models include: model test of the relationship between equity investment and investment income, model test of the relationship between enterprise growth and investment income. Finally, through the correlation analysis and regression analysis of these relationships, the validity of the hypothesis is verified, and the literature review theory and research findings are discussed. Through correlation analysis and regression analysis, it is known that all the hypotheses in this dissertation are valid. This confirms the previous research model, provides empirical support for the theoretical research of this dissertation, and enriches the content of existing research.

Profile of Respondents

The survey was conducted among the employees and middle and senior managers of high-tech enterprises on China's GEM. 350 questionnaires were distributed, of which 323 were valid, with an effective completion rate of 92.29%. Researchers send web sites to carry out questionnaires with the consent of the respondents. The questionnaire includes the nature of the enterprise, the region where the enterprise is located, the number of employees, the total assets of the enterprise and other information.

(1) Nature of enterprise

In the sample surveyed, there are 18 people whose companies are state-owned enterprises, accounting for 5.57%; 252 people whose companies are private enterprises, accounting for 78.02%; 36 people whose companies are joint ventures, accounting for 11.15% ; There are 17 people in other types of enterprises, accounting for 5.26%. The questionnaire basically covers most of the high-tech enterprises on GEM, as shown in Table 4-1.

Table 0-1 Nature of the enterprises surveyed in the questionnaire

Nature of enterprise	Subtotal	Percentage
State-owned enterprises	18	5.57%
Private enterprises	252	78.02%
Joint Ventures	36	11.15%
Other	17	5.26%
Total	323	100%

(2) Area where the enterprise is located

The respondents of this questionnaire cover most high-tech enterprises on GEM all over the country. The provinces with the largest number of respondents are Guangdong, Beijing, Jiangsu and Zhejiang, accounting for 83.59% in total. These areas are all areas with more high-tech enterprises on GEM, as shown in Figure 4-1.

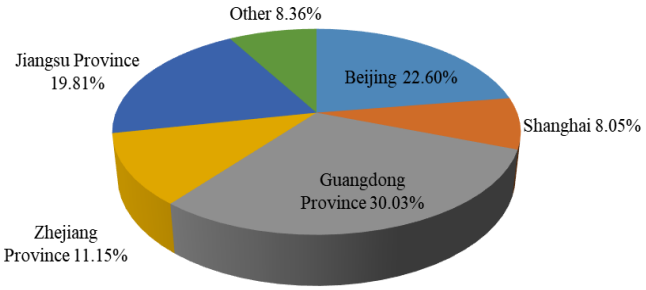

Figure 0-1 Province of origin of respondents

(3) Number of employees

In the sample surveyed, 7.12% of the respondents belong to enterprises with more than 3001 people, 12.07% of the respondents belong to enterprises with 1001-3000 people, 17.34% of the respondents belong to enterprises with 501-1000 people, 35.29% of the respondents belong to enterprises with 101-500 people, and 28.17% of the respondents belong to enterprises with 100 people or less. In general, 63.47% of the respondents' enterprises have less than 500 employees, as shown in Table 4-2.

Table 0-2 Employee size of the surveyed company

Size of employees in surveyed companies	Subtotal	Percentage
More than 3001 people	23	7.12%
Between 1001~3000 people	39	12.07%
Between 501~1000 people	56	17.34%
Between 101~500 people	114	35.29%
Less than 100 people	91	28.17%
Total	323	100%

(4) Total assets of the enterprises

In the sample, 36 people (11.15%) belonged to enterprises with total assets of less than 2 billion; 46 people (14.24%) belonged to enterprises with total assets of 2-5 billion; 70 people (21.67%) belonged to enterprises with total assets of 5-10 billion; 106 people (32.82%) belonged to enterprises with 7total assets of 10-50 billion; 39 people (12.07%) belonged to enterprises with total assets of 50 billion to 100 billion; 26 people (8.05%) belonged to enterprises with total assets of more than 100 billion. As shown in Fig.4-2.

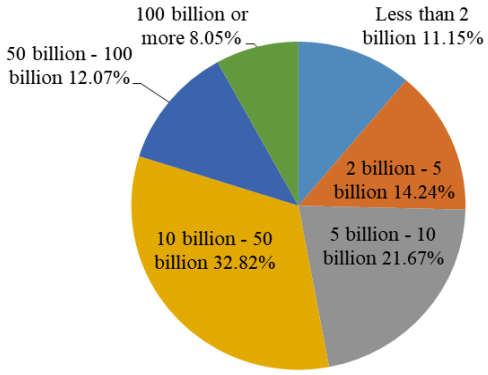

Figure 0-2 Total assets of the enterprise to which the respondents belong

Research Objective 1 (R.O.1): Model test of the relationship between enterprise growth and investment income

Private equity investment funds broaden the financing channels of small and medium-sized enterprises, which is conducive to the rapid growth and development of small and medium-sized enterprises, especially to ensure the source of funds for technology research and development input of high-tech enterprises. The high-growth corporate value premium brings rich investment income to private equity investment funds. Therefore, this section mainly analyzes the correlation between enterprise growth and investment income. Based on the analysis of Chapter Two and the above theories, it can be concluded that there is a certain relationship between enterprise growth and investment income. This paper subdivides enterprise growth (QYCZ) into two dimensions: operational capacity (YY) and development capability (FZ); divides investment income (TZSY) into two dimensions: investment capability (TZ) and operating capability (JY); and empirically investigates the correlation between

enterprise growth and investment income using data from a valid sample of 323 questionnaires. The results of the correlation analysis are shown in Table 4-3.

Table 0-3 Correlation analysis results of enterprise growth and investment income

	YY	FZ	QYCZ	TZ	JY	TZSY
YY	1					
FZ	0.589**	1				
QYCZ	0.886**	0.897**	1			
TZ	0.533**	0.516**	0.588**	1		
JY	0.638**	0.421**	0.591**	0.593**	1	
TZSY	0.655**	0.526**	0.661**	0.899**	0.886**	1

Note: *** indicates P<0.001; ** indicates P<0.01; * indicates P<0.05.

From the correlation data in the above table, it can be concluded that:
1. Enterprise growth (QYCZ) is significantly correlated with operating capability (YY) and development capability (FZ).
2. Operating capability (YY) is significantly correlated with the two dimensions of investment income: investment capability (TZ) and operating capability (JY).
3. Development capability (FZ) is significantly correlated with the two dimensions of investment income: investment capability (TZ) and operating capability (JY).
As for the relationship between enterprise growth and investment income and the causal relationship, it is necessary to further do multiple regression analysis, as shown in Table 4-4 and Table 4-5.

Table 0-4 Results of multiple regression analysis on enterprise growth and investment income1

	Unstandardized regression coefficients		Standardized regression coefficients	t	Sig.
	β	Standard Error			
Constants	1.684	0.153		11.018	0.000
YY	0.434	0.042	0.527	10.361	0.000
FZ	0.169	0.040	0.216	4.234	0.000

a. Dependent variable: investment income (TZSY)

Research Objective 2 (R.O.2): Model test of the relationship between equity investment and investment income

Private equity investment fund is to help the growth and orderly development of small and medium-sized enterprises, and also become the corporate governance mechanism for small and medium-sized enterprises to adjust the organizational structure. Most of the existing research results show that private equity investment fund has a positive impact on the investment performance of enterprises. This section discusses the relationship between equity investment and investment income from the existing literature and relevant equity investment theory. This paper subdivides equity investment (GQTZ) into two dimensions: private equity holding (CG) and private equity scale (GM); divides investment income (TZSY) into investment income (TZ) and operating capability (JY); and empirically investigates the correlation between equity investment (GQTZ) and investment income (TZSY) using data from a valid sample of 323 questionnaires.
A correlation analysis is made on the relationship between equity investment and investment income, as shown in Table 4-6.

Table 0-5 Correlation analysis results of equity investment and investment income

	CG	GM	GQTZ	TZ	JY	TZSY
CG	1					
GM	0.368**	1				
GQTZ	0.821**	0.833**	1			
TZ	0.501**	0.428**	0.561**	1		
JY	0.624**	0.347**	0.584**	0.593**	1	
TZSY	0. 628**	0.436**	0.642**	0.899**	0.886**	1

Note: *** indicates P<0.001; ** indicates P<0.01; * indicates P<0.05.

CONCLUSION

Using Chinese high-tech enterprises listed on GEM as the research object, based on the literature review, 350 questionnaires were distributed and 323 questionnaires are valid, with an effective completion rate of 92.29%. Finally, the data obtained from 323 valid questionnaires were used as the research sample, and correlation and regression analyses were conducted mainly from four aspects: the influence of equity investment and enterprise growth on investment income; the influence of equity investment and enterprise growth on internal control; the influence of internal control on investment income; and whether internal control plays a mediating role between equity investment, enterprise growth and investment income. The correlation between the variables and the goodness of fit of the regression model are verified, to verify whether the hypotheses are valid (Liu et.al 2016; Porter 1997). From the analysis results, it can be seen that the sample data can better support the research requirements (Wang et. al 2020). As a popular research direction, equity investment has attracted the attention of many scholars. However, the research system in this area has not yet formed. The research on the impact of private equity investment on high-tech enterprises on GEM seldom considers the mediating role of internal control, therefore, this paper constructs a theoretical framework of "equity investment and enterprise growth- internal control-investment income" through literature and empirical research. On the basis of sorting out and analyzing previous studies, this paper makes research innovation and breakthrough. Therefore, based on the summary of empirical results, this paper can draw the following conclusions correspondingly (Pan et al. 2019).

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