

# Research on the Relationship between Government and Market

## -- Based on the Bibliometric Analysis of Citespace

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### Abstract

The relationship between government and market is a basic theoretical problem faced by all schools of economics, as well as an important national realistic problem related to policy boundary and scale. In 1981, the Sixth Plenary Session of the eleventh Central Committee of the Communist Party of China (CPC) proposed for the first time that planned economy must be carried out on the basis of public ownership with the auxiliary role of market regulation. The fourth Plenary Session of the 19th CPC Central Committee once again emphasized the third Plenary Session of the 18th CPC Central Committee: let the market play a decisive role in the allocation of resources and better play the role of the government. In the past 101 years, the relationship between government and market has been evolving constantly. Based on the system of comb the process of the evolution of the relationship between government and market, on the basis of through measuring tools citespace literature, analyzes the recent ten years about the post fixed number of year of study on the relationship between the government and market, institutions, and through cluster analysis, the study summarized as three topics in this field direction, finally puts forward the future relationship between the government and the market prospect of the direction.

### Keywords

Government and Market; Resource Allocation; Policy Evolution; Clustering Analysis.

## 1. The Background of Chinese Government and Market Research

The relationship between government and market is an important one in market economy system. No matter in developed or developing countries, the role of government and market in resource allocation and their relationship are always discussed by experts and scholars, and thus different schools of economics have been formed.

In the allocation of resources, government planning regulation and market free exchange play different roles, both of which play an important role in promoting China's economic development in their own fields. Market allocation of resources is determined by the clarity of property rights market main body independent production and production how much, how to produce and for whom production, market main body self-financing, self decision the free flow of goods and elements, equal exchange, law of value, is crucial in the process of trading, the market by price change timely and accurately reflect the scarcity of resources and the supply and demand change. Markets have an advantage over other mechanisms in processing and delivering vast amounts of economic information. At the same time, the market economy provides the most effective incentive mechanism for economic activity subjects, can effectively balance supply and demand, and is the most effective allocation of various factors of production and resources.[1] Any country must consider its historical level of economic development, political system and cultural tradition when considering the way of resource allocation. But this characteristic is not in the market economy system, but in the combination of market economy

and socialism. Different from western countries, China is a country with highly centralized culture and politics in history, which determines the important role of planned economy in our resource allocation. In China, the main guiding ideology for the state to participate in the allocation of resources is the service concept of "people as the center". Under this purpose, through the continuous development and expansion of the public economy, stronger, better and bigger state-owned enterprises, the development of economic plans, medium and long term planning, economic development strategies.[2] In the era of big data, the advantage of planning over market lies in the ability and fairness of resource allocation subjects to collect information and allocate resources. The government has the macro-control information that market subjects do not understand, and thus obtains the unique advantage of formulating strategies, implementing plans and intervening in the market.[3] The socialist "planned economy" therefore has unique charm and points out the way for our country's economic development.

It is precisely because the government and the market play an important role in the allocation of resources, it is necessary to fully and accurately understand the type of the relationship between the two, and grasp the policy and practice evolution process of the relationship between the government and the market, so as to contribute to China's economic construction and realize the Chinese dream of the great rejuvenation of the Chinese nation at an early date.

## **2. Evolution of the Relationship between Government and Market**

Since the 100th anniversary of the founding of the Communist Party of China, the relationship between the government and the market seems to be a process of "one side and the other", but in fact it is a significant and correct strategic decision made by the leaders of the CPC Central Committee according to the development of China's political economy and culture. As a result, China has become the world's second largest economy with a rapid increase in economic growth and an increasingly optimized economic structure. China's comprehensive national strength and international influence are increasing day by day. This has prompted us to reconsider and think about the evolution of the relationship between the government and the market.

### **2.1. 1921-1978: The Stage of Highly Centralized Planned Economy**

At the beginning of the founding of the Communist Party of China, the Party faced internal strife, extremely backward mode of production, domestic waste waiting to flourish; Externally, socialist countries represented by the Soviet Union carried out a highly centralized planned economy and "won on a large scale". In 1937, the Soviet Union announced the realization of industrialization. In order to quickly realize "domestic unification" and change the domestic poor and weak situation, the country has implemented the "three socialist transformation", "agricultural and sideline products purchase and marketing" and other policies, China has established a highly centralized socialist planned economy system to solve the financial difficulties and other problems. According to the data, during the period of 1949-1952, China's national economy gradually recovered, and the proportion of state-owned industrial output value in the national industrial output value rose from 34.7% to 56%. However, due to the over-emphasis on the government's macro-control function, the market's role in allocating resources and providing factors of production is almost ignored in both the economic field and the public management field, and the disadvantages of the government-led planned economy system are increasingly exposed.

### **2.2. 1978-1992: Establishing a Socialist Planned Commodity Economy**

As mentioned earlier, it makes sense for the state to have a highly centralized planned economy in its early years. However, with the expansion of the scale of economic development and the

diversity of economic activities, the disadvantages of the planned economy system are increasingly exposed, the social management system is becoming increasingly rigid, and the development of productive forces is stagnating. For 20 years from 1958 to 1978, China's economy was almost in a state of stagnation and wandering.[4] With the third Plenary Session of the eleventh Central Committee of the Communist Party of China as the symbol, China pulled up the prelude of reform and opening up. After a series of important statements by party leaders: "Why can't socialism develop a market economy? This can't be called capitalism. We have a planned economy and a market economy, but this is a socialist market economy." "Planned regulation and market regulation are the two basic forms of regulating the economy." "The system of socialist planned commodity economy should be a system of internal unity between planning and market." "Planned economy must be carried out on the basis of public ownership and the auxiliary role of market regulation must be brought into play." The important position that the market adjusts economy is taken seriously increasingly.

### **2.3. 1992-2012: Exploration Period during Which the Market Plays a Fundamental Role in Resource Allocation**

After a series of system designs, China's basic socialist system has been initially established, but in order to fundamentally change the system and mechanism restricting the development of productive forces and establish a socialist economic system full of vigor and vitality, we must make progressive reform, progress promotes the development of productive forces, and let the vitality of market subjects burst into full play. In October 1992, the report to the 14th National Congress of the Communist Party of China officially stated for the first time: "Establish and improve the socialist market economic system." Since then, after the party's 15 big "market in the country a fundamental role in the allocation of resources under the macroeconomic regulation and control", 16 "more play a fundamental role in the allocation of resources and market", the 17th stressed "from the system better play a fundamental role in the allocation of resources and market", to the 18th of "respect the market rule, more better play a role of the government".

### **2.4. 2012 to Present: The Period When the Market Plays a Decisive Role in Resource Allocation and the Government Plays a Better Role**

The opening of the 18th National Congress of the Communist Party of China pointed out that "the world situation, national conditions, party celebrations continue to undergo profound changes, we are facing unprecedented opportunities for development and risks and challenges." As the theory and practice around the world have proved that the market is the most efficient form of resource allocation, it is still very important to deal with the relationship between the government and the market comprehensively and correctly according to the needs of environmental changes and economic development. As a symbol of transformation, the relationship between the government and the market has entered a new stage of "double regulation". This means that the relationship between the government and the market is no longer one of "strong market and weak government" or "strong government and weak market". Instead, it is a two-strong stage in which economic development and social equity and justice meet each other and work together to promote sustained and sound economic and social development.

## **3. Sorting out the Research Context of the Relationship between Government and Market in Academia**

Economic structural reform is the focus of comprehensively deepening reform, and the core issue is to properly balance the relationship between the government and the market.

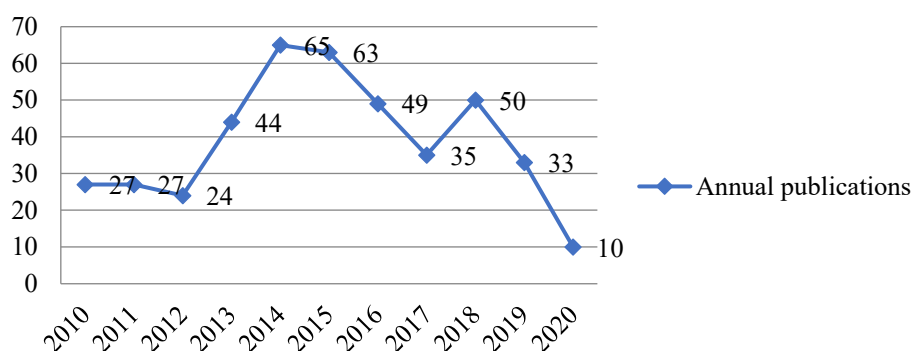
### 3.1. Research Methods and Data Sources

This paper uses CiteSpace V as a research tool for bibliometrics and visualization analysis. CiteSpace V is a JAVA based technology text mining and visualization software developed by Professor Chen Chaomei from the School of Computer and Information Science, Drexel University. CiteSpace V integrates information visualization methods, bibliometrics and data mining algorithms, and uses literature data to map scientific knowledge to realize the visualization of subject knowledge. It can scientifically grasp the hot spots and evolution trends of research, and has been widely used in different disciplines at home and abroad.[5] The data source of this paper is Chinese Journal Full-text Database (CNKI). The selected data range is the academic papers published in CSSCI and core journal source journals in the recent 10 years. In the advanced search, the search conditions of this paper are as follows: taking "topic = the relationship between government and market" as the search expression, the search practice scope is from 2010 to 2020, and a total of 520 papers are retrieved. According to the title and author information, non-academic papers, conference minutes, research reviews, news reports and other articles irrelevant to the theme were eliminated. After screening, 491 literatures were analyzed.

### 3.2. Basic Information of Academic Research

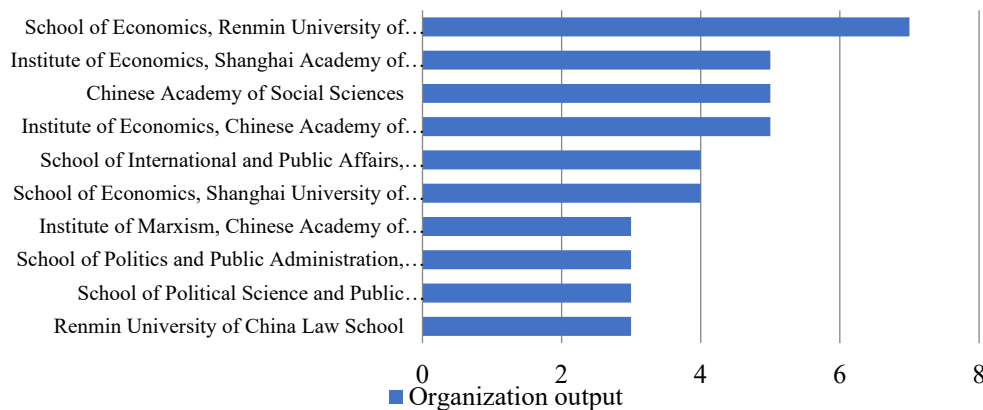
#### 3.2.1. Time Sequence, Publishing Institution and Author Distribution

Distribution of publications over time. Figure 1 shows the changes of the amount of government and market research literature published in CNKI over time. As can be seen from the figure, there are few studies on government and market before 2012, and most of them vibrate within the range of 20-30. In 2012, the 18th National Congress of the Communist Party of China called for more respect for market rules. With the convening of the third Plenary Session of the 18th CPC Central Committee in 2013, the discussion that the market plays a fundamental role in the allocation of resources for the first time changed to the decisive role of the market in the allocation of resources and the better play of the market's role. Therefore, after 2013, academic research on the theme of "government and market" showed a "spurt" growth, reaching a peak value of 65 in 2014 and gradually declining in the following years, but the overall number of articles published was higher than before 2012. In general, academic research is obviously driven by policies and party congresses.



**Figure 1.** Distribution of the number of government and market publications (2000-2020)

In the research on the relationship between government and market in the past 10 years, we select the top 10 institutions to display. From the academic paper published units, to the school of economics in the majority. As can be seen from Figure 2, the institutions with outstanding achievements include Institute of Economics of Chinese Academy of Social Sciences and School of Economics of Renmin University of China, with 7 articles published respectively.



**Figure 2.** Distribution of the number of publications issued by government-market relations institutions

### 3.2.2. Hot Spot Analysis of Research Frontier

#### (1) Keywords clustering knowledge graph analysis

Keywords can reveal the main research content and direction of the article. Its centrality reflects its importance in the whole keyword co-occurrence network and represents the core research topic in a certain period [6]. Through the detection of key word emergence and co-occurrence frequency of the subject literature in the field of government and market, we can intuitively detect the research hot spots in the field of government and market. In order to explore the hot topics of government and market papers in recent years, this paper conducts keyword co-occurrence clustering analysis on 496 selected academic papers.

Before data analysis, CiteSpace must determine the time zone of the analysis object and the length of a time slice. In the time threshold, select 2010-2020 for the time range, and set a time slice to 1 year, that is, 10 time zones. To improve the clustering effect, set TOP N to 50% and TOP N% to 10%. In threshold setting, node occurrence frequency, node co-occurrence frequency and cosine coefficient were set as 2 respectively. 2;20, 4;3;20, 3;3;20. CiteSpace provides Path Finder and Minimum Spanning for pruning small branches of a map. In order to simplify the graph and highlight its important structural points, path finding algorithm is selected. In the end, the clustering knowledge map of government and market in humanities and social sciences in China in the past ten years was formed, with 380 nodes and 480 links.

A research hotspot is a research problem or topic discussed by a relatively large number of intrinsically related papers in a certain period of time [7]. Run the software to generate the keyword clustering network atlas.

CiteSpace provides two indicators, module value (Q value) and average contour value (S value), based on the network structure and clustering clarity. It is generally believed that the Q value is within the range [0.1], and the Q value > 0.3 means that the community structure is significant [8], the Modularity Q value of the atlas is 0.7324, and the Mean Silhouette value is 0.4721, both values exceed the reasonable range critical value, indicating that the clustering effect of this study is significant. LLR (logarithmic likelihood algorithm) algorithm was used to obtain a total of 11 effective categories. In this paper, 2 categories with similar clustering labels were combined, and categories with more than 10 articles were selected to obtain 8 effective categories. Cluster 0: government functions; Cluster 1: Government; Cluster 2,7: China's economic growth; Cluster 3: The relationship between government and market; Cluster 4: Deepening reform; Cluster 5: Market failure; Cluster 6: Market mechanism; Cluster 8: China's financial system reform.

**Table 1.** Keywords co-occurrence network clustering table

| Clustering number | Cluster size | S value | In an average year | Tag words (select top 5)                                                                                                                                                       |
|-------------------|--------------|---------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0                 | 41           | 0.92    | 2015               | Government functions;Local government;System;Government and market;The government;market                                                                                       |
| 1                 | 34           | 0.887   | 2013               | The government;The market;Civil society;Management;Post-international financial crisis                                                                                         |
| 2                 | 33           | 0.902   | 2015               | China's economic growth;Industrial policy;Relationship between government and market;Organizational structure of government;The old world                                      |
| 3                 | 33           | 0.898   | 2014               | The relationship between government and market;Economic restructuring;Comprehensively deepen reform;The Third Plenary Session of the 18th CPC Central Committee;The government |
| 4                 | 21           | 0.908   | 2014               | Deepening reform;Government and market;Law of value;Fair competition;State capital income                                                                                      |
| 5                 | 20           | 0.808   | 2014               | Market failure;Government intervention;New urbanization;Government market relations;Market regulation                                                                          |
| 6                 | 17           | 0.946   | 2012               | Market mechanism;Strong government-strong market model;Industrial structure imbalance;Year-on-year growth;Production of composite                                              |
| 8                 | 13           | 0.964   | 2014               | Reform of China's financial system;Market role;People's Bank of China;The financial sector.Urban credit union                                                                  |

## (2) Hot topic induction

Through in-depth analysis of keywords in each cluster, it is found that the research content of each cluster is overlapping. This paper combines the overlapping and similar keywords and summarizes the research on the relationship between government and market in recent ten years into the following topics: "Discussion on the transformation of the relationship between government and market", "Research on market regulation, failure and deepening reform", and "Research on the standardization and expansion of government functions".

### "On the transformation of the relationship between government and market"

Famous western economist samuelson in his book "economics" has pointed out: "any society is a command economy and the combination of market economy, there are both command economy and market economy, there is no absolutely pure market economy" samuelson's faint out the best choice of the mode of relationship between government and market "the government and the market regulation" together. In the traditional planned economic system, the allocation of resources is mainly decided by the government, and the market has little space to play a role, thus forming a typical "strong government - weak market" model. The academic research on the choice of transformation of the relationship between government and market focuses on the necessity and transformation process of "strong government, weak market" to "strong government, strong market" in China after the reform and opening up. The third Plenary Session of the 11th CPC Central Committee opened the prelude of reform and opening up, and the important role of market allocation of resources began to be recognized. However, with the increasing complexity of economic activities and the imperfection of market system, a variety of market failures constantly appear in new situations, and the limitation of market function

boundary is concerned. As early as 2002, Wen Guanzhong pointed out that although government remedy for market failure can accelerate economic development in a certain period of time, if the boundary of government power cannot be determined, the long-term impact of government intervention in the economy may be negative. Therefore, the government needs to make up for market failure while striving to improve the market. Liu Tingting et al. (2008) analyzed the foundation of governance crisis in countries in transition and proposed that the core of reconstructing national governance model lies in establishing a market enhancing governance structure with "strong government and strong market" symbiosis. Pang Mingchuan (2013), after defining the concept connotation of strong government and strong market, proposed to correctly understand the functions of the two, abandon the wrong idea of all-powerful government and market, and realize the goal of building a socialist market economy through the organic coordination of the two. Yuan Enjian (2013), Liu Ru (2018) and CAI Fang (2020) have all proposed that in the field of microeconomy, market forces should be strengthened and government microeconomic functions should be weakened. State-owned enterprises should be responsible for their own profits and losses and gradually establish an independent position. In the field of macro economy, the government should use economic leverage to strengthen the function of regulation and control. In this way, "double strong pattern" can be realized. Yang Guangfei et al. (2015) summarized the relationship model between government and market from 1978 to 1992 as "strong government, weak market", and after 1992 as "strong government, strong market", taking the 14th CPC National Congress as the dividing point.

### **"Market regulation, failure and Deepening Reform"**

Since the 70th anniversary of the founding of the People's Republic of China, China's economy has grown rapidly. The change of the relationship between government and market has gone through emphasizing planned economy or centering on planned economy, developing socialist market economy, market playing a fundamental role in resource allocation, and finally evolving into market playing a decisive role in resource allocation. Based on the theme of "market allocation of resources", we searched the CSSCI and core journal articles on THE WEBSITE of the COMMUNIST Party of China (CPC), and found that after the third Plenary Session of the 18th CPC Central Committee, the number of articles on the topic of market allocation of resources increased by two times compared with 2013. It can be seen that the academic research is obviously driven by policy documents and focuses on the utility of market allocation of resources and the deepening reform caused by market failure. Sun Wenhua et al. (2014) analyzed the disadvantages of the original planning mode and the risks brought to China by globalization and economic downturn, and pointed out that giving play to the decisive role of the market is the proper meaning of resolving factor price distortion, alleviating employment pressure and improving social innovation vitality. By analyzing the problems existing in the current financial field, some scholars pointed out that China's economy is facing the superimposed pressure of structural adjustment and cyclical economic growth decline, and it is urgent to promote the transformation and upgrading through market-oriented financial reform. Hu Naiwu et al. (2015) analyzed the advantages of market allocation of resources from the law of value, law of supply and demand, and law of competition, pointing out that only when the market plays a decisive role in resource allocation can higher growth efficiency be achieved. In the process of the evolution of the relationship between the government and the market, the efficiency of the market allocation of resources has been constantly explored and paid attention to. However, it cannot be denied that the market itself also has its limitations, such as incomplete market order and insufficient competition. Liu Guoguang (2014) points out that the market determinism of socialism with Chinese characteristics is completely different from that of western capitalist countries, and the function of the market cannot be separated from the state's macro-control. Hu Naiwu et al. (2015) pointed out that the decisive role of the

market is by no means a relationship of "big market and small government". China's socialist market economy takes public ownership as the main body of the economy, and the macro-control of the government as the main body of the market plays an indispensable guiding role.

### **"Government Function specification and Expansion"**

With the transformation of the dual relationship between the government and the market, the functions of the Chinese government have gradually changed from the highly centralized planned economy function to the service and supervision function oriented by the market allocation of resources. As early as 2004, in the report of the 17th CPC National Congress, it was pointed out that we should build a service-oriented government and reduce the government's intervention in the macro economy. The Third Plenary Session of the 18th CPC Central Committee put forward for the first time that "the market plays a decisive role in resource allocation and the government plays a better role". In order to determine the transformation of government functions to determine a clear direction. The research on government functions mainly focuses on the following aspects: first, the necessity of defining government functions; 2. How to define government functions; Three, the government function should contain the content. Zhou Wei (2011) believes that the blind expansion of government functions will lead to the expansion of government scale. Secondly, when the government undertakes what should be undertaken by the market, it will restrict the enthusiasm of market subjects, make the market chaotic and lose the ability of autonomy. Ma Yingjuan et al. (2019) believe that the composition of government functions in China is overlapping and intersecting to a certain extent. If it is not clearly defined, the direction of government functions will be blurred, and they propose that government functions should be defined in a narrow sense, including political, economic, social and cultural functions. As for how to define government functions, Zhang Shouwen (2014) believes that in order to improve the country's economic governance capacity, government functions and rights must be defined by law, including changing legislative ideas, legislative structure and legislative content, streamlining administration and delegating power, preventing expansion of government functions and squeezing market allocation. As for the definition of government functions, it can be summarized as follows: 1. Foster a good market environment and establish complete competitive market rules. The core is to ensure that market players enter the market and exchange freely and equally, where the government mainly plays the role of maintenance and arbitration. 2. Protecting people's rights. The rights here not only involve property rights, but also include citizens' right to privacy, right to life, and even people's political rights to participate in the management of state affairs according to law. To protect people's rights, the government must establish and implement a sound legal system to solve the problem. Third, to provide public goods, increase input to public services pointed out, make up for market failure. Because public goods are non-exclusive and non-competitive, the market will fail in providing public goods due to "free rider" and other problems. Fourth, carry out income redistribution, promote social equity. Income distribution can be divided into primary distribution and redistribution. To perfect government functions, it is necessary for the government to withdraw from the field of primary distribution and focus on redistribution. Market distributes according to the principle of efficiency, but it often violates the social goal of fair distribution and causes the disparity of social wealth and income. In order to solve the problem of fairness, the government must intervene in the field of redistribution through taxation and other means. Fifth, through a sound macro-control framework and effective anticipatory and fine-tuning mechanisms, we will ensure that micro entities have established sound and stable expectations and achieve steady economic growth. Of course, some scholars also pay attention to the importance of "giving better play to the role of government" when they study the reconstruction of government market relations and define government functions, so a new discussion different from the "service-oriented" school of government emerges. Only by giving better play to the role of the government can we ensure

the decisive role of the market in the allocation of resources. Yang Canming (2019), based on China's experience, global trade situation, market effectiveness and war and peace relations, proposed that while ensuring the position of the market in allocating resources, we should think more about how to adhere to the centralized and unified leadership of the Party and play the role of the government.

#### 4. The Future Development Direction of Government and Market

This paper systematically combs the evolution of the relationship between government and market in the past 100 years since the founding of the Communist Party of China. And based on CiteSpace software from the issuing year, issuing agency. This paper makes an econometric visualization analysis of the academic literature on the relationship between government and market in recent ten years. The results show that the academic literature on the relationship between government and market is increasing in recent years, and mainly focuses on the following three topics: 1. Research on the failure of market regulation and deepening reform; 3. Research on the standardization and expansion of government functions.

Both the government and the market are the two hands that regulate economic operation. When there is inequality in resource distribution, monopoly or corruption in the society, the government should come forward to set up a system through laws and regulate market subjects to correct these mistakes and achieve stable economic operation and growth. Socialism with Chinese characteristics has entered a new era, and the purpose of production has changed to meet people's growing needs for a better life. In the current economic downturn and highly complex international political environment, it is necessary to promote the sustainable and stable development of the national economy through appropriate government intervention and macro-control plans. However, we can see from the transformation of the relationship between the government and the market in the past 70 years that the relationship between the government and the market is not immutable, and it is meaningless to argue about the relationship between the two. Countries must consider changing the relationship between the two at any time according to the needs of political, economic and cultural development and the international environment. Only by adjusting the relationship between the government and the market in a timely manner under certain circumstances can the market become more dynamic and the economy develop steadily, which is also an inevitable requirement for the modernization of the country's governance system and capacity.

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