

Analysis of Policy Financial Assets Model under the Concept of Rural Revitalization in Xinjiang

Airong Yang

Yong Xia

In recent years, with the rapid development of rural finance in Xinjiang, the problem of resource allocation and support has become increasingly prominent, which restricts the development of rural economy in Xinjiang. Based on this, this paper combs the policy financial asset model under the concept of Rural Revitalization in Xinjiang, and defines the concept of rural financial deepening. This paper analyzes the current situation of rural financial deepening in Xinjiang, and theoretically explains the reasons of rural financial repression in Xinjiang. This paper constructs a comprehensive evaluation index system of financial deepening and carries out empirical analysis. The results show that the total financial investment in Xinjiang has played an important role in promoting the deepening of rural finance, and the effect is very obvious. However, in the process of rural financial deepening in Xinjiang, the two dimensions of financial structure and financial efficiency did not play their due role, but became obstacles to its deepening.

Keywords: Xinjiang, Rural Revitalization, financial policy, financial assets

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INTRODUCTION

At present, the reform of rural financial system in Xinjiang is progressing slowly, the policies and regulations for the development of informal financial institutions are not perfect, and the lack of financial support has seriously restricted the process of rural economic restructuring and rural urbanization¹. The new rural construction has a direct impact. It is of great theoretical and practical significance to study the deepening development of rural finance in Xinjiang². This paper does not discuss the disadvantages of rural finance in Xinjiang, but provides reference for its development and improvement. Financial structure is a multi-level and multi-level organic whole, which needs to be studied from the multi-level and three-dimensional whole, combined with quantitative and qualitative methods³. Therefore, this paper analyzes the industrial structure, financial market structure and financial asset structure of Xinjiang's financial industry from three

aspects of financial instruments (financial assets), financial institutions and financial markets, and draws the basic situation of Xinjiang's financial industry, and on this basis, gives some general conclusions⁴. Based on the general theoretical analysis, this paper makes a comprehensive and detailed analysis of the current situation of Xinjiang's financial structure by using the main analysis indicators of the relevant financial structure⁵. This paper introduces the relevant theories of financial structure, the connotation and forms of financial structure, and expounds the background of financial economic development in Xinjiang⁶. Then, through the analysis of Xinjiang's financial industry structure, financial market structure, financial asset structure and the causes of formation, this paper points out the problems existing in Xinjiang's financial industrial structure, and classifies the problems of Xinjiang's financial industrial structure according to the three characteristics of the above problems, and compares

the relevant data and indicators with the average level or higher level of China And draw the conclusion of Xinjiang financial industry structure⁷. At the same time, aiming at the existing problems, the improvement measures are put forward. We should promote the coordinated development of finance, implement appropriate regulation and control, encourage innovation, deepen financial reform, and create a good environment for financial development.

THE MODEL OF POLICY FINANCIAL ASSETS UNDER THE CONCEPT OF RURAL REVITALIZATION IN XINJIANG

Evaluation Model of Rural Policy Financial

Rural deposits = farmers' savings deposits of financial institutions + agricultural deposits of financial institutions.

(1)

Rural loans = agricultural loans from financial institutions + loans from township enterprises of financial institutions

(2)

Difference between deposit and loan = rural deposit of financial institution rural loan of financial institution

(3)

Net outflow = the difference between deposit and loan of the current year and that of the previous year

(4)

For Xinjiang rural financial organizations, its cornerstone is rural credit cooperatives. It has the most close relationship with the countryside, agriculture and farmers. It is the main body of the production and management of farmers and the main body of the development of township enterprises¹¹. In order to further play the role of the main force of supporting agriculture finance, the credit line of Xinjiang rural credit cooperatives has increased year by year. Xinjiang rural credit cooperatives focus on the construction of four bases of grain, cotton, livestock and fruit, and have established a loan relationship with 80% of the farmers in the autonomous region, meeting the capital needs of rural economic development¹². However, compared with developed areas, Xinjiang rural credit cooperatives have fewer outlets and smaller scale, and the proportion of deposit balance in all financial institutions is low¹³. At present, Xinjiang rural credit cooperatives in the operation process is still lack of management, need to improve comprehensively. From the perspective of financial constraint theory, the financial constraints

Assets in Xinjiang

Comprehensive evaluation of multiple indicators and the statistical methods to deal with multiple indicators are factor analysis and principal component analysis⁸. By consulting a large number of literature, the principal component analysis method is used to process the data. Principal component analysis (PCA) is a statistical analysis method, which decomposes multiple variables into several comprehensive indexes⁹. If the first principal component does not represent n index, the second principal component is selected and compared¹⁰. The main variable model is used to estimate the weight of each index scientifically.

in developing countries have not been in-depth¹⁴. The government uses the information advantages of financial institutions to selectively intervene in various decisions of the financial sector, and gradually realize financial liberalization¹⁵. The rural financial system in Xinjiang mainly includes: rural credit cooperatives, rural mutual fund cooperatives, etc. The financial system focusing on rural areas has played an important role in supporting rural economic development¹⁶. As a new type of rural financial institutions, rural cooperative banks and rural commercial banks have been reorganized from rural credit cooperatives in recent years¹⁷. This is integrated into the rural credit cooperatives. The trial run time is short, the task is heavy, and the development space is large, such as rural credit cooperatives and rural mutual aid cooperatives.

$$F_i = \alpha_{1i}X_1 + \alpha_{2i}X_2 + \dots + \alpha_{ni}X_n \quad i = 1, 2, \dots, n \quad (5)$$

Starting from the overall and overall situation, comprehensive evaluation and combined with the characteristics of rural financial development in Xinjiang can avoid being too complicated, because two methods can be considered: one is to provide

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data through statistical yearbook and professional Yearbook, the other does not involve quality indicators, such as financial policy, financial intermediary services and other quality indicators¹⁸.

Based on this, the indicators of rural financial deepening ability in Xinjiang are optimized as follows:

Table 1.

Indicators of China's financial deepening capability

index	computing method	Company	Index Interpretation
Rural deposits	Agricultural deposits * farmers' savings deposits	100 million yuan	Reflecting rural capital strength
Rural loans	Agricultural loan + township enterprise loan	100 million yuan	Reflect the strength of capital into investment
FIR	Rich rural financial assets and rural GDP	100 million yuan	Reflecting the strength of rural financial development
Financial density	Total rural financial assets total rural population	%	
Distribution density of rural financial institutions	Number of rural financial institutions / total rural population	100 million yuan	Similar insurance density
Deposit loan ratio	Rural deposit balance / rural loan balance		Coverage of rural financial institutions
Cumulative loan recovery rate of rural credit cooperatives	--	100 million yuan	Financial efficiency indicators
Financial depth	Cumulative rural loans / rural GDP	100 million yuan	Loan recovery rate & loan coverage, similar to insurance depth

Through index analysis, the comprehensive evaluation index of financial deepening is calculated, and the data is processed by standard sample conversion method

$$Y_{ij} = \frac{X_y - \bar{X}}{\sigma_{ij}} \tag{6}$$

Here x is the mean and the standard deviation. The data mean and variance were normalized to 0. The data of covariance matrix is the correlation coefficient matrix, which remains unchanged after data transformation

$$Z_{ij} = \frac{Y_{ij} - \min(Y_{ij})}{\max(Y_{ij}) - \min(Y_{ij})} \tag{7}$$

Finally, the dimensionless results are obtained.

Optimization of Financial Index of Rural Financial Assets in Xinjiang

To explore the problem of rural financial deepening in Xinjiang, we only use the data of rural formal financial institutions to calculate the comprehensive index of rural financial deepening capacity in Xinjiang from the perspective of data availability, which does not play an important role in the private finance in deepening rural finance in Xinjiang. So that these banks can better reduce the dependence on external funds and improve the financing channels of small farmers. However, due to high cost and insufficient guarantee, small farmers may still not get the funds they need, so government intervention is still needed¹⁹. Although external funds are needed to start the reform of financial institutions, funds from the government and loan institutions will be given priority to institutional construction.

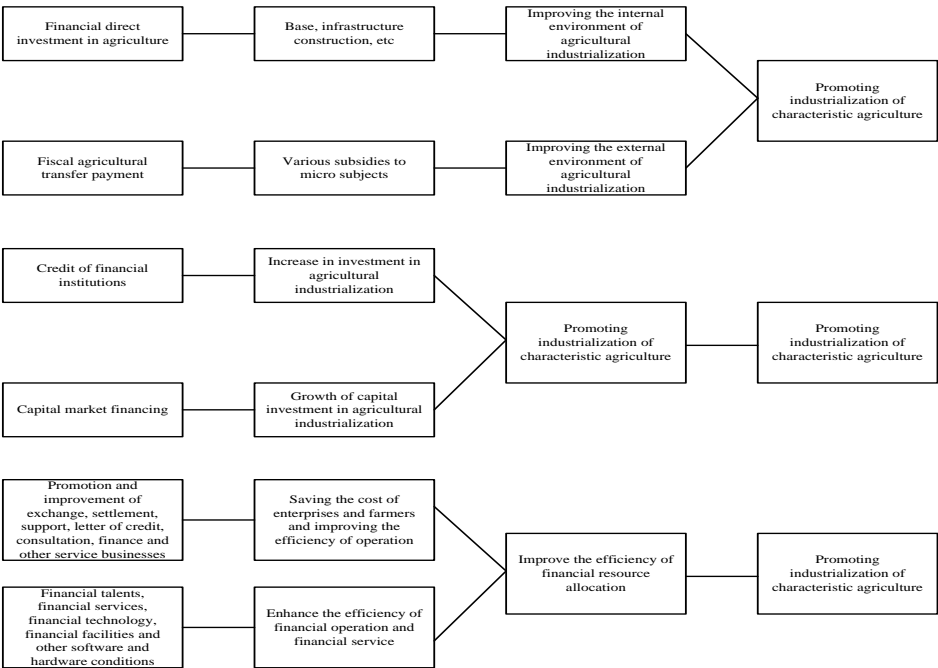
Table 2.

Main characteristics and differences of Xinjiang financial theory			
	Agricultural credit subsidy	On rural financial market	On imperfect competition market
The necessity of government intervention in financial market	necessary	unnecessary	It is necessary when the market mechanism fails
The necessity of interest rate regulation	Low interest rate control	Free market interest rate	Deregulation
The necessity of regulating financial institutions	Necessary	Unnecessary	Deregulation should be gradual
Ways to improve the rate of capital recovery	Guidance loan	Self financing mechanism in the market	Flexible use of financial or non-financial means such as loan mutual aid groups
Raising of loan funds	External injection from rural areas	Raise money within the countryside	It is mainly raised internally, and the insufficient part is provided by the government
Is the special loan effective	Effective	invalid	If the method is appropriate, it is effective
Evaluation of informal finance	The disadvantages outweigh the advantages	It's an effective form of gold	The government should guide appropriately

Guided by the theory and practice of rural finance, this paper studies the social economy of some areas in Xinjiang and points out its manifestation²⁰. This paper analyzes the reasons for the failure of the financial resource allocation mechanism of agricultural industrialization with Xinjiang characteristics, and puts forward some ideas and Countermeasures for the reform of China's financial resource allocation system²¹and insufficient operating funds. At the same time, rural financial institutions, such as rural credit cooperatives, due to the need of risk prevention and standardized management, also appear some problems in the process of development, such as the difficulty of guarantee, loan, lack of financial services and so on, which seriously affected the development of farmers' intermediary organizations²². All kinds of intermediary organizations have obvious characteristics of "small, scattered and weak". It is an important measure to

promote the industrialization of agriculture to implement the necessary policies such as financial support, tax preference, loan guarantee, discount interest and so on²³. According to the experience of developed countries and regions, giving some preferential policies and financial support to peasant intermediate organizations can effectively improve their operating efficiency and ability. Private capital will become the market main body of social and economic resources allocation under the market economy conditions, and provide financial support for agricultural industrialization with Xinjiang characteristics²⁴. Due to the problem of capital source of agricultural industrialization, to a certain extent, the investment of private capital and foreign capital to agricultural industrialization is very limited. At present, agricultural financial resources in Xinjiang mainly come from various financial institutions. (Figure 1)

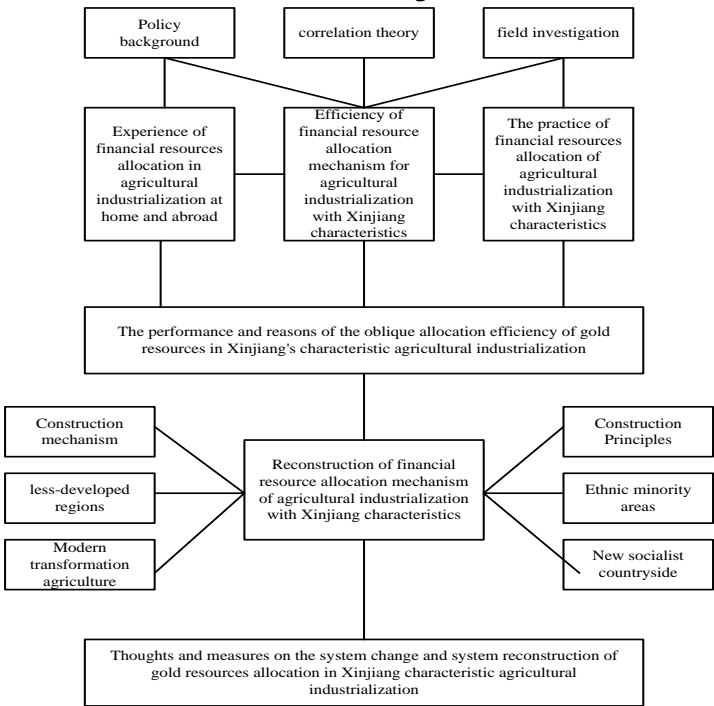
Figure 1.
Optimization of policy financial industrial structure



Under the guidance of rural finance theory and practice, this paper analyzes the reasons for the failure of financial resource allocation mechanism of agricultural industrialization with Xinjiang characteristics²⁵. This paper puts forward the ideas

and Countermeasures for the reform of China's financial resources allocation system, and constructs the framework of financial resources allocation for agricultural industrialization with Xinjiang characteristics. (Figure 2)

Figure 2.
Financial resources allocation of characteristic agricultural industrialization in Xinjiang



To improve the rural financial service system, in addition to strengthening the financial, tax, subsidy and other means of governments at all levels, we should also optimize the allocation of financial resources through financial innovation (system and mechanism level). Xinjiang's agricultural and rural financial systems need to be rebuilt²⁶. In order to realize multi-level, diversified and all-round institutional change, it is the basic feature of financial resource allocation system of agricultural industrialization with Xinjiang characteristics. Through financial innovation, increase financial support for agricultural industrialization and promote the process of agricultural industrialization.

The Realization of Policy Financial Assets Model Analysis

In view of the diversity of agricultural industry development in Xinjiang, the contradiction between the supply and demand of development funds between ordinary farmers and farmers' specialized cooperative economic organizations is difficult to be completely solved by rural credit cooperatives and other formal financial institutions. At present, it is necessary to combine the reform of rural formal financial institutions with the regulation of private financial development to carry out systematic thinking²⁷. The financial service functions of the two should be combined organically and effectively to provide perfect financial support for the development of agricultural industry in Xinjiang. In view of this problem, we should start from the following two aspects: first, deepen the reform of the current rural formal financial organizations, so that they can better play their original functions and better meet the financial needs of the development of agricultural industrialization; second, standardize the management of a large number of non-governmental informal financial organizations currently existing in rural areas, so as to better provide financial supply that cannot be covered by formal financial organizations²⁸. Areas provide a useful complement.

Local governments and rural financial institutions, which develop agricultural industry

investment funds, can improve the income of effective institutional supply and financial services through institutional supply and capital supply for industrial development. Only in this way can we effectively reduce the deposit loan ratio in the operating income of rural banking system, and play a role in the stability of the financial system. The benefits of social investors and the reasonable and efficient development of agricultural products processing industry can not only bring stable economic benefits, use costs and operation and management costs, but also effectively improve business efficiency²⁹. The development of moderate and tight scale operation, intensive production and management and efficient organization and management can rapidly improve the competitiveness of agricultural enterprises and make them rapidly move towards modern enterprise management mode³⁰. It can effectively improve the organization degree of ordinary farmers, avoid the excessive dispersion of agricultural production and market demand, so as to improve the production and non production benefits of ordinary farmers.

Hypothesis 1: the same criteria are used to evaluate the total value of the project when the local government, rural financial sector and agricultural industry are jointly established by farmers.

Hypothesis 2: the work of the partner is uncertain, and with the strengthening of the partner's efforts, the possibility of the success of the fixed project agricultural industry investment fund increases.

Hypothesis 3: the cooperation between the two sides of agricultural investment fixed project fund is cooperation agreement or contract, and one party chooses whether to cooperate.

Hypothesis 4: one party's choice is whether to accept the other's cooperation agreement, and the second is whether to work hard (for simplicity, the model assumes that both sides have two choices: hard work and no hard work).

The policy support for Xinjiang agricultural investment fund is mainly achieved through indirect regulation. First, tax preference is mainly manifested in income tax and value-added tax; second, credit guarantee; taking a certain credit as

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collateral, giving loan guarantee can form a lower credit risk, produce multiple effects, and promote agricultural enterprises to increase capital investment. Under a certain scale, state funding has an obvious guiding effect on the whole society. In the future, agricultural investment fund can be established to subsidize investment losses. The law provides for preferential policies in some countries to ensure continuity and stability.

"Quality" is the scientific induction and generalization of the problems studied, and the process of revealing the complex general laws in economic activities. The "quality" analysis is based on the qualitative analysis and based on the facts and data to make the analysis visualized and accurate. To study the problem of financial resources allocation in agricultural industrialization, we can describe it quantitatively from the perspectives of structure and efficiency, and describe it accurately with statistical analysis method. However, due to the lack of systematic statistical data, we can only rely on qualitative research. Using the interactive planning method, this paper analyzes the economic growth rate of Xinjiang from 2010 to 2018, and draws the following conclusions. (Table 3)

ANALYSIS OF EXPERIMENTAL RESULTS

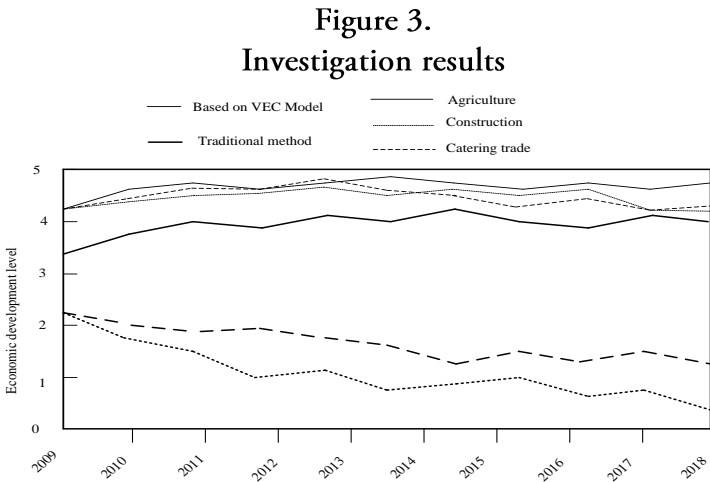
In order to verify the practical application effect of the policy financial asset model under the concept of Rural Revitalization in Xinjiang, the investigation and analysis are carried out. In addition to qualitative research, applied economics also needs some quantitative research results.

Table 3.
Actual situation of financial added value of villages and towns in Xinjiang

particular year	Agriculture	Industry	construction	catering trade	transportation
2010	6873	21105	2084	2297	2514
2011	6970	22901	2175	2397	2697
2012	7135	23857	2238	2583	2715
2013	7217	25007	2349	2672	2841
2014	7462	25985	2419	2845	2950
2015	7583	26993	2587	2910	3318
2016	7610	27852	2681	3017	3594
2017	7712	28558	2810	3258	3697
2018	7930	30119	2998	3396	3892

From 2010 to 2018, the added value of each product has increased by a large margin and shows a steady upward trend. Based on the above experimental data, combined with the data of agriculture, architecture, catering, etc., the

traditional method and the method based on VEC model are used to compare and analyze the economic growth rate, and the following conclusions are drawn. (Figure 3)



seen that the current development mode of rural financial assets in Xinjiang still needs to be improved. Based on this, this paper makes a mathematical and economic analysis on the uncertainty of financial support industry development, and points out that in the practice of industrial economic development, the risk analysis method will bring more uncertainty to the practice. In order to better promote the rural development in Xinjiang, special fund management measures should be formulated according to the specific situation of regional agricultural industry development, and supervision and inspection should be strengthened to ensure that the special funds are really used in the disaster areas, the farmers and herdsmen in the disaster areas and all kinds of agricultural industry operation organizations, so as to improve the use efficiency. We will optimize the pilot work of agricultural industry development insurance, improve the agricultural disaster risk prevention system, and standardize the agricultural disaster risk prevention mechanism.

CONCLUSION

The development of rural finance is of great significance to the effective allocation of rural financial resources and the promotion of rural economic development. In order to meet the needs of capital accumulation in the process of industrialization, the state has strengthened the control over the financial system and used extremely low-cost financial resources for credit in rural areas. However, due to the lack of effective supervision, the scarce financial resources become the cost of rent-seeking, which makes the local people unable to obtain financial services. At present, the phenomenon of rural financial repression is widespread in China, and the factors restricting the development of rural economy are increasingly prominent. In order to solve the above problems, this paper analyzes the development mode of rural financial assets in Xinjiang and puts forward relevant development suggestions.

REFERENCE

1. Zhang T , Ding Q , Hu Q , et al. Towards Rural Revitalization Strategy for Housing in Gully Regions

- of the Loess Plateau: Environmental Considerations[J]. *Energies*, 2020, 13(12):3109.
2. Wang Y , Zhu Y , Yu M . Evaluation and determinants of satisfaction with rural livability in China's less-developed eastern areas: A case study of Xianju County in Zhejiang Province[J]. *Ecological indicators*, 2019, 104(SEP):711-722.
3. Wang D , Fang B , Chen Z . Land consolidation mode based on radiation model and potential model for dividing urban and rural zone functions[J]. *Nongye Gongcheng Xuebao/transactions of the Chinese Society of Agricultural Engineering*, 2018, 34(13):270-278.
4. Schwab B . Metropolitan Governance in Cultural Policy. Democratic Legitimacy in Regional Systems to Finance Urban High Culture: The Tension Between Politics and Artistic Freedom[J]. *Chemosphere*, 2018, 10(3):291-301.
5. Geddes A , Schmidt T S . Integrating finance into the multi-level perspective: Technology niche-finance regime interactions and financial policy interventions[J]. *Research Policy*, 2020, 49(6):103985.
6. Botta E . An experimental approach to climate finance: the impact of auction design and policy uncertainty on renewable energy equity costs in Europe[J]. *Energy Policy*, 2019, 133(8):110839.
7. Kung C C , Zhang N , Choi Y , et al. Corrigendum to 'Effectiveness of crop residuals in ethanol and pyrolysis-based electricity production: A stochastic analysis under uncertain climate impacts' [Energy Policy 125 (2019) 267-276][J]. *Energy Policy*, 2019, 129(JUN.):1423-1423.
8. Opeyemi A , Uchenna E , Simplice A , et al. Renewable Energy, Trade Performance and the Conditional Role of Finance and Institutional Capacity of Sub-Sahara African Countries[J]. *Energy Policy*, 2019, 132(SEP):490-498.
9. Wang J . From aperture satellite to 'Internet finance': Institutionalization of ICTs in China's financial sector since 1991[J]. *Telecommunications Policy*, 2018, 42(7):566-574.
10. Geddes A , Schmidt T S , Steffen B . The multiple roles of state investment banks in low-carbon energy finance: An analysis of Australia, the UK and Germany[J]. *Energy Policy*, 2018, 115(10):158-170.
11. Chen J , Xu C , Song M , et al. Driving factors of China's energy productivity and its spatial character: Evidence from 248 cities[J]. *Ecological Indicators*, 2018, 90(JUL.):18-27.
12. Chang K , Zeng Y , Wang W , et al. The effects of credit policy and financial constraints on tangible and research & development investment: Firm-level evidence from China's renewable energy industry[J]. *Energy Policy*, 2019, 130(JUL.):438-447.
13. Forouli A , Gkonis N , Nikas A , et al. Energy efficiency promotion in Greece in light of risk: Evaluating policies as portfolio assets[J]. *Energy*, 2018, 170(MAR.1):818-831.
14. Sierag D , Hanzon B . Pricing derivatives on multiple assets: recombining multinomial trees based on Pascal's simplex[J]. *Annals of Operations Research*, 2018,

- 266(1-2):101-127.
- 15.Donggyu K , Yi L , Yazhen W . Large volatility matrix estimation with factor-based diffusion model for high-frequency financial data[J]. *Bernoulli*, 2018, 24(4B):3657-3682.
- 16.Zhang Q , Liao H , Hao Y . Does one path fit all? An empirical study on the relationship between energy consumption and economic development for individual Chinese provinces[J]. *Energy*, 2018, 150(MAY1):527-543.
- 17.Cheng X , Chen L , Sun R , et al. Land use changes and socio-economic development strongly deteriorate river ecosystem health in one of the largest basins in China[J]. *Science of the Total Environment*, 2018, 616-617(mar.):376-385.
- 18.Harvianto G R , Haider J , Hong J , et al. Purification of 2,3-butanediol from fermentation broth: process development and techno-economic analysis[J]. *Biotechnology for Biofuels*, 2018, 11(1):18.
- 19.Xiong Y , Zhang S , Lan J , et al. Efficiency evaluation of regional economic development of mining and metallurgy city based on DEA model[J]. *International Journal of Applied Decision Sciences*, 2019, 12(3):242.
- 20.Bradshaw A , Jannuzzi G D M . Governing energy transitions and regional economic development: Evidence from three Brazilian states[J]. *Energy Policy*, 2019, 126(MAR.):1-11.
- 21.Vasylieva, Lyulyov, Bilan, et al. Sustainable Economic Development and Greenhouse Gas Emissions: The Dynamic Impact of Renewable Energy Consumption, GDP, and Corruption[J]. *Energies*, 2019, 12(17):3289.
- 22.Ma M , Cai W , Cai W , et al. Whether carbon intensity in the commercial building sector decouples from economic development in the service industry? Empirical evidence from the top five urban agglomerations in China[J]. *Journal of Cleaner Production*, 2019, 222(JUN.10):193-205.
- 23.Zhang Y , Shen L , Shuai C , et al. How is the environmental efficiency in the process of dramatic economic development in the Chinese cities?[J]. *Ecological Indicators*, 2019, 98(MAR.):349-362.
- 24.Li C , Shen B . Accelerating renewable energy electrification and rural economic development with an innovative business model: A case study in China[J]. *Energy Policy*, 2019, 127(APR.):280-286.
- 25.Tran N V , Tran Q V , Do L T T , et al. Trade off between Environment, Energy consumption and Human development: Do levels of economic development matter?[J]. *Energy*, 2019, 173(APR.15):483-493.
- 26.Solarin S A , Shahbaz M , Hammoudeh S . Sustainable economic development in China: Modelling the role of hydroelectricity consumption in a multivariate framework[J]. *Energy*, 2019, 168(FEB.1):516-531.
- 27.Valadkhani A , Nguyen J , Bowden M . Pathways to reduce CO2 emissions as countries proceed through stages of economic development[J]. *Energy Policy*, 2019, 129(10):268-278.
- 28.Willoughby K W . Endogenous innovation, outward-bound international patenting and national economic development[J]. *The Journal of Technology Transfer*, 2020, 45(3):844-869.
- 29.A N V T , B Q V T A , C L T T D , et al. Trade off between environment, energy consumption and human development: Do levels of economic development matter?[J]. *Energy*, 2019, 173(6):483-493.
- 30.Qiu G , Song R , He S . The aggravation of urban air quality deterioration due to urbanization, transportation, and economic development – Panel models with marginal effect analyses across China[J]. *Science of The Total Environment*, 2018, 651(9):1114-1125.