



Escola de Ciências Sociais e Humanas

**Pesquisa sobre desigualdade na alocação de recursos na China desde
reforma e abertura**

Du Boran

**Dissertação submetida como requisito parcial para obtenção do grau de
Mestre em Estudos de Desenvolvimento**

Orientador:

Professor José Manuel Henriques

Outubro-2019

ISCTE  IUL
University Institute of Lisbon

IUL School of Social Sciences

Department of School of Social Sciences

**Research on inequality of resource allocation in China since reform and
opening up**

Du Boran

**Dissertation submitted as partial requirement for the conferral of
Master in Development Studies**

Supervisor:

Professor José Manuel Henriques

OCTOBER-2019

Acknowledgements

This dissertation is a test and summary of my master's study. It is impossible for me to finish this dissertation alone; it has the strong support of a group of people.

First of all, thanks to my supervisor, Professor José Manuel Henriques, who is like a beacon. Whenever I was lost and confused, he guides me in the right direction with his professionalism and wealth knowledge and gave me infinite support and patience in the process and encouragement for me.

I am also very grateful to my family, who gave me courage and strength when I was in trouble and always supported me unconditionally to finish my research.

Finally, I would like to thank my girlfriend Mengni for her company and help, as well as her experience and guidance with me, which is an important part of the success of this dissertation.

Resumo

Nos últimos 40 anos de reforma e abertura, a economia, a política e a cultura da China passaram dramaticamente por mudanças grandes, especialmente o avanço do desenvolvimento econômico.

No entanto, o país expôs muitos problemas sociais com o desenvolvimento da economia. Entre eles, penso que o mais sério é a contradição social devido injustiça da distribuição de recursos.

Portanto, de modo que analisa o status específico da imparcialidade na distribuição de recursos da China, com respeito às dificuldades de compreensão, este artigo utiliza os dados coletados dos recursos do ensino fundamental e médio alocados entre 2014 e 2017, no âmbito das áreas urbanas e rurais, por método de cálculo de desigualdade, os resultados mostram que há fenômeno irracional na distribuição dos recursos educacionais urbanos e rurais, e a desigualdade está intensificada ano a ano.

Na análise das causas da desigualdade de recursos, esta dissertação localiza-se nos fatores governamentais e fatores de mercado. Em fim, de acordo com causas, esta dissertação explora como o governo e o mercado devem distribuir recursos públicos de forma razoável, eficaz e equitativa, e melhorar o nível geral de equidade da sociedade e diminuir a brecha entre o desenvolvimento urbano e rural, promovendo assim o desenvolvimento geral da sociedade.

Palavras-chave: alocação de recursos, desigualdade de alocação de recursos, governo e mercado, recurso educacional

ABSTRACT

Over the past 40 years of reforming and opening up, China's economy, politics, and culture have undergone earth-shaking changes, particularly the rapid pace of development of the economy.

However, with the rapid pace of development of the economy, the country has exposed many social problems. Among them, I think the most serious is the unequal allocation of resources.

Therefore, in order to analyze the specific current situation of China's resource allocation fairness and to understand the difficulties in this aspect, this dissertation uses the collected data of the elementary and junior high school education resources allocation between urban and rural areas during 2014-2017 and takes the Theil index as a method of calculation, from the results, it can be seen that there is an irrational phenomenon in the distribution of educational resources in urban and rural areas, and the phenomenon of inequality has increased year by year.

In the dissertation, of those reasons that cause the inequality of resource allocation, the factors of government and of market be chosen to put into the analyzation. Finally, this dissertation explores how the government and the market allocate public resources reasonably, effectively, and equitably to improve overall social equality and narrow the gap between urban and rural development, so as to promote overall social development in an all-round way.

Key Words: resource allocation, inequality of resource allocation, government and market, educational resource

Contents

Resumo

Abstract

Acknowledgements

1. Introduction-----	1
1.1 Research background-----	1
1.2 Research content-----	1
1.3 Research methods-----	3
1.4 Research significance-----	4
2 Theoretical Basis and Literature Review-----	5
2.1 Basic definition of relevant concepts-----	5
2.1.1 Definition of resources and resource allocation-----	5
2.1.2 Meaning of Social Equality-----	8
2.2 Previous Theories-----	10
3. The equality analysis of China's resource allocation-----	13
3.1 The development of China's understanding of resource allocation efficiency-----	13
3.2 The development of China's understanding of equality in resource allocation-----	16
3.3 Inequality in resource allocation among regions-----	18
3.4 Inequality in resource allocation between urban and rural areas-----	19
3.5 Inequality in resource allocation among industries-----	21
3.6 The status quo that equality in resource allocation of China-----	21
3.7 The resource allocation of basic education in urban and rural areas is inequality-	26
3.7.1 Measurement and data selection of the current situation of basic education	
resources allocation-----	26
3.7.1.1 Measurement method-----	26
3.7.1.2 Data selection-----	28
3.7.2 The present situation of “teacher resource” input of basic education in urban and	
rural areas-----	29
3.7.3 The number of "master's degree or above" investment in urban and rural	
basic education-----	31

3.7.4	The present situation of the funding of basic education in urban and rural areas	34
3.7.5	The present situation of investment in basic education in urban and rural areas	38
3.8	Calculation results-----	40
3.9	Conclusion-----	42
4.	Explores the causes that inequality in resource allocation in China-----	44
4.1	Government's unequal factors in resource allocation-----	46
4.1.1	"referee" and "athlete"-----	46
4.1.2	Resource allocation of rights and protection of rights-----	47
4.1.3	The marketisation of commodities and the monopolization of production factors-----	49
4.2	Market factors in inequality resource allocation-----	50
4.2.1	The market has spontaneity and blindness-----	50
4.2.2	The market creates the "Matthew effect" of resource allocation-----	51
4.3	The negative effects of inequality resources allocation-----	53
5.	Countermeasures to Improve the Equality of China's Resource Allocation-----	54
5.1	Transforming government functions to promote institutional equality-----	54
5.1.1	Transform government functions to improve government governance capacity	54
5.1.2	Promote urban-rural integration to narrow the gap between urban and rural Areas-----	56
5.1.3	Improve social security to ensure social security-----	57
5.2	Improve the market system to promote equal opportunities-----	59
5.2.1	Reduce industry entry regulations and deepen marketisation-----	59
5.2.2	Improve the socialist economic, legal system and improve the market environment-----	61
5.3	Manage the relationship between market and government, promote social equity	62
5.3.1	Government and market control each other-----	62
6	Conclusion-----	65
6.1	Main results of the research-----	65
6.2	The Suggestion-----	66

7. Reference

Chapter I INTRODUCTION

1.1 Research Background

Since the end of 1970s, when China carried out reform and opening-up and established the socialist market economy system in 1992, it has been clear that the market should play a fundamental role in resource allocation. The essence of this basic problem is to think deeply about the efficiency of resource allocation.

The third plenary session of the 18th Communist Party (2013) of China Central Committee pointed out that the market should play a decisive role in the allocation of resources, and efforts should be made to remove market barriers and improve the efficiency and equality of resource allocation. We should promote the market-based allocation of public resources and establish equality, open, and transparent market rules. Is to handle the relationship between the government and the market, how to handle the relationship between the government and the market? From the perspective of optimizing resource allocation, it is necessary to deal with the relationship between equality and efficiency. Equity is the catalyst to optimize the allocation of resources and improve the efficiency of resource allocation. Under the socialist market economy system, to establish an equal and orderly modern market system, it is necessary to deal with the efficiency and equality of resource allocation. From a certain point of view, only by dealing with efficiency and equality can the whole society develop healthily and sustainability.

This dissertation will analyze the changes of the Chinese government's understanding of the equality of resource allocation and the current situation of resource allocation in China since the reform and opening up and explore the main causes of the inequality of resource allocation in China and the countermeasures or ideas.

1.2 The Content of the Dissertation

This dissertation studies on equality of resource allocation in China. Mainly solves three aspects of the problem:

- (1) Explore whether there is inequality in the allocation of resources in China?
- (2) What causes China's unequal allocation of resources?

(3) How can equality in China's resource allocation?

To solve these problems, this dissertation first expounds the research background of this problem: since the reform and opening up, with China's rapid economic growth under the new situation, some injustice phenomena of Chinese society, the unequal of the allocation of resources has caused social problems, so the equal allocation of resources is an important factor of sustainable development of the society; Second, combined with the previous research on the equality of resource allocation and the relevant theoretical knowledge of government responsibility, this dissertation expounds the theoretical basis on which it bases this dissertation, to reveal the government's responsibility in the equality of resource allocation. Then, by studying the equality of education resource allocation in China, the gap between urban and rural basic education resource allocation analyze with the Theil index as the analysis method, and the gap is used to show the inequality. The unequal allocation of basic education resources in urban and rural areas exposes the problems of the Chinese government in the allocation of resources. Therefore, this dissertation continues to explore the reasons for the inequality allocation of resources on the government. Since China's resource allocation is jointly controlled by the government and the market, while exploring the government, the market reasons also need to explore at the same time. After exploring the reasons for the inequality allocation of resources in the government and market, this dissertation continues to make the countermeasures that solves resource allocation inequality in both government and market. Finally, draw a conclusion and put forward suggestions.

It divides the research in this dissertation into the following six chapters, the specific contents are:

The First chapter is the introduction part, mainly elaborated the whole article that carries on the topic selection background and the significance, and expounds the methods and calculation used in the research;

The second chapter is the theoretical basis and the important definition part;

The Third Chapter carries out the equality analysis of China's resource allocation and take the basic education resources allocation in urban and rural of China as an example, use the Theil index as the analysis method, and the gap is used to show the inequality;

The fourth chapter reveals the problems of government and market in the allocation of resources, explores the causes that unequal resource allocation in China;

The fifth chapter is the countermeasure part, combined with the social data about government and the market on the resource allocation of resources, mainly analyzes the countermeasures from more aspects of government and market to improve the equality of resource allocation in China through literature analysis.

The last chapter is the research conclusion and the policy suggestion part, mainly states the results after the empirical analysis of the research.

1.3 Research Methods

First, literature and data analysis methods. Through the collection and collation of many relevant theoretical and textual materials and select some important theoretical knowledge and research results to produce a macroscopic understanding of equal resource allocation and reveal the crucial importance of equal resource allocation; for this article, to provide a theoretical basis. By collecting relevant official data, people can have a specific understanding of the current situation of China's resource allocation in the past four years, which further proves the importance of this study.

Second, the comparative research method. Using the indexes and data of urban and rural teachers, funds and running conditions, this dissertation compares the Theil Index of basic education resources allocation between urban and rural areas between regions and years and analyzes the basic educational resources allocation between urban and rural areas in different regions and years.

Third, the quantitative analysis method. Based on the data provided by the Statistical Yearbook and other economic statistics, this dissertation calculates the various basic education resources allocation between urban and rural of by using the Theil Index based on the measurement results, puts forward the problems and causes of the Government's responsibility in this field, and further puts forward some countermeasures and suggestions accordingly.

1.4 Research significance

In the past 40 years of reform and opening up, China has undergone tremendous changes in economics, politics, and culture. However, China also has many inequalities in the process of reform. This mainly manifest in the differential treatment of micro-economic costs, opportunities and preferential policies; Unequal treatment of law in the alternation of old and new systems; Populations in different regions benefit differently from economic growth, and there are huge disparities in the allocation of public resources between regions, and so on. Therefore, it is of great significance to explore how to realize the equality of resource allocation at both the theoretical and practical levels.

First, promoting equity in resource allocation is an essential attribute of sustainable development. Equity refers to the equality of opportunity choice, which is the first and basic principle of sustainable development. Over the past 30 years of reform and opening up, China's economic development has made remarkable achievements, but also gradually in the process of development, such as widening income gap, unequal allocation of resources and other economic development problems. From the perspective of sustainable development, the equality of resource allocation is a strategic issue in the construction of socialist modernization. In 1987, the World Commission on Environment and Development published our Common Future, also known as the Brundtland Report (1987): "Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs." At present, not only the distribution of natural resources is extremely unbalanced but also the level of economic development based on resource allocation and utilization shows great imbalance no matter from the perspective of various countries in the world or from the perspective of different regions within a country. According to the development experience of the world's leading developed countries and the general law of economic development, it is impossible to achieve sustainable development in such a situation where the gap between the rich and the poor, polarization and the proportion of resource allocation are seriously out of balance. In the coming period, at least until the 100th anniversary of the founding of China and the initial construction of socialist modernization, efforts to reduce the imbalance of space development will be the main goal of sustainable development. Therefore, the realization of equity in resource allocation is not only

Research on inequality of resource allocation in China since reform and opening up the internal motivation to improve economic efficiency but also an important guarantee for the healthy development of national economy and the sustainable development of the whole society.

Chapter II Theoretical basis and literature review

2.1 Basic Definition of Relevant Concepts

2.1.1 Definition of resources and resource allocation

Resource: In a narrow sense, resources refer to the source of financial resources, the natural source of means of production or means of livelihood. It is the essence of wealth. Nature provides the raw materials, which transformed into new wealth by human labor. In a broad sense, resources refer to the material basis that can transform into newly created social wealth through human labor. Resources besides natural resources, there are non-natural resources such as scientific and technological resources, economic resources, social resources, institutional resources. Resources are the material basis for creating new wealth but having resources does not mean creating wealth.

In Economics Dictionary (Donald W. Moffat,1983), American economist Donald W. Moffat defines resources as: "the basic input or component of an economy, which often considers including labor, land and capital. But modern economists regard capacity as a fourth resource. Operational capability refers to all the capabilities that can help people combine other resources. This includes management, innovation, risk taking, and application analysis. Although they are not as tangible as other resources, land, labour, and capital do not themselves produce output and must combine with this capacity. The greater the capacity, the greater the potential for output. It often refers to labor and business ability as human resources. Therefore, resources refer to all useful assets in nature and human society. That is to say, in nature and human society, useful things are resources and useless things are not resources (Donald W. Moffat,1983). Therefore, resources include all-natural objects needed by human beings, such as sunlight, air, water, minerals, soil, plants and animals. It also includes all useful things in the form of the products of human labour, such as houses, equipment, other consumer goods and productive commodities; It also includes intangible assets, such as

information, knowledge and technology, and the physical and intellectual strength of human beings.

Political resources: Political resources are the tool for the subject of political behavior to realize political interests and the basis for the normal operation of the political system. Because interest is "based on a certain production basis to get the needs of social content and characteristics", only in the society with certain tools to achieve. The instrumentality of political resources and the potential of "influencing others' behavior" make political resources become the tool for people to get political interests naturally and the basis for maintaining the political system. As a tool, political resources have no value orientation. However, political resources have a certain purpose orientation, and when they use political actors for different political purposes, they have different value orientations.

Resource allocation refers to the natural resources, human resources, capital resources, scientific and technological resources and information resources in the economy, through a certain change mechanism, in a variety of different directions of use between the distribution, and under certain economic or output objectives, the combination of elements, to produce the products and services needed by society. To a certain extent, society distributes the various resources at its disposal for different purposes. Because at a certain stage of social and economic development, compared with people's needs, resources always show relative scarcity, which requires people to make a reasonable allocation of limited, relatively scarce resources, to spend the least amount of resources, the production of the most suitable goods and services, to get the best benefits. Whether the allocation of resources is reasonable has an important impact on the success or failure of a country's economic development.

There are two basic methods of resource allocation in human social and economic development, namely market mode and government mode, the former advocating government doctrine and the latter advocating government interventionism (Bower, Joseph L.,2016). China's economic ownership is a structure with public ownership as the main body, the common development of various ownership economy, and the allocation of social resources mainly realize through both planning and market, and its resource allocation forms a multivariate configuration form combining market mode, Urban mode and mixed mode.

Research on inequality of resource allocation in China since reform and opening up

Because of the definition of resources in academic circles and the wide range of meanings it contains, this paper cannot carry out an exhaustive investigation on the allocation of all resources in China. Considering the outstanding imbalance in the allocation of individual resources in China in recent years, this paper intends to focus on the discussion of education in the whole society, because the resource allocation of education reflects the equal and public welfare of a country's resource allocation.

Educational resources: From the literature available in this dissertation, the term "educational resources" is used by Han Zongli (1982), and he puts forward the concept of educational resources in the article "on the Efficiency of educational resources", and defines it as the creative potential of developing educational objects, The combination of material and human resources acting on economic and social development and social progress. Including human own educational activities and educational history, it is in the long process of civilization evolution to create accumulated educational knowledge, educational experience, educational skills, educational assets, education costs, education system, education policy, education brand, educational personality, educational philosophy, education historical, educational facilities, education market, teachers, The sum of students and interpersonal relationships both inside and outside the field of education (Han zongli,1982).

This paper holds that educational resources refer to the conditions for the investment required to ensure the quality of students ' education, which includes both physical resources such as education funds, teachers ' ranks and teaching equipment, and State policy support, relevant laws and regulations and management systems. The resource allocation discussed in this paper mainly refers to the allocation of teachers, funds and running conditions between urban and rural areas.

Now days, there have the Inequality allocation of resources and the lack of understanding of the historical evolution of the equality issues in China. The specific performance of resource allocation absence, for a long time, is always understanding not paying enough attention. the allocation of resources allocation of reform and opening up the overall study found that overall, as showed by the huge intergenerational income gap in education, health care and other resources between regions, between urban and rural areas, between people and between the industry. The last analysis the inequality allocation of resources land resources

Research on inequality of resource allocation in China since reform and opening up and other equity since the reform and open from public resources and quasi-public resources angle.

There are a lot of causes of inequality of resource allocation. From The reason for the inequality in resource allocation in China lies at the government level. The "visible hand" government manages too many things. On the one hand, the government allocates resources to act as a "player" in. On the other hand, they act as a "referee" role, resulting in the allocation of resources in the different market roles differential treatment. In addition, they monopolize the contradictions between commodity marketisation and production factors, making the equality more damage.

How can the equality of resource allocation? First, we must improve the market system and promote equal opportunity. Efforts to break the dual structure of urban and rural household registration systems; promote urban-rural integration; expanding the production of public goods and improving the allocation of public goods. Second, we must transform government functions and promote equal rules. Efforts to establish an open and transparent power operating mechanism: improve the public power supervision mechanism; improve the socialist legal system economy.

2.1.2 Meaning of Social Equality

Social equality reflects an equal social relationship between people. These include equity in survival, equity in property rights and equity in development. The pursuit of social equality and justice has always been a basic goal and core value of socialism, and the charm of socialism (Gooden, Susan T. 2015).

Social equity is a category of interest relations, is a balanced and equal distribution of the rights and interests of society in the political, economic and various fields among members of society, and also includes the subjective value evaluation of whether this right and interest relationship is reasonable. The system is formed and developed in the social production activities and is the normative arrangement of the relationship between people.

Equality, in the economic sense, is only a concept relative to the improvement of efficiency. From the perspective of equality, the connotation of equality in different fields is different because of its different meanings in political, economic and ethical fields.

First, from a horizontal perspective, the words "equity" and "equality" often use interchangeably in Chinese. When discussing equity and efficiency, scholars often spend a lot of time identifying the similarities and differences between them. However, it is difficult to clearly distinguish or define the similarities and differences between them. Not only because they have a lot of similarities in content but also in People's Daily life a substitute words, but they represent different specific meaning in different contexts (Mann, Blair, 2014). As we've seen, equity involves trying to understand and provide people with everything they need to enjoy a full, healthy life. Instead, equality aims to ensure that everyone gets the same things to enjoy a full, healthy life. Like equality, equality aims to promote equality and justice, but it works only if everyone starts from the same place and needs the same things¹. And if it applies equity to the allocation resources of humans, its meaning is basically the same as equality. Therefore, in the following discussion of this article, they are no longer slightly different. They treat directly as the same meaning relative to efficiency.

Second, from a vertical perspective, equity is an ethical concept. It is the evaluation of whether people have reached some equality or balance under certain conditions, whether people, regions and industries are reasonable in the distribution of benefits. If we do not consider equality corresponding to efficiency, it has a broader meaning. However, compared with efficiency, equality closely relates to equity. For equity, equality is not only its core value but also the criterion for testing it. According to the ethicist William Klaas Frankena (1994), "the first criterion of just distribution... Equality. " it extends the equality that people demand in economic life from the basic ethical concept of "equality between people".

Another criterion of equality is equality of opportunity. "Everyone has equal access to wealth, social prestige and power ideas, because the rules of the game can say to be the same for everyone" (William K. Frankena,1994). That is to mean faced with a favorable time scenario; everyone can take advantage of this favorable condition. And when this condition sees, there is no successively and not affect any other human factor (Paul de

¹ "Distinguish between Equity and Equality". sgba-resource.ca. Atlantic Centre of Excellence for Women's Health, British Columbia Centre of Excellence for Women's Health, Prairie Women's Health Centre of Excellence.

Vries,2011). Lesley A. Jacobs, author of Pursuing Equal Opportunity (Lesley A. Jacobs,2011): the theory and practice of egalitarian justice, talks about equality of opportunity and its relevance to egalitarian justice. Jacobs said “at the core of equality of opportunity... is the concept that in competitive procedures designed for the allocation of scarce resources and the distribution of the benefits and burdens of social life, those procedures should be governed by criteria relevant to the particular goods at stake in the competition and not by irrelevant considerations such as race, religion, class, gender, disability, sexual orientation, ethnicity, or other factors that may hinder some competitors’ opportunities at success (Kahn, Sharon, 2000).”

To sum up, when discussing the equality of resource allocation in China, this paper focuses on whether the distribution of social benefits is reasonable among regions, industries, urban and rural areas and generations. In particular, examine whether inequality of opportunity has arisen between them because it is "more intolerable" than differences in innate ability (Rawls, John,2003). Perhaps the most striking manifestation of inequality of opportunity in a society is inequality of rules. Although it is not a logical necessity, the inequality of rules will directly lead to the inequality of results to a large extent. Therefore, in the third chapter, this dissertation first analyzes the observation of different regions, urban and rural areas and different industries whether there are equal opportunities in the allocation of resources, After that, it analyzes the equality of educational opportunities in resource allocation, and takes the inequality of urban and rural educational resources allocation as an example.

2.2 Previous Theories

For a long time, the academic circle has focused on the efficiency of resource allocation. First, since the reform and opening up, how to realize the rapid development of the national economy has become China's top priority. The second reason is that economics "studies the rational use of limited resources to promote the growth of social wealth from the perspective of the scarcity of resources" (Backhouse, R., & Medema, S., 2009).

From a macro point of view, since the beginning of classical economics, there have always been two tendencies in the study of resource allocation in economics market mechanism and government mechanism. First, Adam Smith (2007) has the most profound influence on the

contemporary theory of resource market allocation. He believed that, driven by the invisible hand of the market, it could increase national wealth through division of allocation and cooperation. When analyzing the restriction on the import of foreign goods, Adam Smith (2007) inadvertently gave a famous argument about "invisible hand". The natural tendency to pursue profit causes each individual to devote his or her resources to activities that maximize the value of the products of labor. "He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest, he frequently promotes that of the society more effectually than when he really intends to promote it. (Adam Smith, 2007)." Adam Smith (2007) believed that the invisible hand could not only maximize economic benefits but also maximize social benefits. This one argument of his take seriously and developed by later economists.

After the 19th century, neoclassical economists focused on the efficient allocation of scarce resources. They hold the view that in a fully competitive market economy, equilibrium prices generated by the market's own supply and demand automatically achieve optimal resource allocation. In this Pareto Optimality model, government reconfiguration is unnecessary because it is unnecessary. Second, the contemporary theory of resource allocation through planning mechanisms. This is also the way in which Karl Marx (2009) envisioned the resource allocation in the socialist economy. (Karl Marx, 2009) believed that the capitalist mode of production based on private ownership and the blindness of the market itself would eventually lead to anarchy under competitive conditions. That is to say, "Under the socialist condition of the disappearance of public means of production, the direct distribution of plans should replace the market price mechanism, to eliminate the economic anarchy and repeated economic crises caused by the production and market of commodities (Karl Marx, 2009)." From the economic development history of various countries in the world and the economic development experience of China since the reform and opening up, it is not advisable to allocate resources in a single or unitary way, whether through the market mechanism or

planning mechanism. However, the trend and direction of the allocation of economic resources in the world is market-oriented. "All this explains. Hope lies only in the "Revolution of the old system". Replace the ordered economic system with the market economy system. Any real reform must be market-oriented. (Wu Jinglian,1992)."

The relationship between efficiency and equity is an eternal topic faced by human beings in production and life practice. Efficiency and equity are contradictory. At present, there is no conclusion on how to promote the equality of resource allocation to the greatest extent on the premise of ensuring the efficiency of resource allocation. Some people believe that equality of opportunity should achieve first and oppose the use of artificial means such as government intervention outside the market to equalize people's income and property. Some people hold that the balance between equality and efficiency in resource allocation can only achieve by ensuring people's basic equality in income and property in other ways while equal opportunities.

China's economic system is a special socialist market economy that is guided by government macro-control and dominated by market micro-control. Since the reform and opening up, the government has transformed from a regulated government to a service-oriented government, and the government should take the responsibility of providing public services and social security for the people. The role of government, besides promoting the transformation of management functions at the macro level and stimulate market investment, also should actively promote the reform of people's livelihood and shoulder the responsibility of building public goods. The government should intensify the reform of the employment service system, the income distribution system, the old-age insurance system, the housing management system, food security, social security and other areas of people's livelihood from a macro perspective.

However, in the market's period economy transformation, China's special socialist market economy is not perfect enough; the planned economy system has not completely faded. The government has not really served the market. In such an environment where various factors overlap, inequality allocation is inevitable, and the causes of equal distribution are not unilateral. The government has the phenomenon of absence of responsibility and abuse of allocated power. Therefore, the widening income gap and the gap between the rich and the

poor in our society are only superficial problems; the real reason is the inequality resource allocation. Euijune Kim (2003), Sung Woong Hong(2003), Soo Jung Ha,(1995) made an empirical analysis of the impact of national development and decentralization in South Korea from 1971 to 1997 on regional income gap. He concluded that the increased distribution of public goods such as education services, employment, infrastructure and information networks would reduce regional income gap, while the increase of GDP per capita would enlarge regional income gap (Kim. Euijune & Sung Woong Hong & Soo Jung Ha, 2003).

From the previous literature review, we can see that equality resource allocation is very important. The Chinese government should change its mind and pay attention to the importance of resource equality to social development.

Chapter III The equality analysis of China's resource allocation

3.1 The development of China's understanding of resource allocation efficiency

Since the reform and opening up, China's economy has developed rapidly. China ranked 78th in the world in terms of per capita GDP in 1960, 82nd in 1970, 94th in 1980, 105th in 1990, 75th in 2001 and 81st in 2013. According to the latest data released by the international monetary fund in April 2019, China's per capita GDP in 2018 was 9,608 us dollars, ranking 67th². At the same level as in the early days of reform and opening up. If the 3rd Plenary Session of the 11th Central Committee of the Communist Party of China is a turning point, the two periods can be basically divided into two thirty years.

First of all, the first 30 years, China is a public ownership system of planned economy, while at the beginning of the founding of ten years of rapid economic development, but in 1957, after "The Great Leap Forward³" and "The Cultural Revolution⁴" is not in conformity

² "Report for Selected Countries and Subjects". International Monetary Fund. April 2019.

Retrieved 9 April 2019. <https://www.imf.org/en/Countries/CHN>

³ The great leap forward, the communist party's nationwide economic and social campaign from 1958 to 1960, was led by chairman MAO zedong as a socialist construction campaign that sought to take advantage of abundant local labor and vigorous popular enthusiasm to boost production in industry and agriculture in an unrealistic way. In the short term, large

with the law of social development after the disaster, seriously hindered the national economic development, the improvement of people's living standard has also been significant impact, damage to the people's incentive to produce, resource allocation efficiency reached an all-time low, halt the development of the society as a whole, even retreat, is close to the edge of collapse. After the reform and opening up, China and the people have made a deep reflection on the past disasters and summed up China's experience and lessons in the process of building a socialist country.

During this period, the whole society discussed how to improve the production efficiency, so as to restore the people's enthusiasm for production as soon as possible, and let the whole national economy go to the normal track. At the same time, during this period, China will also focus on solving "The food prepared in a large canteen cauldron"⁵ (Licai Wu, 2018), which

amounts of internal resources were diverted to costly new industrial production activities, which in turn led to inadequate production and deprived the agricultural sector of much-needed resources. An important result was a sharp drop in food production, which killed tens of millions of people during the great famine.

⁴ The cultural revolution, fully known as the " Great Proletarian Cultural Revolution ", was launched by MAO zedong and exploited by the counter-revolutionary groups, bringing serious disasters to the communist party of China, the state and the people of all ethnic groups. The "cultural revolution" between May 1966 and October 1976 inflicted the most serious setbacks and losses on the party, state and people since the founding of the People's Republic of China. The starting point of this "great revolution" was to prevent the restoration of capitalism, maintain the purity of the party and seek China's own path of building socialism. The goal was to preserve Chinese communism by cleansing the remnants of capitalism and traditional elements of Chinese society. And take Maoism as the main ideology of the communist party of China.

⁵ The food prepared in a large canteen cauldron is a figurative metaphor for the egalitarian phenomenon existing in distribution. It includes two respects: first is the enterprise eats a country " The food prepared in a large canteen cauldron ", namely the enterprise is managed no matter good or bad, profit or loss, salary still sends, enterprise gross salary and management result are disjointed. Second is the worker eats the enterprise " The food prepared in a large canteen cauldron ", be in namely inside the enterprise, no matter the

leads to inefficiency of absolute egalitarianism. The income gap should be properly and reasonably opened up to produce more material and cultural needs to solve social contradictions by "the first rich driving the second rich". Therefore, in the early days of reform and opening up, China's first principle for allocating resources was "efficiency first".

But in fact, the reality has not developed as expected. Over the past 30 years of reform and opening up, while the national economy has been developing rapidly, the income gap between urban and rural areas, industries and regions has been widening and the polarization has become more and more serious. In 1978, the highest average wage in the industry was 1.38 times that of the lowest average wage in the industry. In 2001, it expanded to nearly 4 times. The economic gap between different regions is widening. By 2000, the annual GDP of Guangdong province is 36.6 times that of Ningxia autonomous region. The income gap between urban and rural areas has been widening. In 1978, the per capita income of urban households was 2.57 times that of rural households, and in 2002 it was 2.89 times that of rural households⁶.

At the same time, social equality issues in social security resources, cultural resources, land resources, educational resources, medical resources and other fields come one after another. From the beginning of the 3rd Plenary Session of the 11th Central Committee of the Communist Party to 16th National Congress of the Communist Party of China in 2002, the "efficiency first" was clearly changed into "giving consideration to efficiency and equity". In the past 20 years, focus on efficiency has not only led to the problem of equity has become an obstacle to further economic development, but also seriously affected the prosperity and stability of the whole society. In the course of decades of development, China has repeatedly violated the rules of economic and social development and learned a painful lesson. It can be said that the 16th CPC National Congress is one of the most important turning points of China's economic development. From the founding of the China to the 16th CPC National Congress in 2002, the economic development process of more than 50 years is also the half

worker does much do little, do good do bad, won't affect individual salary allocation, salary allocation exists serious equalitarianism.

⁶ Data source: China statistical yearbook. <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

century that China has continuously recognized the impact of resource allocation efficiency on national economic development.

3.2 The development of China's understanding of equality in resource allocation

Over the past 40 years of reform and opening up, China's understanding of the allocation of resources has basically evolved from "efficiency first" to "giving consideration to equality". Xi Jinping pointed out in the discussion of "common prosperity" in the report of the 18th National Congress of the CPC that "the fruits of development should be Shared by all the people in a more equitable way". In the report of the 19th CPC National Congress, he paid attention to the equality of the initial distribution so as to improve the overall efficiency of allocation. Since the fourth plenary session of the 16th CPC central committee put forward the goal of building a harmonious society, the Communist Party of China has put social equity and justice in a more prominent position for the first time.

Figure 3.1 shows the frequency of the word "equality" in the reports of the National Congress since the 13th CPC National Congress in 1987. To some extent, the figure reflects that before the 16th National Congress, no matter in the allocation of resources for economic development, political and cultural life, solving the problem of backward productivity efficiency was the central problem, but equality rarely appeared. The report to the 19th National Congress puts forward that equality is an inherent requirement of Chinese characteristics socialism. "The essence of socialism is to liberate and develop the productive forces, eliminate exploitation, eliminate polarization and eventually achieve common prosperity (Naughton, Barry, 1993)." So, equality is the power source of efficiency, efficiency provides the premise and guarantee for the realization of equality. The two are inseparable.

In 1987, the 13th National Congress of the Communist Party of China proposed to "stick to the direction of common prosperity and demonstrate social equity while promoting efficiency (Graham Young, 1989)". In 1992, the 14th National Congress of the CPC pointed out that "Take distribution according to work as the main body, with other distribution means as complement, give attention to both efficiency and equality (Jiang Zemin, 1992)." The 15th National Congress of the Communist Party of China in 1997 stressed that in the primary stage of socialism, "giving priority to efficiency while giving consideration to equality is conducive

to optimizing the allocation of resources, promoting economic development and maintaining social stability (Jiang Zemin, 1997). The 16th CPC National Congress stressed the importance of giving priority to efficiency and equality while paying more attention to equality in redistribution (Jiang Zemin, 2002). The 17th National Congress of the Communist Party of China explicitly proposed to "combine improving efficiency with promoting social equality". "To realize social equality is the consistent position of Chinese communists and a major task of developing socialism with Chinese characteristics (Hu Jintao, 2007)". The 18th National Congress of the Communist Party of China raised equality to an unprecedented height. Equality is the inherent requirement of Chinese characteristics socialism. On the basis of the joint efforts of all the people and economic and social development, China need to step up efforts to build a system that plays a major role in ensuring social equity, create a equality social environment, and ensure the people's equal right to participation and development(Hu Jintao, 2012). According to the report of the 19th National Congress of the Communist Party of China (CPC): "we should adhere to the principle of distribution according to work, improve the system and mechanism of distribution according to factors of production, and promote more rational and orderly income distribution. We will encourage hardworking and law-abiding people to get rich, expand the middle-income group, increase the income of low-income people, regulate excessive income, and ban illegal income. We will ensure that personal income increases in step with economic growth and that labor remuneration increases in step with increases in labor productivity. We will broaden the channels for people to earn income from labor and property (Xi Jinping, 2017)". At present, the emphasis on equality allocation of resources is a realistic requirement of China's economic development.

Frequency trend chart of the word "equality" appears in the report of the CPC National...

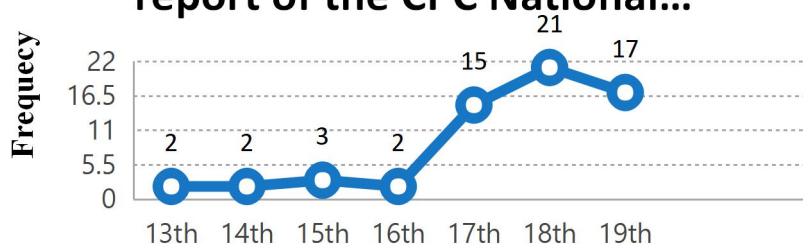


Figure 3.1: Frequency trend chart of "equality" in the report of the 13th CPC National Congress to the 18th CPC National Congress.

3.3 Inequality in resource allocation among regions

According to data released by China statistical yearbook 2018⁷, by the end of 2017, the annual GDP of the primary, secondary and tertiary industries in the eastern region was 21131.34 billion yuan, 186285.72 billion yuan and 240040.41 billion yuan respectively, accounting for 32.3%, 55.7% and 56.3% of the GDP primary, secondary and tertiary industries respectively. The annual GDP of the primary, secondary and tertiary industries in northeast China was 7612.66 trillion yuan, 2668.59 billion yuan and 36081.41 billion-yuan, accounting for 11.6%, 8.0% and 8.4% of the GDP primary, secondary and tertiary industries, respectively. In 2017, the Total Investment in Fixed Assets in the eastern region totaled 309163 billion-yuan, accounting for 48.2 percent of the total fixed asset investment in the whole country. In northeast China, the Total Investment in Fixed Assets was 45265.8 billion-yuan, accounting for 2.2%; In terms of foreign trade, the total value of imports and exports of goods in the eastern region reached us \$33843.1 billion in 2017, accounting for 82.4 percent of China's total. Northeast China accounted for \$1509.6 billion, or only 3.6 percent of the total.

By the end of 2017, there were 1,012 institutions of higher learning in the eastern region, accounting for 38.5 percent of the total, and 326,908 medical and health institutions, accounting for 33.1 percent of the total. In contrast, northeast China has 311 regular institutions of higher learning, accounting for 11.8% of the total, and 101,096 medical and health institutions, accounting for 10.2% of the total. The income gap between China's regions has been widening in recent years. Statistics show that in 2017, the proportion of disposable income of residents in the northeast in the eastern region decreased from 75.5 percent in 2013 to 72 percent in 2005 in urban areas, and from 82.3 percent in rural areas to 78 percent in 2013.

⁷ The National Bureau of Statistics of China (2018), China Statistical Yearbook 2017. (online) available from <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

The income gap within the region is also gradually widening, especially in the eastern region. The Gini coefficient of urban residents' disposable income in the eastern region is 0.343, which is 20.1, 9.6 and 9.2 percentage points higher than that in the central region, the western region and the northeast region, respectively (Chen, Changbing. 2007). In 2017, the annual income gap between Beijing, the city with the highest per capita income, and Changchun, the city with the lowest per capita income, was 3,908 yuan. The per capita disposable income of urban residents in 18 provinces and cities nationwide was less than half that of Beijing.

3.4 Inequality in resource allocation between urban and rural areas

Data show that in 1978, the per capita annual income of rural residents was 133.6 yuan and that of urban residents 343.4 yuan. By the end of 2017, the average annual income of rural residents was 13,432.4 yuan and that of urban residents 36,396.2 yuan⁸

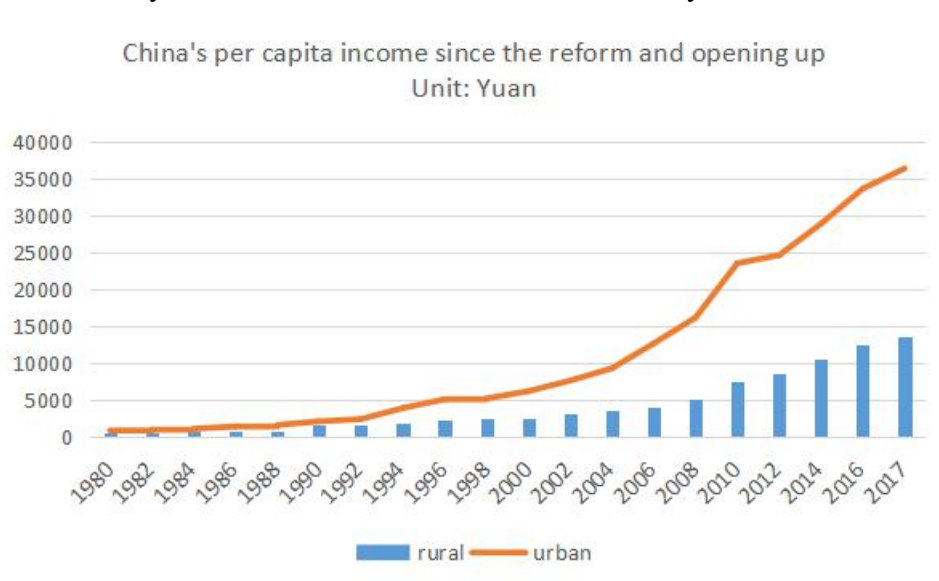


Figure 3.2: Map of urban and rural per capita income from 1980 to 2017

Source: National Bureau of Statistic of China.

⁸ The National Bureau of Statistics of China (2018), China Statistical Yearbook 2017. (online) available from <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

Research on inequality of resource allocation in China since reform and opening up

As can be seen from figure 3.2, after 30 years of development since the reform and opening up, the income gap between urban and rural residents has not narrowed but continued to widen. And not only between urban and rural areas, between the cities, the residents of the income gap are also widening.

According to the data, in 2000, the per capita disposable income of urban residents was 3,132 yuan for low-income households and 11,299 yuan for high-income households. By 2017, the per capita disposable income of low-income households was 13,723.1 yuan, and that of high-income households was 7,7097.2 yuan. In the past decade, the gap between high-income and low-income urban residents has increased from 3.6 to nearly 6 times⁹. In 2017, the per capita annual income of rural residents increased by 8.6 percent to 13,432.4 yuan. The per capita annual income of urban residents rose 8.2 percent to \$36,396.2. But slums in first-tier cities such as Beijing, Shanghai, Guangzhou and Shenzhen are growing and the gap between rich and poor is widening.

Since the reform and opening up, in 1978, the income of urban residents was 2.56 times that of rural residents. After the introduction of the household contract responsibility system in rural areas, the ratio had dropped to 1.82 times by 1983(Lin, Justin Yifu. 1988). In general, before the 21st century, the income gap between urban and rural residents in China was not very large. However, in 1999, as the growth rate of heavy industry exceeded that of light industry and led the industrialization into the middle and later stage, the gap between urban and rural residents' income ratio began to rise crazily, and it expanded to 3.33 times in 2009(Brandt, Loren & Ma, Debin & Rawski, Thomas, 2016). In 2017, Guangzhou, Shenzhen, Dongguan, Hangzhou, Nanjing, Shanghai, Wuxi, Suzhou, Ningbo and other nine cities in Yangtze river delta, pearl river delta in the export processing enterprise, migrant workers have little more than the local average wage city worker average wage of 40%, the difference of the largest Shanghai, town worker average wage is 62595.7 yuan a month, migrant workers is 18089.8 yuan, less than 30% of the wage for urban workers.

⁹ The National Bureau of Statistics of China (2018), China Statistical Yearbook 2017. (online) available from <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

3.5 The inequality in resource allocation among industries

While the income gap between urban and rural areas and regions is widening, the industry income gap is widening more obviously. At the beginning of the reform and opening up, the salary level of the highest income industries in China was about twice that of the lowest industries, but in 2009, it expanded to nearly 10 times. Such a huge income gap between different people and different industries seriously exacerbates polarization and wealth inequality.

The average salary in China's financial sector is about six times that of other industries. The highest-paid sector in China is about 11 times the lowest-paid. The latest data released by the wage research institute of the Ministry of Human Resources and social security shows that the income gap between industries is still widening. Even excluding the financial sector, the gap between industries is nearly six times. According to data released by the International Labour Organization of the Ministry of Human Resources and social security, the industrial income gap in other market economies during the same period was not more than twice that in Japan, Britain and France, and less than three times that in Germany, Canada, the United States and South Korea.

3.6 The status quo that equality in resource allocation of China

Due to the complexity of resource allocation field, this dissertation cannot discuss all resource allocation fields. The research on the equality of China's resource allocation should focus on the Chinese government's allocation of public goods such as education and medical care in the whole society, because the allocation of public goods reflects the equality and public welfare of a country's resource allocation. Education is not only the starting point of national rejuvenation and social progress, but also the basis of improving national quality and realizing all-round human development. However, at present, the development of educational resources in China is extremely unbalanced, the educational structure and layout are unreasonable, the educational funds in backward areas are insufficient, and various educational resources and supporting facilities are still lacking.

Educational resources refer to the sum of the human, material and financial resources invested in the process of developing education, including education funds, teachers,

educational equipment and other resources related to education. The rational allocation of educational resources not only directly affects whether education can provide talents for the country's economic construction and social development, but also affects the equality and justice of the whole society.

First of all, China has a serious imbalance in the allocation of resources in the initial investment stage of education funds. It is mainly reflected in the differences between basic education and higher education, key schools and non-key schools, public schools and private schools. According to statistics, by the end of 2017, there were 2,631 Educational Personnel in Regular Schools of Higher Education in China, including 1,243 public institutions of higher learning. At present, there are only 155 universities listed in the "211 project" and "985 project"¹⁰, accounting for less than 13% of the public institutions of higher learning. If private colleges and universities and colleges are included, the proportion is less than 6% (Holsinger, D. B., & Jacob, W. J., 2008). However, the "211" and "985" universities have an unusual ability to attract funds for scientific research, which further increases the serious imbalance in the allocation of higher education resources in China. In 2017, the government allocated 154 million yuan for scientific research in institutions of higher learning, of which 67.4 percent was divided among 155 "211" and "985" universities. According to the "Compilation of Scientific and Technological Data of Institutions of Higher Learning in 2017" released by the ministry of education at the end of 2018, Tsinghua University's total annual funding for scientific research reached 5.17 billion yuan. Capital medical university received the largest

¹⁰ 211: "211 Project", that is, the construction project of a college and a group of key disciplines facing the 21st century and focusing on the construction of about 100 key institutions. It was officially launched after approval by the State Council in November 1995. 985: "985 Project", on May 4, 1998, the then President Jiang Zemin on behalf of the Communist Party of China and the Central People's Government of the People's Republic of China announced to the whole society: In order to achieve modernization, China must have several first-class universities with world-class levels. . In 1999, the State Council approved the Ministry of Education's Action Plan for Education Revitalization in the 21st Century, and the "985 Project" was officially launched.

Research on inequality of resource allocation in China since reform and opening up

amount of government funding which not the "211" and "985" universities, received only 719 million yuan, less than a quarter of that of Tsinghua University¹¹.

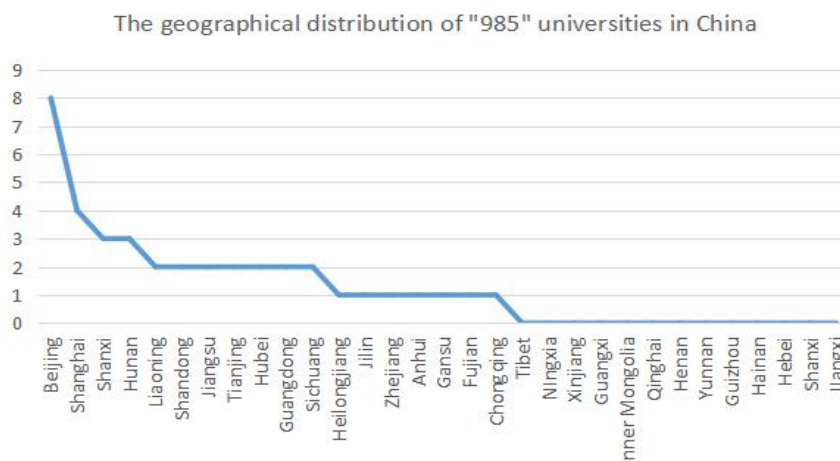


Figure 3.3: The number of "985" universities in various regions of China

Source: National Bureau of Statistics of China.

From figure 2-4, we can see that there are 8 "985" universities in Beijing and 4 in Shanghai, which together account for nearly 30% of the "985" universities in China. Thirteen provinces, including the Tibet autonomous region and Yunnan province, have none. Of course, there are historical reasons for the selection of famous institutions of higher learning, and many countries in the world have famous schools clustered together, but we can also have some choices in the secondary configuration.

However, the enrollment methods of these universities show great localization tendency. According to the survey, the "985" of colleges and universities on average 36.18% of the students are locally registered. The proportion of local students in universities such as Zhejiang University, Sun Yat-sen University and South China University of Technology is more than half.

¹¹ Ministry of Education The People's Republic of China (2018), Compilation of Scientific and Technological Data of Institutions of Higher Learning in 2017. (online) available from <http://en.moe.gov.cn/documents/statistics/2017/national/>

Secondly, the imbalance in the allocation of educational resources is also reflected in the difference between higher education and basic education. According to statistics, in 2017, the central government spent a total of 4.2557 trillion yuan on educational institutions at all levels, of which 17746 billion yuan was spent on institutions of higher learning, accounting for 41.7% of the total investment. 231.9 billion yuan was spent on secondary vocational and technical schools, accounting for 5.4% of the total. Investment in junior middle schools reached 193.5 billion-yuan, accounting for 4.5% of the total investment. 154.9 billion yuan was spent on primary schools, accounting for 3.6 percent of the total. The educational expenditure per student of all levels of schools is 52,056 yuan for institutions of higher learning; 18364 yuan for secondary vocational schools; 17547 yuan for middle schools; 12177 yuan for primary schools; Kindergarten is 10,554.09 yuan¹².

Preschool education and basic education have always been less important than higher education, but in fact, preschool education and basic education are more significant. American famous political scientist Almond, Gabriel A., and G. Bingham Powell once said the significance of primary and secondary schools, “Expanding investment in primary school development is closely linked to increasing the share of income of the lowest 40% per cent of the income of society, while investing more in secondary school development helps to explain that the increase in the share of income goes into the hands of 40% of middle-income recipients. Therefore, how a country allocates its resources in the development of primary and secondary education has a significant impact on its distribution model (Almond, Gabriel A. & G. Bingham Powell. 1978).”

Compared with higher education, preschool education and basic education in China have been neglected for a long time, which leads to the fact that the development of primary education in China cannot keep pace with the development of higher education and is not matched with the development of the whole society. Compared with the rest of the world, China spends too little public money on infant education. According to statistics, in 2015,

¹² The National Bureau of Statistics of China (2018), China Statistical Yearbook 2017. (online) available from <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

China's public investment in semester education accounted for only 3.7 percent of the country's GDP. Brazil is 6.24%; France is 5.46%; Sweden's is 7.55%¹³.

The salaries of Chinese teachers are also generally lower than the world average. According to official statistics, teachers in China earned an average of 82,000 yuan a year in 2018, or about \$720 a month in U.S. dollars. The top five earners in the world are: Canada, with \$7,196 a month; Italy, \$6,955 a month; South Africa, \$6,531; India, \$6,070; The United States, \$6,054. China's teachers earn the third-lowest income in the world, less than one-tenth of Canada's (Steve Mertl, 2012).

More worrying is the problem of rural teachers' salaries in rural areas and remote areas. According to statistics, in previous years, about 3 million rural teachers supported the development of rural education. Data show that the attrition rate of rural teachers nationwide was 30 percent from 2010 to 2013. According to the survey, in 2013, more than 75% of rural teachers had an annual income of less than 30,000 yuan (An Xuehui, 2018). It can be seen that there is a gap between urban and rural education expenditure.

By the end of 2017, the average public budget expenditure on educational undertakings for primary school students nationwide was 10,199.12 yuan in 2017, an increase of 6.71 percent over the previous year, among which the expenditure on educational undertakings in rural public budgets was 9,768.57 yuan, an increase of 5.65 percent over the previous year. The average public budget for junior middle schools nationwide in 2016 was 14,641.15 yuan, an increase of 9.13% over the previous year. Rural areas were 13,447.08 yuan, an increase of 7.77 percent over the previous year. There were 100,937,000 primary school students nationwide, an increase of 1,806,900 or 1.82% over the previous year. Among them, the number of primary school students in rural areas dropped by 716,600. The net enrollment rate of primary school-age children reached 99.91 percent, of which 6.30.0 million children were enrolled in urban primary schools, up 6.5 percent over the previous year, and 11.365 million children were enrolled in rural primary schools, down 2.1 percent over the previous year. The number of junior middle school students nationwide reached 44.420,600, an increase of

¹³ Sustainable Development Goals (2015). Expenditure on education as % of GDP 2015. (online) available from <http://data.uis.unesco.org/index.aspx?queryid=181>

1.1269 million or 2.60% over the previous year. Among them, the number of junior middle school students in rural areas fell by 354,600; The gross enrollment rate of junior middle school is 103.5%¹⁴.

According to the above data showed that although the development of Chinese basic education has achieved good results, but the gap between the urban and rural basic education has not been eliminated, and how to reasonably allocate public education resources is the premise to narrow the gap between urban and rural education, the government as the main body of basic education, analyzes its assumed responsibility for the status quo can be intuitive show China in recent years, the foundation of education resource allocation problem, and it is also the only way to achieve coordinated development of urban and rural basic education. This paper will start from the three aspects of teacher resources, funds and running conditions to analyze the allocation of basic education resources in urban and rural areas in China.

3.7 The resource allocation of basic education in urban and rural areas is inequality

3.7.1 Measurement and data selection of the current situation of basic education resources allocation

3.7.1.1 Measurement method

The Theil index, named for Dutch econometrician Henri Theil (1924–2000), is a special case of the family of inequality measures called the Generalized Entropy Measures. In its aggregate form, the Theil index is a measure of overall inequality. In addition, it lends itself to additive decomposability, a property that is extremely useful for simultaneously examining three aspects of inequality in a society divided into mutually exclusive and completely exhaustive social groups (e.g., based on gender, caste, race, religion, and so forth). Economists have used a decompose version of the Thiel index to effectively identify and highlight important sources of inequality in particular populations. (Conceicao and Galbraith 2000). While this approach does work, it is important to remember that it is essentially an

¹⁴ The data are from the national statistical bulletin on the development of education in 2017 and the national statistical announcement on the implementation of education funds in 2017.

after-the-fact account of inequality as a result of inequality between and within groups, not a causal account.

In the early days, Theil index was mainly used as a tool to evaluate the equal of income distribution within the region. It is generally believed that inequality resource allocation occurs when some groups of people occupy a higher proportion of resources than others. From a statistical point of view, the resources occupied by this part of the population are deviated from the average, thus causing inequality phenomenon. The inequality coefficient is calculated by measuring the difference between individuals and the mean. The greater the absolute value of Theil index is, the more inequality the resource distribution is, or the greater the difference is.

Theil index is used to measure the current situation of rural and urban basic education resources allocation in China. The biggest advantage of using the Theil index to measure the gap is that the Theil index is separable and eliminates the errors and solutions caused by the cross term, so it is more accurate than the calculation of Gini coefficient and coefficient of variation.

Theil index international general formula:

$$T = \sum_J \sum_I \left(\frac{Y_{ij}}{Y}\right) \ln\left(\frac{\frac{Y_{ij}}{N_{ij}}}{\frac{Y}{N}}\right) \quad (1)$$

Calculate the intergroup Theil index formula:

$$T_b = \sum_i \left(\frac{Y_i}{Y}\right) \ln\left(\frac{\frac{Y_i}{N_i}}{\frac{Y}{N}}\right) \quad (2)$$

Since the gap between urban and rural areas is calculated in this paper, formula (2) is selected to divide the whole country into two groups, urban and rural. Formula (2) is

Research on inequality of resource allocation in China since reform and opening up applicable to the overall data, and the index data measured in this part are average data, so the simple deformation of formula (2) is as follows:

$$\text{Because } Y = \bar{Y} * N, Y_i = \bar{Y}_i * N_i, \rightarrow \frac{Y_i}{Y} = \frac{\bar{Y}_i}{\bar{Y}} * \frac{N_i}{N}, \frac{\frac{Y_i}{Y}}{\frac{N_i}{N}} = \frac{\bar{Y}_i}{\bar{Y}}$$

$$\text{Get a new formula: } T_b = \sum_i \frac{\bar{Y}_i N_i}{\bar{Y} N} \ln\left(\frac{\bar{Y}_i}{\bar{Y}}\right) \quad (3)$$

Among them, \bar{Y}_1 and \bar{Y}_2 respectively represent the average basic education resources (teachers, funds, school-running conditions) in urban and rural areas. N_1, N_2 represents the number of students in urban and rural areas nationwide. \bar{Y} is the basic education resource per student nationwide. N is the number of students nationwide. The number of students involved in this paper refers to primary school students at the basic education stage or general junior middle school students.

3.7.1.2 Data selection

The basic education stage studied in this paper includes primary school and junior middle school. Due to the limitation of data acquisition, this paper selects basic education related data of China from 2014 to 2017, all data are from China education fund statistical yearbook, China education yearbook and China statistical yearbook. In China's yearbook of education expenditure statistics, regions are divided into towns and villages, while in China's yearbook of education, cities, towns and villages are divided. In order to unify the groups, the urban areas calculated in this paper include towns and cities. In order to unify the groups, the urban areas calculated in this paper include towns and counties. Due to the absence of some data in Tibet, the calculated data range is 30 provinces, autonomous regions and municipalities (excluding Tibet autonomous region, Hong Kong, Macao and Taiwan). There are many kinds of resource allocation indicators in the stage of basic education. Considering the role of the number of students on basic education resources and the representativeness of the indicators themselves, the indicators selected in this paper include student-teacher ratio, teachers with bachelor's degree or above and educational expenses per student. Since the calculation results

Research on inequality of resource allocation in China since reform and opening up

are uniformly taken to the last 4 decimal places, the Theil index value of many provinces and cities is approximately equal to 0, so only the top 10 regions with the highest Theil index of each index are listed for comparison in the order from the highest to the lowest in each table respectively.

Why this dissertation chooses education as an example? Because in China, education can be said to be the easiest way to change the fate of the poor. The importance of education in developing countries cannot be overstated. Education can be the catalyst needed to pull families and communities out of the cycle of poverty¹⁵. If even the most basic educational resources are unequally allocated, China's social problems will not be fundamentally solved.

3.7.2 The present situation of “teacher resource” input of basic education in urban and rural areas

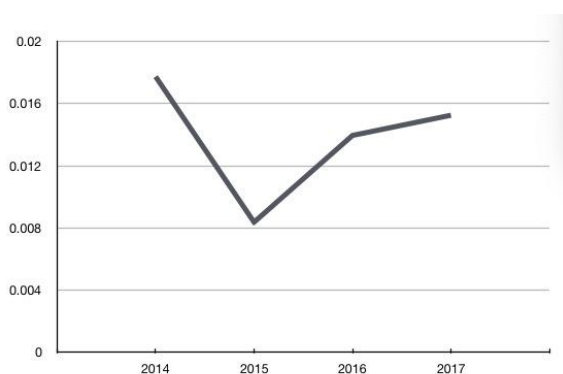
The student-teacher ratio is an internationally widely used index to calculate the level of teacher resources. The calculation method of the student-teacher ratio is the ratio of the number of junior middle school or primary school students in the basic education stage to the number of full-time teachers in the stage. The ratio considers whether the teacher resources are adequate, and the larger the student-teacher ratio is, the more unreasonable the teacher allocation is, and the more difficult the teaching quality is to be guaranteed (Henshaw, John M. (2006). As can be seen from figure 3.5, the student-teacher ratio in junior middle school increased significantly in 2015. The Theil index was 0.0068, the highest in the past four years, and then decreased to 0.0032. Finally, it showed a decreasing trend. In figure 3.4, the ratio of students to teachers in primary school has been steadily increasing since 2014, and the value of Theil index is higher than that of junior middle school. Since the student-teacher ratio is a reverse indicator, the higher the Theil index value is, the higher the student-teacher ratio is, indicating the greater the burden on teachers in urban areas. From the side view, more students gather in urban areas, and this trend of students flowing to cities is more prominent in the primary school stage. The regional ranking in table 3.1 and table 3.2 reflects that the Theil

¹⁵ Poverty and Education (online) available from:

<https://www.childfund.org/poverty-and-education/>

index distribution in junior middle school has no obvious regional directivity. However, some provinces and cities such as Shanxi, Jilin, Heilongjiang and Hunan all ranked high in the ranking within 4 years, indicating that the number of teachers in urban areas in these regions is insufficient and the teaching burden is heavy. In primary school, the phenomenon is most obvious in Heilongjiang, Shanxi, Jilin and Hainan.

Figure3.4. The tendency chart of Primary School Student-Teacher ratios Theil index



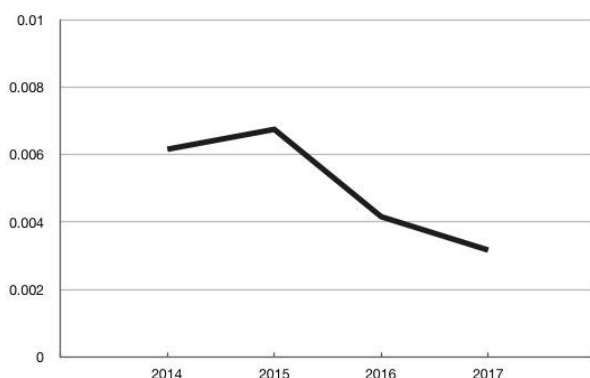
Source: The tendency chart from the author of this dissertation

Table3.1. Top 10 Areas of the Student-Teacher ratios Theil Index in Primary School

	2014		2015		2016		2017	
	Total		Total		Total		Total	
		0.0177		0.0084		0.0139		0.0153
1	Heilongjiang	0.1165	Shanxi	0.1141	Shanxi	0.1424	Jilin	0.1048
2	Shanxi	0.1091	Heilongjiang	0.1087	Jilin	0.1296	Shanxi	0.1038
3	Jilin	0.1052	Jilin	0.0930	Heilongjiang	0.1230	Heilongjiang	0.0811
4	Hainan	0.0865	Hainan	0.0877	Gansu	0.0830	Hainan	0.0793
5	Inner Mongolia	0.0787	Gansu	0.0761	Hainan	0.0689	Gansu	0.0781
6	Gansu	0.0672	Shaanxi	0.0582	Chongqing	0.0480	Inner Mongolia	0.0460
7	Shaanxi	0.0591	Inner Mongolia	0.0579	Shaanxi	0.0451	Shaanxi	0.0414
8	Fujian	0.0424	Fujian	0.0349	Liaoning	0.0437	Chongqing	0.0323
9	Jiangxi	0.0296	Jiangxi	0.0342	Inner Mongolia	0.0410	Liaoning	0.0304
10	Chongqing	0.0292	Liaoning	0.0307	Ningxia	0.0385	Jiangxi	0.0291

Source: The table from the author of this dissertation

Figure3.5. The tendency chart of Junior High School Student-Teacher ratios Theil index



Source: The tendency chart from the author of this dissertation

Table3.2. Top 10 Areas of the Student-Teacher ratios Theil Index in Junior High School

Top 10 Areas of the Student-Teacher ratio's Theil Index in Junior High School								
	2014		2015		2016		2017	
	Total	0.0062	Total	0.0067	Total	0.0042	Total	0.0032
1	Jilin	0.0336	Shanxi	0.0268	Shanxi	0.0242	Shanxi	0.0226
2	Heilongjiang	0.0304	Heilongjiang	0.0266	Jilin	0.0226	Jilin	0.0193
3	Anhui	0.0269	Jilin	0.0244	Hunan	0.0213	Fujian	0.0160
4	Shanxi	0.0255	Hunan	0.0223	Heilongjiang	0.0182	Gansu	0.0156
5	Hunan	0.0251	Fujian	0.0214	Fujian	0.0180	Shaanxi	0.0129
6	Fujian	0.0236	Gansu	0.0207	Gansu	0.0179	Xinjiang	0.0107
7	Ningxia	0.0219	Anhui	0.0191	Shaanxi	0.0150	Ningxia	0.0106
8	Shaanxi	0.0206	Ningxia	0.0184	Ningxia	0.0148	Hunan	0.0102
9	Gansu	0.0195	Shaanxi	0.0182	Anhui	0.0130	Heilongjiang	0.0090
10	Qinghai	0.0172	Inner Mongolia	0.0140	Jiangxi	0.0104	Anhui	0.0088

Source: The table from the author of this dissertation

3.7.3 The number of "master's degree or above" investment in urban and rural basic education

The number of teachers with master's degree or above per student can reflect the gap in teacher quality between urban and rural areas. Only by the student-teacher ratio as teacher resources gap method, mainly focused on the problem between the number, this paper holds that the issue of teacher quality are equally important, highly educated teachers configuration outside of regular teaching activities can significantly improve the teaching efficiency and quality, the highly educated teachers gap between rural and urban areas from the long-term view, has important research significance.

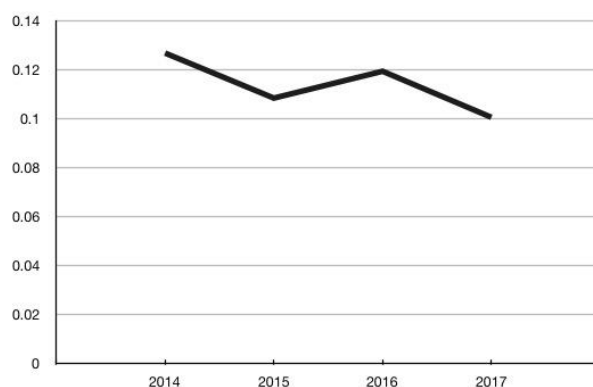
From Table 3.3 and Figure 3.6, it can be seen that the national Theil index of teachers with master's degree and above in primary school in 2014 was the lowest of 0.1084, the overall four-year trend is downward, from 0.1269 to 0.1006. In junior high school, the National Theil Index of teachers with master's degree and above has gradually decreased from 0.0528 in 2014 to 0.0385 in 2017 and recovered slightly to 0.0447 in 2016. This shows that during 2014-2017, China's urban and rural junior high school students have a gap in the aspect of teachers with master's degree or above, but it has gradually stabilized, compared with the past, has a great relief. From the results, in the last four years, the gap between the urban and rural areas of junior high school and primary school has narrowed; from the numerical point of view, the value of the Theil index in the junior high school stage is generally smaller than the primary school stage, so it can be seen that the allocation of teachers with Master's degree or above in primary school between urban and rural areas exist a more severe difference.

Judging from the Theil index of provinces, the highest value of each province is always higher than the national level. From 2014 to 2017, the Theil index of primary school shows that the values in Yunnan, Guangxi, Xinjiang and Sichuan have been consistently high. Data from the junior high school stage shows that during 2014-2017, Xinjiang, Yunnan, Jiangxi, Hunan and Tianjin these five provinces have been always among the top in the nation. Moreover, it can be observed that the Theil index of primary and junior high school vary a lot and it's more obvious in primary school stage that the gap between urban and rural area is larger in the point of teachers with master's degree or above in some areas.

Through the comparison of Theil index of both student-teacher ratio and each student has a highly educated teacher, it can be concluded that, first of all, the gap between teacher quality and quantity of teachers in China exists at the same time but is not consistent, the relationship between the two is complex; secondly, the allocation of teachers' resources in the junior high school stage is better than the primary school stage, whether it is the quantity or quality dimension, the gap between teachers in urban and rural areas in the primary school stage is mainly and steep. The primary school education is the starting point of education of life, the role of teachers at this stage is indispensable and far-reaching, it can be said that the primary school stage is the foundation of the whole educational process, therefore, when the

Research on inequality of resource allocation in China since reform and opening up government adjusts the allocation of basic education resources, it should pay more attention to the urban-rural balance of primary school teachers.

Figure 3.6. The tendency chart of Theil index of teachers with master's degree or above in Primary school



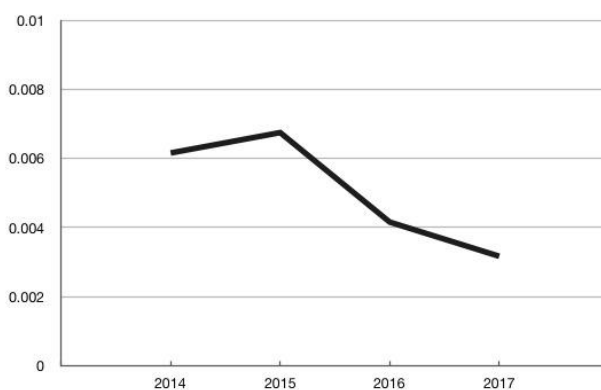
Source: The tendency chart from the author of this dissertation

Table 3.3. Top 10 Areas of Theil Index of Primary School Teachers with master's degree or Above

Top 10 Areas of Theil Index of Primary School Teachers with Master Degree or Above							
2014		2015		2016		2017	
Total	0.1269	Total	0.1084	Total	0.1194	Total	0.1006
Yunnan	0.3503	Yunnan	0.4274	Yunnan	0.3758	Yunnan	0.2795
Guangxi	0.2249	Xinjiang	0.2335	Guangxi	0.2207	Guangxi	0.2628
Xinjiang	0.1978	Guangxi	0.2041	Xinjiang	0.2160	Sichuan	0.1552
Sichuan	0.1933	Hunan	0.1482	Hunan	0.1656	Xinjiang	0.1268
Hunan	0.1678	Sichuan	0.1430	Guangdong	0.1428	Hunan	0.1130
Fujian	0.1542	Fujian	0.1200	Sichuan	0.1404	Guangdong	0.1105
Guangdong	0.1534	Tianjin	0.1015	Jiangxi	0.1184	Hubei	0.1041
Gansu	0.1384	Hebei	0.0799	Fujian	0.1184	Jiangxi	0.0917
Tianjin	0.1205	Hubei	0.0751	Hebei	0.1113	Tianjin	0.0847
Guizhou	0.0969	Heilongjiang	0.0684	Hubei	0.0947	Fujian	0.0813

Source: The table from the author of this dissertation

Figure 3.7. The tendency chart of Theil index of teachers with master's degree or above in Junior High school



Source: The tendency chart from the author of this dissertation

Table 3.4. Top 10 Areas of Theil Index of Junior High School Teachers with master's degree or Above

Top 10 Areas of Thiel Index of Junior High School Teachers with Master Degree or Above

2014		2015		2016		2017	
Total	0.0528	Total	0.0435	Total	0.0447	Total	0.0385
Xinjiang	0.1371	Xinjiang	0.1327	Xinjiang	0.1546	Xinjiang	0.1292
Yunnan	0.1064	Yunnan	0.1258	Yunnan	0.1116	Yunnan	0.1116
Jiangxi	0.1028	Hunan	0.0767	Hunan	0.0847	Jiangxi	0.0772
Hunan	0.0826	Tianjin	0.0712	Jiangxi	0.0721	Hunan	0.0699
Guizhou	0.0793	Jiangxi	0.0711	Tianjin	0.0704	Tianjin	0.0639
Fujian	0.0699	Sichuan	0.0563	Guangxi	0.0662	Guangxi	0.0578
Sichuan	0.0659	Heilongjiang	0.0557	Heilongjiang	0.0521	Heilongjiang	0.0551
Tianjin	0.0591	Fujian	0.0500	Jilin	0.0503	Jilin	0.0494
Gansu	0.0528	Chongqing	0.0497	Gansu	0.0497	Hainan	0.0479
Chongqing	0.0527	Guangxi	0.0492	Guizhou	0.0429	Sichuan	0.0443

Source: The table from the author of this dissertation

3.7.4 The present situation of the funding of basic education in urban and rural areas

Per Student Educational Appropriation is a kind of indicator to measure the balance of educational financial input by governments at all levels according to the local economic development level and actual educational development. Per Student Educational Appropriation includes Operating Expenses of Education and infrastructure development

surcharge, it covers the funding of personnel and the many uses of school construction and is the main source of funding for basic education.

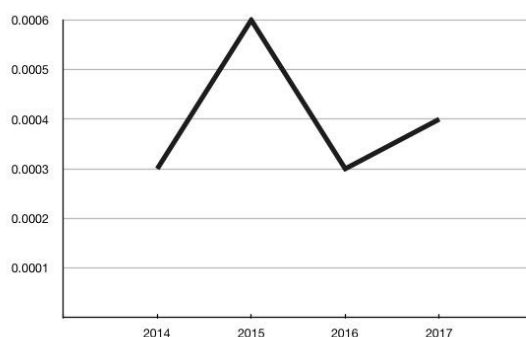
From the trend figure 3.8 and figure 3.9, it can be seen that the Theil index of Educational Appropriation per student of primary school and junior middle school is a turning point in 2015, which drops to the lowest value in 2016, and then returns to the growth trend. Moreover, the Theil index of education expenditure per student of junior high school is higher than that of primary school. In the "outline of china's national plan for medium and long-term education reform and development" (2010-2020) for the first three years, the number of Chinese primary school and junior high school students reduced year by year, the decrease in the number of students led to the change of the students, embrace funding gap has decreased, but the situation of the gap is not continue too long, then the ratio of students decline in 2014 began to recover, embrace education from the gap between urban and rural areas also began to rise in 2014¹⁶. Based on the observation of the values, it can be inferred that the national Theil index value of junior high school is higher than that of primary school, indicating that the gap between urban and rural areas is mainly in junior high school.

Based on Theil index analysis of top 10 regions, Inner Mongolia autonomous region, Tianjin and Heilongjiang all ranked top in Theil index in 4 years in primary school. In the middle school stage, the scope is broader. In the middle school stage, Guangdong, Tianjin, Beijing, Xinjiang and other regions all rank high in the Theil index within four years, which indicates that the gap between the average education expenditure of junior high school students in these regions is always obvious between urban and rural areas, and also indicates that this gap exists widely in the east and west. The Theil index of different regions clearly shows that the gap between urban and rural expenditure has been stubborn and difficult to eliminate, and there is no particularly large trend of change. This gap is not concentrated in a specific region, but the gap in some areas is more prominent.

¹⁶ 17th Communist Party of China National Congress, 2010. Available at http://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/china_national_long_term_educational_reform_development_2010-2020.pdf

Although the gap between urban and rural areas in per student educational appropriation increased again by 2017, the value of Theil index of both middle school and primary school in 2017 did not exceed the previous value, and the national Theil index has been below 0.001, which demonstrates that the distance exists but is not very magnificent. The causes of the change, which are: the advancement of urbanization, the number of rural schools sharply reduced, so as the proportion of rural students also decreases and the development of regional education become more concentrated, as a result, the gap between urban and rural areas is narrowed. This situation has continued to 2016, after that, the Theil index of primary and middle school increased by about 20%, showing that the spending gap between urban and rural areas has not eliminated. With the pursuit of the urbanization progress, urban areas always occupy the advantage of funds and the government has not essentially solved the problem of balanced resource allocation in this regard.

Figure3.8. The tendency chart of Theil index of Per Student Educational Appropriations in Primary school



Source: The tendency chart from the author of this dissertation

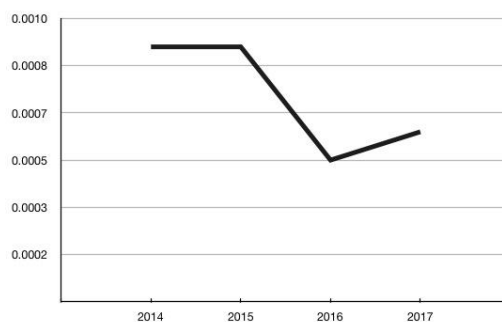
Table 3.5. Top 10 Areas of Per Student Educational Appropriations Their Index in Primary School

Top 10 Areas of per Student Educational Appropriations Thiel Index in Primary School

	2014		2015		2016		2017	
	Total	0.0003	Total	0.0006	Total	0.0003	Total	0.0004
1	Inner Mongolia	0.0037	Tianjin	0.0076	Tianjin	0.0040	Beijing	0.0045
3	Tianjin	0.0018	Shanxi	0.0018	Qinghai	0.0023	Inner Mongolia	0.0024
4	Jilin	0.0015	Hainan	0.0015	Shanxi	0.0023	Jilin	0.0021
5	Heilongjiang	0.0014	Heilongjiang	0.0015	Inner Mongolia	0.0021	Guangdong	0.0021
6	Qinghai	0.0013	Shangdong	0.0014	Hainan	0.0020	Shanxi	0.0020
7	Gansu	0.0013	Hunan	0.0014	Jilin	0.0013	Hainan	0.0017
8	Shanghai	0.0011	Shanghai	0.0009	Gansu	0.0013	Tianjin	0.0013
9	Guangdong	0.0010	Shaanxi	0.0007	Guangdong	0.0011	Qinghai	0.0010
10	Shaanxi	0.0009	Gansu	0.0007	Beijing	0.0010	Gansu	0.0010

Source: The table from the author of this dissertation

Figure3.9. The tendency chart of Thiel index of Per Student Educational Appropriations in Junior High School



Source: The tendency chart from the author of this dissertation

Table 3.6. Top 10 Areas of Per Student Educational Appropriations Theil Index in Junior High School

Top 10 Areas of per Student Educational Appropriations Theil Index in Junior High School

	2014		2015		2016		2017	
	Total	0.0009	Total	0.0009	Total	0.0005	Total	0.0006
1	Tianjin	0.0021	Tianjin	0.0048	Tianjin	0.0025	Beijing	0.0087
2	Guangdong	0.0018	Guangdong	0.0019	Beijing	0.0020	Xinjiang	0.0017
3	Jilin	0.0009	Yunnan	0.0010	Xinjiang	0.0015	Guangdong	0.0015
4	Beijing	0.0009	Beijing	0.0010	Guangdong	0.0012	Tianjin	0.0015
5	Qinghai	0.0008	Liaoning	0.0009	Liaoning	0.0007	Ningxia	0.0008
6	Shanghai	0.0005	Guangxi	0.0007	Jilin	0.0006	Henan	0.0006
7	Inner Mongolia	0.0004	Guizhou	0.0006	Hebei	0.0004	Liaoning	0.0005
8	Shanxi	0.0004	Jilin	0.0005	Guangxi	0.0004	Guangxi	0.0004
9	Ningxia	0.0002	Shanghai	0.0004	Heilongjiang	0.0004	Hunan	0.0004
10	Guangxi	0.0002	Hunan	0.0004	Yunnan	0.0004	Jilin	0.0004

Source: The table from the author of this dissertation

3.7.5 The present situation of investment in basic education in urban and rural areas

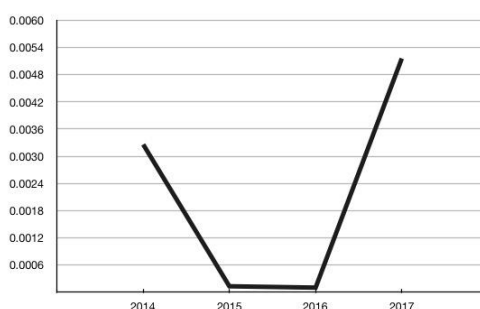
Under the current background, under the trend of education modernization and education internationalization, computer has become an indispensable and important condition for modern education. Computer ownership per student can measure students' mastery of modern teaching tools and also measure the satisfaction of urban and rural education requirements in different regions.

In figure 3.10 and 3.11, the trend of urban and rural Theil index of computer ownership per student in junior high school and primary school is not consistent. The Theil index of computer ownership per student in primary school fell sharply in 2014-2015, then held stability for one year and reach up to 0.0052. 1 in 2017. The junior high school stage presented the trend of rising all the way, from the minimum 0.0007 in 2014 rose to 0.0021 in 2017. In numerical aspect, though the Theil index of junior high school stage kept rising, its value is always lower than the one of primary school stage. It is illustrated that from the point of this index, the gap between urban and rural areas of primary school is more obvious and the overall trend also reveals that the balanced effect of basic education at the primary school level is not stable and is affected by more factors, while the steady rising trend at the junior

high school level indicates that the gap between students' computer needs in primary school and junior high school is more serious.

According to the situation of the top 10 districts, the ranking of Theil index in primary school is not fixed in individual regions, but the highest Theil index of the region is higher than the national average level, indicating that there is a gap between urban and rural education conditions in each region. The ranking of junior middle school is highly indicative. The urban and rural Theil index of Fujian province has been the highest in China for four years, and the ranking of Shanxi is relatively stable. According to this ranking, it can be seen that the urban-rural gap in primary school has a stronger dispersion and variability, while this gap of the computer ownership per student in middle school is long and concentrated.

Figure3.10. The tendency chart of Theil index of Per Student Computer Ownership in Primary school



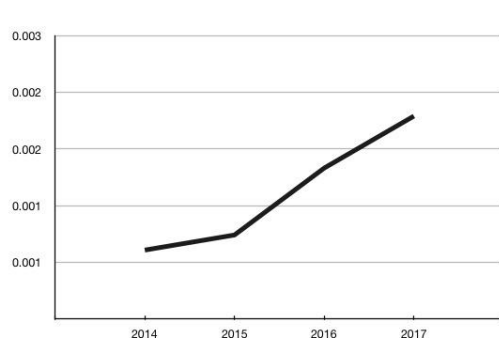
Source: The tendency chart from the author of this dissertation

Table 3.7. Top 10 Areas of Per Student Computer Ownership Theil Index in Primary School

Top 10 Areas of per Student Computer Ownership Thiel Index in Primary School								
	2014		2015		2016		2017	
	Total	0.0033	Total	0.0001	Total	0.0001	Total	0.0052
1	Guangxi	0.0254	Guangdong	0.3944	Shanxi	0.0575	Shanxi	0.0673
2	Jiangxi	0.0178	Shanxi	0.0295	Shangdong	0.0233	Hainan	0.0479
3	Shanxi	0.0168	Hainan	0.0169	Ningxia	0.0204	Shangdong	0.0275
4	Yunnan	0.0151	Guangxi	0.0165	Hainan	0.0188	Ningxia	0.0270
5	Sichuan	0.0135	Fujian	0.0133	Jilin	0.0159	Guangdong	0.0249
6	Fujian	0.0124	Sichuan	0.0103	Fujian	0.0128	Guangxi	0.0227
7	Henan	0.0111	Shangdong	0.0099	Beijing	0.0097	Fujian	0.0218
8	Guangdong	0.0064	Hubei	0.0071	Guangdong	0.0076	Jilin	0.0197
9	Hainan	0.0064	Yunnan	0.0067	Chongqing	0.0072	Hubei	0.0171
10	Qinghai	0.0060	Beijing	0.0055	Shaanxi	0.0054	Gansu	0.0132

Source: The table from the author of this dissertation

Figure3.11. The tendency chart of Theil index of Per Student Computer Ownership in Junior High school



Source: The tendency chart from the author of this dissertation

Table 3.8. Top 10 Areas of Per Student Computer Ownership Theil Index in Junior High School

Top 10 Areas of per Student Computer Ownership Thiel Index in Junior High School								
	2014		2015		2016		2017	
	Total	0.0007	Total	0.0009	Total	0.0016	Total	0.0021
1	Fujian	0.0367	Fujian	0.0370	Fujian	0.0408	Fujian	0.0350
2	Beijing	0.0293	Shanxi	0.0290	Hunan	0.0276	Ningxia	0.0290
3	Shanxi	0.0292	Ningxia	0.0239	Shanxi	0.0275	Shanxi	0.0289
4	Hunan	0.0287	Hunan	0.0237	Sichuan	0.0223	Sichuan	0.0282
5	Ningxia	0.0207	Beijing	0.0198	Ningxia	0.0221	Hunan	0.0220
6	Sichuan	0.0196	Sichuan	0.0175	Hainan	0.0212	Qinghai	0.0207
7	Anhui	0.0188	Anhui	0.0170	Inner Mongolia	0.0193	Inner Mongolia	0.0199
8	Jilin	0.0173	Hainan	0.0170	Beijing	0.0190	Beijing	0.0199
9	Gansu	0.0148	Jilin	0.0147	Anhui	0.0176	Anhui	0.0188
10	Hainan	0.0145	Inner Mongolia	0.0142	Qinghai	0.0162	Gansu	0.0137

Source: The table from the author of this dissertation

3.8 Calculation results

Based on the above calculation results and trend analysis of Theil index, the characteristics of the gap in the allocation of basic education resources between urban and rural areas in China can be summarized as follows:

(1) the problem of inequality allocation of basic education resources between urban and rural areas has been alleviated, but it still exists. In China, the gap between urban and rural areas in terms of teachers, funding and schooling conditions still exists, which means there is insufficient investment in rural basic education. The nationwide urban and rural Theil index

shows an upward trend in the student-teacher ratio at primary school level and in the computer ownership of junior middle school and primary school students. The Chinese government should continue to shoulder the important responsibility of narrowing the urban-rural gap. Similarly, the urban-rural gap in basic education resources should not be ignored in areas with superior economic development level. According to the calculation results of Theil index, the economically developed areas are not absolutely balanced between urban and rural areas. In the calculation of most regions and most indexes in the country, the Theil index with high value is not necessarily concentrated in the underdeveloped areas, and the three indexes all appear in the relatively developed areas in the east.

(2) the gap in allocation of basic education resources between urban and rural areas is primarily caused by the quality gap. The key lies in the marginalization of the needs of rural groups, such as the backward allocation of highly educated teachers in rural areas, and the serious lack of advanced teaching equipment. The quantity gap cannot be eliminated in a short time, but the limitation of the quality gap is the root cause of the inefficiency of rural basic education.

(3) Non-synchrony in middle school and elementary school. The allocation of educational resources in middle school and primary school is not always consistent between urban and rural areas. For example, the student-teacher ratio in middle school finally shows a downward trend, while the primary school may continue to rise. Computer ownership per student has a declining and rising node in primary schools, but in junior high schools, it shows a rising trend all the way. This kind of non-synchronicity indicates that although primary school and middle school are linked educational processes, they have different requirements, policies and economic environment in terms of resource allocation, which cannot be generalized. The government should pay attention to the particularity of different educational stages.

(4) The urban-rural gap in basic education resources also varies in the horizontal direction. According to the Theil index of each region within 4 years, there is a gap between urban and rural areas of all kinds of resources within the region, but there is no complete advantage or disadvantage of a certain region. The ranking of all kinds of indicators is highly variable, and even the same resources of a region in the same year are completely different in middle and primary schools. This shows that the urban-rural gap in basic education resources cannot be

Research on inequality of resource allocation in China since reform and opening up unilaterally recognized. Under the influence of the environment, different kinds of resources are allocated with certain emphasis. However, only by balancing all kinds of resources and comprehensively improving the allocation capacity of basic education resources can the coordinated development of basic education between urban and rural areas be truly beneficial.

3.9 Conclusion

It can be seen from the calculation that there is a gap in basic education resources between urban and rural areas in China and the allocation of resources is inequality. Urban-rural dual structure is one of the typical characteristics of Chinese society (XU, Xiuchuan & SHI, Shengping & HUANG, Qinghua, 2014). Education should be one of the effective tools to change the gap between urban and rural areas and narrow the gap between urban and rural areas. However, the reality in China is that the education gap is the most significant part of the urban-rural gap. In the face of the continuous reform of the education system, the development of basic education in urban areas is gradually becoming complete, but the basic education in rural areas is still making slow progress and still in an obvious weak position. This huge gap is highlighted by the gap in the allocation of resources, teacher resources, funds, conditions for running schools and other issues have been restricting the development of basic education in rural areas.

In the past, in order to achieve economic development and raise the level of industrialization, China focused on the construction of cities and towns. The rural areas represented by traditional agriculture have always been in the position of supporting cities and towns. This long-term urban-rural division management system has created a pattern of fragmentation of urban and rural areas in China. Under such a background, urban basic education has gradually formed a relatively mature development system. However, due to the disparity in resource allocation in the field of education, basic education in rural areas has not been able to achieve substantive breakthroughs for a long time. The two are independent of each other and gradually widen the gap between the educational process and the results.

Under the requirements of scientific development concept and government governance for the people, citizens have equal rights to enjoy basic education resources, receive equality education and share high-quality education resources (Xueming Chen & Qian Luo (2009).

Starting from the political, legal and economic levels, all kinds of basic education resources should be distributed in a balanced state between urban and rural areas. As the main responsibility of basic education, how to fulfill the narrow gap between urban and rural areas and optimize the allocation of resources for basic education is the main responsibility of the government.

Improve the level of public services and commodities provided by the government, because basic education is a part of basic public services, rural and urban basic education resources allocation gap is the rural public service system is relatively imperfect performance. Therefore, strengthening the distribution of government responsibilities in urban and rural areas of basic education resources can enhance the awareness of the government to provide basic education services and social development to ensure the right of citizens to receive education.

The 17th National Congress of the Communist Party of China put forward the goal of establishing a service-oriented government in China and put public services and social management in a more important position. Building a service-oriented government means taking governance as the starting point, emphasizing the people-oriented and public demand-oriented service mode. To achieve the equality allocation of urban and rural basic education resource is that of the citizen's right to education and the right to development as the basic, guided by the demands of the public by education provides public service performance, research on urban and rural basic education resource allocation of government responsibility, helps to deepen the connotation of service oriented government, clearly define the responsibility of the government in the basic public service supply play, improve the efficiency of public service supply.

The lack of government responsibility is not the only factor in the difference between urban and rural basic education. The difference of basic education in urban and rural areas is caused by economic, political and social factors, which in turn restricts the common progress of urban and rural economy, politics and society. We should narrow the gap in basic educational resources between urban and rural areas and improve the rural economic development capacity and the long-term development of urban and rural economy. Setting up a balanced basic education resource allocation structure is an important measure to build a harmonious society.

The publicity of education is built on the basis of educational equality, and the universal acceptance of basic education reflects a kind of undifferentiated equality. The study of government responsibility in the allocation of basic education resources in urban and rural areas is actually a pursuit of educational equality, which reflects the determination of the government to safeguard the human rights of citizens. Only on the basis of access to equality education can more people have access to other equality opportunities for survival and development. Therefore, in a sense, the equality of basic education resources is the equality of opportunities, and the equality of opportunities is the foundation of realizing social equality. The existing difference in basic education between urban and rural areas is not conducive to the realization of social equality. Only by narrowing the gap in basic education resources between urban and rural areas, changing the current pattern of preferential policies and uneven of resources allocation, can we provide equal educational opportunities for all citizens, improve the quality of China's overall education, and let more people build up confidence in society and promote social equality.

Chapter IV Explores the causes that inequality in resource allocation in China

There are many reasons for the inequality in China's allocation of resources. From the research in the third chapter, the inequality of educational resource allocation is the government's differential treatment of urban and rural planning. The government plays a decisive role in the allocation of educational resources in urban and rural areas. Consider the inequality of China's overall resource allocation based on the inequality of educational resource allocation. The government is one of the reasons for the inequality of resource allocation. Thinking about China's economic system. Since the founding of the China in 1949, with the continuous improvement of China's productive force, the reform and development of China's economic system has undergone a transition from a highly centralized planned economic system to a market- oriented economic system in coastal developed cities and regions and then to an all-round social owner with Chinese characteristics. This is the socialist market economy with Chinese characteristics practiced by the Chinese government. In

general, China's socialist market economy is guided by government macro-control and dominated by market micro-control. Therefore, the socialist market economy is an economic movement that achieves rational allocation of social resources and equal income distribution through both planning and market means. The construction of the socialist market economy has made the role of the market in China's resource allocation enhanced. The market as a way of resource allocation is another reason for the unequal allocation of resources. Therefore, this dissertation studies the reasons for unequal resource allocation from both the government and the market.

Firstly, in the government level, the "visible hand" government manage too many things (Yining, Li. & EBSCOhost, 2018). On the one hand, the government plays the role of "athlete" in the allocation of resources, and on the other hand, it plays the role of "referee", resulting in the differentiated treatment of resource allocation in different market roles. In addition, the contradiction between commodity marketisation and the monopoly of production factors is even more harmful to equality. Secondly, at the market level, the market itself has blindness and hysteresis. The microeconomic subjects in the market and the production factors that promote economic development will always flow to the regions and industries that can obtain the maximum efficiency and profits. However, poor areas that are already in a weak position cannot attract foreign factors of production, and their high-quality labor force and limited capital flow to developed areas, creating a vicious circle and finally forming the "Matthew effect"¹⁷(Gladwell, M.,2011). In addition, it is worth noting that income distribution is included in resource allocation, and the inequality in income distribution is one of the most prominent manifestations of the equality imbalance in China's resource allocation. As for how to improve the equality allocation of resources in China, firstly, should improve the market system and promote the equality opportunity. Efforts to break the urban-rural dual structure of the household registration system (Hukou system)¹⁸ (Perry, E. J. & Selden, M. (2000);

¹⁷ The Matthew effect is the phenomenon that the strong get stronger and the weak get weaker. The social phenomenon reflected is polarization, with the rich getting richer and the poor getting poorer

¹⁸ Hukou is the household registration system used in mainland China. Originated in ancient China, used to record and retain the basic information of the household population legal

Promoting urban and rural integration; We will continue to expand the production of public goods and improve their distribution. Second, we should transform government functions and promote institutional equality. Establish an open and transparent power operation mechanism; Improve the supervision mechanism of public power; We will improve the socialist economic and legal system. Finally, we need to straighten out the relationship between the market, the government and society and promote social equality. Make the market, government and society learn from each other and build a national governance system of market, government and society cooperation.

4.1 Government's unequal factors in resource allocation

4.1.1 "Referee" and "Athlete"¹⁹

In fact, for a long time, the government has been playing a dual role of "referee" and "athlete" in the process of resource allocation. Under the guise of efficiency and equality, some people have distorted comrade Deng Xiaoping's idea of allowing one group of people to get rich first into practice to enrich themselves by depriving another group of people (Naughton, B., 1993). First of all, the most prominent problem is that the government owns most of the new wealth, and people do not share the dividends brought by the reform and opening up. In China's GDP, the proportion of residents' labor remuneration has continuously

documents. It is also the identification of every Chinese citizen. Household registration is a public certificate book that registers a natural person according to his/her household and issues a certificate. The items recorded include the name, date of birth, relatives and marital status of a natural person. It is the basic legal document that determines the legal status of natural person as civil subject. The hukou system is linked to social programs provided by the government, which distribute benefits according to the status of agricultural and non-agricultural residents (Elizabeth J. Perry & Mark Selden, 2000). For decades since the founding of the People's Republic of China in 1949, this has been a source of much inequality(usually called rural and urban), as urban residents have received benefits ranging from pensions to education to health care, while rural residents have often been left to fend for themselves.

¹⁹ "Referee" and "Athlete" That means the government makes the rules and then gets involved. Administrative equality is hard to guarantee.

decreased from 56.5 percent at the peak in 1983 to 36.7 percent in 2005. The national economic level has been developing continuously for more than two decades, but the proportion of residents' labor remuneration in China's GDP has decreased by nearly 20 percentage points. So far, although the proportion of employees' labor remuneration in the total GDP has been improved, the absolute level is still low, which is a very unfavorable distribution pattern for workers. In contrast, the return on capital in China has been rising even as the return on labor has been declining. From 1978 to 2005, the ratio of return on capital to GDP increased by nearly 20 percentage points (Chong-En Bai & Chang-Tai Hsieh & Yingyi Qian, 2006). Residents, enterprises and government are the three main bodies of national income distribution. According to the data, in the 1980s, the ratio of these three subjects was 56:20:24, while the current distribution ratio is 37:30:33. At this stage, China's distribution pattern is the largest feature of the state and enterprises share more, residents share less.

Secondly, from the perspective of financial expenditure structure, the government allocation of resources caused by inequality. For example, the government proposed to spend 4% of GDP on education more than a decade ago, but only in recent years has it barely reached this target. China's social security sector has more debts. Although in recent years, some agricultural policies have been adopted, such as the abolition of agricultural taxes and the granting of grain subsidies, this is obviously not enough to achieve equality in the distribution of national wealth. Third, the inequality in resource allocation is caused by the unequal system. For example, the household registration system has formed serious differences in education and employment, and people will face inequality at the starting point.

4.1.2 Resource allocation of rights and protection of rights

Corruption is also a result of the government's misuse of power to allocate resources. Trade in power and money was hated by the people. "the occurrence of inflation, the inequality in income distribution, coupled with corruption, will pose great challenges to social stability and even lead to regime change." former Chinese premier Wen Jiabao said of corruption (Fabre, Guilhem, 2017). Corruption, in a sense, is the result of the inequality in resource allocation. It

can be said that the inequality caused by the allocation of resources by the government is much bigger and more serious than that caused by the allocation of resources by the market.

It is an important measure to prevent corruption to strengthen the rational allocation, supervision and restriction of public power resources. China has always had a lack of oversight, so corruption happens all the time. Some leading cadres in China do not want to serve the people better. Instead, they seek personal gains wantonly. They even sell or buy government positions and accept bribes for more than a decade, and the relevant party and government organs and supervision departments have not been found for a long time (Becker, Jeffrey, 2008).

Since the 19th National Congress of the Communist Party of China (CPC) held in 2017, senior officials in China have been arrested for corruption continuously, which shows that the previous system cannot fully prevent corruption, the effective and deterrent supervision mechanism has not been fully established, and the use and supervision of public power are still lack of specific norms and procedures. Although some supervisory bodies have been stipulated by law, it is difficult to implement them in real life. Fundamentally speaking, the Chinese state cannot achieve a reasonable and effective allocation of power resources. There exists a power relationship between people, and in the power relationship, the status of individuals is closely related to the power resources held by individuals.

Therefore, the resource of rights is an important factor to solve the relationship of power. When analyzing power, Giddens Anthony (1995) points out two different concepts of power in his understanding of allocation. A concept of power that equates allocation with "decision networks." Thus, the dominant person has the "network capacity" to achieve his goals. Simply put, this idea of power understands power as a person's capacity to act. Another view of power emphasizes that power is determined by social structures. People have different powers in different social structures (Giddens, Anthony (1995). However, Giddens (1995) believes that both of these concepts of power have defects, and they understand power either from the perspective of human beings or from the perspective of social structure. The right thing to do is to combine these two ideas of power.

Once a person has the power to allocate resources, he has the power to allocate others. "Resources are structural elements of the social system that actors use in specific

interactions," Giddens (1995) said. For example, a person is appointed to be the head of a sector, but because he is transferred from other places, he has no "cronies", so he has a network to control, but he has no "power". This is because, in the social (sectoral) structure, he has no structural elements to draw on. He was unable to exercise his powers properly. In social life, although all people are in power relations, different people have different resources to control in the social structure, so their status in the society is also different (Anderson, Cameron & Hildreth, John & Howland, Laura, 2015). That is to say, the allocation of power resources should include at least two aspects: distribution and restriction.

At present, neither of these aspects has reached a reasonable level, especially the lack of restriction on power. For the restriction of power, we should proceed from three aspects: one is to keep the scientific allocation of power resources and use power to balance power. Focus on improving the power structure of decision-making, implementation and supervision, so that they can not only restrict each other but also complement each other. Efforts should be made to build a scientific, reasonable, systematic, procedural and efficient power operation mechanism, so as to prevent power from deviating from the normal track and curb the abuse of power and corruption. Second, we will ensure citizens' legitimate rights and use them to balance power. We must not let the constitutional rights of liberty and equality become empty talk. Third, make the party and government power transparent. In particular, we need to improve the openness of party and government information, decision-making and final accounts, and selection, and improve the transparency of openness.

4.1.3 The marketisation of commodities and the monopolization of production factors

Specifically, the inequality in China's resource allocation is mainly reflected in the two aspects of government and enterprise, government and market.

First, the government and enterprises are not separated, hindering the construction of the process of modern enterprise system. Take state-owned enterprises as an example. In the model of market economy, the government is not only the owner of enterprise property rights, but also the rule maker in the model of market economy. It is precisely because of this dual status and role that state-owned enterprises have established a monopoly position in some industries and obtained a large amount of monopoly profits through unreasonable means,

which seriously damaged the equality of market economy and dampened the enthusiasm of other economic subjects in production.

Second, the government has too much power and extends to too many fields, resulting in a relatively low degree of marketisation. Since China's reform and opening up, China gradually changed the planned economy system is dominated by the government, establish the market economic system dominated by the market, after more than 30 years of reform, the marketisation of China's economic system has obtained certain achievements, but compared with developed countries in the world of the degree of marketisation, China also has many place need to improve, also there are imbalances in the process of marketisation.

4.2 Market factors in inequality resource allocation

4.2.1 The market has spontaneity and blindness

First of all, the system of market economy, the market is made into many products operators according to certain rules to engage in a variety of trading activities, and form of a smart machine, and scarce resource configuration is through the realization of the intelligent machine, it can not only overcome the traditional system of decision making and the disadvantages of excessive concentration of power, and can avoid the chaotic state. In the market economy system, through the stability of prices and trading activities, each economic subject can share the information scattered in the whole economic system, so the contradiction between the decentralized information and the centralized information processing can be solved.

Secondly, "all kinds of resource allocation decisions are not implemented from top to bottom by administrative power but are made and implemented voluntarily by the parties in economic activities pursuing utility maximization according to market signals and through their own calculation, so as to coordinate local interests with social interests" (Dewan, T., & Shepsle, K. A.2008). Overload use of public resources, the lack of public product support, external compensation and relief, incomplete even oligopoly competition in the market, information asymmetry, moral hazard, the existence of uncertainty and transaction costs will be on the market resource allocation function play a certain impact, and even cause "market failure".

At the same time, market mechanism is a kind of profit-oriented resource allocation mode with spontaneity. Market subjects pursue the maximization of their own interests. Whether consumers or producers, follow the crowd is a normal phenomenon in market economic activities, which will undoubtedly bring waste of resources. In addition, the economic mechanism in the market economy will produce the result of survival of the fittest, and even the "Matthew effect", the allocation of resources caused by inequality, unable to achieve optimal allocation of resources, also is unable to realize the maximization of the efficiency of resources within the scope of the whole society and equal optimization, eventually led to a decline in overall social welfare. Clearly, the market is not omnipotent; Due to the inherent defects of market mechanism and the limitations of external conditions, pure market allocation is not feasible.

4.2.2 The market creates the "Matthew effect" of resource allocation

Market economy cannot completely realize equal resource allocation. Different from the economic equality of the participants in the market competition, the equal resource allocation aims to solve the equality of the broader resource allocation, not just the equal economic resource allocation. "In the market economy, the law of value, the law of supply and demand, and the law of competition are inherently ubiquitous, and they always work everywhere. But some economic sectors cannot be completely regulated by the market (Ding, X., 2009)." For example, urban infrastructure construction requires large investment and long cycle of cost and profit recovery. If the market is allowed to regulate, few people will invest and operate. In the process of the operation of an economic system in which the market plays a fundamental or even decisive role in the allocation of resources, problems such as market monopoly, externality, macroeconomic imbalance and insufficient supply of public goods cannot be well solved. In the market economy system, the market subject usually starts from the own interest Angle, only considers the immediate interest, thus neglects the long-term interest. Therefore, it is necessary to properly handle the relationship between the government and the market, and the government should intervene in a timely and appropriate manner.

The market allocation of resources also tends to cause the imbalance between regions, between urban and rural areas, between industries and between groups of people, leading to

Research on inequality of resource allocation in China since reform and opening up the "Matthew effect". Market economic system is essentially the pursuit of economic production efficiency, the pursuit of maximum benefits. The concepts of freedom and equality make the various production factors in the economic system have strong vitality, thus promoting the optimization of resource allocation. Motivate people to produce the inner power, prompting them to change their living environment, break through the original closed natural economy mode, stimulate their production more new products to market exchange requirements, make them feel more convenient from the division of labor and benefits, thus to improve the efficiency of the whole social economy, the problem of poverty and backwardness.

But at the same time, the market economy is a competitive economic system driven by the maximization of interests, and its operation mechanism of "survival of the fittest" inevitably puts backward areas and poor people at a disadvantage. The factors of production that promote economic development will always flow to regions and industries that can achieve maximum efficiency and profit. However, the poor areas, which were already in a weak position, could not attract high-quality labor force and more financial support, but the limited production factors in this region were traced back to the regions with good development. At present, China is in the period of economic transition. Urban residents and rural residents are increasingly able to allocate resources, and their own interest appeals have increasingly become an important criterion for them to allocate production factors and make economic decisions. While pursuing the maximization of their own interests, people naturally flow to regions with superior and better resources, which inevitably leads to the scarcity of some resources and increases the competition virtually. If resources are only allocated by the market, spontaneous selection and flow will occur, and scarce resources will become scarcer. The imbalance of resources among regions, urban and rural areas, industries and groups will become more and more serious, eventually leading to a vicious circle and the situation of "Matthew effect". At present, with the continuous expansion of China's urbanization, this imbalance is particularly prominent in land resources, education resources, medical resources and other aspects.

4.3 The negative effects of inequality resources allocation

First at the labor market level, due to the urban-rural dual structure of the household registration system, the labor market restricts the flow of labor in rural and urban areas. As a result, the legitimate rights and interests of a large number of migrant workers have been damaged, and they have been at the bottom of their income for a long time. What's more, due to the differential treatment of social security systems such as education and medical care brought by the urban-rural dual household registration system, farmers who need social security most are not well protected.

Take urban and rural basic education as an example, Due to the differences in educational basic conditions and state support, Chinese cities and villages have different educational resources, and the educational resources in big cities are obviously superior to those in small cities and rural areas. At the present stage, as the most popular way for the state to select ordinary students to receive higher education in cities, the inequality behind the household registration system is obvious. For example, Beijing's annual college entrance examination score is more than 100 points lower than Hunan's. But basic education is not so lucky. Children with rural household are not allowed to study in big cities. Therefore, due to the inequality resources allocation and China's household registration system, the gap in China is getting wider.

Second, in the land resource market, after more than 30 years of continuous development since the implementation of the household contract responsibility system in the reform and opening up (Lin, Justin Yifu, 1988), great progress has been made in the marketisation of land transactions. But it is worth noting that the government has always acted as an "intermediary" between buyers and sellers. Local governments expropriate land with compensation and sell it to third parties, who use it for commercial purposes and in turn sell it back to residents. In this process, the government makes large profits by "buying low and selling high". It can be said that this "intermediary" role of the government in land transactions has become the biggest vested interests, the biggest obstacle to the marketisation of land transactions, seriously harmed the interests of the people, and greatly hindered the marketisation process of land transactions(Jiaming Li& Yuheng Li& Wenzhong Zhang& Jianhui Yu, 2018).

Third, in terms of resource market, monopoly is the most prominent feature of China's resource market. Water conservancy and hydropower, petroleum and petrochemical, steel and coal, shipping and communications, aerospace and aviation, tobacco, etc. are all monopolized by state-owned enterprises, covering almost the entire upstream industry of national manufacturing. Although the monopoly of China's resource market will bring benefits to China's economy, it can develop resources rationally, protect the environment, and improve the utilization of resources. However, state-owned monopolies have crushed the development space of small and medium-sized enterprises and private enterprises. In terms of welfare, the wages and benefits of state-owned monopoly enterprises are much higher than the average level of the same industry, which seriously disrupts the normal economic order of the market economy (Paul Hubbard, 2016).

Chapter V Countermeasures to Improve the Equality of China's Resource Allocation

5.1 Transforming government functions to promote institutional equality

5.1.1 Transform government functions to improve government governance capacity

The transformation of government functions is one of the core contents of the reform of administrative management system. At the same time, it is also an important basis for establishing modern enterprise system, improving market system and dealing with the relationship between government and market. After 40 years of continuous development of China's reform and opening up, China's current administrative system reform has been into a period of important period, although after a long period of reform, the transition of the government function has made considerable progress, the role of market in resource allocation has been enhanced, but in dealing with the relationship between government and market, the government also exists the phenomenon of "mislead of duty, missing duty, beyond duty", especially for the supply of social governance and public service also need to improve, there is a certain distance with the rule of law government and service government. To further transform the functions of the government, improve the governance capacity of the

government and make the market play a decisive role in the allocation of resources, efforts should be made in the following aspects:

The first is to deal with the relationship between decentralization and strengthening management. The decentralization is to decentralize some of the power, reduce the complicated procedures, liberate the productivity of the market, and release the vitality of the market. Strengthen management to manage the matter, especially in the market for the audit of business operating qualifications and the supply of public services, to maximize the focus of the work to provide quality market environment, maintain social equity and justice. All along, the role of the Chinese government in society has always been a "parent-type" government, the management of the should not be a tube, the approval of the should not be approved to be approved, which not only makes the market mechanism cannot be issued vitality, but also makes the government overwhelmed, invisibly increased the government's governance costs.

Secondly, do a good job of direct and indirect management of government functions. Due to the background of China's long-term planned economy system, the government's governance mode is still used to directly intervene each economic subject in the market with traditional methods. To improve the way the government governs, the government need to change the previous practice of take on all things, work hard to promote the model of governance by the whole society, and leave some issues that the government fails to manage to society's own hands the previous practice of take on all things. The so-called indirect management of the government here mainly means that social organizations should be vigorously developed, especially such organizations as accounting firms, law firms, arbitration institutions, equality institutions, measurement and inspection institutions, asset appraisal institutions and so on. They are the bridge between the government and the market, mobilize their initiative and enthusiasm to participate in social governance, for the gradual formation of small government, large society, a good market environment is particularly important(Jiangtao, Dong & Fenglan, Wu., 2012).

5.1.2 Promote urban-rural integration to narrow the gap between urban and rural areas

In fact, urbanization is the practical process of narrowing the gap between urban and rural areas in China, while urban-rural integration is the ultimate goal of China's practice of gradually narrowing the gap between urban and rural areas. Urbanization is a process in which farmers enter the city and become citizens to increase farmers' income and enjoy urban public services. To realize the integration of urban and rural areas, efforts need to be made to develop a new type of urbanization, that is to say, the development of a new type of urbanization is to realize the important path in the process of urban-rural integration, its core is to eliminate the urban-rural dual structure, rationalize the equal public services and the allocation of resources between urban and rural areas, to promote high-quality resource sharing between urban and rural areas. As the third plenary session of the 18th CPC central committee pointed out, "the urban-rural dual structure is the main obstacle to the integration of urban and rural development. We must improve institutions and mechanisms to form a new type of relationship between industry and agriculture that promotes agriculture through industry, and between cities and townships, and between industry and agriculture, and between urban and rural areas. We need to accelerate the building of a new type of agricultural management system, grant farmers more property rights, promote equal exchange of factors of production and balanced allocation of public resources between urban and rural areas, and improve institutions and mechanisms for the healthy development of urbanization."

At present, the main problem facing the integration of urban and rural areas in China is the huge gap between urban and rural public services. The rural areas, including education, medical care, old-age care, power supply, water supply and transportation, are obviously lagging behind the cities. As can be seen from the previous article, the reason lies in the fact that the allocation of resources in China has long been focused on the cities and neglected the common development of the countryside. Although in recent years, the government has been inclined to rural areas and the central and western regions in public financial expenditure, there are still many problems to be solved in the equalization of urban and rural public services. China's public service system is not sound, in addition to the supply capacity is insufficient, can't satisfy people's increasing demand of public service, the face also provide public service main body is relatively single, not to establish a unified urban and rural public

service mechanism, the government in providing public services is the phenomenon of "mislead of duty, missing duty, beyond duty".

Finally, when to break the urban-rural dual household registration system is the key to eliminate China's urban-rural dual structure and promote urban-rural integration. With the acceleration of urbanization in China in recent years, more and more farmers live in cities for a long time, but their rights and interests are not well protected. The reason lies in China's different urban and rural household registration system. In ancient times, due to the economic model of emphasizing agriculture and restricting commerce, the government restricted the flow of population. However, in the current market economy system, the dual household registration system of urban and rural areas leads to the fact that migrant workers cannot enjoy the same rights and interests as urban residents in cities, which leads to a series of social problems. At present, the crazy rising housing price and high cost of living have already caused the phenomenon of "reverse urbanization". The loss of labor force in the city leads to the increase of labor cost for enterprises to employ labor, which virtually brings pressure to the enterprise transformation. However, this is also the positive influence of labor market from another perspective. Governments should borrow this opportunity, as the pace of The Times, improve the living situation of migrant workers in the city, and further ensure their due rights and interests, at the same time, strengthen the linkage with the household registration reform, increase of migrant workers in the city life happiness, to ensure better reform, the reform results benefit to more people at the bottom of society.

5.1.3 Improve social security to ensure social security

Social security originates from the pursuit of equality, which is the basis for the government to protect the vital interests of the people. Improving the social security system plays an irreplaceable role in realizing social equality and building a stable and harmonious social environment.

Since the reform and opening up, the Chinese government has made a lot of achievements in improving the social security system, but there are still problems of low level. Previously, we have studied the serious inequity of basic education in urban and rural areas in China. Moreover, China has a serious imbalance in the allocation of pension and medical resources.

In terms of medical resources, 80% of them are allocated to cities, and 80% of them are allocated to big cities. The double-track System of Endowment Insurance System is a deformed product of the transition from the planned economy System to the market economy System. According to the double-track settlement method, enterprise personnel can get about 60% of their pre-retirement salary after retirement, while government organs and public institutions can get nearly 90%. At present, China's social security system has become one of the most unsatisfactory systems for the public. If we do not carry out scientific, rational and efficient reform, the government will face a crisis of public trust (Jiang, N. (2016).

Therefore, going back to the research question in the previous section, China should make efforts to remove the barriers between urban and rural dual institutions and form a unified social security system between urban and rural areas, which is the key to improve the social security system. In China, social equity cannot be achieved without a unified social security system for urban and rural areas. The most important reason for the unbalanced allocation of social security resources in China lies in the differential treatment of urban and rural social security.

This is not only a question of equality imbalance in social security, but also a question of whether the government can share the dividends of four decades of reform and opening up. Of course, establishing a unified national social security system is a long and arduous process.

I think we can focus on treatment of migrant workers social security work in the city, and according to the social security of migrant workers the most pressing needs, such as medical insurance, industrial injury insurance and unemployment insurance, etc., to develop practical, targeted social security system, gradually change the social security for urban and rural dual mechanism, realize the nationwide unified social security system, to realize social justice.

5.2 Improve the market system to promote equal opportunities

5.2.1 Reduce industry entry regulations and deepen marketisation

In 1997, the 15th National Congress of the Communist Party of China clearly stated for the first time that "the non-public economy is an important part of China's socialist market economy" and confirmed the "common development of multiple ownership economies."

Taking the public sector as the main player will be a priority in the primary stage of socialism.

It can be seen that the development of the non-public economy is very beneficial to China's economic development. The non-public economy is a term coined relative to the public sector of the economy. It is all forms of economic structure in China other than the public sector of the economy at this stage. It is also an important part of the socialist market economy. Mainly including individual economy, private economy, foreign economy, etc (Liu Jincai, 2018).

At present, the government still has many improper regulations on non-public economic industries entering the market. Improper regulation means that the government regulates or controls the non-public economy that should not be restricted from entering industries and industries within the business scope, and it is the government that sets various entry thresholds for these industries that leads to the government's monopoly behavior. In order to further deepen the degree of marketisation, it is imperative to reduce industrial rules. To be specific, want to eliminate ownership barrier above all. No matter it is public or non-public economy, as long as it is qualified to enter the market, the threshold for it to enter the market should be relaxed so that the market plays a decisive role in the allocation of resources. Moreover, we must eliminate discriminatory policies against non-public sectors of the economy. In order to provide a good market environment for the development of the non-public economy in the socialist market, we should promptly revise the laws and regulations which are not conducive to the development of the non-public economy.

Finally, we must strengthen the institutional reform of the public sector of the economy. In the market competition, the competitiveness of the public sector economy is generally lagging behind the non-public economy. This is one of the reasons why the government regulates various industries entering the market (Songtao, X., 2000). To reduce industrial regulation, we must start from strengthening the management of the publicly owned economy itself, starting from "hardening the iron itself," so that both the public sector and the non-public economy can compete in an equal market environment. Market system, the inevitable requirement to promote equality in opportunities. As mentioned above, the current monopoly of the Chinese government covers all or more of these forms, covering almost all upstream industries of the national economy, especially the monopoly on production factors.

For example, it has been playing the role of “intermediary²⁰” in land resources for a long time and has obtained a lot of benefits through land expropriation compensation at a low price and auction at a high price, which is actually the monopoly profit of local governments. China's administrative monopoly of resource allocation makes the tentacles of power directly involved in the market, which is very easy to destroy the market order, and not only difficult to break through the market itself, but also further hinder the healthy competition in the market and the improvement of the market economic system. The government, especially the state-owned enterprises under the control of the government, as one of the economic entities in the market economy system, will seek their own private interests just like other economic entities in the market. If the public power in the hands of the government is not effectively restricted, the government will also monopolize the information it has in order to realize its own selfish interests, thus generating various non-public government trust. Therefore, it is particularly important to break the government monopoly and relax market access in order to promote healthy market competition in view of the market factors in China's unbalanced equality allocation of resources.

For a long time, the Chinese government has been a kind of regulatory government, a kind of parental government that controls everything. With the continuous development of the society and the deepening of the political system reform, the establishment of a service-oriented government has attracted the attention of experts and scholars and the whole society in recent years. To establish a service-oriented government is to break the monopoly position of the government, especially state-owned enterprises in the market, and prevent the government from playing the role of "intermediary" in various social transactions. To set up a service-oriented government means that the government can only play the role of "referee" but not "athletes" in the process of resource allocation. To build a service-oriented government is to cut off the vested interests of the government in the past. Generally speaking, to judge whether a government is a modern service-oriented government, we should focus on two aspects. One is whether the government only provides public goods and services that the

²⁰ Intermediary refers to the link between different things or the opposite poles of the same thing.

market, enterprises and individuals cannot or are unwilling to provide. Such public services and public goods that enterprises and individuals cannot or are unwilling to provide have a large investment and a long period of benefit return, which enterprises and individuals cannot afford. The second is whether the government promotes the marketisation of public services. Providing public goods and services is the responsibility of every government, but not monopolizing the production of public goods is a manifestation of the strict requirements of modern service-oriented government (LIANG, Ying, 2019).

That is, the government provides any public service and public goods on the premise of non-mandatory. No matter whether individuals or enterprises can afford it or not, the government has no reason to prevent them from trying to use more and newer solutions, as long as they do not harm the public interest. For both enterprises and individuals are likely to find a new way to solve problems that were previously impossible to solve, so that the vitality of various factors in the market will burst out and drive the whole society to develop continuously. The government does not monopolize public services and products and allows enterprises and individuals to participate in the production of public services and products, so as to inject the power of the people into public services and products, which is more conducive to stimulating the vitality of market economy. An excellent modern service-oriented government, rather than monopoly of public goods and services, but to encourage and advocate the public service marketisation, and also because of this, equality, the rule of law, freedom, and justice of the socialist market economy, such as the target to obtain better practice, the disadvantages of service administration will get the maximum limit, and to basic requirements phase in market economic system.

5.2.2 Improve the socialist economic, legal system and improve the market environment

It is particularly important to improve the socialist economic legal system after reducing the regulation of industries and deepening the marketisation. First of all, the perfection of the legal system of socialist market economy is the prerequisite for the establishment of socialist market economy. It is also an important guarantee to promote equality opportunity in the market. Is to further improve the socialist market economy system environment important measures. Market economy is the economy under the competition of market economy subject,

Research on inequality of resource allocation in China since reform and opening up and the guarantee of competition is equality rules and systems. The important role of socialist market economy law is to guarantee the stability and standardization of these conditions. The legal system of socialist market economy is to confirm the legal status of market subject, regulate the behavior of market subject and make the market subject proceed under the set rules, which is to act according to law, so as to guarantee the smooth progress of market activities and effectively maintain the order and system of market economy. No matter market economy rules or the establishment of order, are inseparable from law. Only by constantly improving the legal system of socialist market economy can equal and legal market environment be formed, and the phenomenon of polarization²¹ and big fish eat small fish-law²² of the jungle will not occur, thus hindering technological progress and the distorted state of unbalanced resource allocation.

5.3 Manage the relationship between market and government, promote social equity

5.3.1 Government and market control each other

Handling the relationship between the government and the market is the core issue of economic restructuring. After the establishment of the socialist system, the choice of what kind of economic system is a major theoretical and practical problem, the core is how to understand the relationship between the government and the market. Over the past 40 years, great achievements have been made in China's reform and opening-up. To sum up the successful experience, the key point is that China adheres to developing a market economy under the socialist system and constantly rationalizes the relationship between the government and the market. Make the market play a decisive role in resource allocation and give full play to the role of the government. This is a new breakthrough in China's understanding of the law of socialist market economy since the 18th National Congress of the Communist Party of China, and an important part of Xi Jinping's socialist economic thought with Chinese characteristics in the new era. Better understand and handle the relationship between

²¹ An extreme concentration of opposing forces or groups that were formerly united and often in conflict. Split into two parts that focus on opposite extremes. It's about the rich and the poor.

²² The metaphor of the weak being swallowed up by the strong.

Research on inequality of resource allocation in China since reform and opening up government and market (Hu A.& Tang X.& Yang Z.& Yan Y., 2017). The two key factors of the market and the government make the allocation of resources diverse in the complex social environment, and the various ways of allocation help each other. Only in this way, the combination of various ways of allocation of resources can improve the efficiency of allocation, especially the improvement of equity.

Therefore, the cooperative partnership between different resource allocation mechanisms is very important. The two mechanisms of planning and market have their own advantages and disadvantages in terms of resource allocation. There is an intersection of mutually beneficial interests, and the government needs the speed with which the market responds to demand and the cost savings it can make of its resources. The market needs external compensation and financial support from the government in providing public goods. In general, government and market time are both competitive and interdependent.

The role of the government and the market in the allocation of resources is by no means the one leading the other, but a process of mutual promotion and complementarity. Only in this constant combination process can the efficiency and equality of resource allocation be improved. At the present stage, China's reform of the socialist market economy system has entered the post-reform era. The allocation of resources by the market is a general rule of market economy, "to improve the socialist market economy system, we must follow this rule and strive to solve the problems of imperfect market system, excessive government intervention and inadequate supervision (Hong, Y., 2016)". The key to deal with the relationship between the government and the market is to play the role of intermediary organizations, and then to transform the government functions to the service government, constantly improve and maintain the relationship between the government and the market, so as to achieve the balance between the improvement of the efficiency of resource allocation and equality.

Intermediary organization refers to the social organization that is active between the government and enterprises, established in accordance with relevant laws, regulations and regulations, provides various services such as information consulting, agency, training and brokerage for each economic subject in the market, and gives full play to the functions of

Research on inequality of resource allocation in China since reform and opening up supervision, coordination and self-discipline in the market economic activities²³. It has the characteristics of legal establishment, wide coverage, strong professionalism and large service scope.

At present, intermediary organizations can be generally divided into two categories. One is nonprofit organizations. Non-profit organizations generally refer to those social organizations that are free from the intermediary organizations of social subjects and do not participate in or seldom participate in influencing the market price. Generally, there are two types of non-profit organizations: non-profit social intermediary organizations and mutual benefit social intermediary organizations. The former includes various charitable organizations and foundations, while the latter mainly adopts membership system, such as trade associations and academic organizations. Another kind of intermediary organization is for-profit social intermediary organization. It also has two parts. One part is intermediary organizations that directly provide services for market activities, such as securities issuance and agency, advertising agency, various technical consulting, statistical consulting, information consulting and so on. The other part is the social intermediary organizations between the government and enterprises, the government and individuals, enterprises and enterprises, individuals and other market entities. Most of the services they provide are paid, which are called supervision social operation organizations. Accounting firms, law firms, notarial offices, asset appraisal agencies and so on are all in this category. Intermediary organizations make the relationship between government, enterprises and society more stable and lay a foundation for the transformation of government functions²⁴. Therefore, it is of great significance to deal with the relationship between the government and the market.

²³ China.org.cn (2003). Functions of Chinese Intermediary Organizations, (online). available from <http://arabic.china.org.cn/english/2003chinamarket/79477.htm>

²⁴ China.org.cn (2003). Functions of Chinese Intermediary Organizations, (online). available from <http://arabic.china.org.cn/english/2003chinamarket/79477.htm>

Chapter VI. Conclusion

6.1 Main results of the research

At present, the imbalance of resource allocation equality is an important cause of many social problems. Since the reform and opening up, the Chinese government's understanding of China's resource allocation is basically a process from efficiency first to both efficiency and equity. China has varying degrees of inequality in the allocation of resources, at least between regions, between urban and rural areas, and between industries. To be specific, this dissertation uses Theil Index to calculate the urban-rural gap in the Student-Teacher's ratio of basic education, teacher resources, Per Student Educational Appropriation and Per Student Computer Ownership of basic education, and the result is that there is still a big gap in the quantity and quality of basic educational resource.

We can see it from the calculation that there is a gap in basic education resources between urban and rural areas in China and shows that the allocation of educational resources is unequal. In China, the gap between urban and rural areas in terms of teachers, funding and schooling conditions still exists, which means there is insufficient investment in rural basic education. In areas with a higher level of economic development, the urban-rural gap in basic education resources will also appear, and the high value of Theil index may not concentrate in the less developed areas.

After concluding that there is inequality in the distribution of basic education resources in urban and rural areas, according to the scientific outlook on development and the government's ruling for the people, every citizen has the right to basic education resources, equality education and quality education resources. It is the main responsibility of the government to optimize the allocation of basic education resources.

After that, this dissertation analyzes the causes of unequal resource allocation in China at the government level. One is that for a long time, the government has been playing a dual role of "referee" and "athlete" in the process of resource allocation. Playing the role of "referee" and "athlete" means that the government and enterprises are not separated. The government is not only the owner of the property rights of enterprises but also the rule-maker under the market economy model. It is precisely because of this dual status and role that state-owned

Research on inequality of resource allocation in China since reform and opening up enterprises have established a monopoly position in some industries and got a large amount of monopoly profits through unreasonable means, which seriously damaged the equality of the market economy and dampened the enthusiasm of other economic subjects in production. Second, the government has too much power and extends to too many fields, resulting in relatively low marketisation.

After 40 years of reform and exploration, China has successfully realized the transition from a planned economy to a socialist market economy. Therefore, this dissertation also investigates the causes of unequal resource allocation in China at the market level. The market itself has blindness and hysteresis. The microeconomic subjects in the market and the production factors that promote economic development will always flow to the regions and industries that can get the maximum efficiency and profits. However, poor areas are already in a weak position cannot attract foreign factors of production, and their high-quality labor force and limited capital flow to developed areas, creating a vicious circle and finally forming the "Matthew effect". Under the system of the market economy, market subjects often proceed from their own interests and only consider immediate interests but ignore long-term interests. Therefore, it is necessary to properly handle the relationship between the government and the market, and the government should intervene in time and appropriately.

6.2 The Suggestion

From the point of view of unequal allocation of resources, the following Suggestions can be made to promote equity in the resource allocation in China:

1. Transform government functions to improve government governance capacity, to deal with the relationship between decentralization and strengthening management. Let the government delegate some power. Reduce cumbersome procedures, free up the the productivity of the market, release the vitality of the market.
2. Promote urban-rural integration to narrow the gap between urban and rural areas and eliminate the urban-rural dual structure. Rationalize equal public services and the allocation of resources between urban and rural areas to promote high-quality resource sharing between urban and rural areas.

3. To improve social security, social security originates from the pursuit of equality, which is the basis for the government to protect the vital interests of the people. It plays an irreplaceable role in realizing social equity and building a stable and harmonious social environment.
4. Reduce the industry access regulations, deepen marketisation, reduce improper regulation and avoid government regulation on non-public economy and industries within its business scope that should not be restricted. It is the government that sets various entry barriers for these Industries, leading to government monopoly. As long as there are conditions to enter the market, the threshold to enter the market should be relaxed so that the market can play a money role in the allocation of resources.
5. In order To set up a service-oriented government means that the government can only play the role of "official" but not "official" in the process of resource allocation Government is to break the monopoly position of the government, especially the state - owned enterprises in the market, and cut off the vested interests of the government in the past.
6. To improve the legal system for the socialist market economy It is also an important guarantee to promote equality opportunity in the market. Only by constantly improving the legal system of socialist market economy can an equal and legal market environment be Formed, thus reducing corruption and polarization.
7. Rationalize the relationship between the market and the government to promote social equity. The role of the government and the market in the allocation of resources in China is by no means the one Leading to the other, But a process of mutual promotion and complementarity. Only in this constant combination process can the efficiency and equality of the resource allocation be improved. The More intermediary organizations Added, which made the relationship between the government, enterprises and the society more stable and laid a foundation for the transformation of government functions.

7. References

Donald W. Moffat (1983). *Economics Dictionary*, Elsevier; 2nd (1983)

Bower, Joseph L (2017). "Resource Allocation Theory." In the *Palgrave Encyclopedia of Strategic Management*. Continuously updated edition, edited by Mie Augier and David J. Teece. Palgrave Macmillan, 2017. Electronic.

Han Zongli (1982). On the efficiency of educational resources. *Journal of Hebei university*.

Gooden, Susan T (2015). *Race and Social Equity: A Nervous Area of Government*. Routledge. pp. 13–18.

Mann, Blair (2014). "Equity and Equality Are Not Equal". edtrust.org. Washington, D.C.: The Education Trust.

William K. Frankena (1994), *Thinking About Morality*, University of Michigan Press; First edition (1980). pp107.

Conley, Dalton (2013). *You May Ask Yourself* (3rd ed.). New York: W. W. Norton & Company.

Paul de Vries (2011), equal opportunity, *Blackwell Reference*, retrieved September 12, 2011.

Kahn, Sharon (2000). *Academic Freedom and the Inclusive University*. pp 10. Vancouver: CAN: UBC Press.

Rawls, John (2003). *A Theory of Justice*. Belknap Press of Harvard Univ. Press.

Backhouse, R. & Medema, S (2009). Retrospectives: On the Definition of Economics. *The Journal of Economic Perspectives*, 23(1), 221-234.

Smith, Adam (2007) *An Inquiry into the Nature and Causes of The Wealth of Nations*.

Edited by S.M. Soares. MetaLibri Digital Library. Book IV. p349.

Marx, Karl, 1818-1883. (2009). *Das kapital: a critique of political economy*. Washington, D.C. : New York :Regnery Pub. ; Distributed to the trade by Perseus Distribution.

Wu Jinglian (1992). *The road to market economy*, Beijing university of technology press, 1992. p.62.

Kim, Euijune & Sung Woong Hong & Soo Jung Ha (2003). "Impacts of national development and decentralization policies on regional income disparity in Korea." *The Annals of Regional Science* 37.1 (2003): 79-91.

Licai Wu (2018) *China's Township System Governance and Reform*. April 2018 Pages: 268.

H. George Frederickson (2010). *Social equity and public administration: origins, developments, and applications*. Armonk, N.Y.: M.E. Sharpe, Inc. pp.113-124.

Barr, N. (2012). "3.2.2 The relevance of efficiency to different theories of society". *Economics of the Welfare State* (5th ed.). Oxford University Press. p. 46.

Sen, A. (1993). "Markets and freedom: Achievements and limitations of the market mechanism in promoting individual freedoms" (PDF). *Oxford Economic Papers*. 45 (4): 519–541.

Glyn, Andrew (1987). "Marxist economics". *The New Palgrave: A Dictionary of Economics*. 3. pp. 390–95.

John E. Roemer (2008). "socialism (new perspectives)," *The New Palgrave Dictionary of Economics*, 2nd Edition, Abstract.

Altham, J. E. J. "Reviews." *Philosophy*, vol. 57, no. 220, 1982, pp. 274–278.

Research on inequality of resource allocation in China since reform and opening up

Ding, Xiaoqin (2009). *The Socialist Market Economy: China and the World*, Vol. 73, No. 2, China: Socialism, Capitalism, Market: Why Not? Where Next? pp. 235-241.

Gerard A. Postiglione (2015). *Education and Social Change in China: Inequality in a Market Economy*.pp.109-133.

Edi Karni & Itzhak Zilcha (1995).The most frequent contributors to the elite economics journals: Half century of contributions to the “Blue ribbon eight[J]. *Journal of Economics and Finance*, (30): 1-37.

Arthur R Kroeber (2016). *China's economy: what everyone needs to know*. New York, NY: Oxford University Press. pp. 210–4.

Naughton, Barry (1993). “Deng Xiaoping: The Economist.” *The China Quarterly*, no. 135, 1993, pp. 491–514.

Graham Young (1989). The 13th National Congress of the Chinese communist party and the agenda of Chinese politics, *Politics*, 24:1, 85-91.

Perkins, Dwight (1991). "China's Economic Policy and Performance". Chapter 6 in *The Cambridge History of China, Volume 15*, ed. by Roderick MacFarquhar, John K. Fairbank and Denis Twitchett. Cambridge University Press.

Tang Tsou (1986). *The Cultural Revolution and Post-Mao Reforms: A Historical Perspective*. University of Chicago Press.

Jiang Zemin (1992). The 14th National Congress of the Communist Party of China report. (online) available from http://www.bjreview.com.cn/document/txt/2011-03/29/content_363504.htm

Jiang Zemin (1997). The 15yh National Congress of The Communist Party of China report. (online) available from http://www.bjreview.com.cn/90th/2011-03/25/content_357542.htm

Research on inequality of resource allocation in China since reform and opening up

Jiang Zemin (2002): full text of report at the 16th National Congress of the Communist Party of China, (online). available from

http://www.bjreview.com.cn/90th/2011-03/24/content_357545.htm

Hu Jintao (2007). Full text of Hu Jintao's report at 17th Party Congress. (online) available from

http://www.cscs.it/upload/doc/full_text_of_hu_jintaos_report_at_17th_party_congress__qiu_shi_journal.pdf

Hu Jintao (2012). Report of Hu Jintao to the 18th CPC National Congress (online) available from http://www.china.org.cn/china/18th_cpc_congress/2012-11/16/content_27138030.htm

Xi Jinping (2017). Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era (online) available from <http://www.china.org.cn/20171105-002.pdf>

Chen Changbing (2007). "Calculation of Various Gini Coefficients from Different Regions in China and Analysis Using the Nonparametric Model." *The Journal of Quantitative & Technical Economics*, (1): 133-42.

The National Bureau of Statistics of China (2018), *China Statistical Yearbook 2017*. (online) available from <http://www.stats.gov.cn/tjsj/ndsj/2018/indexeh.htm>

Lin, Justin Yifu (1988). "The Household Responsibility System in China's Agricultural Reform" A Theoretical and Empirical Study. *Economic Development and Cultural Change*, vol. 36, no. 3, 1988, pp. S199 - S224.

Brandt, Loren & Ma, Debin & Rawski, Thomas (2016). *Industrialization in China*, IZA Discussion Papers, No. 10096, Institute for the Study of Labor (IZA), Bonn.

Holsinger, D. B., & Jacob, W. J. (2008). *Inequality in education: Comparative and international perspectives*. Hong Kong: Comparative Education Research Centre, University of Hong Kong. pp230-240.

Almond, Gabriel A. & G. Bingham Powell (1978). Comparative politics: system, process, and policy. Boston: Little, Brown.p351.

Sustainable Development Goals (2015). Expenditure on education as % of GDP 2015.(online) available from <http://data.uis.unesco.org/index.aspx?queryid=181>

Steve Mertl (2012). Canada's professors are highest paid in the world, new study finds. National Affairs Contributor Daily Brew March 26, (online) available from https://ca.news.yahoo.com/blogs/dailybrew/canada-professors-highest-paid-world-average-study-finds-184331760.html?soc_src=social-sh&soc_trk=ma

An Xuehui (2018). Teacher Salaries and the Shortage of High-Quality Teachers in China's Rural Primary and Secondary Schools, Chinese Education & Society, 51:2, 103-116.

Henshaw, John M. (2006). Does Measurement Measure Up? How Numbers Reveal and Conceal the Truth. pp. 45-46.

Sheehan, Spencer (2017). "China's Hukou Reforms and the Urbanization Challenge". The Diplomat. Retrieved 14 August 2018.

Elizabeth J. Perry & Mark Selden (2000). "Chinese Society: Change, Conflict and Resistance", p 90.

17th Communist Party of China National Congress (2010). Available at http://www.csecc.it/upload/doc/full_text_of_hu_jintaos_report_at_17th_party_congress__qiu_shi_journal.pdf

XU, Xiuchuan & SHI, Shengping & HUANG, Qinghua (2014). "The Chinese Urban-rural Dual Economic Structure Model and Analysis," Asian Agricultural Research, USA-China Science and Culture Media Corporation, vol. 6(01), pages 1-6, January.

Xueming Chen & Qian Luo (2009). The scientific outlook on development and changes in the mode of human existence, Social Sciences in China, 30:1, 54-67,

Research on inequality of resource allocation in China since reform and opening up

Yining, Li. & EBSCOhost. (2018). *The Chinese Path to Economic Dual Transformation*. Abingdon, Oxon; New York, NY: Routledge. pp36.

Gladwell, M. (2011). *Outliers: the story of success*. First Back Bay paperback edition. New York, New York: Back Bay Books.

Perry, E. J., & Selden, M. (2000). *Chinese society: Change, conflict, and resistance*. London: Routledge. page 90.

Naughton, B. (1993). Deng Xiaoping: The Economist. *The China Quarterly*, (135), 491-514.

Chong-En Bai & Chang-Tai Hsieh & Yingyi Qian (2006). "The Return to Capital in China," *Brookings Papers on Economic Activity, Economic Studies Program, The Brookings Institution*, vol. 37(2006-2), pages 61-102.

Fabre, Guilhem (2017), "Xi Jinping's Challenge: What Is behind China's Anticorruption Campaign?" *Journal of Self-Governance and Management Economics* 5(2): 7–28

Becker, Jeffrey (2008). "Tackling Corruption at its Source: The National Corruption Prevention Bureau". *Journal of Chinese Political Science*. 13 (3): 287–303.

Giddens, Anthony (1995). *A Contemporary Critique of Historical Materialism_*. Stanford University Press.

Anderson, Cameron & Hildreth, John & Howland, Laura (2015). "Is the Desire for Status a Fundamental Human Motive? A Review of the Empirical Literature". *Psychological Bulletin*. 141 (3): 574–601.

Jiaming Li & Yuheng Li & Wenzhong Zhang & Jianhui Yu (2018). Imbalanced ownership transformation and land use within an urban area: a case study of Beijing. *Land Use Policy* 74, pages 240-247.

Paul Hubbard (2016). Where have China's state monopolies gone? *China Economic Journal*, 9:1, pp. 75-99.

Jiangtao, Dong & Fenglan, Wu. (2012). The Study on Public Service for Government Transformation and Improving Efficiency. *International Journal of Advancements in Computing Technology*.

Jiang, N. (2016). Factor Analysis on the Endowment Insurance System Reform for Urban Workers in China: Based on the Perspective of Institutional Change Theory. *Open Journal of Social Sciences*, 4, 23-30.

Liu Jincai (2018). Private enterprises not leaving the stage (online) available from <http://europe.chinadaily.com.cn/a/201809/15/WS5b9c60c9a31033b4f4656355.html> China Daily.

Songtao, X. (2000). China's Public Administration Reform: New Approaches. In *Seminar on Administrative Reform in Asia*, HAS, UNDESA-DEPA and the Personnel Ministry of the People's Republic of China, Beijing (Vol. 14, p. 15).

LIANG, Ying (2019). Service-Oriented Government in Practice: A Case of Construction of Nanjing Community. *Business and Public Administration Studies*, [S.l.], v. 8, n. 1, p. 58-68, Jun. 2014. Available at: <https://www.bpastudies.org/bpastudies/article/view/187/351>

Hu A., Tang X. & Yang Z., Yan Y. (2017) *The Relationship Between the Government and the Market*. In: *The Modernization of China's State Governance*. Springer, Singapore.

Hong, Y. (2016). *The China path to economic transition and development*. Springer. p65.

Dewan, T., & Shepsle, K. A. (2008). Recent Economic Perspectives on Political Economy, Part II. *British journal of political science*, 38(3), 543–564.