The impact of corporate social responsibility on corporate financialization: Evidence from Chinese Stock Market

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Abstract: In recent years, there has been a trend of transforming from substantial to frictions in China's capital flow, and the problem of corporate financialization has become increasingly prominent. The allocation of financial assets largely depends on corporate performance, which can be influenced by the commitment of corporate social responsibility. Using the panel data of Chinese Shanghai and Shenzhen A-share listed companies from 2011 to 2020, this paper empirically tests the impact of CSR on the level of corporate financialization. The results show that, (1) there is a positive correlation between CSR and the level of corporate financialization. The higher the intensity of CSR is, the higher the level of financialization is. (2) The profitability of enterprises plays a negative regulatory role in the positive correlation between CSR and the level of financialization. (3) The positive impacts of CSR on corporate financialization only exists in enterprises with low financing constraints and enterprises owned by the government. The conclusion of this paper has some implications for enterprises to optimize asset allocation and the government to guide the economy for better following the trend of transforming from substantial to frictions.

1. Introduction

In recent years, China's economy has entered a period of new normal, the real economy is showing remained weak, and the financial sector continues to expand. The investment scale and profitability of the real economy are presenting a significant downward trend. On the contrary, the profitability of the financial and real estate industries has always been at a high level due to their own industry characteristics. The huge profit gap between the two makes more and more entity enterprises set foot in the financial and real estate industry, trying to obtain profits in the short term, which shows a trend of transforming from substantial to frictions. Since the 19th CPC National Congress and the central economic work conference, deepening the reform of the financial system and supporting the development of the real economy have become the primary objectives of economic development. Improving the financial services can promote the steady development of economy and society, which plays a positive role in boosting China's real economy. From a micro perspective, the essence of corporate financialization is that the proportion of investment income from financial assets in total income, or the proportion of financial assets held by enterprises in total asset allocation is increasing. There are two motivations for corporate financialization, one is asset saving, and the other is capital arbitrage. Different motivations of financialization have different effects on enterprises. In order to prepare for the future company operation, reduce the financial difficulties caused by insufficient cash flow, and alleviate the future financing constraints, an enterprise tend to hold financial assets or increases the allocation proportion of financial assets, manifested as the "reservoir effect" [26]. On the other hand, in the context of the new economic normal, the profit margin of entity enterprises is declining, and subsequently enterprises, motivated by capital arbitrage, gradually deviate from their primary business and use part of funds to purchase financial assets for profit maximization [30], manifested as the "crowding out effect".

With the rapid development of economy and society into the normalized stage, enterprises must strengthen the practical implementation of social responsibility in the new era [20]. With the help of

CSR, enterprises can achieve their own efficient and healthy advance and obtain various resources needed to maintain development. From the perspective of maximizing the interests of overall stakeholders, CSR will have a positive effect on enterprises, consumers, management and even the whole society. If only from the perspective of shareholders' interests, out of the pursuit of self-interest, shareholders are likely to ignore social responsibility and adopt immoral business behavior for profits. Ignoring the commitment of social responsibility will not only lead to their own business failure, but also do harm to governments and the society.

In view of the above phenomena, this paper will further refine the research content. The first contribution of this paper is to analyze the relationship between CSR and corporate financialization from the micro perspective on the basis of maximizing shareholders' interests. The existing literature mostly focuses on various possible results brought by financialization. For example, the impact of corporate financialization on company value shows an "inverted U-shaped" relationship [18]. The intensity of financialization may be deepened, which can be attributed to the increase of long-term financial assets' allocation, resulting in a rising in debt financing costs [1]. However, there are few literature on the inducing factors of corporate financialization. The second contribution is to analyze whether profitability has a regulatory effect on the correlation between CSR and corporate financialization, which has not been discussed previously. Corporate profitability represents the ability to obtain profits and maintain its operation, which is the focus all parties inside and outside the company paying attention to. For those enterprises with low profitability, there is no excess funds for undertaking CSR, ultimately leading to its poor performance. On the other hand, based on the capital profit seeking theory, with high profitability and a nice development prospect of industrial investment, the enterprise will take the initiative to increase industrial investment, expand the scale and enhance the internal value. This will also affect the allocation of financial assets. Because China is in an important stage of effectively integrating CSR into corporate management practice, the research results will assist the state and government departments to better control the development trend of transforming from substantial to frictions, and also provide political implications.

Entity enterprises having a more comprehensive understanding of financialization, can enable themselves to maintain their own financialization intensity at an appropriate level, actively undertake CSR and optimize the asset structure of enterprises. Taking the A-share listed companies in Shanghai and Shenzhen from 2011 to 2020 as the research sample, this paper discusses the impact of CSR on the level of corporate financialization from the theoretic and empirical perspectives, and analyze whether profitability has a regulatory effect, which enriches the existing literature.

The follow-up content structure of the article is as follows: first, sort out the existing literature, use the relevant conclusions, analyze the effect of CSR on corporate financialization, and put forward the research hypothesis. Second, introduce the data source, variable selection and model setting. Thirdly, based on the empirical analysis of using the data of China's non-financial listed companies from 2011 to 2020, there is a positive correlation between CSR and the level of financialization. Besides, this paper distinguishes the research samples from three perspectives, including corporate financing constraints, property rights and financial backgrounds of CEO, and studies whether there are differences in the impact of CSR on corporate financialization in different situations. Fourth, propose some policy suggestions.

2. Literature Review

2.1. Corporate social responsibility

CSR is an obligation that an enterprise should undertake to safeguard and promote social interests while seeking to maximize the all stakeholder's interests, which is a voluntary activity and a moral concept [44]. The inducing motivation of fulfilling CSR can be divided into two theoretical viewpoints, maximizing the shareholders' interests and maximizing the stakeholders' interests. The theory of maximizing shareholder's interests means that managers must maximize the owner's interests through production and operation according to the owner's aims. CSR can reduce financing constraints, improve investment efficiency, and finally maximize shareholders' interests [33]. However, if the company excessively pursue maximizing shareholders' interests and take it as the primary goal, it will have an adverse impact. First, it is easy for managers to become short-sighted and limited to instant interests. Second, it will damage the rights and interests of minority shareholders. Third, it may cause harm to the interests of other stakeholders. The theory of maximizing stakeholders’ interests refer that the decisions of enterprises must consider the interests of stakeholders or accept their restrictions. The fulfillment degree of CSR reflects the satisfaction level of different stakeholders about activities in the field of CSR, which is important to promote the sustainable development and increases competitiveness [45], as well as improve the welfare of stakeholder groups [47].

CSR is influenced not only by historical culture, national system and economic development level, but also by the nature of enterprises, their own scale and ownership [17]. From the internal perspective of the enterprise, the management and its strategic decision-making are two important factors to promote the long-term and stable development. Research shows that both the stability of the management team [15] and the proportion of returnee executives [18] contribute to the performance of CSR. Appropriate development strategies can enhance the commitment of social responsibility, such as environmentally sustainable development strategy [21]. From the perspective of social factors outside the enterprise, the extent to which the company is valued by the media [14], the rapid development of industry associations [2] and social trust [34] can significantly boost the performance of CSR. Whether an enterprise has the ability to maintain a stable development is the key to its long-term survival in the fierce competitive market. CSR can become an important advantage of enterprise’s growth, and it permeates all aspects of company operations. The great performance of social responsibility can reduce financing costs [31], ease financing constraints [10] and decrease operating risks [41]. Innovation is the soul of an enterprise's the survival and development. Increasing the intensity of social responsibility is of great importance to directly promote the R & D investment [25] and improve the innovation performance [38]. On the premise of keeping enterprise existence, managers are supposed to pursue enterprise profits and value. Generally speaking, enterprises' environmental, social and economic responsibility activities significantly increase the market value [42]. As the production process plays an intermediary role [12], CSR also has a significant positive effect on financial performance [40]. The realization of enterprise value is not only reflected in financial indicators, but also in social evaluation and product market feedback. Undertaking social responsibility can increase the social influence of enterprises and their own brand value [40], and also enhance the performance of product market [11]. Therefore, the essence of enterprises is a social organization, and enterprises are inextricably linked with society. The fulfillment of CSR is conducive to maintaining a good social environment, along with improving social reputation and sustainable development ability of enterprises.

2.2. Corporate financialization

With the development of financial capitalism, a trend of transforming from substantial to frictions has become an important development trend of Chinese real enterprises in recent years. The non-financial sector is more and more inclined to participate in financial activities, which eventually leads to the reduction of physical investment and even the stagnation of growth [48]. A few scholars are concerned that the expansion of financial investment has the characteristics of stage and specificity. For example, after 2012, the existing socio-economic conditions are not enough to support the continuous stable development of the real economy, which gives rise to more social funds flowing to the financial field with high rate of return, manifested as the increase in the share of financial assets [14]. As China is in a critical period of transformation under the background of the new normal economy, corporate financialization is related to the revitalization and development of China's real economy. Macro economy, financial market and other aspects will have an impact on corporate financialization. From the perspective of national macro-control, by limiting bank credit and intervening sources of funds, the macro-prudential policy can restrict the financial investment activities of enterprises [22]. Loose monetary policy may extend the term of credit structure, ultimately inhibiting the financialization of enterprises [26]. From the perspective of some specific policies, local tax policy of accelerating the depreciation of fixed assets can significantly promote the R & D investment and fixed asset investment, guide enterprises to actively invest in the real economy, and reduce the proportion of financial assets [43]. Structural deleveraging policy will reduce the financial investment activities and decrease the level of financialization [4]. From the perspective of market and industry characteristics, corporate financialization can be promoted by the prosperity of financial market and inhibited by the capital intensity of the industry [13]. From the perspective of the enterprise itself, the governance structure is very important. The higher the quality of internal control, the more it can restrict corporate financialization [29]. From the perspective of other external factors, mispricing of stocks caused by investor sentiment, will significantly contribute the level of corporate financialization [35]. Besides, the higher the interaction quality of the exchange's network platform, the lower the degree of corporate financialization [7].

Many literatures have studied the economic consequences of corporate financialization till now, which is divided into positive and negative aspects. Most scholars tend to believe that corporate financialization has brought about more negative effects to corporations. The increase of financial investment activities will dramatically inhibit the improvement of company performance. However, holding short-term financial assets is of advantage to improve enterprise performance, whereas holding long-term financial assets will limit it [16]. Performance forecast, regarded as an important form of information disclosure, is susceptible to corporate financialization [9]. For non-financial enterprises, considering that physical investment is the primary business, the financial stock will have a "crowding out effect" on the current industrial investment [32]. The reduction of primary business activities is not conducive to the sustainable and stable development in the long run. Therefore, the financial risk [37] and bankrupt risk [6] of enterprises will increase. As it is difficult for enterprises to have long-term development only relying on traditional business, innovation can help enterprises break through their own limitations and remain invincible in the market competition. However, the research shows that corporate financialization is likely to inhibit innovation investment by reducing the risk-taking ability [24], and the impact of financialization suitability on innovation investment is in an inverted "U" shape [3]. Non-excessive financialization can alleviate financing constraints and promote innovation, whereas excessive financialization will increase enterprises' dependence on financial profits and inhibit innovation [28].

3. Theoretical Analysis

3.1. Corporate social responsibility and corporate financialization

Considering its own virtuality and high liquidity, financial assets have attracted the participation of many investors, and financial investment along with financing activities are becoming more and more active. Corporate financialization is also a form of capital allocation. Non-financial enterprises are more involved in financial accumulation for the sake of obtaining a large amount of financial income from it [46]. Under the current development background, how to correctly guide enterprises to follow the trend of transforming from substantial to frictions and grasp the appropriate level of financialization is an urgent problem that the government and society want to solve.

An important measurement of internal governance and decision-making is the performance of CSR, which plays an important role in the allocation of financial assets. As one of the most important enterprises' non-financial information, social responsibility can reflect various information such as corporate performance and risk management, which is conducive to reducing the information asymmetry between investors and enterprises [23]. The information barriers between enterprises and financial institutions such as banks have been reduced, and the financing constraints of enterprises have been alleviated. As government is the key to macro market regulation, enterprises that actively undertake social responsibility will receive certain preferential policies such as tax subsidies from the government. Undertaking the social responsibility of consumers enables enterprises to have the stable source of income. Therefore, they will have the opportunity to obtain more resources, including financial capital, consequently improving the level of financialization, which is manifested as the "financial effect" [8]. On the other hand, for maximizing shareholders' interests, when the capital pressure is relieved, managers are prone to use the funds for financial asset investment in order to pursue the realization of shareholders' value and increase shareholders' satisfaction, for maximizing short-term profits and dividends, which significantly intensifies the financialization of enterprises. On this basis, hypothesis H1a is proposed.

H1a: The higher the degree of CSR, the more it promotes corporate financialization, which is manifested as the "boosting effect".

Under the premise of limited resources in reality, enterprises will pay more attention to the contractual relationship between themselves and all aspects of society and social performance in order to maintain their reputation. Enterprises try their best to invest resources in the construction of industrial projects such as product R & D to consolidate the development of primary business, so as to improve the core competitiveness [20]. Out of egoism, managers may use the development resources to fulfill their social responsibilities so that their reputation and social credit can be improved, which will inevitably lead to the reduction of large-scale financial investment and the decrease of corporate financialization. Based on the above analysis, this paper proposes hypothesis H1b.

H1b: The higher the degree of CSR, the more it inhibits corporate financialization, which is manifested as the "inhibitory effect".

3.2. Regulatory effect of profitability

In the context of the new economic normal, the effective demand of the market is insufficient and the production cost is increasing, resulting in a significant reduction in the profit space of industrial investment [27]. A certain amount of financial support is necessary for the implementation of CSR strategy in the highly competitive industry. Therefore, the lack of CSR will cause damage to social reputation and inhibit enterprises from obtaining favorable resources to promote their own development. In order to largely improve the company performance in the short term, enterprises with low profitability choose to acquire considerable profit through financial assets, which in turn deepens the degree of corporate financialization. Since daily profits are enough to help enterprises get development resources and enhance competitiveness, enterprises with high profitability do not need to make profits from financial assets for maintaining their normal operation. Therefore, profitability inhibits financialization level. While restraining the performance of social responsibilities, the profitability reduces reputation and social trust, which deepens the gaps between enterprises and consumers, banks and governments, making it difficult to acquire the funds and resources for long-term development. As a consequence, the funds used for financing activities will also be reduced, reducing the proportion of financial asset. The positive correlation between CSR and corporate financialization is restrained. Based on this, the research hypothesis H2 is proposed.

H2: Profitability inhibits the promoting effect of CSR on corporate financialization.

4. Research Design

4.1. Sample selection and data sources

This paper selects the annual data of all A-share listed companies in Shanghai and Shenzhen from 2011 to 2020 as the research sample, excluding financial listed companies, insurance listed companies, ST companies and companies with missing data. Considering the continuity of sample data, companies listed for less than three years are excluded. As real estate companies belong to quasi financial enterprises, they are also excluded. Relevant data mainly come from CSMAR database and the score of CSR released by Hexun. In order to eliminate the influence of extreme values, this paper shrinks the tail of all variables at the level of 1% and 99%. Finally, a total of 18897 data samples were obtained after processing.

4.2. Variable selection

4.2.1. Corporate financialization

As for the measurement of corporate financialization, this paper uses the proportion of financial assets in the total assets to reflect. With reference to the measurement method of Gu Leilei et al. [46], according to the accounting subjects and statement items of listed companies’ financial statements, this paper selects 12 balance sheet items as the measurement of financial assets, including "trading financial assets", "derivative financial assets", "other receivables", "buying resale financial assets", "non-current assets due within one year", "other current assets", "issuing loans and advances", "available for sale financial assets", "held to maturity investment", "long-term equity investment", "investment real estate" and "other non-current assets". In the robustness test, according to the current accounting standards for business enterprises, "investment real estate" is not included in the scope of financial assets. Therefore, it is removed from the research scope and the financial level is reevaluated.

4.3. Corporate social responsibility

As for the measurement of CSR, this paper uses Hexun's social responsibility score to reflect the performance of CSR. The higher the score, the better the performance of CSR. Hexun.com is one of the institutions that conduct detailed researches on the scoring of listed companies' social responsibility in China at present. By using the social responsibility report and annual report published on the official website of listed companies, and selecting the data required for scoring from five aspects, shareholder responsibility, employee responsibility, supplier, customer and consumer rights and interests responsibility, environmental responsibility and social responsibility, it investigates the performance of CSR, gives different weight ratios to various indicators for different industries, and finally gets the accurate score of CSR, which has a certain authority.

4.3.1. Moderator variable

This paper selects profitability as the moderator variable of the relationship between CSR and corporate financialization, and adopts ROA, the ratio of net profit to average total assets, as the measurement of profitability.

4.3.2. Other control variables

This paper controls the enterprise characteristic variables such as enterprise size, leverage, growth, profitability, book to market ratio and tax. It also controls the two corporate governance variables: ownership concentration and independent director ratio. Definitions of these variables are shown in Table 1.

Table.1. Definitions of variables

Variable name	Variable symbol	Variable description
Corporate financialization	Fin	Financial assets / total assets
Corporate social responsibility	CSR	CSR score of Hexun
Enterprise size	Size	Natural logarithm of total assets
Leverage ratio	Lev	Total liabilities / total assets
Growth	Grow	Growth rate of operating revenue
Profitability	ROA	Net profit / average total assets
Book to market ratio	MB	Total assets / total market value
Tax	Tax	Income tax expense / operating income
Ownership concentration	Shrcr	Shareholding propotion of the largest shareholder
Independent director ratio	Idr	Proportion of independent directors in the board of directors

4.4. Regression model setting

Firstly, in order to verify the hypothesis H1 proposed in this paper, the basic regression model (1) is constructed as follows.

$$Fin_{i,t} = \beta_0 + \beta_1 CSR_{i,t} + \sum Controls_{i,t} + f_i + d_t + \varepsilon_{i,t}$$

Secondly, this paper makes a heterogeneity test, and introduces the intersection term of CSR and profitability on the basis of model (1) to test hypothesis H2, as shown in model (2).

$$Fin_{i,t} = \alpha_0 + \alpha_1 CSR + \alpha_2 CSR \times ROA + \sum Controls_{i,t} + f_i + d_t + v_{i,t}$$

Subscripts i and t represent enterprise and time respectively.

5. Empirical Analysis

5.1. Descriptive statistics

The descriptive statistics of each variable are shown in Table 2. It can be seen that from 2011 to 2020, the mean value of the sample companies' financialization was 0.1343, the minimum value was 0, the maximum value was 0.9650, and the median value was 0.0917, indicating that listed companies in non-financial industries had different degrees of financialization under the new economic normal, and some companies even had excessive financialization. The average value of CSR is 23.0563, the minimum value is -18.4500, the maximum value is 90.8700, and the median value is 21.0900, indicating that there are great differences in the performance of listed companies' social responsibility, and most enterprises fulfill social responsibility badly.

Table.2. Descriptive statistics of main variables

Variables	Number of samples	Mean value	Standard deviation	Minimum value	Median	Maximum value
Fin	18897	0.1343	0.1321	0.0000	0.0917	0.9650
CSR	18897	23.0563	15.3399	-18.4500	21.0900	90.8700
Size	18897	22.3193	1.2889	17.6413	22.1536	28.6365
Lev	18897	0.4241	0.2011	0.0071	0.4186	1.6981
Grow	18897	1.0570	68.1831	-11.6834	0.1319	9290.9110
ROA	18897	0.0383	0.0715	-1.8591	0.0365	0.8156
MB	18897	0.6221	0.2530	0.0082	0.6188	1.4847
Tax	18897	0.0184	0.0511	-3.5045	0.0130	2.0680
Shrcr	18897	0.3390	0.1485	0.0029	0.3173	0.8999
Idr	18897	0.3753	0.0569	0.0000	0.3529	0.8000

5.2. Analysis of empirical regression results

The full sample regression results of the impact of CSR on corporate financialization are shown in columns (1) of Table 3. From the regression results of columns (1), the coefficient of CSR is positive and significant at the level of 1%. This result shows that the more social responsibilities enterprises undertake, the higher the level of financialization is. Hypothesis H1 is proved, demonstrating that CSR does promote corporate financialization. Belonging to the category of morality, CSR is a kind of comprehensive responsibility to society. The better the fulfillment of CSR is, the easier it is for enterprises to acquire a series of resources and funds which are conducive to their operation and development. For maximizing shareholders' value, non-financial enterprises tend to invest more funds in the allocation of financial assets to realize capital arbitrage.

ROA reflects the profitability of enterprises, which directly affects the allocation of financial assets. Therefore, this paper includes the intersection of CSR and ROA to test the impact of profitability on the relationship between CSR and corporate financialization. The regression results are shown in column (2) of Table 3. It can be seen that the coefficient of the intersection is -0.0018, which is significant at the level of 1%. With the increase of ROA, the positive impact between CSR and corporate financialization is weakened, indicating that ROA plays a negative regulatory role and hypothesis H2 is verified. For those non-financial enterprises with high profitability, in that the primary business income is enough to maintain its normal operation, there is no need to obtain additional capital income through financialization, which in turn restricts the increase of financialization caused by CSR.

Table.3. CSR and corporate financialization

Variables	(1) Fin	(2) Fin
CSR	0.0001^{***} (2.7810)	0.0002^{***} (3.6676)
CSR×ROA		-0.0018^{***} (-2.6382)
Size	-0.0022 (-1.2203)	-0.0019 (-1.0624)
Lev	-0.0317^{***} (-4.6400)	-0.0320^{***} (-4.6903)
Grow	0.0000 (-0.1182)	0.0000 (-0.1141)
ROA	-0.1171^{***} (-10.57429)	-0.0815^{***} (-4.6713)
MB	-0.0325^{***} (-6.5220)	-0.0333^{***} (-6.6674)
Tax	-0.0113 (-0.8184)	-0.0108 (-0.7803)
Shrcr	-0.0245^{**} (-2.2584)	-0.0239^{**} (-2.2039)
Idr	0.0459^{***} (2.7173)	0.0462^{***} (2.7346)
c	0.2101^{***} (5.2799)	0.2030^{***} (5.0906)
R-squared	0.7064	0.7065
Obs	18897	18897

Note: *, * *, * * * represent the regression coefficient is significant at the level of 10%, 5% and 1% respectively; () represents the T value of each regression coefficient. The same below.

6. Further Analysis

6.1. Grouping regression

6.1.1. Financing constraints, CSR and corporate financialization

Financing constraints reflect the degree of restrictions faced by enterprises when financing. The degree of financing constraints will have an impact on the allocation of financial assets. Table 4 shows the different effects of CSR on financialization with different degrees of financing constraints. In the high financing constraints group, the coefficient of CSR and is positive but insignificant, whereas in the low financing constraint group it is highly significant at the level of 1%. It is easier for enterprises with good performance of CSR to maintain the good relationship with investors, suppliers, consumers and other market participants, in order to obtain strategic resources for further development and lower financing constraints. Based on the shareholder profit seeking theory, when the financing constraints are low and there are no financial distress, shareholders and managers tend to invest excess funds in financial assets. Therefore, the coefficient of CSR is significantly different between the low financing constraint group and the high financing constraint group.

Table.4. Subgroups with high (low) financing constraints

Variables	High financing constraints (1) Fin	Low financing constraints (2) Fin
CSR	4.51E-05 (0.6360)	0.0002*** (2.6451)
Size	-0.0038 (-1.2058)	-0.0062** (-2.3246)
Lev	-0.0710*** (-6.6451)	-0.0191* (-1.7978)
Grow	1.50E-05 (0.1806)	-2.52E-06 (-0.2996)
ROA	-0.1082*** (-6.7831)	-0.1270*** (-7.9298)
MB	-0.0190** (-2.5211)	-0.0311*** (-4.2574)
Tax	-0.0233 (-1.5614)	0.0182 (0.4773)
Shrcr	0.0258 (1.5041)	-0.0013 (-0.0805)
Idr	0.0890*** (3.1981)	0.0169 (0.7147)
c	0.2437*** (3.5754)	0.2776*** (4.7648)
R-squared	0.7914	0.6937
Obs	9407	9490

Table.5. Subgroups with different property rights

Variables	State-owned enterprises (1) Fin	Non-state-owned enterprises (2) Fin
CSR	0.0003*** (4.3606)	5.67E-05 (0.7272)
Size	-0.0074** (-2.5145)	-0.0083*** (-3.4132)
Lev	-0.0709*** (-6.3919)	-0.0261*** (-2.9410)
Grow	-1.63E-06 (-0.2162)	9.12E-05 (1.1046)
ROA	-0.1365*** (-5.6866)	-0.1027*** -7.8127
MB	-0.0052 (-0.6997)	-0.0283 (-4.1530)
Tax	0.0158 (0.8587)	0.0401* (1.6770)
Shrcr	0.0149 (0.9469)	-0.0126 (-0.8223)
Idr	0.0189 (0.8711)	0.0633* (2.5784)
c	0.3230*** (5.0393)	0.3275*** (6.1802)
R-squared	0.7895	0.6731
Obs	7271	11626

6.1.2. Nature of property rights, CSR and corporate financialization

There are differences between state-owned and non-state-owned enterprises in regards of governance structure, market pressure, corporate culture, manager characteristics and so on. In this paper, all samples are divided into these two groups. The regression results are shown in Table 5. The coefficient of social responsibility is only significant at the level of 1% in state-owned enterprises. As undertaking social responsibility is the unshirkable mission of state-owned enterprises, they perform better social responsibility compared with non-state-owned enterprises. Under the control of the state, enterprises owned by the government actively implement various policies, laws and regulations issued by the government, making its performance of social responsibility much greater, which eventually leads to the increase of financialization.

6.1.3. Financial backgrounds of CEO, CSR and corporate financialization

The CEO is the helmsman of the enterprise, mastering the development direction and making corresponding strategic management at different stages. The CEO also determines the allocation of financial assets to a great extent. Therefore, studying the CEOs' background characteristics is of great significance to corporate financialization. The CEO's financial work experience will have an impact on the decision-making. CEOs having financial backgrounds will enhance their self-confidence, reduce the financing constraints, and then promote corporate financialization [5]. Table 6 shows the subsample regression results based on financial backgrounds of CEO. The results show that in the group CEO with financial backgrounds, the coefficient of CSR is only significant at 10 % level, but not in the group CEO without financial backgrounds. The possible explanation for this phenomenon is that compared with those who do not have financial backgrounds, CEOs with financial backgrounds know more about the needs of financial institutions such as banks, which can effectively alleviate the problem of resource asymmetry between the two sides. Therefore, the company can have a relatively loose financial investment environment. On the other hand, while improving the performance of social responsibility, enterprises have a looser market environment, which greatly reduces the possibility of facing financial distress. As a result, enterprises will have more funds for financial investment, giving rise to a higher level of financialization. However, on the whole, there is no significant difference in the impact of CSR on corporate financialization between financial backgrounds of CEO.

Table.6. Subgroups of CEO with (without) financial background

Variables	CEO with financial backgrounds (1) Fin	CEO without financial backgrounds (2) Fin
CSR	0.0001* (1.8212)	0.0002 (1.6334)
Size	-0.0067*** (-2.8881)	0.0041 (1.0002)
Lev	-0.0417*** (-4.7537)	0.0002 (0.0125)
Grow	-4.05E-07 (-0.0426)	-0.0003** (-2.2214)
ROA	-0.1261*** (-9.3498)	-0.0207 (-0.8647)
MB	-0.0343*** (-5.4980)	-0.0131 (-1.2869)
Tax	-0.0145 (-0.9985)	-0.0181 (-0.2660)
Shrcr	-0.0294** (-2.1323)	-0.0317 (-1.3440)
Idr	0.0342 (1.6382)	0.0390 (1.0991)
c	0.3279*** (6.4823)	0.0352 (0.3972)
R-squared	0.7375	0.7666
Obs	12996	5901

6.2. Robustness test

6.2.1. Change the way financial assets are measured

According to the current accounting standards for enterprises, "investment real estate" does not belong to the scope of financial assets. Therefore, this paper changes the measurement method of financial assets above and removes "investment real estate" from the measurement range. Using "trading financial assets + derivative financial assets + other receivables + financial assets bought for resale + noncurrent assets due within one year + other current assets + loans and advances + financial assets available for sale + held to maturity investment + long-term equity investment + other non-current assets / total assets", this paper can get a more accurate level of corporate financialization and make regression. The regression results are shown in column (1) of table 7. The results show that after changing the measurement method of financial assets, the estimation coefficient of CSR is still significant and positive, which is consistent with the above conclusion. The conclusion is robust.

6.2.2. Subsample regression

Considering that the international financial crisis in 2007 has had a certain effect on the economic development of all countries in the world, the investment and financing activities of China's real enterprises are also influenced. The impact of the financial crisis on China did not basically disappear until 2012. Therefore, this part excludes the data from 2012 and before, and only selects the data from 2013 to 2020 as the research sample. The results of re-regression are shown in column (2) of table 7, which are consistent with the above conclusion. The research conclusion of this paper is robust.

Table.7. Robustness test

Variables	Changing the way financial assets are measured	Subsample regression (2)
	Fin	Fin
CSR	0.0001^{**}	0.0001^{***}
	(2.5121)	(2.6084)
Size	0.0045^{**}	-0.0074^{***}
	(2.5577)	(-3.4694)
Lev	-0.0415^{***}	-0.0441^{***}
	(-6.2969)	(-5.6393)
Grow	-7.36E-06	-3.75E-06
	(-0.8678)	(-0.4261)
ROA	-0.1092^{***}	-0.1102^{***}
	(-10.211)	(-9.5618)
MB	-0.0357^{***}	-0.0128^{**}
	(-7.4009)	(-2.2676)
Tax	-0.0191	-0.0177
	(-1.4251)	(-1.1909)
Shrcr	-0.0264^{**}	-0.0079
	(-2.5190)	(-0.6181)
Idr	0.0653^{***}	0.0382^{**}
	(4.0032)	(2.0371)
c	0.0484	
	(1.2591)	
R-squared	0.6889	
Obs	18897	

6.3. Endogenous test

The above proves that CSR will affect corporate financialization, but it is also possible that corporate financialization will have a reverse effect on CSR, implying that there may be an endogenous problem of reverse causality. This paper adopts the two-stage least square method and selects the first-order lag term of CSR as the instrumental variable, so as to solve the endogenous problem. According to the regression results in Table 8, the estimated coefficient of CSR is significant at the level of 1%, and there is a positive correlation between CSR and corporate financialization, which confirms the effectiveness of the results.

Table.8. Endogenous test

Variables	Endogenous test Fin
CSR	0.0009*** (2.7910)
Size	-0.0028 (-1.2268)
Lev	-0.0477*** (-6.1026)
Grow	-2.95E-06 (-0.3385)
ROA	-0.1105*** (-9.5948)
MB	-0.0220*** (-3.6996)
Tax	-0.0163 (-1.1364)
Shrcr	-0.0126 (-1.0016)
Idr	0.0454** (2.4527)
c	0.2069*** (3.9772)
R-squared	0.7283
Obs	16393

7. Research Conclusions

Under the background of the gradual decline of the profit margin of the real economy and the maintenance of the return on financial assets at a high level, the development trend of transforming from substantial to frictions of real enterprises is growing day by day, and the investment and financing activities in finance are significantly increasing. This paper selects the non-financial companies listed in Shanghai and Shenzhen A shares from 2011 to 2020 as the research sample to empirically analyze the impact of CSR on corporate financialization. The study found that, (1) CSR plays a role in promoting corporate financialization. (2) Corporate profitability has a negative regulatory effect on the positive correlation between CSR and corporate financialization, meaning that profitability inhibits the positive correlation between them. (3) The promotion of CSR only exists in enterprises with low financing constraints and enterprises owned by the government.

The research conclusion of this paper also has certain practical significance. In the context of the real sector being weak and the financial sector expanding, non-financial enterprises are likely to speed up the pace of transforming from substantial to frictions for pursuing interests. In the long run, financialization is not conducive to the companies' development. Firstly, governments should offer more support to small and medium-sized enterprises, provide subsidies for enterprises which actively undertake CSR, and promote enterprises to fulfill their due social responsibility to a higher extent. Secondly, enterprises should enhance their ability to evaluate their own future development. An appropriate level of financialization is conducive to not only easing financing constraints, but also acquiring considerable financial benefits. In addition, enterprises should also actively undertake social responsibility, improve the internal governance structure and increase the competitiveness of sustainable development in the future.

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