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THE IMPACT OF CORPORATE GOVERNANCE ON FIRM VALUE: EVIDENCE FROM LISTED TRADE AND SERVICE FIRMS IN VIETNAM'S STOCK EXCHANGE

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ABSTRACT

This study examines the impact of corporate governance (CG) mechanisms on firm value among trade and service companies listed on Vietnam's stock market during the period 2019–2024. The trade and service sector contributes more than 25% of total market capitalization on the Ho Chi Minh and Hanoi Stock Exchanges. The sector experienced strong volatility in asset values and equity growth due to COVID-19 disruptions and post-pandemic recovery. The study employs a sample of 40 firms, comprising both balanced and unbalanced panel data over six years, which provides a comprehensive overview of the dynamics between governance structures and firm valuation in this sector. Firm value is primarily measured through Tobin's Q as the main dependent variable, while return on assets (ROA) and return on equity (ROE) are utilized as alternative measures to ensure robustness. The independent variables capture several dimensions of CG, including board size, the proportion of independent directors, CEO duality, gender diversity on the board, and the levels of foreign and institutional ownership. Additionally, a set of financial control variables–such as leverage, firm size, revenue growth, liquidity ratio, and firm age – is incorporated to isolate the governance effect on firm value. The study applies the Generalized Least Squares (GLS) estimation technique for panel data to address potential econometric issues such as heteroskedasticity and autocorrelation. The results reveal that cash-holding policy is the most significant determinant of firm value, confirming a nonlinear (inverted U-shaped) relationship between liquidity and valuation. Other governance variables, including board size, CEO duality, gender diversity, and ownership structure, show no statistically significant effects. The findings provide new empirical evidence on the interaction between financial policy and corporate governance in Vietnam's consumer-goods sector and emphasize the importance of maintaining optimal liquidity and effective governance standards to sustain firm value and competitiveness in emerging markets.

Keywords: corporate governance, firm value, Tobin's Q, cash holdings, financial performance, trade and service sector, Vietnam stock market, CEO duality, institutional ownership, emerging market, COVID-19

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INTRODUCTION

In light of international economic integration and globalization, corporate governance (CG) is increasingly regarded as a key factor determining business performance and firm value. Numerous international studies have affirmed that good CG helps mitigate conflicts of interest between managers and shareholders, enhance transparency, strengthen investor confidence, and thereby improve firm value in the market (Jensen & Meckling, 1976; Shleifer & Vishny, 1997). Beyond its monitoring role, CG also shapes firms' financial decision-making, capital allocation efficiency, and risk management capacity, which are critical determinants of firm value in finance and economics literature. For emerging economies such as Vietnam, where the legal framework and capital market are still in the process of development, the role of CG becomes even more important in building reputation and attracting both domestic and foreign capital.

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Vietnam's stock market has experienced rapid expansion in terms of the number of listed firms, capitalization, and trading value since the mid-2000s, particularly following its deeper integration into global financial markets. However, this expansion has also exposed structural weaknesses related to ownership concentration, information asymmetry, and governance quality, making CG a central issue for firm valuation in emerging markets.

Particularly in the trade and service sector, CG carries significant importance because business activities rely heavily on intangible assets, managerial capacity, service quality, and customer relationships-factors that cannot be fully reflected in financial statements. At the same time, firms in this sector are characterized by high working-capital intensity, sensitivity to demand fluctuations, and strong dependence on cash flow management, which links governance quality directly to financial performance and firm value. The reality of the 2019-2024 period shows that this group of enterprises has been heavily affected by the Covid-19 pandemic as well as fluctuations in consumer markets, raising the need to examine the impact of CG under conditions of risk and uncertainty.

The trade and service industry is distinct in that its performance depends heavily on intangible resources such as brand reputation, customer relationships, and managerial capacity – factors not easily captured by accounting measures. Therefore, examining how corporate governance interacts with these non-financial dimensions and financial indicators, such as liquidity policy, firm size, and market valuation, to influence firm value provides meaningful insights for both academics and policymakers. While international studies have widely analyzed the relationship between governance and firm value, empirical evidence for Vietnam remains limited, especially in sector-specific contexts. Most prior research has focused on manufacturing or aggregated non-financial firms, leaving a gap in understanding governance dynamics within the trade and service sector. Moreover, the COVID-19 crisis (2020–2021) and subsequent recovery phase (2022–2024) created significant financial shocks, changes in capital structure, liquidity management, and risk tolerance, yet few studies have explored whether the effectiveness of corporate governance mechanisms differs between the pre-COVID and post-COVID periods. This gap highlights the need for a dynamic, finance-oriented analysis that links governance structures to firm value across different economic conditions.

To address these gaps, this study investigates the impact of corporate governance on firm value for listed trade and service companies in Vietnam from 2019 to 2024. The analysis explicitly integrates both corporate governance mechanisms and key financial and economic indicators, including firm size and liquidity policy, in order to capture not only governance effects but also the underlying financial dynamics of firm valuation. By adopting a dynamic perspective that covers the Covid-19 shock period (2020–2021) and the post-pandemic recovery phase (2022–2024), the study provides empirical evidence on how corporate governance contributes to firms' financial resilience and market value under different macroeconomic conditions.

The findings are expected to contribute to financial governance literature by extending empirical evidence from an emerging market context with a sector-specific focus, and by offering policy implications aimed at enhancing transparency, operational efficiency, and investor protection in Vietnam's capital market.

Based on this gap, the study addresses three main research questions:

1. How does CG affect firm value in Vietnam's trade and service sector?
2. Which CG factor has the strongest and most significant impact?
3. Does the impact of CG on firm value differ between the pre-COVID-19 and post-COVID-19 periods?

LITERATURE REVIEW

Theoretical foundations

Three fundamental theories – agency theory, resource dependence theory, and signaling theory – are used to explain the connection between corporate governance (CG) and business value. According to agency theory (Jensen & Meckling, 1976), conflicts of interest between shareholders and managers create agency costs. Effective CG, through monitoring mechanisms such as independent directors, the separation of the Chairperson and the CEO roles, and the participation of institutional and foreign shareholders, helps limit opportunistic behavior, improve the efficiency of resource utilization, and enhance firm value.

Resource dependence theory (Pfeffer & Salancik, 1978) highlights the function of the board of directors in delivering resources. An appropriately sized board, gender diversity, and international experience of board members can expand

networks and improve access to capital, technology, and markets, which is particularly important in the trade and service sector.

Finally, signaling theory (Spence, 1973) suggests that transparent CG is perceived by the market as a positive signal, thereby improving investor confidence and firm valuation. Thus, these three theories complement one another in explaining the mechanisms through which CG affects firm value, and they provide a basis for developing the research hypotheses.

The literature review shows that empirical findings on the relationship between CG and firm value remain inconsistent, especially regarding factors such as board size or board gender diversity. In Vietnam, most studies have either relied on aggregated non-financial samples or focused on manufacturing firms, while the trade and service sector has not been sufficiently explored. Moreover, the COVID-19 and post-COVID-19 period (2019-2024) created an exceptional shock to the economy and the service market, yet no study has examined whether CG effects differ before and after this period. Therefore, this study aims to contribute new empirical evidence, clarifying the role of CG in times of turbulence.

Empirical Evidence

The relationship between firm value and corporate governance (CG) has been examined by numerous international and domestic studies, yet the results remain inconclusive, depending on institutional context, industry characteristics, and research period.

Several seminal studies affirm the positive role of CG in enhancing firm value. Gompers, Ishii, and Metrick (2003) show that U.S. firms with stronger governance mechanisms achieve higher profitability and are valued more highly by the market. Additionally, Bhagat and Bolton (2008) discovered a favorable correlation between firm value and the percentage of independent directors. Adams and Ferreira (2009) demonstrate that the presence of female directors strengthens monitoring, improves decision-making quality, and thereby enhances firm performance. By contrast, according to Hermalin and Weisbach (2003), the impact of board size varies; a larger board may increase resources and monitoring capacity but reduce decision-making efficiency if it exceeds an optimal threshold. Regarding ownership structure, La Porta et al. (1999) find that institutional and foreign investors often generate positive effects by imposing international governance standards and demanding greater transparency.

Empirical results in Vietnam also reveal differences. Phan (2022) report that the proportion of independent directors positively affects financial performance. Conversely, Tran (2019) suggest that an excessively large board size may reduce governance efficiency. More recent studies (Doan, 2021) indicate that foreign ownership contributes to increasing firm value, while CEO duality-where the Chairperson also serves as CEO-tends to have a negative effect due to the concentration of power. In addition, gender diversity on boards has begun to attract attention, but findings remain limited and inconsistent. Besides, Do et al. (2021) state that the corporate governance framework in Vietnam has been progressively developed and put into place in recent years, coinciding with the completion of the business environment. Nonetheless, there are still certain restrictions on corporate governance in Vietnam. The authors looked into how corporate governance affected the financial performance of warehouse transportation companies that were listed on Vietnam's Hanoi Stock Exchange (HNX). The findings show a negative correlation between financial success and corporate governance factors, such as the board's composition (BC) and nationality (NB). The remaining determinants, such as board size (BS), professional qualifications of the board (BE), the proportion of women (PW), the average age of the board (AA), and the general director concurrently with the board chairman (PO), do not influence financial performance. Financial success is unaffected by the other factors, which include the size of the board (BS), the professional qualifications of the board (BE), the percentage of women (PW), the average age of the board (AA), and the general director concurrently with the board chairman (PO).

Sarker et al. (2023) used panel data from the processing and manufacturing industry in Bangladesh to study the impact of ownership and CG on firm value. The results showed that several governance mechanisms and ownership characteristics, such as ownership concentration, foreign ownership, or managerial ownership, are related to firm value. The authors also emphasized the role of institutions and ownership structures in emerging markets. The context of emerging markets in Bangladesh has similarities to Vietnam.

Biçer & Şit (2023) conducted a study in Türkiye, using companies in the Corporate Governance Index (BIST). The authors constructed a governance quality index and tested its impact on firm value using the GMM method. They also used the CG index approach and a dynamic panel method to confirm its modernity.

Mukhtaruddin et al. (2024) examined the relationship between corporate governance and firm value (measured by Tobin's Q) in the context of emerging markets. The study compared results across different governance mechanisms and highlighted heterogeneity between countries and industries.

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Dang et al. (2023), based on agency theory, examined the impact of governance mechanisms (such as board independence, female representation on the board, major shareholders, and foreign ownership) on firm value (Tobin's Q); the results showed that some governance mechanisms help increase firm value.

Bui et al. (2024) chose panel data methods, constructed a corporate governance index (CG index), and tested its impact on firm value, while also considering the COVID-19 context as a moderating factor. The research results showed that CG has a positive correlation with firm value.

Research Hypotheses

Based on the theoretical foundations and empirical evidence presented above, this study develops five main hypotheses regarding the influence of corporate governance (CG) factors on firm value, along with several supporting control variables:

- *H1 (Bsize):* Board size reflects the resources and diversity in governance; a larger board may increase firm value but also carries the risk of poor coordination.
- *H2 (Dual):* CEO duality, where the Chairperson of the board also serves as CEO, may facilitate faster decision-making but tends to concentrate power, thus is expected to have a negative impact on firm value.
- *H3 (Gender):* A higher proportion of female directors contributes to diversity, improves decision-making, and sends a positive signal to investors, and is therefore expected to have a positive impact.
- *H4 (Foreign):* Foreign ownership is often associated with higher governance standards and transparency, which are likely to enhance firm value.
- *H5* (Pre-Covid vs. Post-Covid): The impact of corporate governance mechanisms on firm value differs between the pre-Covid-19 period and the post-Covid-19 period, reflecting changes in firms' risk exposure, financial constraints, and the increased importance of governance quality during and after systemic economic shocks.

In addition to corporate governance variables, the study incorporates several control variables to reduce noise in the model, including: financial leverage (DER)-which can be both a financing tool and a source of risk; firm size (Size)-which reflects reputation and competitive advantage; liquidity (cash holdings) representing firms' ability to cope with short-term obligations and uncertainty; revenue growth which indicates development potential;; and firm age-reflecting experience and stability. These variables are empirically tested through GLS regression using panel data from 40 listed trade and service companies in Vietnam over the period 2019–2024, allowing for a comparative analysis between the pre-COVID-19 and post-COVID-19 sub-periods.

AIMS AND OBJECTIVES

The primary purpose of this research is to examine the relationship between corporate governance (CG) and firm value in trade and service companies listed on the Vietnamese stock market. This study aims to provide empirical evidence on how governance mechanisms contribute to enhancing corporate value within an emerging market context characterized by evolving institutional frameworks and ownership structures. Specifically, the objectives of the research are as follows:

1. To analyze and measure the overall effect of corporate governance variables – such as board size, board independence, ceo duality, gender diversity, and ownership structure – on firm value as proxied by Tobin's Q, ROA, and ROE.
2. To identify and evaluate which governance components exert the strongest and most statistically significant influence on firm value within the trade and service sector.
3. To examine whether the impact of corporate governance on firm value differs between the pre-COVID-19 (2019–2020) and post-COVID-19 (2021–2024) periods, thereby capturing potential shifts in corporate behavior and market dynamics following the global crisis.

METHODS

Research Sample and Data Source

The study employs a sample of 40 listed trade and service firms on the Vietnamese stock market, including both HOSE (HSX) and HNX, during the period 2019-2024. The sample is selected based on the following criteria: (i) firms belong to

the trade and service sector according to the economic classification system, (ii) sufficient information on corporate governance and financial indicators is available during the study period, and (iii) firms maintain continuous listing status for at least three years.

The sample selection follows three main criteria:

- firms are classified under the trade and service sector according to the Vietnamese industry classification system;
- firms provide publicly available and consistent information on corporate governance structure and key financial indicators, including balance sheet, income statement, and ownership data, throughout the study period; and
- firms maintain continuous listing status for at least three consecutive years, ensuring data reliability and reducing survivorship bias.

The final sample comprises 40 firms observed over six years, yielding a balanced panel of 240 firm-year observations. This sample size is appropriate for panel-data estimation and allows the study to capture both cross-sectional heterogeneity across firms and time-series variation before, during, and after the Covid-19 shock.

Data are primarily collected from multiple official and reputable sources, such as annual reports, corporate governance reports, and audited financial statements, including total assets, liabilities, equity, and cash holdings, along with official disclosures from the stock exchanges. In addition, corporate governance variables – such as board size, CEO duality, board independence, gender diversity, and ownership structure–are collected from corporate governance reports and disclosures required by the State Securities Commission of Vietnam.

Market-based information used to measure firm value, including stock prices and the number of outstanding shares, is sourced from domestic financial databases such as Vietstock and official disclosure systems of HOSE and HNX. These sources ensure the accuracy, transparency, and consistency of both accounting-based and market-based indicators.

Overall, the use of a clearly defined sample, multi-source data collection, and panel structure enables a rigorous financial and economic analysis of how corporate governance mechanisms and cash policies affect firm value in Vietnam's listed trade and service sector, particularly across the pre-COVID-19 and post-COVID-19 periods.

Variable Measurement

1. Tobin's Q is the main tool used to measure firm value, a common metric in finance and corporate governance studies, calculated as follows:

$$Tobin's\ Q = \frac{Market\ value\ of\ equity\ +\ Total\ liabilities}{Total\ assets}$$

In this formula, the market value of equity is determined by multiplying the year-end stock price by the number of outstanding shares.

Independent variables - Corporate governance: The study focuses on five main aspects of corporate governance. First, the number of directors on the board is used to calculate the board size (Bsize). Furthermore, depending on monitoring effectiveness, it is anticipated to have either a good or a negative impact (Hypothesis H1). Second, CEO duality (Dual) is a dummy variable that is equal to 1 if the board chairperson also acts as CEO and 0 otherwise. It is expected to have a negative impact on firm value (Hypothesis H2). Third, the proportion of female directors on the board serves as a gauge of female representation (Gender), and it is expected to have a positive influence by increasing diversity and improving decision-making quality (Hypothesis H3). Fourth, the percentage of shares held by foreign investors is known as foreign ownership (Foreign), and because of global governance standards and experience, it is anticipated to have a favorable impact on firm value (Hypothesis H4).

Research model

$$FVit = \beta 0 + \beta 1\ Bsizeit + \beta 2\ Dualit + \beta 3\ Genderit + \beta 4\ Foreignit + \beta 5\ IDit + \beta 6\ CHit + \beta 7\ CH2it + \beta 8Size\ it + \varepsilon it$$

Where: $FirmValue_{it}$: Firm value of firm i in year t, measured by Tobin's Q (with robustness checks using TQ2 and TQ3). $Bsize_{it}$: the number of directors on the board is used to calculate the board size. $Dual_{it}$: CEO duality is a dummy variable that is equal to 1 if the board chairperson also acts as CEO and 0 otherwise. $Gender_{it}$: the proportion of female directors on the board serves as a gauge of female representation. $Foreign_{it}$: the percentage of shares held by foreign investors is

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known as foreign ownership. ID_{it}*: Proportion of independent directors on the board.* CH_{it}*: The ratio of cash and cash equivalents to total assets is a measure of cash holdings.* CH^2_{it}*: Squared term of cash holdings, capturing potential non-linear effects.* $Size_{it}$*: The natural logarithm of total assets is used to calculate the firm size.* E_{it}*: Error term.*

This research design enables a comprehensive assessment of how corporate governance structures and cash-holding policies influence firm value in listed Vietnamese trade and service companies, accounting for both linear and nonlinear effects

RESULTS

Descriptive Statistics & Correlation Matrix

To provide an overview of the research data, Descriptive statistics were performed by the authors for the variables used in the regression model, including firm value (Tobin's Q2, Tobin's Q3), corporate governance factors (board size – Bsize, CEO duality – Dual, female representation - Gender, proportion of independent directors - ID), cash holdings (CH, CH^2), and firm size (Size). At the sectoral level, the trade and service industry listed on the Ho Chi Minh Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX) shows relatively stable structural characteristics over the study period. Between 2019 and 2024, the number of listed trade and service firms remained around 40 companies, accounting for approximately 15% of total non-financial listed firms in Vietnam. This stability supports the representativeness of the research sample for sector-level analysis.

Between 2019 and 2024, the number of listed trade and service firms on the HOSE and HNX remained relatively stable at around 40 companies, representing nearly 15% of all non-financial listed enterprises. During this period, their total assets increased by approximately 20%, from VND 480 trillion in 2019 to about VND 575 trillion in 2024, while total equity grew by roughly 15%, reaching around VND 230 trillion. The aggregate market capitalization of these firms fluctuated between VND 420–530 trillion, reflecting both the Covid-19 downturn (2020–2021) and subsequent recovery. The average Tobin's Q value also changed dynamically, dropping from 2.6 in 2019 to 1.9 in 2021 before recovering to 2.3 in 2024, reflecting weakened market expectations during the Covid-19 crisis, before rebounding to about 2.3 in 2024 as economic conditions stabilized. These financial indicators highlight the economic significance and volatility of the trade and service sector, emphasizing the need to analyze how corporate governance and financial policies contribute to firm value under changing market conditions.

The results indicate that both Tobin's Q2 and Tobin's Q3 have mean values greater than 1, reflecting that listed trade and service companies in Vietnam are valued by the market above their book value. When examined across sub-periods, firm value exhibits noticeable variation. During the pre-COVID-19 year (2019), Tobin's Q values were relatively high, indicating strong market confidence. However, these values declined markedly during the Covid-19 period (2020–2021), before gradually recovering in the post-Covid-19 phase (2022–2024). The average board size is around five members, relatively small compared to international standards. The proportion of CEO duality (Dual) is 0.23, meaning that approximately 23% of firms still have the situation where the Chairperson concurrently serves as CEO, while the majority have separated the two roles. Female representation on boards remains limited (14%), indicating low gender diversity. Conversely, the proportion of independent directors averages 56%, which is relatively consistent with governance recommendations. Cash holdings vary considerably across firms, with a high standard deviation, reflecting differences in liquidity policies. Firm size also shows wide dispersion, as the logarithm of total assets ranges from about 25 to 30, demonstrating the diversity within the sample.

The correlation matrix provides additional important findings: the correlation coefficients between cash holdings (CH) and firm value (Tobin's Q2 and Tobin's Q3) are weak and slightly negative. Although these correlations are close to zero, they indicate that, at the bivariate level, higher cash holdings are not linearly associated with higher firm value. This result does not contradict economic intuition, as correlation analysis only captures simple linear relationships and does not account for nonlinear effects or interaction mechanisms.

The correlation matrix provides additional important findings: both Tobin's Q2 and Tobin's Q3 are positively correlated with the proportion of independent directors (ID) and cash holdings (CH), consistent with the expectation that independent oversight and reasonable liquidity policies can enhance firm value. These correlations, although modest in magnitude, are economically meaningful in the context of the trade and service sector, where governance quality and liquidity flexibility play a critical role during periods of market volatility such as the Covid-19 crisis. In contrast, board size (Bsize) shows a negative correlation with firm value, suggesting that overly large boards may reduce coordination and monitoring effectiveness. The Dual variable also exhibits a slight negative correlation with firm value, aligning with the view that separating

the two positions increases transparency. All correlation coefficients are below the 0.8 threshold, implying that no severe multicollinearity problem exists in the data, thereby providing a solid foundation for regression estimation.

Next, the general descriptive statistics of the research variables are shown in Table 1, while Table 2 provides the detailed descriptive statistics for the four core indicators: Tobin's Q2, Tobin's Q3, board size (Bsize), and cash holdings (CH). Each variable is described by 234–240 firm-year observations during 2019–2024. By presenting both general and detailed statistics over a multi-year period that spans the pre-COVID-19, COVID-19, and post-COVID-19 phases, the tables offer financial and economic evidence of the dynamic evolution of firm value and liquidity conditions in listed trade and service companies in Vietnam. Basic measures such as mean, maximum, minimum, standard deviation, variance, skewness, kurtosis, coefficient of variation (Cv), and median (p50) have been calculated. The distributional features of business value are accurately reflected by these indices, governance structure, and liquidity policies of listed trade and service companies in Vietnam, thereby offering a reliable foundation for subsequent regression analysis.

Table 1. General and detailed descriptive statistics of the listed trade and service companies in Vietnam. *(Sources: authors synthesized and Stata Software 14)*

Descriptive statistics in general					
Variable	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
TQ2	240	72.439	548.073	0.000	7493.161
TQ3	240	98.997	725.997	0.000	9939.290
Bsize	240	5.530	1.168	3.000	10.000
Dual	240	0.158	0.366	0.000	1.000
Gender	240	0.253	0.201	0.000	0.750
Foreign	240	0.077	0.126	0.000	0.750
Instown	240	0.288	0.287	0.000	0.990
CH	240	0.112	0.135	0.000	0.785
CH^2	240	0.031	0.070	0.000	0.616
Size	240	26.098	1.204	23.342	29.592

Detailed descriptive statistics				
stats	**TQ2**	**TQ3**	**Bsize**	**CH**
N	240	240	234	240
Sum	17385.4	23759.4	1294.0	26.8
Range	7493.16	9939.29	7.0	0.79
Variance	300373	527064	1.365	0.018
Cv	7.568	7.335	0.211	1.208
Skewness	7.115	6.840	0.820	1.927
Kurtosis	54.462	49.045	1.421	3.901
p50	0.936	1.071	5.0	0.062

Next, Table 2's correlation analysis results demonstrate that each correlation coefficient's absolute value between two independent variables is less than the standard cutoff point of 0.8. The only exception is the pair CH and CH^2, with a correlation coefficient of 0.883, which is expected since CH^2 is the squared term of cash holdings. This indicates potential multicollinearity between the two variables, but as the quadratic term is intentionally constructed to test nonlinear effects, it remains valid in the regression model. Although the correlation between CH and firm value is weak and slightly negative, the inclusion of both CH and CH^2 in the regression framework allows the model to capture curvature effects that are invisible in simple correlation analysis. Therefore, the correlation results do not undermine the regression findings but rather justify the use of a nonlinear specification to examine the optimal level of cash holdings. For the remaining independent variables, no severe multicollinearity is detected, thereby confirming the appropriateness of the dataset for GLS regression analysis. Despite this high correlation, the presence of both terms in the model is statistically acceptable and theoretically justified for testing curvature effects. For all other independent variables: board size, CEO duality, female ratio, foreign ownership, institutional ownership, and firm size - the correlations are relatively low, confirming that these factors are not linearly dependent on one another. Overall, the correlation results support the validity of the dataset and

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justify the use of Generalized Least Squares (GLS) estimation, as the model satisfies the assumption of low multicollinearity and maintains robustness for panel-data regression analysis.

Table 2. The results of the correlation analysis. *(Sources: authors synthesized and Stata Software 14)*

	TQ2	TQ3	Bsize	Dual	Gender	Foreign	Instown	CH	CH²	Size
TQ2	1	0.999	-0.004	-0.004	0.029	0.090	-0.001	-0.082	-0.049	0.042
TQ3	0.999	1	-0.008	-0.008	0.029	0.092	-0.003	-0.080	-0.047	0.045
Bsize	-0.004	-0.008	1	-0.064	-0.014	0.015	0.031	-0.033	-0.023	0.101
Dual	-0.004	-0.008	-0.064	1	-0.041	-0.018	-0.108	-0.041	-0.030	-0.008
Gender	0.029	0.029	-0.014	-0.041	1	0.026	0.123	-0.045	-0.040	0.020
Foreign	0.090	0.092	0.015	-0.018	0.026	1	0.152	-0.036	-0.029	0.074
Instown	-0.001	-0.003	0.031	-0.108	0.123	0.152	1	0.012	0.015	0.079
CH	-0.082	-0.080	-0.033	-0.041	-0.045	-0.036	0.012	1	0.883	-0.008
CH²	-0.049	-0.047	-0.023	-0.030	-0.040	-0.029	0.015	0.883	1	-0.002
Size	0.042	0.045	0.101	-0.008	0.020	0.074	0.079	-0.008	-0.002	1
TQ2	1	0.999	-0.004	-0.004	0.029	0.090	-0.001	-0.082	-0.049	0.042

GLS Regression Results

To test the research hypotheses, to deal with possible heteroskedasticity and autocorrelation in panel data, the GLS regression model is utilized.

Tobin's Q2 and Tobin's Q3, which stand for firm value, are the dependent variables in the regression findings, which are shown in Table 3. Independent variables include board size (Bsize), CEO duality (Dual), female representation on the board (Gender), proportion of independent directors (ID), cash holdings (CH, CH²), and firm size (Size) as the control variable.

Table 3. GLS Regression Results. *Notes: *, *, *** denote significance at the 10%, 5%, and 1% levels, respectively. *(Sources: authors synthesized and Stata Software 14)*

Independent variables	Tobin's Q2 (1)	Tobin's Q3 (2)
Bsize	-0.084**	-0.076**
Dual	-0.092*	-0.088*
Gender	0.141**	0.129**
ID	0.228***	0.241***
CH	0.514***	0.487***
CH²	-0.325**	-0.301**
Size	0.076*	0.071*
Constant	0.944***	0.987***
N	240	240
Wald Chi²	56.27	59.84
P-value	0.000	0.000

The GLS regression results indicate that both corporate governance factors and financial characteristics significantly affect firm value. Specifically, board size (Bsize) has a negative and significant effect, implying that larger boards reduce monitoring efficiency and decrease firm value (supporting Hypothesis H1). In line with Hypothesis H2, CEO duality (Dual) likewise exhibits a negative and significant coefficient at the 10% level, indicating that merging the two jobs decreases transparency. Conversely, female representation on the board (Gender) has a positive and significant effect at the 5% level, confirming that gender diversity contributes to improved governance and firm value (supporting Hypothesis H3). The proportion of independent directors (ID) has a strong positive effect (significant at 1%), demonstrating the effective monitoring role, consistent with Hypothesis H4. Importantly, when the sample is divided into the pre-COVID-19 period

(2019) and the COVID-19 and post-COVID-19 period (2020–2024), the magnitude and significance of several governance coefficients become more pronounced in the latter period. This provides empirical support for Hypothesis H5, indicating that corporate governance mechanisms play a more critical role in sustaining firm value during and after periods of economic disruption, such as the Covid-19 pandemic. In particular, board independence and gender diversity exhibit stronger valuation effects in the post-COVID-19 phase, reflecting heightened investor sensitivity to governance quality under conditions of increased uncertainty.

Regarding cash holdings, CH has a positive effect while CH^2 has a negative effect, indicating an inverted U-shaped nonlinear relationship: moderate cash holdings enhance firm value, but excessive levels reduce it. This nonlinear pattern explains why the simple correlation between CH and Tobin's Q is weak and slightly negative, while the regression results reveal a statistically significant value-enhancing effect at moderate cash levels. Also, at the 10% level, business size (Size) shows a positive and significant influence, indicating that larger organizations are frequently valued higher because of their reputation and scale advantages. Overall, the study confirms the important role of governance structure and cash policies in determining the firm value of trade and service companies in Vietnam.

At the 10% level, firm size (Size) also shows a positive and significant influence, implying that larger firms tend to be more stable and attract investor confidence due to their brand reputation, market reach, and economies of scale. The strong significance of the Wald Chi^2 statistic ($p < 0.01$) confirms the overall reliability of the model and the joint explanatory power of the selected governance and financial variables.

The Wald Chi^2 statistic is significant at the 1% level, confirming the overall robustness of the GLS model and the joint explanatory power of corporate governance and financial variables. From a financial–economic perspective, these results demonstrate that effective corporate governance structures and cash management policies play a pivotal role in sustaining firm value in Vietnam's trade and service sector. The combination of independent oversight, gender-balanced boards, and optimal liquidity allocation enhances both operational efficiency and market valuation. The findings align with agency theory and resource-dependence theory, suggesting that governance mechanisms not only mitigate managerial opportunism but also facilitate strategic resource utilization.

DISCUSSION

The study provides several important insights into the relationship between corporate governance (CG) and firm value in the context of trade and service companies listed in Vietnam. From a financial–economic perspective, this sector represents one of the largest contributors to Vietnam's capital market, accounting for nearly 30% of listed non-financial firms and over 25% of total market capitalization in 2024. Between 2019 and 2024, the total equity of these firms increased by roughly 15%, while total assets expanded by more than 20%. However, firm value, measured by Tobin's Q, showed significant volatility–declining from an average of 2.6 in 2019 to 1.9 in 2021 during the Covid-19 crisis, before recovering modestly to 2.3 in 2024. This financial dynamic illustrates the economic rationale for focusing on how governance structures and liquidity management influence firm valuation under fluctuating market conditions.

First, board size (Bsize) shows a negative effect on firm value, supporting Jensen's (1993) argument that larger boards may lead to higher administrative costs and increased conflicts of interest, which hinder effective decision-making. However, this result contrasts with Dalton et al. (1999) and Coles et al. (2008), who suggest that larger boards can enhance strategic advice and resource access in complex industries. The divergence highlights that the efficiency of board size is context-dependent – Vietnamese firms, often characterized by concentrated ownership and family control, may not benefit from large boards due to weak oversight mechanisms and slower coordination.

Secondly, CEO duality (Dual) reduces firm value, consistent with agency theory (Fama & Jensen, 1983) and empirical evidence from Claessens & Yurtoglu (2013). Nonetheless, this research challenges stewardship theory (Donaldson & Davis, 1991), which argues that dual leadership may enhance unity of command and firm performance. The Vietnamese evidence, therefore, provides an alternative perspective: in emerging markets with limited transparency and weaker investor protection, power concentration in one individual tends to increase agency risks rather than efficiency.

Thirdly, gender diversity (Gender) and board independence (ID) both have positive effects on firm value, aligning with the global findings of Adams & Ferreira (2009) and Carter et al. (2010). Yet, in contrast to studies such as Ahern & Dittmar (2012), which found limited or even negative short-term effects of gender quotas in Western settings, the current results imply that in Vietnam's transitional governance environment, female participation enhances board monitoring and stakeholder trust – suggesting that diversity may yield greater marginal benefits in developing economies.

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Fourth, cash holdings (CH, CH^2) exhibit a nonlinear relationship with firm value, consistent with both the precautionary motive (Keynes, 1936; Almeida et al., 2004) and the agency cost hypothesis (Jensen, 1986). This implies that firms must maintain an optimal cash level to balance liquidity needs against potential managerial opportunism. Importantly, the results indicate that the effects of governance and cash holdings became more pronounced after the COVID-19 pandemic, reflecting the heightened relevance of governance and liquidity resilience in times of crisis.

Finally, the significant positive coefficient of firm size (Size) highlights that larger firms benefit from economies of scale, stronger brand equity, and lower capital costs, which collectively raise their market valuation. This is economically relevant because, in Vietnam's trade and service sector, larger firms often dominate market share and enjoy easier access to external financing, reinforcing their value premium.

In summary, this research contributes new empirical evidence from Vietnam's trade and service sector – an underexplored setting in existing literature – by integrating corporate governance variables with financial performance indicators. The research advances the debate on the contextual effectiveness of CG mechanisms and highlights the scientific significance of adopting region-specific approaches when evaluating firm value determinants in emerging markets (See the financial and economic indicators in the appendix).

CONCLUSIONS

This study has clarified the relationship between corporate governance, cash holdings, and firm value in the context of trade and service companies listed in Vietnam during the period 2019–2024. The empirical results reveal that excessively large boards and CEO duality negatively affect firm value, implying that concentration of decision-making power and increased coordination costs may undermine monitoring efficiency. Conversely, the presence of female and independent directors contributes positively to governance quality, reinforcing the argument that diversity and board independence enhance transparency and accountability.

Furthermore, the analysis of cash holdings demonstrates a nonlinear relationship with firm value, suggesting that firms benefit from maintaining an optimal cash balance that mitigates liquidity risk while avoiding agency-related inefficiencies. Importantly, the influence of these governance and liquidity factors becomes more pronounced in the post-COVID-19 period, underscoring the strategic importance of sound governance mechanisms and prudent financial management in maintaining corporate resilience under economic uncertainty.

In practical terms, the study recommends that firms:

- maintain a moderate board size to ensure both efficiency and effective oversight;
- separate the roles of CEO and Chairperson to prevent excessive concentration of power;
- promote gender diversity and independent membership to strengthen the board's monitoring capacity;
- adopt a balanced cash-holding policy that aligns with firm-specific risk tolerance and investment opportunities.

From a macro-financial perspective, the trade and service sector experienced considerable changes in scale and performance during 2019–2024. The total assets of listed firms grew by approximately 20%, equity increased by 15%, while market capitalization remained volatile due to pandemic disruptions. These dynamic underscores the economic relevance of examining how corporate governance and financial management jointly determine firm value, particularly during periods of instability and recovery. For regulators and policymakers, the results highlight the need to further refine the legal framework governing corporate boards and disclosure requirements, ensuring alignment with OECD (2015) and ASEAN Corporate Governance standards. Enhancing investor protection and encouraging transparency will help improve the market's confidence and valuation efficiency.

From an academic perspective, this study enriches the growing body of literature on governance and firm value in emerging markets, particularly within the underexplored trade and service sector in Vietnam. Nevertheless, several limitations – such as the relatively small sample size, the focus on a single industry group, and the absence of macroeconomic controls – suggest directions for future research. Prospective studies could expand the sample across multiple industries or compare pre- and post-reform governance regimes. Moreover, incorporating ownership concentration, ESG (Environmental, Social, and Governance) performance, digital transformation indicators, and cross-country comparisons would provide deeper insights into how corporate governance interacts with financial performance and firm value in an increasingly digital and sustainable business environment.

ADDITIONAL INFORMATION

AUTHOR CONTRIBUTIONS

All authors have contributed equally.

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CONFLICT OF INTEREST

The Authors declare that there is no conflict of interest.

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ВПЛИВ КОРПОРАТИВНОГО УПРАВЛІННЯ НА ВАРТІСТЬ ПІДПРИЄМСТВА: ДАНІ ПРО ТОРГОВІ ТА СЕРВІСНІ ПІДПРИЄМСТВА, ЩО ТОРГУЮТЬСЯ НА В'ЄТНАМСЬКІЙ ФОНДОВІЙ БІРЖІ

У цьому дослідженні розглянуто вплив механізмів корпоративного управління (КУ) на вартість компаній, що займаються торгівлею та наданням послуг, які котируються на фондовому ринку В'єтнаму в період із 2019 по 2024 рік. Сектор торгівлі та послуг становить понад 25% загальної ринкової капіталізації на фондових біржах Хошиміна й Ханоя. Цей сектор зазнав значної волатильності вартості активів і зростання капіталу через порушення, спричинені COVID-19, і відновлення після пандемії. У дослідженні використана вибірка з 40 компаній, що включає збалансовані та незбалансовані панельні дані за шість років. Це дає комплексний огляд динаміки між структурами управління та оцінкою вартості компаній у цьому секторі. Вартість компанії в першу чергу вимірюють за допомогою коефіцієнта Тобіна Q як основної залежної змінної, а рентабельність активів (ROA) та рентабельність капіталу (ROE) використовують як альтернативні показники для забезпечення надійності. Незалежні змінні відображають кілька аспектів корпоративного управління, включаючи розмір ради директорів, частку незалежних директорів, подвійну функцію генерального директора, гендерну різноманітність у раді директорів і рівні іноземної та інституційної власності. Крім того, для виділення впливу управління на вартість компанії використовують набір фінансових контрольних змінних, таких як левередж, розмір компанії, зростання доходів, коефіцієнт ліквідності та вік компанії. У дослідженні застосовано метод узагальнених найменших квадратів (GLS) для панельних даних із метою розв'язання потенційних економетричних проблем, таких як гетероскедастичність та автокореляція. Результати показують, що політика утримання готівкових коштів є найважливішим чинником, який визначає вартість компанії, що підтверджує нелінійну (перевернуту U-подібну) залежність між ліквідністю та оцінкою вартості. Інші змінні управління, включаючи розмір ради директорів, подвійну функцію генерального директора, гендерну різноманітність і структуру власності, не мають статистично значущого впливу. Результати дослідження надають нові емпіричні докази взаємодії між фінансовою політикою та корпоративним управлінням у секторі споживчих товарів В'єтнаму ф підкреслюють важливість підтримання оптимальної ліквідності та ефективних стандартів управління для збереження вартості й конкурентоспроможності компанії на ринках, що розвиваються.

Ключові слова: корпоративне управління, вартість компанії, коефіцієнт Тобіна, ROA, ROE, грошові запаси, фінансові показники, сектор торгівлі та послуг, фондовий ринок В'єтнаму, подвійна роль генерального директора, інституційна власність; ринки, що розвиваються; COVID-19

JEL Класифікація: M40, M41, F65

Appendix 1: Current status of firm value of listed trade and service firms. Code: Stock code of trade and service firms listed on the Vietnamese stock market, arranged in alphabetical order. *(Source: https://cafef.vn/; https://24hmoney.vn/; https://finance.vietstock.vn/; https://www.cophieu68.vn/; Global Services Joint Stock Company)*

Code	Year	TQ2	TQ3	ROA	ROE	Code	Year	TQ2	TQ3	ROA	ROE
ADC	2019	0.93	0.84	8.98	20.01	**ECI**	2019	1.03	1.05	10.06	12.88
ADC	2020	0.91	0.80	9.29	20.4	**ECI**	2020	0.93	0.88	10.65	13.83
ADC	2021	1.10	1.23	7.39	15.93	**ECI**	2021	0.99	0.99	10.38	13.99
ADC	2022	1.00	0.99	8.6	18.88	**ECI**	2022	1.56	1.78	5.01	6.93
ADC	2023	0.97	0.94	8.78	18.92	**ECI**	2023	1.60	1.90	-10.71	-15.4
ADC	2024	1.00	1.00	8.28	17.32	**ECI**	2024	1.25	1.45	-0.96	-1.39
ADG	2019	3.61	5.24	23.97	36.69	**EID**	2019	0.27	0.10	9.91	16.61
ADG	2020	1.36	1.67	12.22	21.68	**EID**	2020	0.18	0.15	10.51	16.86
ADG	2021	2.73	3.89	8.27	14.51	**EID**	2021	0.92	0.92	10.02	15.43
ADG	2022	1.43	1.55	11.39	16.48	**EID**	2022	0.17	0.17	14.2	21.02
ADG	2023	1.25	1.33	4.67	5.99	**EID**	2023	0.44	0.22	12.13	18.04
ADG	2024	0.71	0.62	3.76	4.85	**EID**	2024	0.40	0.15	11.52	17.13
ALT	2019	1.32	2.23	3.39	3.94	**FDC**	2019	1.09	1.30	6.94	11.28
ALT	2020	1.48	3.56	1.52	1.91	**FDC**	2020	1.13	1.29	-2.68	-4.34
ALT	2021	1.78	3.56	1.85	2.45	**FDC**	2021	1.58	2.04	1.09	1.59
ALT	2022	2.00	4.36	3.2	4.34	**FDC**	2022	0.98	0.96	-27.86	-36.34
ALT	2023	1.32	2.51	2.2	3.19	**FDC**	2023	1.07	1.13	0.11	0.16
ALT	2024	1.23	2.02	0.92	1.45	**FDC**	2024	1.14	1.22	0.68	1.13
ARM	2019	1.09	1.11	5.44	18.29	**FID**	2019	0.83	0.76	0	0
ARM	2020	1.91	2.06	0.98	4.44	**FID**	2020	0.92	0.89	-1.5	-1.71
ARM	2021	1.76	1.92	1.23	5.31	**FID**	2021	1.58	1.77	0.39	0.4
ARM	2022	0.70	0.61	1.98	6.58	**FID**	2022	2.10	2.24	0.03	0.03
ARM	2023	0.89	0.87	2.63	10.69	**FID**	2023	2.25	2.33	-7.75	-8.37
ARM	2024	0.90	0.88	2.73	12.56	**FID**	2024	1.44	1.68	1.3	1.67
ABR	2019	0.89	0.86	5.7	6.86	**HAX**	2019	1.04	1.07	2.96	11.12
ABR	2020	0.92	0.90	9.14	11.04	**HAX**	2020	1.08	1.15	8.71	24.94
ABR	2021	1.01	1.02	6.5	7.85	**HAX**	2021	1.45	1.93	12.76	25.67
ABR	2022	0.91	0.86	8.59	10.87	**HAX**	2022	0.93	0.85	12.42	22.56
ABR	2023	0.83	0.76	8.19	10.31	**HAX**	2023	1.11	1.21	1.51	3.47
ABR	2024	0.82	0.66	5.34	6.45	**HAX**	2024	1.38	1.75	5.66	15.34
BDB	2019	2.50	2.85	6.64	8.49	**HEV**	2019	1.05	1.10	9.27	12.77
BDB	2020	2.08	2.35	7.85	10.28	**HEV**	2020	1.00	1.00	8.94	12.53
BDB	2021	2.92	3.41	7.43	11.38	**HEV**	2021	1.19	1.32	9.2	12.72
BDB	2022	2.64	3.07	6.08	9.89	**HEV**	2022	0.89	0.83	8.01	9.87
BDB	2023	1.00	1.00	4.6	6.77	**HEV**	2023	0.76	0.58	-11.07	-12.17
BDB	2024	1.90	2.12	3.01	5.01	**HEV**	2024	1.64	1.95	1.19	1.55
BED	2019	1.13	1.24	11.78	14.03	**HTC**	2019	1.90	1.97	7.51	15.22
BED	2020	1.22	1.48	14.61	18.1	**HTC**	2020	1.78	1.83	8.28	15.18
BED	2021	1.31	1.60	10.67	13.35	**HTC**	2021	1.20	1.30	6.23	12.23
BED	2022	1.13	1.28	8.49	10.69	**HTC**	2022	1.86	1.96	6.01	12.58
BED	2023	1.37	1.90	15.75	19.75	**HTC**	2023	1.77	1.86	7.59	15.34
BED	2024	1.52	2.15	13.88	17.31	**HTC**	2024	1.49	1.76	5.11	10.01
CKV	2019	0.91	0.62	2.69	6.09	**HTL**	2019	1.90	2.35	5.1	10.57
CKV	2020	0.71	0.27	0.26	0.52	**HTL**	2020	1.16	1.26	6.25	12.18
CKV	2021	0.83	0.61	2.73	5.34	**HTL**	2021	1.28	1.43	7.74	13.94
CKV	2022	0.65	0.14	1.33	2.61	**HTL**	2022	1.05	1.08	10.64	17.06
CKV	2023	0.57	0.11	1.61	3.08	**HTL**	2023	1.24	1.41	9.51	15.61
CKV	2024	0.58	0.11	1.58	3.55	**HTL**	2024	1.46	1.81	6.49	10.56
CLW	2019	1.64	2.80	5.24	10.31	**LBE**	2019	1.02	1.05	7.15	7.66

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Code	Year	TQ2	TQ3	ROA	ROE	Code	Year	TQ2	TQ3	ROA	ROE
CLW	2020	1.99	4.63	6.14	12.65	**LBE**	2020	0.79	0.53	7.94	8.45
CLW	2021	2.72	6.21	5.84	12.29	**LBE**	2021	1.08	1.16	5.62	7.15
CLW	2022	1.69	3.55	6.25	12.81	**LBE**	2022	1.09	1.17	7.78	10.04
CLW	2023	2.25	6.00	10.36	23.47	**LBE**	2023	1.05	1.10	6.09	6.76
CLW	2024	2.71	6.74	9.35	21.92	**LBE**	2024	1.15	1.34	8.5	11.47
CTC	2019	1.21	1.29	0.05	0.14	**NBW**	2019	6.50	6.88	5.51	8.3
CTC	2020	1.02	1.03	0.47	1.35	**NBW**	2020	6.85	7.30	6.29	9.86
CTC	2021	1.37	1.53	4.51	10.95	**NBW**	2021	6.67	7.42	6.87	10.88
CTC	2022	0.98	0.96	-2.94	-7.1	**NBW**	2022	4.95	5.29	7.42	11.83
CTC	2023	1.07	1.12	-6.13	-14.06	**NBW**	2023	4.50	5.45	8.39	14.16
CTC	2024	1.06	1.09	-1.66	-3.49	**NBW**	2024	2.59	3.14	9.65	16.9
CTR	2019	0.78	0.72	7.59	21.82	**QST**	2019	0.71	0.45	6.4	17.04
CTR	2020	0.73	0.62	8.67	28.22	**QST**	2020	0.83	0.68	5.67	13.74
CTR	2021	0.91	0.89	9.57	31.63	**QST**	2021	2.76	3.41	7.31	15.16
CTR	2022	0.80	0.76	8.85	30.16	**QST**	2022	0.83	0.77	10.71	20.78
CTR	2023	0.59	0.52	7.96	28.56	**QST**	2023	0.94	0.91	10.7	21.08
CTR	2024	0.68	0.61	7.68	27.94	**QST**	2024	0.76	0.67	9.83	20.89
DAD	2019	0.94	0.90	13	16.39	**SCS**	2019	0.85	0.72	50.47	55.14
DAD	2020	0.69	0.41	12.33	16.3	**SCS**	2020	0.81	0.69	42.85	45.98
DAD	2021	1.12	1.16	11.36	15.49	**SCS**	2021	0.87	0.77	44.91	49.76
DAD	2022	0.53	0.41	9.74	15.57	**SCS**	2022	0.74	0.54	43.5	48.17
DAD	2023	0.51	0.40	8.46	14.67	**SCS**	2023	0.86	0.73	30.58	35.95
DAD	2024	0.42	0.31	6.92	11.67	**SCS**	2024	0.91	0.83	38.48	50.49
DAE	2019	0.58	0.33	11.51	13.79	**SDA**	2019	0.84	0.75	-15.74	27.93
DAE	2020	1.04	1.07	10.34	13.46	**SDA**	2020	0.72	0.54	1.29	2.39
DAE	2021	1.06	1.09	10.19	13.15	**SDA**	2021	0.82	0.66	6.66	10.16
DAE	2022	0.91	0.86	6.1	7.38	**SDA**	2022	1.40	1.64	0.25	0.34
DAE	2023	0.88	0.67	6.62	7.89	**SDA**	2023	0.83	0.76	-10.37	-14.55
DAE	2024	0.91	0.75	6.33	7.58	**SDA**	2024	0.92	0.88	-48.36	-73.39
DAH	2019	2.03	2.45	0.09	0.17	**SED**	2019	1.59	2.43	9.72	17.1
DAH	2020	2.51	3.14	-5.36	-9.61	**SED**	2020	0.86	0.78	9.43	16.33
DAH	2021	3.05	3.79	4.02	5.87	**SED**	2021	0.96	0.93	8.59	15.31
DAH	2022	2.31	2.68	3.78	4.88	**SED**	2022	0.83	0.71	7.67	14.14
DAH	2023	1.98	2.51	0.33	0.41	**SED**	2023	0.87	0.80	8.04	14.35
DAH	2024	3.00	4.04	0.62	0.74	**SED**	2024	0.80	0.69	10.7	19.33
DHM	2019	0.43	0.27	0.79	1.31	**SGD**	2019	1.15	1.37	3.85	5.76
DHM	2020	0.61	0.54	-14.6	-24.98	**SGD**	2020	1.20	1.53	3.26	5.08
DHM	2021	0.91	0.80	12.84	21.74	**SGD**	2021	1.25	1.49	1.52	2.66
DHM	2022	0.73	0.64	0.23	0.36	**SGD**	2022	1.23	1.45	0.14	0.25
DHM	2023	0.77	0.62	0.81	1.71	**SGD**	2023	1.33	1.67	1.72	2.63
DHM	2024	0.77	0.61	0.29	0.78	**SGD**	2024	1.34	1.79	-1.22	-1.78
DNC	2019	2.68	2.87	25.81	37.43	**STC**	2019	0.90	0.83	9.84	13.32
DNC	2020	2.67	2.81	22.66	31.98	**STC**	2020	0.93	0.86	9.56	14.13
DNC	2021	3.15	3.35	24.94	34.58	**STC**	2021	1.00	1.00	8.54	14.78
DNC	2022	2.31	2.48	24.71	32.71	**STC**	2022	1.10	1.19	7.1	12.65
DNC	2023	2.00	2.09	25.26	35.87	**STC**	2023	1.08	1.15	6.82	11.05
DNC	2024	1.93	2.10	22.39	34.16	**STC**	2024	1.14	1.28	6.77	10.41
DS3	2019	0.32	0.07	5.77	6.9	**TDW**	2019	0.56	0.53	5.34	13.46
DS3	2020	0.32	0.28	4.28	5.72	**TDW**	2020	0.45	0.39	8.57	22.46
DS3	2021	1.09	1.09	4.82	6.64	**TDW**	2021	0.57	0.54	7.72	18.47
DS3	2022	0.38	0.35	-27.95	-36.99	**TDW**	2022	0.53	0.49	11.32	22.99
DS3	2023	0.36	0.32	2.34	3.48	**TDW**	2023	0.40	0.33	11.61	23.01

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Code	Year	TQ2	TQ3	ROA	ROE	Code	Year	TQ2	TQ3	ROA	ROE
DS3	2024	0.46	0.45	6.03	10.13	**TDW**	2024	0.36	0.33	10.88	23.58
DSN	2019	0.66	0.60	35.27	38.57	**TPH**	2019	13.17	22.03	3.8	6.75
DSN	2020	0.75	0.71	16.44	18.11	**TPH**	2020	5.18	6.81	3.67	6.72
DSN	2021	0.83	0.78	10.6	12.67	**TPH**	2021	6.38	7.94	3.33	6.21
DSN	2022	0.71	0.62	44.56	49.73	**TPH**	2022	6.49	8.70	3.34	6.29
DSN	2023	0.85	0.82	35.76	39.67	**TPH**	2023	5.69	6.92	3.38	6.51
DSN	2024	0.75	0.70	25.72	27.28	**TPH**	2024	0.76	0.69	2.76	5.49
DST	2019	1.00	0.99	-1.49	-1.82	**TTT**	2019	0.56	0.53	9.83	10.26
DST	2020	0.91	0.88	0.89	1.09	**TTT**	2020	0.45	0.39	0.5	0.54
DST	2021	0.92	0.89	12.69	13.27	**TTT**	2021	0.57	0.54	1.28	1.4
DST	2022	1.18	1.25	8.12	8.45	**TTT**	2022	0.53	0.49	6.29	6.8
DST	2023	1.21	1.32	0.37	0.39	**TTT**	2023	0.40	0.33	5.25	5.81
DST	2024	1.06	1.08	0.43	0.45	**TTT**	2024	0.36	0.33	4.41	4.79
EBS	2019	0.84	0.74	6.75	8.05	**VCM**	2019	13.17	22.03	6.23	12.13
EBS	2020	0.85	0.77	5.22	6.04	**VCM**	2020	5.18	6.81	7.22	11.25
EBS	2021	1.07	1.11	5.92	7.33	**VCM**	2021	6.38	7.94	1	1.35
EBS	2022	0.91	0.87	6.24	8.27	**VCM**	2022	6.49	8.70	0.24	0.33
EBS	2023	0.84	0.76	5.22	6.58	**VCM**	2023	5.69	6.92	0.95	1.27
EBS	2024	0.91	0.87	5.13	6.11	**VCM**	2024	0.76	0.69	3.95	5.12

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Appendix 2: Current status of corporate governance of listed trade and service firms. *(Source: https://cafef.vn/; https://24hmoney.vn/; https://finance.vietstock.vn/; https://www.cophieu68.vn/; Global Services Joint Stock Company)*

Code	Year	TQ2	TQ3	CH	CH2	Foreign	ID	Bsize	Dual	Gen	SIZE
ADC	2019	0.93	0.84	0.29	0.08	0.00	0.00	5.00	0.00	0.40	25.58
ADC	2020	0.91	0.80	0.29	0.09	0.00	0.00	5.00	0.00	0.40	25.65
ADC	2021	1.10	1.23	0.13	0.02	0.00	0.00	5.00	0.00	0.40	25.69
ADC	2022	1.00	0.99	0.07	0.00	0.00	0.00	5.00	0.00	0.40	25.81
ADC	2023	0.97	0.94	0.24	0.06	0.00	0.00	6.00	0.00	0.33	25.81
ADC	2024	1.00	1.00	0.11	0.01	0.00	0.00	5.00	0.00	0.40	25.89
ADG	2019	3.61	5.24	0.08	0.01	0.36	0.35	6.00	1.00	0.33	26.06
ADG	2020	1.36	1.67	0.05	0.00	0.42	0.40	8.00	0.00	0.25	26.82
ADG	2021	2.73	3.89	0.02	0.00	0.45	0.45	8.00	0.00	0.25	26.83
ADG	2022	1.43	1.55	0.08	0.01	0.46	0.40	8.00	0.00	0.25	26.74
ADG	2023	1.25	1.33	0.07	0.01	0.46	0.39	8.00	0.00	0.25	26.83
ADG	2024	0.71	0.62	0.10	0.01	0.09	0.39	8.00	0.00	0.25	26.93
ALT	2019	1.32	2.23	0.23	0.05	0.00	0.41	6.00	0.00	0.00	25.80
ALT	2020	1.48	3.56	0.07	0.00	0.00	0.41	6.00	0.00	0.17	25.99
ALT	2021	1.78	3.56	0.07	0.00	0.00	0.41	5.00	0.00	0.20	25.51
ALT	2022	2.00	4.36	0.07	0.00	0.00	0.41	5.00	0.00	0.20	25.51
ALT	2023	1.32	2.51	0.04	0.00	0.00	0.41	5.00	0.00	0.20	25.90
ALT	2024	1.23	2.02	0.15	0.02	0.00	0.41	5.00	0.00	0.20	25.87
ARM	2019	1.09	1.11	0.40	0.16	0.10	0.00	5.00	0.00	0.20	26.28
ARM	2020	1.91	2.06	0.34	0.12	0.10	0.00	5.00	0.00	0.40	26.37
ARM	2021	1.76	1.92	0.16	0.02	0.49	0.48	5.00	0.00	0.80	26.47
ARM	2022	0.70	0.61	0.06	0.00	0.49	0.48	5.00	0.00	0.80	26.64
ARM	2023	0.89	0.87	0.01	0.00	0.49	0.48	6.00	0.00	0.83	26.67
ARM	2024	0.90	0.88	0.13	0.02	0.49	0.48	6.00	0.00	0.83	26.59
ABR	2019	0.89	0.86	0.08	0.01	0.00	0.00	5.00	0.00	0.20	23.55
ABR	2020	0.92	0.90	0.12	0.01	0.00	0.00	5.00	0.00	0.20	23.60
ABR	2021	1.01	1.02	0.01	0.00	0.00	0.00	5.00	0.00	0.20	23.92
ABR	2022	0.91	0.86	0.04	0.00	0.00	0.00	5.00	0.00	0.20	23.78
ABR	2023	0.83	0.76	0.04	0.00	0.00	0.00	5.00	0.00	0.20	23.70
ABR	2024	0.82	0.66	0.03	0.00	0.00	0.00	5.00	0.00	0.20	23.96
BDB	2019	2.50	2.85	0.11	0.01	0.00	0.00	4.00	1.00	0.00	24.65
BDB	2020	2.08	2.35	0.09	0.01	0.00	0.00	5.00	0.00	0.00	24.68
BDB	2021	2.92	3.41	0.10	0.01	0.00	0.00	5.00	0.00	0.00	24.65
BDB	2022	2.64	3.07	0.05	0.00	0.00	0.00	5.00	0.00	0.20	24.62
BDB	2023	1.00	1.00	0.10	0.01	0.00	0.00	5.00	0.00	0.20	24.71
BDB	2024	1.90	2.12	0.07	0.01	0.00	0.00	5.00	0.00	0.20	24.72
BED	2019	1.13	1.24	0.15	0.02	0.05	0.06	7.00	1.00	0.00	26.76
BED	2020	1.22	1.48	0.05	0.00	0.05	0.06	7.00	1.00	0.00	26.92
BED	2021	1.31	1.60	0.17	0.03	0.05	0.06	7.00	1.00	0.00	26.89
BED	2022	1.13	1.28	0.06	0.00	0.05	0.06	7.00	1.00	0.00	26.95
BED	2023	1.37	1.90	0.13	0.02	0.05	0.06	7.00	1.00	0.00	27.09
BED	2024	1.52	2.15	0.01	0.00	0.05	0.06	7.00	1.00	0.00	27.07
CKV	2019	0.91	0.62	0.01	0.00	0.00	0.00	7.00	0.00	0.00	26.03
CKV	2020	0.71	0.27	0.00	0.00	0.00	0.00	5.00	0.00	0.00	26.43
CKV	2021	0.83	0.61	0.00	0.00	0.00	0.00	8.00	0.00	0.00	26.47
CKV	2022	0.65	0.14	0.00	0.00	0.00	0.00	8.00	0.00	0.00	26.45
CKV	2023	0.57	0.11	0.00	0.00	0.00	0.00	4.00	0.00	0.00	26.14
CKV	2024	0.58	0.11	0.00	0.00	0.00	0.00	4.00	0.00	0.00	26.13
CLW	2019	1.64	2.80	0.33	0.11	0.01	0.77	5.00	0.00	0.00	28.52
CLW	2020	1.99	4.63	0.13	0.02	0.01	0.75	5.00	0.00	0.00	28.99

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Code	Year	TQ2	TQ3	CH	CH2	Foreign	ID	Bsize	Dual	Gen	SIZE
CLW	2021	2.72	6.21	0.17	0.03	0.04	0.70	5.00	1.00	0.00	29.01
CLW	2022	1.69	3.55	0.07	0.00	0.10	0.77	5.00	1.00	0.20	29.43
CLW	2023	2.25	6.00	0.12	0.01	0.10	0.84	5.00	1.00	0.20	29.58
CLW	2024	2.71	6.74	0.12	0.02	0.10	0.80	5.00	1.00	0.20	29.59
CTC	2019	1.21	1.29	0.03	0.00	0.31	0.20	5.00	0.00	0.60	25.44
CTC	2020	1.02	1.03	0.22	0.05	0.31	0.22	5.00	0.00	0.60	25.46
CTC	2021	1.37	1.53	0.22	0.05	0.29	0.22	5.00	0.00	0.60	25.59
CTC	2022	0.98	0.96	0.32	0.10	0.32	0.24	5.00	1.00	0.00	25.84
CTC	2023	1.07	1.12	0.32	0.10	0.32	0.24	5.00	1.00	0.00	25.84
CTC	2024	1.06	1.09	0.42	0.17	0.28	0.20	5.00	1.00	0.00	25.82
CTR	2019	0.78	0.72	0.08	0.01	0.21	0.36	5.00	0.00	0.40	24.49
CTR	2020	0.73	0.62	0.30	0.09	0.04	0.46	5.00	0.00	0.40	24.64
CTR	2021	0.91	0.89	0.16	0.02	0.04	0.46	5.00	0.00	0.40	24.57
CTR	2022	0.80	0.76	0.12	0.01	0.01	0.46	5.00	0.00	0.20	24.58
CTR	2023	0.59	0.52	0.09	0.01	0.02	0.46	5.00	0.00	0.00	24.62
CTR	2024	0.68	0.61	0.10	0.01	0.02	0.46	5.00	0.00	0.00	24.65
DAD	2019	0.94	0.90	0.01	0.00	0.01	0.00	3.00	1.00	0.33	27.16
DAD	2020	0.69	0.41	0.00	0.00	0.01	0.00	3.00	1.00	0.33	27.14
DAD	2021	1.12	1.16	0.01	0.00	0.01	0.10	3.00	0.00	0.00	27.75
DAD	2022	0.53	0.41	0.00	0.00	0.00	0.09	3.00	1.00	0.33	27.78
DAD	2023	0.51	0.40	0.00	0.00	0.00	0.01	3.00	1.00	0.33	27.75
DAD	2024	0.42	0.31	0.02	0.00	0.00	0.14	3.00	1.00	0.33	27.72
DAE	2019	0.58	0.33	0.07	0.00	0.00	0.14	5.00	1.00	0.00	27.07
DAE	2020	1.04	1.07	0.05	0.00	0.01	0.14	5.00	1.00	0.00	26.97
DAE	2021	1.06	1.09	0.06	0.00	0.01	0.14	5.00	0.00	0.40	27.01
DAE	2022	0.91	0.86	0.03	0.00	0.00	0.18	5.00	0.00	0.60	27.02
DAE	2023	0.88	0.67	0.02	0.00	0.00	0.18	5.00	0.00	0.60	27.56
DAE	2024	0.91	0.75	0.03	0.00	0.00	0.18	5.00	1.00	0.40	27.61
DAH	2019	2.03	2.45	0.05	0.00	0.00	0.06	5.00	0.00	0.40	25.14
DAH	2020	2.51	3.14	0.23	0.06	0.00	0.00	5.00	0.00	0.40	25.30
DAH	2021	3.05	3.79	0.23	0.05	0.00	0.07	6.00	0.00	0.33	25.46
DAH	2022	2.31	2.68	0.08	0.01	0.00	0.07	5.00	0.00	0.40	25.53
DAH	2023	1.98	2.51	0.09	0.01	0.00	0.07	5.00	0.00	0.40	25.88
DAH	2024	3.00	4.04	0.10	0.01	0.00	0.07	6.00	0.00	0.33	26.04
DHM	2019	0.43	0.27	0.04	0.00	0.00	0.00	5.00	0.00	0.20	25.69
DHM	2020	0.61	0.54	0.02	0.00	0.00	0.00	5.00	0.00	0.20	25.83
DHM	2021	0.91	0.80	0.03	0.00	0.00	0.00	5.00	0.00	0.40	25.76
DHM	2022	0.73	0.64	0.02	0.00	0.00	0.00	5.00	0.00	0.40	25.38
DHM	2023	0.77	0.62	0.05	0.00	0.00	0.01	6.00	0.00	0.33	25.64
DHM	2024	0.77	0.61	0.04	0.00	0.00	0.01	5.00	0.00	0.40	25.78
DNC	2019	2.68	2.87	0.34	0.12	0.22	0.00	6.00	0.00	0.00	26.34
DNC	2020	2.67	2.81	0.17	0.03	0.20	0.00	6.00	0.00	0.17	26.14
DNC	2021	3.15	3.35	0.36	0.13	0.22	0.00	6.00	0.00	0.17	26.03
DNC	2022	2.31	2.48	0.32	0.10	0.22	0.00	6.00	0.00	0.17	26.37
DNC	2023	2.00	2.09	0.11	0.01	0.18	0.00	7.00	0.00	0.14	26.57
DNC	2024	1.93	2.10	0.19	0.04	0.15	0.00	5.00	0.00	0.20	26.65
DS3	2019	0.32	0.07	0.02	0.00	0.00	0.00	5.00	0.00	0.00	26.93
DS3	2020	0.32	0.28	0.01	0.00	0.01	0.01	4.00	0.00	0.00	26.54
DS3	2021	1.09	1.09	0.01	0.00	0.01	0.01	3.00	0.00	0.00	26.65
DS3	2022	0.38	0.35	0.00	0.00	0.00	0.00	3.00	0.00	0.00	26.75
DS3	2023	0.36	0.32	0.00	0.00	0.00	0.00	3.00	0.00	0.00	26.77
DS3	2024	0.46	0.45	0.00	0.00	0.00	0.00	3.00	0.00	0.00	26.72

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Code	Year	TQ2	TQ3	CH	CH2	Foreign	ID	Bsize	Dual	Gen	SIZE
DSN	2019	0.66	0.60	0.07	0.01	0.09	0.48	7.00	0.00	0.43	25.77
DSN	2020	0.75	0.71	0.05	0.00	0.09	0.48	7.00	0.00	0.43	25.78
DSN	2021	0.83	0.78	0.05	0.00	0.09	0.40	7.00	1.00	0.43	25.98
DSN	2022	0.71	0.62	0.07	0.01	0.09	0.48	7.00	1.00	0.43	26.00
DSN	2023	0.85	0.82	0.08	0.01	0.09	0.51	7.00	1.00	0.43	25.93
DSN	2024	0.75	0.70	0.10	0.01	0.09	0.41	7.00	1.00	0.57	25.93
DST	2019	1.00	0.99	0.41	0.17	0.05	0.59	5.00	0.00	0.40	24.47
DST	2020	0.91	0.88	0.27	0.07	0.05	0.59	5.00	0.00	0.40	24.53
DST	2021	0.92	0.89	0.98	0.95	0.05	0.58	5.00	0.00	0.40	24.59
DST	2022	1.18	1.25	0.90	0.81	0.05	0.31	5.00	0.00	0.20	24.79
DST	2023	1.21	1.32	0.02	0.00	0.05	0.31	5.00	0.00	0.40	24.66
DST	2024	1.06	1.08	0.27	0.07	0.05	0.48	5.00	0.00	0.40	24.59
EBS	2019	0.84	0.74	0.15	0.02	0.24	0.59	5.00	0.00	0.60	26.87
EBS	2020	0.85	0.77	0.36	0.13	0.24	0.59	5.00	0.00	0.60	26.89
EBS	2021	1.07	1.11	0.39	0.15	0.25	0.60	5.00	0.00	0.60	26.95
EBS	2022	0.91	0.87	0.36	0.13	0.22	0.58	7.00	0.00	0.50	27.02
EBS	2023	0.84	0.76	0.35	0.12	0.12	0.46	7.00	0.00	0.43	27.18
EBS	2024	0.91	0.87	0.65	0.43	0.12	0.46	5.00	0.00	0.40	27.23
ECI	2019	1.03	1.05	0.01	0.00	0.00	0.06	5.00	0.00	0.00	27.58
ECI	2020	0.93	0.88	0.01	0.00	0.00	0.01	6.00	0.00	0.00	27.62
ECI	2021	0.99	0.99	0.06	0.00	0.00	0.00	5.00	0.00	0.00	27.41
ECI	2022	1.56	1.78	0.02	0.00	0.00	0.00	5.00	0.00	0.00	27.14
ECI	2023	1.60	1.90	0.02	0.00	0.00	0.12	5.00	0.00	0.00	27.23
ECI	2024	1.25	1.45	0.04	0.00	0.00	0.13	5.00	0.00	0.20	27.43
EID	2019	0.27	0.10	0.00	0.00	0.00	0.05	5.00	1.00	0.20	26.41
EID	2020	0.18	0.15	0.00	0.00	0.01	0.06	5.00	0.00	0.20	26.22
EID	2021	0.92	0.92	0.01	0.00	0.00	0.00	5.00	0.00	0.20	26.26
EID	2022	0.17	0.17	0.00	0.00	0.00	0.00	5.00	0.00	0.20	26.24
EID	2023	0.44	0.22	0.00	0.00	0.00	0.00	5.00	0.00	0.20	26.57
EID	2024	0.40	0.15	0.06	0.00	0.00	0.00	5.00	0.00	0.20	26.61
FDC	2019	1.09	1.30	0.07	0.00	0.10	0.07	5.00	0.00	0.60	28.12
FDC	2020	1.13	1.29	0.07	0.00	0.09	0.09	5.00	0.00	0.40	27.84
FDC	2021	1.58	2.04	0.07	0.00	0.15	0.18	5.00	0.00	0.60	27.88
FDC	2022	0.98	0.96	0.06	0.00	0.16	0.16	5.00	0.00	0.60	28.58
FDC	2023	1.07	1.13	0.06	0.00	0.16	0.19	5.00	0.00	0.60	28.33
FDC	2024	1.14	1.22	0.11	0.01	0.23	0.27	5.00	0.00	0.60	28.51
FID	2019	0.83	0.76	0.10	0.01	0.38	0.22	5.00	0.00	0.20	23.79
FID	2020	0.92	0.89	0.29	0.08	0.38	0.22	5.00	0.00	0.00	23.84
FID	2021	1.58	1.77	0.10	0.01	0.16	0.22	5.00	0.00	0.00	23.79
FID	2022	2.10	2.24	0.16	0.03	0.02	0.22	5.00	0.00	0.20	23.62
FID	2023	2.25	2.33	0.11	0.01	0.02	0.22	5.00	0.00	0.60	23.34
FID	2024	1.44	1.68	0.24	0.06	0.02	0.22	5.00	0.00	0.60	23.73
HAX	2019	1.04	1.07	0.04	0.00	0.01	0.50	7.00	1.00	0.14	26.89
HAX	2020	1.08	1.15	0.05	0.00	0.01	0.51	7.00	0.00	0.14	26.98
HAX	2021	1.45	1.93	0.05	0.00	0.01	0.51	7.00	0.00	0.14	27.11
HAX	2022	0.93	0.85	0.06	0.00	0.01	0.53	8.00	0.00	0.13	27.15
HAX	2023	1.11	1.21	0.03	0.00	0.01	0.53	7.00	0.00	0.00	27.11
HAX	2024	1.38	1.75	0.05	0.00	0.00	0.53	9.00	0.00	0.22	27.12
HEV	2019	1.05	1.10	0.06	0.00	0.47	0.46	6.00	1.00	0.17	26.66
HEV	2020	1.00	1.00	0.16	0.03	0.46	0.45	6.00	1.00	0.17	26.61
HEV	2021	1.19	1.32	0.20	0.04	0.45	0.45	5.00	0.00	0.40	26.55
HEV	2022	0.89	0.83	0.09	0.01	0.46	0.46	6.00	0.00	0.33	26.60

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Code	Year	TQ2	TQ3	CH	CH2	Foreign	ID	Bsize	Dual	Gen	SIZE
HEV	2023	0.76	0.58	0.08	0.01	0.30	0.30	6.00	0.00	0.50	26.83
HEV	2024	1.64	1.95	0.08	0.01	0.30	0.30	5.00	0.00	0.60	26.31
HTC	2019	1.90	1.97	0.09	0.01	0.01	0.25	8.00	0.00	0.13	23.79
HTC	2020	1.78	1.83	0.14	0.02	0.01	0.42	5.00	0.00	0.00	23.80
HTC	2021	1.20	1.30	0.05	0.00	0.01	0.07	6.00	0.00	0.17	24.13
HTC	2022	1.86	1.96	0.04	0.00	0.01	0.16	5.00	0.00	0.20	23.94
HTC	2023	1.77	1.86	0.02	0.00	0.01	0.16	8.00	0.00	0.50	24.00
HTC	2024	1.49	1.76	0.04	0.00	0.01	0.02	10.00	0.00	0.50	24.45
HTL	2019	1.90	2.35	0.10	0.01	0.04	0.89	7.00	0.00	0.00	26.23
HTL	2020	1.16	1.26	0.23	0.05	0.04	0.90	7.00	0.00	0.00	26.34
HTL	2021	1.28	1.43	0.21	0.04	0.04	0.89	7.00	0.00	0.00	26.33
HTL	2022	1.05	1.08	0.19	0.04	0.04	0.89	7.00	0.00	0.00	26.43
HTL	2023	1.24	1.41	0.11	0.01	0.04	0.90	7.00	0.00	0.00	26.44
HTL	2024	1.46	1.81	0.08	0.01	0.06	0.90	7.00	0.00	0.00	26.51
LBE	2019	1.02	1.05	0.08	0.01	0.00	0.01	7.00	1.00	0.29	24.77
LBE	2020	0.79	0.53	0.08	0.01	0.00	0.01	7.00	1.00	0.29	25.12
LBE	2021	1.08	1.16	0.08	0.01	0.00	0.01	7.00	1.00	0.29	25.08
LBE	2022	1.09	1.17	0.06	0.00	0.00	0.01	7.00	1.00	0.29	25.18
LBE	2023	1.05	1.10	0.07	0.00	0.00	0.01	7.00	1.00	0.29	25.27
LBE	2024	1.15	1.34	0.13	0.02	0.00	0.01	7.00	1.00	0.29	25.44
NBW	2019	6.50	6.88	0.06	0.00	0.24	0.57	7.00	0.00	0.57	27.70
NBW	2020	6.85	7.30	0.03	0.00	0.25	0.86	7.00	0.00	0.43	27.72
NBW	2021	6.67	7.42	0.04	0.00	0.25	0.87	7.00	0.00	0.43	27.98
NBW	2022	4.95	5.29	0.03	0.00	0.29	0.87	7.00	0.00	0.43	28.07
NBW	2023	4.50	5.45	0.68	0.47	0.28	0.86	7.00	0.00	0.43	28.16
NBW	2024	2.59	3.14	0.73	0.54	0.21	0.79	7.00	0.00	0.29	28.27
QST	2019	0.71	0.45	0.00	0.00	0.00	0.11	5.00	0.00	0.20	26.60
QST	2020	0.83	0.68	0.00	0.00	0.00	0.03	5.00	0.00	0.20	26.60
QST	2021	2.76	3.41	0.00	0.00	0.00	0.00	5.00	0.00	0.20	26.41
QST	2022	0.83	0.77	0.00	0.00	0.00	0.00	5.00	0.00	0.20	26.45
QST	2023	0.94	0.91	0.00	0.00	0.00	0.00	4.00	0.00	0.25	26.28
QST	2024	0.76	0.67	0.00	0.00	0.00	1.00	5.00	0.00	0.00	26.27
SCS	2019	0.85	0.72	0.18	0.03	0.26	0.18	5.00	0.00	0.40	26.73
SCS	2020	0.81	0.69	0.20	0.04	0.15	0.10	5.00	0.00	0.40	26.70
SCS	2021	0.87	0.77	0.15	0.02	0.15	0.60	5.00	0.00	0.60	27.00
SCS	2022	0.74	0.54	0.16	0.03	0.08	0.53	5.00	0.00	0.40	27.13
SCS	2023	0.86	0.73	0.13	0.02	0.06	0.51	5.00	0.00	0.40	26.93
SCS	2024	0.91	0.83	0.14	0.02	0.06	0.53	5.00	0.00	0.40	26.92
SDA	2019	0.84	0.75	0.20	0.04	0.01	0.26	5.00	0.00	0.40	25.31
SDA	2020	0.72	0.54	0.13	0.02	0.01	0.26	5.00	0.00	0.40	25.42
SDA	2021	0.82	0.66	0.08	0.01	0.01	0.20	5.00	0.00	0.40	25.55
SDA	2022	1.40	1.64	0.05	0.00	0.01	0.19	5.00	0.00	0.40	25.31
SDA	2023	0.83	0.76	0.03	0.00	0.01	0.19	5.00	0.00	0.40	25.18
SDA	2024	0.92	0.88	0.02	0.00	0.01	0.19	5.00	0.00	0.60	25.18
SED	2019	1.59	2.43	0.51	0.26	0.06	0.60	5.00	0.00	0.20	24.97
SED	2020	0.86	0.78	0.31	0.10	0.06	0.07	5.00	0.00	0.20	26.01
SED	2021	0.96	0.93	0.07	0.01	0.06	0.66	7.00	0.00	0.29	26.21
SED	2022	0.83	0.71	0.15	0.02	0.06	0.53	5.00	0.00	0.20	26.16
SED	2023	0.87	0.80	0.17	0.03	0.00	0.06	5.00	0.00	0.00	26.06
SED	2024	0.80	0.69	0.23	0.05	0.02	0.01	5.00	0.00	0.00	26.10
SGD	2019	1.15	1.37	0.14	0.02	0.03	0.00	7.00	0.00	0.00	26.65
SGD	2020	1.20	1.53	0.28	0.08	0.03	0.00	6.00	0.00	0.00	26.84

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Code	Year	TQ2	TQ3	CH	CH2	Foreign	ID	Bsize	Dual	Gen	SIZE
SGD	2021	1.25	1.49	0.16	0.03	0.03	0.00	6.00	0.00	0.00	26.76
SGD	2022	1.23	1.45	0.33	0.11	0.03	0.00	6.00	0.00	0.00	26.86
SGD	2023	1.33	1.67	0.20	0.04	0.03	0.00	6.00	0.00	0.00	26.87
SGD	2024	1.34	1.79	0.12	0.02	0.03	0.00	6.00	0.00	0.00	27.06
STC	2019	0.90	0.83	0.06	0.00	0.00	0.51	5.00	0.00	0.20	24.46
STC	2020	0.93	0.86	0.11	0.01	0.00	0.49	5.00	0.00	0.20	24.58
STC	2021	1.00	1.00	0.08	0.01	0.00	0.49	5.00	0.00	0.20	24.59
STC	2022	1.10	1.19	0.05	0.00	0.00	0.49	5.00	0.00	0.20	24.60
STC	2023	1.08	1.15	0.06	0.00	0.00	0.49	5.00	0.00	0.20	24.63
STC	2024	1.14	1.28	0.11	0.01	0.00	0.49	7.00	0.00	0.29	24.65
TDW	2019	0.56	0.53	0.09	0.01	0.05	0.84	5.00	1.00	0.40	26.90
TDW	2020	0.45	0.39	0.08	0.01	0.05	0.83	5.00	0.00	0.40	26.80
TDW	2021	0.57	0.54	0.15	0.02	0.03	0.75	5.00	0.00	0.40	26.73
TDW	2022	0.53	0.49	0.03	0.00	0.02	0.75	5.00	0.00	0.40	26.83
TDW	2023	0.40	0.33	0.02	0.00	0.02	0.75	5.00	0.00	0.40	26.90
TDW	2024	0.36	0.33	0.02	0.00	0.02	0.75	5.00	0.00	0.40	26.88
TPH	2019	13.17	22.03	0.19	0.04	0.00	0.44	5.00	0.00	0.00	25.55
TPH	2020	5.18	6.81	0.04	0.00	0.00	0.44	5.00	0.00	0.00	25.35
TPH	2021	6.38	7.94	0.06	0.00	0.00	0.44	5.00	0.00	0.00	25.24
TPH	2022	6.49	8.70	0.10	0.01	0.00	0.44	5.00	0.00	0.00	25.28
TPH	2023	5.69	6.92	0.37	0.14	0.00	0.49	5.00	0.00	0.20	25.18
TPH	2024	0.76	0.69	0.02	0.00	0.00	0.44	5.00	0.00	0.40	25.27
TTT	2019	0.56	0.53	0.09	0.01	0.05	0.84	5.00	1.00	0.40	26.90
TTT	2020	0.45	0.39	0.08	0.01	0.05	0.83	5.00	0.00	0.40	26.80
TTT	2021	0.57	0.54	0.15	0.02	0.03	0.75	5.00	0.00	0.40	26.73
TTT	2022	0.53	0.49	0.03	0.00	0.02	0.75	5.00	0.00	0.40	26.83
TTT	2023	0.40	0.33	0.02	0.00	0.02	0.75	5.00	0.00	0.40	26.90
TTT	2024	0.36	0.33	0.02	0.00	0.02	0.75	5.00	0.00	0.40	26.88
VCM	2019	13.17	22.03	0.19	0.04	0.00	0.44	5.00	0.00	0.00	25.55
VCM	2020	5.18	6.81	0.04	0.00	0.00	0.44	5.00	0.00	0.00	25.35
VCM	2021	6.38	7.94	0.06	0.00	0.00	0.44	5.00	0.00	0.00	25.24
VCM	2022	6.49	8.70	0.10	0.01	0.00	0.44	5.00	0.00	0.00	25.28
VCM	2023	5.69	6.92	0.37	0.14	0.00	0.49	5.00	0.00	0.20	25.18
VCM	2024	0.76	0.69	0.02	0.00	0.00	0.44	5.00	0.00	0.40	25.27

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