

# Corporate Governance And Firms Performance: Behavioural Determinants Of Success

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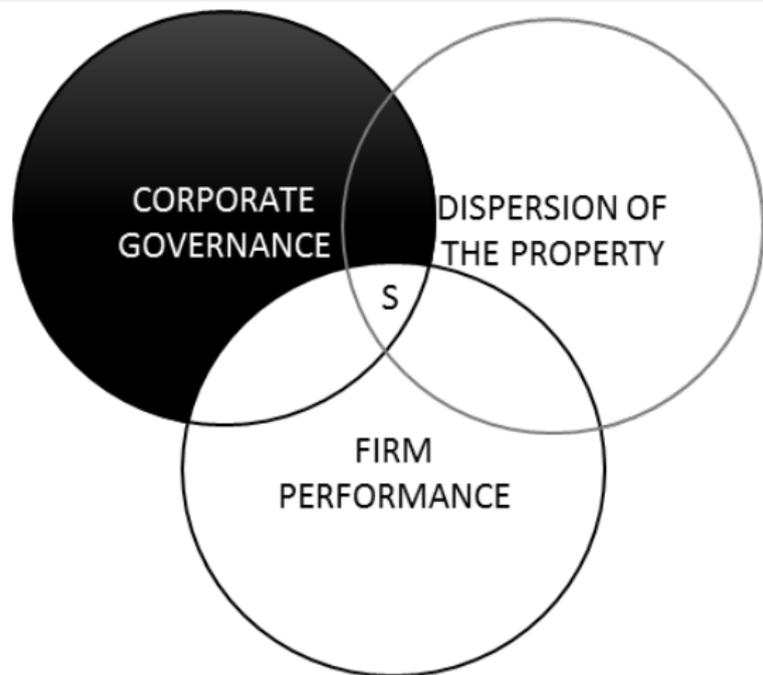
# Outline

- 1 Motivation
  - The Basic Problem That We Studied
- 2 Our Contribution
  - Conceptual Framework
  - Methodology and Data
  - Results
- 3 Summary

# Motivation

- What lies behind successful companies?
- Why do some companies succeed? ... and others not?

# Basic Problem



(S) Behavioural Determinants Of Success

## Previous Work

- Corporate government structures: designing for success

Correa, M. and Garcia, J. and Úbeda, R.

Bebchuk, Lucian A. and Weisbach, Michael S

Shleifer, Andrei and Vishny, Robert W

Zingales, L.

La Porta, Rafael and Lopez-De-Silanes, Florencio and Shleifer, Andrei and Vishny, Robert

- Ownership structure and firm size

Berle, Adolf Augustus and Means, Gardiner

Jensen, Michael C. and Meckling, William H

Fama, Eugene F. and Jensen, Michael C.

Rajan, Raghuram G. and Zingales, Luigi,

## Previous Work

- Cost of ownership

Rozeff, Michael S

Jensen, Michael C.

Fenn, George W. and Liang, Nellie

Allen, Franklin and Bernardo, Antonio E. and Welch, Ivo,

- Modeling Firm Performance and its determinants

Hermalin, Benjamin E. and Weisbach, Michael S

MacAvoy, Paul W. and Millstein, Ira M

Brav, Alon and Graham, John R. and Harvey, Campbell R. and

Michaely, Roni,

# Hypothesis

- Hypothesis 1: the number of directors on a firm's board is negatively related to the firm's financial performance. **Refuted**
- Hypothesis 2: the high dividend distribution is negative for the firm's performance. **Confirmed**
- Hypothesis 3: the higher capitalization of the company is directly related to the business performance. **Confirmed**

# Success

How is Success Measured?

- Turnover in 2015. ( $Turn_{fsct}$ )
- ROE variation in the years 2013, 2014 and 2015 ( $ROE3_{fsct}$ )

To what extent is it?

# Methodology

## Theorem (Turnover)

- 1- MRA
- 2- Pavitt (1984) taxonomy approach

## Theorem (ROE)

- 1- MRA
  - 1.1 - ROE is not a NORMAL (normality Shapiro and Wilk)  
- This kind of analysis have some limitations (Woodside, 2003)
- 2 - Poisson distribution
- 3 - Fs QCA

# Data

## Variables\_of\_Interest.

- Dispersion of the Property.  $Prop_{fct}$
- Number of Members of the Corporate Government.  $Board_{fct}$

## Variables\_of\_Control.

- Number of Employees.  $In(Emplo_{fct})$
- Total Assents.  $In(Assets_{fct})$
- Capitalization.  $In(Capi_{fct})$
- Payout.  $Div_{fct}$

Number of observations 2.765

Orbis database by Bureau van Dijk

# Analogy



# MRA ( $\ln(\text{Turn}_{fct})$ )

Table: Results (Turnover)

Dependent variable:  $\ln(\text{Turn}_{fct})$

	(1)	(2)	(3)	(4)	(5)
$\text{Prop}_{fct}$	0.093*** (0.024)	0.104*** (0.013)	-0.013 (0.015)	0.084*** (0.012)	-0.015 (0.014)
$\text{Board}_{fct}$	0.028*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)	0.003*** (0.001)
$\ln(\text{Emplo}_{fct})$		0.254*** (0.010)	0.259*** (0.010)	0.243*** (0.010)	0.252*** (0.010)
$\ln(\text{Assets}_{fct})$		0.462*** (0.014)	0.488*** (0.014)	0.494*** (0.014)	0.513*** (0.014)
$\ln(\text{Cap}_{fct})$		0.062*** (0.012)	0.049*** (0.012)	0.073*** (0.011)	0.062*** (0.011)
$\text{Div}_{fct}$		0.0003 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001* (0.001)
Constant	6.042*** (0.022)	1.929*** (0.059)	1.906*** (0.242)	1.544*** (0.169)	1.554*** (0.272)
Observations	2,765	2,765	2,765	2,765	2,765
$\text{FE}_{\text{sector}}$	no	no	no	yes	yes
$\text{FE}_{\text{country}}$	no	no	yes	no	yes
R <sup>2</sup>	0.163	0.743	0.782	0.786	0.816
Adjusted R <sup>2</sup>	0.163	0.742	0.775	0.785	0.810

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Results moderating effects ( $\ln(\text{Turn}_{fSCT})$ )

Table: Results moderating effects

Dependent variable: $\ln(\text{Turn}_{fSCT})$	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$B2C_f \cdot \text{Prop}_{fSCT}$	-0.221*** (0.048)				-0.102** (0.047)	0.020 (0.046)	-0.063 (0.052)	-0.048* (0.028)	0.038 (0.033)
$B2C_f \cdot \text{Board}_{fSCT}$	0.023*** (0.003)				0.028*** (0.003)	0.034*** (0.002)	0.030*** (0.003)	0.002 (0.002)	0.005*** (0.002)
$PRO_f \cdot \text{Prop}_{fSCT}$		-0.097*** (0.023)			-0.021 (0.024)	0.113*** (0.026)	0.036 (0.035)	-0.020 (0.019)	-0.011 (0.021)
$PRO_f \cdot \text{Board}_{fSCT}$		0.018*** (0.001)			0.021*** (0.001)	0.027*** (0.001)	0.022*** (0.002)	0.0003 (0.001)	0.003*** (0.001)
$SCI_f \cdot \text{Prop}_{fSCT}$			-0.185*** (0.049)			0.090* (0.048)	0.021 (0.051)	-0.103*** (0.028)	-0.033 (0.036)
$SCI_f \cdot \text{Board}_{fSCT}$			0.015*** (0.003)			0.025*** (0.003)	0.020*** (0.003)	0.003* (0.002)	0.004** (0.002)
$OECD_c \cdot \text{Prop}_{fSCT}$				-0.093*** (0.023)			0.050 (0.034)	0.153*** (0.019)	-0.019 (0.027)
$OECD_c \cdot \text{Board}_{fSCT}$				0.025*** (0.001)			0.007*** (0.002)	0.002* (0.001)	-0.0003 (0.001)
$\ln(\text{Emp}_{fSCT})$								0.255*** (0.010)	0.253*** (0.010)
$\ln(\text{Assets}_{fSCT})$								0.466*** (0.014)	0.513*** (0.014)
$\ln(\text{Cap}_{fSCT})$								0.061*** (0.012)	0.062*** (0.011)
$\text{Div}_{fSCT}$								0.001 (0.001)	0.001* (0.001)
Constant	6.376*** (0.010)	6.305*** (0.015)	6.388*** (0.010)	6.280*** (0.013)	6.209*** (0.017)	6.039*** (0.022)	6.074*** (0.023)	1.939*** (0.057)	1.498*** (0.274)
Observations	2,765	2,765	2,765	2,765	2,765	2,765	2,765	2,765	2,765
FE sector	no	no	no	no	no	no	no	no	yes
FE country	no	no	no	no	no	no	no	no	yes
R <sup>2</sup>	0.028	0.066	0.010	0.118	0.118	0.167	0.179	0.760	0.817
Adjusted R <sup>2</sup>	0.027	0.065	0.009	0.117	0.116	0.165	0.177	0.759	0.810

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# MRA ( $ROE3_{fsct}$ ).

Table: Results ( $ROE3_{fsct}$ ).

Dependent variable:  $ROE3_{fsct}$

	(1)	(2)	(3)	(4)	(5)	(6)
$Prop_{fsct}$	0.015 (0.046)	0.015 (0.046)	0.015 (0.046)	-0.028 (0.055)	0.011 (0.046)	-0.035 (0.055)
$Board_{fsct}$	0.001 (0.002)	0.002 (0.002)	0.001 (0.002)	-0.002 (0.003)	0.001 (0.002)	-0.002 (0.003)
$Empl_{fsct}$		-0.00000 (0.00000)	-0.00000 (0.00000)		-0.000 (0.00000)	-0.000 (0.00000)
$Assets_{fsct}$		-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
$Cap_{fsct}$		-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
$Div_{fsct}$			-0.006*** (0.002)	-0.005** (0.002)	-0.006*** (0.002)	-0.006** (0.002)
Constant	0.026 (0.043)	0.024 (0.043)	0.034 (0.043)	0.262 (0.869)	0.202 (0.612)	0.167 (1.072)
Observations	2,765	2,765	2,765	2,765	2,765	2,765
$FE_{sector}$	no	no	no	no	yes	yes
$FE_{country}$	no	no	no	yes	no	yes
$R^2$	0.0001	0.001	0.003	0.026	0.010	0.032
Adjusted $R^2$	0.001	0.001	0.001	0.002	0.001	0.002

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Poisson ( $ROE3_{fsc}$ )

Table: Results, Poisson ( $ROE3_{fsc}$ ).

Dependent variable:  $ROE3_{fsc}$

	(1)	(2)	(3)	(4)	(5)	(6)
$Prop_{fsc}$	-0.317*** (0.013)	-0.286*** (0.013)	-0.291*** (0.013)	-0.206*** (0.016)	-0.278*** (0.013)	-0.275*** (0.016)
$Board_{fsc}$	-0.011*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.025*** (0.001)	-0.004*** (0.001)	-0.020*** (0.001)
$Emplo_{fsc}$		-0.0000*** (0.00000)	-0.0000*** (0.00000)	-0.0000*** (0.00000)	-0.0000*** (0.00000)	-0.0000*** (0.00000)
$Assets_{fsc}$		0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
$Capi_{fsc}$		-0.000*** (0.000)	-0.000*** (0.000)	-0.0000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
$Div_{fsc}$			-0.010*** (0.001)	-0.011*** (0.001)	-0.013*** (0.002)	-0.010*** (0.001)
Constant	3.913*** (0.012)	3.900*** (0.013)	3.915*** (0.013)	3.211*** (0.250)	3.403*** (0.151)	2.489*** (0.296)
Observations	1,207	1,207	1,207	1,207	1,207	1,207
$FE_{sector}$	no	no	no	no	yes	yes
$FE_{country}$	no	no	no	yes	no	yes
Log Likelihood	-51,545.900	-51,248.320	-51,209.990	-46,749.350	-47,061.480	-42,457.350
Akaike Inf. Crit.	103,097.800	102,508.600	102,434.000	93,632.700	94,170.960	85,082.710
Pseudo R <sup>2</sup>	0.0083	0.0143	0.0151	0.1056	0.0993	0.1927

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Fuzzy results ( $ROE3_{fsct}$ )

Table:

$$ROE3_{fsct} = f(Prop_{fsct} + Board_{fct} + Emplo_{fct} + Assets_{fct} + Capi_{fct} + Div_{fct})$$

	raw coverage	consistency
$\sim Div_{fct}$	0.676304	0.609659
$\sim Assets_{fct} * Capi_{fct}$	0.225574	0.635596
$\sim Assets_{fct} * Board_{fct}$	0.283079	0.585277
$\sim Emplo_{fct} * Board_{fct}$	0.288342	0.580844
$\sim Emplo_{fct} * Prop_{fsct} * Assets_{fct}$	0.178603	0.605979
solution coverage: 0.812668		
solution consistency: 0.562046		

# Fuzzy results ( $ROEsec_{fsct}$ )

Table:  $ROEsec_{fsct} =$

$$f(Prop_{fsct} + Board_{fct} + Empl_{fct} + Assets_{fct} + Capi_{fct} + Div_{fct})$$

	raw coverage	consistency
$\sim Div_{fct} * Prop_{fsct}$	0.512658	0.555394
$Board_{fct} * \sim Div_{fct} * Capi_{fct}$	0.233686	0.577003
$Board_{fct} * \sim Div_{fct} * Assets_{fct} * \sim Empl_{fct}$	0.092063	0.566919
$Board_{fct} * \sim Div_{fct} * \sim Assets_{fct} * Empl_{fct}$	0.094254	0.562786
$\sim Div_{fct} * Capi_{fct} * \sim Assets_{fct} * Empl_{fct}$	0.097244	0.556438
solution coverage: 0.569704		
solution consistency: 0.552589		

# Summary

- Payout and total assets have a **negative relation** with the return on equity, though with capitalization, corporate governance and property dispersion, **it is positive**.
- The results confirm that the effect of independence is an artifact of cultural nature, since *it is only significant when country fixed effects are not included in the regression*.
- $ROEsec_{fct} \rightarrow \sim Div_{fct} * Prop_{fct}$
- Outlook
  - These results are relevant in the field of business, specifically in the decision-making process, in addition to opening an exciting area of research.