

Research Review of Development Zone

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Abstract: Development zone policy is an important means for all countries to promote regional economic development. After more than 30 years of development of the development zone established in China, although it has played an important role in economic development in terms of opening up and industrial structure adjustment etc., it also faces many problems. This paper systematically summarizes and untangles the existing research results from domestic and foreign literature, and carries out further comments and prospects on this basis.

Keywords: urban economics; development zone; review.

1. INTRODUCTION

The development zone policy has been implemented for over 30 years, which has an irreplaceable role in leading regional development and promoting national economic growth. According to statistics, only 47 countries established 176 parks in 1986, the number of parks had increased to 3500 up to 2006, and the number of involved countries had also reached 130 as well, the number of parks in developing countries was growing fastest during this period, especially the economic growth miracle obtained from the implementation of the China's development zone policy, which is most worth learning by various countries (Farole&Akinci, 2011). In 2014, the financial and tax revenues of the China's development zone accounted for 10% of the whole country, GDP accounted for 13.4% of the whole country, import and export value accounted for 20% of the whole country, and value added of the secondary industry accounted for 22.6% of the whole country. At this stage, how to promote the transformation, upgrading, innovative development of the development zone to give full play to the demonstration effect of the development zone? The development zone has always been an important topic in the regional economic research at home and abroad.

2. LITERATURE REVIEW OF DEVELOPMENT ZONE

2.1 Research trends of domestic development zones

China's development zone policy has not only promoted the rapid growth of the national economy, but has also produced many problems that cannot be ignored (Zeng, 2010; Yeung,

2009), under the development background of China's development zones, the existing literature studies development zone mainly from the macro and microcosmic aspects.

At the macro level, the existing literatures indicate that the development zone has a positive effect on economic growth, foreign direct investment and other economic indicators. Alder et al. (2016) used the difference-in-difference model (DID) to analyze the panel data of 270 cities in China from 1988 to 2010, and found that the national development zone can increase the local GDP by 12% through material capital accumulation, but the positive effect of increasing the economic growth rate is only a short-term effect. Wang (2013) also used DID to conduct empirical research on 321 cities' data in China from 1978 to 2008, the results showed that the establishment of the development zone increased 21.7% of foreign direct investment (FDI) and FDI growth rate reached 6.9%.

Some scholars also use micro-enterprise data to study the effect of setting up economic and technological development zones in China on the productivity of enterprises. Lu et al. (2015) used the geocoding enterprise data from 2004 to 2008 to study the impact of China's development zones on economic activities; the DD, BD, and BD-DD estimation models were used to analyze, the research showed that the spillover effect brought about by the implementation of the development zone policy has significantly increased enterprise' capital, output, wages, and labor productivity, and it is particularly favorable to the development of capital-intensive enterprises in the park, however, it has no obvious impact on the region with huge market potential and complete infrastructure. Zheng et al. (2017) conducted an empirical study based on eight major urban geographic data and industrial enterprise data from 120 industrial parks from 1998 to 2007, and used the instrumental variable method (IV) to solve endogenous problems, the results showed that accumulation and spillover effect will not only promote the increase of the total factor productivity (TFP) of the enterprises outside the park, but also increase the housing prices and retail sales, and promote the rise of edge cities from work, life and entertainment three aspects.

2.2 Research trend of foreign development zones

The establishment of development zones is a typical place-based policy in China; many foreign countries have also done a lot of research on regional policies, mainly use the data of various countries and regions to demonstrate the effectiveness of this policy, and empirically test the effect of policy implementation on economic growth.

Because there are big differences in the situation of various countries, the effectiveness of the cluster economy of the development zones policy has not reached a consistent conclusion (Akinci&Crittelle, 2008; Glaeser&Dottlieb, 2008; Walcott, 2017). There are two explanations of the current literatures for the differences of economic impact for establishing development zones. On the one hand, the cluster economy generated by the development zones not only improves wage levels and life convenience, but also increases local housing prices. Kline (2010) proposed that the difference degree of population and cluster economy determines whether the government subsidy policies of the development zones are effective, it shows that the formulation of development zone policy under certain conditions is conducive to economic

development, and some literatures propose that the local liberalization system is also an effective condition to determine the development zone policy (Gabion et al., 2008). On the other hand, in order to distinguish whether the effect of development zone policies on the economy is the zero-sum effect of economic activities in inter-regional transfer or the net effect of regional changes in the same direction, Kline & Amoretti (2013) thinks that investment in infrastructure construction will directly lead to a net increase of national manufacturing productivity, regional policy is effective; however, the gains of resulting cluster economy indirectly promotes the local economic growth is offset by the economic losses in the surrounding areas, this is the result of the effective allocation of resources, so the regional policy is ineffective, Beacon & Weinstein (1996), Hanson & Rohlin (2013) and Neumark & Kolko (2010) obtained similar conclusions from data of Japan, the United States Federal concession area and Canada.

Whether the development zone has a promoting effect on economic growth, many scholars have also done relevant research on this issue. Hyun & Ravi (2017) finds that the development zone not only promote the economic growth in the park, but also have a positive spillover effect on the area outside the park, and will transform the core of economic activities from the informal departments to the formal departments, it means that formal department workers with higher income and education can benefit from it, and are adverse for workers who remain in the informal departments. The studies of Shiny (2018), Hsieh & Klenow (2009) and Harrison & Rodriguez-Clare (2010) have also reached similar conclusions. The studies of Buss et al. (2013) and Kline & Amoretti (2014) also found that the implementation of regional policies has increased local employment and wages, in contrast, the increase in the living cost is moderate, but there are regional differences for this situation. In addition, many studies have reached a consistent conclusion of the positive spillover effect on economic indicators such as FDI and GDP (Wei, 1995; Headrest, 1996; Cheng & Kwan, 2000; Jones et al., 2003; Liu & Wu, 2011).

3. COMMENTARY AND PROSPECT

3.1 Commentary

Throughout the above literatures, the regional economic research field has done a lot of theoretical analysis and empirical accumulation for the development zone problems, and has achieved many meaningful results, which has important reference value for the follow-up research. Combined with the combing and analysis of China's economic development environment and existing literature, there is still a lot of expansion space for the related research on the theme of development zones, the specific performances are as follows:

The previous literature mainly focused on the development of the development zone and its impact on the development of the surrounding area in the research contents. Because the birth purpose of the development zone was to become the promoter of regional economic development, the development zone always acts as a role force in the economy, validate the value of its existence by exerting economic effects on cities or businesses, does not consider the development zone as the focus of the economic role, how regional economic factors affect

the development zone. The realization of regional coordinated development should focus on the interaction between the development zone and the cities outside the zone, development zones affect urban economic activity, which is only one aspect of this relationship, strengthen the understanding which regional economic factors on the formation of development zones, which help transform, upgrade and innovate the current development zones.

In research scales and targets, the existing literatures generally study the spillover effect of development zones on the hinterland or adjacent areas from the perspective of regional economic growth and other macroeconomic levels, in recent years, many scholars have begun to use micro-enterprise data to analyze the role of development zones, however, the research on enterprise efficiency is still insufficient at present. Because the focus to the country's economic growth lies in the development of entity enterprises, it is of great research value to empirically test the impact of enterprise productivity on the interaction between development zones and cities based on the perspective of manufacturing enterprises.

In research methods, the endogenous nature problem of the development zone is determined by the non-randomness of the development site selection, in the past, most literatures used the difference-in-differences model to conduct empirical research, through selection of the control group and the treatment group, eliminate endogenous nature by using trend differences after policy intervention. However, this method has very strict requirements on the selection of the control group; many research problems are difficult to meet the standards of quasi-natural experiments, therefore, many scholars choose to use instrumental variable to deal with the result bias brought by endogenous nature, and choose a suitable one, choose a suitable tool variable is the key to this research method.

3.2 Prospect

In order to overcome the difficulties in the transformation and upgrading process of China's development zones and realize innovation-driven development, use the development zone to create the next 30-year growth miracle, it is necessary to be based on existing research, integrate the realistic background of economic growth in our country, further study the development zone deeply. The future research prospects are as follows:

(1) Adjustment of industrial structure. The development zone is the carrier of China's industrial cluster, under the background of supply-side structural reform, the key point to achieve the goal of upgrading the industrial structure lies in the development zone, and the impact research of China's development zone on the adjustment of industrial structure should be deepened, which helps industrial transfer go smoothly.

(2) Development of urban service functions. Cities and development zones have an interactive development relationship; the development of urban service functions is the basis for realizing the integration between industries and cities, and the rational layout of regional space. Therefore, to promote the coordinated development of the development zone and the city together, it is necessary to study the spatial integration between cities and development zones, share facilities functions so as to maximize the economic benefits.

(3) Transformation and upgrading of development zone. To complete the task of transformation and upgrading of the development zone at present, we should break the thinking path of traditional development and turn to the perspective of urban economic development on development zone. Taking the development zone as an of economic growth object, and consider whether or not the neighboring area has become a stumbling block to the transformation and upgrading of the development zone, under what conditions the development zone can achieve the maximum value of growth dividend, and in what conditions can promote the coordinated development between the development zone and the surrounding area, it is an important proposition for the study of development zones in future.

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