The impact of reverse mixed reform on long-term investment with short-term financing of non-state-owned enterprises

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Abstract. This research investigates the influence of reverse mixed ownership reform on the long-term investment and short-term financing of non-state-owned enterprises listed in Shanghai and Shenzhen A-shares from 2007 to 2022, with a focus on equity structure adjustment strategy. The findings suggest that reverse mixed ownership reform has a significant negative impact on the level of long-term investment with short-term financing in non-state-owned enterprises, as evidenced by robustness tests such as PSM and instrumental variable method. Additionally, further exploration indicates that this relationship may be affected by easing limitations in financial resources and reducing agency costs. Analysis of heterogeneity reveals that the effect of reverse mixed reform on long-term investment with short-term financing is more remarkable in small firms and weakly regulated financial regions. These insights offer a fresh perspective for understanding behavior in investment and financing activities while strengthening the theoretical basis for corporate risk management and strategic decision-making.

Keywords: Reverse mixed reform, Long-term investment with short-term financing, Limitations in financial resources, Governance effect, Resource effect.

1. Introduction

The national government is firmly in favor of state-owned shareholders participating in non-state-owned companies and actively promoting reverse mixed ownership reform. In 2023, several government departments issued "Several Opinions on Deepening the Reform and Development of Non State-Owned Enterprises and Promoting the Healthy Development of Mixed Ownership Economy," emphasizing how significant it is to diversify equity and promote mixed ownership reform to inject new vitality into non-state-owned enterprises and improve their financing environment.

In addressing the common practice of using short-term loans for long-term investments in non-state-owned enterprises, obtaining sufficient long-term loan support is challenging due to imperfect governance structures and limited information disclosure. This practice has a noticeable impact [1]. From a financial analysis perspective, this approach not only strengthens the enterprise's capital base but also optimizes its capital structure, enhances debt-paying ability, profitability, laying a solid financial foundation for sustainable development [2]. Existing literature primarily focuses on analyzing financial indicators in the company while neglecting the strategic impact of equity structure adjustments. Corporate strategic decisions significantly influence the behavior in the whole company. Therefore, it is essential to study how reverse mixed-ownership reform can transform the financing strategies of non-state-owned enterprises, particularly in promoting their transition towards a stable financing model.

This article's potential contribution lies in supplementing current research on factors influencing short-term lending and long-term investment behavior. This study perspective deepens theoretical insights into the relationship in corporate strategic decision-making while providing strong theoretical support and empirical evidence for establishing a more comprehensive enterprise risk prevention system. This discovery offers effective strategic pathways for non-state-owned enterprises to reduce

financial risks by providing reference frameworks and strategic inspiration for achieving stable operation amid complex market environments with high-quality development opportunities.

2. Literature Review

When privately-owned businesses face challenges in securing external funding, they must decide whether to pursue long-term or short-term financing strategies. Opting for short-term financing to support long-term investments involves borrowing funds for a shorter period, which typically comes with higher risk.

Previous studies have explored the factors influencing the use of short-term financing for long-term investments in privately-owned businesses from both internal and external perspectives. Internally, a company's reliance on short-term loans for long-term investment is linked to its business model, lifecycle, executive behavior, and family control among shareholders. Ye classifies privately-owned enterprises as either offensive or defensive entities [3], indicating that offensive enterprises are more inclined towards developing high-risk, high-yield new products and services. Additionally, Wang and Liu argue that banks tend to offer long-term loans to state-owned enterprises while providing short-term loans to non-state-owned enterprises in order to mitigate agency risks arising from information asymmetry [4]. Shen suggests that reducing executive holdings in companies can worsen the trend of using short-term financing for long-term investment by creating negative expectations among investors [5]. Zhong believes that family businesses with a higher proportion of family control will experience more severe term mismatches. Externally, the completeness of the capital market and social trust play significant roles in influencing long-terms investments supported by short-terms finances [6]. According to Sun's research findings, due to an imperfect capital market, it becomes challenging for such markets to provide long-terms loans for non-state-owned enterprises; consequently leading companies opt for short-terms loans as their source of funding for longer term investments [7]. Furthermore, informal institutions' social trust can effectively alleviate instances where short-terms loans are used for longer term investments; this effect is even more pronounced under a robust legal system. Research conducted by Zhang et al. indicates that interest rate liberalization can significantly reduce maturity mismatch within companies [8], as lifting loan ceilings can substantially increase banks' willingness to provide long-terms loans.

3. Research hypothesis

Restructuring the ownership framework of privately-held businesses by strategically integrating state-owned capital through equity transfer, capital infusion, and share expansion can enhance corporate standing, ease financial limitations, broaden funding channels, and tackle financing discrepancies. This strategy also enables firms to make more informed investment choices, reduce agency expenses, and mitigate the impact of short-term financing on long-term investment behavior through improved oversight and governance.

3.1. Resource effects

Compared to private enterprises, state-owned businesses have shown more attractiveness in the financial market because of their government ownership. When private and state-owned companies are in similar situations, banks and other credit institutions are more prone to offer long-term loan support to state-owned enterprises. Moreover, small and medium-sized businesses with limited visibility often encounter obstacles in the financing process due to a lack of transparency in information disclosure. This creates challenges for investors to overcome the perception that "small businesses are high-risk investments," leading to reduced interest and willingness to invest in such enterprises, thereby worsening their financing difficulties [9]. In cases where companies face significant financing constraints, they tend to choose short-term loans and long-term investments as a strategy for managing financial pressure. Therefore, part of the reason behind selecting this

investment is the limited options available for enterprise financing, compelling them to choose methods that meet their funding needs. By reducing financing constraints, there can be a decrease in companies' inclination towards seeking mismatched maturity financing methods.

3.2. Governance effects

The issue of conflicts between shareholders and creditors in privately-owned enterprises, combined with their adoption of aggressive investment strategies, could exacerbate the situation where long-term investments are funded by short-term financing. Shareholders in private companies may engage in asset substitution behavior to maximize profits, using borrowed funds for projects with higher risks and returns. This has led to an increase in credit risk associated with financing, resulting in conflicts of interest between creditors and shareholders that trigger agency problems. To address default risk, creditors are likely to request shorter debt terms and higher interest rates.

Reverse mixed ownership reform aims to optimize governance, alleviate agency problems, improve the investment and financing structure of non-state-owned enterprises, and mitigate the risk associated with short-term loans and long-term investments. State-owned shareholders participate in this reform to strengthen internal control mechanisms, enhance market confidence, optimize equity structure, reduce agency costs, and facilitate the stable long-term development of enterprises.Based on this, the following assumptions are proposed:

H1: Reverse mixed ownership reform effectively alleviates short-term loans and long-term investments for enterprises.

H2: The reverse mixed-ownership reform of non-state-owned enterprises brings resource effects and alleviates short-term loans and long-term investments for enterprises.

H3: The reverse mixed-ownership reform of non-state-owned enterprises brings governance effects and alleviates short-term loans and long-term investments for enterprises.

4. Research Design

4.1. Sample selection and data sources

This study has selected non-government-owned publicly traded companies in the Shanghai and Shenzhen A-share markets as the initial research sample from 2007 to 2022. The selection process is based on the comprehensive implementation of new accounting and auditing standards since 2007. To maintain consistency between old and new accounting and auditing standards, this study uses 2007 as the starting point for research. Additionally, specific criteria are applied to screen the sample: (1) ST and *ST listed companies are excluded; (2) Sample observations of listed companies in the financial industry are also excluded; (3) Companies without a shareholding ratio of state-owned legal persons are excluded to ensure validity of results; (4) Short-term loans used as long-term investments in non-state-owned enterprises with negative indicators will be treated as zero to verify their relationship with reverse mixed reform; (5) All continuous variables undergo a 1% winsorization process to eliminate outliers. Ultimately, 5387 valid samples were obtained from the CSAMR database for this study."

4.2. Variable definition

The variable SFLI represents the gap in long-term funding, used to evaluate the reliance on short-term financing for long-term investment by businesses. Following Zhong Kai approach [6], we calculate SFLI.

The primary explanatory variable STAEQ indicates enterprises' level of reverse mixed reform. Drawing on Cheng's practices [12], we select a measure that sums up state-owned capital holdings among privately owned listed companies' top 10 shareholders to gauge state-owned capital participation levels.

Consistent with existing research, this paper introduces variables such as return on assets (ROA), company size (SIZE), asset-liability ratio (LEV), TobinQ, etc., as control variables while also

controlling for industry and annual fixed effects. Table 1 provides specific definitions of relevant variables discussed in this paper.

Table.1. Variable Definition

Name	Symbol	Description
Short-term loans used as long-term investment	*SFLI*	[Cash outflows from investment activities (such as acquiring and building fixed assets) - (increase in long-term loans during the current period + increase in equity during the current period + net cash flow from operating activities during the current period + cash inflow from selling fixed assets during the current period)]/Total assets of the previous period.
Reverse mixed reform	*STAEQ*	The sum of the shareholding ratios of Chinese state-owned shareholders among the top ten shareholders of private listed companies
Return on assets	*ROA*	Net profit / Total assets
Size	*SIZE*	Natural logarithm of total assets of listed companies
Liability on asset ratio	*LEV*	Total liabilities / Total assets
Growth opportunities	*TobinQ*	Total market value / Total assets
Current asset income ratio	*RCAI*	Current assets / Total revenue
Institutional shareholding ratio	*INST*	Total number of shares held by institutional investors / Circulating share capital

4.3. Empirical Model

To verify the relationship between the dependent variable (SFLI) and the independent variable (STAEQ), this paper designs the following empirical research model (1):

$$SFLI_{i,t} = \propto_0 + \propto_1 STAEQ_{i,t-1} + \sum Controls_{i,t-1} + \sum Industries + \sum Years + \varepsilon_{i,t-1} \quad (1)$$

Among these, SFLI serves as the dependent variable for assessing the extent of short-term loans utilized as long-term investments, while STAEQ is the primary explanatory variable used to gauge the level of reverse mixed reform among the non-state-owned enterprises. The Controls represent corresponding all control variables. The specific details of these variables are outlined in Table 1. Industries and Years account for industry and year effects. A significantly negative result would indicate that reverse mixed reform exerts a specific inhibitory influence on the practice of using short-term loans for long-term investments, thus supporting hypothesis H1.

5. Empirical results

5.1. Descriptive statistical results

The presented table displays the descriptive statistics results for the primary variables. The average value of SFLI is 0.025, with a standard deviation of 0.058. The minimum and maximum values are 0 and 0.308, indicating significant variations in short-term loan and long-term investment levels across different businesses. The mean (median) state-owned shareholding ratio (STAEQ) is reported as 1.288 (0), with a standard deviation of 3.236, ranging from 0 to 19.37, suggesting that while some non-state-owned enterprises exhibit substantial reverse mixed reform, there remains an overall need to enhance the degree of reverse mixed reform among non-state-owned enterprises in China.

Table.2. Descriptive Statistical Results

VARIABLE	N	MEAN	SD	MIN	P25	P50	MAX
SFLI	18807	0.025	0.058	0	0	0	0.308
STAEQ	18807	0.013	0.032	0	0	0	0.194
ROA	18807	0.041	0.071	-0.298	0.017	0.044	0.212
SIZE	18807	21.700	1.035	17.810	20.960	21.580	27.010
LEV	18807	0.371	0.186	0.050	0.220	0.359	0.834
TobinQ	18807	2.217	1.381	0.926	1.367	1.769	8.887
RCAI	18807	1.355	0.986	0.245	0.745	1.087	6.284
INST	18807	0.349	0.248	0.001	0.122	0.321	0.881

5.2. Correlation analysis results

Table 3 displays the Pearson correlation coefficients for the variables, indicating a negative correlation between SFLI and STAEQ. This result implies that a rise in the state-owned equity shareholding ratio contributes to a decrease in the use of short-term loans for long-term investment, thereby offering initial support for the original hypothesis. The absolute values of the correlation coefficients among the explanatory variables are all below 0.5, suggesting an absence of multicollinearity issues in this model.

Table.3. Correlation Coefficient Table

	SFLI	STAEQ	ROA	Size	LEV	TobinQ	Rcai	INST
SFLI	1							
STAEQ	-0.01	1						
ROA	-0.568***	-0.017**	1					
Size	-0.104***	0.087***	-0.019***	1				
LEV	0.109***	0.050***	-0.337***	0.421***	1			
TobinQ	-0.014*	-0.005	0.155***	-0.276***	-0.191***	1		
Rcai	0.104***	0.017**	-0.168***	-0.115***	-0.193***	0.041***	1	
INST	-0.061***	0.135***	0.143***	0.247***	0.095***	0.093***	-0.092***	1

Note: * , **, * ** Significant at the 1%, 5%, and 10% levels respectively.

5.3. Regression result analysis

The outcomes presented in Table 4 illustrate the outcomes of regression analysis concerning non-state-owned enterprises' utilization of short-term loans, long-term investments, and reverse mixed reform. The initial three columns of the table display the regression results without fixed effects, with fixed effects controlled for in years, and with double fixed effects in years and industries. Upon adjusting for year, industry, and other control variables, a statistically significant relationship at the 1% level is observed between two variables when all other factors are held constant.

The regression findings indicate a negative association between long-term investment with short-term financing and variables such as return on assets (ROA), company size (Size), and asset liability ratio (LEV), which aligns with real-world economic trends. As companies expand their operations and enhance their reputation within society, they tend to diversify their financing methods for funding purposes. Furthermore, higher asset return rates and asset-liability ratios correspond to

increased profitability and liquidity for companies while diminishing their inclination towards financing short-term loans used as long-term investment.

Table.4. Regression Results

VARIABLES	(1) SFLI	(2) SFLI	(3) SFLI
STAEQ	-0.015*** (-2.661)	-0.016*** (-2.890)	-0.015*** (-2.673)
ROA	-0.737*** (-57.990)	-0.749*** (-59.651)	-0.746*** (-58.981)
SIZE	-0.079*** (-13.139)	-0.051*** (-8.163)	-0.053*** (-8.350)
LEV	-0.048*** (-6.158)	-0.050*** (-6.364)	-0.043*** (-5.084)
TobinQ	0.068*** (5.701)	0.146*** (11.815)	0.143*** (11.269)
RCAI	-0.082* (-1.954)	-0.093** (-2.230)	-0.058 (-1.257)
INST	0.044*** (8.168)	0.030*** (5.561)	0.031*** (5.758)
Constant	1.705*** (12.936)	1.055*** (7.803)	1.323*** (8.582)
Observations	18,803	18,803	18,803
R-squared	0.342	0.363	0.364
Year FE	NO	YES	YES
Industry FE	NO	NO	YES

Note: The values in parentheses are t. * , **, * ** Significant at the 1%, 5%, and 10% levels respectively.

6. Robustness test

6.1. Change the fixed effects method

Due to specific economic, policy, or socio-cultural backgrounds, non-state-owned enterprises in different areas may choose varied investment strategies. In order to account for potential biases and validate model assumptions, this section will classify the regions of non-state-owned enterprises. By incorporating "time-industry-provinces" fixed effects alongside the original "time-industry" fixed effects in the statistical model, we aim to reduce potential influence from unobservable regional factors on the empirical regression results. As indicated in Table 5 (1), the regression findings continue to show significant negative impact at the 1% level.

6.2. Subsample regression method

During the period of economic instability from 2007 to 2008, market confidence was visibly affected, resulting in tighter credit conditions. In response, the central bank implemented various measures such as reducing interest rates and adjusting reserve requirements to stabilize market expectations. Studies have shown that these monetary policy changes significantly restricted long-term investment with short-term financing for non-state-owned enterprises [6]. Non-state- owned enterprises increasingly depended on short-term funding for their long-term investment needs during this crisis. Subsequently, in 2015, turbulence in the stock market obstructed financing for non-state-owned enterprises, leading them to once again adopt aggressive short-term loan and long-term investment strategies to bridge the funding gap. To address these dynamics, this study excludes data from 2007 and 2008 and conducts regression analysis based on model (1). The results are presented in

Table 5 (2) and continue to show significant negative effects at the 1% level. Furthermore, data from 2007, 2008, and 2015 is excluded to further mitigate risks associated with long-term investment using short-term financing due to stock market volatility. Regression analysis based on model (1) yields results shown in Table 5 (3), which also demonstrate significant negative effects at the 1% level.

6.3. Propensity score matching method (PSM)

When considering the connection between the utilization of short-term loans for long-term investments in privately-owned businesses and the influence of Reverse mixed reform, it is important to acknowledge that these enterprises have independent decision-making authority. They can choose whether to participate in reverse mixed reform or use short-term loans for long-term investment based on their specific operational circumstances, market conditions, strategic planning, and other factors. This may potentially introduce bias into the research findings due to self-selection. To address this issue, this study employs propensity score matching and 1:1 nearest neighbor matching to pair privately-owned enterprises that participated in reverse mixed reform with those that did not. A total of 8694 observations were gathered, and the regression results are detailed in Table 5 (4). The regression outcomes consistently display significant negative effects at the 1% level. Additionally, a 1:2 nearest-neighbor matching approach was utilized to expand the control group size and enhance data robustness. Privately-owned enterprises involved in Reverse mixed reform were matched with those that were not, resulting in a total of 12487 observations; these regression results also exhibit notable negativity at the 1% level.

Table.5. Results of the robustness test

	(1)SFLI	(2)SFLI	(3)SFLI	(4)SFLI	(5)SFLI
STAEQ	-0.015***	-0.016***	-0.020***	-0.022***	-0.025***
	(0.006)	(0.006	(0.006)	(0.008)	(0.008)
Constant	1.327	1.345	1.346	1.287	1.586
Control Variable	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
Province FE	Yes	No	No	No	No
Observations	18803	18321	17308	8694	12487
R-squared	0.364	0.368	0.378	0.334	0.339

Note: The values in parentheses are standard errors. * , **, * ** Significant at the 1%, 5%, and 10% levels respectively.

6.4. Instrumental variable method

In benchmark regression, despite including multiple control variables, there may still be unaccounted factors influencing decisions on reverse mixed reform and the utilization of short-term lending as well as long-term investment behavior. These unaccounted factors, such as changes in macroeconomic conditions and regulations, could introduce bias when estimating the relationship. The results of the regression indicate that state-owned shareholders' shareholding effectively constrains long-term investment with short-term funding. This implies a preference for utilizing long-term funds to support long-term investments, thereby reducing debt pressure and financial risks while enhancing financial stability for enterprises. Additionally, it is suggested that the limited utilization of short-term loans for long-term investment by enterprises may promote state-owned shareholders' shareholding, leading to a reverse causal relationship bias.

To tackle endogeneity issues on account of omitted variables and reverse causality bias, we utilized the industry average of the degree of reverse mixed reform (excluding our company) as an instrumental variable to resolve endogeneity problems. The results from Table 6 demonstrate this

approach's effectiveness in addressing these issues through instrumental variable regression analysis. In column (1), STAEQ-IV serves as an instrumental variable for short-term loans used for long-term investment with a coefficient of 0.023 and significant correlation at the 1% level with STAEQ—meeting essential conditions related to instrumental variables' endogeneity selection process.

Furthermore, when considering column (2), even after controlling for endogeneity issues through this methodological approach, it remains evident that state-owned equity holdings significantly suppress long-term investment with short-term financing at a 1% significance level.

Table.6. Results of instrumental variable regression

VARIABLES	(1) STAEQ	(2) SFLI
STAEQ_IV	0.023*** (3.486)	
STAEQ		-0.015*** (-2.607)
Constant	-2.680*** (-5.947)	1.323*** (9.130)
Observations	18,803	18,803
F-statistic	15.71	261.97
R-squared	0.040	0.364
Control Variable	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

Note: The values in parentheses are t. * , **, * ** Significant at the 1%, 5%, and 10% levels respectively. The same is below.

7. Further research

7.1. Mechanism analysis

To further explore the mechanism of reverse mixed reform on short-term loans used as a long-term investment, we will examine it from the following two aspects:

7.1.1 Resource effect

This article proposes that the implementation of reverse mixed reform in private enterprises can alleviate financing constraints and mitigate the impact of short-term financing on long-term investment by influencing resource efficiency. The study cites Kaplan's research [13] and utilizes the KZ index as a proxy variable to assess corporate debt financing constraints. Following empirical analysis, the regression results are presented in Table 7, first column. The findings reveal that the STAEQ coefficient is -0.016, demonstrating statistical significance at the 1% level, demonstrating that reverse mixed reform has reduced non-state-owned enterprises' financing constraints. This discovery supports the idea that reverse mixed ownership reform diminishes reliance on short-term loans and promotes long-term investments by easing corporate financing constraints, thereby confirming hypothesis H2.

7.1.2 Governance effect

This article examines the second category of agency cost as a mediating factor. The calculation of the second type of proxy variable is based on Luo's research, where it is determined as the ratio of other receivables to total assets [14]. After conducting empirical analysis, the regression results are displayed in the second column of Table 7. The outcomes display that the coefficient for STAEQ is -0.013, indicating significance at a 1% level and suggesting that reverse mixed reform reduces the second type of agency cost. This finding provides evidence for hypothesis H3 by showing that reverse

mixed ownership reform alleviates short-term loans and long-term investments through reduction in agency costs.

Table.7. Mechanism Analysis

VARIABLES	(1) KZ	(2) Agency Cost
STAEQ	-0.016***	-0.013***
	(-3.341)	(-2.924)
Constant	0.931***	-0.731***
	(7.264)	(-4.764)
Observations	18,803	18,772
R-squared	0.634	0.154
Control Variable	YES	YES
Year FE	YES	YES
Industry FE	YES	YES

7.2. Heterogeneity analysis

This passage studies the influence of reverse mixed reform on short-term loans used as a long-term investment under different external environments. It conducts grouped testing based on enterprise size, economic policy uncertainty, and financial development level.

7.2.1 Company size

The article classifies the sample into two groups based on company size: larger and smaller. Smaller companies often face challenges in securing adequate funding through traditional channels due to their limited resources, leading them to frequently turn to short-term financing for long-term investments. Compared with larger companies, smaller ones have less resilience against financial risks and are more susceptible to business challenges when market conditions change or funding sources become scarce. Additionally, involving state-owned shareholders also brings advanced management expertise and governance models that can optimize internal governance structures, enhance operational efficiency, make more informed decisions, better plan fund utilization, and prevent unreasonable financing practices. To find the effects of company size on long-term investment with short-term financing, the study divided the sample companies into two groups. The results are presented in Table 8.

Table 8 illustrates how state-owned shareholders affects long-term investment with short-term financing across different enterprise sizes. In smaller companies, there is a significant coefficient of -0.030 between SFLI and STAEQ at a 1% significance level, manifesting that the entry of state-owned shareholders into smaller non-state-owned enterprises plays a significantly more important function than in larger non-state-owned enterprises.

7.2.2 Regional Financial Regulation

This article categorizes sample into two groups based on the degree of financial regulation in different regions. In areas with strict financial regulation, companies may encounter more limitations on utilizing short-term loans for long-term investment owing to stringent policies and market norms. Conversely, enterprises in regions with less rigorous financial regulation may face a more relaxed regulatory environment and challenges in securing financing, leading to a common practice of using short-term financing for long-term investments. The introduction of state-owned shareholders through reverse mixed reform can establish new funding channels, optimize the funding structure, and reduce agency costs for businesses. In regions with weaker financial regulation, the positive effects of reverse mixed reform may be more pronounced due to existing financing challenges and management deficiencies. Therefore, for companies operating in regions with weak financial regulations, the impact of reverse mixed reform on alleviating long-term investment using short-term

financing will be more evident. This study conducted regression analysis by categorizing the sample into two groups to examine how different levels of financial regulation in various regions affect long-term investment using short-term financing. The regression results are presented in Table 8.

Table 8 illustrates influence between two variables. In regions with weaker levels of financial supervision, there is a statistically significant coefficient -0.022 between SFLI and STAEQ. This suggests that non-state-owned enterprises subject to less stringent financial oversight by state-owned shareholders have a greater influence on mitigating the utilization of short-term loans as long-term investments compared to non-state-owned enterprises in areas where corporate financial supervision is stronger.

Table.8. Heterogeneity Analysis

VARIABLES	(1) Large Size	(2) Small Size	(1) Strong Regulation	(2) Weak Regulation
	SFLI	SFLI	SFLI	SFLI
STAEQ	-0.006	-0.030***	-0.013	-0.022**
	(-0.474)	(-3.252)	(-1.288)	(-2.236)
Constant	2.005***	1.452***	1.211***	2.285***
	(4.456)	(4.846)	(4.987)	(7.366)
Observations	9,397	9,387	9,255	9,546
N	2,207	1,780	2,175	2,342
R-squared	0.3178	0.4321	0.3559	0.3765
Control Variable	Yes	Yes	Yes	Yes
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

8. Research Conclusion and Implications

This research discovered that implementing reverse mixed reform effectively addresses the issue of long-term investment with short-term financing for businesses limitations in financial resources and reducing agency costs. This paper offers a comprehensive analysis of how businesses can better manage financial risks, debt pressure, and the impact on sustainable development resulting from long-term investment with short-term financing in an open economy. The following policy implications are suggested:

The government should optimize fund allocation and debt structure, reduce financing constraints on private enterprises primarily by decreasing intervention in financial market resource allocation, implementing structural tax cuts and fee reductions, and adjusting loan spreads to stabilize and support enterprises' long-term investments while alleviating the prevalence. Simultaneously, government needs to enhance financial regulation, particularly in areas with weak regulation, to promote private enterprises' adoption of reverse mixed ownership reform, maximize policy effectiveness, and diminish the chaos associated with short-term loans and long-term investments.

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