On the Basic Situation and Influencing Factors of Cpi in China

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Abstract: Consumer price index refers to the price of goods and services consumers reflect the changes in a certain period of time, reflecting the final price of products and services in society. It is inseparable from the people's life and plays an important role in the national economic price system. It is an important reference index for the implementation of national economic analysis and decision-making, and also an important basis for the current price level and national economic accounting. Based on data mining and multivariate statistical analysis, this paper classifies the basic status quo of China's price index development and analyzes the influencing factors from the national consumer price index and eight categories of consumer price index to evaluate China's price situation.

1. Introduction

Since the reform and opening up, with the vigorous development of the market economy, the country's total economic growth has continued at a high level. China's national economic development has been in the forefront of the world, and people's living standards have been greatly improved. Compared with the past, the percentage of food and other consumer spending in China's residents' consumption has declined year by year; in terms of transportation and communication, the percentage of cultural, educational and entertainment spending has become higher and higher. It is of great significance for the relevant departments to guide the reasonable consumption of residents and the adjustment of the market economy structure to analyze the changes of residents' demand structure, which also provides a reference for the check of economic policies and macro-economy.

CPI is a macro-economic policy index that reflects the price changes of consumer goods and services purchased by households. It can also be used to observe the changes of inflation level, to a certain extent, it reflects the changes of consumption structure of Chinese residents. In this paper, through the analysis of the consumer price index of all provinces and regions in China, the fluctuation degree of the regional price level is classified, and the main factors affecting the regional consumption structure are determined.

2. Research Status At Home and Abroad

2.1 Research Status of Cpi

Scholars at home and abroad have a lot of research on CPI, which is an important measure of national residents' living consumption level and economic development. In nimantha manamperi's (2014) study of China's economic development and inflation, it is proved that there is an opposite relationship between the two in a short period of time. Therefore, we should attach great importance to the study of CPI, and pay attention to the influence of various factors on the change of CPI.

From the current research, most of the existing results are the research on the total consumer price index, while the research on the consumer price index of food, tobacco, wine, clothing, transportation, communication, education and other categories is rare. In 2007, Nathan s. balke and Mark. Wynne's research on the sub components of CPI showed that "compared with the whole, there is more information in the sub components of CPI", which helps us better reveal the real causes of CPI changes. In spite of this, scholars' research conclusions on eight categories of consumer price index are not consistent. Zhang Chengsi uses VAR model to analyze, and thinks

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that food and clothing are the main causes of CPI changes; Chen Chengzhong and Lin Zhenshan think that food, tobacco and alcohol have the greatest impact on inflation. The fluctuation of various consumer price indexes will not only cause the change of the overall consumer price level, but also affect the change of the consumption level and structure of the whole society. Therefore, it is very important to study the consumer price index. Through the analysis of the above literature, it can be seen that most of the existing studies are on the macro factors of CPI, and few in-depth analysis on the micro influencing factors. Therefore, the theoretical model needs to be further supplemented and improved.

3. Data Collection and Index Selection

The following table is the various consumer price indexes of six provinces and municipalities in 2017. Ten main variables are extracted from the 2017 national consumer price index and analyzed by SPSS. Data source: China Statistical Yearbook (2018)

Table 1 The various consumer price indexes of six provinces and municipalities in 2017

Region	CPI	Food, tobacco, Alcohol	Clothing	Residence	Daily necessities and services	Transportation	Communication	Education	Culture and entertainment	Health care	Others
Beijing	101.9	103	97.8	103.8	100.6	97.9	93.5	101.2	96.5	102.6	104.3
Tianjin	102.1	102.1	100.2	101.4	100.8	98.2	98.6	100.8	100.4	108.8	103.8
Hebei	101.7	102.6	101.4	103	100.8	97.6	99.6	102.1	99.9	104.4	103.3
Shanxi	101.1	102.8	100.9	101.4	100.2	98.8	97.5	101.6	100.6	102.4	101.2
Inner Mongolia	101.7	102.2	101.3	101.7	100.7	98.5	99.8	101.1	100	104.4	101.8
Liaoning	101.4	102.5	101.2	101.3	100.8	100.2	99.1	104.9	99.2	102.5	101.6

In 2001, the National Bureau of statistics established a new system of consumer price index, which divides all the goods and services for compiling the consumer price index into eight categories: food, tobacco, alcohol and other products, clothing, household equipment and services, medical care and personal products, transportation and communication, entertainment, education, cultural goods and services, and residence. The CPI corresponding to them respectively reflects the change degree of the corresponding commodity price level. In order to better reflect the price factors that affect people's daily life, according to the commonly used classification method of consumption data expenditure in China, after comprehensive consideration of index acquisition, the following analysis is mainly reflected in food, tobacco, wine, clothing, daily necessities and services, transportation, communication, education, culture, entertainment, medical care and other services and supplies from six provinces in 2017. The standard evaluates the influencing factors of CPI, and the specific data is shown in Table 2.

Table 2 Variable Name

Variable	Index
X1	Food, Tobacco, Alcohol
X2	Clothing
X3	Residence
X4	Daily necessities and services
X5	Transportation
X6	Communication
X7	Education
X8	Culture, Entertainment
X9	Health care
X10	Others

4. Descriptive Analysis

Table 3 descriptive statistics

	N	Minimum Value	Maximum Value	Average Number	Standard Deviation
CPI	6	101.10	103.20	101.8097	.47213
Food, Tobacco, Alcohol	6	101.90	105.10	103.4161	.85405
Clothing	6	97.90	103.20	101.1484	.98822
Residence	6	99.70	105.20	101.4032	1.38720
Daily necessities and services	6	99.20	101.60	100.3129	.53276
Transportation	6	95.90	101.00	98.4935	1.01651
Communication	6	93.50	100.40	98.8806	1.37269
Education	6	100.20	104.90	102.1129	1.22902
Culture, Entertainment	6	96.50	103.20	100.2968	1.45636
Health care	6	100.80	109.10	103.4806	2.14063
Others	6	101.00	104.30	102.5484	.82295
Effective N (listwise)					

According to the descriptive statistical analysis, the highest price index in 2017 is the consumption of health care, followed by the consumption of food, tobacco, alcohol and education, which are higher than the average of the total consumer price index. The lowest consumer price index is traffic and communication. From the standard deviation, we can see that the price indexes of health care, culture and entertainment, and housing are highly discrete, which shows that the price indexes of these three aspects are quite different in the whole country. However, there is no significant difference between the expenditure on daily necessities and other supplies and services.

To be able to classify the price development level of each region, this paper makes cluster analysis on six regions.

5. Conclusion

In each province, food is the most important factor affecting the CPI, followed by other services and housing. In order to control the price growth and prevent inflation, the government should first control the price of food, and then introduce relevant policies in real estate to avoid the high price. The price index of health care fluctuates the most, which indicates that the market is unstable. Therefore, the relevant departments should be based on consolidating the health care system and actively carry out the reform, so that the residents' health can be effectively guaranteed. The high contribution rate of price index of cultural entertainment and service industry shows that people pay more and more attention to entertainment culture, education, high-tech transportation and communication services. It shows that people's living standard and quality are improving while their income is increasing. For our country, it can speed up the development of the third service industry, increase our GDP and optimize the first, second and third industrial structure.

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