The Impact of Couple's Joint Holdings on Corporate Financial Distress

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Abstract. Family firms are an important part of the national economy, and it is of interest whether a couple's Joint Holdings can leverage their strengths and reduce the risk of their firms falling into financial distress. This paper empirically examines the impact of joint shareholding by husband and wife on corporate financial distress, using a sample of A-share listed family firms from 2010-2021. We find that the effect of joint shareholding on financial distress is more pronounced in the sample with poorer quality audits and older firms, while the effect of joint shareholding on financial distress is significantly reduced in larger firms or those with higher gearing ratios. This paper has important implications for the role of joint shareholding in the capital markets as a means of escaping financial distress.

Keywords: Couple's Joint Holdings, Financial Distress, Family Firms.

1. Introduction

As an important part of the national economy, family firms are an ideal sample for a class of studies on the link between spousal shareholding and corporate financial distress. The solidarity and cooperation between family members of a family business is the cornerstone of corporate stability. Internal family conflicts and the coordination of the interests of external stakeholders are all issues that must be faced for the effective governance of family businesses. The inability to make effective joint decisions is detrimental to the stable development of the enterprise and can even lead to financial difficulties. After the reform and opening up, China's family enterprises have developed rapidly and made remarkable achievements. The analysis and answers to this question are of great significance for enterprises to escape from financial difficulties and enhance the role of joint shareholding in the capital market.

In view of this, this paper empirically examines the impact of joint shareholding by husband and wife on the financial distress of enterprises, using a sample of A-share listed family enterprises from 2010 to 2021. The study shows that firms with joint shareholding are more likely to be in financial distress, and the effect is more pronounced in the sample with poorer quality audits and older establishments, while the effect of joint shareholding on deepening financial distress is substantially dampened in larger firms or firms with higher gearing, and the finding holds after a series of robustness tests. Compared with the previous literature, the contribution of this paper is that: firstly, starting from family enterprises jointly controlled by husband and wife, and based on the trust and intimate emotional relationship between husband and wife in the corporate governance scenario, the paper systematically analyses the effect of joint ownership of shares in family enterprises on the financial distress of the company, expanding the research boundary of the theory of corporate governance of family enterprises, and to a certain extent, unraveling the relationship between husband and wife and other family enterprises. The study also unravels the fundamental differences in the intrinsic drivers between the shared governance model and other family business governance models and provides new evidence and ideas for opening up the "black box" of governance within family businesses. Secondly, through benchmark regression analysis, we find that spousal shareholding exacerbates the financial distress of the firm. We find that the impact of a couple’s shareholding on corporate financial distress is also influenced by a number of factors, including audit quality and the length of time the company has been in existence.

2. Theoretical analysis and research hypothesis

Due to the influence of various factors such as traditional culture and corporate system, private enterprises in China are generally family oriented. Among the many combinations of shareholding structures, the special organizational feature of joint ownership by husband and wife has become a common shareholding structure in family enterprises, with more than 30% of companies having a husband and wife holding shares together (Xiao, Jinli, et al., 2018) [1]. Joint shareholding means that the ownership of shares between spouses is clearly delineated, ensuring the spouses' participation and control, and preventing unnecessary disputes and costs over shareholding after a change of marriage. The relationship between spouses, as the core of family relationships (Hu, X. Yang, 2019) [2], is a key factor influencing the behavior of family firms, which is also closely linked to corporate financial distress (Wang,2020) [3].

Based on the influence of traditional culture, it is widely believed that wives should be dependent on their husbands and value the stability and harmony of the family (Wang Jianfeng and Zhao Weijia, 2021) [4]. In family businesses, the actual controller is usually the chairman or CEO, while the wife acts more as a facilitator in the husband's career as the head of the finance department. This division of labor ensures that the family has central control over the running of the business and allows the wife's personal attributes to be fully utilized.

Compared to other family members, both spouses have shared life experiences in working together in both family and business environments over a long period of time and will have a deeper sense of identification and emotional attachment to the business they have started and built. This can effectively improve the efficiency of corporate governance, thereby reducing the likelihood of financial risk and distress. The joint governance model also has the unique advantage of reducing agency costs and improving management efficiency. The concerted efforts of both spouses in family life and business activities help to strengthen family and corporate cohesion (Hu, X. Yang, 2019) [2]. Compared to the machismo that exists in traditionally male-dominated societies for a long time, the joint husband-wife governance model respects women more and adopts a more shared decision-making model in family business governance to avoid the business risks associated with aggressive or selfish entrepreneurial decisions (Wang, Ning, 2020; Guan, Lili, 2023) [3][5]. Secondly, Xu Yupeng (2020) [6] argues that joint rules between husband and wife will significantly reduce the cost stickiness of the firm. Shared relationship rules between spouses will stimulate extra-role supportive behaviors from both parties, resulting in an optimized functional configuration of roles for both men and women and reducing agency costs within and outside the family. Moreover, due to women's pro-social tendencies, they are more likely to accept moral codes and care about the interests of other stakeholders. Such pro-social values of wives can permeate marital and family life and positively influence and shape the behavioral preferences of husbands, such as altruistic tendencies (Ningbo et al., 2020) [7], inhibiting the "encroachment effect " and alleviate the financial distress of the business. Compared with other family firms, firms jointly led by husbands and wives have lower employee turnover and higher labor productivity; higher profitability, and return on assets; and firms are able to flexibly adjust costs and improve resource allocation (Xu, Yupeng, 2020) [6] and help increase corporate value (Wang, Jianfeng and Zhao, Weijia, 2021)[4], mitigating the situation of corporate financial distress. As in the above analysis, this paper proposes the following hypothesis.

H1a: Compared to family firms in which husbands hold shares alone, spouses' joint shareholding firms face lower financial distress.

When a husband and wife jointly hold shares, the spouse has the legal power to vote on major business decisions in the family business and will be more inclined to bring blood relatives into the business to participate in the operation out of altruistic motives for the family of origin (Ma, Yunbao, 2019)[8], resulting in more serious nepotism (Yu, Xiaodong and Liu, Xiaoyuan, 2017)[9] This may lead to the involvement of in-law family members in business decisions and company management, and such family enterprises tend to pay more attention to their blood relations and personal integrity when selecting financial managers, while lacking sufficient assessment and attention to their professional competence, while lacking the necessary professional knowledge and ability, making the quality of internal control of the enterprise decline, making it difficult to accurately analyse and effectively manage the financial situation of the enterprise, thus affecting the business decisions and development of the enterprise. It exacerbates the first type of principal-agent problem and affects the company's development. Due to the fragility of in-law relationships (Gao, Hao, et al., 2020) [10][11], differences in risk appetite may lead to disagreements and conflicts between spouses, affecting the internal and external information communication of the company, and long-term ineffective communication may divide spouses into different "invisible groups" within the company, reducing the transparency of information between spouses This can lead to inefficient investment due to poor capital planning and use (Bo, 2012)[12]. Couple-led family businesses focus more on the willingness to pass on the intergenerational dimension (Hu, X. Yang, 2019) [2]. The involvement of children in the management of the business conveys to a certain extent the willingness to hand over power in the family business to the outside world. Secondly, joint shareholding by husband and wife can intensify the concentration of power, as over-concentrated ownership can also further stir up internal conflicts among family members, and if relatives of both spouses are involved in the family business, it often triggers business risks due to their respective conflicts of interest, which may lead to interests between siblings This can lead to competing interests between siblings, factional rivalries between members of the two families behind the couple and intense competition for control, which can increase agency problems in the family business and increase the cost of coordination and supervision.

On the other hand, family enterprises generally lack effective audit and supervision mechanisms, mainly in the form of a lack of internal controls. Few family enterprises conduct internal audits of financial management, lack proper assessment procedures, and lack independent assessors to perform verification work, making it easy for deviations in personal investment interests to produce divisive company decisions and scattered and disorganized investment of resources, resulting in an increased ineffective investment of company resources, leading to increased costs of subsequent adjustments and the formation of cost stickiness (Yu & Liu Xiaoyuan, 2017)[9]. When a husband and wife jointly hold shares, both family members will be more involved in the management and governance of the company and hold positions such as director and supervisor, and the disadvantages of internal relationship governance and the governance risks of "double-core operation" are more obvious, which exacerbates the second type of principal-agent problem and gives the majority shareholder a higher incentive to encroach on the interests of small and medium shareholders. "When the majority shareholder attempts to plunder the wealth of small and medium shareholders and the interests of employees, the interests of society and the long-term interests of the enterprise can be overstepped by the management of family members through internal control restrictions, which can be directly implemented by family executives (Jiang Fuxiu et al., 2017) [13], and benefits are appropriated through capital appropriation, higher related party transactions, and special dividend policies. Sacrificing the interests of employees and consumers for corporate profits will lead to significant losses of employees and reduce consumer loyalty to the brand. This will inevitably undermine the sustainable potential of the business. Spousal intimacy and spousal loyalty, on the other hand, may further weaken corporate monitoring mechanisms (Wang, Jianfeng & Zhao, Weijia, 2021) [4]. Thus, compared to family firms where husbands hold shares alone, firms face more serious principal-agent problems when couples hold shares together, and inefficient corporate governance affects the behaviour and efficiency of the firm.

In addition, based on altruism theory, altruistic tendencies are strongest between parents and children, and family founders have an incentive to create 'secret reserves' through surplus management, asset impairment and other profit reconciliations while maintaining technical secrecy, among other reasons, which may lead to a lack of creditworthiness, insufficient legal awareness and disorganised financial management. For example, unscientific accounting, inaccurate accounting records, incomplete vouchers, incomplete bookkeeping, lack of necessary financial internal controls and even accounting errors. The confusion in financial management directly leads to the inability to provide true and accurate financial information, allowing users of the data to make wrong decisions. This is compounded by the fragility of the internal control environment due to the management of the relationship between husband and wife and shareholders, and the positioning of corporate governance roles and the roles of husband and wife. Due to the increased focus on maintaining the family's social and emotional wealth, the level of R&D investment in the firm is lower when the couple is partnered which constrains the firm from gaining long-term competitive advantage (Hu, X. Yang, 2019) [2] and is more likely to cause financial distress in the firm. As in the above analysis, this paper proposes the following hypothesis:

H1b: Compared to family firms in which husbands hold shares alone, firms in which husbands hold shares together face more severe financial distress.

3. Research design

3.1 Sample selection and data sources

This paper uses A-share listed companies from 2010-2021 as the initial research sample, from which ST and *ST samples and companies in the financial sector were excluded, while missing data samples were removed. A total of 13,615 observations for 5,337 companies were finally obtained. Financial data were obtained from the CSMAR database, and data on husband-and-wife shareholdings were obtained through manual collection of prospectuses and company annual reports by the beneficial owners and their spouses. In order to eliminate the effect of extreme values, all continuous variables were Winsorized (Winsorize) in 1% and 99% of the quartiles.

3.2 Definition of variables

3.2.1 Explanatory variables

Drawing on the treatment of Altman [14], the Z-score model was selected to measure corporate financial distress, as shown in equation (1).

$$Z=1.2X_1+1.4X_2+3.3X_3+0.6X_4+0.99X_5 \tag{1}$$

Where, Z value indicates the financial distress of the enterprise, and higher Z value indicates lower financial distress of the enterprise. If there is a positive correlation between joint shareholding and financial distress in the regression results, it indicates that joint shareholding of husband and wife will alleviate the financial distress of the firm. In addition,

X1 = working capital/total assets = (current assets current liabilities) total assets.

X2 = retained earnings/total assets = (total shareholders' equity - equity) / total assets.

X3 = earnings before interest and taxes/total assets = (total profit + finance costs) / total assets.

X4 = market value of preference shares and common shares/total liabilities = (market value of shares * total number of shares) / total liabilities.

X5 = sales/total assets

3.2.2 Explanatory variable: joint ownership of shares by husband and wife (Toge)

Toge = 1 if both the de facto controller of the listed family business and his or her spouse hold shares in the company, otherwise it is 0.

3.2.3 Control variables

Referring to Hegde and Mishra (2019) [15], this paper combines firm size (Size), firm gearing (Lev), the net profit margin on total assets (ROA), number of directors (Board), the shareholding of the first largest shareholder (Top1), equity checks and balances (Balance1), firm equity held by the state (SOE), the FirmAge, Growth in revenue, and Dual.

The variables are described in detail in Table 1.

3.3 Model Specification

To test the hypotheses of this paper, we construct the following model (2):

$$Z_{I,t}=\alpha_0+\alpha_1 Toge_{i,t}+\alpha_i \sum Controls_{i,t}+\sum Year+\sum Industry+\varepsilon_{i,t} \quad (2)$$

Where $Z_{I,t}$ represents the financial distress of company i in year t. $Toge_{i,t}$ is a dummy variable indicating whether company i is jointly held by spouses in year t. $Controls_{i,t}$ are the control variables. Additionally, the model controls for year and industry dummies to mitigate the influence of macroeconomic factors.

4. Empirical Results and Analysis

4.1 Descriptive Statistics

Table 2 presents the descriptive statistics. It can be seen that the minimum and maximum values of the dummy variable for spousal joint shareholding (Toge) are 0 and 1, respectively, with a mean of 0.503 and a standard deviation of 0.5. This indicates that the situation of both the actual controller and their spouse holding shares of the listed family enterprise is distributed evenly, with nearly half of the listed family enterprises having both the actual controller and their spouse holding shares of the company. The minimum and maximum values of financial distress (Z) are -46.08 and 1861, respectively, with a mean of 5.899 and a standard deviation of 18.67. This indicates that there are indeed samples with severe financial distress, and there is a large difference in the financial conditions of each company.

Table 1 Variable Definition

Variable name	Symbol	Definition of Variable
Corporate financial distress	Z	See explanation above for details
Joint shareholding of husband and wife	Toge	=1,if controller and their spouse jointly hold shares of the listed company =0, otherwise
Enterprise size	Size	ln(Total assets)
Corporate gearing ratio	Lev	Total liabilities / Total assets
Net profit margin on total assets	ROA	(Net profit in year t + Net profit in year t-1) / (2 * Total assets)
Number of directors	Board	ln(Number of board members)
Shareholding ratio of the largest shareholder	Top1	Shares held by the largest shareholder / Total shares
Shareholding checks and balances	Balance1	Shares held by the second largest shareholder / Shares held by the largest shareholder
Whether a state-owned enterprise	SOE	=1 if state-owned holding companies, =0 otherwise
Year of establishment	FirmAge	ln(Current year - Establishment year of the company + 1)
Growth rate of operating revenue	Growth	(Current year operating revenue - Previous year operating revenue) / Previous year operating revenue
Two positions in one	Dual	= 1 if the chairman and general manager are the same person = 0, otherwise.

Table 2 Descriptive Statistics

Variable	N	Mean	SD	Min	p50	Max
Z	13615	5.899	18.67	-46.08	3.534	1861
Toge	13615	0.503	0.500	0	1	1
Size	13615	21.86	1.110	19.52	21.71	26.43
Lev	13615	0.379	0.197	0.0270	0.364	0.925
ROA	13615	0.049	0.0720	-0.398	0.0490	0.254
Board	13615	2.076	0.188	1.609	2.197	2.708
Balance1	13615	0.387	0.278	0.00600	0.321	1
Top1	13615	0.343	0.139	0.0810	0.324	0.758
SOE	13615	0.006	0.0760	0	0	1
FirmAge	13615	2.822	0.369	1.099	2.890	3.611
Growth	13615	0.200	0.428	-0.660	0.135	4.330
Dual	13615	0.397	0.489	0	0	1

4.2 Baseline regression analysis

Table 3 presents the results of the baseline regression analysis. The regression coefficient between whether the shares are jointly held by spouses (Toge) and corporate financial distress (Z) is significantly negative at the 1% level, indicating a significant negative correlation between joint shareholding by spouses and corporate financial distress. This supports the hypothesis 1b of the study, suggesting that joint shareholding by spouses may exacerbate corporate financial distress.

Table 3 baseline regression analysis result

	(1)
VARIABLES	Z
Toge	-0.363***
	(-2.80)
Size	-0.616***
	(-9.74)
Lev	-14.073***
	(-44.49)
ROA	6.968***
	(10.82)
Board	-0.748***
	(-2.69)
Top1	-3.953***
	(-7.56)
Balance1	-1.363***
	(-5.73)
SOE	0.899*
	(1.75)
FirmAge	1.566***
	(7.17)
Growth	-0.264***
	(-3.07)
Dual	-0.202**
	(-2.11)
Constant	22.544***
	(14.45)
Observations	13,615
Year FE	YES
Industry FE	YES

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.3 Robustness tests

4.3.1 PSM to address sample selection bias

This paper uses PSM to deal with the endogeneity problem by predicting the financial distress of family firms through the dummy variables of firm size, firm gearing, number of directors, shareholding of the first largest shareholder, equity checks and balances, operating income growth rate, two jobs in one, total net profit margin, nature of firm equity, time of establishment, year and industry, randomly grouped and matched on a 1:3 matching principle. The matched variables passed the balance test. A total of 12,123 samples were eventually obtained and the results of the matched samples for regression are shown in Table 4. The coefficient of Toge is significant at the 5% level, which demonstrates the robustness of the baseline regression results.

4.3.2 Fixed effects

To further control for the effect of province, this paper adds province fixed effects, and the regression coefficient of Toge in the regression results in Table 4 is still significantly negative at the 1% level.

4.3.3 Adding control variables

In consideration of the possible impact of the ratio of capital employed by major shareholders, this paper also further controls for the dummy variable for the share of capital occupied by major shareholders (Occupy). The regression coefficient of Toge in the regression results shown in Table 4 is significantly negative at the 1% level.

$$\mathrm{RER}_{i,t}=\sqrt{\frac{1}{5}\sum_{t=1}^{5}\left(\mathrm{ROA}_{i,t-1}-\mathrm{iROA}_{i,t-1}\right)^{2}} \tag{3}$$

Where: $iROA_{i,t-1}$ is the average performance of all firms in firm i′s industry in year t−1 (average ROA), i.e., the target performance; $ROA_{i,t-1}$ is the actual performance of firm i in year t-1. The empirical results are consistent with the previous section.

Table 4 Robustness test results

	(1)	(1)	(2)	(3)
VARIABLES	Z	Z	Z	RER
Toge	-0.338**	-0.344***	-0.358***	-0.004**
	(-2.49)	(-2.65)	(-2.77)	(-2.50)
Constant	22.205***	23.179***	22.415***	0.431***
	(13.50)	(14.59)	(14.38)	(21.20)
Controls	YES	YES	YES	YES
Observations	12,123	13,615	13,606	7,452
Year FE	YES	YES	YES	YES
Province FE	NO	YES	NO	NO
Industry FE	YES	YES	YES	YES

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.4 Heterogeneity analysis

4.4.1 Audit quality

This study divided the sample into two groups based on whether the audit work conducted by A-share listed family firms between 2010 and 2021 was provided by the Big Four accounting firms. The two groups are categorized as having either good audit quality (i.e., audit work provided by the Big Four) or poor audit quality (i.e., audit work not provided by the Big Four). The regression results in Table 5, columns 1 and 2, indicate that in firms with poor audit quality, spousal shareholding is significantly and negatively related to the likelihood of financial distress at the 1% level, whereas in firms with good audit quality, the relationship between spousal shareholding and financial distress is not significant.

4.4.2 Year of firm

In this study, the median number of years of establishment of A-share listed family firms from 2010-2021 was used as the criterion for grouping the sample into two groups with long company years, i.e. companies with years of establishment above the sample median and companies with years of establishment below the sample median. The regression results are presented in columns 3 and 4 of Table 5. The results indicate that the relationship between husband-and-wife shareholding and firms in financial distress is significant at the 10% level in firms with long company age, while the relationship between husband-and-wife shareholding and firms in financial distress is not significant in firms with short company age.

Table 5 Heterogeneity analysis

	(1)	(2)	(3)	(4)
VARIABLES	Good audit quality	Poor audit quality	Long company life	Short company life
Toge	-0.053	-0.387***	-0.340*	-0.165
	(-0.05)	(-2.96)	(-1.75)	(-0.98)
Constant	9.481	23.538***	18.764***	19.734***
	(0.88)	(14.55)	(6.56)	(9.50)
Controls	YES	YES	YES	YES
Observations	355	13,259	6,084	7,531
Year FE	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

4.5 Further analysis

The size of a company is the size of an enterprise according to the relevant standards and regulations, and its size is determined by the development process of the enterprise in the society as a whole. The gearing ratio, also known as the debt-to-business ratio, is an indicator used to measure the ability of an enterprise to use funds provided by creditors to carry out its business activities and to reflect the degree of security of creditors in granting loans. Therefore, the following two indicators, firm size and firm gearing ratio, are selected for analysis and the following conclusions are drawn: the cross product Toge*Size of joint ownership Toge and firm size Size is significant at the 1% level with a coefficient of 0.317, indicating that firm size can significantly dampen the effect of joint ownership of husband and wife in deepening the firm's financial distress. The cross-product Toge*Lev and financial distress Z are significant at the 5% level and have a coefficient of 1.194, indicating that high gearing can and does significantly dampen this effect. The results are shown in Table 6.

Table 6 Further analysis

	(1)	(2)
VARIABLES	Z	Z
Toge	-7.256***	-0.811***
	(-3.62)	(-3.60)
Size	-0.768***	-14.642***
	(-9.97)	(-37.17)
Toge*Size	0.317***	
	(3.45)	
Lev	-14.120***	-0.622***
	(-44.61)	(-9.83)
Toge*Lev		1.194**
		(2.43)
Controls	YES	YES
Constant	25.724***	22.805***
	(14.20)	(14.58)
Observations	13,615	13,615
Year FE	YES	YES
Industry FE	YES	YES

z-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

5. Conclusions and Recommendations

This paper uses A-share listed companies from 2010-2021 as a research sample to theoretically analyze and empirically demonstrate the relationship between husband and wife shareholding and corporate financial distress. The study finds that: 1) joint shareholding of husband and wife deepens corporate financial distress, indicating that husband and wife shareholding strengthens corporate financial distress. 2) in firms with longer years, husband and wife shareholding deepens corporate financial distress, but in firms with shorter years, the effect of husband and wife shareholding on corporate financial distress is not significant. 3) in firms with poor audit quality, the joint shareholding of husband and wife may exacerbate corporate financial distress, but in firms with better audit quality, the effect of husband and wife shareholding on corporate financial distress is not significant. (4) Company size has a significant moderating effect on the relationship between joint shareholding and financial distress, with larger company size effectively suppressing the negative correlation between joint shareholding and financial distress. 5) Gearing ratio A higher gearing ratio can effectively suppress the negative correlation between joint shareholding and financial distress.

Based on the above findings, the following insights are put forward: 1) establish a long-term regulatory mechanism: the government can establish a long-term regulatory mechanism to comprehensively monitor and evaluate the operation of enterprises, especially for enterprises with a longer lifespan, and strengthen the review and supervision of husband and wife shareholdings to ensure the stability of the enterprises' operation and prevent their financial distress. 2) improve the quality of audits. Improving audit quality can effectively reduce the impact of spousal shareholding on corporate financial distress. Audit quality can be improved by strengthening audit supervision, improving the quality and competence of auditors, and enhancing the standardization of the audit process. 3) although this study analyses and verifies the relationship and heterogeneity analysis of corporate husband and wife shareholding on corporate financial distress, it does not explore the mechanism role of husband and wife shareholding on financial distress. The issue of husband and wife shareholding can have an impact on the financial performance of the company through different channels, and future studies can try to reveal the ways and mechanisms of the impact of husband and wife shareholding on corporate financial distress to further improve the reliability and Future research may try to reveal the ways and mechanisms through which shareholding of husband and wife affects the financial distress of a company, so as to further improve the reliability and practicality of the study.

References

[1] Xiao, Jinli; Pan, Yue; Dai, Yiyi. The "conservative" marriage: joint shareholding and corporate risk-taking[J]. Economic Research, 2018,53(05): 190-204.

[2] Hu X. Yang. "Husband and wife partnership" governance and R&D investment in family firms - a socio-emotional wealth theory perspective[J]. Economic Management, 2019,41(12):57-72.

[3] Wang N. Managerial overconfidence, investment behavior and corporate financial distress [C]. Jilin University,2020.

[4] Wang Jianfeng, Zhao Weijia. Governance and corporate value of "husband-and-wife" partners: adding or depreciating value? [J]. Modern Finance and Economics (Journal of Tianjin University of Finance and Economics), 2021, 41(03):18-36.

[5] Guan Lili. Industrial policy, excessive investment and corporate financial distress [J]. Journal of Finance and Accounting, 2023, (04):68-71+114.

[6] Xu Yupeng. Does joint rule by husband and wife change firm cost stickiness: empirical evidence based on Chinese family-listed firms [J]. Journal of Shanghai University of Finance and Economics,2020,22(01):100-122.

[7] Ning Bo, Pan Yue, Jiang Min. Research progress on marriage, family and corporate finance [J]. Journal of Economics, 2020, No.707(01):114-127.

[8] Ma Yunbao. A study on the ownership allocation of spouses of family business founders [J]. China Price,2019, No.363(07):84-86.

[9] Yu Xiaodong,Liu Xiaoyuan. How different types of kinship relationships affect family business governance--a literature review and theoretical induction based on Chinese and foreign studies [J]. Economic Management,2017,39(04):195-208.

[10] Gao, Hao, and Quiet. The death of husband-wife rivalry in family firms (3) The double case of Bawang Group vs Dangdang.com (above) A dueling battle between husband-and-wife co-leaders [J]. Family Business,2020, No.64(11):90-95.

[11] Gao, Hao, and Jing. The death of a family business couple (2): The double case of Sunflower Pharmaceuticals vs Walmart (above) The "divorce aftermath" of a deadly family business couple [J]. Family Business, 2020(09):90-91.

[12] Bo W. Does joint shareholding affect investment efficiency? --A study based on Chinese listed family firms[C]. Northeast University of Finance and Economics, 2020.

[13] Jiang Fuxiu, Zheng Xiaojia, Cai Wenjing. The controlling family's "draping" and corporate financial decision-making [J]. Management World,2017, No.282(03): 125-145.Bo W. Does joint shareholding by husband and wife affect investment efficiency? --A study based on Chinese listed family firms [C]. Northeast University of Finance and Economics,2020.

[14] Altman Edward I. Corporate Financial Distress:a Complete Guide to Predicting,Avoiding,and Dealing with Bankruptcy [J].Journal of Business Strategy, 1984(01):142-144.

[15] Hegde,S.P.,&Mishra,D.R.(2019).Married CEOs and Corporate Social Responsibility.Journal of Corporate Finance,58,226-246.

[16] Miller,K.D.,&Leiblein,M.J.(1996).Corporate risk-return relations:Returns variability versus downside risk.*Academy of Management journal*,*39*(1),91-122.