

Current Status, Issues, and Future Directions of Production-Side Subsidy Policies: The Impact of Government Intervention on Market Dynamics in Industrial Development

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Abstract:

China has implemented a number of production-side subsidy policies, which aim to assist specific sectors in achieving better development and production. These policies have generally achieved good results, but they have also created many problems that are different from those in other countries. Studying how to implement production-side subsidy policies is crucial for the overall development of society. To address the aforementioned issues, this research provides many representative examples of the current situation and problems faced by production-side subsidies, which reflect various different conditions. Ultimately, the article summarizes the problems of current production-side subsidy policies in terms of policy effectiveness, mechanism design, and international impact. Specifically, these problems include influencing normal market competition, the unreasonable waste of a large amount of funds, and often causing dissatisfaction in other countries. At the end of the article, the future optimization direction is summarized, that is, policies should be more precise and reasonable, and more fair and transparent. This provides a professional perspective for understanding subsidy policies and has certain guiding significance for the selection of actual subsidy methods in the future.

Keywords: Production-side subsidies, government subsidy policies, overcapacity, market failure, administrative region economy.

1. Introduction

In recent years, with the adjustment of policies, the structural disadvantages of private enterprises in the market competition have become increasingly obvious. However, private enterprises play an important role in the development of society, and compared with state-owned enterprises, they have unique advantages in many aspects [1]. Therefore, without making large-scale adjustments to the development direction, it is quite important to set corresponding industrial policies and provide assistance to private enterprises. At the same time, under the global competition, appropriate industrial policies can increase the competitiveness of Chinese enterprises' products in the international market. In this regard, the government can achieve this through production-side subsidy policies. Of course, the production subsidy policies in different regions of China are different, and their current status, problems, and how to improve them are all topics that need in-depth discussion. In this article, the author will explore the significance of these production subsidies for the market and analyze the problems currently faced by China's production-side subsidies. The article is based on existing data and lists many vivid examples to illustrate the current status of China's production-side subsidies and the challenges in implementation, and analyze what kind of subsidy policy is the optimal subsidy policy.

2. Theoretical Basis and Mechanism of Production-Side Subsidies

In the 20th century, Western countries developed economics. Over a long period of time, this theory has been widely accepted globally and has been applied to actual market operations. However, many problems cannot be solved by Western economics. In other words, this theory has limitations. On one hand, the theoretical models of Western economics are difficult to connect with the existing empirical facts. On the other hand, Western economics places too much emphasis on the market's own regulation of resource allocation, and some universal laws obviously affect the efficiency of resource allocation. However, this theory has not understood these laws. Yu Rongguang believes [2] that the "invisible hand" in Western economics is not the only feasible and effective way to allocate resources, and its effect is poor when allocating non-private goods. When it comes to non-private goods, especially public goods, the efficiency of their allocation significantly declines. A typical example is global climate stability, a pure global public good: The international carbon emission rights trading market, which is based on the Coase Theorem as its theoretical foundation, has failed to achieve effective allocation in practice due to fundamental contradictions such as incomplete coverage caused by po-

litical games (the current carbon pricing mechanism only covers about 23% of global emissions), price signal failure triggered by policy intervention (such as the sharp fluctuations in the EU carbon price in history), and the inability to solve the fairness of the initial allocation of emission rights. In actual market development, it is easy to regard certain particularities as generalities, which can lead to the inability to explain all effective ways of resource allocation. Especially when encountering market failure situations, many effective solutions cannot be explained by this theory regarding their mechanism of action. This is actually the so-called market failure theory.

The production-side subsidies, through government regulation, improve the development of enterprises. They can also specifically address certain general problems that the market itself cannot solve. In recent years, some policy tools have been quite effective, such as government-guided funds [3]. Government-guided funds have both government policy guidance and the ability to regulate the market, directing investment towards the guided projects. This is an innovative mechanism. In the market's self-regulation, strategic emerging industries have traditionally lacked the favor of market capital. This production-side subsidy can avoid direct administrative intervention and prevent market capital from being absent in these areas. Of course, this subsidy method is just an example mentioned above. In fact, it lacks practical implementation experience and its effectiveness requires some systematic verification.

3. The Current Situation and Characteristics of Subsidy Policies on the Production Side in China

Currently, China's production-side subsidy policies have formed a multi-dimensional and wide-ranging system framework. Its core feature is oriented towards industrial upgrading and technological innovation, and it promotes the transformation of manufacturing towards high-end, intelligent, and green through various tools such as direct investment subsidies, tax incentives, and financial interest subsidies, in a coordinated manner. However, the current production-side subsidies face serious problems, namely the lack of connection between regions. Therefore, when production-side subsidies encounter cross-regional situations, there will be a situation where regions are unwilling to cooperate and policies cannot be implemented. And when it comes to subsidies for a single region, there are many problems that are difficult to solve [4]. From the current practices in various regions across the country, China mainly presents a pattern of "administrative regional economy", but at the same time, implementing the production-side subsidy policies led by local governments, this situation will hinder the construction of a

unified national market [5]. The problems manifested by this situation are often that each region develops its own industries regardless of whether there is industrial competition or gaps in other regions. Therefore, there is often a significant homogeneity in products within regions, which leads to excessive competition among enterprises. At the same time, there is also a lack of economic connection between administrative regions. For example, the economic connection network among cities in the ZhenguoXi cooperation belt is overall scattered. Due to administrative divisions, economic connections between cities are confined within each province. Even with economic cooperation belts divided by policies and financial support for subsidy policies, economic connections will have obvious breaks when encountering provincial boundaries. This phenomenon is caused by the different regional industrial policies and development regulations in various regions of China. On the other hand, under the “administrative regional economy” pattern, the interests of each local government are not interconnected. As cooperation progresses over time, this problem will become apparent. Such situations are not rare. For example, the cross-regional cooperation between Jiangyin and Jingjiang. This cooperation eventually fell into a deadlock. From the development situation of the “Twelfth Five-Year Plan”, the completion rates of most economic indicators remained below 10%. In addition, the land development utilization rate within the park was only 38.88%. Meanwhile, the per-plot output value of land in 2015 was 660,000 yuan per mu, which showed a significant decrease compared to 1110,000 yuan per mu in 2010. Because if the benefits brought by the cooperation cannot be clear and fair, local governments will pay more attention to pursuing their own interests, and this behavior will lead to the continuous reduction of cooperation intentions and even the transformation of cooperation into competition.

To solve this problem, if analyzed from the perspective of subsidy policies, it is to change the guiding mode of the government so that social capital can flow correctly. At the same time, relying on the power of the government, priority should be given to the construction of economic zones, which can concentrate more effective forces and generate high-quality regional markets. Under the condition of limited resources, make economic zones larger and stronger, and move towards the national unified market [5]. Only in this way can the huge problems faced by current production-side subsidies be solved.

4. Problems and Challenges in the Implementation of Subsidy Policies on the Production Side

Subsidies on the production side are prone to causing “government failure” issues, which in turn lead to a series

of social problems. One of the most obvious examples is the phenomenon of overcapacity, which is easily observable in China [6].

A clear example is the “Golden Sun” project for photovoltaic power generation. In this project, the government used a pre-subsidy method, which did not align with the actual operational direction of enterprises. This led many enterprises to no longer focus on building efficient and reliable photovoltaic power plants but instead try every means to obtain subsidies. This directly resulted in overcapacity in the industry and caused huge financial waste.

On the other hand, “government failure” issues may also arise due to the deep motives of the government not aligning with social development. Sometimes, local government intervention in the market may only be for maintaining social stability and the government’s short-term political achievements.

For example, in 2015, Linggang Co., Ltd. faced the risk of delisting due to poor management, but as a major local taxpayer, it received a huge subsidy from the government [7]. This action allowed the enterprise that should have been eliminated to survive, indirectly protecting backward technologies and affecting the normal optimization and upgrading of the industrial structure. This also led to the inefficient use of taxpayers’ money.

The relevant data collected in recent years is quite exaggerated. According to analysis, more than 60% of industrial listed companies in China have the problem of overcapacity[6]. The excessive investment resulting from the use of government subsidies significantly increases the risk of overcapacity. This also supports the claim of “government failure”. In addition, state-owned enterprises have a significant advantage in obtaining government subsidies compared to non-state-owned enterprises, so the tendency of excessive investment is more obvious; at the same time, the correlation between obtaining production-side subsidies and the problem of overcapacity is more obvious [6]. Furthermore, during the implementation of subsidies, policy design often shows obvious flaws: such as unreasonable subsidy methods; too broad subsidy scope, lacking precision; confusion in the implementation of agricultural subsidy policies. And there are also some loopholes in the supervision: lack of transparency in subsidy information, incomplete supervision and accountability mechanisms; “false claims”, “fraudulent reporting”, collusion and other illegal behaviors also occur from time to time.

Facing such problems, it is necessary to improve the design of subsidy policies and strengthen supervision at the root level, adjust the subsidy structure. Of course, specific implementation methods still need to be further explored and gradually improved.

5. Case Study Analysis

This article explores some typical cases of government subsidies [8]. The partial derivatives of government subsidies on the innovation efficiency of rare disease drug enterprises are generally divided into two intervals. In interval one, government subsidies have a negative marginal effect on the innovation efficiency of enterprises. In interval two, government subsidies have a weak positive marginal effect on the innovation efficiency of enterprises. This indicates that in this case, the role of government subsidies in promoting enterprise innovation is negligible, and sometimes even detrimental to the development of enterprises. The research shows that from 2018 to 2022, the overall innovation efficiency of rare disease drug companies decreased by an average of 0.07% each year. This might be because some rare disease drug enterprises receive relatively small government subsidies, although they can help these enterprises alleviate the pressure of R&D investment, but it does not change the situation of these enterprises' losses, thus affecting the enterprise's R&D enthusiasm and reducing the innovation efficiency. This case clearly shows the situation when government subsidies fail to reach the level of improving innovation efficiency. This is not only caused by insufficient subsidy intensity, but more importantly, by the incorrect direction of subsidies. Because when the subsidy intensity is insufficient, it has the opposite effect, and when the intensity just reaches the standard, there is a significant marginal diminishing effect. This may involve waste of subsidy resources or that the subsidies may be "fraudulent". Government subsidies have affected the innovation efficiency of enterprises, becoming a stumbling block for industry development. Government subsidies need to consider how to be implemented without affecting the normal competition and development of the market.

It is worth noting that this case belongs to an innovative industry. The common point of these industries is that they can not only lead to an increase in GDP and a rise in employment rate, but also may help the country solve "key problems". Sometimes, the development of large-scale innovative industries in specific aspects can also improve people's living standards. Therefore, giving priority to innovative industries in production-side subsidies is also a quite reasonable consideration. However, at the same time, the government's support for innovative enterprises and social capital should meet certain thresholds to achieve continuous growth of social total welfare without harming the interests of either party, and to achieve a positive interaction and coordinated development of innovative enterprises and social capital [9].

In 2006, China launched a development plan for its domestic shipbuilding industry and listed it as a "strategic industry" [10]. Data shows that many government subsi-

dies have reduced the development costs of the shipbuilding industry, and many new shipyards have been planned and constructed by the government. In just the period from 2006 to 2008, China had over 100 new shipyards. This led to a significant increase in China's share of the shipbuilding industry market from 25% to 50% [11].

Although the effect of the subsidy policy in this case was quite good, the massive investment of funds contrary to market laws led to many problems. A report pointed out that during the market downturn period, the capacity utilization rate of China's shipbuilding industry was seriously insufficient, and a large amount of resources were wasted. This directly led to the overall policy return rate being negative during the period from 2006 to 2013 when China's share of the shipbuilding industry market significantly increased. Moreover, such a large-scale subsidy policy would also trigger trade disputes. The US Trade Representative Office declared in early 2025 that China's use of this subsidy policy to dominate the global shipbuilding industry was an unfair competitive behavior. The US once attempted to impose high port fees on Chinese ships. Similarly, China's electric vehicle subsidies, Europe recognized a large number of exported electric vehicles from China as a form of product dumping.

Overall, these cases reflect some problems. The most crucial problem is that the utilization rate of funds in the subsidy policy is low. This is not only irresponsible to taxpayers, but also a key factor restricting social development under this economic system. Moreover, the unfair competition brought by government subsidies may be a fatal blow to other enterprises that should be developing smoothly. Of course, these government subsidies undoubtedly have brought about many positive effects. For instance, they ensure employment rates, maintain social stability, and rapidly promote the development of certain specific industries, bringing about significant changes to society and significantly improving people's lives.

6. Conclusion

This study, through a systematic review, found that the production-side subsidy policies have played an indispensable role in driving the leapfrog development of specific industries in China. However, the market distortions and efficiency losses caused by these policies cannot be ignored. From the perspective of policy effectiveness, the production-side subsidies have enabled certain specific industries to expand rapidly in scale, bringing about significant changes to people's lives. However, this has also caused other enterprises within the subsidized industries to be trapped in unfair competition, which will, in the long run, affect the innovation drive of the industry and the efficiency of market competition. In terms of the setting of the subsidy mechanism, unreasonable subsidies that

are often seen seem unavoidable, and a large amount of funds will be wasted in the form of subsidies. For example, resource waste and excessive production caused by excessive industry scale, sometimes enterprises that need subsidies do not receive subsidies, while some enterprises obtain higher subsidy standards through various means, and sometimes there are loopholes in the mechanism that lead to “false subsidies” and other problems. In addition, the current subsidy methods also face severe challenges from international rules. This part requires the government to do a good job in diplomacy and make adjustments to export rules to avoid being again characterized by the outside world as some kind of “dumping”.

This article suggests that future policies should transform towards “precision”, “legalization” and “transparency”, for example, establishing a full life cycle subsidy performance evaluation system, and actively exploring innovative support policies that are in line with international rules. To promote the transformation of the subsidy policy towards ‘precision, legalization and transparency’, it is suggested to establish a dynamic assessment and adjustment mechanism centered on quantitative indicators. Firstly, set up a ‘subsidy effectiveness coefficient’, with the short-term target coefficient being greater than 1.2. Secondly, adopt an ‘index of compatibility with international rules’, and the index should be greater than 90%. Finally, through the publicly disclosed ‘subsidy information transparency index’, with a full score of 100, it should be greater than 85 points. Through the continuous monitoring of these three key indicators, a policy closed-loop of ‘assessment - feedback - optimization’ can be constructed, achieving a fundamental transformation from extensive investment to meticulous management.

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