When Shareholders Are Also Creditors: Evidence on Corporate Tax Avoidance

Jialu Li*

Central University of Finance and Economics, Beijing, China

Corresponding author's e-mail: 1908058061@qq.com

Abstract. This study examines how institutional investors' simultaneous debt and equity positions shape corporate tax avoidance. Because dual holders share in both equity-side tax benefits and debt-side downside risk, they may alter firms' tax planning incentives. Using U.S. public firms from 1990 to 2010, we find that firms with institutional dual holders report lower effective tax rates. The evidence remains robust to firm fixed effects and alternative tax avoidance proxies. We further exploit mergers between lenders and institutional shareholders as shocks to dual ownership. Difference-in-differences tests show that treated firms reduce their effective tax rates after dual ownership increases. The effect is stronger when institutional monitoring is weaker, leverage is higher, and default risk is lower. Overall, the findings suggest that dual holders influence tax policy by weighing tax savings against creditor risk.

Keywords: Institutional dual ownership; Dual holders; Corporate tax avoidance; Shareholder–creditor conflict; Tax planning

1 Introduction

Corporate tax avoidance affects after-tax cash flows, valuation, risk, and public revenues. Prior research shows that firms' tax choices depend not only on tax rules but also on agency conflicts, ownership structures, managerial incentives, and monitoring forces [5, 7, 9, 11, 14, 19, 20]. Existing studies mainly emphasize manager–shareholder conflicts. This paper instead focuses on the shareholder–creditor dimension of tax planning.

Tax avoidance creates both benefits and costs. Successful tax planning increases internal resources and can enhance shareholder value. At the same time, aggressive tax positions may raise opacity, enforcement exposure, litigation risk, and financial fragility [8, 9, 10, 16]. Because shareholders benefit more from upside gains and creditors bear more downside losses, the two groups may prefer different levels of tax aggressiveness [12].

Institutional dual holders provide a useful setting to examine this conflict. A dual holder owns both debt and equity claims in the same firm. This position may reduce shareholder–creditor frictions because the investor internalizes payoffs from both claims. However, debt exposure may also make dual holders reluctant to support tax

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strategies that increase downside risk. Thus, the direction of the effect is theoretically ambiguous.

Using U.S. public firms from 1990 to 2010, we find that dual-holder firms have lower effective tax rates. The result is robust to firm controls, fixed effects, and alternative tax avoidance measures. To strengthen identification, we use mergers between lending institutions and institutional shareholders as shocks to dual ownership, following Chu [6]. Difference-in-differences tests show that affected firms engage in more tax avoidance after dual ownership increases.

Additional analyses help clarify when dual holders matter most. The effect is stronger among firms with lower institutional ownership, consistent with dual holders having more influence when other monitoring is weaker. It is also stronger for highly leveraged firms, where shareholder–creditor conflicts are more salient. Finally, the effect appears only among firms with lower default risk, suggesting that dual holders support tax avoidance mainly when creditor downside risk is limited.

This paper contributes to the tax avoidance literature by showing that investors' positions across the capital structure influence tax policy. It also adds to the growing literature on dual ownership, which documents the role of dual holders in investment, disclosure, managerial incentives, distress resolution, tax policy, and green innovation [1, 4, 15, 17, 20, 21]. Our evidence identifies corporate tax avoidance as another channel through which dual holders shape firm behavior.

2 Data and Research Design

2.1 Sample Selection

The sample covers U.S. listed firms from 1990 to 2010. We obtain accounting data from Compustat, institutional equity holdings from Thomson Reuters 13F, and syndicated loan data from LPC DealScan. Linking these sources allows us to identify cases in which a financial institution is both a lender and an equity holder of the same firm.

Following Jiang et al. [13], Chu [6], and Tang et al. [18], DUAL equals one if a firm has at least one institutional dual holder in a given year and zero otherwise. We exclude financial firms and utilities because of their distinct regulatory and accounting environments. We also require non-missing values for the variables used in the regressions. The final sample contains 70,863 firm-year observations. Table 1 reports the yearly distribution of dual-holder firms.

Table 1. Percentage change of dual holding firms

Year	Dual-Firms	Percentage of Dual Firms
1990	116	0.046
1991	131	0.051
1992	181	0.062
1993	262	0.079
1994	326	0.089
1995	333	0.084
1996	422	0.097

1997	482	0.114
1998	546	0.140
1999	523	0.139
2000	511	0.145
2001	513	0.169
2002	525	0.165
2003	537	0.164
2004	707	0.202
2005	672	0.192
2006	631	0.181
2007	662	0.202
2008	626	0.208
2009	568	0.206
2010	481	0.155

2.2 Measures of Corporate Tax Avoidance

Our main outcome is ETR, defined as total tax expense scaled by pretax income. Lower ETR values indicate greater tax avoidance. We also use three alternative proxies: CETR, BTD, and DDBTD. CETR captures cash tax payments, while BTD and DDBTD capture book-tax divergence and its discretionary component.

2.3 Empirical Model

We estimate the association between dual ownership and tax avoidance using the following specification:

$$\mathrm{ETR}_{i,t} = \alpha + \beta \mathrm{DUAL}_{i,t} + \gamma \mathrm{Controls}_{i,t} + \mathrm{FE} + \varepsilon_{i,t}$$

The coefficient β captures the difference in ETR between firms with and without institutional dual holders. A negative β is consistent with greater tax avoidance among dual-holder firms. The controls include profitability, leverage, loss carryforwards, foreign income, capital intensity, equity-method income, R&D, Tobin's Q, size, special items, and institutional ownership. Regressions include year fixed effects and, depending on the specification, industry or firm fixed effects. Standard errors are clustered by firm.

2.4 Difference-in-Differences Design

Dual holders may select firms with particular tax policies. To address this concern, we use mergers between lending institutions and institutional shareholders as shocks to dual ownership. These mergers occur at the financial-institution level and are unlikely to be caused by portfolio firms' tax choices [6]. This design is consistent with recent dual-ownership studies examining corporate disclosure, incentives, and distress outcomes [4, 15, 17].

Treatment firms are those whose dual ownership increases after the merger; control firms are unaffected by the same event. The DID specification is:

$$\mathrm{ETR}_{i,t} = \alpha + \beta(\mathrm{Treat}_i \times \mathrm{Post}_t) + \gamma \mathrm{Controls}_{i,t} + \mathrm{FE} + \varepsilon_{i,t}$$

Treat identifies affected firms, and Post identifies the post-merger period. A negative coefficient on Treat × Post indicates that merger-induced increases in dual ownership reduce ETR.

3 Empirical Results

3.1 Descriptive Statistics

Table 2 reports descriptive statistics. The mean ETR is 0.271, similar to values in prior tax avoidance studies [3, 8]. About 13.8% of firm-year observations have at least one institutional dual holder. The mean ROA is 0.091, the mean leverage ratio is 0.168, and the mean institutional ownership is 33.1%.

Table 2. Summary Statistics

	N	Mean	SD	P25	Median	P75
ETR	70863	0.271	0.213	0.095	0.276	0.381
DUAL	70863	0.138	0.345	0.000	0.000	0.000
ROA	70863	0.091	0.123	0.037	0.080	0.136
LEV	70863	0.168	0.182	0.005	0.124	0.270
NOL	70863	0.297	0.457	0.000	0.000	1.000
DNOL	70863	0.002	0.260	0.000	0.000	0.000
FORINC	70863	0.009	0.025	0.000	0.000	0.004
CAPINT	70863	0.364	0.337	0.126	0.267	0.500
EQINC	70863	0.001	0.004	0.000	0.000	0.000
RD	70863	0.033	0.145	0.000	0.000	0.030
TOBIN'S Q	70863	2.998	7.448	1.200	1.715	2.770
SIZE	70863	5.662	2.126	4.174	5.567	7.077
SPI	70863	-0.011	0.054	-0.006	0.000	0.000
Institutional Ownership	70863	0.331	0.328	0.000	0.251	0.611

This table reports descriptive statistics for the variables used in the analyses. ETR is total tax expense over pretax income; CETR is cash taxes paid over pretax income; BTD is the book-tax gap; DDBTD is the discretionary component of BTD. DUAL equals one for firm-years with at least one institutional dual holder. ROA is pretax income/assets; LEV is debt/assets; NOL indicates loss carryforwards; DNOL is the change in loss carryforwards/assets; FORINC is foreign pretax income/assets; CAPINT is net PPE/assets; EQINC is equity-method income/assets; RD is R&D/assets; Tobin's Q is market value of equity/book assets; SIZE is log assets; SPI is special items/assets; Institutional Ownership is the shareholding percentage of institutional investors. Treat and Post are the treatment and post-event indicators used in the DID tests.

3.2 Baseline Results

Table 3 presents the main regressions. DUAL is negative and significant in both specifications. The result indicates that firms with institutional dual holders report lower effective tax rates than otherwise similar firms.

The magnitude is economically meaningful. In Column (1), the coefficient of −0.021 implies a 2.1 percentage point decrease in ETR. Relative to the sample mean of 27.1%, this corresponds to a decline of about 7.7%. The coefficient remains negative and significant after firm fixed effects are included. These findings are consistent with the view that dual holders affect corporate policies through their combined debt and equity interests [4, 17, 20].

Table 3. Baseline Results

	ETR	ETR
VARIABLES	(1)	(2)
DUAL	-0.021***	-0.012***
	(0.003)	(0.003)
Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	No
Firm FE	No	Yes
Observations	70,863	70,863
R-squared	0.109	0.042

This table reports the baseline regressions. The dependent variable is ETR. DUAL equals one for firm-years with at least one institutional dual holder. Firm-clustered standard errors are shown in parentheses. Controls and fixed effects are indicated in the table. ***, **, and * denote significance at the 1%, 5%, and 10% levels.

3.3 Difference-in-Differences Analysis

Table 4 reports the DID evidence. Column (1) confirms that the merger shocks increase dual ownership among treated firms. Column (2) shows that Treat × Post is negative and significant when ETR is the outcome. Thus, firms affected by merger-induced increases in dual ownership subsequently report lower effective tax rates.

These results support the interpretation that dual ownership contributes to greater tax avoidance, rather than merely reflecting selection into firms with lower tax rates.

Table 4. Difference-in-difference Analysis

	DUAL	ETR
VARIABLES	(1)	(2)
Treat*Post	0.169***	-0.027***
	(0.058)	(0.009)

Treat	0.144**	-0.020
	(0.064)	(0.035)
Post	-0.007	0.006
	(0.006)	(0.010)
Controls	Yes	Yes
Year FE	Yes	Yes
Firm FE	Yes	Yes
Observations	10,922	10,922
R-squared	0.827	0.551

Treat × Post is the DID term. Unless otherwise stated, the estimation procedure and reporting conventions follow Table 3.

4 Additional Analyses and Robustness Tests

4.1 Institutional Ownership

We first examine whether dual holders matter more when other institutional monitoring is weaker. Firms are split by the sample median of institutional ownership. Table 5 shows that DUAL is more negative among firms with lower institutional ownership, and the coefficient difference is significant. This pattern suggests that dual holders have greater influence when alternative monitoring by institutions is limited.

Table 5. Cross-sectional Analysis Institutional Ownership

Dep. Var.	ETR	
	Institutional Ownership	
	Below Median	Above Median
	(1)	(2)
Dual	-0.035***	-0.004
	(0.012)	(0.003)
Diff. in Coef.	-0.031***	
p-value	(0.008)	
Controls	Yes	
Fixed Effects	Firm, Year	
Observations	36,556	34,307
R^2	0.040	0.051

The sample is divided by the median level of institutional ownership. Unless otherwise stated, the estimation procedure and reporting conventions follow Table 3.

4.2 Financial Leverage

Leverage increases the importance of shareholder–creditor conflicts because shareholders may prefer policies that shift downside risk to creditors [2, 8, 12]. Table 6 shows

that the DUAL coefficient is more negative in the high-leverage subsample. This result is consistent with dual holders playing a larger role when debt-related conflicts are stronger.

Table 6. Cross-sectional Analysis Financial Leverage

Dep. Var.	ETR	
	Financial Leverage	
	Below Median	Above Median
	(1)	(2)
Dual	-0.008	-0.013***
	(0.005)	(0.004)
Diff. in Coef.	0.005***	
p-value	(0.002)	
Controls	Yes	
Fixed Effects	Firm, Year	
Observations	33,696	33,443
R^2	0.459	0.443

The sample is divided by the median leverage ratio. Unless otherwise stated, the estimation procedure and reporting conventions follow Table 3.

4.3 Default Risk

Debt exposure may also limit dual holders' willingness to support aggressive tax planning when default risk is high. We test this implication using the Altman Z-score. Table 7 shows that DUAL is negative and significant only among firms with above-median Z-scores, which indicates lower default risk. The coefficient is insignificant for higher-risk firms. This evidence suggests that dual holders encourage tax avoidance only when the potential cost to creditor claims is relatively small.

Table 7. Cross-sectional Analysis Default Risk

Dep. Var.	ETR	
	Default Risk (Altman Z-score)	
	Below Median Z	Above Median Z
	(1)	(2)
Dual	-0.011	-0.009***
	(0.012)	(0.0002)
Diff. in Coef.	-0.002***	
p-value	(0.006)	
Controls	Yes	

Fixed Effects	Firm, Year	
Observations	30,332	17,522
R^2	0.423	0.432

The sample is divided by the median Altman Z-score. Higher Z-scores indicate lower default risk. Unless otherwise stated, the estimation procedure and reporting conventions follow Table 3.

4.4 Alternative Measures of Tax Avoidance

Finally, we replace ETR with CETR, BTD, and DDBTD. Table 8 shows that DUAL is negatively related to CETR and positively related to BTD and DDBTD. The main inference therefore does not depend on a single tax avoidance proxy.

Table 8. Robustness Check

	CETR	BTD	DDBTD
VARIABLES	(1)	(2)	(3)
Dual	-0.006**	0.003***	0.005**
	(0.003)	(0.001)	(0.002)
Controls	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Observations	49,565	48,115	29,783
R-squared	0.050	0.245	0.198

This table uses CETR, BTD, and DDBTD as alternative tax avoidance measures. Unless otherwise stated, the estimation procedure and reporting conventions follow Table 3.

5 Conclusion

This paper examines whether institutional investors that simultaneously hold debt and equity claims affect corporate tax avoidance. Using U.S. public firms from 1990 to 2010, we find that firms with institutional dual holders report lower effective tax rates, consistent with greater tax avoidance. This result remains robust across fixed-effect specifications and alternative tax avoidance measures.

To strengthen identification, we exploit mergers between lending institutions and institutional shareholders as shocks to dual ownership. The difference-in-differences evidence shows that firms experiencing merger-induced increases in dual ownership subsequently reduce their effective tax rates. Additional analyses indicate that the effect is stronger when institutional monitoring is weaker, leverage is higher, and default risk is lower.

Overall, the findings suggest that dual holders influence corporate tax policies by jointly considering shareholder tax benefits and creditor risk exposure. The evidence highlights the importance of investors' positions across the capital structure in understanding firms' tax planning behavior.

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