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The impact of the "Belt and Road" initiative on the financialization of enterprises

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Abstract: *In this paper, the implementation of the "Belt and Road" initiative is taken as a quasi-natural experiment under the background of the economy "moving from real to virtual". Using the data of Shanghai and Shenzhen stock markets from 2009 to 2020, this paper examines the impact of the Belt and Road Initiative on corporate financialization through the DID model, and conducts the corresponding robustness test. Findings: The Belt and Road Initiative significantly inhibits the financialization level of the target enterprises. Further research shows that the inhibition effect is more obvious in non-state-owned enterprises and enterprises with weak market competitiveness. The research in this paper shows that the "Belt and Road" Initiative plays an important role in guiding real enterprises to "get rid of virtual and return to real", and the research conclusion provides a new perspective for understanding the construction of the "Belt and Road" initiative.*

Keywords: *The Belt and Road Initiative; Enterprise financialization; Nature of property right*

1. Introduction

Affected by many internal and external factors, more and more real enterprises invest a large amount of funds in the financial market rather than the real industry, which makes China's economy show a certain phenomenon of "from real to virtual." Many listed companies seek profits by buying stocks, funds, financial products, financial derivatives and other financial instruments. The financialization of many non-financial enterprises will increase the risk connection between the real economy and the virtual economy, and enhance the possibility of systemic risk, which will lead to the unstable operation of China's macro economy.The rapid development of virtual economy is very likely to lead to related problems in the economic system. Facing the current severe phenomenon, the report of the 19th National Congress of the Communist Party of China clearly pointed out that in order to build a modernized economic system, we must put the focus of economic development on the real economy, take improving the quality of the supply system as the main direction, and significantly enhance the quality advantage of the Chinese economy[1].Therefore, it is of great significance to study the related problems affecting the financialization of enterprises, to discuss, formulate and improve the targeted methods to restrain the financialization of non-financial enterprises and actively guide them to return to the real operation, for preventing and resolving systemic risks and making the economy of our country develop better and more continuously.

Since the Belt and Road Initiative was first proposed in September 2013, the country has made a series of plans to promote its high-quality development and achieved fruitful results. It has become an important platform for China to conduct international economic cooperation and an important measure for China to increase its international influence and further open up to the outside world. At the same time, the "Belt and Road" Initiative encourages Chinese enterprises to "go out" to further strengthen international cooperation, and specially sets up loan policies and provides new financing channels for enterprises, which can alleviate the problem of difficult and expensive financing for listed companies, and thus may reduce the financial asset reserve motivated by savings of enterprises, and thus reduce the level of financialization of enterprises.In addition, the "Belt and Road" Initiative mainly encourages enterprises to invest in the real economy. The joint construction and cooperation of countries along the Belt and Road will also help enterprises to achieve scale effect, further reduce the cost of enterprises, increase their profits, and reduce the profit margin between the investment of real enterprises and financial investment, so as to reduce the investment motivation of enterprises to invest in financial assets in pursuit of excess profit margin[2]. Make the enterprise pay more attention to the value investment and long-term development.In view of the above two situations, this paper tries to use the micro-data of listed companies to test the influence of "One Belt and One Road" on the financialization

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of enterprises through empirical study, which has certain reference value for the further implementation of the going-out policy in China.

This paper collates the panel data of non-financial listed companies in Shanghai and Shenzhen from 2009 to 2020, takes the proposal of the "Belt and Road" Initiative as the standard natural experiment, and constructs a differential model to explore whether the "Belt and Road" Initiative has an impact on the financialization of enterprises. Moreover, it further analyzes the heterogeneity of the Belt and Road Initiative on the financialization of enterprises under different circumstances.

2. Research design

2.1. Sample data

In this paper, all the listed companies in Shanghai and Shenzhen stock exchanges from 2009 to 2020 are selected as research samples, and the initial samples are screened as follows: (1) All kinds of listed companies in the financial and real estate industries are excluded; (2) Remove the samples of related ST companies; (3) Sample observations with missing values in various variables are eliminated. In this paper, data from the Gutai 'an database was used, and finally a total of 25800 companies' year sample observed values were obtained, and the obtained continuous variables were Winsorize by 1% (99%) fractions[3].

2.2. Model setting and variable definition

This paper takes the proposal of the "Belt and Road" Initiative as the scene of natural experiment, and draws lessons from previous studies to judge whether micro-enterprises are affected by the "Belt and Road" Initiative with flush "Belt and Road" concept plate.In order to study the impact of the Belt and Road Initiative on enterprise financialization, the following DID model is constructed for relevant regression:

$$Fin = \beta_0 + \beta_1 Treat_i \times Post_t + \beta_2 Treat_i + \beta_3 Post_t + \sum Controls + \sum Inds + \sum Years + \varepsilon \quad (1)$$

In model (1), Fin is the explained variable, indicating the degree of financialization of listed companies. $Treat_i \times Post_t$ is the core explanatory variable in this paper, and its coefficient represents the impact of the implementation of the Belt and Road Initiative on the financialization of enterprises. This method controlled the fixed difference between the treatment group and the control group through the fixed effect, and controlled the difference caused by the macro environment changes before and after the implementation of the Belt and Road Initiative through the annual fixed effect.Where, coefficient β_1 indicates whether the financialization degree of the underlying companies affected by the "Belt and Road" Initiative changes with the implementation of the "Belt and Road" Initiative compared with the listed companies not affected by the "Belt and Road" Initiative. If the "Belt and Road" Initiative can effectively reduce the behavior of corporate financialization, then β_1 is significantly negative.

In this paper, the proportion of financial assets in total output is used to measure the degree of financialization of enterprises. Financial assets include transactional financial assets, net hold-to-maturity investment, derivative financial assets, net investment real estate and net financial assets available for sale[4]. At the same time, due to the revision of accounting standards in 2017, the measurement of financial assets after 2017 will be added to other debt investment, investment in other equity instruments, debt investment and other non-current financial assets.

This paper selects a series of control variables that may affect the degree of enterprise financialization, including enterprise size, asset-liability ratio, net profit rate on assets, net cash flow from operations, degree of equity concentration, Tobin's Q value, proportion of senior executives' shares, whether the two positions are integrated, and revenue growth rate of main business(Table 1).

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Table 1: Specific definitions of main variables

Variable type	Variable name	Variable symbols	Measurement method
Explained variable	Financialization rate	Fin	Ratio of financial assets to total assets
Dummy variable	Grouping variable	Treat×Post	Treat×Post
	Belt and Road target	Treat	The company is affected by the Belt and Road Initiative，Treat＝1 The company is not affected by the Belt and Road Initiative，Treat＝0
	Staging variable	Post	Year>2013，Post=1 Year<=2013，Post=0
Control variable	Enterprise size	Size	The natural logarithm of total assets at the end of the period is taken
	Asset-liability ratio	Lev	Ratio of total liabilities to total assets at the end of the period
	Net profit rate on assets	ROA	Annual net profit divided by total assets at the end of the period
	Net cash flow from operations	CFO	Ending cash flow from operations divided by total assets at the end of the period
	Degree of equity concentration	diso	Shareholding ratio of the company's largest shareholder
	Tobin's Q value	Q	The ratio of market value to total assets
	Proportion of senior executives' shares	SR	Number of shares held by senior executives as a percentage of total shares
	Whether the two positions are integrated	Dual	The value is 1 if the chairman and the general manager are the same person, and 0 otherwise
	Revenue growth rate of main business	Growth	Current year's main business income minus last year's main business income divided by last year's main business income

3. Empirical analysis

3.1. Descriptive statistics

Table 2 shows the descriptive statistical results of the main variables. The cumulative sample is 25,790 annual observations of companies. The mean value of the financialization rate of listed companies is 3.7%, the minimum value is 0, and the maximum value is 40.1%. It can be seen that the proportion of financial assets varies greatly among listed companies. The standard deviations of Size, Lev, ROA and Growth are 1.247, 0.202, 0.061 and 0.359, respectively, which are basically consistent with the existing literature studies, indicating that the selection of samples is reasonable to a certain extent.

Table 2: Descriptive statistics of main variables

Variable	Sample	Mean	Standard	p25	p50	p75	Max	Min
Fin	25,790	0.037	0.071	0.000	0.008	0.038	0.401	0.000
Size	25,790	22.116	1.247	21.212	21.949	22.826	25.994	19.838
Lev	25,790	0.421	0.202	0.260	0.415	0.573	0.887	0.053
ROA	25,790	0.038	0.061	0.014	0.037	0.068	0.196	-0.248
CFO	25,790	0.050	0.068	0.010	0.048	0.089	0.242	-0.146
Q	25,790	2.086	1.316	1.271	1.665	2.386	8.545	0.869
SR	25,790	0.071	0.137	0.000	0.001	0.066	0.608	0.000
Dual	25,790	0.277	0.448	0.000	0.000	1.000	1.000	0.000
diso	25,790	34.313	14.732	22.810	32.160	44.260	74.000	8.570
Growth	25,790	0.158	0.359	-0.023	0.104	0.260	2.077	-0.542

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3.2. Regression analysis

Among the empirical results in Table 3, columns (1) and (2) are the regression results of OLS, and columns (3) and (4) are the regression results of fixed effects. The coefficient of Treat×Post represents the net effect of the "Belt and Road" Initiative on enterprise financialization. If the coefficient is negative, it means that the "Belt and Road" initiative reduces the degree of enterprise financialization; otherwise, it means that the "Belt and Road" initiative enhances the degree of enterprise financialization. It can be seen that the regression coefficients of Treat×Post are all significantly negative, indicating that after the "Belt and Road" initiative is proposed, compared with the listed companies that are not affected by the "Belt and Road" initiative, the level of financialization affected by the "Belt and Road" initiative decreases.

Table 3: The Belt and Road Initiative and corporate financialization

	(1) Fin	(2) Fin	(3) Fin	(4) Fin
Treat×Post	-0.0068***	-0.0061***	-0.0086***	-0.0080***
	(-3.4350)	(-3.0991)	(-3.6506)	(-3.3859)
Treat	-0.0040***	-0.0013		
	(-2.6321)	(-0.8191)		
Post	0.0038*	0.0015	0.0447***	0.0494***
	(1.6645)	(0.6482)	(26.1609)	(24.1448)
Size		0.0014***		-0.0040***
		(3.0329)		(-4.6419)
Lev		-0.0508***		-0.0277***
		(-16.3376)		(-8.3128)
ROA		-0.0055		-0.0334***
		(-0.5829)		(-4.6710)
CFO		-0.0073		-0.0119**
		(-1.0701)		(-2.0892)
Q		0.0029***		0.0022***
		(5.6528)		(5.8381)
SR		-0.0211***		-0.0305***
		(-5.6613)		(-5.9093)
Dual		0.0017		0.0013
		(1.5055)		(1.2127)
diso		-0.0000		0.0000
		(-0.3013)		(0.6062)
Growth		-0.0056***		0.0011
		(-4.2514)		(1.1699)
Constant	0.0225***	0.0098	0.0102	0.1077***
	(4.3104)	(0.9090)	(0.6597)	(4.4539)
Year and Industry	Yes	Yes	Yes	Yes
Observations	25,790	25,790	25,790	25,790
R-squared	0.1392	0.1584	0.1287	0.1374

Note: The t-value is in brackets; * * *, * * ** Representing 1%, 5% and 10% respectively.

3.3. Further study

3.3.1. Examine the differences in the nature of property rights

Compared with profit-seeking non-state-owned enterprises, state-owned enterprises shoulder more social and economic responsibilities, pursue more non-profit and overall social interests, pay more attention to long-term and real business development, and their own level of financialization will be relatively low.At the same time, with the reform of state-owned enterprises, state-owned enterprises are subject to stricter regulation, relatively high information transparency and governance level. In addition, compared with non-state-owned enterprises, state-owned enterprises are faced with lower financing constraints, so the "Belt and Road" Initiative will have a weaker inhibitory effect on the financialization of state-owned enterprises.In order to investigate the differences of the inhibitions of the Belt and Road Initiative on the financialization of enterprises with different property rights, this paper divides enterprises into non-state-owned enterprises (MN= 0) and state-owned enterprises (MN=1) according

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to property rights, and conducts grouping regression[5]. The regression results are shown in Table 4.It can be found that the regression coefficient of Treat×Post is negative but not significant in the sample of state-owned enterprises (MN=1), while it is negative and significant at the level of 10% in the sample of non-state-owned enterprises (MN= 0). The above results indicate that the "Belt and Road" Initiative has a stronger inhibitory effect on the financialization of enterprises in non-state-owned enterprises.

3.3.2. Examine the differences in competitiveness of different markets

When enterprises are faced with large market competition, they tend to maintain good development in order not to be eliminated by the market. They will pay more attention to the management of funds, consider the long-term interests of the company, and spend more funds on the entity business that can improve the competitiveness of the enterprise. At the same time, they can improve the level of corporate governance and information transparency under the pressure of market competition. It will reduce the proportion of financial assets held by the company. Therefore, compared with enterprises with weak market competitiveness, the "Belt and Road" Initiative will have a weaker inhibitory effect on their financialization.Therefore, according to the Herfender index (HHI index), the larger the value is, the less competitive the market is. Then, according to the median, the samples are divided into two groups: high competitiveness (MP=0) and low competitiveness (MP=1), and the regression is conducted respectively.The regression results are shown in Table 4. It can be found that the regression coefficient of Treat×Post in low-competition (MP=1) samples is negative and significant at the level of 10%. The above results verify that the inhibitory effect of the "Belt and Road" Initiative on corporate financialization is stronger in enterprises with weak market competitiveness.

Table 4: Further analysis

	MN=0	MN=1	MP=0	MP=1
	Fin	Fin	Fin	Fin
Treat×Post	-0.0073*	-0.0036	-0.0096	-0.0059*
	(-1.6869)	(-1.4301)	(-2.5604)	(-1.7422)
post	0.0723***	0.0293***	0.0487***	0.0462***
	(21.3858)	(12.1011)	(15.4961)	(15.4636)
Size	-0.0072***	-0.0040***	-0.0023	-0.0042***
	(-5.9619)	(-3.2124)	(-1.6198)	(-3.2705)
Lev	-0.0335***	-0.0504***	-0.0285***	-0.0298***
	(-4.9033)	(-8.3503)	(-5.4009)	(-6.1541)
ROA	-0.0116	-0.0534***	-0.0281**	-0.0300***
	(-1.2539)	(-4.8503)	(-2.5668)	(-2.8853)
CFO	-0.0123	-0.0169**	-0.0078	-0.0093
	(-1.5717)	(-2.2195)	(-0.8928)	(-1.1273)
Q	0.0021***	0.0008	0.0006	0.0027***
	(4.2476)	(1.4152)	(1.0351)	(5.0086)
SR	-0.0159***	-0.0664*	-0.0208**	-0.0364***
	(-2.7452)	(-1.7569)	(-2.5379)	(-4.9045)
Dual	0.0019	-0.0022	0.0016	0.0004
	(1.3096)	(-1.4265)	(0.9697)	(0.2281)
diso	0.0001*	0.0002***	0.0000	0.0001
	(1.7227)	(2.9069)	(0.1896)	(1.3502)
Growth	0.0010	0.0015	0.0007	0.0005
	(0.8321)	(1.2380)	(0.4822)	(0.3984)
Constant	0.1455***	0.1140***	0.0833**	0.0824*
	(3.5339)	(3.5602)	(2.1514)	(1.7490)
Year and Industry	Yes	Yes	Yes	Yes
Observations	16,089	9,701	12,657	13,130
R-squared	0.1741	0.1159	0.1327	0.1501

Note: The t-value is in brackets; * * *, * * ** Representing 1%, 5% and 10% respectively.

4. Robustness test

In order to verify whether the empirical results are reliable, the following robustness tests are conducted in this paper:

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The Belt and Road Initiative was proposed in September 2013. Considering that the listed companies in 2013 could not confirm whether they were affected by the policy changes of that year, the observed values of 2013 were excluded here. (1) of Table 5 is listed as the corresponding regression results, it can be seen that the coefficient of Treat×Post is still significantly negative, and the effect of "Belt and Road" Initiative on enterprise financialization is still negative and significant.

In order to solve the problem of sample selectivity bias, propensity score matching method is adopted in this paper. The object of "The Belt and Road Initiative" is taken as the experimental group, and other listed companies are taken as the control group. The corresponding control samples are screened out by PSM model.All the control variables in model (1) are added into the logit regression, and according to the calculated propensity score, the target companies and non-target companies of the "Belt and Road" Initiative are matched one-to-one by adopting the method of no put back nearest neighbor.The results are shown in column (2) of Table 5. It can be seen that the coefficient of Treat×Post is still significantly negative, and the conclusion that "One Belt, One Road" initiative reduces enterprise financialization is still robust.

In this paper, the ratio of investment income, net income from changes in fair value and exchange income to operating profit after deducting net income from investment in joint venture and joint venture enterprises is used to measure enterprise financialization index[6].Then, regression analysis is carried out according to model (1), and the results are shown in column (3) of Table 5. The estimated coefficient of Treat×Post is -0.0436 and significant, and the conclusion that the "Belt and Road" initiative reduces the financialization of enterprises is still robust.

Table 5: Robustness test

	(1) Fin	(2) Fin	(3) Fin
Treat×Post	-0.0076***	-0.0058*	-0.0436*
	(-2.8462)	(-1.6531)	(-1.6994)
post	0.0494***	0.0334***	-0.0482***
	(23.2820)	(5.5693)	(-3.8578)
Size	-0.0043***	-0.0029**	-0.0124**
	(-4.6345)	(-2.0586)	(-2.0768)
Lev	-0.0291***	-0.0290***	0.2122***
	(-8.1682)	(-3.8193)	(5.1903)
ROA	-0.0339***	0.0091	-7.1468***
	(-4.4819)	(0.4988)	(-68.5256)
CFO	-0.0113*	0.0003	-0.5944***
	(-1.8485)	(0.0235)	(-6.0449)
Q	0.0023***	0.0000	0.0801***
	(5.7633)	(0.0050)	(15.7451)
SR	-0.0311***	-0.0138	-0.3065***
	(-5.6108)	(-1.0798)	(-7.9619)
Dual	0.0015	-0.0032	0.0043
	(1.2618)	(-1.2640)	(0.3116)
diso	0.0000	0.0001	-0.0022***
	(0.2215)	(1.1733)	(-5.6907)
Growth	0.0011	-0.0002	-0.2408***
	(1.1547)	(-0.1108)	(-13.5623)
Constant	0.1138***	0.0993***	-0.0467
	(4.4249)	(3.2095)	(-0.3761)
Year and Industry	Yes	Yes	Yes
Observations	23,816	2,866	25,778
R-squared	0.1331	0.1265	0.2430

Note: The t-value is in brackets; * * *, * * ** Representing 1%, 5% and 10% respectively.

5. Research conclusions and Enlightenment

This paper takes the proposal of the "Belt and Road" Initiative as a quasi-natural experiment, takes the listed companies in Shanghai and Shenzhen during 2009-2020 as the research object, and uses the DID method to analyze the impact of the "Belt and Road" Initiative on the financialization of

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enterprises. The research results show that the "Belt and Road" initiative significantly reduces the level of financialization of listed companies. Among non-state-owned enterprises and enterprises with weak market competitiveness, the inhibitory effect of the "Belt and Road" Initiative is more significant. Finally, the robustness test of the corresponding results shows that the research conclusion is still valid.

Under the realistic background of capital "shifting from real to virtual", it is of certain practical significance to study the impact of "One Belt and One Road" Initiative on corporate financialization from the perspective of its implementation.On the one hand, under the background of "removing virtual goods and returning real goods", it is possible to further expand opening-up gradually and orderly, encourage enterprises to participate in international economic cooperation projects, and expand the scope of influence of the "Belt and Road" Initiative, so as to guide enterprises to return to the main business of the entity.At the same time, regulators can pay more attention to the excessive allocation of financial assets by enterprises, formulate relevant policies and rules to better regulate and guide financial assets to better serve the real economy, prevent capital "from real to virtual" and the "crowding out" effect of financial assets on real investment, and effectively prevent and defuse major financial risks[7].

References

[1] Zhou Bole, Ge Pengfei, Wu Xiaoxu. Whether the "Belt and Road" Initiative can restrain real enterprises from "moving from real to virtual" [J]. Journal of Guizhou University of Finance and Economics, 2020(05):34-45.

[2] Cao Yue, Liu Zehui, Bai Yu. Implementation of the Belt and Road Initiative and Corporate Financialization Decision [J]. Journal of Finance and Economics, 2021,42(01):70-78.

[3] Ma Delin, Liu Xixing, Xu Jiayu. Business environment, tax incentive and Enterprise innovation [J]. Finance and Accounting Communication, 2022(08):45-50.

[4] Xia Xiaolan, Gao Fanyi, Lai Li. Corporate financialization, Media supervision and financial risk [J]. Financial Forum,2020,25(11):59-68.

[5] Wei Meng, Zhang Yonghong. Outgoing audit of natural resources assets and transformation of resource-based enterprises [J]. Finance and Accounting Monthly,2022(02):98-107.

[6] Ouyang Qian, Cao Shaohua, Liu Lulin. "One Belt, One Road" Initiative and Real Enterprises "Getting out of virtual and returning to real" [J]. Modern Business,2020(26):145-147.

[7] Tao Xiaohui, Qian Shuqiong, Lin Ziang. Capital market opening and enterprise financialization: A quasi-natural experiment based on Shanghai-Hong Kong Stock Connect [J]. Journal of Finance and Accounting, 2021(06):19-23.