ISSN: 2688-9323

Study on the Measurement of Common Prosperity and the Screening of Important Impact Factors

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Abstract

Common prosperity is a comprehensive prosperity, and this comprehensiveness includes the unity of material and spiritual prosperity. Therefore, adding the proxy variables of spiritual prosperity, volunteer activity, charitable donation level, socio-cultural recreation and innovation ability performance, to the common prosperity indicator can more fully highlight the common prosperity and also reflect the idea of the third distribution. Based on the provincial panel data from 2010-2019, this paper uses the entropy weighting method of panel data to measure the common prosperity index, and concludes that the overall common prosperity index is higher than the common prosperity index of each region. Meanwhile, the overall common prosperity index is significantly higher in the east than in the west, indicating that it is necessary for the development of the east to drive the development of the west to achieve common prosperity. Further analysis, the factors affecting common prosperity are screened by Adaptive-lasso, and it is obtained that all the added proxy variables of spiritual prosperity are important factors affecting common prosperity, indicating that spiritual prosperity plays an important role in achieving common prosperity.

Keywords

Common Prosperity; Material Prosperity; Spiritual Prosperity; Adaptive-Lasso.

1. Introduction

Common prosperity is the goal set by all people to achieve a better life, and the basic condition for common prosperity is that all people reach the overall level. From the battle against poverty, the completion of a moderately prosperous society, and the shift of the economy from high-speed development to high-quality economic development are all creating good conditions for the realization of this goal of common prosperity. Since the economy has entered the new normal, the economic structure has been transformed and the rational allocation of factors has been carried out to better meet the material needs of the people. "Rural revitalization" is an important strategy to solve the most difficult and burdensome problem of common prosperity, and to coordinate urban and rural development by making up for the shortcomings of rural areas. On the basis of building a moderately prosperous society, China has reached the historical stage of solidly promoting common prosperity. At the same time, China's economy is constantly shifting from high-speed growth to a stage of high-quality development, with more emphasis on qualitative improvement in order to achieve sustainable economic development. At the same time, in achieving sustainable economic development, the focus is on solving the problem of unbalanced and insufficient development in order to better meet the needs of the people for a better life. In today's society, people's aspiration for a better life is not only the aspiration for material life, but also the aspiration for spiritual life. Common prosperity is neither material prosperity nor spiritual prosperity alone, but the unity of material prosperity and spiritual prosperity, a comprehensive prosperity.

ISSN: 2688-9323

At present, it is the stage of solidly promoting the development of common prosperity, but common prosperity is a long-term task, which needs to continuously explore new ways to solve the current unbalanced and insufficient development, and the realization of common prosperity has become the focus of the country. It can be seen that common prosperity is a dynamic concept, and development is coordinated with social time change and population, life as well as spiritual pursuit, and needs to be adapted to social progress. How to promote common prosperity, so that all people can better enjoy the fruits of national development and economic development can better benefit all people is the current hot topic. Achieving common prosperity is the goal of the Party and the State, and also the expectation of all the people.

2. Review of the Literature

Common prosperity is an issue of the times for the Party to drive all people to create a better life, so nowadays, scholars' research on common prosperity is mainly focused on theory, and there are relatively few studies on empirical evidence. Research on theory is mainly divided into three aspects: first, achieving common prosperity is still facing great challenges at present, and the poverty problem is the biggest obstacle on the road to achieving common prosperity.

Some researchers suggest that eliminating poverty and improving the quality of life of the people is the top priority for achieving common prosperity [1, 2]. Second, the current is the contradiction between people's growing need for a better life and unbalanced and insufficient development, and the income gap is the key to widening the development imbalance between urban and rural regions. Income disparity is the most direct cause of widening the gap between the rich and the poor. Solving the unfairness of income distribution, narrowing the gap between urban and rural areas, and achieving overall prosperity [3, 4]. Third, in order to realize the redistribution of idle resources, shared development becomes the highlight of economic transformation and helps to realize common prosperity. Some scholars propose that the rich first will lead the rich later, and through shared development to achieve common prosperity[5-7]. Research in empirical evidence: first, although common prosperity is an important goal in people's pursuit of a good life, various unbalanced development has widened the gap in the pursuit of a good life. This population gap in income inequality, well-being inequality, and health inequality is increasing the gap in people's well-being[8-11]. Differences in infrastructure and economic development make regional differences more pronounced[12-16]. Urban-rural income, urban-rural health care coverage, and urban-rural welfare disparities are increasing the gap between urban and rural areas[17, 18]. Second, common prosperity is a dynamic effect. The realization of common prosperity in each region has a spillover effect, and the first rich region drives the development of surrounding regions through the spillover effect, and through this effect the coordinated development of each region is realized[19-21].

At present, domestic and foreign scholars' research on the common prosperity evaluation index system according to national conditions, the dimensional division of common prosperity assessment mainly focuses on the following three aspects: first, from the scope and degree of common prosperity. The common prosperity is decomposed into common degree and prosperity degree for multi-dimensional measurement[22-24]. Second, from the coordination of common prosperity, based on the fact that common prosperity can not only focus on narrowing the gap, but also coordinate with each other with economic and social development. The indicators are constructed in terms of development, sharing and sustainability [25]. Third, from the indicators of common prosperity, spiritual prosperity will be included in the indicators. The prosperity of material life is only one aspect of achieving common prosperity, and to achieve comprehensive common prosperity, the prosperity of spiritual life should be taken into account. The division of common prosperity in terms of dimensions of material and spiritual living conditions[26, 27].

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The innovation of this paper is: firstly, most of the theoretical analysis papers reflect the common prosperity index in material aspect, but in the current society, spiritual prosperity is also the focus of people's continuous pursuit, unilateral pursuit of material prosperity does not make the overall progress of society, spiritual prosperity is the direction of social progress. Therefore, adding the spiritual prosperity index into the common prosperity index can highlight the common prosperity more comprehensively, and also reflect the idea of the third distribution. Secondly, when constructing the index system through multi-dimensionality, not all the indicators can play a role in the construction of the index. In order to get the key influence factors of common prosperity, and to show that spiritual prosperity plays an important role in achieving common prosperity, this paper selects 32 indicators by Adaptive-lasso to get the key influence factors of common prosperity. The key influencing factors of common prosperity are obtained by Adaptive-lasso.

3. Common Prosperity Index Construction and Data Sources

3.1. Construction of Common Prosperity Indicators

Table 1. Common Prosperity Indicator Measures

	Tier1 Indicators	Secondary Indicators
Common prosperity	Crowd Gap	Percentage of labor compensation Middle-income group Minimum subsistence level Consumer spending Total Labor Productivity Human Development Index (life expectancy, knowledge level, st-and ard of living) Inter-regional disposable income per capita
		Inter-regional prosperity per capita
		Government Transparency
	Regional Gap	Inter-regional equalization of basic public services (housing ex-penditure, education expenditure, health expenditure, telephone and cell phone penetration, social security and employment expenditure, environmental protection expenditu-re, number of medical and health institutions)
		Inter-regional performance of basic public services (schooling r-ate, dependency ratio, social security efficiency, social service c-overage)
		Volunteer Activity
		Charitable Donation Level
		Regional social and cultural entertainment
		Regional Innovation Capacity Performance
		Income ratio between urban and rural resi-dents
		prosperity per capita ratio between urban and rural areas
		The gap between urban and rural per capita disposable income
		Urban-rural consumer spending gap
	Urban-rural gap	Disparity in basic public services between urban and rural areas (ratio of urban and rural medical security expe nditures)
		Urban-rural social and cultural entertainment gap
		Tyre Index

In constructing the common prosperity indicators in this paper, we mainly refer to Liu, Pei-Lin et al.'s (2021) measurement of common prosperity indicators[28],but this paper about the

ISSN: 2688-9323

construction of indicators is only about material prosperity, and does not include spiritual prosperity in the construction of indicators, common prosperity is not just a single material prosperity, spiritual prosperity is also an important element of common prosperity. When material prosperity is satisfied, if spiritual prosperity is not satisfied at the same time, it will largely hinder economic development[30]. Therefore, spiritual prosperity is particularly important, and the full prosperity of material and spiritual prosperity is the key to achieving common prosperity. Since there is no accurate measure of spiritual prosperity, when introducing spiritual prosperity, the value orientation embedded in the third distribution is also taken into consideration, so the proxy variables of spiritual prosperity also reflect more of the idea that the rich voluntarily transfer prosperity to the poor in the third distribution to continuously reduce the gap, so the proxy variables of spiritual prosperity are volunteer activity, charity donation level, social and cultural entertainment and innovation capacity performance. Therefore, achieving total prosperity is not only about the prosperity and sharing of social prosperity, but also about spiritual prosperity. The common prosperity indicators constructed in this paper are shown in Table 1.

In this paper, the steps of constructing common prosperity indicators using the entropy weight method are as follows:

First, dimensionless processing of data:

$$\text{For positive indicators: } X_{ij} = \frac{x_{ij} - \min(x_j)}{\max(x_j) - \min(x_j)}; \tag{1}$$

$$\text{For negative indicators: } X_{ij} = \frac{\max(x_j) - x_{ij}}{\max(x_j) - \min(x_j)}; \tag{2}$$

Second, calculate the weight of the first evaluation object in the first indicator of the evaluation system.

$$Y_{ij} = \frac{X_{ij}}{\sum_{i=1}^{n} X_{ij}}, i = 1,2,...n, j = 1,2,...,m; \tag{3}$$

Third, calculate the entropy value of the first indicator.

$$E_j = -\frac{1}{\ln(n)} \sum_{i=1}^{n} Y_{ij} \times In(Y_{ij}), i = 1,2,...,n, j = 1,2,...,m; \tag{4}$$

Fourth, calculate the coefficient of variation for the first indicator:

$$D_j = 1 - E_j, j = 1,2,...,m; \tag{5}$$

Fifth, the weight of the indicator is calculated.

$$W_j = \frac{D_j}{\sum_{j=1}^{m} D_j}, j = 1,2,...,m; \tag{6}$$

Sixth, calculate the composite score.

$$S_i = \sum_{j=1}^{m} W_j \times X_{ij}; \tag{7}$$

3.2. Data Source

The main sources of the common prosperity indicators constructed in this paper are Wind (WAND) database and CNRSD (China Research Data Service Platform); among them, the human development index is from China Social Statistics Yearbook, the volunteer activity is from China Volunteer Service Network, and the charitable donation level is from China Charity Federation; some missing values are made up by linear interpolation method.

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4. Evaluation of Common Propersity Indicators

4.1. Common Propersity Overall Evaluation

In this paper, the common prosperity index of China from 2010 to 2019 is obtained through the construction of common prosperity indicators by entropy weight method as shown in Figure 1. In Figure 1, China's common prosperity does not rise directly, but shows a tortuous and slow rise, reflecting that common prosperity is not a short-term goal, but a long-term dynamic process. The common prosperity index in China has a decreasing trend after 2019, so the country should focus on the realization of common prosperity.

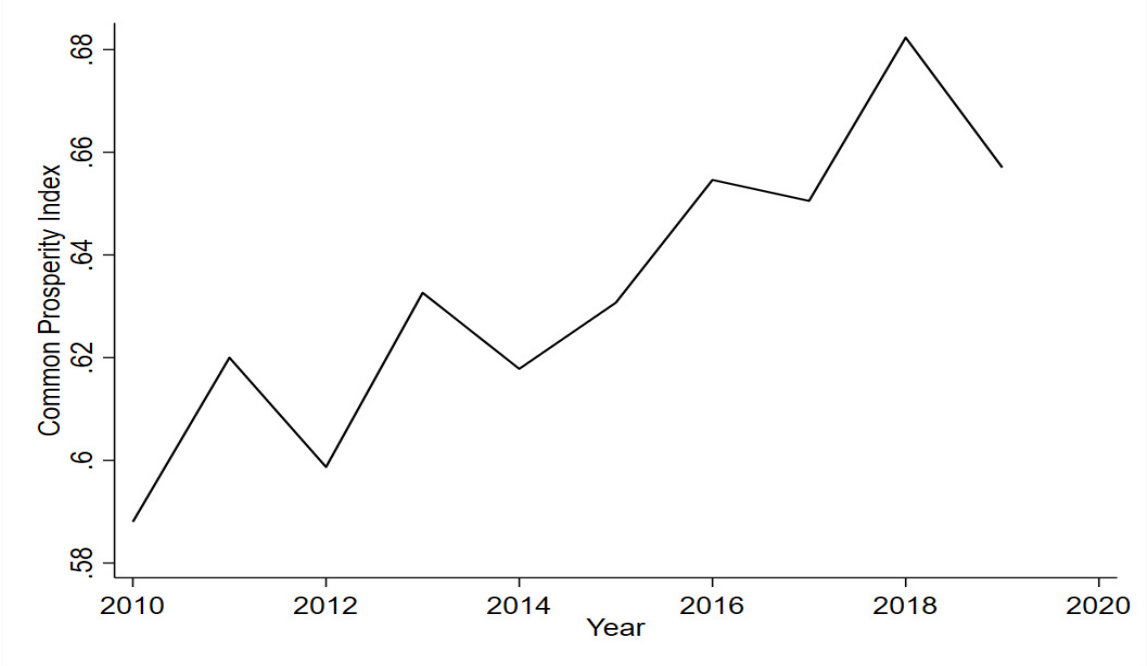

Figure 1. China common prosperity index 2010-2019

4.2. Shared Prosperity Sub-regional Evaluation

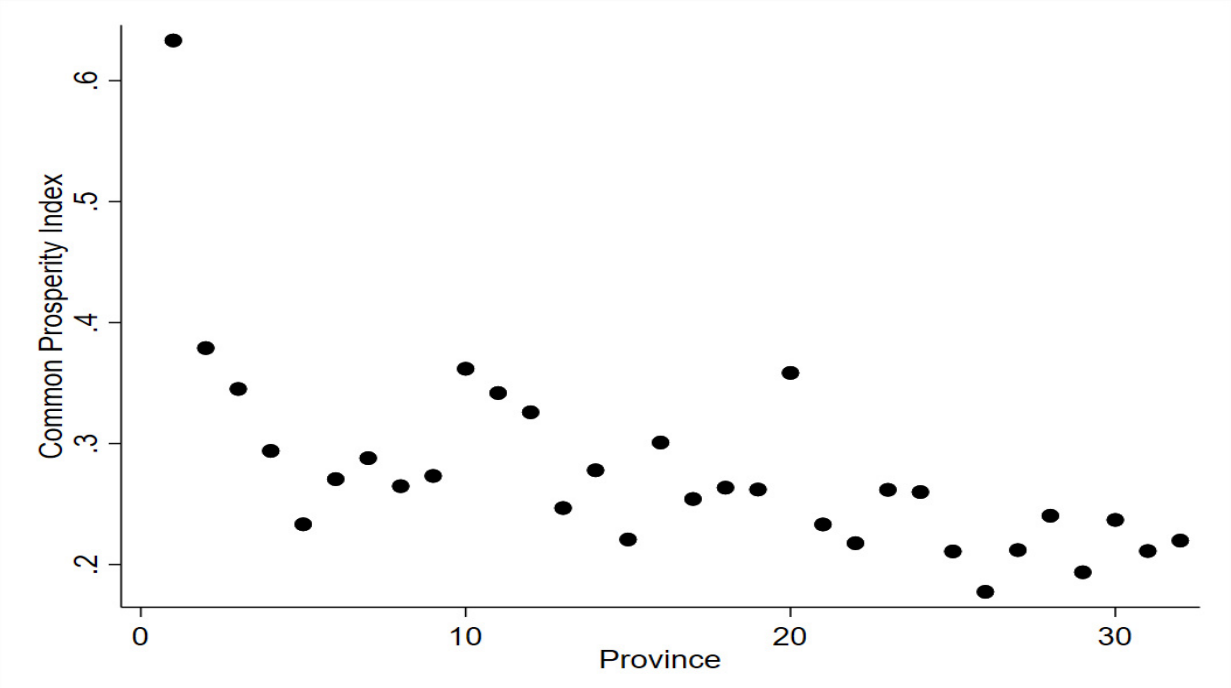

Figure 2. Common prosperity index by province

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Table 2. China's Regional Common Prosperity Index

Eastern Region	Common Prosperity Index	Central Region	Common Prosperity Index	Western Region	Common Prosperity Index
Beijing	0.379	Shanxi	0.233	Neimenggu	0.221
Tianjin	0.345	Anhui	0.247	Guangxi	0.233
Hebei	0.294	Jiangxi	0.221	Chongqing	0.232
Shanghai	0.362	Henan	0.254	Sichuan	0.260
Jiangsu	0.342	Hubei	0.264	Guizhou	0.211
Zhejiang	0.326	Hunan	0.262	Yunnan	0.177
Fujian	0.278			Xizang	0.212
Shandong	0.301			Shanxi	0.240
Guangdong	0.358			Gansu	0.194
Hainan	0.218			Qinghai	0.237
				Ningxia	0.211
				Xinjiang	0.220
Total	0.3202	Total	0.2438	Total	0.2207

Figure2 represents the common prosperity index of 31 Chinese provinces and the overall common prosperity index, it can be seen that the difference between the common prosperity index of each province is very small, the first point represents the total common prosperity index of China, it can be seen that the change index is lower than 0.7, and the common prosperity index of each province is floating above and below 0.3, it can be seen that the common prosperity index of each province is still different from the overall common prosperity index. Table2 analyzes the eastern, central and western provinces according to regional heterogeneity, and it can be seen that the common prosperity index is higher in the eastern provinces and the overall common prosperity index is higher in the east; the common prosperity index is lower in the western provinces and the overall common prosperity index is lower in the west, which is fully in line with the national strategy of letting some regions get rich first and then driving other regions to get rich together, that is, the first rich drives the latter rich, and the development of the eastern region This is fully in line with the national strategy of letting some regions get rich first, and then drive other regions to get rich together, i.e. the rich first drive the rich later, and the development of the eastern region drives the development of the western region to achieve common prosperity. In addition, Beijing, represented by Beijing-Tianjin-Hebei, ranks first in the common prosperity index, followed by Shanghai, represented by the Yangtze River Delta, which ranks second, and Guangdong, represented by the Pearl River Delta, which ranks third in the common prosperity index.

5. Screening of Influencing Factors of Common Propersity Indicators

5.1. Building the Adaptive-lasso model

From the construction of the common affluent data, $x_1, x_2, \ldots, x_p$ denotes the impact factor, n represents the number of samples, the sample matrix can be expressed as:

$$X = \begin{bmatrix} x_{11} & x_{12} & \cdots & x_{1p} \\ x_{21} & x_{22} & \cdots & x_{2p} \\ \vdots & \vdots & \ddots & \vdots \\ x_{n1} & x_{n2} & \cdots & x_{np} \end{bmatrix}, \; x_j = \begin{bmatrix} x_{1j} \\ x_{2j} \\ \vdots \\ x_{nj} \end{bmatrix}$$

ISSN: 2688-9323

So the common prosperity statistic can be expressed as

$$y=\begin{bmatrix} y_1 \\ y_2 \\ \vdots \\ y_n \end{bmatrix}, \beta=\begin{bmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_p \end{bmatrix}.$$

Adaptive-lasso gray prediction algorithm predicts common prosperity statistics

Table1 shows that there are many influencing factors in the construction of common prosperity indicators, but not all of them play important roles in the construction of indicators. The purpose of screening variables in this paper is to show that spiritual prosperity is a key influencing factor in the development of common prosperity on the one hand; on the other hand, it shows that we should focus on those important variables in material prosperity. Therefore, the screening of important factors was carried out by Adaptive-lasso, and the screening steps were as follows.

Step 1: Find the influencing factors of common prosperity and obtain data on the influencing factors based on relevant information;

Step 2: Set the range of values of the variable sample matrix $\{x_1, x_2, ..., x_p\}$,and the maximum limit of machine learning;

Step 3: specify the statistics (median of the common prosperity and its impact factor) and obtain the matrix of X;

Step 4: Estimate by ordinary least squares, but remove the constant terms, which is equivalent to y = $X\beta$. This yields the coefficients of the variables;

Step 5: Calculate the weight matrix

$$\hat{\omega}_j=\frac{1}{|\beta_j|}(j=1,2...,p); \tag{8}$$

Step 6: For the Adaptive-lasso model: $\min_\beta\{\|y-X\beta\|^2+\lambda\sum_{j=1}^{p_n}\hat{\omega}_j|\beta_j|\}$, where $\lambda\geq 0$ is the adjustment parameter, which controls the strength of the penalty. Let $x_j^*=\frac{x_j}{\hat{\omega}_j}(j=1,2,...p)$, and bring it into the Adaptive-lasso model, we get

$$\min_\beta\{\left\|y-\sum_{j=1}^{p}x_j^*(\hat{\omega}_j\beta_j)\right\|+\lambda\sum_{j=1}^{p}\hat{\omega}_j|\beta_j|\}; \tag{9}$$

Step 7: Find the algebraic equation of β_{k+1}^* by iteration, Let $\beta^*=\hat{\omega}\beta$, $f(\beta^*)=\left\|y-\sum_{j=1}^{p}x_j^*\beta^*\right\|^2$, $g(\beta^*)=\sum_{j=1}^{p}|\beta^*_j|=\|\beta^*\|_1$, and compute β^*_{k+1} by β^*_k , we obtain $\beta_{k+1}^*=\min\{f(\beta^*)+\lambda g(\beta^*)\}=\min\{\frac{L}{2}\|\beta^*-z\|_2^2+\lambda\|\beta^*\|\}$, where

$$z=\beta_k^*-\frac{1}{L}\nabla f(\beta^*_k), \text{ L is a constant;} \tag{10}$$

ISSN: 2688-9323

Step 8: Construct the function to find the optimal solution for the coefficients of the variables by differentiating β^*_{j} times. Let $F(\beta^*)=\frac{L}{2}\sum_{j=1}^{p}(\beta^*_j-z_j)^2+\lambda\sum_{j=1}^{p}\left|\beta^*_j\right|$, Differentiate β^*_{j} times to obtain $\frac{\partial F(\beta^*)}{\partial\beta^*_j}=0$, the final optimal solution is obtained in the form:

$$\beta^*_{\mathrm{j}}=\mathrm{sgn}(z_j)\cdot\max(\left|z_j\right|-\frac{\lambda}{L},0); \tag{11}$$

Step 9: the algorithm is terminated if $\left|\left(f(\beta_{k+1}{}^*)+\lambda g(\beta_{k+1}{}^*)\right)-\left(f(\beta_k{}^*)+\lambda g(\beta_k{}^*)\right)\right|<10^{-4}$ learning number reaches the upper limit T, otherwise it jumps to step 4;

Step 10: Build Adaptive-lasso model based on $\hat{\beta}^*_j=\frac{\beta^*}{\hat{\omega}_j}, j=1,2,\cdots,p$;

5.2. Research on the Impact Variables of Common Propersity

Regarding the study of common prosperity statistics, this paper only considers the median of common prosperity and its important influencing factors, because in the influencing factors that constitute common prosperity are mainly material and spiritual, if using the mean value for calculation does not really reflect the value of each variable and will make the whole value overestimated, so using the median is more in line with the development of each variable. This paper focuses on the common prosperity of 31 provinces and analyzes the common prosperity through algorithms to make references for the implementation of policy recommendations for each province.

In this study, according to the characteristics of common prosperity indicators and their influencing factors, the data time of the factors affecting regional common prosperity screened in this paper is 2010-2019, social security rate (x1), per capita deposit (x2), total labor productivity (x3), middle income group (x4), per capita disposable income of residents (x5), education expenditure (x6), housing security expenditure (x7), health care expenditure (x8), social security employment expenditure (x9), environmental protection expenditure (x10), schooling rate (x11), dependency ratio (x12), government transparency (x13), level of charitable donations (x14), social service coverage (x15), volunteer activeness (x16), urban and rural prosperity per capita (x17),, labor compensation share (x18), number of urban and rural minimum subsistence allowance (x19), per capita education, culture and entertainment consumption expenditure (x20), telephone and cell phone penetration rate (x21), number of degrees (x22), number of health and medical institutions (x23), regional innovation capacity performance (x24), consumer spending of residents (x25), human development index (x26), urban and rural per capita disposable income gap (x27), urban and rural education, culture and entertainment consumption expenditure (x28), the gap between urban and rural residents' per capita medical and health protection expenditure (x29), the gap between urban and rural residents' income (x30), the gap between urban and rural consumption expenditure (x31), and the Thiel index (x32); regarding the median data of the mentioned 32 impact factors as the input data of the algorithm, in order to verify the feasibility and effectiveness of the algorithm, the time natural logarithm of the serial data is processed to eliminate various features on the data. Regarding the results of the construction of the common prosperity index are shown in Tables3 and 4.

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Table 3. Common prosperity and median impact factor data

	y	x1	x2	x3	x4	x5	x6	x7	x8	x9
1	0.24	0.01	9.85	0.21	8.18	9.25	5.90	4.82	5.04	5.65
2	0.25	0.02	9.97	0.23	6.61	9.41	6.17	4.79	5.26	5.88
3	0.24	0.03	10.15	0.23	6.62	9.54	6.44	4.90	5.35	6.05
4	0.26	0.03	10.21	0.23	6.63	9.65	6.50	4.92	5.49	6.15
5	0.26	0.03	10.26	0.21	4.32	9.77	6.50	4.99	5.73	6.23
6	0.27	0.03	10.44	0.18	4.71	9.85	6.64	5.20	5.90	6.38
7	0.27	0.03	10.55	0.16	6.61	9.95	6.74	5.29	5.96	6.48
8	0.26	0.03	11.41	0.15	6.61	10.05	6.79	5.15	6.05	6.60
9	0.27	0.03	10.75	0.15	6.62	10.14	6.83	5.24	6.17	6.70
10	0.27	0.03	10.87	0.15	6.63	10.23	6.91	5.18	6.24	6.80
	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19
1	4.31	49.39	35.70	20.27	7.29	19.01	2.40	9.84	48.85	14.64
2	4.44	51.75	34.73	22.18	7.12	17.12	2.35	9.97	48.27	14.65
3	4.55	53.30	35.35	22.62	6.08	18.40	2.34	10.15	49.08	14.67
4	4.69	54.76	35.63	24.00	6.57	29.00	2.86	10.26	50.62	14.65
5	4.66	57.65	35.81	31.67	6.32	29.00	2.40	10.34	50.33	14.59
6	4.86	57.75	37.13	35.48	6.40	37.60	2.82	10.20	51.44	14.50
7	4.88	57.76	37.67	42.12	7.44	17.50	2.63	10.07	51.39	14.36
8	5.01	58.45	38.83	51.02	7.20	16.18	2.45	9.95	50.55	14.32
9	5.11	58.65	38.76	54.13	7.03	15.23	2.37	9.83	50.56	14.14
10	5.34	58.55	40.32	47.34	6.87	15.72	2.30	9.70	50.62	14.12
	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29
1	8.00	4.47	11.23	2.66	25.06	9.10	0.69	2.94	3.06	1.64
2	7.94	4.54	11.35	2.73	27.62	9.27	0.70	2.85	3.33	1.65
3	7.87	4.61	11.44	2.82	27.25	9.38	0.71	2.82	3.71	1.69
4	7.76	4.66	11.50	2.89	26.68	9.67	0.72	2.75	4.26	1.70
5	7.94	4.69	11.57	2.96	26.82	9.77	0.72	2.58	2.29	1.66
6	8.05	4.67	11.61	3.02	26.64	9.83	0.73	2.56	2.30	1.64
7	8.15	4.69	11.65	3.07	26.06	9.91	0.74	2.54	2.30	1.67
8	8.22	4.75	11.70	3.17	23.36	10.00	0.74	2.53	2.27	1.65
9	8.30	4.85	11.69	3.22	23.85	10.09	0.75	2.51	2.18	1.64
10	8.43	4.84	11.70	3.28	24.34	10.18	0.75	2.47	2.18	1.61
	x30	x31	x32							
1	2.86	3.03	0.13							
2	2.89	2.82	0.12							
3	3.01	2.64	0.12							
4	3.08	2.30	0.11							
5	3.00	2.21	0.09							
6	3.12	2.17	0.09							
7	3.25	2.11	0.08							
8	3.36	2.08	0.09							
9	3.56	2.03	0.08							
10	3.63	2.02	0.07							

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Table 4. Analysis of the median screening results of common prosperity and its impact factors

	β_1	β_2	β_3	β_4	β_5	β_6
Coefficient	0.000000	-0.006104	0.000000	-0.000527	0.000000	-0.000358
	β_7	β_8	β_9	β_{10}	β_{11}	β_{12}
Coefficient	-0.002227	0.000000	0.000000	0.000000	0.000000	0.000000
	β_{13}	β_{14}	β_{15}	β_{16}	β_{17}	β_{18}
Coefficient	0.000001	0.007364	0.000001	0.033174	0.000000	-0.002818
	β_{19}	β_{20}	β_{21}	β_{22}	β_{23}	β_{24}
Coefficient	-0.000030	0.002097	0.122580	0.000000	0.000000	0.002409
	β_{25}	β_{26}	β_{27}	β_{28}	β_{29}	β_{30}
Coefficient	-0.003123	0.000000	0.000000	-0.009523	0.000000	-0.007501
	β_{31}	β_{32}				
Coefficient	0.000000	0.000000				

As can be seen from Table4, the algorithm for screening important factors according to Adaptive-lasso shows that, social security rate, total labor productivity (x3), disposable income per resident (x5), health care guarantee expenditure (x8), social security employment expenditure (x9), environmental protection expenditure (x10), schooling rate (x11), dependency ratio (x12), urban-rural prosperity per capita (x17), number of degrees (x22), number of health care institutions (x23), human development index (x26), urban-rural disposable income gap per capita (x27), urban-rural health care guarantee expenditure gap per capita (x29), urban-rural consumption expenditure gap (x31) and Thayer index (x32) are discarded because the coefficients are zero, and the sparse of important influencing factors are obtained solution.

6. Conclusion and Related Policy Recommendations

Common prosperity is needed to be based on material prosperity, but material prosperity alone cannot achieve the currently desired common prosperity, so spiritual prosperity needs to be incorporated into common prosperity to realize the organic unification of material and spiritual civilization. The entropy method is used to construct the common prosperity index of 31 Chinese provinces and the overall common prosperity index, and the results show that, firstly, the overall common prosperity index is larger, and the difference between the overall and each province is larger. Second, considering the regional heterogeneity, the results show that the common prosperity index is higher in the east and lower in the west as a whole, which fully indicates that the country implements the strategy of letting some regions get rich first and then drive other regions to get rich together, i.e., the rich first drive the rich later, and the development of the eastern region drives the development of the western region to achieve common prosperity. In addition, Beijing, represented by Beijing-Tianjin-Hebei, ranks first in the common prosperity index, followed by Shanghai, represented by Yangtze River Delta, ranks second, and Guangdong, represented by Pearl River Delta, ranks third in the common prosperity index. Further, the Adaptive-lasso method was used to screen the constructed common prosperity indexes to find out the important factors affecting the common prosperity index. The results show that when the Adaptive-lasso method is used to screen the important influencing factors, it is found that adding spiritual prosperity indicators to material prosperity is an important influencing factor in the construction of the common prosperity index. This

indicates that the common prosperity should not only meet people's needs of "material prosperity", but also meet the needs of "spiritual prosperity". Therefore, this paper proposes the following recommendations based on the findings of the study.

First, we should focus on the development of common prosperity as a whole as well as the development of common prosperity in each region. On the one hand, common prosperity is a dynamic long-term goal, so we should not only focus on the development of overall common prosperity, but also effectively reduce the gap between overall and regional common prosperity. On the other hand, it is important to balance the development of regions and reduce the gap of common prosperity in each region. When exploring ways to develop common prosperity, each region should be suitable for the local area and be good at developing the natural resource advantages of each region, while increasing support for the backward regions in terms of infrastructure and public services to achieve high-quality development of common prosperity across the country.

Secondly, we should pay more attention to the development of spiritual prosperity while achieving material prosperity. When the material prosperity reaches satisfaction, the more serious problem faced is the poverty of spiritual and cultural life, which will further hinder the development of the economy. Therefore, we should increase the public service system of spiritual culture in each region, adhere to the operation mechanism of spiritual culture public service led by the government and participated by many parties such as social forces, and constantly carry out spiritual cultural activities to enrich people's spiritual life and improve the quality of their spiritual life.

Acknowledgments

Fund projects: National Social Science Foundation of China Youth Project (15CJY085), Humanities and Social Sciences Research Project of Anhui Provincial Education Department (SK2021A0277), Graduate Research Innovation Fund of Anhui University of Finance and Economics (ACYC2020140).

References

[1] C.W. Huang: The Road of Poverty Reduction with Chinese Characteristics in the Process of Common Prosperity Journal of China Agricultural University (Social Science Edition) [J].Vol.37 (2020) No.6, p.5 -11. (In Chinese).

[2] F.Wang,Y.C.Xu: From Common Prosperity to Precise Poverty Alleviation: A Historical Survey of Anti-Poverty Ideology in New China (Ningxia Social Science) [J].Vol.7(2020)No.1,p. 89-96. (In Chinese).

[3] Whyte, M. K. Soaring Income Gaps: China in Comparative Perspective[J]. Daedalus, Vol.143 (2014) No. 2, p. 39-52.

[4] G.H.Wang,W.Z.Wu:Institutional Strength Toward Common Prosperity--Review of General Theory of Income Distribution of Chinese Residents by Chen Zongsheng et al. Economic Research[J]. Vol. 54 (2019) No. 11, p. 195-198. (In Chinese).

[5] C.L.Fang: Exploring the Road to Common Prosperity in Socialism with Chinese Characteristics. Economic Research [J]. Vol. 52 (2017) No. 5, p. 23-25. (In Chinese).

[6] Y.X.Cao,Y.M.Liu: Common Prosperity and its Realization Path in the New Era Perspective. Journal of Theory [J]. Vol. 32 (2019) No. 4, p. 14-21. (In Chinese).

[7] Y.M.Jiang,Q.Xie:Solid promotion of common prosperity: logical reasoning and realization path, Economic Vertical and Horizontal[J]. Vol. 20 (2021) No. 4, p. 15-24. (In Chinese).

[8] Okulicz-Kozaryn, A. and Mazelis, J. M. More Unequal in Income, More Unequal in Wellbeing[J]. Social Indicators Research, Vol. 132 (2017) No. 3, p. 953-975.

[9] Zhou, Y. Q. , Yao, X. and Jian, W. Y. Improving Health Equity: Changes in Self-Assessed Health across Income Groups in China[J]. International Journal for Equity in Health, Vol. 17(2018) No. 9, p. 13-19.

[10] Ma, X. , Wang, F. R. , Chen, J. D. and Zhang, Y. The Income Gap between Urban and Rural Residents in China: Since 1978[J]. Computational Economics, Vol. 54 (2018) No. 4, p. 1153-1174.

[11] H.P.Ge,F.X.Wu: Analysis of the evolution of the widening prosperity gap in China and its mechanisms[J]. Modern Economic Discussions, Vol. 11 (2019) No. 5, p. 21-28. (In Chinese).

[12] Xin, L. Chinese Regional Economy and Human Capital Distribution Association[J]. Agro Food Industry Hi-Tech, Vol. 28 (2017) No. 1, p. 596-600.

[13] Czudec, A. , Kata, R. and Wosiek, M. Reducing the Development Gaps between Regions in Poland with the Use of European Union Funds[J]. Technological and Economic Development of Economy, Vol. 25 (2019) No. 3, p. 447-471.

[14] H.H.Guo,X.M.Liu and L.J.Liu: Regional disparities and dynamic evolution of urban-rural integration development in China[J]. Exploration of Economic Issues, Vol. 10 (2020) No. 10, p. 1-14. (In Chinese).

[15] Park, W. and Min, B. Impacts of Liquidity Preference on Loan-to-Deposit Ratio and Regional Economic Growth: A Post-Keynesian View[J]. Korean Economic Review, Vol. 37 (2021) No. 1, p. 37-63.

[16] J.J.Wang,Y.Jiao and S.L.Jiang: Regional differences and dynamic evolution of the direction of technological progress in eight integrated economic zones in China: 1978 to 2017[J]. Research on Quantitative Economics and Technology Economics, Vol. 38 (2021) No. 4, p. 3-21. (In Chinese).

[17] Ma, C. , Song, Z. and Zong, Q. Q. Urban-Rural Inequality of Opportunity in Health Care: Evidence from China[J]. International Journal of Environmental Research and Public Health, Vol. 18 (2021) No. 15, p. 3300-3314.

[18] Azam, M. Accounting for Growing Urban-Rural Welfare Gaps in India[J]. World Development, Vol. 122 (2019) No. 9, p. 410-432.

[19] C.L.Tan,X.Yang: Does the first rich region drive other regions to common prosperity--an analysis based on spatial spillover effects[J]. China Industrial Economy, Vol. 122 (2017) No. 10, p. 44-61. (In Chinese).

[20] B.G.Xue: Research on the theoretical basis, spillover effect and realization mechanism of common prosperity[J]. Scientific Socialism, Vol. 22 (2020) No. 6, p. 105-112. (In Chinese).

[21] D.Ren,G.G.Cao and S.R.Long: Analysis of social development coordination across China based on the Human Development Index framework[J]. Research in Quantitative Economics and Technology Economics, Vol. 38 (2021) No. 6, p. 88-106. (In Chinese).

[22] Y.Y.Yang,M.J.Wang: Criteria for a higher level of common prosperity and the path to achieve it[J]. People's Forum, Vol. 23 (2021) No. 23, p. 72-74. (In Chinese).

[23] J.Li: Comprehensively grasp the connotation of common prosperity[J]. Theoretical exploration, Vol. 13 (2007) No. 4, p. 86-88. (In Chinese).

[24] Z.W.Chen,N.L.Zhang: Model and empirical analysis of common prosperity measurement based on purchasing power parity[J]. Journal of Chongqing University of Commerce and Industry (Natural Science Edition), Vol. 3o (2013) No. 6, p. 1-5. (In Chinese).

[25] L.J.Chen,J.X.Yu and Y.N.Xu: Construction of the Common Prosperity Index Model[J]. Governance Research, Vol. 37 (2021) No. 4, p. 5-16. (In Chinese).

[26] Yu, J. T. Multidimensional Poverty in China: Findings Based on the Chns[J]. Social Indicators Research, Vol. 112 (2013) No. 2, p. 315-336.

[27] Y.Shen,J.R.Li: Research on the evaluation index system of the affluence of rural residents in China-based on the perspective of building a well-off society in all aspects[J]. Research World, Vol. 32 (2020) No. 1, p. 42-50. (In Chinese).

[28] P.L.Liu,T.Qian and H.T.Huang et all. The connotation, realization path and measurement method of common prosperity[J]. Management World, Vol. 37 (2021) No. 8, p. 117-129. (In Chinese).

ISSN: 2688-9323

[29] T.J.Jin,G.Y.Zhang and Z.Z.Jiao: On the Meaning and Realization of Spiritual Common Prosperity--A Dialectical Relationship between Material Common Prosperity and Spiritual Common Prosperity[J]. Only the Real, Vol. 4(1998) No. 3, p. 18-20. (In Chinese).

[30] Seabrook, J. Human Resourcefulness in a Time of Diminishing Resources[J]. Race & Class, Vol. 62 (2020) No. 1, p. 5-16.