

An Evaluation of Shanghai's Economic Vitality

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Abstract: Under the background of economic globalization, regional economic integration has increasingly become the only way to enhance regional economic competitiveness in China. The central government has given various preferential policies to the Shanghai Free Trade Zone, which has formed the corresponding siphon effect on various resources in the Yangtze River Delta region of China, resulting in the competition and circulation of various resources among regions. Taking Shanghai as an example, this paper puts forward suggestions to stimulate Shanghai's economic vitality by establishing an economic vitality rating system.

1. Introduction

With the continuous development of economic globalization, China has already joined the World Trade Organization and the socialist market economic system with Chinese characteristics is continuously improving. Regional economic integration has increasingly become the only way for all regions in China to enhance their regional economic competitiveness. Strengthening regional economic cooperation is a strategic requirement to enhance China's competitive power under the background of globalization. Regional economic vitality is an important part of regional comprehensive competitiveness. In recent years, in order to improve economic vitality, some regions have launched many preferential policies to stimulate economic vitality in order to attract foreign investment. However, due to the different allocation of urban resources, these policies have different impacts in different regions. How to grasp the key factors to improve the economic vitality of a city is a subject worthy of study [1].

As we all know, regional economic vitality is affected by many factors. The issue of “the impact of changes in regional economic vitality” will be analyzed from the perspectives of population change trend and enterprise vitality change trend. How to measure the vitality of regional economy has always been a complex problem. We should put forward some practical suggestions that are conducive to the regional development, enhance the regional competitiveness, and maintain the sustainable development of the regional economic vitality.

We need to select reasonable indicators and establish a mathematical model to analyze and measure the regional economic vitality to solve this problem.

2. Regression Model of Economic Vitality

2.1 Elements of Economic Vitality Evaluation System

Economic vitality mainly includes economic growth, element attraction, employment, quality of life of residents and technological progress. The details are as follows:

(1) Economic growth. Economic growth refers to the potential and power of economic growth, focusing on the ability of sustainable growth. Economic growth includes economic aggregate and its growth rate. In the process of economic development, the scale economy based on the economic aggregate can spontaneously guide the agglomeration of economic elements, improve the efficiency of economic output, and then support the sustainable economic growth.

(2) Factor attraction. Factor attraction is embodied in the attraction of capital, labor force, enterprises and other factors of production as well as the use efficiency of these factors. Labor determines the endogenous power of economy and is the basis of economic vitality. The size of economic vitality of a region is closely related to the flow and composition of talents.

(3) Quality of life of residents. The living standard of residents is the embodiment of the overall development of economy and culture in a region, which is mainly composed of residents' income and consumption. The economic vitality of a region is closely related to the consumption of residents.

(4) Technological progress. Technological progress is an important source of economic growth. On the one hand, technological progress promotes sustained economic growth by improving factor production efficiency; on the other hand, it accelerates economic growth by optimizing economic structure [2].

2.2 Construction of Economic Vitality Evaluation System

2.2.1 Index Selection

Combined with the previous analysis, in the construction of economic vitality evaluation system, this paper mainly selects indicators from seven aspects: economic growth sustainability, factor attraction, industrial structure upgrading, opening up, residents' life, innovation ability, environment and supporting facilities. The final economic vitality evaluation system consists of 7 first level indicators, 13 second level indicators and 31 third level indicators [3].

These indicators are shown in the table below:

Tab.1 Evaluation index system of economic vitality

First level index	Second level index	Third level index	Proportion
Sustainable economic growth(27%)	Economic performance	GDP growth rate per head	0.835%
		Land for construction per 10,000 yuan of GDP	4.208%
		Water consumption per 10000 yuan of GDP	4.635%
		Electricity consumption per 10000 yuan of GDP	3.041%
	Financial guarantee	Public budget revenue Public budget expenditure	8.349%
		Public budget revenue Public budget expenditure	5.932%
Element attraction (13%)	Capital	Total fixed assets	0.247%
		Proportion of total fixed assets in the city	3.166%
	The labor	Number of employees at the end of the	0.540%

		year	
		Average wage of employees at the end of the year	1.416%
	Enterprise	Number of headquarters	7.433%
		Number of service units above designated size	0.198%
Upgrading of production structure(12%)	Industry status	Added value of tertiary industry / added value of secondary industry	5.431%
		Growth rate of tertiary industry	3.376%
	Characteristic output	Proportion of modern service industry in GDP	0.176%
		Proportion of headquarters economy in GDP	1.089%
		Proportion of cultural industry in GDP	1.885%
		Proportion of financial industry in GDP	0.043%
Opening up(16%)	Opening to the outside world	Total foreign capital actually utilized	2.134%
		Trade volume	13.866%
Quality of life of residents(8%)	Resident income	Per person disposable income of residents	3.111%
		Per person disposable income / per person GDP of resident	0.033%
	Household consumption	Engel's Coefficient	0.029%
		Retail sales of consumer goods per person	4.827%
Innovation ability(22%)	Innovation ability	Patent authorization per 10000 people	6.268%
		Proportion of high-tech added value in GDP	6.436%
		R & D expenditure as a proportion of GDP	9.296%
Environment and supporting facilities(2%)	Environmental Science	Green coverage	0.039%
		Average value of regional environmental noise	0.001%
	Matching	Number of hospital beds per 10000 people	1.282%
		Number of Stadiums	0.678%

Tab.2 Changes of population and enterprises in Shanghai in the past seven years

Year	Natural growth(%)	Mechanical growth(%)	GDP (100 million yuan)	GDP growth(%)	Labor force population
2012	-0.68	5.53	19195.69	8.2	19201.22
2013	0.26	3.97	20101.33	7.5	20105.3
2014	-0.54	4.24	21602.12	7.7	21606.36
2015	0.32	4.03	23560.94	7.0	23564.97
2016	-1.27	4.37	24964.99	6.9	24969.36
2017	0.5	4.57	27466.94	6.8	27471.51
2018	-0.6	5.29	30133.86	6.9	30139.15

3. Suggestions on Further Stimulating Economic Vitality of Shanghai

3.1 Comprehensively Deepen Reform to Stimulate Market Vitality

We will further deepen the reform of the administrative examination and approval system, streamline administration and delegate power, transform functions, take the initiative to do what we should do, improve the level of macro-control, maintain a market environment of fair competition, and maximize the vitality of market players. In addition, we will unswervingly promote the process of marketization and legalization, give full play to the role of the market mechanism, create an atmosphere of employment and entrepreneurship, especially for the development of enterprises. It is to create a good environment for the development of private enterprises [4].

3.2 Accelerate Urban Renewal and Release Industrial Development Space

Accelerate the renewal and renovation of key areas, release industrial space, and accelerate the comprehensive planning of underground space. We should continuously optimize the industrial space layout and build a high-standard Huaqiangbei electronic information professional market industrial belt, Tian 'an, Tairan, commercial buildings, Jindi high-tech and modern service industry belt.

3.3 Build a Diversified Innovation System and Improve the Core Technology Innovation Ability

First, we should make full use of the advantages of the host place of the fair to attract more national major scientific and technological infrastructure, new research and development institutions and high-end intellectual property service institutions to settle in and build a high-end innovation cluster; second, we should strengthen the top-level design, build a policy system for independent innovation, strengthen the use and protection of intellectual property rights, improve the incentive mechanism for technological innovation and create a good independent innovation Environmental Science.

3.4 Promote Industrial Transformation and Development and Optimize Economic Structure

Focusing on industrial transformation and upgrading, we should concentrate on cultivating emerging industries, enhance the strength of high-tech industries, strengthen modern business logistics, business services, science and technology services, information services and other emerging services, and foster new economic growth points; second, we should give full play to the adjacent advantages of Shanghai free trade zone and Shenzhen-Hong Kong Hetao area, and actively undertake a new round of international high-end industries Industrial transfer: build a “high, new, soft and excellent” industrial system with the theme of international trade and modern logistics and coordinated development of export processing and high-tech manufacturing industry to stimulate a new round of industrial vitality [5].

3.5 Consolidate the Development Advantage of Financial Industry and Strengthen the Position of Financial Center Area

First, we should actively take advantage of the advantages of Shenzhen Stock Exchange to further develop Shanghai into a gathering center of large-scale insurance, securities, funds, banks and other financial institutions, and establish a modern financial organization system with banks, securities, insurance institutions as the main body, other financial institutions coexisting, reasonable structure and complete functions [6]. Then, it's important to settle in Shenzhen International Internet Financial Industrial Park Shanghai takes the opportunity to build Shenzhen's “Internet Finance CBD” as the goal, and strive to build Shanghai into a leading intelligent and innovative financial characteristic city in Shenzhen and even in China.

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