your place

your space

your future

Determinants of cash holders decisions – risk management perspective

Joanna Błach, Monika Wieczorek-Kosmala, University of Economics in Katowice, Poland
Cristina Florio, University of Verona, Italy
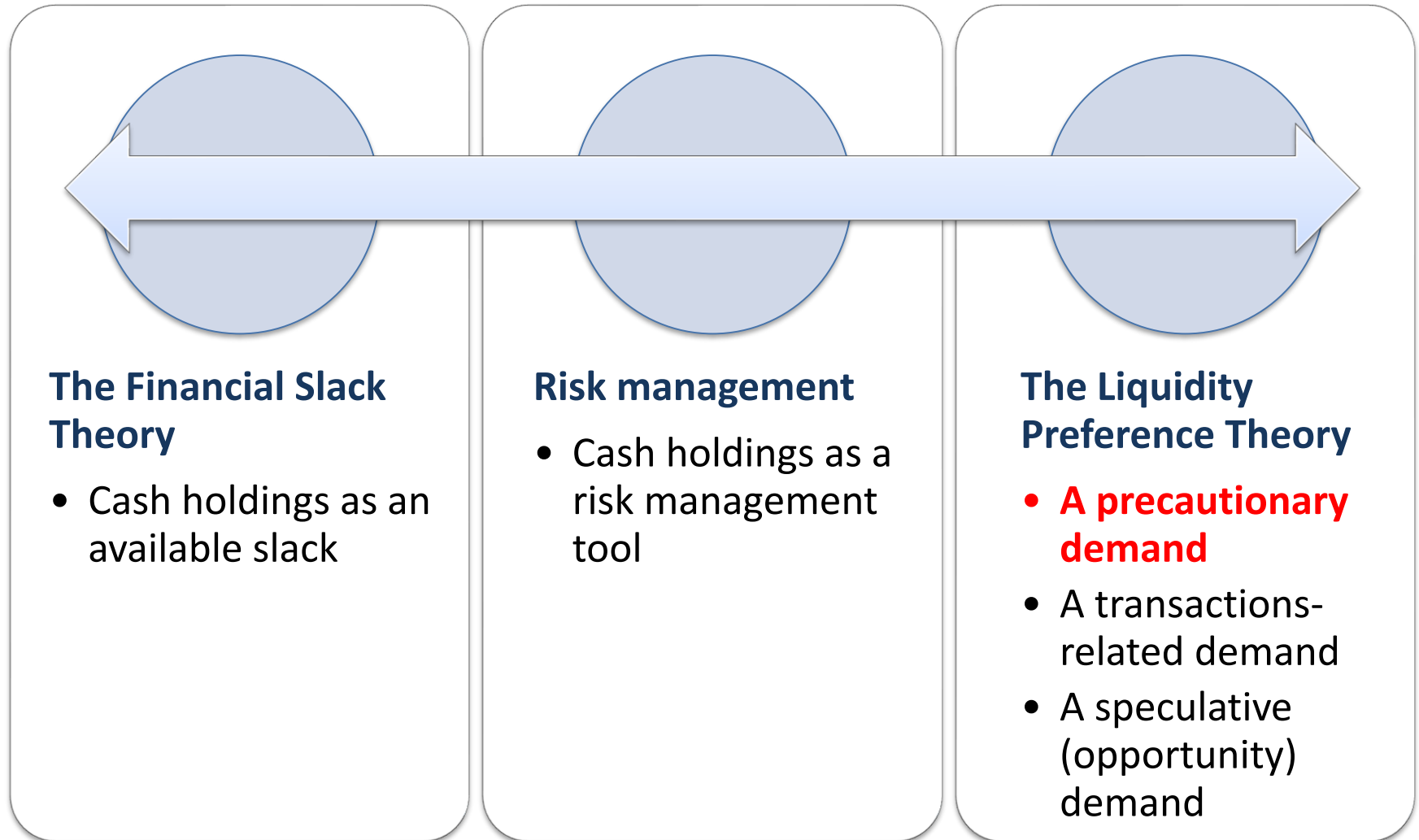
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Main objective

- to identify the key factors determining the firm's decision to maintain high cash holdings as a response to the precautionary demand (the precautionary cash holdings) based on the example of Polish firms

Cash holdings as available slack from risk management perspective

- Positive impact on financial stability during crisis

- Effective risk management tool

- Bankruptcy risk reduction

- Safety buffer

- External shocks absorption

- Financial reserve to cover the consequences of risk occurence

- Independence from the external financing

Theoretical framework

The Financial Slack Theory

- Cash holdings as an available slack

Risk management

- Cash holdings as a risk management tool

The Liquidity Preference Theory

- **A precautionary demand**
- A transactions-related demand
- A speculative (opportunity) demand

Research gap

The extant studies focus mostly on the **level of cash and its determinants (not on the motives for holding cash)**

Cash holdings in Polish firms were analyzed by: Michalski 2007; Porada-Rochoń 2011; Nehrebecka & Brzozowski 2016; Gryko 2016 (but results are inconclusive)

Haj-Salem & Hussainey (2021) stated that: there is limited literature that links the concept of risk with cash holdings

in this study we ask about motives for holding high level of cash (from the risk management perspective)

we include bankruptcy risk, business risk but also risk reporting and corporate governance factors

Research questions

- What characterizes firms that are primarily driven by the precautionary demand for cash holdings?

- Do firms with a higher level of risk tend to indicate the higher importance of the precautionary demand for cash holdings?

- Do the corporate governance factors differentiate firm's approach to the precautionary cash holdings?

Empirical research

Stages of the research process

Selection of 100 firms classified as cash holders

Survey research on motives for holding cash

Identification of firms with prevailing precautionary motive for cash holdings

Regression analysis of financial data and other factors for selected companies
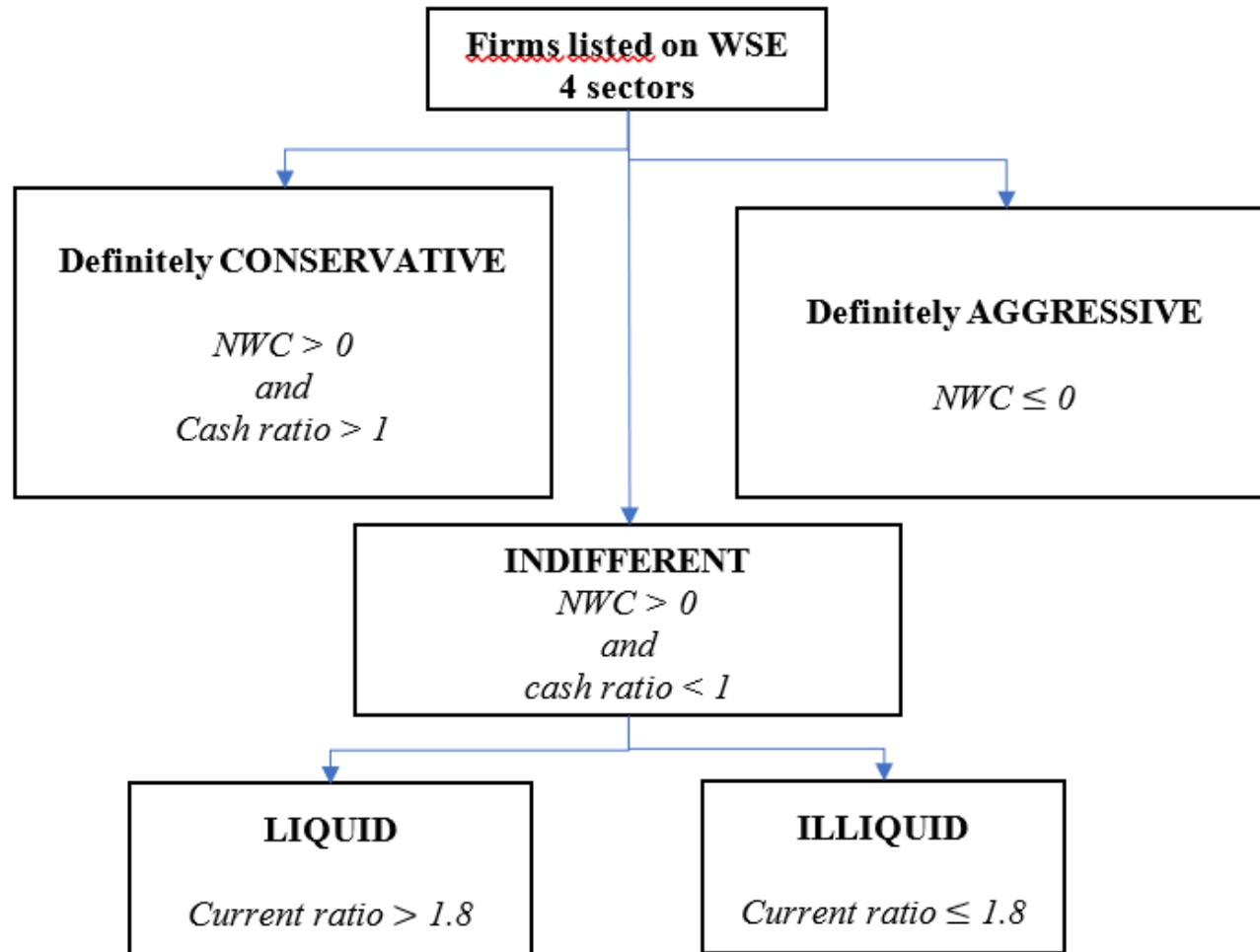
Stage 1

- All non-financial companies listed on the Warsaw Stock Exchange

- 4 Sectors: industrial, trade, utilities, transportation

- Period of analysis: 4 consecutive financial periods; EMIS database

- Financial liquidity ratios and financial strategy measures

- Effect: 100 firms classified as cash holders

Sample clustering scheme

Stage 2

- Survey research addressed to cash holders

- Response rate: 100% (responses from 100 firms)

- 9 questions related to the motives for holding cash

    - 3 questions for each motive

- Responses: 7 degree Likert scale

    - 1 – completely disagree/ 7 – completely agree

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# Survey questions related to the precautionary demand

- *(Question 3): We store liquid assets as a buffer against **adverse events/circumstances that are difficult to anticipate***

- *(Question 6): We accumulate liquid **assets to safeguard our strong financial position (to be perceived as financially unconstrained firm)***

- *(Question 9): We accumulate liquid **assets to meet our future obligations that arise from good relationships with stakeholders (e.g. payments of future dividends or bonuses for employees)***

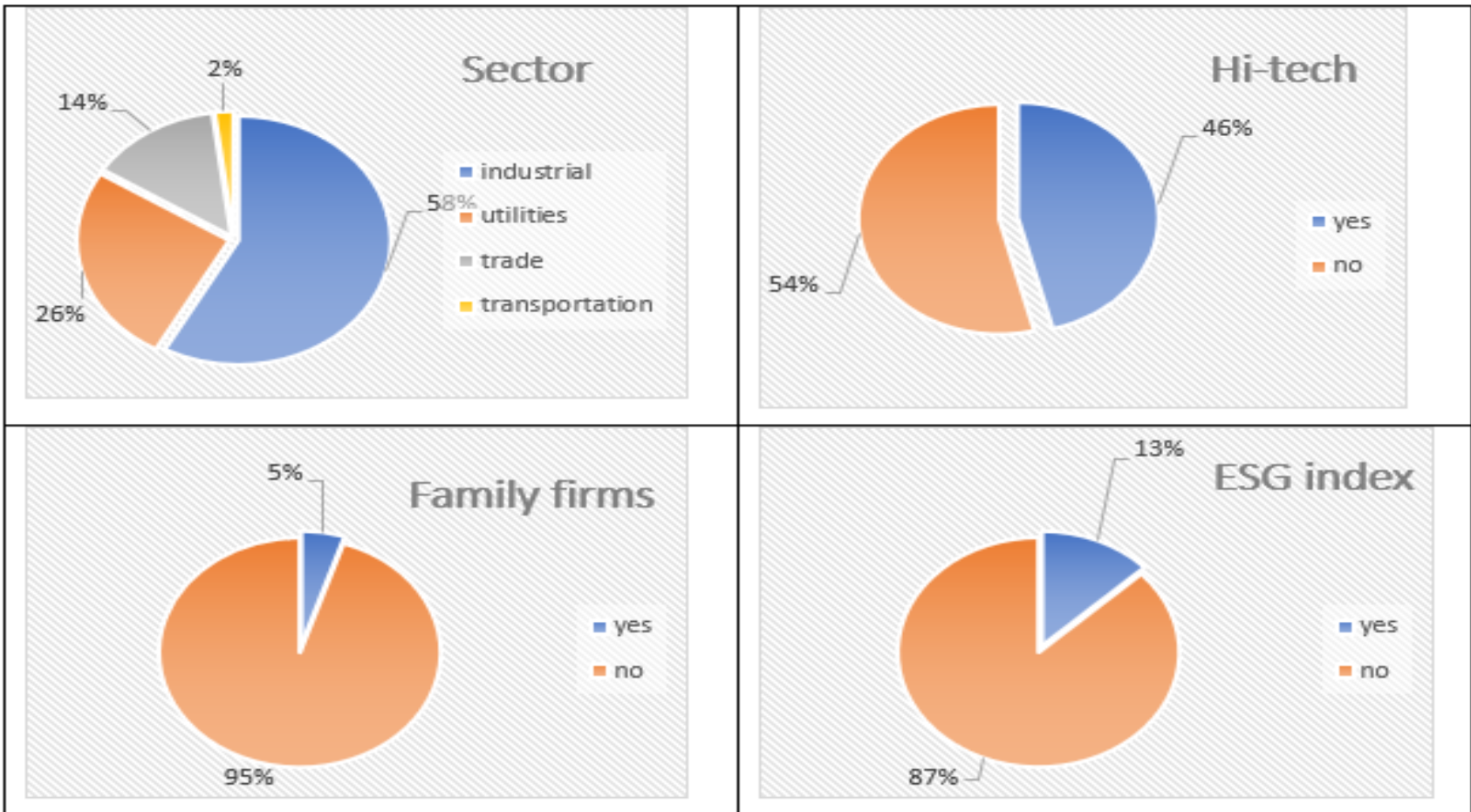# Stage 3

- Analysis of survey results
- Identification of firms with the prevailing precautionary motive for holding cash
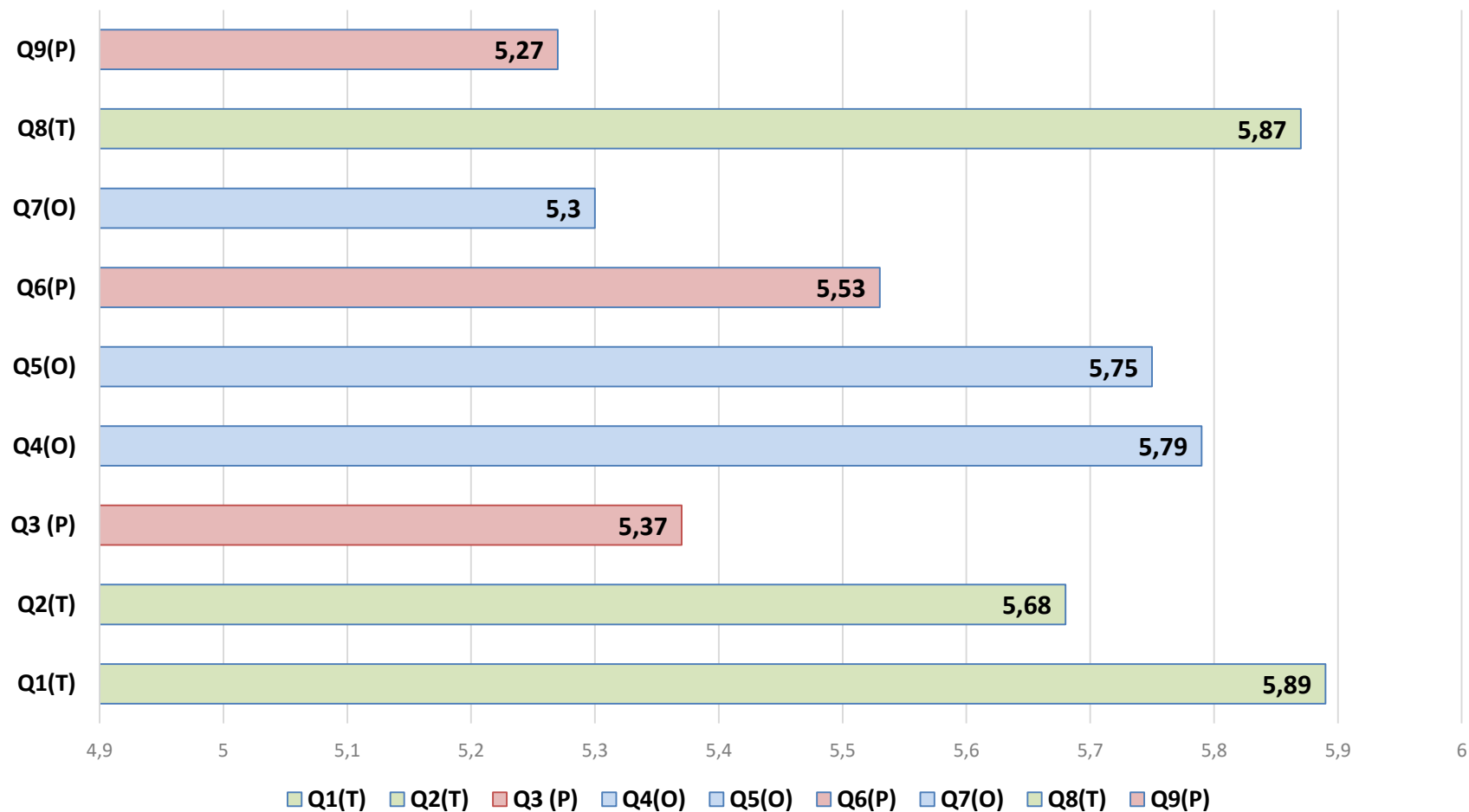
$$\text{total score P} > \frac{\text{total score T} + \text{total score O}}{2}$$

Firms

41%

59%

- prevalent precautionary motive for cash holdings
- other motives for holding cash
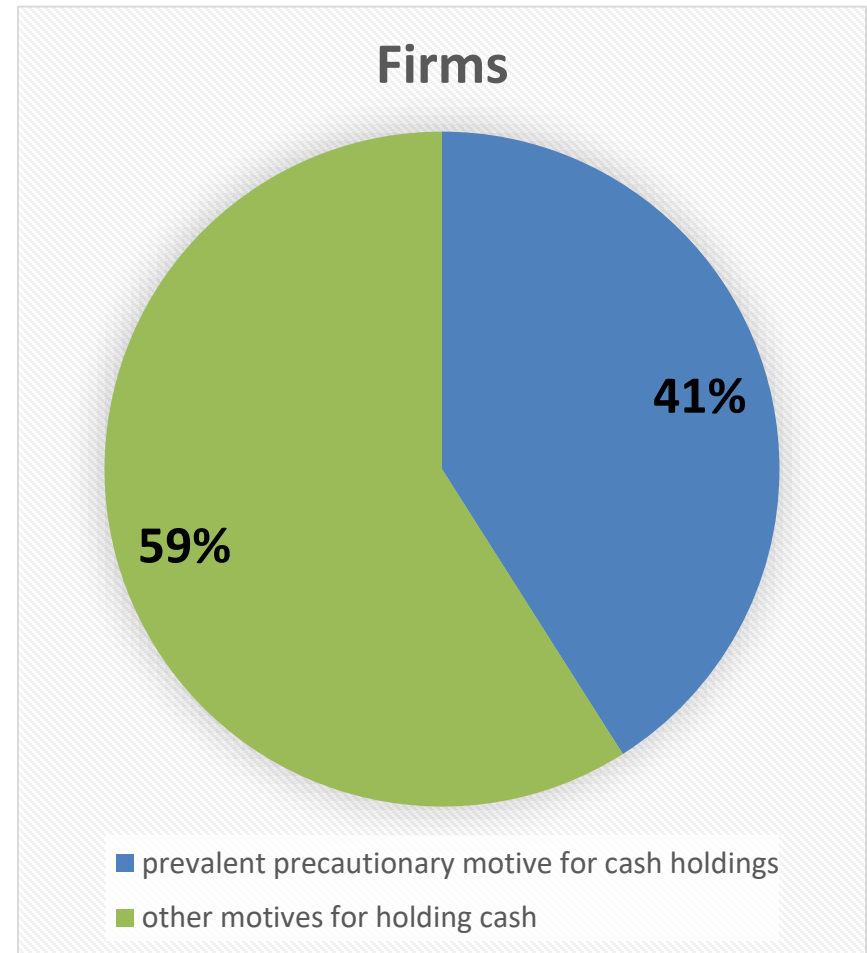
Sample characteristics

Average score for questions

Stage 4

- Creating data base for the analyzed firms
- Financial data (2016-2020) and corporate governance factors
- Regression analysis

$$Y = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \cdots + \beta_p x_{ip} + \varepsilon$$

- where Y is the importance of the precautionary cash holdings

Variables	Expected relationship
Size of a firm (log assets)	(+) Al-Najjar & Clark 2017 (-) Vuković et al. 2022, Gryko 2016
Financial leverage (bankruptcy risk, Debt/Assets)	(-) Beasley et al. 2021, Boubaker et al. 2015, Cambrea et al. 2022, Gryko 2016
Return on assets (ROA)	(+) Al.-Najjar 2013, Haj-Salem & Hussainey 2021
Operating leverage (business risk, Tangible assets/Assets)	(-) Cambrea et al. 2022, Haj-Salem & Hussainey 2021
Board size (number of members / log assets)	(+) Boubaker et al. 2015 (+/-) Cambrea et al. 2022
Board diversity (percentage share of women on board)	(-) Wan Ismail et al. 2022 (+) Xue 2021
Institutional ownership (dummy, 1 – yes, 0 – no)	(+) Al-Najjar & Clark 2017
Ownership structure (number of major shareholders)	(+/-) Cambrea et al. 2022
Risk reporting (3 – extended risk reports, 2 – developed risk information in MD&A, 1 – basic risk information, obligatory disclosures, 0 – lack of risk information)	(+) Pagach & Warr 2010 (-)Haj-Salem & Hussainey 2021

Regression model 1

Coefficients[a]

Model		Coefficients		Standardized coefficients		significance
		B	Standard error	Beta	t	ce
1	(Constant)	3,551	2,443		1,454	,149
	T	,578	,097	,505	5,951	<,001
	ROA	,194	1,282	,025	,151	,880
	Size	,114	,189	,055	,603	,548
	OpLev	2,598	1,278	,173	2,033	,045
	FinLev	1,136	1,187	,150	,957	,341

a. dependent variable: P

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Regression model 2

Coefficients[a]

Model		Coefficients		Standardized coefficients		
		B	Standard error	Beta	t	Significance
2	(Constant)	4,562	2,633		1,733	,087
	T	,612	,092	,549	6,653	<,001
	ROA	-,438	1,573	-,023	-,278	,782
	Size	,171	,229	,080	,746	,458
	OpLev	2,417	1,210	,165	1,998	,049
	FinLev	1,478	1,300	,101	1,137	,259
	SB_size	-,558	,264	-,195	-2,116	,037
	EB_size	,232	,201	,112	1,154	,252
	SB_div	-3,320	1,609	-,174	-2,063	,042
	EB_div	1,044	1,332	,065	,784	,435
	Own_Str	,300	,161	,156	1,861	,066
	Own_Inst	-,283	,739	-,033	-,383	,703

a. Dependent variable: P

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Regression model 3

Coefficients[a]

Model		Coefficients		Standardized coefficients		
		B	Standard error	Beta	t	Significance
3	(Constant)	3,761	2,594		1,450	,151
	T	,615	,090	,553	6,810	<,001
	ROA	-,037	1,542	-,002	-,024	,981
	Size	,144	,221	,068	,651	,517
	OpLev	2,188	1,176	,151	1,860	,067
	FinLev	1,093	1,296	,076	,844	,402
	SB_size	-,749	,272	-,258	-2,753	,007
	EB_size	,138	,195	,068	,708	,481
	SB_div	-3,484	1,578	-,183	-2,208	,030
	EB_div	,695	1,285	,043	,541	,590
	Own_str	,341	,156	,178	2,178	,032
	Own_Ins	-,339	,742	-,039	-,456	,649
	Risk_Rep	1,335	,478	,250	2,790	,007

a. Dependent variable: P

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Summary of results

Results	Model 1	Model 2	Model 3
No of observations	100	100	100
R-square	,354	,484	,537
T	+***	+***	+***
ROA	+	-	+
Size	+	+	+
OpLev	+**	+**	+*
FinLev	+	+	+
SB_size		-**	-***
EB_size		+	+
SB_div		-**	-**
EB_div		+	+
Own_str		+*	+**
Own_Ins		-	-
Risk_Rep			+***

Notes: statistically significant at ***0,01, **0,05 and *0,1

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Findings

The liquidity preference theory

For the sample firms, we observed that:

- the **precautionary motive for holding cash is less important** than the remaining motives

- there is **a strong positive relationship between the transaction-related demand and the precautionary demand** for holding cash

- there is **multicollinearity for the opportunity demand and the precautionary demand**

The precautionary motive has

higher importance for firms which have:

- higher business risk
- better risk reporting practices
- more dispersed ownership

Lower importance for firms which have:

- larger supervisory boards
- larger share of women on the supervisory board

Risk management

Higher business risk -> higher risk awarness -> better risk reporting

Higher risk exposure -> higher importance of the precautionary cash holdings

Financial slack theory

Larger and more diversified supervisory board leads to more efficient cash management (reduction of agency costs and elimination of managers opportunistic behaviour)

Conclusion

- **The positive relationship between operating leverage and cash holdings** differs from the results provided by Cambrea et al. 2022 or Haj-Salem & Hussainey 2021

- **The positive relationship between the precautionary cash holdings and the ERM practices** proxied by the risk reporting practices is consistent with the earlier findings (Pagach & Warr 2010)

- **The negative relationship between female presence on the supervisory board and the importance of precautionary cash holdings** confirmed earlier observation by Wan Ismail et al. 2022

- We also proved **the negative relationship between precautionary cash holdings and the size of the supervisory board** (as suggested by Cambrea et al. 2022)

- **The remaining variables turned out to be insignificant for the precautionary cash holdings**

Limitations

- Reasearch limited to a single country – results may be influenced by the country-specific factors
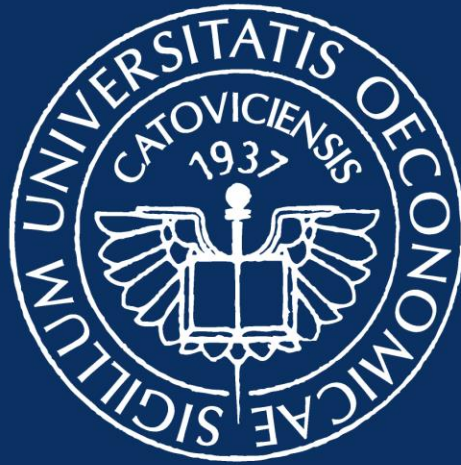
Further research

- International survey research

- Other risk management and corporate governance factors added to the model

Joanna Błach

Department of Corporate Finance and Insurance

Faculty of Finance

Contact: jblach@ue.katowice.pl

THANK YOU FOR YOUR ATTENTION!

University
of Economics
in Katowice

www.ue.katowice.pl