

The Study on the Impact of the New Third-board Firms Transfer Listing on Financial Flexibility

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Abstract: The transfer and listing of enterprises on the New Third-board is one of the specific reform policies in the capital market in China. As the third-board enterprises are small and medium-sized as well as start-ups, they have a greater need for money, and the policy of restricting their issuance and listing has seriously constrained the financing channels of these enterprises. After the reform, third-board enterprises can apply for transferring to the board for listing after one year of listing and meeting the requirements of the exchange, and do not need to be approved by the China Securities Regulatory Commission. This study wants to use a comprehensive index to examine the financial results of this behavior. Financial flexibility is an important indicator to measure the ability of enterprises to raise funds, and it is appropriate to use it to test the comprehensive effect of the behavior of enterprises. This study selects a sample of 127 firms around 2022 and conducts a difference-in-difference model on their transfer to public listing, obtains the conclusion that transferring to public listing reduces the financial flexibility of firms in the short term, and analyzes the attribution of this result from a theoretical point of view. Finally, this study gives some suggestions for firms that engage in such listing behavior to improve their financial robustness.

Keywords: New Third-board, List, Transfer, Financial Flexibility.

1. Introduction

China's New Third-board market originated from the old Third-board, the "Equity Transfer System", which initially served the transfer of securities of de-listed companies, and in 2006, the board began to take over the trading of shares of unlisted companies, bringing transparency and liquidity to the shares of these relatively small enterprises.

Transfer listing refers to the act of a company transferring its shares for issuance to the stock exchange after satisfying the listing requirements of the exchange. Since stock listings face scrutiny and constraints from multiple parties, such as regulators and exchanges, the issuance and transfer of a company's stock to the stock exchange was not an easy task in the past, especially in China, where financial policies are relatively robust.

The transfer listing policy discussed in this study refers to an announcement by the Shanghai Stock Exchange in February 2021 on the administrative measures for transferring the Third-board to the Second-board [1] after the CSRC issued a guideline on transferring listings [2]. Following the release of this policy, the BSE issued a similar announcement on the transfer of listings [3]. This announcement stated that companies that have been continuously listed on the New Third-board for

more than one year and have met other requirements such as the number of shareholders and the number of shares can apply for listing on the exchange's the Second-board. Since this action does not involve the issuance of new shares, no registration process is required.

This policy will theoretically be more favorable for both financing and development of enterprises. Trading in a more liquid market facilitates firms' access to relatively more stable external financing at lower costs. Nevertheless, this study wants to verify empirically whether firms that choose to implement this strategy actually derive these benefits from it. In order to use a single indicator to measure the combined changes suffered by the sample firms, this paper has chosen to measure the indicator of financial flexibility. The financial flexibility indicator selected in this paper is obtained by compounding the cash, leverage, and external financing factors as defined in [4], and the definition and calculation of the variables are described in detail in the next chapter.

Some studies have also tested the results from both theoretical and empirical perspectives regarding how the transfer of listings on the Third-board will specifically affect firms. While transferring listings is an attempt to transition from the approval system to the registration system, implying a move towards a freer and more liquid market, the current market mechanism may magnify the loopholes of the registration system [5]. Insufficient reforms and still facing constraints in transferring listings is also a potential problem [6,7]. Empirical studies, on the other hand, show that firms transfer listing may have improved financing ability [8] and efficiency [9], but there may also be some negative effects [10].

This study will use data from firms that engage in the act of switching boards for listing around 2022 to test the impact of this strategy on the financial flexibility of firms using a double difference model, with a view to evaluating this behavior empirically. The findings of this study can provide references and suggestions for policymakers, market investors, and potential listed firms, and provide examples for further optimization of relevant market policies in the future.

2. Methodology

2.1. Model Construction

In this study, the enterprises transferring from The New Third-board to The Second-board during 2019 to 2022 are taken as the experimental group, and the enterprises without transferring are taken as the control group. The DID method is used to study the role of enterprises' transferring on the financial flexibility, and the following DID model is constructed by taking the enterprises without transferring on The Third-board as the control group:

$$FF_{i,t} = \alpha_0 + \alpha_1 \text{Treat}_i \times \text{Time}_t + \alpha_2 \text{Treat}_i + \alpha_3 \text{Time}_t + \alpha_4 \text{Control}_{i,t} + u_{i,t} \quad (1)$$

In the above model, $FF_{i,t}$ is an explanatory variable indicating the indicator of firm financial resilience of firm i in year t , Treat_i is a treatment group dummy variable, and Time_t is a treatment effect period dummy variable, the definitions of which are specified in the next section. $\text{Treat}_i \times \text{Time}_t$ is the DID interaction variable used to estimate the effect of transferring, and $\text{Control}_{i,t}$ are control variables. Subscripts i and t stand for firm-specific and year-specific, respectively. $u_{i,t}$ is the random error term. α_1 is the estimated coefficient of greatest interest here, and its economic implication in this model is the effect of transferring on the financial flexibility of each firm.

2.2. Data Descriptions and Variable Definitions

This study selects the New Third-board enterprises that transferred listing and the New Third-board that did not transfer listing in China from 2019 to 2022, excludes the enterprises in the financial industry as well as the samples with missing and abnormal financial data, and some of the missing

data are supplemented by manual collection. The data were obtained from CSMAR database, and the main data processing and analyzing software was Stata 17.

The explanatory variable of this study, financial flexibility, is a composite indicator that is calculated from the financial data of several firms. There are multiple ways to measure financial flexibility in different empirical studies, and both highly composite indicators and relatively simple measures exist [11,12]. As mentioned earlier, this paper mainly refers to the composite method used in Wang Li's article.

In this measure, the financial flexibility FF will be compounded by six variables from three indicators. These three indicators are the cash indicator, the leverage indicator, and the external financing cost indicator. The cash indicator consists of three variables, which are cash holdings, ROA (which represents cash generating capacity) and earnings per share. The leverage indicator includes two variables, which are unused debt raising ability and cash-to-debt ratio. Here, the unused debt raising ability is calculated in this study using the formula $1 - \text{asset-liability ratio}$ to simplify the operation. The external financing cost indicator is measured using the Z-value, where the larger the Z-value, the better the financial soundness of the firm. The Z-value is calculated by the formula $Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + X_5$, where: $X_1 = \text{working capital/asset}$; $X_2 = \text{retained earnings/asset}$; $X_3 = \text{EBITDA/asset}$; $X_4 = \text{market value of stock/liability}$; and $X_5 = \text{revenue/asset}$.

Explained variables compounded by multiple indicators may have serious multicollinearity, so this paper uses principal component analysis (PCA) for dimensionality reduction. PCA is a statistical analysis method that transforms the original multiple variables containing repetitive information into a smaller number of composite indicators through linear transformation. Use Stata 17 for analysis to perform the following operations:

(1) Perform the Bartlett test, the result is $p=0$, there is a significant correlation between variables, suitable for analysis.

(2) Factor analysis was performed using the PCA command, and a total of two factors were extracted with a cumulative variance contribution of 47% and 74%, respectively.

(3) Use the predict command to calculate the principal component scores F_1 and F_2 , and calculate the composite score FF according to Equation below, which serves as a proxy for the firm's financial flexibility.

$$FF = (0.4718 \times F_1 + 0.2701 \times F_2) / 0.7420 \quad (2)$$

The explanatory variable in this study is a DID variable to refer to the behavior of transferring to the Second-board in the companies. It is represented in the model by $\text{Treat} \times \text{Time}$. Where Treat represents whether or not a company has made a transfer, and the value of Treat is 1 for firms that were transferred and 0 for those that are not; time is a time variable, and this value is 0 until a firm makes a switchboard listing and 1 for those that are not; therefore, the value of $\text{Treat} \times \text{Time}$ is 1 only after a firm that has finished transferring.

Since the explanatory variable of this paper, financial flexibility FF, is already a highly composite indicator, the logarithm of equity capital, stock, and asset-liability ratio, Lev, are selected as control variables.

Table 1: Variable Definition

	Variable name	Symbol	Description
Explained variable	Financial flexibility	FF	Combined indicator
Explanatory variable	DID variables	Treat	Whether transferred company
		Time	Whether after transferred

Table 1: (continued).

		Treat x Time	
Control variable	Equity capital	Stock	ln (equity capital)
	Asset-liability ratio	Lev	Liability/Asset

2.3. Results

In this study, regression analysis of panel data is conducted using DID model to validate the model 2. The regression results are shown in Table 2.

Table 2: Results

Variable	FF (1)	FF (2)	FF (3)
Treat×time	-0.745** (0.351)	-0.554** (0.238)	-0.625** (0.294)
Treat	0.851*** (0.248)	0.312*** (0.189)	
Time	-0.603*** (0.139)	-0.735*** (0.097)	
Stock		0.095*** (0.062)	0.511 (0.634)
Lev		-4.569*** (0.266)	-1.338 (1.347)
Constant	2.84*** (0.098)	6.327*** (1.212)	-7.757 (12.191)
R-squared	0.148	0.612	0.904

Note: ***, **, * represent coefficients that are significant at 1%, 5% and 10% significance levels, respectively.

The first column of Table 2 reports the variable names, and column FF (1) reports the OLS parameter estimates of model (1) without controlling other variables. It can be seen that the coefficient of the Treat×Time term is -0.745 and is significant at the 5% level, i.e., the transferring behavior reduces the financial flexibility of the firms by 0.745. Considering that the regression model in the column FF (1) may suffer from the problem of omitted variable bias, this paper introduces the logarithm of equity capital stock and the gearing ratio Lev as control variables.

Column FF (2) reports the re-estimated parameters of model (1) controlling for the above variables. It can be seen that, at this time, the coefficient of Treat×Time term is -0.554 and is significant at the 5% level, reflecting that the switching behavior of the New Third-board firms makes the financial flexibility of enterprises decrease by 0.554, and the coefficient decreases compared with that of the regression without control variables, indicating that the control variables have an optimizing effect on the model; as for the control variables, the coefficient of logarithm of equity capital (stock) term is 0.095, significant at the 1% level, indicating that for every 1% increase in equity capital, the financial flexibility of the enterprise increases by 0.095; the coefficient of the term of gearing ratio (Lev) is -4.569, significant at the 1% level, indicating that for every 1% increase in gearing ratio, the financial flexibility of the enterprise decreases by 4.569.

Column FF (3) reports the replacement of the Treat and Time terms with individual fixed effects and time fixed effects, at which point the coefficient of the Treat×Time term is -0.625 and is

significant at the 5% level, showing that the transferring behavior of these firms reduces the financial flexibility of the firms by 0.625. The regression results in this column can indicate that the findings of the present study are somewhat robust.

2.4. Discussion

The empirical study finds that a firm's transferring listing operation reduces the firm's financial flexibility in the following short term. In order to analyze this result, this study starts from the metrics of financial flexibility in this model. According to the definition of financial flexibility, there is a positive correlation between financial flexibility and cash indicators, and a negative correlation with leverage indicators and external financing cost indicators. After transferring, enterprises tend to expand their business scale and increase their balance sheet in order to expand their business to a larger market in the future. Financing and investing in plant, office space and equipment is a quicker thing to do, while the actual increase in production and sales and reflecting them in profits will take some time, which will lead to a decrease in the enterprise's cash indicator. On the other hand, after the transfer of enterprises to the board has gained a higher degree of attention, which is conducive to the enterprises to carry out financing, the enterprises will increase their own bank loans or the issuance of corporate bonds, which will lead to an increase in the leverage ratio of the enterprises. In addition, the incomplete reform of the approval system to the registration system mentioned in the previous article will systematically restrict the vitality brought to enterprises by the listing operation of the transfer board. Incomplete reforms may expose enterprises to additional regulatory pressures when submitting applications for transferring, and these regulatory pressures force enterprises to spend more resources on responding to the regulators, which may be reflected in the remuneration paid to financial, legal and consulting institutes, as well as some adjustments that have to be made to the accounting books.

3. Conclusion

In this study, 127 firms are selected to construct a quasi-natural experiment, and the DID method is applied to investigate the role of whether to transfer boards on the financial flexibility of listed firms from 2019 to 2022, respectively. Through the study, it is found that the transferring operation of the New Third-board listed firms will reduce the financial flexibility of firms in the following short-term time. And this trend is influenced by the firm's own equity capital and the firm's gearing ratio. The study shows that the reason for the decrease in financial flexibility of firms after transferring is, on the one hand, that firms use the cash they hold for expanding the scale of production; on the other hand, enterprises utilize their unused debt-lifting capacity to increase their liabilities and improve their debt leverage.

There are some degrees of shortcomings in this study. The first is due to the fact that this study only intercepts the data of the transferring firms between 2019 and 2022, and there is insufficient research on its long-term development. The long-term impact of the transfer plate on the financial flexibility of firms needs the data of subsequent years as a supportive study. Secondly, this study only collected the data of firms transferring to the Second Board, and does not intercept the data of enterprises transferring out to the Main Board. Whether the difference between different levels of market has an impact on the financial flexibility of enterprises is not discussed in this study.

Based on the research in this paper, the following suggestions are made:

First, improvement of the market registration system reform would be important. China is about to implement the registration system reform in all capital markets, and should improve the construction of supporting facilities in the market from all aspects, including improving the information disclosure requirements of listed companies, improving the audit and registration

procedures, and strengthening the supervision and enforcement as well as investor protection. Thorough reforms will bring the capital market into full play more effectively.

Second, firms should do a good job of capital management and maintain a moderate degree of financial flexibility. Enterprises can start from the following aspects to maintain financial flexibility: formulating a flexible financial budget, maintaining a flexible capital structure, flexible investment planning, and flexible profit distribution. Enterprise financial planning cannot be completely accurate, to retain adjustable margins can be avoided to make the enterprise into a financial crisis.

Third, individual investors and institutional investors should strengthen the supervision of enterprise financial risk and improve the internal and external risk supervision mechanisms. The interaction of multiple participants can better help the development of the enterprise.

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