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Determinants of institutional ownership in CEE countries. A macro-level perspective

Tomasz Jewartowski, Agnieszka Stróżyńska-Szajek

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„Institutional investor monitoring and corporate financial decisions in CEE countries„



Research problem

Determinants of institutional ownership of public companies at country-level

Institutional investors (mutual funds, pension funds, insurance companies, etc.) are the largest investor category holding app. 43% of the world market capitalisation (OECD, 2021).



Previous research on allocation decisions of institutional investors indicates that differences in macro-level characteristics substantially explain cross-country variations in institutional ownership concentration (Li et al., 2006)



Previous studies tend to overlook the Central and Eastern Europe (CEE) region

The goal of our study is to identify factors that influence the ownership decision of (foreign) institutional investors in CEE



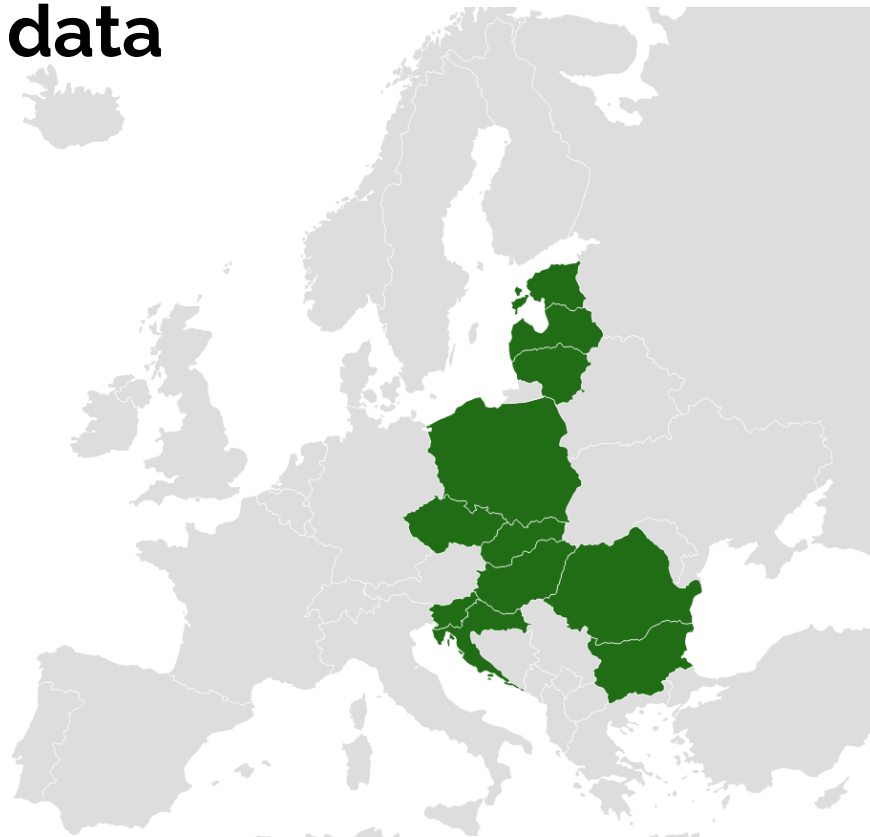
Determinants of institutional ownership highlighted in the literature

- Level of market development [Li et al. 2006; Ferreira&Matos 2009]
- **Disclosure standards** [Leuz et al. 2006; Li et al. 2006; Ferreira&Matos 2009]
- Quality of a country's **legal system** [Leuz et al. 2006; Li et al. 2006; Ferreira&Matos 2009]
- **Shareholder rights** protection [Leuz et al. 2006; Li et al. 2006]
- **Ownership structure** [Leuz et al. 2006; Ferreira&Matos 2009]
- Other...



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Sample and data

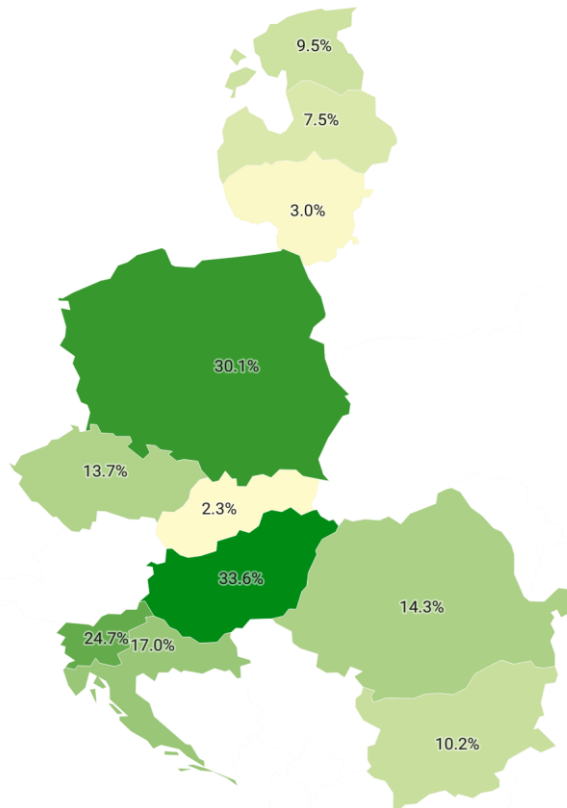




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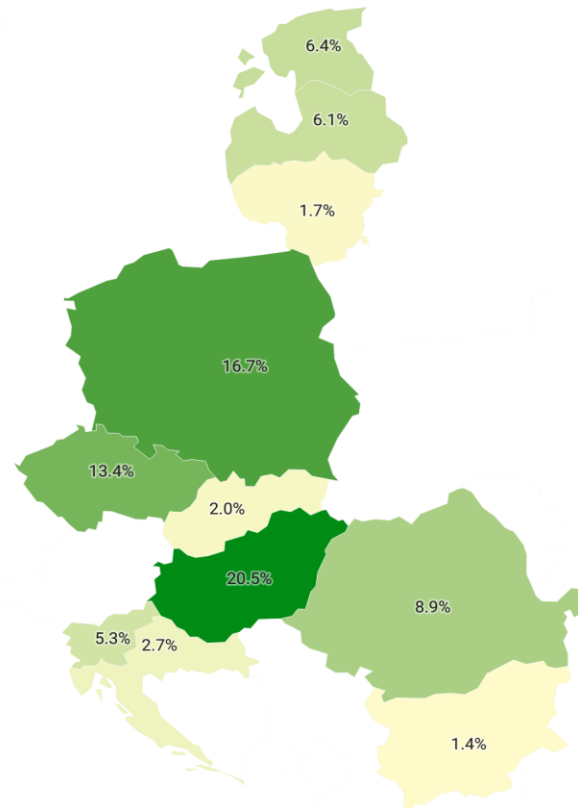
Institutional ownership among CEE countries

Market capitalisation weighted average ownership held by **all institutional investors** in CEE countries as of the end of 2020



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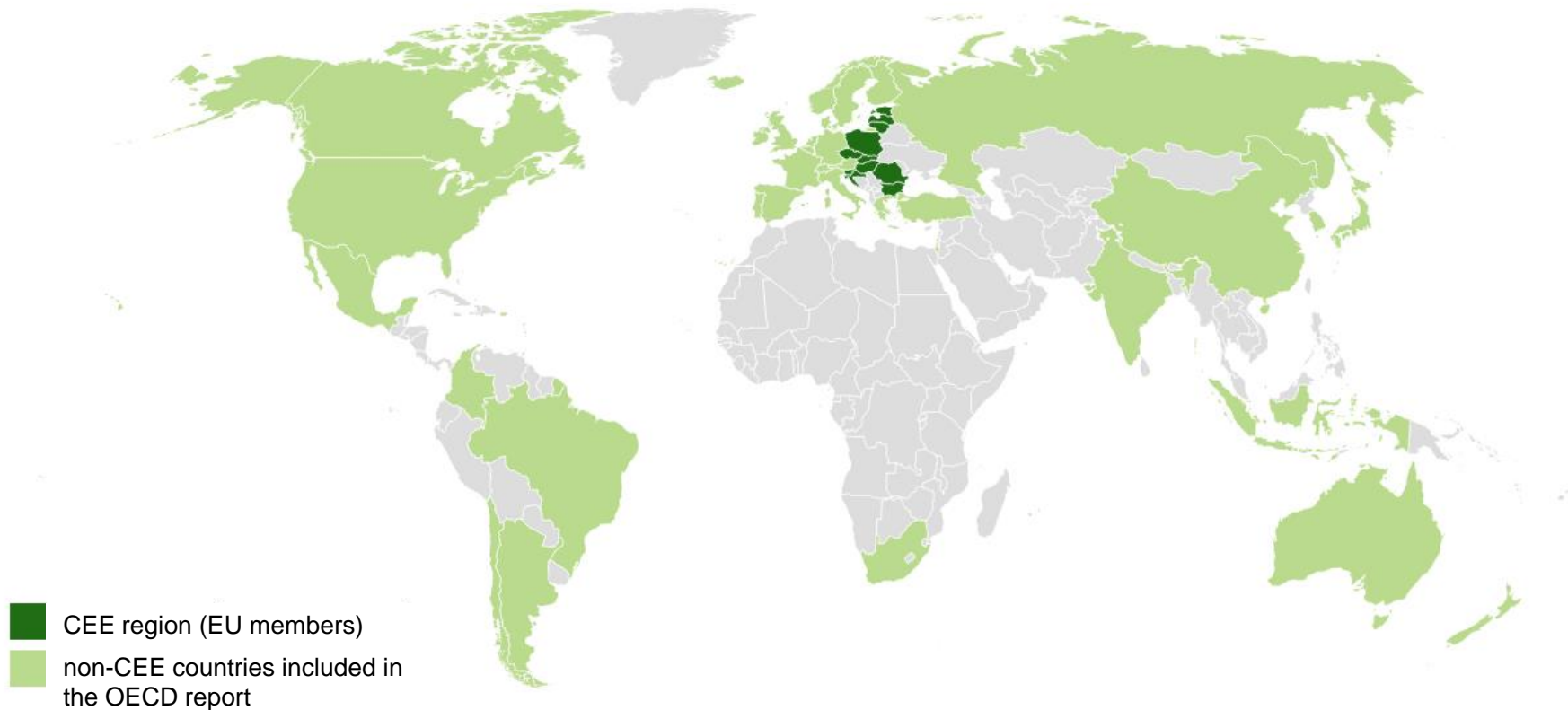
Market capitalisation weighted average ownership held by **foreign institutional investors** in CEE countries as of the end of 2020



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Data and methodology





Variables definitions

<i>Institutional investors</i>	IIO_MCAP (%)	Market capitalisation weighted average ownership held by institutional investors as of the end of 2020
	FIIO_MCAP (%)	Market capitalisation weighted average ownership held by foreign institutional investors as of the end of 2020
	DIIO_MCAP (%)	Market capitalisation weighted average ownership held by domestic institutional investors as of the end of 2020
<i>Economic and market-related variables</i>	MCAP/GDP	Total market capitalization of all listed companies in a country scaled by GDP as of the end of 2020
	MCAP (m USD)	Market capitalization of all listed companies in a country as of the end of 2020
	Ownership Concentration	The average combined holdings of the top three investors as the end of 2020
	Stock Market Concentration	The quotient of the market capitalisation of the largest domestic company to the sum of market capitalisations of all domestic companies
<i>Enforcement</i>	Rule of Law	One of the aspect of enforcement from the Worldwide Governance Indicators (WGI) project. According to WGI project: It reflects "perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence"
<i>Minority shareholder rights</i>	Protecting Minority Investors score (0-100)	The sum of the World Bank's country scores as of 2020 for the extent of conflict of interest regulation index and the extent of shareholder governance index. The conflict of interest regulation index reflects (1) transparency of related-party, (2) shareholders' ability to sue and hold directors liable for self-dealing transactions and (3) access to evidence and allocation of legal expenses in shareholder litigation. The shareholder governance index reflects (1) shareholders' rights and role in major corporate decisions, (2) governance safeguards protecting shareholders from undue board control and entrenchment, and (3) transparency on ownership stakes, compensation, audits and financial prospects.



Sample characteristics

		All sample		CEE countries		non-CEE countries	
		median	N	median	N	median	N
<i>Institutional investors</i>	IIO_MCAP	24,84%	46	13,74%	11	27,00%	35
	FIIO_MCAP	15,00%	46	6,05%	11	16,00%	35
	DIIO_MCAP	7,00%	46	5,37%	11	7,00%	35
<i>Economic and market-related variables</i>	MCAP/GDP	57,04%	46	11,26%	11	71,67%	35
	MCAP (m USD)	324 726	46	17 711	11	694 739	35
	Ownership Concentration	56,30%	46	64,10%	11	51,10%	35
	Stock Market Concentration	13,62%	46	41,44%	11	11,34%	35
<i>Enforcement</i>	Rule of Law	1,02	46	0,67	11	1,32	35
<i>Minority shareholder rights</i>	Protecting Minority Investors	70,00	46	66,00	11	70,00	35



Empirical findings

OLS REGRESSION; (Y): FIIO_MCAP							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONST	0,308* (1,950)	0,448** (2,373)	0,398** (2,187)	0,369** (2,089)	0,278* (1,753)	0,285* (1,765)	0,351*** (2,926)
LN_MCAP	0,002 (0,178)	-0,008 (-0,709)	-0,002 (-0,220)	0,001 (0,095)	0,001 (0,161)	0,002 (0,197)	
MCAP/GDP	-0,008 (-0,280)	-0,001 (-0,038)	-0,008 (-0,299)	-0,013 (-0,435)	-0,009 (-0,307)	-0,007 (-0,256)	-0,003 (-0,118)
OWN_CONCTR	-0,288* (-1,757)	-0,327** (-2,089)	-0,348** (-2,028)	-0,365* (-1,946)	-0,248 (-1,538)	-0,262 (-1,608)	-0,361** (-2,099)
RULE_LAW_BIN	0,045* (1,690)	0,043* (1,921)	0,041 (1,625)	0,039 (1,645)	0,064* (2,014)	0,049* (1,832)	0,025 (0,824)
PROT_MIN_BIN	-0,033 (-1,285)	-0,037 (-1,511)	-0,046 (-1,636)	-0,038 (-1,502)	-0,030 (-1,165)	-0,025 (-0,789)	-0,035 (-1,403)
CEE	-0,068* (0,040)	-0,486** (0,186)	-0,134** (0,060)	-0,277 (0,200)	-0,050 (0,040)	-0,057 (0,044)	0,008 (0,042)
CEE x LN_MCAP		0,042** (2,525)					
CEE x MCAP/GDP			0,335* (1,829)				
CEE x OWN_CONCTR				0,332 (1,160)			
CEE x RULE_LAW_BIN					-0,064 (-1,472)		
CEE x PROT_MIN_BIN						-0,036 (-0,847)	
STM_CONCTR							0,182 (1,140)
CEE x STM_CONCTR							-0,322* (-1,797)
N	46	46	46	46	46	46	46
Adj. R ²	0,35	0,41	0,37	0,35	0,35	0,34	0,38



Empirical findings cont.

OLS REGRESSION; (Y): DIIO_MCAP							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CONST	0,132 (0,348)	0,204 (0,422)	0,224 (0,399)	0,180 (0,387)	0,119 (0,345)	0,154 (0,355)	0,291** (0,137)
LN_MCAP	0,010 (0,020)	0,005 (0,026)	0,006 (0,023)	0,009 (0,020)	0,010 (0,020)	0,010 (0,021)	
MCAP/GDP	-0,005 (0,023)	-0,002 (0,024)	-0,006 (0,023)	-0,010 (0,026)	-0,006 (0,023)	-0,006 (0,023)	0,004 (0,033)
OWN_CONCTR	-0,375* (0,217)	-0,396* (0,221)	-0,437* (0,228)	-0,437 (0,271)	-0,358* (0,211)	-0,400* (0,212)	-0,433* (0,235)
RULE_LAW_BIN	0,004 (0,026)	0,003 (0,025)	-0,000 (0,023)	-0,001 (0,026)	0,012 (0,032)	0,000 (0,026)	-0,006 (0,035)
PROT_MIN_BIN	0,074*** (0,027)	0,072** (0,027)	0,061** (0,028)	0,070*** (0,025)	0,075** (0,028)	0,066* (0,033)	0,073*** (0,026)
CEE	0,061 (0,076)	-0,154 (0,351)	-0,007 (0,124)	-0,105 (0,275)	0,069 (0,075)	0,050 (0,081)	0,102* (0,056)
CEE x LN_MCAP		0,021 (0,028)					
CEE x MCAP/GDP			0,343 (0,266)				
CEE x OWN_CONCTR				0,264 (0,354)			
CEE x RULE_LAW_BIN					-0,028 (0,042)		
CEE x PROT_MIN_BIN						0,034 (0,043)	
STM_CONCTR							0,019 (0,300)
CEE x STM_CONCTR							-0,200 (0,333)
N	46	46	46	46	46	46	46
Adj. R ²	0,26	0,26	0,27	0,25	0,25	0,25	0,26



Empirical findings cont.

OLS REGRESSION; (Y): FIIO_MCAP

	(1)	(2)
CONST	0.308* (1.950)	0.313** (2.321)
LN_MCAP	0.001 (0.177)	-0.003 (-0.415)
MCAP/GDP	-0.008 (-0.280)	0.019 (1.017)
OWN_CONCTR	-0.288* (-1.757)	-0.267** (-2.056)
RULE_LAW_BIN	0.045* (1.690)	0.031 (1.588)
PROT_MIN_BIN	-0.033 (-1.285)	-0.010 (-0.378)
CEE	-0.068* (-1.690)	-0.089 (-0.634)
EUR_CURRENCY		0.091** (2.577)
CEE x EUR_CURRENCY		-0.184*** (-3.211)
N	46	46
Adj. R ²	0.35	0.50

OLS REGRESSION; (Y): FIIO / IIO (USA & POL DROPPED)

	(1)	(2)
CONST	0,988* (1,790)	0,677 (1,317)
LN_MCAP	-0,018 (-0,582)	-0,010 (-0,336)
MCAP/GDP	-0,010 (-0,182)	-0,006 (-0,115)
OWN_CONCTR	0,069 (0,149)	0,342 (0,824)
RULE_LAW_BIN	0,052 (0,608)	0,090 (1,261)
PROT_MIN_BIN	-0,248*** (-3,716)	-0,153** (-2,140)
CEE	-0,244* (-1,763)	-0,089 (-0,634)
CEE x PROT_MIN_BIN		-0,413*** (-4,437)
N	44	44
Adj. R ²	0,26	0,37



Main conclusions

- Substantial **dispersion** in institutional ownership among CEE countries
- Huge **differences** in the **foreign/domestic** institutional ownership
- The main country-level determinants of the **foreign** institutional ownership for the whole sample are: **rule of law (+)** and **ownership concentration (-)**
- The main country-level determinants of the **domestic** institutional ownership for the whole sample are: **investor (shareholder) protection (+)** and **ownership concentration (-)**
- **Foreign** institutional investors tend to **avoid** companies from **CEE** countries



Main conclusions cont.

- Determinants of investing in CEE countries seem to slightly differ from determinants of investing in other countries:
 - When investing in CEE region **foreign** institutional investors prefer countries with **larger stock markets** (ignoring this feature outside CEE)
 - When investing in CEE region **foreign** institutional investors prefer countries with **more developed markets** (ignoring this feature outside CEE)
 - When investing in CEE region **foreign** institutional investors prefer countries with **lower stock market concentration** (ignoring this feature outside CEE)
- Differences in **preference for investor protection** between **domestic** and **foreign** institutional investors seem to be **more pronounced** in CEE region



Future research

1. Adding **company-level** dimension
2. Including **regulations** that refer to investment limits, concentration limits, etc.
3. Including variables referring to economic/political **stability** (?)
4. Splitting institutional investors into more detailed **sub-categories**:
 - long-term versus short-term
 - independent versus pressure sensitive
 - indexers versus non-indexers



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Thank you for your attention!
