Frontiers in Economics and Management Volume 5 Issue 2, 2024
ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

Does Green Finance Promote the Transformation and Improvement of Industrial Structure?

Chong Long

Guangxi University School of Economics, Nanning, Guangxi, 530004, China

Abstract

By analyzing the impact of previous development models on the environment and the necessity of industrial structure transformation, This paper examines the role of green finance in facilitating the transformation and upgrading of industrial structure. It utilizes panel data from 29 provinces and cities in China spanning from 2011 to 2018 for empirical analysis. First of all, the emergence of green finance is driven by the pressure on the environment brought by the previous development model. It provides a sustainable financial tool and helps enterprises to realize the transformation of environmentally friendly production methods. Furthermore, the transformation of industrial structure poses a significant challenge to China's economic development, with green finance emerging as a crucial catalyst for this transformation. By directing capital towards green industries, it expedites the modernization of traditional sectors. The findings indicate that green finance plays a substantial role in advancing the transformation of industrial structure and exhibits varying effects across different regions. In comparison to the central and eastern regions, the impact of green finance on industrial structure is notably more pronounced in the western region. The outcomes of this study hold significant guiding implications for furthering the advancement of green finance and fostering sustainable development.

Keywords

Green Credit; Green Financial; Industrial Structure Transformation.

1. Introduction

Since the initiation of reform and opening up, China's economic progress has been remarkable, leading to continuous improvements in people's living standards. Concurrently, there has been a growing focus on environmental and health concerns. The former factor-driven development model is no longer aligned with China's current developmental requirements. Primarily, as economic development has transitioned into a phase of medium and high-speed growth, the traditional "manufacturing + export" model is increasingly challenging to sustain. This has resulted in heightened industry competition, escalating costs, and environmental and resource-related issues, all of which have become pivotal factors constraining enterprise development. Secondly, as economic and social development undergo structural changes, the developmental concepts and fundamental driving forces of China's economy are also evolving. The shift from the previous "rapid growth" to the current "high-quality development" necessitates adjustments and transformations in the economic growth model and industrial structure. Third, the international community's emphasis on environmental preservation and green development is intensifying, compelling China to expedite industrial upgrading and transformation. The global economy is trending towards low-carbon development. Fourthly, the rapid progress of information technology has led to the emergence of new economies and formats, including intelligent manufacturing, Internet+, and the digital economy. The rise of these new industries also requires China to carry out industrial upgrading and transformation, strengthen the connection with advanced technology and management mode. Through

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

continuous technological research and development and innovation, China is accelerating industrial upgrading and transformation to enhance its core competitiveness. This shift is not only an inevitable choice to align with the current trend but also a crucial factor in achieving high-quality development.

Indeed, green finance plays a crucial role in promoting the upgrading of industrial structure (Gu&Chen et al). According to the research of Yin Jianfeng and Wang Zengwu (2016), by strengthening environmental protection and pollution control, The advancement of green credit will promote the optimization of industrial structure and facilitate the transformation and upgrading of the economic development model(.Yanli Wang et al. , 2021). In addition, Guo Xiaoli (2011) and Wang (2020) pointed out that green credit can effectively improve the credit structure and promote technological progress, To achieve industrial structure optimization and adjustment, the community can prioritize environmental and ecological issues, promote green technology and industry development, reduce corporate financing costs, support environmental protection enterprises, and provide strong financial support to promote high-quality economic development.

This paper explores the role of green finance in promoting the upgrading of China's industrial structure, especially from a regional perspective to consider the impact of its spatial distribution imbalance on different regions. At the same time, we also need to think about how to speed up the formation and structural optimization of green finance to meet the needs of industrial structure upgrading, and put forward corresponding policy recommendations. These problems are very important and need to be studied in depth(Xu, X. et al,2020).

2. Literature Review and Hypothesis

2.1. The Necessity of Transforming and Upgrading the Industrial Structure

Firstly, as consumption evolves and science and technology progress, market demand is constantly changing. The transformation and upgrading of the industry structure will make it easier to adapt to the changes in the market and enhance the competitive power of enterprises. (Yu Fan, Qian Chunhui, Zheng Ruogu , 2011; H. Mann et al.,1971; W. Milberg et al., 2004). Secondly, the traditional industrial structure relies too much on resources and labor, and it is difficult to sustain development. Transforming and upgrading the industry structure can improve the economic growth quality and promote the sustainable economy (Cheng Ruxuan, Lu Erpo ; 2001). At present, the international market competition is fierce, and Restructuring and upgrading of industry structure can improve the competitiveness of Chinese enterprises in the international market and enhance the international discourse power (Chen Peng, Zheng Yicun , 2006 ; Guozhu Mao et al.,2013). Industrial Structure Transition and Upgrade Can Promote Technology Innovation(Xiao-jiao Wang et al., 2022), promote the development of high-end manufacturing and emerging industries, and enhance the capability and level of science and technology innovation in China(Li Zheng, Yang Siying ; 2017). Finally, Restructuring and modernisation of industrial structures can boost job growth, promote social stability, and promote balanced and sustainable development of urban and rural areas (Zhao Yongge ; 2003).

2.2. The Role of Green Finance in Industrial Transformation and Upgrading

As the economy enters a new normal, China must urgently achieve transformation and upgrading, from " factor-driven " to " innovation-driven " economic growth model, and promote optimization of industrial structure and realization of development objectives.

Green finance is a financial activity which is used to protect the environment and develop continuously. Green finance can provide finance to protect the environment and keep on developing, and promote the development of emerging industries and high-end manufacturing,

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

and promote the upgrading and transformation of industrial structure (Shu Xiaoting, 2017 ; chen Weiguang, Hu Dang, 2011). In environmental protection and sustainable development, green finance can reduce risks through risk management, and ensure financial security and stability (Zheng Hong, 2020; Artie Ng et al. ,2018). Green finance can help enterprises understand the market demand and trends in the field of environmental protection and sustainable development by providing information services, and promote enterprise innovation and development (Wang Renxiang, Lu Pengfei ; 2019). Green finance is a new financial tool, which can promote the development of green industry and realize the upgrading and transformation of industry by guiding the fund of environmental protection and sustainable development(Renato J. Orsato et al.,2003). With the support of the capital market, green finance opens up a way for environmental protection and sustainable development, and promote enterprise development and industrial upgrading. Thus, this:

Hypothesis 1 : Developing Green Financial Can Push Industry Structure Transition to Higher Level.

Due to the different policy environments in different regions, some regions may introduce more active environmental protection policies to promote businesses to embrace eco-friendly production methods, encourage the growth of green finance, and enhance industrial structure(Theodor F. Cojoianu et al. , 2020). However, some regions may lack the support of environmental protection policies, which limits the development of green finance. Secondly, different regions have different resource endowments. In some areas, there may be more abundant renewable energy sources, for example, solar, wind, and so on. The utilization of these resources can promote the development of green finance and the industrial structure upgrade. But some areas may be short of such resources, which restricts the development of green finance. Last but not least, there is a difference in the level of economic development between regions. It is necessary to attach importance to environmental protection and sustainable development in some areas, so that green finance can be developed and industrial structure can be improved. In some areas, the economic development level is low, the environment protection and the sustainable development may not be the most important issue, so the development of green finance is limited. Therefore, this paper proposes:

Hypothesis 2 : Green finance has spatial heterogeneity in the upgrading and transformation of industrial structure.

3. Data Sources and Model Selection

3.1. Research Samples and Data Sources

Table 1. Descriptive statistics

	(1)	(2)	(3)	(4)	(5)
VARIABLES	N	mean	sd	min	max
tec	232	7.365	1.560	4.826	13.31
Fie	232	0.555	1.368	-3.238	5.309
Grefin	232	0.181	0.106	0.0621	0.759
Finstru	232	-2.019	1.061	-5.802	1.676
invest	232	0.793	0.256	0.233	1.480
gov	232	0.244	0.103	0.110	0.627
edu	232	0.0342	0.0198	0.00187	0.0785
trade	232	0.0431	0.0499	0.00250	0.240

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

Because of the lack of data from Tibet, Hong Kong, Macau, Taiwan, and other areas, as well as the limited data available, this study is based on the data collected from 29 Chinese provinces from 2011 to 2018. The descriptive statistics of related index data are obtained from China Statistical Yearbook, China Financial Yearbook, provincial finance statistics and Guotai 'an database.

3.2. Model Construction and Variable Description

In order to verify hypothesis 1, we construct the following econometric model based on the previous theoretical analysis.

$$Tec_{i,t} = \alpha + \beta Grefin + \gamma CV_{i,t} + \delta_i + \theta_t + \varepsilon \quad (1)$$

With the help of Model (1), the impact of green finance on the transformation and upgrading of industrial structure is tested. In this model, the subscripts i and t are used to represent the region and time year of the sample, respectively. Among them, $Tec_{i,t}$ represents the industrial structure upgrading index of region i in year t, $Grefin_{i,t}$ represents the corresponding green financial index, $CV_{i,t}$ represents a series of control variables. At the same time, δi and θt represent the fixed effects of control region and time. ; ε is a random disturbance term.

1) Explained variables

The explained variable discussed in this paper is the upgrading of industrial structure (tec), referring to the practices of Wang Wenqian (2022) and Zhou Yanming et al. (2019) and Wei Jianliang (2007). By taking into account the indicators of total output, output of various industrial sectors and labor productivity, the index of industrial structure upgrading is established, and the three industries are taken into account. The proportion of the three industries in GDP is represented by P, and the labor productivity of the three industrial sectors is represented by L. The output value of each industrial sector is measured by the ratio of output value to employed labor force.

$$Tec = L_1 \times P_1 + L_2 \times P_2 + L_3 \times P_3$$

2) Explanatory variables

The explanatory variable of this paper is the green financial index (Grefin). Drawing on the practice of Ren Danni (2020), this paper uses text mining technology to measure the level of green financial development index in 29 provinces and cities in China from 2011 to 2018. In the core journal literature, the keywords related to green finance are selected to construct a lexicon. Secondly, the frequency of green finance-related news in regional news in each year is obtained by web crawler in Baidu search. Then, we take the number of news about green finance in the region as the basic data, and calculate the proportion of this number to the total number of news in all regions. Next, the factor analysis method is used to synthesize various indicators, construct China 's green financial development index, and standardize it.

3) Mediating variable

Finstru 's approach to assessing the financial structure refers to many of the literature 's methods, using the ratio of each region 's annual bank loan balance to the stock market 's trading volume. The smaller the ratio is, the more the financial structure in the region tends to be market-oriented.

4) Control variables

The fixed asset investment ratio (invest) is the ratio of fixed asset investment to GDP in a province. Government expenditure is the ratio of local government expenditure to GDP. Human

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

capital(edu) is measured by the average length of schooling in each region. The degree of development of foreign trade (trade) is measured by the share of gross domestic product (GDP) in total imports and exports. The measurement of financial intermediary efficiency (Fie) refers to the method of Xiao Kangkang and Qiang Haofan (2021), that is, the ratio of loan balance of banking financial institutions to resident savings balance.

4. Empirical Results

4.1. Main Regression

Table 2 reports the impact of the green finance index on industrial structure upgrading, i.e., the estimation results of model (1). Specifically, the regression results in columns 1-4 reflect the relationship between the development of green finance and industrial structure upgrading. Column 1 only shows the regression results between the green finance index and industrial structure upgrading. Columns 2-4 add control variables such as fixed asset investment rate (invest), government expenditure (gov), and foreign trade development (trade); it can be seen that without controlling for variables, the development of green finance can promote industrial structure upgrading at a significant level of 95%. After adding control variables, the significance level increases to 99%, and the regression coefficient gradually increases. This demonstrates the important role of green finance development in promoting the transformation and upgrading of China's industrial structure. Achieving an "innovation-driven" economic growth model represents a significant transformation of development strategy. This also proves the correctness of the concept that "green mountains and clear waters are mountains of gold and silver." Hypothesis 1 has been verified.

Table 2. Full sample regression results

	(1)	(2)	(3)	(4)
VARIABLES	tec	tec	tec	tec
Grefin	15.079**	13.307**	13.982**	23.920***
	(2.75)	(2.68)	(2.44)	(4.55)
invest		1.448	1.469	0.905
		(1.52)	(1.49)	(1.06)
gov			-2.655	-1.511
			(-0.37)	(-0.21)
trade				29.781***
				(4.90)
Constant	4.643***	3.815***	4.325***	1.415
	(4.69)	(4.39)	(4.38)	(1.22)
Observations	232	232	232	232
R-squared	0.358	0.410	0.413	0.488
Number of id	29	29	29	29
province FE	YES	YES	YES	YES

Robust t-statistics in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

4.2. Heterogeneity Test

Because of the uneven development of the region, the level of economic development, the level of industry development, and the uneven distribution of financial resources in the east, middle

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

and west areas, the test of regional heterogeneity is carried out. The results are presented in Table 3. The regression results of green finance development on the industrial structure upgrading in the east and middle west areas. Specifically, there is a difference in the promotion effect of green finance in different areas. The effect of green finance on the industrial structure of the west is bigger than that of the middle area, and it is bigger than the east. The main reason may be : first, the geographical location is different, the eastern region is economically developed coastal areas, the central region is located inland, the western region is remote and underdeveloped areas. Due to the different economic basis and industrial structure of these regions, the impact of green finance on them is also different. Second, the industrial structure is different. In the east, there are comparatively complete industry chains and high technology manufacturing industries, but the environment policy is restricted. The Middle and West is mainly based on the resource type, and the environment pollution is the relative influence. Therefore, promoting the Middle and West Regions' Green Finance will improve their economy transition and upgrade. Last but not least, the degree of policy support varies. In recent years, the Central Government has made a series of related policies and rules to protect the environment as a key task. But there are differences in the strength and effectiveness of these policies, which results in the promotion effect of green finance in each area. Thus, hypothesis 2 is validated.

Table 3. Regional heterogeneity regression results

	(1)	(2)	(3)
VARIABLES	Eastern	Central	western
Grefin	15.686**	27.836***	37.236***
	(2.38)	(5.97)	(4.95)
invest	3.968**	-0.495	0.300
	(2.47)	(-1.83)	(0.40)
gov	1.339	2.747	-9.956
	(0.17)	(1.40)	(-1.12)
trade	19.443*	22.925	-24.853
	(1.88)	(1.67)	(-1.09)
Fie	0.194	-0.018	0.201
	(1.17)	(-0.07)	(0.95)
Constant	-1.521	2.697**	5.991**
	(-0.59)	(2.81)	(2.37)
Observations	72	72	80
R-squared	0.618	0.704	0.593
Number of id	9	9	10
province FE	YES	YES	YES

Robust t-statistics in parentheses.

*** p<0.01, ** p<0.05, * p<0.1.

4.3. Mechanism Analysis

The results indicate that the development of green finance in China can improve the industrial structure, that is to say, the transformation of the industry from the traditional high-pollution, energy-consuming and inefficient industries to the green, low-carbon and high-efficiency. This transformation will help to promote the sustainable development of Chinese economy, enhance economic quality and efficiency, as well as improve environmental quality and economic and environmental harmony.

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

According to the research of Liu Jianghao (2020) and Zhang Fang et al. (2020), The main driving force for upgrading industrial structure is the development of green finance by affecting the efficiency of financial intermediaries. In order to verify this mechanism, the following mediation model is constructed :

$$Tec_{i,t} = cGrefin_{i,t} + \gamma CV_{i,t} + \delta_i + \theta_t + \varepsilon_{i,t} \quad (2)$$

$$Finstru_{i,t} = aGrefin_{i,t} + \gamma CV_{i,t} + \delta_i + \theta_t + \varepsilon_{i,t} \quad (3)$$

$$Tec_{i,t} = bFinstru_{i,t} + \beta_1 Grefin_{i,t} + \gamma CV_{i,t} + \delta_i + \theta_t + \varepsilon_{i,t} \quad (4)$$

Table 4. Mediation effect test

	(1)	(2)	(3)
VARIABLES	tec	Finstru	tec
Grefin	23.920***	6.795***	22.981***
	(4.55)	(3.56)	(4.37)
Finstru			0.138*
			(1.74)
invest	0.905	-0.951***	1.036
	(1.06)	(-3.00)	(1.17)
gov	-1.511	-6.226*	-0.651
	(-0.21)	(-1.90)	(-0.10)
trade	29.781***	14.259***	27.811***
	(4.90)	(3.19)	(4.54)
Constant	1.415	-1.587	1.634
	(1.22)	(-1.59)	(1.40)
Observations	232	232	232
R-squared	0.488	0.086	0.498
Number of id	29	29	29

Robust t-statistics in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Based on the existing research hypotheses, this paper proposes that green finance can provide financing support and investment opportunities for the development of green industry and promote the optimization of industrial structure. Such as establishing green bond market, setting up green funds, issuing green credit, etc., can not only attract more funds to green industry, but also enhance investors' consciousness and trust. Moreover, the financial organization can guide the enterprise to change to the green way, and improve the industry structure by the risk management, assessment and supervision. The empirical result table 4 indicates that the overall effect of green finance is 23.920, and the indirect one is 0.939, and the indirect one is less. The possible reason is that in the current financial system, the proportion of green finance is relatively small. This is mainly because green finance is relatively new and immature compared with traditional financial services. Compared with traditional financial projects, green financial projects often require higher investment costs and risks, which makes investors ' willingness to invest in green financial projects relatively low. The standards and

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

certification systems of green finance are relatively scattered and imperfect, and there is a lack of unified standards and certification systems, making it difficult for investors to identify and evaluate the quality and risks of green financial products. It can be seen that green finance plays an important role in upgrading and transforming the industry structure. Therefore, we need more time and funds to develop and promote green finance.

5. Conclusion and Suggestions

In this paper, the effect of green financial development on the transformation of industry structure is studied, and it is found that green finance plays an important role in the transformation of industry structure. By analyzing and comparing the three regions in East, Middle and West China, we find that there is regional heterogeneity in the promotion of green finance. On the whole, green finance can improve the industrial structure, but it is necessary to take different development strategies in accordance with the actual conditions in different areas.

In order to speed up the formation and structural optimization of green finance to meet the needs of industrial structure upgrading, China can take the following measures:

One way to promote the development of green finance is to establish and enhance the policy framework for green finance. This includes the formulation of policies and regulations that encourage financial institutions to engage in green finance activities, thereby increasing the marketization and feasibility of green finance.

Encouraging the growth of green credit activities and the establishment of a thriving green securities market: Encouraging the expansion of green credit activities entails urging banks and other financial institutions to incorporate environmental protection and sustainable development considerations into their loan and financing practices. This support enables the advancement of green industries and environmental protection projects, including investments and financing in areas such as environmental technology, clean energy, energy efficiency, and circular economy. The establishment of a green securities market involves creating a specialized platform that fosters the financing and development of green industries and environmental protection initiatives. This market can facilitate the issuance and trading of environmentally responsible securities, such as green bonds, green stocks, and green funds, which must adhere to specific environmental protection and sustainable development criteria.

To promote the development of green industries, it is important to strengthen the management of green investment funds and encourage the disclosure of green financial information. By guiding social capital towards investing in environmentally friendly sectors and implementing a green financial risk management system, transparency and credibility in green finance can be improved. This will facilitate the growth of sustainable green industries.

In short, accelerating the formation and structural optimization of green finance requires the joint efforts of the government, financial institutions and all sectors of society, that is, cooperation in policy guidance, financial institution innovation and market demand support. The government can promote the development of green finance by formulating relevant laws and regulations and providing financial support. Financial institutions can open up new business areas, improve the level of risk management, and enhance financial support for green projects ; By prioritizing environmental issues and supporting sustainable development, all sectors of society can contribute to the popularization and implementation of green finance. This can be achieved through policy guidance, market-oriented operations, technological innovation, and other measures aimed at promoting the growth of green finance and facilitating the transition to a more sustainable industrial structure.

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

References

[1] Chen Peng, Zheng Yicun. The theory of ' smile curve ' enlightens China 's industrial structure upgrading [J].Market Forum, 2006 (11) : 94-96.

[2] Chen Zhilian, Gao Hui, Zhang Zhiyong. Green finance development and regional industrial structure optimization and upgrading-Taking the western region as an example [J].Southwest Finance, 2018, No.448 (11) : 70-76.

[3] Cheng Ruxuan, Lu Erpo. Statistical index system of industrial structure optimization and upgrading [J].China Statistics, 2001 (07) : 18 + 17.

[4] Cojoianu, T., Clark, G., Hoepner, A., Veneri, P., & Wójcik, D. (2020). Entrepreneurs for a low carbon world: How environmental knowledge and policy shape the creation and financing of green start-ups. Research Policy, 49, 103988.

[5] Gu, B., Chen, F., & Zhang, K. (2021). The policy effect of green finance in promoting industrial transformation and upgrading efficiency in China: analysis from the perspective of government regulation and public environmental demands. Environmental Science and Pollution Research, 28, 47474 - 47491.

[6] Li Zheng, Yang Siying. Technological Innovation, Industrial Upgrading and Economic Growth : Interaction Mechanism and Empirical Test [J].Journal of Social Sciences, Jilin University, 2017,57 (03) : 41-52 + 204-205.

[7] Lin Yifu, Cai Fang, Li Zhou, 1999 : " China 's Miracle : Development Strategy and Economic Reform, " Shanghai Sanlian Bookstore and Shanghai People 's Publishing House.

[8] Lin Yifu, Sun Xifang, Jiang Ye. A Preliminary Study on the Theory of Optimal Financial Structure in Economic Development [J]. Economic Research, 2009,44 (08) : 4-17.

[9] Mann, H., & Scherer, F. (1971). Industrial Market Structure and Economic Performance.. Journal of Finance, 26, 812.

[10] Mao, G., Dai, X., Wang, Y., Guo, J., Cheng, X., Fang, D., Song, X., He, Y., & Zhao, P. (2013). Reducing carbon emissions in China: Industrial structural upgrade based on system dynamics. Energy Strategy Reviews, 2, 199-204.

[11] Milberg, W. (2004). The Changing Structure of International Trade Linked to Global Production Systems: What are the Policy Implications?. Public Choice & Political Economy eJournal.

[12] Ng, A. (2018). From sustainability accounting to a green financing system: Institutional legitimacy and market heterogeneity in a global financial centre. Journal of Cleaner Production.

[13] Orsato, R., Randjelović, J., & O´rourke, A. (2003). The emergence of green venture capital. Business Strategy and The Environment, 12, 240-253.

[14] Shu Xiaoting. The role and value of green credit in the adjustment of China 's industrial structure [J].Reform and strategy, 2017,33 (10) : 123-125.

[15] Wang Renxiang, Lu Pengfei. The coupling relationship between technological innovation, green finance and industrial policy-based on the analysis of China 's energy-saving and environmental protection industry [J].Journal of Beijing University of Posts and Telecommunications (Social Science Edition), 2019, 21 (01) : 26-37 + 118.

[16] Wang Wenqian. Financial technology, optimal financial structure and industrial structure upgrading [J].Contemporary economic management, 2022,44 (12) : 89-96.

[17] Wang, X. (2022). Application of Internet of Things Technology to Promote High-Quality Development of Resource-Based City Industrial Transformation and Upgrading Demonstration Areas. Mobile Information Systems.

[18] Wang, Y., Lei, X., Long, R., & Zhao, J. (2020). Green Credit, Financial Constraint, and Capital Investment: Evidence from China's Energy-intensive Enterprises. Environmental Management, 66, 1059 - 1071.

[19] Wang, Y., Lei, X., Zhao, D., Long, R., & Wu, M. (2021). The Dual Impacts of Green Credit on Economy and Environment: Evidence from China. Sustainability, 13, 4574.

ISSN: 2692-7608 DOI: 10.6981/FEM.202402_5(2).0004

[20] Xu Min, Jiang Yong. Can the upgrading of China 's industrial structure narrow the urban-rural consumption gap ? [J]. Quantitative Economic Techno-Economic Research, 2015,32 (03) : 3-21.

[21] Xu, X., & Li, J. (2020). Asymmetric impacts of the policy and development of green credit on the debt financing cost and maturity of different types of enterprises in China. Journal of Cleaner Production, 264, 121574.

[22] Yin Jianfeng, Wang Zengwu. China 's Green Finance Path [J].Comparison of Economic and Social Systems, 2016 (06) : 43-50.

[23] Yu model, Qian Chunhui, Zheng Ruogu. Analysis of the Correlation Characteristics of China 's Industrial Structure-Empirical Research Based on Input-Output Structure Decomposition Technology [J]. China 's Industrial Economy, 2011, No.284 (11) : 5-15.

[24] Zhang Fang, Li Jinxiang, Sun Ce. Green Financial Delivery and High-quality Economic Development - Research on the Mediating and Moderating Effects of Industrial Structure Upgrading [J]. Zhejiang Finance, 2020, No.491 (01) : 59-69.

[25] Zhang Guoqiang, Wen Jun, Tang Xiangjun. Human Capital, Human Capital Structure and Industrial Structure Upgrading in China [J].China 's Population, Resources and Environment, 2011,21 (10) : 138-146.

[26] Zhao Yongge. Strategic choice of industrial structure to promote urbanization under employment pressure [J].Urban planning, 2003 (06) : 11-18.

[27] Zheng Hong. Financial technology development, industrial structure optimization and bank risk-taking [J].Fujian Finance, 2020, No.423 (07) : 23-29.