

Risk governance and financial performance of public commercial banks of OECD

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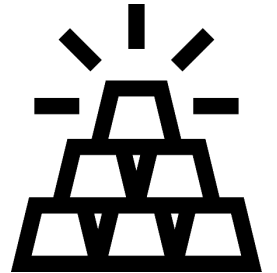
1. Introduction



- Directors' collective efforts towards bank risk
- By default, bank's risk governance limits bank's excessive risk-taking
- Naturally, stronger risk governance impedes higher risk and higher return
- Eventually, directors' collective efforts towards bank risk impact the financial performance of the bank
- Directions of the financial performance of the bank in place of risk governance
- *So, what is the impact of risk governance on the financial performance of public commercial banks of Organization for Economic Cooperation and Development (OECD)?*

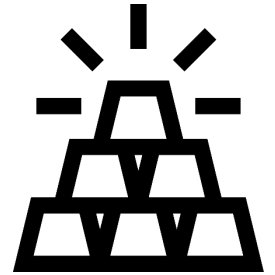
2. Theoretical background

- Personal, educational and functional characteristics of the directors - financial performance
- Upper Echelon Theory facilitates to understand this phenomenon better
- Fundamentally, risk governance characteristics are meant to help banks to avoid excessive risk-taking unless otherwise coordinated with the bank financial performance
- Goal coordination between risk governance characteristics and financial performance is important

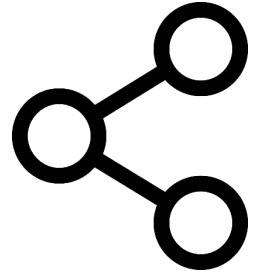


3. Literature review

- Risk governance addresses risk related issues at global, local, external, internal, and individual levels across sectors and industries
- Practically well defined and balanced approach of risk governance can be resourceful in governing risk and achieving higher financial performance
- Risk governance is a collective effort of the individuals to achieve common goals
- Hypothesis: *Risk governance is negatively associated with bank financial performance*



4. Sample and methods (1/3)



- Research period: 2000-2020
- Industry: public commercial banks of OECD
- Databases: director specific characteristics – BoardEx, bank specific measures: BankFocus
- Methods: regression analysis
- Risk governance index (RGI), $RGI = rc, cro, cfo, title, age, \text{ and } bi$
- Principal Component Analysis (PCA) to develop RGI
- Kaiser-Meyer-Olkin (KMO) for the validity of RGI
- Root Mean Square Error (RMSE) technique in selecting the best component for the RGI
- Robustness test
- Causality and reverse causality tests

3. Sample and Methods (2/3)

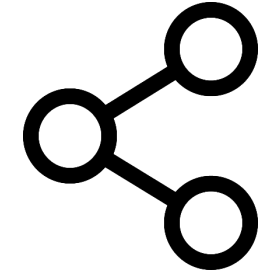


Table 1: Variables and Definitions

Research Variables	Measurements
Dependent	
ROAA	Return On Avg Assets (ROAA)
LADSTF	Liquid assets / Deposits & Short Term funding
RA	Regulatory adjustments
OOIAA	Other operating income / Average assets
Independent	
RC	if bank has Risk Committee (1) and if not (0)
CRO	if bank has Chief Risk Officer (1) and if not (0)
CFO	if bank has Chief Financial Officer (1) and if not (0)
TITLE	if director holds PhD degree (1) and if not (0)
AGE	if director's age is between 66-75 (1) and if not (0)
BI	if Director is independent Independent directors
Control	
CEOAD	if Chief Executive Officer has an additional position (1) and if not (0)
BS	Total number of directors on board
LNTA	Natural logarithm of the Total Assets

3. Sample and Methods (3/3)

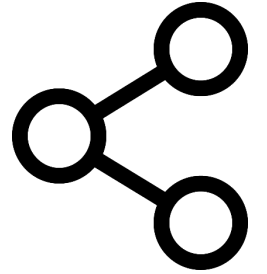


Table 2 - Summary statistics for all banks, on average over the period 2000-2020

Variable	Obs	Mean	Std. Dev.	Min	Max
roaa	14,574	0.7272821	0.7245735	-1.27	2.53
ladstf	14,576	26.63757	24.418	1.97	108.26
rc	129,887	0.0890466	0.2848121	0	1
cro	129,887	0.00261	0.0510213	0	1
cfo	129,887	0.0282399	0.1656582	0	1
title	129,887	0.0962375	0.2949178	0	1
age	129,887	0.2122075	0.4088726	0	1
bi	129,887	0.6600892	0.4736805	0	1
ceoad	129,887	0.1093797	0.3121162	0	1
bs	129,886	13.11676	4.744118	7	27
lnta	14,576	18.99765	2.704355	9.137232	28.20256

4. Results (1/7)

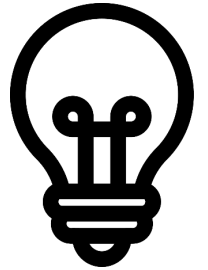


Table 3 – Results: Models 1 and 2

VARIABLES	(1) ROAA	(2) LADSTF
rgi	-0.0122*** (0.0040)	-0.1320* (0.0742)
ceoad	-0.0407*** (0.0135)	-0.5418*** (0.2037)
bs	-0.0288*** (0.0110)	-0.1059 (0.2287)
lna	0.2102 (0.1301)	7.3219*** (2.2088)
Constant	-2.8453 (2.4878)	-110.9116*** (40.7937)
Observations	14,537	14,554
Adjusted R-squared	0.6842	0.9213
Bank FE	YES	YES
Year FE	YES	YES
Clusters	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (2/7)

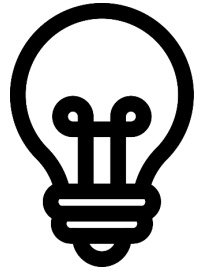


Table 4 – Robustness tests

VARIABLES	(1) RA	(2) OOIAA
rgi	-23,845.5273** (9,112.2425)	-0.0069*** (0.0026)
ccoad	366.0210 (28,408.5466)	-0.0241** (0.0095)
bs	-82,706.9627 (127,839.9134)	0.0101 (0.0169)
lnta	1369955.2657 (1250137.5297)	-0.3732*** (0.1081)
Constant	-2.4183e+07 (2.3539e+07)	8.1895*** (2.0727)
Observations	2,740	14,537
Adjusted R-squared	0.8910	0.8407
Bank FE	YES	YES
Year FE	YES	YES
Clusters	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (3/7)

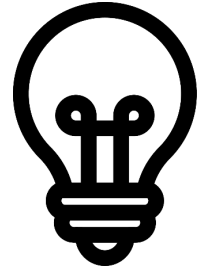


Table 5 – Causality (1/2)

VARIABLES	(1) ROAA	(2) LADSTF	(3) RA	(4) OOIAA
rgilag1	-0.0350** (0.0168)	-0.5518*** (0.2088)	-35,935.7792 (44,922.7176)	-0.0081 (0.0105)
ccoadlag1	-0.0305** (0.0136)	-0.5505*** (0.1880)	-47,961.7097 (51,164.9173)	-0.0260*** (0.0084)
bslag1	-0.0350*** (0.0106)	-0.1804 (0.2201)	-36,125.5925 (115,604.1433)	-0.0068 (0.0134)
lntalag1	-0.0026 (0.0818)	3.6385** (1.6329)	886,968.9107 (871,573.6172)	-0.3018*** (0.0756)
Constant	1.2817 (1.5767)	-40.3618 (29.9269)	-1.5716e+07 (1.6944e+07)	7.0761*** (1.4544)
Observations	13,069	13,071	2,513	13,069
Adjusted R-squared	0.6815	0.9221	0.8899	0.8407
Bank FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clusters	Bank	Bank	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (4/7)

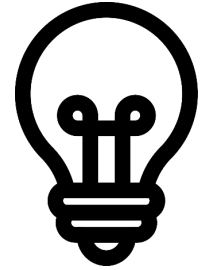


Table 6 – Causality (1/2)

VARIABLES	(1) ROAA	(2) LADSTF	(3) RA	(4) OOIAA
rgilag2	-0.0291* (0.0157)	-0.2530 (0.2221)	-75,002.2764 (50,288.3201)	-0.0064 (0.0095)
ccoadlag2	-0.0154 (0.0117)	-0.5286*** (0.1776)	-47,593.4424 (47,575.3126)	-0.0184** (0.0085)
bslag2	-0.0248*** (0.0072)	-0.0763 (0.2181)	-8,838.2286 (57,835.8138)	-0.0117* (0.0063)
lntalag2	-0.0585 (0.0464)	0.7516 (0.8661)	642,192.6367 (416,448.5499)	-0.1577*** (0.0383)
Constant	2.1830** (0.9104)	12.3982 (16.3615)	-1.1481e+07 (7813906.5141)	4.3918*** (0.7417)
Observations	12,640	12,633	2,463	12,640
Adjusted R-squared	0.6862	0.9220	0.8878	0.8420
Bank FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clusters	Bank	Bank	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (5/7)



Table 7 – Reverse causality (1/3)

VARIABLES	(1) RGI	(2) RGI	(3) RGI	(4) RGI
roaa	-0.1101*** (0.0343)			
ceoad	-0.5213*** (0.0939)	-0.5186*** (0.0937)	-0.4931*** (0.1707)	-0.5201*** (0.0937)
bs	-0.0069 (0.0102)	-0.0041 (0.0102)	-0.0424*** (0.0147)	-0.0025 (0.0108)
lnta	-0.0892 (0.0988)	-0.0788 (0.1018)	-0.2075 (0.1649)	-0.1587* (0.0928)
ladstf		-0.0042* (0.0023)		
ra			-0.0000*** (0.0000)	
ooiaa				-0.1242*** (0.0444)
Constant	1.7629 (1.7900)	1.5560 (1.8400)	4.4939 (3.0587)	3.0945* (1.6867)
Observations	14,537	14,554	2,740	14,537
Adjusted R-squared	0.1742	0.1732	0.1478	0.1738
Bank FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clusters	Bank	Bank	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (6/7)

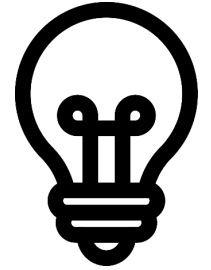


Table 8 – Reverse causality (2/3)

VARIABLES	(1) RGI	(2) RGI	(3) RGI	(4) RGI
roaalag1	-0.0937*** (0.0283)			
ceoadlag1	-0.4779*** (0.0821)	-0.4757*** (0.0821)	-0.4186*** (0.1498)	-0.4763*** (0.0820)
bslag1	-0.0000 (0.0095)	0.0016 (0.0095)	-0.0617*** (0.0188)	0.0028 (0.0099)
lntalag1	-0.1374** (0.0669)	-0.1165* (0.0687)	-0.1884 (0.1311)	-0.1725*** (0.0649)
ladstflag1		-0.0038* (0.0019)		
ralag1			-0.0000*** (0.0000)	
ooiaalag1				-0.0734* (0.0433)
Constant	2.5555** (1.2434)	2.1669* (1.2655)	4.3890* (2.3337)	3.2043*** (1.2151)
Observations	14,519	14,536	2,736	14,519
Adjusted R-squared	0.1699	0.1692	0.1539	0.1693
Bank FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clusters	Bank	Bank	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.

4. Results (7/7)

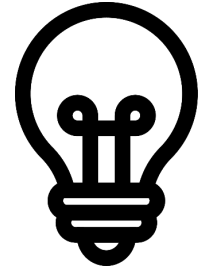


Table 9 – Reverse causality (3/3)

VARIABLES	(1) RGI	(2) RGI	(3) RGI	(4) RGI
roaalag2	-0.0634** (0.0285)			
ceoadlag2	-0.3919*** (0.0719)	-0.3900*** (0.0719)	-0.3055** (0.1280)	-0.3907*** (0.0719)
bslag2	0.0077 (0.0088)	0.0088 (0.0087)	-0.0251* (0.0130)	0.0094 (0.0088)
lntalag2	-0.1254** (0.0513)	-0.1135** (0.0516)	-0.1822 (0.1416)	-0.1427*** (0.0486)
ladstflag2		-0.0019 (0.0017)		
ralag2			-0.0000 (0.0000)	
ooiaalag2				-0.0465 (0.0395)
Constant	2.1743** (0.9694)	1.9365** (0.9733)	3.6701 (2.5972)	2.4911*** (0.9174)
Observations	14,512	14,529	2,730	14,512
Adjusted R-squared	0.1675	0.1669	0.1626	0.1672
Bank FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES
Clusters	Bank	Bank	Bank	Bank

***, ** and * indicates statistical significance at the 1%, 5% and 10%, respectively.