Analysis of the impact of dual-platform listing on the profitability of household appliances enterprises

Zibo Su *

International School, Zhengzhou University, Zhengzhou, China

* Corresponding Author Email: szb20060830@stu.zzu.edu.cn

Abstract. Against the backdrop of the two-way opening of the capital market and intensified global competition in the household appliances industry, dual-platform listing has become an important strategic choice for leading enterprises to optimize their capital structure. This paper takes listed companies in the A-share household appliances industry from 2005 to 2025 as a sample, and uses the pooled OLS regression method to empirically test the impact of dual platform listing on the return on equity (ROE) of these enterprises. The study found that the ROE of dual-platform enterprises is significantly higher than that of firms listed solely on A-shares, by about 4.70 percentage points on average. The profit-enhancing effect is more pronounced in large home appliance enterprises and high-growth enterprises, whereas no significant effect is observed in small and medium-sized enterprises (SMEs) and low-growth enterprises. Further analysis indicates that dual-platform listing enhances corporate profitability by reducing financing costs, improving corporate governance, and enhancing the quality of information disclosure. After replacing the dependent variable and excluding the shocks from special years, the conclusions remain robust. The study provides micro empirical evidence for household appliances enterprises to use cross-border capital platforms to enhance long-term value, and also provides policy reference for regulators to improve the interconnection mechanism.

Keywords: Dual-platform listing, Return on Equity, Household Appliance industry, Pooled OLS.

1. Introduction

Under the new development pattern of global supply chain restructuring and "double circulation", China's household appliances industry has shifted from scale expansion to high-quality development. According to the data of the China Household Appliances Association in 2025, the total export volume of China's household appliances industry exceeded 2.5 trillion yuan, an increase of 9.3% over the same period last year, of which the number of enterprises with overseas revenue accounting for more than 60% of total revenue increased nearly threefold compared with a decade ago. [1]. In this context, leading enterprises represented by Haier Zhijia and Midea Group have successively landed on the Hong Kong stock exchange, marking the accelerated period of "A+H" dual platform listing [2]. By the beginning of 2025, more than 7 enterprises in the A-share household appliances industry had started or completed the H-share listing plan, involving a market value of more than a trillion yuan. According to the existing academic research, the economic consequences of cross-border cross-listing have always been the focus of capital market research. Roll, an early foreign scholar, put forward the "segmentation theory" that listing companies in multiple jurisdictions helped reduce the cost of capital [3]; Stulzand Doidge further confirmed that dual-listed companies can obtain a "high-quality governance premium" [4.5]. In domestic research found that dual listing alleviated corporate financing constraints and improved investment efficiency based on empirical evidence of A+H-share listed companies in China [6]; Qin Jiaqi and Liu Jianming pointed out that cross-border dual listing did not bring significant performance improvement [7]. In recent years, Tong Yan and others have investigated the impact of cross-listing on enterprise innovation investment [8], and Liu Rui and Wang haoxuan have tested the advantages of AH share cross-listed companies from the perspective of green innovation [9]. However, special research on profitability (such as ROE) is relatively scarce, and the existing literature is mostly mixed samples of the whole industry, lacking in-depth analysis of the capital intensive subdivision of household appliances [10].

Based on the above background, this paper aims to take the A-share household appliances industry listed companies from 2005 to 2025 as a sample to empirically test the impact of dual-platform listing on the return on net assets (ROE) of enterprises, and to examine the moderating effect of enterprise size and growth. On this basis, the following three research hypotheses are put forward:

Hypothesis H1: Dual platform listing significantly improves the return on net assets (ROE) of household appliances enterprises.

Hypothesis H2: The effect of dual platform listing on profitability is more significant in large enterprises, but not in small and medium-sized enterprises.

Hypothesis H3: The positive impact of dual platform listing on the profitability of high-growth enterprises is stronger than that of low-growth enterprises.

In this paper, the pooled OLS regression model is used for a benchmark test, and the samples are divided into the treatment group (Haier Zhijia, Midea Group and other late listed enterprises in Hong Kong) and the control group (household appliances enterprises that are always listed only in shares). By comparing the ROE differences between the two groups of enterprises, the economic effects of dual platform listing are identified. At the same time, grouping heterogeneity analysis is carried out according to the median size of enterprises and industry growth, and robustness tests such as replacing explained variables and excluding shocks in special years are carried out.

The contribution of this paper is mainly reflected in three aspects: Firstly, from the perspective of profitability rather than the traditional perspective of corporate value, to provide a measure closer to shareholder returns; Secondly, focus on the household appliances industry and reveal the unique dual platform listing effect heterogeneity of the industry; Thirdly, combined with the latest dual-platform listing cases in recent years (such as the H share listing of Midea Group in 2024), the research conclusions have more realistic explanatory power, and provide micro empirical evidence for household appliances enterprises to use cross-border capital platforms to enhance long-term value [11].

2. Study design

2.1. Sample selection and data sources and variable definitions

Table 1. Variable definitions

Variable type	Variable name	symbol	Definitions and calculations
Explained variable	Return on equity	ROE	Total net profit/owner's equity
Core explanatory variable	Dual-platform enterprise	Dual	The treatment group or always double platform group was 1, and only the A- share control group was 0
control variable	Enterprise size	Size	Natural logarithms of total assets
	Asset liability ratio	Lev	Total liabilities/total assets
	Return on total assets	ROE	Net profit/total assets
	Ability to grow	Growth	(operating income of the current year - operating income of the previous year)/operating income of the previous year
	Cash flow ratio	Cashflow	Net cash flow from operating activities/total assets
	Proportion of fixed assets	FA	Net fixed assets/total assets

This paper selects listed companies in Shanghai and Shenzhen A-share household appliances industry from 2005 to 2025 (Shenwan industry classification level 3: white household appliances, black household appliances, other household appliances) as the initial sample. The data comes from the RESSET financial research database. After excluding the observation values of ST and * ST enterprises and a serious lack of financial data, the unbalanced panel data set, including Haier Zhijia,

Midea Group, Hisense household appliances, Sanhua intelligent control and other representative enterprises,is finally obtained. According to the listing time of H shares of enterprises, the samples are divided into treatment groups (Haier Zhijia, H shares listed in 2020; Midea Group, H shares listed in 2024) and the control group (household appliances enterprises listed only in A shares). In the benchmark regression, the above two groups were combined into "dual-platform enterprises" (dual=1) and the control group was recorded as "A-share enterprises only" (dual=0). All continuous variables were tailed at 1% and 99% quantiles to eliminate extreme value interference. Table 1 shows the variable definitions.

2.2. Model setting

In this paper, the pooled OLS model is used for benchmark regression:

$$ROE_{i,t} = \alpha + \beta_1 Dual_i + \gamma_1 Size_{i,t} + \gamma_2 Levi_{i,t} + \gamma_3 ROE_{i,t} + \gamma_4 Growth_{i,t} + \sum \delta_t Year_t + \varepsilon_{i,t} \quad (1)$$

In the benchmark pooled OLS regression model, the subscript i indexes individual firms and t indexes years. ROEi,t is the dependent variable (Return on Equity), and α is the constant term. β1 is the key coefficient of interest, capturing the net effect of dual-platform listing (Duali) on ROEi,t; a positive and statistically significant β1 supports Hypothesis H1. The coefficients γ1 to γ4 correspond to the control variables Sizei,t, Levii,t, ROEi,t, and Growthi,t, respectively. Yeart denotes the year dummy variables (with coefficients δt), which absorb common time-varying shocks such as macroeconomic fluctuations. εi,t is the idiosyncratic random error term

The heterogeneity analysis adopts grouping regression method: according to the median enterprise size and the median operating income growth rate, the whole sample is divided into two groups: large/small and medium-sized enterprises and high growth/low growth enterprises, which are substituted into the benchmark model for regression. By comparing the coefficient size and significance level in different sub-samples, the hypotheses H2 and H3 are verified respectively

3. Empirical results and analysis

3.1. Descriptive statistics

Figure 1 reports descriptive statistics for the main variables. The average ROE is 0.187 and the standard deviation is 0.142, indicating that the profitability of sample enterprises is moderate. The average ROE of the double platform group was 0.221, which was significantly higher than that of the control group of 0.169. From the time series point of view, the ROE of dual-platform enterprises has been higher than that of A-share enterprises only since 2015, especially after the listing of Haier Zhijia H shares in 2020, which is consistent with the judgment of the existing literature on the "governance effect lag" of cross-listing.

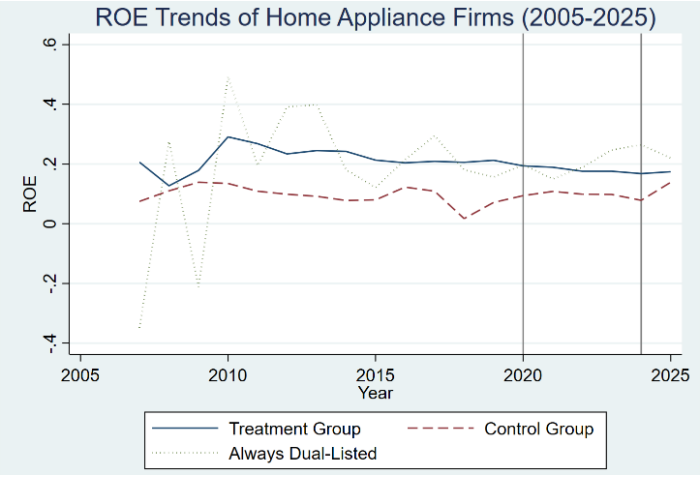

Fig. 1 ROE trends of home appliances firms (2005-2025)

3.2. Benchmark regression results

Table 2 reports the baseline OLS regression results. After controlling for enterprise size, asset liability ratio, return on assets, growth capacity, cash flow ratio and year fixed effect, the coefficient of dual is 0.047, which is highly significant at the 1% statistical level (t=3.23, p<0.01), which means that the ROE of dual-platform enterprises is about 4.70 percentage points higher on average. The results intuitively support hypothesis H1, indicating that there is a robust correlation between dual platform listing and the improvement of economic returns. From the perspective of control variables, the LEV coefficient is 0.163 (P<0.01), indicating that moderate debt leverage helps to enhance ROE; The ROE coefficient is 2.210 (P<0.01), reflecting the high transmission effect of asset profitability on shareholder returns; The growth coefficient is positive but not significant, which may be affected by cyclical fluctuations in the industry.

Table 2. Benchmark Regression Results of Dual-Platform Listing on ROE

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		m_large	m_small	m_highgrowth	m_lowgrowth	m_highlev	m_lowlev
VARIABLES	ROE	ROE	ROE	ROE	ROE	ROE	ROE
Dual	0.047***	0.039**		0.042***	0.046*	0.027	0.003
	(0.015)	(0.016)		(0.012)	(0.024)	(0.018)	(0.005)
Size	0.001	0.006	-0.005	0.001	0.000	-0.000	-0.001
	(0.003)	(0.005)	(0.008)	(0.002)	(0.006)	(0.005)	(0.001)
Lev	0.163***	0.131***	0.176***	0.240***	0.086*	0.197**	0.167***
	(0.026)	(0.048)	(0.029)	(0.022)	(0.047)	(0.077)	(0.018)
ROA	2.210***	2.261***	2.150***	2.188***	2.175***	2.778***	1.605***
	(0.108)	(0.158)	(0.170)	(0.128)	(0.157)	(0.161)	(0.090)
Growth	0.032*	0.075***	0.016	0.030	0.134**	0.033	0.012*
	(0.017)	(0.026)	(0.022)	(0.020)	(0.060)	(0.032)	(0.007)
Constant	-0.118*	-0.207**	0.007	-0.158***	-0.138	-0.138*	-0.053*
	(0.065)	(0.105)	(0.167)	(0.046)	(0.133)	(0.084)	(0.027)
Observations	971	514	457	486	485	494	477
R-squared	0.794	0.794	0.806	0.853	0.771	0.826	0.932

Robust standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

3.3. Analysis of heterogeneity

According to the data analysis in Table 3, grouping by enterprise size: According to the median of total assets, the dual coefficient in the large household appliances enterprise group is 0.039 (p<0.05), and the virtual variables in the small and medium-sized enterprise group are automatically excluded due to a too small sample size (only a few dual platform small enterprises). This shows that the dividends of dual platform listing benefit more large leading enterprises with a certain scale foundation and anti-risk ability, which supports hypothesis H2.

Grouping by growth: according to the median growth, the dual coefficient in the high growth group was 0.042 (p<0.01) and the dual coefficient in the low growth group was 0.046 (p<0.10).

Although the two directions are consistent, the significance of the high growth group is stronger, suggesting that the dual platform listing has a stronger effect on the earnings of growth enterprises, which is in line with the expectation of hypothesis H3.

Table 3. Heterogeneity Analysis of Dual-Platform Listing on ROE (By Enterprise Size and Growth)

	(1)	(2)	(3)	(4)
	m_large	m_small	m_highgrowth	m_lowgrowth
VARIABLES	ROE	ROE	ROE	ROE
Dual	0.039**		0.042***	0.046*
	(0.016)		(0.012)	(0.024)
Size	0.006	-0.005	0.001	0.000
	(0.005)	(0.008)	(0.002)	(0.006)
Lev	0.131***	0.176***	0.240***	0.086*
	(0.048)	(0.029)	(0.022)	(0.047)
ROA	2.261***	2.150***	2.188***	2.175***
	(0.158)	(0.170)	(0.128)	(0.157)
Growth	0.075***	0.016	0.030	0.134**
	(0.026)	(0.022)	(0.020)	(0.060)
Constant	-0.207**	0.007	-0.158***	-0.138
	(0.105)	(0.167)	(0.046)	(0.133)
Observations	514	457	486	485
R-squared	0.794	0.806	0.853	0.771

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.4. robustness test

In order to ensure the reliability of the conclusion, three robustness tests are carried out in this paper. The results are shown in Table 4. When ROE was replaced by ROE, the dual coefficient was still positive and highly significant (0.033, P<0.01), and the direction was consistent with the original results. Second, excluding the year of the global financial crisis in 2008, the year of the four trillion stimulus in 2009 and the first year of the COVID-19 epidemic in 2020, the regression results show that the dual coefficient is 0.052 (P<0.01), and the conclusion is further strengthened. Thirdly, the replacement model estimation method: the fixed effect model was used to replace the pooled OLS for regression, and the dual coefficient decreased slightly to 0.038 but remained significant, indicating that the problem of missing variables did not pose a substantial threat to the conclusions of this study.

Table 4. Robustness Test Results of the Benchmark Regression

	(1)	(2)	(3)
	m_base	m_rob1	m_rob2
VARIABLES	ROE	ROA	ROE
Dual	0.047***	0.033***	0.052***
	(0.015)	(0.005)	(0.011)
Size	0.001	0.004**	0.000
	(0.003)	(0.002)	(0.003)
Lev	0.163***	-0.157***	0.167***
	(0.026)	(0.016)	(0.028)
ROA	2.210***		2.208***
	(0.108)		(0.115)
Growth	0.032*	0.082***	0.033*
	(0.017)	(0.012)	(0.019)
Constant	-0.118*	0.044	-0.104
	(0.065)	(0.039)	(0.068)
Observations	971	971	856
R-squared	0.794	0.244	0.804

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

4. Conclusion

Using a sample of Chinese A-share household appliances enterprises from 2005 to 2025, this paper finds that dual-platform listing significantly raises ROE by about 4.70 percentage points on average, with the effect concentrated in large and high-growth firms, and the conclusions remain robust after a series of checks. For enterprises, leading companies pursuing global expansion should assess their capital strength, governance, and overseas business share before a Hong Kong secondary listing, while purely domestic SMEs need to carefully evaluate the cost-benefit ratio; all firms should treat Hong Kong's disclosure requirements as a governance catalyst rather than a burden. For regulators, further improving the Stock Connect mechanisms and cross-border regulatory cooperation can lower listing barriers and curb arbitrage. Given limitations such as a relatively small sample, unexplored transmission channels, and unexamined intra-industry heterogeneity, future research could expand the sample, adopt instrumental variables to address endogeneity, and conduct deeper mechanism and segment-level analyses.

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