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Digital Finance, Private Economy, and Common Prosperity: An Empirical Analysis from Zhejiang, a Demonstration Province for Common Prosperity

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Abstract

In the critical period of accelerating the realization of common prosperity, exploring the successful experience of Zhejiang in promoting common prosperity is of great significance for demonstrating its leadership and driving the development of common prosperity in China. Based on the calculation of the level of common prosperity in eleven prefecture-level cities in Zhejiang from 2011 to 2021, this paper uses a panel data model to analyze the impact of digital finance on common prosperity and further explores the intermediary role played by the private economy. The research findings indicate that digital finance significantly promotes the development of common prosperity, with the private economy playing a crucial intermediary role. In light of this, the paper proposes the vigorous development of digital finance to drive common prosperity through the growth of private economy.

Keywords

Digital Finance; Private Economy; Common Prosperity.

1. Introduction

Common prosperity is both an essential requirement and a striving goal of socialism. Achieving common prosperity necessitates the impetus of real productive forces. In the new era of continuous technological revolution and transformation, digital finance, supported by the new generation of information technology, has experienced rapid development and become a characteristic feature of the era, serving as a crucial engine for promoting high-quality economic development in China (Cheng Yu, 2022) [1]. High-quality economic development requires activating the development vitality of economic entities. As one of the important participants in social and economic development, the private economy plays a significant role in enhancing social material wealth and enlarging the social wealth cake. In recent years, China has designated the unwavering support for the private economy as one of the fundamental policies for economic development, encouraging and supporting its growth. With the support of national policies, the private economy has flourished across the country since the era of reform and opening up. Against the backdrop of the rapid development of digital finance and the private economy, achieving common prosperity is meaningful, making it essential to explore the connections between digital finance, the private economy, and common prosperity.

In Zhejiang, digital finance, as a crucial element of economic development, plays an equally important role in the growth of the private economy. The private economy, serving as the main driving force behind Zhejiang's economic development, contributes to over 50% of tax revenue, more than 60% of the gross domestic product (GDP), over 70% of technological innovation achievements, over 80% of urban labor employment, and accounts for more than 90% of the total number of enterprises. It is evident that the private economy holds a significant weight in the economic landscape of Zhejiang.

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Being both a major province for private economy and a demonstration area for common prosperity, Zhejiang has become a focal point in the context of rapid development of digital finance. In this backdrop, it raises questions about whether there exists a mechanism of interaction between digital finance, the private economy, and common prosperity in Zhejiang. Can this dynamic provide demonstrative insights for other regions?

Regarding the relationship between digital finance and the private economy, scholars have found that digital finance has a promoting effect on the private economy, mainly manifested in the following aspects: On one hand, leveraging digital platforms to attract social capital helps lower financing costs, establish pathways for social capital circulation, and facilitate the development of direct financing (Chen Huiqing et al., 2021) [2]. In particular, digital inclusive finance, relying on its digitized technology, constructs a large-scale data credit system to alleviate information asymmetry between the long-tail financing population and financial institutions, enhancing the accessibility of indirect financing (Fu Qiuzi and Huang Yiping, 2018) [3]. On the other hand, as a significant component of digital finance, inclusive finance significantly improves the accessibility and convenience of traditional financial services. It alleviates financing constraints for relatively impoverished groups suffering from credit discrimination under traditional financial service models (Zhang Xun et al., 2019; Liu Xinyi et al., 2020) [4][5]. In addition, it reduces financial service barriers, enhancing financial operational efficiency (Lü Yongbin et al., 2023) [6]. Furthermore, the elevation of digital finance levels can stimulate entrepreneurial spirit, fostering innovation and entrepreneurship to promote the high-quality development of private entities (Zheng Jinhui et al., 2023) [7].

Scholars have found that the development of private economy plays a role in promoting common prosperity with the following views. The private economy is the foundation of wealth for the people, providing income for the majority of urban employed workers and improving the quality of economic development. While expanding the cake, it also helps to optimize it (Zhou et al., 2022) [8]. On the issue of urban-rural disparities, scholars have confirmed through a series of tests that the development of private economy not only does not widen the urban-rural income gap, but also, accompanied by sustained economic prosperity, is conducive to suppressing the trend of expansion (Huang Qian et al., 2018) [9]. Of course, some scholars believe that there are some contradictions between the private economy and the development of common prosperity, which require coordination (Yang Xiaoyong et al., 2022) [10]. At the same time, there is also a problem of coordination and linkage between efficiency and fairness. There are difficulties in promoting common prosperity in the private economy, such as the need for diversification of methods and paths, and the need for consensus on the role of promotion (Chen Jian, 2022) [11].

In the relationship between digital finance and achieving common prosperity, digital finance can promote household entrepreneurship and employment through economic development (Niu Lijuan, 2023) [12], promote household consumption upgrading, and enhance economic vitality (Yin Yingkai et al., 2022) [14], thereby increasing real income and promoting wealth accumulation. Digital finance can enhance household material wealth and change the relative poverty situation of vulnerable groups by alleviating liquidity constraints (Luo Yu et al., 2021) [15]. At the same time, digital finance can also promote the narrowing of the urban-rural income gap, achieve inclusive growth and common prosperity between urban and rural areas (Song Xiaoling, 2017) [16]. Digital finance has the function of regulating income distribution, improving redistribution efficiency, and developing public welfare and charity (Wang Rong, 2023) [17]; In addition, digital finance not only improves the "wealth level" of urban and rural areas, but also enhances the "sharing level" of urban and rural areas, achieving a win-win situation of efficiency and fairness (Yang Fang, 2023) [18]. To this end, we need to vigorously develop inclusive finance, green finance, and digital finance, in coordination with high-quality

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development, fiscal policies, and social governance, to form a joint force and jointly promote common prosperity (Zheng Yali, 2022)[19].

The above literature has sorted out the promoting relationship between digital finance and common prosperity, digital finance and private economy, and private economy and common prosperity. However, the logical connection between digital finance, private economy, and common prosperity has not been proposed. Based on the theoretical analysis of the relationship between digital finance and the private economy, as well as their role in promoting common prosperity, in the face of the rapid development of digital finance and the private economy, clarifying the logical connection between the three is equivalent to providing a path to achieve common prosperity. Zhejiang is a demonstration province of common prosperity in China, and it is at the forefront of digital finance and private economy development in the country, which is quite typical and representative. Therefore, first of all, the article takes Zhejiang as a representative to analyze the promoting effect of digital finance on the private economy, and then on this basis, it plays a promoting role in the realization of common prosperity, establishing a connection between the three, that is, digital finance promotes the realization of common prosperity through the private economy. Secondly, for cities with different levels of economic development, different influencing factors in the process of promoting common prosperity through digital finance were identified. This is the innovative viewpoint presented in the article and also a demonstration inspiration for the common prosperity of other provinces in China.

2. Theoretical Mechanism and Assumptions

Digital finance promotes common prosperity

In terms of coverage, common prosperity is the common prosperity of all the people; As far as the content is concerned, it is the common prosperity of the coordinated development of material civilization and spiritual civilization. From the perspective of sustainability of development, it is the common prosperity of harmonious coexistence between man and nature (Jiang Jianping, 2023) [20]. From the perspective of characteristics, common prosperity has three aspects: affluence, sharing and sustainability (Zhou Qingxiang et al., 2022) [21]. And digital finance just rationally explains the development of common prosperity from these three aspects.

From the perspective of development, the realization of common prosperity requires the great development of social wealth. Digital finance can bring innovation and entrepreneurship effect, enhance the entrepreneurial ability of rural residents, and promote poverty reduction and income increase of rural residents and eliminate absolute poverty by increasing income level (Luo Chunling et al., 2023) [22] and improving residents' income structure. It is one of the most important ways to achieve common prosperity (Xue Qihang et al., 2022) [23]. From the perspective of sharing, common prosperity requires increasing the income of low-income groups and expanding the proportion of middle-income groups (Hao Yunping et al., 2023) [24]. Digital finance helps to break through the urban-rural dual structure (Wang Xiuhua et al., 2022) [25] and narrow the urban-rural income gap. From the perspective of sustainability, digital inclusive finance not only creates material conditions for the realization of common prosperity, but also helps the rapid development of the cultural industry by lowering the financing threshold of the cultural industry, satisfying people's growing spiritual and cultural needs, and achieving spiritual prosperity (He Wenbin, 2023) [26]. At the same time, digital finance can promote low-carbon and inclusive economic development by optimizing capital and human resources allocation (Xiang et al. 2022) [27], thus contributing to the realization of common prosperity. Therefore, the first hypothesis is that digital finance promotes common prosperity.

Digital finance promotes common prosperity through the private economy

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The influence of digital finance on common prosperity is mainly based on material wealth and spiritual wealth, and the influence path is mainly inclusive, progressive, developmental and comprehensive (Wang Pinget al., 2022) [28]. So what role does the private economy play? In fact, digital finance enhances social wealth by promoting the development of private economy (Cui Jinhong, 2000) [29], expands social employment, increases household income, enriches the spiritual and cultural needs of urban and rural residents, and conforms to the impact of digital finance on common prosperity.

The development of private economy has shown the characteristics of increasing optimization, such as the enhancement of economic strength, the optimization of economic structure (Guo Zhanheng, 2012) [30], the enhancement of innovation ability and product diversification. In the path of influence, the comparative advantage of private economy gradually exerts, driving the adjustment and optimization of China's industrial structure (Zheng Fengbo, 2005) [31], making great contributions to the economy, reflecting the development; By virtue of digital finance, the private economy has improved the income distribution system and social insurance system (Guo Jingsheng, 2019) [32], which not only provides material security for the realization of common prosperity, but also provides opportunities for shared development, reflecting comprehensiveness. The development of private economy is conducive to the expansion of the middle income group in society, the formation of the first rich to promote the latter rich, help the formation of an olive society, and by providing vast employment opportunities, enhance the value of social members, promote social stability, improve people's happiness of life, provide the basis for the sustainable realization of common prosperity, and reflect the inclusive and progressive. Therefore, the second hypothesis is put forward that digital finance can promote common prosperity through private economy.

3. Research design

3.1. Model construction

As for the relationship between digital finance, private economy and common prosperity, this paper takes private economy as the intermediary variable, that is, digital finance achieves the purpose of promoting common prosperity by promoting the development of private economy. Therefore, according to the method of Zheng Jinhui and Xu Weixiang (2022), the mediation effect model is constructed as follows:

$$\text{COMWeal} = \alpha_1 + \theta_1 DIGFin_{it} + \beta_1 Controls_{it} + \mu_i + \gamma_t + \varepsilon_{it}$$

$$\text{PRIEco} = \alpha_2 + \theta_2 DIGFin_{it} + \beta_2 Controls_{it} + \mu_i + \gamma_t + \varepsilon_{it}$$

$$\text{COMWeal} = \alpha_3 + \theta_3 DIGFin_{it} + \theta_4 PRIEco_{it} + \beta_3 Controls_{it} + \mu_i + \gamma_t + \varepsilon_{it}$$

Where, i represents city, t represents year, COMWeal represents common affluence level, DIGFin represents digital finance, PRIEco represents intermediary variable private economy, μ represents individual fixed effect, γ represents time fixed effect, and ε represents random disturbance term.

3.2. Variable definition

The explained variable is common prosperity. In terms of index selection, previous scholars have measured it from the macro level (Xu Xianchun, 2019) [33] or from the micro-data of families (Zhang Jinlin, 2022) [34], and measured it from the three indicators of material prosperity, spiritual prosperity and social sharing. This paper adopts the three main characteristics of common prosperity. The approach of Li Xian 'e (2022) is measured from the perspective of development, sharing and sustainability, and the indicators combine macro and micro level data. For the calculation of the common wealth index, according to the practice of Sun Hao et al. (2022) [35], each sub-index is assigned a weight, but the specific weight distribution is different. The above literature assigns 5% to the equivalent value of each

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secondary index. Since there is no specific limit on the specific number of secondary indicators, the primary index has different weights according to the different number of secondary indicators, which has certain random opportunities. To this end, the paper takes 60% development index, 20% sharing index and 20% sustainability index according to the basis of the primary index, and takes the corresponding equivalent weight of the secondary index under the weight of the primary index. In this paper, entropy method is used to calculate the final index of common prosperity. At the same time, in the robustness test, the method of replacing the explained variables and shortening the data year is adopted to better test the robustness of the empirical structure.

Table 1 Descriptive statistics of variables

Common Prosperity	First level index	Second level index	Weight (%)	Index nature
	Development	Regional GDP	60%	+
		Average consumption expenditure of urban residents		+
		Average consumption expenditure of rural residents		+
	Shareability	Basic endowment insurance participating population of urban employees	20%	+
		Urbanization rate of permanent population		+
		Employee average income		+
	Sustainability	General budgeted financial gain of local government	20%	+
		Granted patent number		+
		Student number of general colleges and universities		+

Standard errors in parentheses

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

The explanatory variable is digital finance, and this paper adopts the total digital finance index of Mark Data Network, a third-party data statistics website.

The intermediary variable is the private economy. According to the practice of Zhou Qingxiang et al. (2022), the indicators of the private economy are counted from three levels: scale level, efficiency level and development potential level. It is mainly composed of four indicators: the gross industrial production of large and medium-sized private enterprises reflecting the scale level, the current assets and the total profits of private enterprises reflecting the efficiency level, and the R&D expenditure of large and medium-sized private enterprises reflecting the development potential level.

The control variables mainly include five indicators: industrial structure, government regulation, digital infrastructure, opening up and higher education level. The specific measurement indicators are the proportion of tertiary industry in GDP for industrial structure, regional fiscal expenditure in regional GDP for government regulation, Internet broadband access users for digital infrastructure, and the proportion of tertiary industry in GDP for government regulation. The total import and export volume of a region to the outside world accounts for regional GDP, and the level of higher education is calculated as university teachers per 10,000 people. In the robustness test, this paper adds two indicators of financial transparency and human capital level to the control variables, among which the human capital

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level is measured by taking the logarithm of the number of college students per 10,000 people, so as to better reflect the internal relationship between digital finance, private economy and common prosperity.

3.3. Data sources

This paper uses 2011-2021 Zhejiang provincial and municipal panel data, mainly including the statistical index data of common prosperity, digital finance and private enterprises, most of which come from the statistical yearbooks of various cities in Zhejiang Province and the third-party database network Mark data network.

Table 2 Descriptive statistics of variables

Variable name	Abbreviation	Observation value	Mean	Standard error	Minimum	Maximum
Common prosperity	COMWeal	121	.008	.005	.002	.026
Digital finance	DIGFin	121	219.124	75.247	67.990	359.683
Private economy	PRIEco	121	.008	.008	.0002	.042
Industrial structure	IS	121	51.403	9.054	37.240	77.600
Governance transparency	GOVTrans	121	69.476	37.019	7.000	268.180
Government regulation	GOVReg	121	15.073	5.886	7.602	35.647
Digital infrastructure	DIGInfra	121	1955.718	1318.239	264.556	5788.100
Openness	Open	121	48.295	27.006	11.057	138.228
High education	HIEdu	121	544.324	122.839	297.610	858.438
Human capital	HUMCap	121	209.142	161.271	43.227	700.386

4. Empirical test

4.1. Analysis of basic estimation results

Considering the endogeneity problem of explanatory variables, the panel fixed effect model is used in this paper. This model is first used to conduct a benchmark regression on digital finance and common prosperity, as shown in Column COMWeal (1) of Table 3. It can also be seen from the intermediary regression results in Table 3 that PRIEco(2) in Table 3 shows that the significance level of digital finance in promoting the private economy is 5%, which plays an obvious role in promoting the private economy. Table 3, COMWeal(3), shows that the significance level of digital finance promoting common prosperity through private economy is 5%.

In terms of control variables, first of all, in the effect of digital finance on private economy, the control variables such as industrial policy, government regulation, digital infrastructure and higher education level all play an important role, but play the opposite role in industrial policy, government regulation and higher education level, indicating that digital finance itself has a certain competitive relationship with the development of private economy in this factor. Secondly, in the role of digital finance in promoting common prosperity through private economy, each control variable plays a more significant role in promoting common prosperity, indicating that in fact, from the perspective of industrial structure, the development level of the tertiary industry directly affects the development quality and level of private economy; Government regulation reflects the level of government regulation to the economy. The higher the level of government regulation is, the more beneficial it is to economic development. Digital

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infrastructure is directly related to the development degree of digital finance, only a high level of digital finance can better promote economic development; The level of opening to the outside world reflects the development conditions of private economy. Where the level of opening to the outside world is high, the greater the development space of private economy is, the more likely it is to promote the development of private economy. The level of higher education reflects the talent reserve ability of economic development, and only sufficient human resources can better promote economic development. Therefore, in the process of promoting common prosperity through the private economy, digital finance is naturally inseparable from the influence of the government and the market.

Table 3 Benchmark and intermediary regression

VARIABLES	COMWeal（1）	PRIEco（2）	COMWeal（3）
DIGFin	0.0132***	0.0207**	0.00632**
	(0.00385)	(0.00906)	(0.00245)
PRIEco			0.334***
			(0.0248)
IS	0.0145	-0.184*	0.0761***
	(0.0416)	(0.0978)	(0.0263)
GOVReg	0.0782	-0.379***	0.205***
	(0.0608)	(0.143)	(0.0390)
DIGInfra	0.00274***	0.00402***	0.00139***
	(0.000371)	(0.000872)	(0.000251)
Open	0.0156*	0.0115	0.0118**
	(0.00798)	(0.0187)	(0.00497)
HIEdu	-0.000675	-0.0103**	0.00277**
	(0.00172)	(0.00404)	(0.00110)
Constant	-2.299	16.11***	-7.683***
	(1.557)	(3.660)	(1.048)
Observations	121	121	121
R-squared	0.816	0.630	0.929

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.2. Robustness test

The robustness test in this paper is mainly carried out from two aspects. Firstly, the method of replacing the explained variable is used with the result shown in Table 4, column COMWeal (1). In this paper, the development index of common prosperity is replaced by the index measured by regional GNP, per capita consumption expenditure of urban residents and per capita consumption expenditure of rural residents, which is replaced by per capita regional GNP, per capita disposable income of urban residents and per capita disposable income of rural residents. Secondly, the robustness test is carried out by shortening the panel time length, as was shown in Table 4, column COMWeal(2). The development of digital economy takes the vigorous development of digital economy introduced in 2017 as the turning point, and thus the digital economy has entered a new stage of development. Therefore, this paper takes 2017 as the boundary and selects the panel data from 2017 to 2021 for regression and robustness test. Finally, the robustness test is carried out by adding control variables as we see in Table 4, column COMWeal(3). The test results are as follows:

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Table 4 Robustness test

VARIABLES	COMWeal	COMWeal（1）	COMWeal（2）	COMWeal（3）
DIGFin	0.0132***	0.0242***	0.0555***	0.0217***
	(0.00385)	(0.00401)	(0.0118)	(0.00305)
IS	0.0145	0.0466	0.00538	0.0552*
	(0.0416)	(0.0433)	(0.0614)	(0.0302)
GOVReg	0.0782	-0.0604	0.0933	-0.0336
	(0.0608)	(0.0633)	(0.0823)	(0.0453)
DIGInfra	0.00274***	0.00197***	0.00237***	0.00133***
	(0.000371)	(0.000386)	(0.000511)	(0.000302)
Open	0.0156*	0.0248***	0.00363	-0.00542
	(0.00798)	(0.00831)	(0.0118)	(0.00607)
HIEdu	-0.000675	0.00234	0.000334	-0.00123
	(0.00172)	(0.00179)	(0.00254)	(0.00123)
GOVTrans				0.00480
				(0.00406)
HUMCap				0.0112***
				(0.00109)
Constant	-2.299	-4.855***	-13.43***	-3.153***
	(1.557)	(1.622)	(3.945)	(1.172)
Observations	121	121	55	121
R-squared	0.816	0.811	0.818	0.908

Standard errors in parentheses

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

It can be seen that the results of the robustness test support the original conclusion that digital finance promotes the development of common prosperity. The first method of robustness test shows that with the replacement of the common prosperity variable, the result that digital finance promotes common prosperity is also significant. The second method of robustness test shows that after the introduction of the policy of vigorously developing the digital economy, the relationship between digital finance and promoting common prosperity is very significant. It shows that the central government's policy of vigorously developing digital economy has promoted the development of digital finance, and then played a more obvious role in promoting common prosperity, among which the control variable digital infrastructure has played a promoting role. Therefore, the deepening of digital finance development will better promote common prosperity. The third method of robustness test shows that adding control variables and strengthening constraints on the mechanism of action also does not affect the significance of regression results. All three test methods confirm that the conclusion that digital finance promotes the development of common prosperity is robust. It can be seen that the results of the robustness test support the original conclusion that digital finance promotes the development of common prosperity. The first method of robustness test shows that with the replacement of the common prosperity variable, the result that digital finance promotes common prosperity is also significant. The second method of robustness test shows that after the introduction of the policy of vigorously developing the digital economy, the relationship between digital finance and promoting common prosperity is very significant. It shows that the

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4.3. Heterogeneity test

In this paper, the heterogeneity test is used to divide 11 cities according to the total GDP. To a certain extent, the size of GDP reflects the development degree of private economy. In order to illustrate the influence of different control variables on the promotion effect of digital finance on common prosperity in cities with different GDP totals, this paper introduces the interaction term model:

$$\begin{aligned} \text{COMWeal} = {} & \alpha_0 + \alpha_1 DIGFin + \alpha_2 IS + \alpha_3 GOVReg + \alpha_4 DIGInfra + \alpha_5 Open + \alpha_6 HIEdu \\ & + \beta_1 DIGFin * IS + \beta_2 DIGFin * GOVReg + \beta_3 DIGFin * DIGInfra + \beta_4 DIGFin \\ & * Open + \beta_5 DIGFin * HIEdu + \varepsilon \end{aligned}$$

The empirical results are as follows:

Table 5 Heterogeneity test

VARIABLES	COMWeal	COMWeal	COMWeal
DIGFin	0.0494	0.000210	0.0667*
	(0.150)	(0.0154)	(0.0336)
IS	0.521*	-0.0189	0.283
	(0.285)	(0.112)	(0.338)
GOVReg	2.774	-0.721**	-0.146
	(1.758)	(0.351)	(0.269)
DIGInfra	-0.0110***	2.16e-05	-0.00921***
	(0.00259)	(0.00106)	(0.00209)
Open	-0.473**	-0.0204	-0.0483**
	(0.165)	(0.0224)	(0.0183)
HIEdu	0.0295	-0.00302	0.0139***
	(0.0343)	(0.00290)	(0.00453)
c.DIGFin#c.IS	-0.00118	-0.000299	-0.000605
	(0.00154)	(0.000440)	(0.00130)
c.DIGFin#c.GOVReg	-0.0153	0.00358**	0.000112
	(0.00869)	(0.00144)	(0.00113)
c.DIGFin#c.DIGInfra	4.70e-05***	1.65e-06	3.61e-05***
	(1.05e-05)	(3.69e-06)	(7.12e-06)
c.DIGFin#c.Open	0.00174**	5.63e-05	0.000251***
	(0.000636)	(8.60e-05)	(8.48e-05)
c.DIGFin#c.HIEdu	-5.83e-05	1.10e-06	-8.06e-05***
	(0.000195)	(1.18e-05)	(2.21e-05)
Constant	-7.544	11.59***	-11.44
	(26.32)	(3.819)	(9.654)

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Observations	22	55	44
R-squared	0.976	0.947	0.953

Standard errors in parentheses

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

It can be seen that after the introduction of the interaction term, the effect of digital finance on common prosperity has become insignificant from the original significant, and only cities with a GDP of 100 billion to 500 billion are significant at the level of 10%. This shows that at this time, the impact of digital finance on common prosperity depends not only on digital finance itself, but also on the influence of control variables. So, no longer significant is explicable. For cities with different GDP totals, different control variables play different roles in the effect of digital finance on common prosperity. For cities with a GDP of one trillion yuan, digital infrastructure and openness level show strong significance; For cities with 500 billion GDP, it only shows significance in government regulation; For cities with a GDP of 100 to 500 billion yuan, digital infrastructure, openness level and higher education level show strong significance. The possible reason is that for cities with rapid economic development, their digital finance develops rapidly, which is mainly reflected in the digital infrastructure. However, for the cities with medium development level, since the development of all aspects has been steadily carried out, and the government regulation is related to the policy trend and plays a key role in the development of digital finance, it plays a significant role in the promotion of digital finance to common prosperity through the private economy. For cities with relatively underdeveloped GDP of 100 to 500 billion yuan, the digital infrastructure is not perfect and the level of openness is not enough. Therefore, these two factors have obvious late-comer advantages in the development of digital finance, while the level of higher education reflects the level of human capital, which can provide intellectual support for the development of digital finance and has a huge marginal effect. Therefore, digital infrastructure, openness and higher education levels show a significant supporting role in cities with a GDP of 100 to 500 billion yuan. In general, different control variables play different roles in promoting common prosperity through digital finance, mainly because cities with different levels of development have different characteristics of urban development, the role of government policies and the role of the market, showing alienation.

5. Conclusion analysis and policy implications

Through the above empirical analysis, we can see that digital finance has a significant role in promoting common prosperity, and the development of private economy plays an intermediary role in it. Among them, government service, government quality, infrastructure and talent conditions, as influencing factors in the economic environment, are also obvious in the role of digital finance in promoting common prosperity through private economy, but for cities with different development levels, the influencing factors are different. Therefore, for cities with different development levels in other provinces, different policy measures can be taken to make digital finance play a better role in promoting common prosperity through the private economy. Based on the above analysis, we can put forward corresponding policy suggestions from the following aspects.

First of all, further develop digital finance, vigorously develop digital infrastructure, strengthen the construction of 5G and other information infrastructure, improve the convenience of network use, to provide basic conditions for the development of digital finance; Develop preferential financial products, optimize the credit process, strengthen the financing convenience of digital finance; Strengthen the development of online financial services, start from the construction of offline outlets, open up the last axiom for the transfer and payment

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convenience of financial services, and lay a foundation for digital finance to better promote common prosperity.

Secondly, we should vigorously develop the private economy, make the cake of material wealth bigger, and provide better conditions for digital finance to promote common prosperity. Therefore, it is necessary to strengthen the support of digital finance for the development of private economy, mainly in the form of financing convenience and the improvement of financial services. In the development of financing products, in addition to traditional credit business, actively develop international trade financing, capital market service support and other financing services to provide help for the development of private enterprises. In terms of financial services, it provides a full range of services from custody, turnover to profit, facilitating the financial services for enterprise development.

Thirdly, different development measures should be taken for cities with different levels of development. For well-developed cities, we will continue to strengthen the construction of digital infrastructure, while increasing the level of market openness, so as to provide strong impetus for digital finance to promote common prosperity; For medium-level cities, the key is to strengthen government regulation while comprehensively improving the comprehensive governance capacity of the city, so as to guide the benign development of the market; For the cities with relatively backward development, we should vigorously strengthen the construction of digital infrastructure and market opening, and provide conditions for the development of digital finance to promote common prosperity from the objective conditions.

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