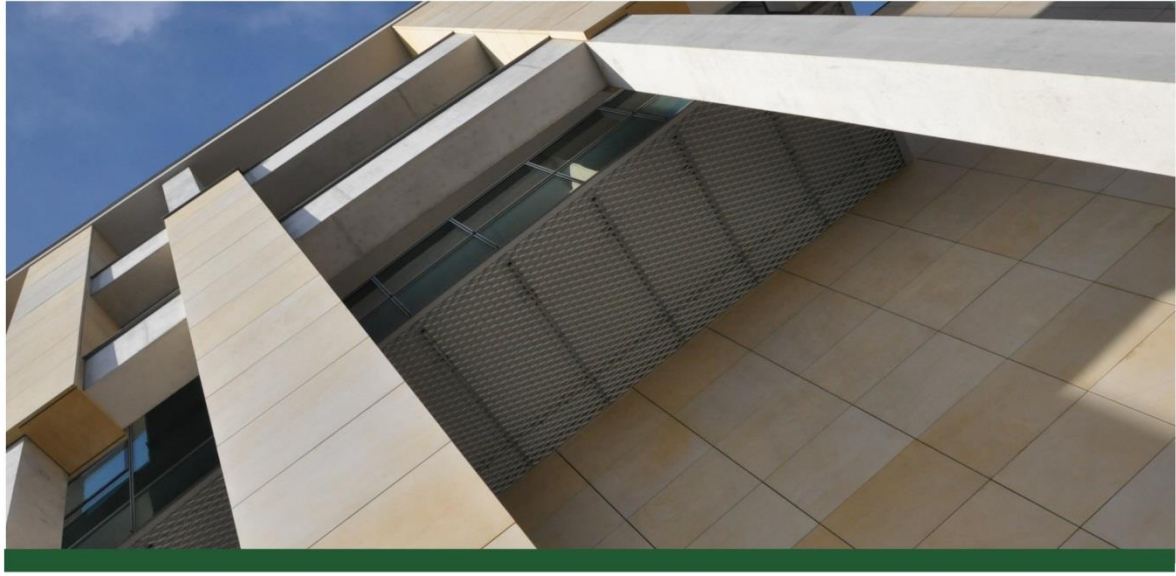

POZNAŃ UNIVERSITY OF ECONOMICS AND BUSINESS

How do long-term institutional investors affect tax avoidance? Evidence from Poland

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PRESENTATION AGENDA

1. Motivation, research aims and hypotheses
2. Primary measures
3. Empirical model and control variables
4. Sample description
5. Main empirical results
6. Conclusions

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MOTIVATION, RESEARCH AIMS AND HYPOTHESES

Tax avoidance may be defined as **any activity that reduces the firm's taxes relative to pretax income** (Dyreng et al., 2010). Tax avoidance is thought of as **a continuum of activities to reduce tax liability** (Hanlon and Heitzman, 2010), ranging **from full tax compliance to tax sheltering and clearly illegal tax evasion**. As the **firm moves away from full tax compliance**, the **level of tax avoidance increases** and **becomes more aggressive**.

To determine the level of tax avoidance, firms **trade off the marginal benefits [**greater tax savings] **against the marginal costs of managing taxes** [**penalty** imposed by the IRS, **implementation costs** (time/effort and transaction costs of implementing tax transactions), **reputational damage** to the firm, and **agency costs** accompanying tax planning] (Chen et al., 2010).

Extant literature (**mostly focused on US setting**) has investigated tax avoidance in a **principal-agent framework** (Kovermann and Velte, 2019). **Separation of ownership and control** is central to all predictions made regarding tax avoidance (Badertscher et al., 2013).

MOTIVATION, RESEARCH AIMS AND HYPOTHESES

Tax avoidance can be seen as **“one of many risky investment opportunities available to management”** (Armstrong et al., 2015). Risk averse managers **don’t act effectively against high taxes** and let firm resources be subject to high taxation („under-sheltering”). Managers **engage in higher levels of tax avoidance** because the opaque structures necessary to effectively avoid taxes enable managers to divert rents from the owners.

According to **agency theory**, managers will **select the level that is desired by the shareholders** as long as strong corporate governance mechanisms, such **as effective monitoring and incentive alignment, are in place** (Armstrong et al., 2015).

Institutional investors (e.g., mutual funds, pension funds, insurance companies) hold more than **40% of global market capitalization** and are the largest group of owners of **publicly listed** companies, accounting for more than **$30 trillion** invested in public equity markets (OECD, 2019) and are found to **monitor corporations worldwide** (Ferreira and Matos, 2008).

MOTIVATION, RESEARCH AIMS AND HYPOTHESES

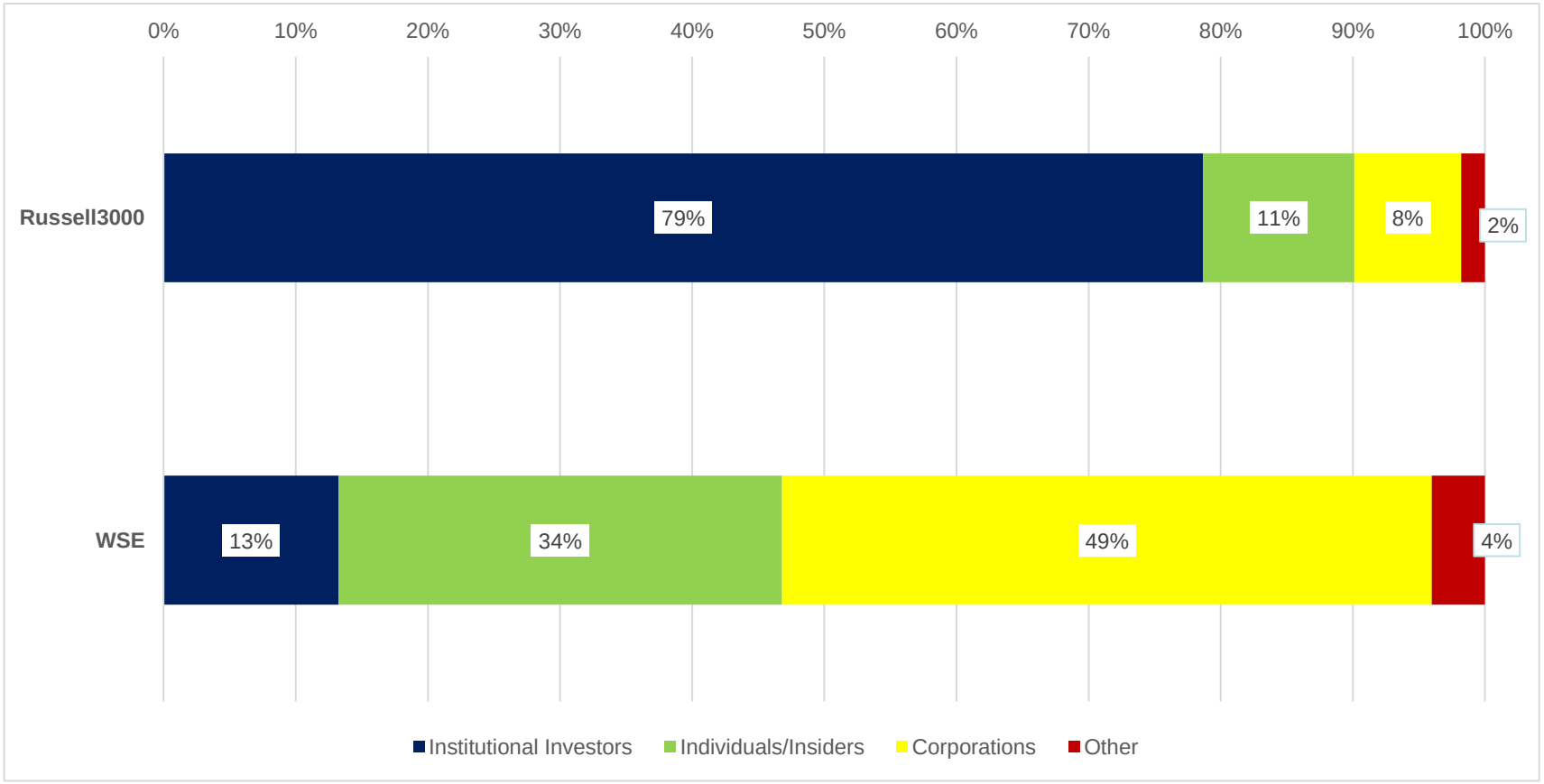

Figure 1. Proportions of American and Polish-listed companies with the largest shareholder belonging to a certain group of investors

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MOTIVATION, RESEARCH AIMS AND HYPOTHESES

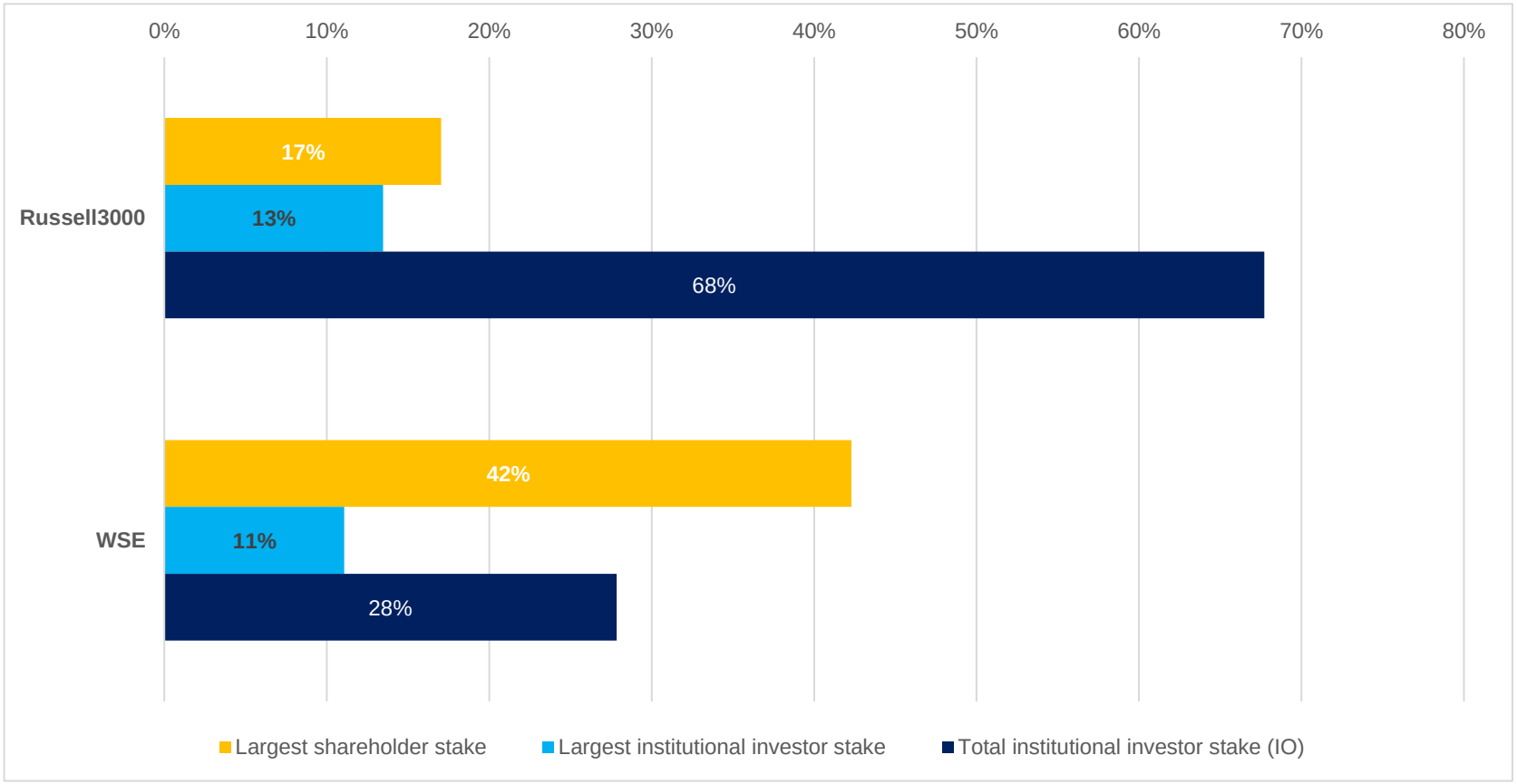

Figure 2. Ownership structure characteristics of American- and Polish-listed companies

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MOTIVATION, RESEARCH AIMS AND HYPOTHESES

Institutional investors **are not homogenous.** Existing research (scarce outside US) indicates that **mostly long-term institutional investors effectively monitor** :

- long-term investors **improve portfolio companies' decision making (**Chen et al. ,2007; Harford et al., 2018)
- monitoring by long-term investors **improves corporate governance, corporate performance** and **increases firm value** (Ferreira and Matos 2008; Borochin and Yang 2017; Harford et al. 2018).

Prior studies provide **mixed results** on the role played by long-term institutional investors in tax avoidance. On the one hand, institutional investors (**mostly quasi – indexers**) may **directly benefit from tax planning through shareholding** (Huseynov et al., 2017; Khan et al., 2017; Chen et al., 2019). On the other hand, **dedicated** institutional investors **discourage aggressive and risky tax avoidance** (Khurana and Moser, 2013; Li et al., 2021).

MOTIVATION, RESEARCH AIMS AND HYPOTHESES

The main aim of the paper is to **answer the question** about **possible relation** between long – term institutional ownership and corporate tax avoidance in non – US setting.

The results of existing studies lead to the following hypotheses stated in alternate forms:

H1a: *Firms with more long-term institutional investors are* ***more tax aggressive***

H1b: *Firms with more long-term institutional investors are* ***less tax aggressive***

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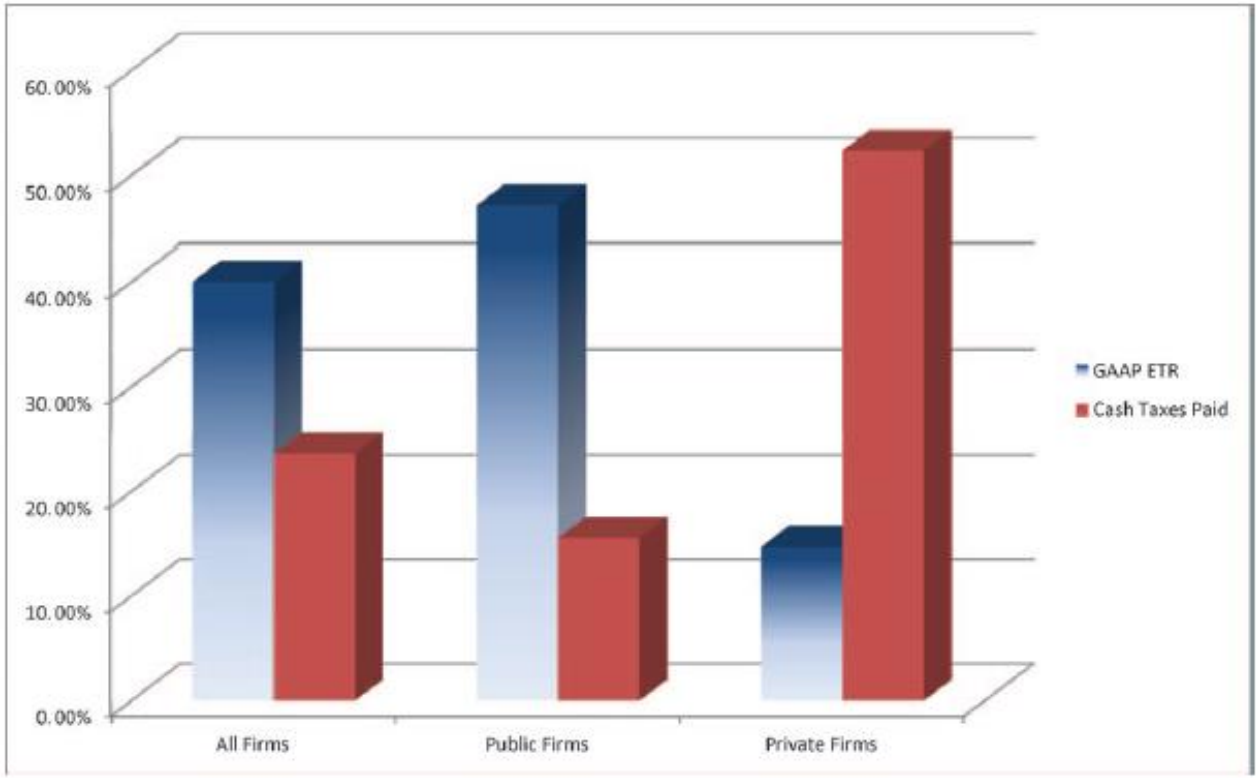
PRIMARY MEASURES

Measure of corporate tax avoidance

Importance of Financial Accounting versus Tax Minimization Incentives to Engage in Tax Planning



This figure presents the responses to the survey question: "Which metric is more important to the top management at your company?" The available answers included (1) GAAP ETR, (2) Cash Taxes Paid, and (3) Both are equally important. This figure presents the percentages of respondents that answered GAAP ETR or Cash Taxes Paid.

Graham et al., 2014, *Incentives for Tax Planning and Avoidance: Evidence from the Field*

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PRIMARY MEASURES CONT.

Measure of corporate tax avoidance

We measure firms' tax aggressiveness relative to the tax aggressiveness of their similar-size industry peers, following Balakrishnan et al. (2019).

- we start with GAAP ETR:

$$GAAP\ ETR(i,t) = \frac{GAAP\ INCOME\ TAX\ EXPENSE(i,t)}{EARNINGS\ BEFORE\ TAX(i,t)}$$

- then we calculate GAAP ETR for the same period for the portfolio of firms in the same tercile of total assets and the same industry.

- finally, we calculate TA_GAAP for each firm-year:

$$TA\_GAAP\ (i,t) = GAAP\ ETR(IS,t) - GAAP\ ETR(i,t)$$

The higher TA_GAAP the higher the tax aggressiveness.

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PRIMARY MEASURES CONT.

Measure of firm-level institutional investor horizon

LT_IO $_{it}$ *– aggregate stake held in company **i** by long-term institutional investors in year **t**,*

To assign institutional investors to a given group we use institutional investor's portfolio turnover in year **t** is calculated as the weighted average fraction of **stocks sold within the three-year period**, with weights being the proportions of stocks held by the investor in **t–3** in the global portfolio. The higher portfolio turnover indicates the shorter investor horizon.

- bottom tercile (**34%-36%**) – long-term investors
- middle tercile (**60%-65%**) – mid-term investors
- top tercile – short-term investors

TURNOVER $_{it}$ *- firm-level weighted average three-year portfolio turnover rate of all institutional shareholders in company **i** in year **t.***

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EMPIRICAL MODEL AND CONTROL VARIABLES

$$TAXAVOID_{i,t} = \alpha + \beta_1 \times INST\_HOR_{i,t-1} + \beta_2 \times IO_{i,t-1} + \beta_3 \times HHI\_IO_{i,t-1} + \beta_4 \times PORTFWEIGHT_{i,t-1} + \beta_5 \times MULTIBLOCK_{i,t-1} + \sum_{j=6}^{n} \beta_j \times MANGINCENT_{j,i,t-1} + \sum_{k=n+1}^{m} \beta_k \times GCV_{k,i,t-1} + \alpha_t + \alpha_s + \varepsilon_{i,t}$$

Non-horizon-based Institutional Investors Monitoring Characteristics :

- IO
- HHI_IO
- PORTFWEIGHT
- MULTIBLOCK

Managerial Incentives to Engage in Tax Avoidance :

- CEOOWN
- STOCKCOMP
- DUALCLASS

General Control Variables :

- ROA
- LEV
- NOL_DUMMY
- NOL_CHANGE
- FOREIGN
- PPE
- INTANGIBLE
- EQUITYINC
- SIZE
- MB

SAMPLE

- Study based on **320** nonfinancial companies listed on the main market of WSE for at least one year during the period **2010–2019**
- We required: 1) **positive** earnings before tax ; 2) at least **15** observations for each industry-year to estimate TA_GAAP; 3) availability of **other necessary** data
- Data source: ***Capital IQ - S&P Global; Amadeus - Bureau Van Dijk***
- Final sample is limited to **1,707** firm-year observations

INDUSTRY	4 GICS CODE	ALL FIRM - YEARS	(%)	TA_GAAP >0		TA_GAAP	
				FIRM - YEARS	(%)	Mean	Median
Materials	1510	341	20%	204	60%	-0,002	0,021
Capital Goods	2010	525	31%	330	63%	-0,001	0,030
Commercial & Professional Services	2020	14	1%	8	57%	0,001	0,024
Consumer Durables & Apparel	2520	215	13%	123	57%	-0,009	0,027
Food, Beverage & Tobacco	3020	193	11%	92	48%	-0,004	-0,012
Software & Services	4510	180	11%	90	50%	-0,001	0,000
Technology Hardware & Equipment	4520	20	1%	9	45%	0,012	-0,006
Media & Entertainment	5020	140	8%	80	57%	-0,001	0,012
Real Estate	6010	79	5%	45	57%	-0,023	0,043
Total		**1,707**	**100%**	**981**	**57%**	**-0,004**	**0,020**

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SAMPLE CONT.

Summary statistics :

VARIABLES	No	Mean	Std	25th	Median	75th
Corporate Tax Aggressiveness						
TA_GAAP	1,707	-0,004	0,178	-0,050	0,020	0,091
Institutional Investor Characteristics						
LT_IO	1,707	0,128	0,150	0,000	0,086	0,200
IO	1,707	0,250	0,223	0,060	0,216	0,367
HHI_IO	1,707	0,035	0,074	0,002	0,012	0,033
PORTFWEIGHT	1,707	0,054	0,165	0,001	0,003	0,013
MULTIBLOCK	1,707	1,507	0,927	0,816	1,755	2,215
Managerial Incentives						
CEOOWN	1,707	0,079	0,171	0,000	0,000	0,061
STOCK_COMP	1,707	0,095	0,293	0,000	0,000	0,000
DUAL_STOCK	1,707	0,264	0,441	0,000	0,000	1,000
General Control Variables						
ROA	1,707	0,087	0,114	0,034	0,066	0,112
LEV	1,707	0,092	0,118	0,000	0,051	0,131
NOL_DUMMY	1,707	0,061	0,239	0,000	0,000	0,000
NOL_CHANGE	1,707	0,000	0,009	0,000	0,000	0,000
FOREIGN	1,707	0,484	0,500	0,000	0,000	1,000
PPE	1,707	0,323	0,233	0,117	0,308	0,482
INTANGIBLE	1,707	0,111	0,181	0,005	0,030	0,125
EQUITYINC	1,707	0,000	0,005	0,000	0,000	0,000
SIZE	1,707	3,977	1,647	2,849	3,784	5,052
MB	1,707	1,566	2,832	0,686	1,088	1,752

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EMPIRICAL RESULTS

The effect of **long-term institutional ownership** on corporate tax avoidance (ols)

	TA_GAAP			
	(1)	**(2)**	**(3)**	**(4)**
Intercept	−0.044*	−0.044*	−0.042*	0.064
	(−1.87)	(−1.87)	(−1.75)	(1.32)
Institutional Investor Characteristics				
LT_IO_{t-1}	0.145***	X	X	0.130**
	(2.89)	X	X	(2.24)
$\Delta\ LT\_IO_{t-1}$	X	0.123**	X	X
	X	(2.41)	X	X
LT_IO_{t-2}	X	0.161***	X	X
	X	(2.78)	X	X
IO_{t-1}	−0.052	−0.060	−0.070	−0.145*
	(−1.07)	(−1.16)	(−1.41)	(−1.96)
$LT\_INDEXER\_IO_{t-1}$	X	X	0.324***	X
	X	X	(2.79)	X
$LT\_NON\text{-}INDEXER\_IO_{t-1}$	X	X	0.113**	X
	X	X	(2.13)	X
Other II Monitoring Characteristics	YES	YES	YES	YES
Managerial Incentives	YES	YES	YES	YES
General Control Variables	YES	YES	YES	YES
Firm Fixed Effects	NO	NO	NO	YES
Year Fixed Effects	YES	YES	YES	YES
Obs.	1,707	1,707	1,707	1,707
Adjusted R^2	0.016	0.016	0.017	0.261

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EMPIRICAL RESULTS CONT.

The effect of **long-term institutional investor heterogeneity** on corporate tax avoidance (ols)

	TA_GAAP		
	(1)	**(2)**	**(3)**
Intercept	−0.046*	−0.041*	−0.044*
	(−1.90)	(−1.72)	(−1.85)
Institutional Investor Characteristics			
LT_INDEP_IO$_{t-1}$	0.138***	X	X
	(2.67)	X	X
LT_GREY_IO$_{t-1}$	0.522	X	X
	(1.63)	X	X
LT_LARGE_IO$_{t-1}$	X	0.141***	X
	X	(2.66)	X
LT_SMALL_IO$_{t-1}$	X	0.240	X
	X	(1.41)	X
LT_FOR_IO$_{t-1}$	X	X	0.309
	X	X	(1.11)
LT_DOM_IO$_{t-1}$	X	X	0.158***
	X	X	(2.99)
IO$_{t-1}$	−0.052	−0.059	−0.063
	(−1.07)	(−1.20)	(−1.26)
Other II Monitoring Characteristics	YES	YES	YES
Managerial Incentives	YES	YES	YES
General Control Variables	YES	YES	YES
Year Fixed Effects	YES	YES	YES
Obs.	1,707	1,707	1,707
Adjusted R^2	0.016	0.015	0.016

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EMPIRICAL RESULTS CONT.

The effect of **long-term institutional ownership** on corporate tax avoidance for **family controlled firms, firms with poor information environment and firms from competitive markets** (ols)

	TA_GAAP					
	FAMILY CONTROL		INFORMATION ENVIRONMENT		PRODUCT MARKET COMPETITION	
	FAMILY	NON-FAMILY	LOW ANALYST COVERAGE	HIGH ANALYST COVERAGE	LOW HHI_IND	HIGH HHI_IND
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	0.019	−0.107***	−0.058**	−0.026	−0.031	−0.056*
	(0.71)	(−2.85)	(−2.03)	(−0.48)	(−0.87)	(−1.91)
Institutional Investor Characteristics						
LT_IO_{t-1}	0.327***	0.081	0.190***	0.070	0.220***	0.048
	(3.65)	(1.37)	(2.84)	(0.89)	(3.00)	(0.69)
IO_{t-1}	−0.160**	−0.009	−0.071	−0.014	−0.036	−0.072
	(−2.03)	(−0.15)	(−1.13)	(−0.20)	(−0.58)	(−0.99)
Other II Monitoring Characteristics	YES	YES	YES	YES	YES	YES
Managerial Incentives	YES	YES	YES	YES	YES	YES
General Control Variables	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
Obs.	586	986	1,211	496	863	844
Adjusted R^2	0.053	0.026	0.012	0.005	0.013	0.015

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SUMMARY

Main conclusions:

- there is a **positive** relationship between the long-term institutional ownership and corporate tax avoidance
- the observed relation holds only for **independent** long-term institutional investors, for long-term institutional investors with **large stakes** and for long-term **domestic** institutions
- the positive effect of long-term institutional ownership on payout level **is stronger** for firms with **more severe agency problems**, that is, family-controlled firms, firms with poor information environment and firms from competitive markets

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