### The Influence Mechanism of Industrial Policy on Enterprise Investment Efficiency—Based on Market Competition and Government Support Perspective

### Chen Yanfang<sup>1,a</sup>, Zhou Fuping<sup>1,b</sup>

<sup>1</sup>College of Accounting, Guangzhou College of Technology and Business, Foshan, China <sup>a</sup>1030135419@qq.com, <sup>b</sup>272173540@qq.com

Abstract: This paper explores the mechanism of market access, tax incentives, government subsidies, and bank credit industrial policies on the efficiency of enterprise investment based on the perspective of market forces and government support. The industrial policy of lowering market access intensifies market competition, which shifts the market share from inefficient enterprises to more efficient ones and increases the efficiency of enterprise investment; the industrial policy of tax incentives increases the profit margin between the price of production factors and the selling price of commodities, which increases the return of enterprise investment and increases the efficiency of investment accordingly; the industrial policy of government subsidies distorts the price of resource factors and leads to overcapacity, which decreases the efficiency of enterprise investment; the industrial policy of bank credit, where credit resources are used to support and encourage enterprises to invest. The government's subsidized industrial policy will distort the price of resource factors, leading to overcapacity and lowering the efficiency of enterprise investment; bank credit industrial policy, credit resources used to support encouraging industries will raise the financing cost of other industries in disguise and reduce the efficiency of enterprise investment.

Keywords: Industrial policy; Investment efficiency; Market competition; Government support

#### 1. Introduction

To optimize the industrial structure and promote industrial transformation and upgrading, the government will support the development of important industries and high-tech industries that are related to people's livelihood and adopt indirect inducement, direct intervention, information guidance, and laws and regulations to support the development of encouraging industries. The government's starting point is good, but the government's implementation of industrial policy of the industry has not developed into a truly competitive national industry, frequent outbreaks of rent-seeking corruption, overcapacity, and other problems, and finally wasted a lot of national human and material resources, with little effect. On the contrary, private enterprises growing in a barbaric environment such as Huawei, Alibaba, and Tencent have temporarily emerged on the world stage. The entry point of macroeconomic policy research is industry, regional and national economic aggregates, but regional, industrial and national economic aggregates are composed of micro-individual economic activities, and macroeconomic policies focus on micro-individual economic activities can discover the internal channels and mechanisms of macroeconomic policies to micro-economic activities. The financing activities of enterprises are for investment activities, and working capital activities are for investment efficiency, and investment is the starting point of enterprises, while the efficiency of investment (i.e. return on investment) is the ending point of enterprises. Macroeconomic policy is the general background of the production and operation activities of micro-enterprises, which affects the financing, investment, and capital operation activities of enterprises. However, macroeconomic policy is an abstract aggregate, only the aggregate of statistical analysis, and macroeconomic policy must first have an impact on micro-individual economic activities. This paper studies the impact of macro-industrial policy on the efficiency of corporate investment.

Industrial policy refers to the government's policy measures based on the needs of economic development and growth objectives to adjust the industrial structure and industrial organization forms by various means, to increase the growth rate of total supply and make the supply structure can effectively adapt to the requirements of demand structure. Based on this definition, the effect of the implementation of industrial policy is mainly reflected in two aspects: the adjustment of industrial structure and industrial organization, and the growth of total supply. The optimization of industrial structure and industrial

organization is manifested at the micro level by increasing the proportion and competitiveness of encouraging industries in the total industry, which should be competitive not only at home but also in the international arena. The supply structure effectively adapts to the demand structure, which at the micro level is expressed in the quantity and quality of products produced by enterprises just to meet the needs of consumers, and in the financial indicators as the resources invested by enterprises will yield a high return on investment. Investment efficiency is an important financial indicator to measure whether an enterprise is competitive and can meet consumers' needs. Therefore, this paper attempts to analyze the effect of industrial policy implementation at the micro level, which translates into an analysis of the impact of industrial policy on firm investment.

The goal of the government's implementation of industrial policy is to optimize the industrial structure according to the needs of the domestic economic environment at different times, such as encouraging the development of innovative high-tech and green low-carbon economy industries, supporting the development of important industries related to national security and livelihood, eliminating backward production capacity, and improving the overall competitiveness of the national economy. The government has different means and methods to implement industrial policy, mainly direct intervention means, and indirect means. Indirect means of inducement include fiscal policy (government investment, government subsidies) and monetary policy (financial policy and bank credit support), while direct intervention means are more manifested in the use of administrative power, including administrative control and administrative coordination. The administrative control includes market entry control, price control, technology control, environmental protection control and production safety control, etc. Market entry control such as raising the entry threshold of energy, oil, communication, and other industries; price control, such as price limit for real estate overheating; environmental protection control such as fines for high pollution industries. Administrative coordination mainly means that the government coordinates the production and operation of enterprises in the industry in various ways To achieve the government's industrial development goals. The industrial policy involves many contents, according to the impact on the company's investment, this paper selects the four most representative industrial policies, fiscal policy selects tax incentives and government subsidies, monetary policy selects bank credit support, and administrative intervention selects market access. In summary, this paper classifies industrial policies into four categories: government subsidies, bank credit, tax incentives, and market access, and studies their effects on corporate investment and investment efficiency, respectively.

#### 2. Literature Review

The current research literature on the economic consequences of industrial policy is divided into two different views: (Yang Yang, Wei Jiang, and Luo Laijun, 2015)<sup>[1]</sup>., (Bai Junhong and Li Jing, 2011)<sup>[2]</sup>., (Xie Weimin, Tang Qingquan, and Lu Shanshan, 2009)<sup>[3]</sup>., and (Zhou Yahong, Pu Yu Lu, Chen Shiyi, and Fang Fang, 2015)<sup>[4]</sup>. that the implementation of industrial policy has a positive impact on industrial development. When a large amount of bank credit resources are directed to the encouraging industry, a large number of credit funds can alleviate the financing constraints of the encouraging industry and reduce its capital costs; tax preferences can alleviate the tax pressure on enterprises, thus directly reducing their investment costs and production costs; government subsidies can provide support for the initial development of industrial enterprises, alleviate the resource constraints faced by enterprises and reduce their input costs. Another view is that the implementation of industrial policy has negative effects. On the one hand, the government holds a large amount of resource allocation power, and resource allocation involves the distribution of interest resources, which may lead to more rent-seeking activities. Enterprises with political connections will have easier access to resources, and To obtain resources, enterprises will pay high rent-seeking costs instead of improving product quality and satisfying customer demand, which in turn will crowd out resources that enterprises use for investment development and reduce investment efficiency (Yuan, Houqingsong, and Cheng Chen, 2015)<sup>[5]</sup>. At the same time, the government is not omnipotent and is not as efficient in resource allocation and industrial policy formulation as spontaneous market regulation. On the other hand, when the industrial policy provides policy support to encouraging industries, enterprises can obtain industrial policy support in terms of credit, subsidies, tax incentives, etc., and will flock to encouraging industries in large numbers. Enterprises mass production, but the market capacity market demand remains unchanged, it is easy to lead to overcapacity, enterprise sales difficulties, enterprise losses increase, and increased waste of resources. (Wenjing Li and Yao-Tao Li,2014) <sup>[6]</sup>found that the analysis grouped by the nature of property rights shows that industrial policy is enough to increase the investment of private enterprises, but the investment efficiency of enterprises decreases, and this result is not significant in state-owned enterprises.

Why do studies on industrial policy reach completely inconsistent conclusions? The industrial policy

contains government subsidies, bank credit support, tax incentives, reduced market access, etc. Does the implementation of different industrial policies by the government have different effects on industrial development? Therefore, the focus of this paper is not to talk about the good or bad of implementing industrial policies in general, but to study what kind of industrial policies the government needs to implement, because different categories of industrial policies may have completely different effects on enterprise investment and investment. Investment is the starting point of enterprises, and the efficiency of investment (i.e., return on investment) is the landing point of enterprises. The study of the effect of industrial policy implementation lies in whether it can bring short- and long-term value to enterprises, and enterprise investment is a good research perspective. The innovation points of this paper's research.

First, dividing industrial policies into four categories: government subsidies, bank credit support, tax incentives, reduced market access, and the impact of implementing different industrial policies on enterprise investment and investment efficiency.

Secondly, the micro mechanism of different industrial policies affecting enterprise investment and investment efficiency is studied.

# 3. The mechanism of the influence of market competition industrial policy on the efficiency of enterprise investment

# 3.1. Lower market access industrial policy to improve the efficiency of enterprise investment mechanism

When industrial policy encourages and supports an industry, it will lower the entry threshold of the industry to a greater extent, making it easier to pass the project investment approval and promoting and accelerating enterprise investment. As more and more enterprises enter, competition within the industry becomes fierce. The more competitive the industry, the more risk, and uncertainty enterprises face. Risk and uncertainty mean that enterprises are faced with threats from the internal industry and the external environment. No enterprise can predict whether their products can win and whether the decisions they make are correct, and the production and operation of enterprises are always groping their way forward. Because the external environment is always dynamic and changing, the production and operation methods and investment decisions that were applicable before may not be applicable now. Companies have to be alert at all times in a competitive and uncertain environment, and constantly react quickly to the changing environment. Competition is a powerful driver of an industry's growth. When firms face the survival pressure of smaller market shares and high production costs, To expand sales and reduce costs, entrepreneurs will constantly look for new market opportunities, offer new products and services, develop new ways of combining factors, and try new forms of business organization and internal management. (Ting-Hui Wang, 2007)<sup>[7]</sup> When a firm produces and sells new products, and adopts new technologies and business models, other firms will imitate them and enter the market, and market competition increases; firms compete with each other to promote more efficient use of resources and create lower-cost products and services. Competition results in a shift in market share from inefficient firms to more efficient ones, with the market acting as a screening mechanism and a discovery process that allows those firms with efficiency advantages to survive and thrive. (Metcalfe, 1998)<sup>[8]</sup> Driven by competitive pressures, firms will continue to improve their technological methods, increase productivity, and produce better products. Therefore, competition is a process in which producers find better ways to meet consumer demand and consumers find better products at better prices. (Ma., Sanyou, 2001)<sup>[9]</sup> The outcome of the competition is unpredictable, and neither producers nor consumers can know in advance the outcome of the competitive process, nor which firm will succeed in satisfying consumers' wishes and become the real winner of the competitive process. Because this knowledge is discovered in the competitive process, the knowledge experience generated by the producers' continuous trial and error is learned by the later ones, and only after countless times of competing to win the competitive trial process can the temporary winner be screened.

If barriers to entry are set for the industry, it will lead to the disappearance of spontaneous competition generated by enterprises, the result of which is bound to prompt the selected economic agents not to experience the threat posed by competitors to their survival and profitability, to lose the incentive to actively explore, discover and acquire the knowledge of satisfying consumers' needs and products gradually revealed and exposed by the unfolding of the market process, and to lose the incentive to pursue the realization of the consumer. The incentive to innovate to achieve consumer preferences at lower costs is lost, and the market efficiency of dynamic competition is lost, while the whole market inevitably loses the incentive to identify, discover, utilize and create new knowledge, and the alertness of action subjects

to profit opportunities disappears. In summary, reducing market access restrictions on industrial policy can improve the efficiency of corporate investment.

#### 3.2. Tax-preferential industrial policy improves the efficiency mechanism of enterprise investment

Tax preferential industrial policy reduces enterprise production costs and investment costs at the end of production and the end of sales. (Ma Sanyou, 2001)<sup>[7]</sup> points out that the effective tax rate of VAT (actual tax paid/sales revenue) is reduced by only 1 percentage point, and the overall investment of enterprises can be increased by 16%. The stimulation of lower production and sales costs attracts more enterprises to enter the encouraging industries, the investment in tax-preferred industries increases, and the raw materials, labor, and technical production factors related to them spontaneously enter the encouraging industries, which is conducive to adjusting and optimizing the industrial structure and promoting economic development. Tax preference makes the production end of the factors of production prices fall, the profit space between intermediate product inputs and the selling price of goods increases, the return on investment of enterprises increases, and the efficiency of investment increases accordingly. Under the stimulation of profits, industry-related factors of production in the market have flowed to tax-preferred industries, the prices of other industry factors have relatively increased, and the substitution effect generated by the rise in factor prices has caused other industry factors to flow to the encouraged industries.

### 4. The influence mechanism of government-supported industrial policy on enterprise investment efficiency

### 4.1. Government subsidies industrial policy to reduce the efficiency of enterprise investment mechanism

Government subsidies are a kind of transfer payment, government revenue sources mainly include taxation and the issuance of treasury bonds, government subsidies are equivalent to the tax levied from other enterprises to subsidize the encouraged industry, so it is at the expense of investment in other industries. As a result of the taxes, production costs in other industries increase and consumers and producers in other industries have to pay higher prices for goods and services from other industries. Second, rent-seeking activities are more likely to occur in China as a country with an emerging transitional economic system, where the relevant formal institutions are not fully established and the government still holds the power to allocate important resources. If the government's resource allocation power is large and it is difficult to enhance and maintain product quality advantages, firms will eagerly seek political connections rather than capacity building (Yang, Qijing, 2011) [10]. To establish and maintain political connections, firms will pay high rent-seeking costs, which in turn will crowd out the resources they spend on innovation activities and inhibit their innovation (Yuan, Houqingsong, and Cheng Chen, 2015) [11]. Finally, will firms use government subsidies strictly as required? It is most efficient to spend their own money and does their work, and enterprises will find ways to save costs and improve the efficiency of using funds. In contrast, government subsidies for enterprises are spending other people's money to do their work, and enterprises may squander and waste resources and will not be careful to use the funds efficiently. In addition, subsidies also distort information, because subsidies lead to the distortion of the price of various resource factors, in the case of government subsidies may be profitable, the cost of production factors than the actual price, so that enterprises can continue to survive even at a lower level of innovation. At the same time, under the government's protection and support policies, enterprises may tend to be short-term in their behavior and lack sufficient enthusiasm and motivation for technological progress and improving output efficiency. Thus, whether the supported industry fails or "succeeds", it provides distorted or spam information to the latter. The expansion of enterprises under government subsidies and the simultaneous influx of encouraging industries will easily lead to overcapacity. The overcapacity will not only increase the loss of enterprises, increase the waste of resources and deteriorate the industrial organization, but also cause economic fluctuations and deterioration of the external environment, which may make it more difficult for enterprises to estimate the situation of innovation investment projects and reduce the incentive for them to invest in innovation. In addition, in the face of industrial policy stimulation, encouraged enterprises are more inclined to expand the scale of capital investment, resulting in over-investment, which in turn leads to the imbalance of enterprise investment structure. Based on this, this paper proposes that government subsidies on industrial policy can improve enterprise investment, but will reduce the efficiency of enterprise investment.

#### 4.2. Bank credit industrial policy reduces the efficiency mechanism of enterprise investment

(Kemin Wang, Jing Liu and Xiaoxi Li, 2017)<sup>[1]</sup> found that enterprises encouraged by the industrial policy have more government subsidies and long-term liabilities, and the more government subsidies and long-term liabilities a company has, the higher its investment level, the higher the degree of overinvestment, and the lower the investment efficiency. The monetary policy mainly provides more bank credit support to the encouraged industries with lower lending rates to ease the financing constraints of enterprises. The availability of financing is a prerequisite for enterprises to invest when their capital is insufficient, and when they have enough cash support they will expand their investment in related industries. However, resources are scarce and credit resources are also limited. When credit resources are used to support the development of encouraging industries, the credit resources available for other industries become less, and the development of these industries is based on the real demand of market consumers for products and services, and credit resources used to support encouraging industries will raise the financing cost of other industries in disguise. On the other hand, to encourage the industry to improve bank credit support, enterprises have entered the encouraging industries under the stimulation of low-interest rates, credit incentives can reduce the cost of corporate financing, and in the early stages of the industry, the cost of factors of production is not high, there is a certain profit margin. However, the competition between entering enterprises will raise the price of production factors. The market product supply increases, and the market demand remains unchanged, resulting in excess capacity, compressed profit margins, and even unprofitable. With the influx of enterprises supported by bank credit into the encouraged industry, the encouraged enterprises are more inclined to expand the scale of capital investment, which will result in over-investment in the industry, which will lead to an imbalance in the investment structure of enterprises and easily lead to the phenomenon of over-capacity. The overcapacity will not only increase the loss of enterprises, intensify the waste of resources and deteriorate the industrial organization, but also cause economic fluctuations. Based on this, this paper concludes that bank credit industrial policy, which can improve enterprise investment, will reduce the efficiency of enterprise investment.

#### Acknowledgements

#### **Fund Project**

1). 2021 Collaborative Education Project of University-Industry Cooperation, Department of Higher Education, Ministry of Education, China (202102394017);

2). 2021 Higher Education Research Project of Guangdong Higher Education Society "14th Five-Year Plan" (21GYB82) Research on the reform and practice of accounting education model based on the "high point" of the Greater Bay Area (21GYB82);

3). 2021 Annual Curriculum Civic Construction Project of Guangdong Higher Education Teaching Management Society "Accounting Information System" (X-KCSZ2021060);

4). 2021 University-level Quality Project of Guangzhou Institute of Technology "Financial Management Teaching and Research Department";

5). 2022 Annual Online Open Course Guidance of Guangdong Undergraduate Universities Research Project of the Steering Committee of Online Open Courses of Undergraduate Universities in Guangdong Province in 2022 (Research on the Construction of Online Open Courses Based on OBE - Taking Accounting Information System as an Example) (2022ZXKC530);

6). Joint Laboratory of School and Enterprise of Undergraduate Universities in Guangdong Province "Joint Laboratory of School and Enterprise of Digital Intelligence Accounting"

7). 2022 Guangzhou The Third Round of Key Discipline Construction Project of Guangzhou College of Business (Accounting Discipline);

8). 2022 Annual Planning Project of China Association of Private Education (School Development Category) "Research on Cultivating Talents of Private Applied Undergraduate Financial Management Majors in Digital Economy" (CANFZG22182).

#### References

[1] Yang Yang., Wei Jiang., Luo Laijun. (2015) Who is using government subsidies for innovation? --

Joint regulatory effects of ownership and factor market distortions. Management World, 1, 75-86.

[2] Bai JH., Li JJ. (2011) Government R&D funding and firms' technological innovation-an empirical analysis based on efficiency perspective[J]. Financial Research, 6, 181-193.

[3] Xie Wimin., Tang Qingquan., Lu Shanshan. (2009) Government R&D funding, corporate R&D expenditure and independent innovation - empirical evidence from Chinese listed companies. Financial Research, 6, 86-99.

[4] Zhou Yahong., Pu Yu Lu., Chen Shiyi., Fang Fang. (2015) Government support and the development of new industries - taking new energy as an example. Economic Research, 6, 147-161.

[5] Yuan J., Hou Q. S., Cheng C. (2015) The curse effect of corporate political resources-an examination based on political affiliation and corporate technological innovation. Management World, 1, 139-155.

[6] Lai WJ., Li YT. (2014) Does industrial policy incentivize corporate investment. China industrial economy, 5, 122-134.

[7] Wang., Ting-Hui. (2007) Competition and monopoly: an analysis of process competition theory perspective, China Economic Science Press, 55-60.

[8] Metcalfe J.S. (1998) Evolutionary Economics and Creative Destruction, London: Routledg, 22-25.

[9] Ma., Sanyou. (2001) An empirical analysis of tax incentives and investment--and the tax policy choice for promoting investment in China, Taxation Research, 10, 39-44.

[10] Yang Qijing. (2011) Corporate growth: political affiliation or capacity building, Economic Research, 10, 54-66.

[11] Chen S., Z Sun., S. Tang., D. Wu. (2011) Government Intervention and Investment Efficiency Evidence from China, Journal of Corporate Finance, 17, 12-15.