

# Professional Managers and Long-term Investment in State-owned Enterprises

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**Abstract**—In the background of mixed ownership reform, the introduction of professional managers in state-owned enterprises is to gradually integrate with the market, participate in market competition, and improve the efficiency of state-owned assets. However, due to the late introduction of China, the professional manager system of state-owned enterprises is constantly developing and improving. The results of this study show that the introduction of professional managers in state-owned enterprises will reduce the long-term investment of enterprises, but it is not significant in the case of the combination of manager and chairman. This paper puts forward a new direction and thinking for the construction of professional manager system.

## 1 Introduction

The Third Plenary Session of the 18th Central Committee of China proposed “actively develop the mixed ownership economy”. On October 18, 2017, the report of the 19th National Congress again emphasized the important role of developing the mixed ownership economy. With the complicated interest relationship between enterprise and society, how to give the basic economic system a new era significance is a new opportunity and challenge for the party and the state. The purpose of mixed ownership reform is to learn from each other's advantages and disadvantages, promote and develop together. For the state-owned enterprises, it is necessary to introduce market mechanism, enhance the vitality of state-owned capital, reduce the government intervention in the economic affairs of enterprises, correctly handle the relationship between the market and the government, and let the market play a decisive role in resource allocation.

State owned enterprises are the backbone of the development of national economy. For a long time, the state-owned enterprises exist the phenomenon that the government and the enterprise are inseparable. The managers of enterprises have the status of "officials" at the same time, which is regarded as a state monopoly behavior. In SOEs, 46% of the chairman, general manager and 82% of the board members have political connections[1]. The new decision requires state-owned enterprises to “reasonably increase the proportion of market-oriented selection and employment, and establish a professional manager system” is to break the current situation of the separation of government and enterprise in the management of state-owned enterprises, and solve the resulting problems of unclear rights and responsibilities, low efficiency and so on.

The concept of professional manager originated in the United States at first. After more than 170 years of development, with the continuous maturity of modern enterprise system in the United States, the professional manager system has improved a lot. At present, the professional manager has become an important class in American society, and has formed a more systematic mechanism of professional manager selection and withdrawal, its theoretical research is also rich. The professional manager system of our country started late, which came into being after the operation of the socialist market economy system. As a scarce human resource, professional managers play an important role in improving corporate governance, promoting the harmonious development of public and non-public economy and realizing the goal of mixed ownership reform.

At present, the common points of research on professional managers at home and abroad focus on the meaning of professional managers, the relationship between professional managers and enterprises, the selection and employment of professional managers, incentives and constraints, and have different emphasis. Foreign scholars have defined the professional manager from the causes, characteristics, professionalism, etc. Jensen and Meckling have elaborated the definition of the professional manager from the perspective of contractual relationship, that is, "the manager of the enterprise caused by the contractual arrangement between the internal owners and senior managers of the enterprise." [2]Li Xiyuan and Jiang Qianqian found that the non-material incentive and ability play of professional managers are positive to promote enterprise performance, and the non-material incentive will be positive to promote the ability play, but the overall incentive policy in China has not achieved the expected effect [3]. Compared with foreign theoretical and practical researches on the improvement of professional managers, domestic theoretical researches on

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professional managers focus on the adaptability of system introduction and suggestions on policy environment, while practical researches mainly focus on family enterprises and state-owned enterprises. For the family business, the introduction of professional managers on the level of corporate governance due to information asymmetry and the resulting trust problems and economic consequences are the focus of the study. Li Qianbing and Yan Guanghua take 110 small and medium-sized family enterprises in Jiangsu, Zhejiang and Shanghai as the research sample, and find that after the introduction of professional managers, family enterprises adopting strong contractual governance and strong relationship governance have the highest performance [4]. The research on professional managers of state-owned enterprises focuses on the construction of governance structure and leadership system of state-owned enterprises. This paper studies whether the introduction of professional managers in state-owned enterprises has an impact on the investment strategy of enterprises at the corporate governance level, and enriches the relevant literature on the introduction of professional managers in state-owned enterprises under the background of deepening reform.

The above is the first part of this paper. The second part is theoretical analysis and hypothesis; the third part is data and research design; the fourth part is further analysis; the last part is conclusion and suggestion.

## 2 Theoretical Analysis and hypothesis

On the investment of state-owned enterprises, most of the existing literature focuses on the influencing factors of inefficient investment of state-owned enterprises, including the internal and external environment of enterprises. Wei Minghai and Liu Jianhua think that the low cash dividend policy will promote the over investment of state-owned enterprises, and the internal and external governance environment will restrict the over investment [5]. In addition, the internal control [6], management characteristics [7], and government intervention [8] all have an impact on the overinvestment of state-owned enterprises. Overinvestment and long-term investment are different concepts. Overinvestment refers to the unexpected part of long-term investment. According to the investment period, the enterprise investment can be divided into long-term investment and short-term investment. Long term investment refers to investment in long-term operating assets, which provides resources for expanding the scale of business activities and upgrading technical equipment. Due to the long payback period of long-term investment, it is often unable to make timely adjustments due to environmental changes. It has low flexibility, high risk, and higher return than short-term investment. Both long-term investment and short-term investment have advantages and disadvantages. For the management, it is necessary to make a trade-off between the short-term income and long-term development of the enterprise. At present, foreign scholars have studied the reasons that affect the long-term investment behavior of enterprises from the aspects of environmental uncertainty [9], political factors [10], and the length of service of managers [11]. From the perspective of political rights transfer, Cao Chunfang confirmed that the replacement of officials will lead to the reduction of investment in local

state-owned enterprises, and the manager's shareholding will play a restraining role [12]. For the management of state-owned enterprises, its effect comes from three aspects: monetary income, control right income and reputation income [13]. The salary of the management of state-owned enterprises is supervised and regulated by the government because of its particularity, and the monetary income has little incentive effect on the management to make investment decisions. With the continuous promotion of the reform of state-owned enterprises, the separation of ownership and control has been gradually realized in state-owned enterprises [14]. The management owns most of the management rights, while in the case of "virtual ownership", the management of state-owned enterprises has the actual control right of pledge, and long-term investment can expand the income of management control right. In addition to normal operation, the other part of management control income comes from the power rent-seeking of abnormal activities. In addition, increasing the scale of long-term investment can also bring reputation to management. The professional manager market in China is not perfect, and the reputation of the management mainly comes from the evaluation of the government. The evaluation target of the government depends on the economic performance index of the enterprise. The larger the economic scale is, the higher the recognition of the management by the government is. Compared with the private enterprises, undertaking social goals will also lead the management of state-owned enterprises to blindly expand long-term investment in order to pursue reputation. At the same time, the government behavior will affect the investment decision-making of enterprises, and the government has strong control over the investment decision-making of state-owned enterprises [15]. In order to achieve the goal of achievement, government officials intervene in the investment of state-owned enterprises in order to drive GDP growth and promote social stability. The earnings of control and reputation lead the managers of state-owned enterprises to invest for a long time. Different from political appointment, professional manager comes from professional manager market with implements tenure system and contractual management. The purpose of the professional manager system is to hire the full-time managers of the independent decision-making enterprises. In an ideal state, their salary is based on the market-oriented salary level, and their own interests are closely related to the interests of the enterprises. The business performance is strictly assessed by the enterprises. In order to build a reputation in the short term and achieve business performance as soon as possible, new professional managers will choose short-term investment with low risk and quick return rather than long-term investment with long payback period and high risk. Based on this, the hypothesis is put forward: the introduction of professional managers in state-owned enterprises will reduce the long-term investment of enterprises.

## 3 Data and Research Design

### 3.1 Data

The financial data used in this paper is from CSMAR database. The state-owned enterprises listed in 2008-2018 are selected, ST companies and companies with

incomplete financial data are excluded. Finally, 2500 samples were obtained from 1036 state-owned enterprises. The data processing software of this paper is stata14.0.

### 3.2 Variable Description

#### 3.2.1 Explained variable

Explained Variable is measured by long-term investment (INV). Data comes from the cash paid for the construction of fixed assets, intangible assets and other long-term assets in the cash flow statement, and the logarithm processing is carried out.

#### 3.2.2 Explanatory variable

The explanatory variable is professional manager (HIR). Based on the research of Xin Liguo and Ma Lei [16], according to the source of succession, if the manager comes from the outside of enterprise which is market-oriented, the value is 1; if the manager comes from the inside of the enterprise, the value is 0.

#### 3.2.3 Control variable

a) *Return on total assets (ROA)*: net profit / total average assets.

b) *Asset liability ratio (LEV)*: measured by total liabilities / total assets.

c) *Total asset turnover rate (TURN)*: expressed by sales revenue / average total assets.

d) *Ownership(OWN)*: expressed by the shareholding ratio of the top ten shareholders.

e) *Ratio of independent directors(INDEP)*: the number of independent directors at the end of the year divided by the total number of the board of directors is used to control the impact of independent directors.

f) *Year and ind*: in this paper, 17 industry virtual variables and 11 annual virtual variables are set to control the impact of macroeconomic environment.

g) *Dual*: if the manager concurrently serves as chairman and general manager, the value is 1; otherwise, the value is 0.

### 3.3 Equations

The model of this paper is as follows:

$$INV_{i,t} = \partial_0 + \partial_1 HIR_{i,t} + \partial_2 ROA_{i,t} + \partial_3 LEV_{i,t} + \partial_4 TURN_{i,t} + \partial_5 OWN_{i,t} + \partial_6 INDEP_{i,t} + \sum_{i=1}^{17} \partial_7 IND_{i,t} + \sum_{i=1}^{11} \partial_8 YEAR_{i,t} + \varepsilon_{i,t} \quad (1)$$

### 3.4 Research design

#### 3.4.1 descriptive statistics

Table 1 is descriptive statistics of all data, including mean, standard deviation, minimum and maximum. It can be seen from table 1 that the average value of long-term investment is 18.8667, but the standard deviation is large, which

indicates that there is a certain gap and volatility in long-term investment among enterprises. In terms of explanatory variables, the average value is 0.3444, which indicates that about one-third of state-owned enterprises will choose managers from outside. The average value of the combination of chairman and general manager is 0.0569, and about 5.7% of the chairman and general manager of state-owned enterprises are held by one person.

#### 3.4.2 correlation analysis

Before the regression analysis of the research variables, the person correlation test was carried out. Table 2 shows the correlation between variables. As shown in the figure, the correlation between long-term investment and the introduction of professional managers is negative and significant at the level of 1%, which initially verifies the hypothesis. The correlation coefficient of most variables is less than 0.3, so there is no obvious collinearity between variables. The multicollinearity was tested by variance expansion factor method. The results show that there is no multicollinearity between the variables

Table 1 . descriptive statistics

Variab le name	Obse rvati on	Averag e	Standar d deviatio n	Min	Max
INV	2250	18.8667	2.1563	9.8241	26.46
HIR	2250	0.3444	0.4753	0	1
ROA	2250	0.0265	0.0834	-0.9986	1.8525
LEV	2250	0.5376	0.2236	0.0123	2.0327
TURN	2250	0.6957	0.6700	0	9.6885
OWN	2250	0.5813	0.1646	0.1457	1.0143
INDEP	2250	0.3696	0.0554	0.2222	0.75
DUAL	2250	0.0569	0.2317	0	1

Table 2 person correlation coefficient between study variables

	INV	HIR	ROA	LEV	TURN	OWN	INDEP
INV	1.0000						
HIR	-0.0965***	1.0000					
ROA	0.0592***	-0.0017	1.0000				
LEV	0.1410***	0.0063	-0.3412***	1.0000			
TURN	0.0649***	-0.0102	0.0836***	0.0919***	1.0000		
OWN	0.3396***	0.0063	0.0689***	-0.0061	-0.0251	1.0000	
INDEP	0.0847***	-0.0205	-0.0648***	0.0441**	0.0374*	0.0313	1.0000

Note: \* means significant at the level of 0.1, \* means significant at the level of 0.5, \* \* \* means significant at the level of 0.01

### 3.4.3 regression analysis

Using stata14 to analyze panel data, the first column in Figure 3 is the test of hypothesis. The coefficient of long-term investment and professional manager is -0.4378, which is significant at the level of 1%. It shows that the introduction of professional managers in state-owned enterprises will lead to the reduction of long-term investment, which verifies the hypothesis. ROA, asset liability ratio, total asset turnover ratio, equity concentration ratio, and the proportion of independent directors are significant at the level of 1%, indicating that

the production and operation status, turnover capacity, debt situation, governance structure of the enterprise will significantly affect the investment strategy of the enterprise.

## 4 Further analysis

This paper divides the whole sample into two samples according to whether the manager and the chairman of the board are held by one person. As shown in columns 3, 4 and 5, 6 of table III, the third column is the regression result of the combination of the two positions of managers. From the data in the table, when the two positions of managers are combined, the impact of the external successor managers on the long-term

**Table 3** regression analysis

Virables	INV					
	Full sample		DUAL=1		DUAL=0	
	coefficient	T value	coefficient	T value	coefficient	T value
HIR	-0.4378***	-5.44	-0.3572	-0.78	-0.4652***	-5.73
ROA	2.7323***	5.49	- 3.2512***	-3.12	4.8817***	8.39
LEV	1.9826***	10.03	0.5294	0.60	2.3390***	11.39
TURN	0.2638***	3.92	0.4054*	1.82	0.2146***	3.04
OWN	3.3869***	14.00	1.1930	1.20	3.3310***	13.39
INDEP	3.0054***	4.31	-2.1034	-0.71	3.4248***	4.79
IND	control	control	control	control	control	control
YEAR	control	control	control	control	control	control
Constant	14.0214***	33.12	16.2185***	9.18	13.8943***	32.04
Adj.R <sup>2</sup>	31.03		20.84		33.13	
OBS	2500		128		2122	

Note: \* means significant at the level of 0.1, \* means significant at the level of 0.5, \* \* \* means significant at the level of 0.01

investment is not significant, and when the two positions are separated, the conclusion is consistent with the hypothesis in this paper. This may be due to the combination of the two positions, managers are lack of corresponding supervision at the board level and have stronger social responsibility.

## 5 Conclusions and suggestions

Under the background of mixed ownership reform, this paper studies the influence of introducing professional managers into state-owned enterprises on long-term investment. The results show that the introduction of professional managers will inhibit the long-term investment of state-owned enterprise, but are not significant in the sample of two in one.

This paper has profound policy implications. At present, the policy of introducing professional managers into state-owned enterprises is in the stage of vigorously advocating and trying out by the state. Most of research in this field focuses on the theoretical level, such as the

governance structure of state-owned enterprises and the construction of leadership team. This paper proves the influence of the introduction of professional managers in state-owned enterprises on the investment decision-making, and puts forward new thoughts on the introduction of professional managers in state-owned enterprises. It is worth considering how to enhance the vitality of the state-owned enterprises after the introduction of managers, realize the value-added maintenance of state-owned assets, achieve a balance between the effective incentive and restriction of professional managers, and make manager's behavior in line with the maximization of the interests of enterprises

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