

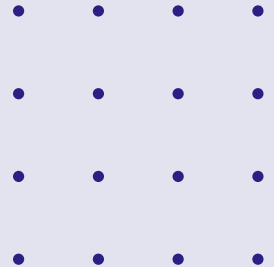
Structural Analysis of Bank Competition and Performance:

Evidence from the Philippine Universal and Commercial Bank Group, 2011 - 2021

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Introduction



Ensuring competition in the financial sector results in economic efficiency



Competition plays a principal role in banking industry performance



The role of regulatory and supervisory frameworks in the banking system



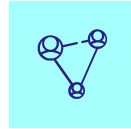
Little existing literature on banking industry performance in the Philippines



Statement of the Problem



How does the level of competition and efficiency in the Philippine banking industry influence overall banking performance?



How are concentration, efficiency, and profitability related to each other?



(Alternatively) How does banking efficiency in a competitive industry influence overall banking performance and consequently, the level of concentration?



How important is industry competition and/or efficiency in the banking industry to improve its overall performance?

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Review of Related Literature



Structural Hypotheses

Structure-Conduct-Performance (SCP) Hypothesis
Efficient-Structure Hypothesis (ESH)
Quiet Life Hypothesis (QLH)
Relative Market Power Hypothesis (RMP)

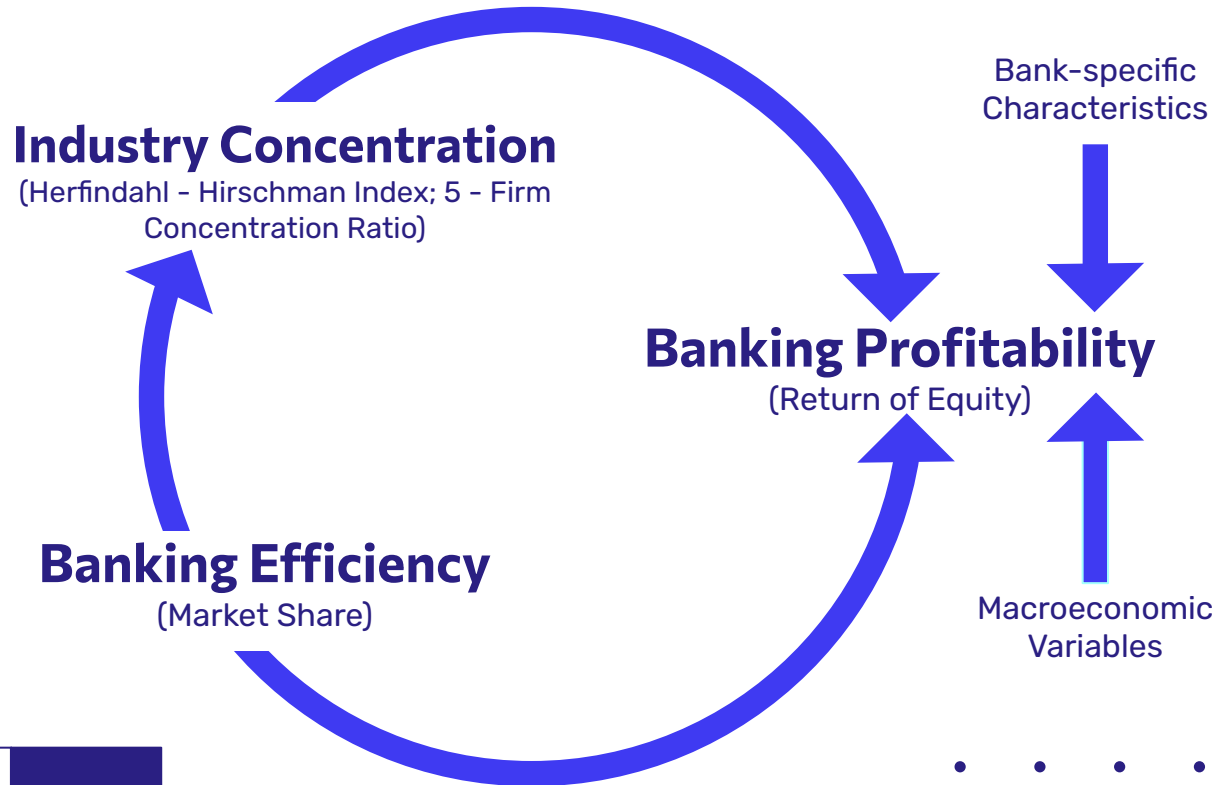


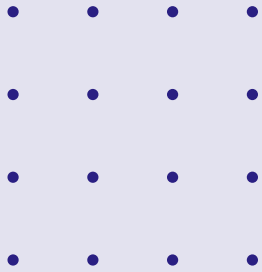
Philippine Banking Industry

Dacanay, 2002; Pasadilla & Millo, 2005; Manlagnit & Lamberte, 2005; Ofreneo, 2015

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Conceptual Framework

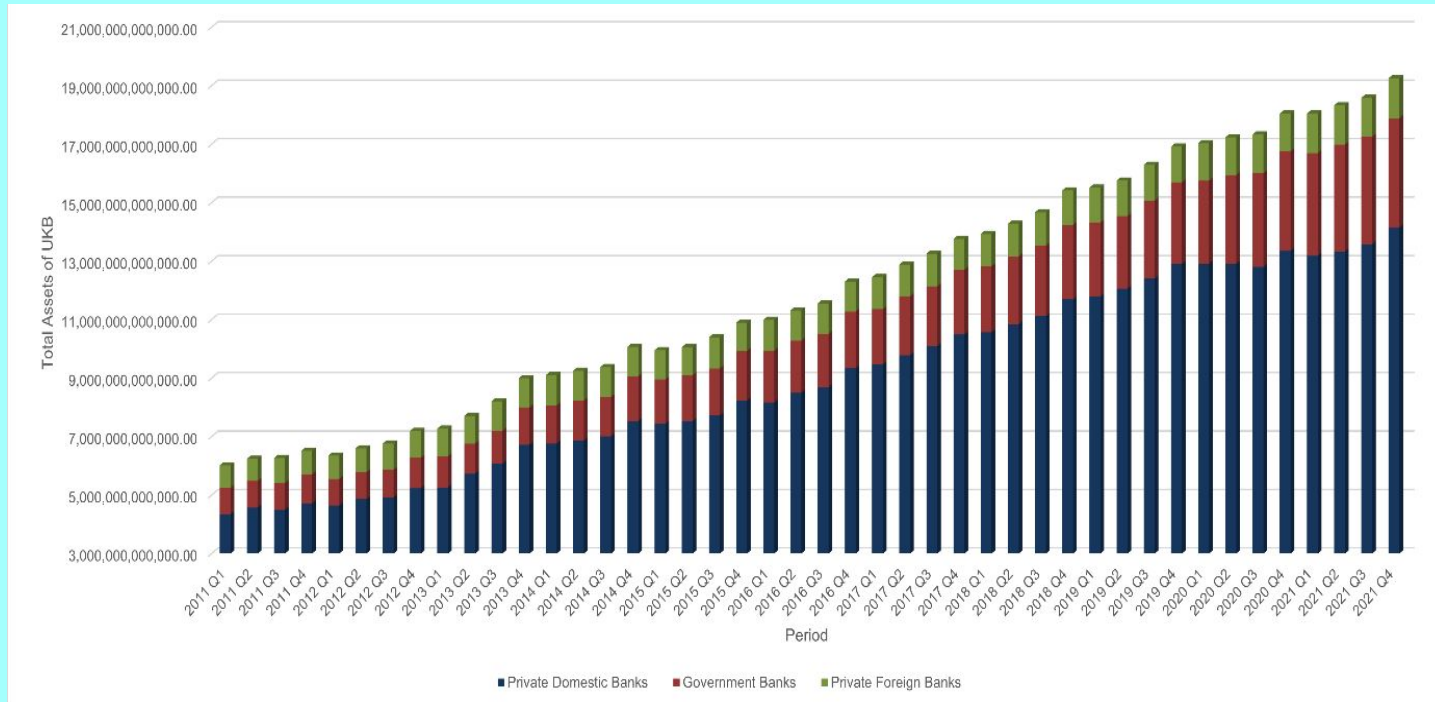




Results and Discussions

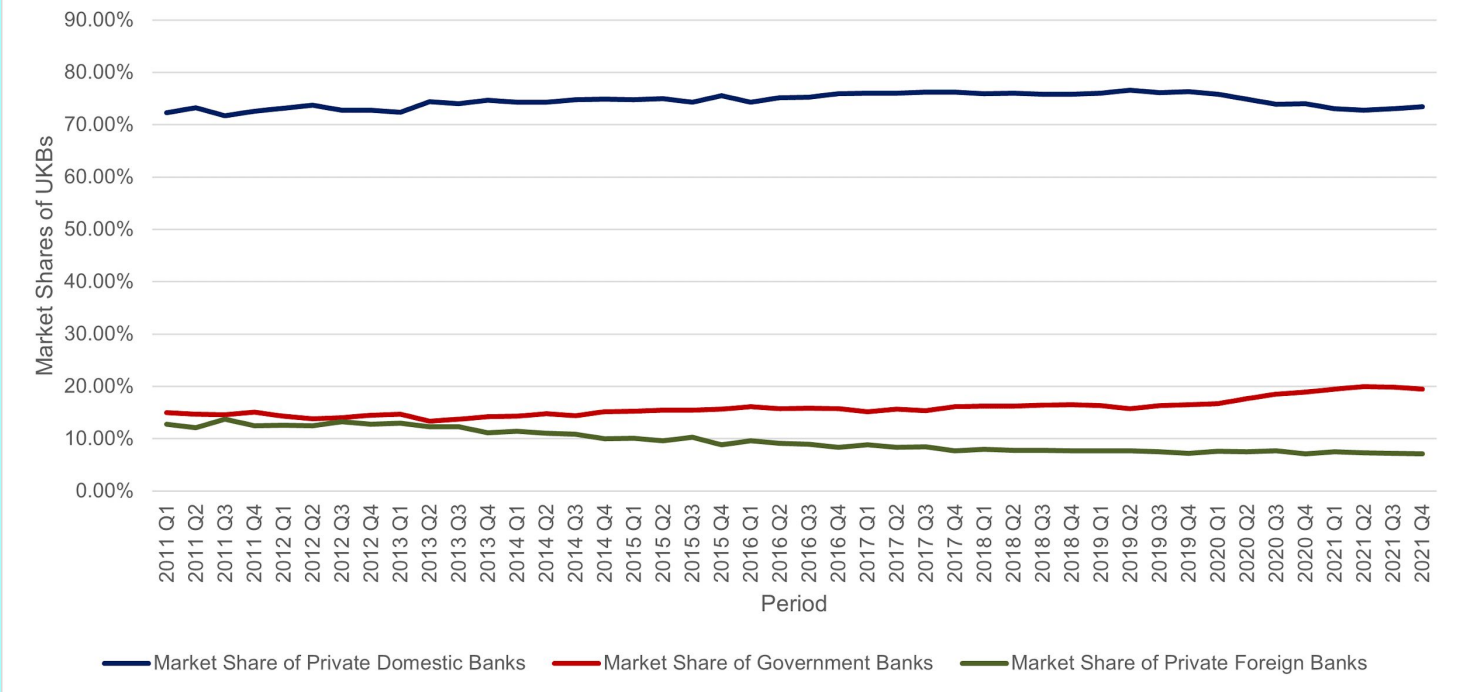
Trend Analysis

Asset Distribution of UKBs according to Classification and Ownership (March 2011-December 2021)



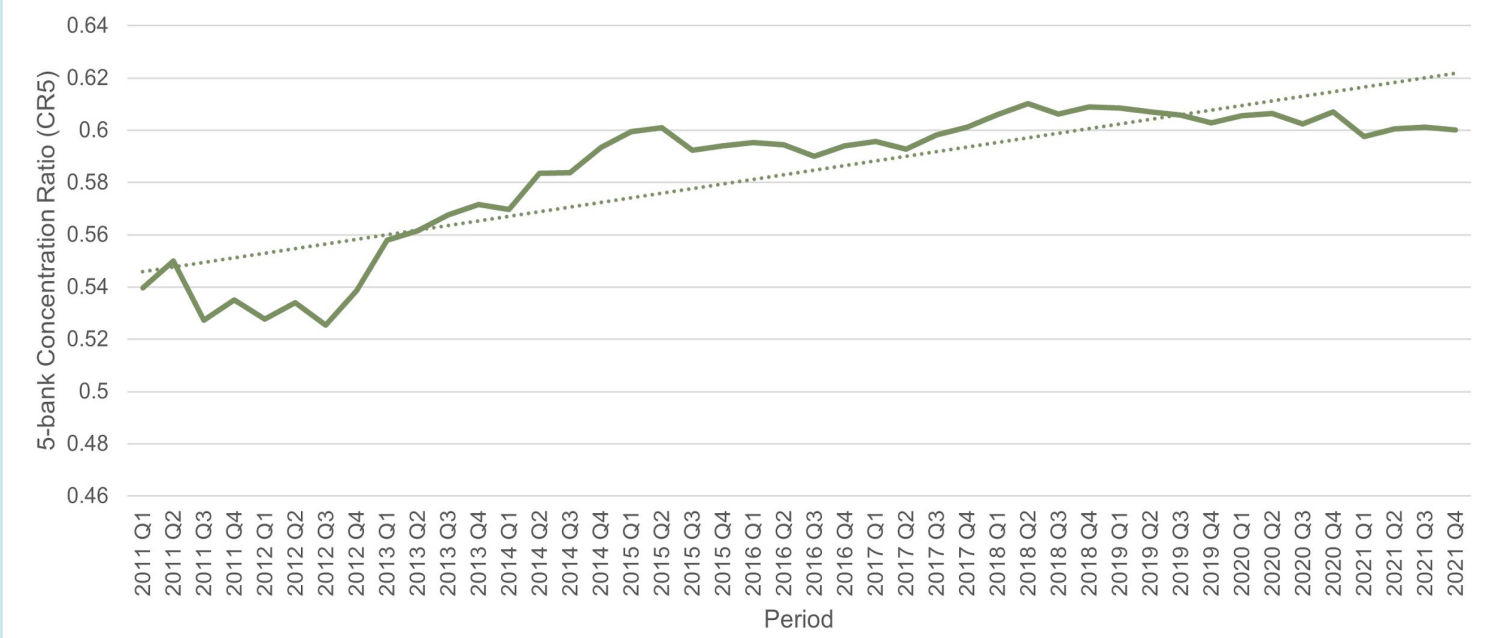
Trend Analysis

Market Shares of UKBs according to Classification and Ownership (March 2011-December 2021)



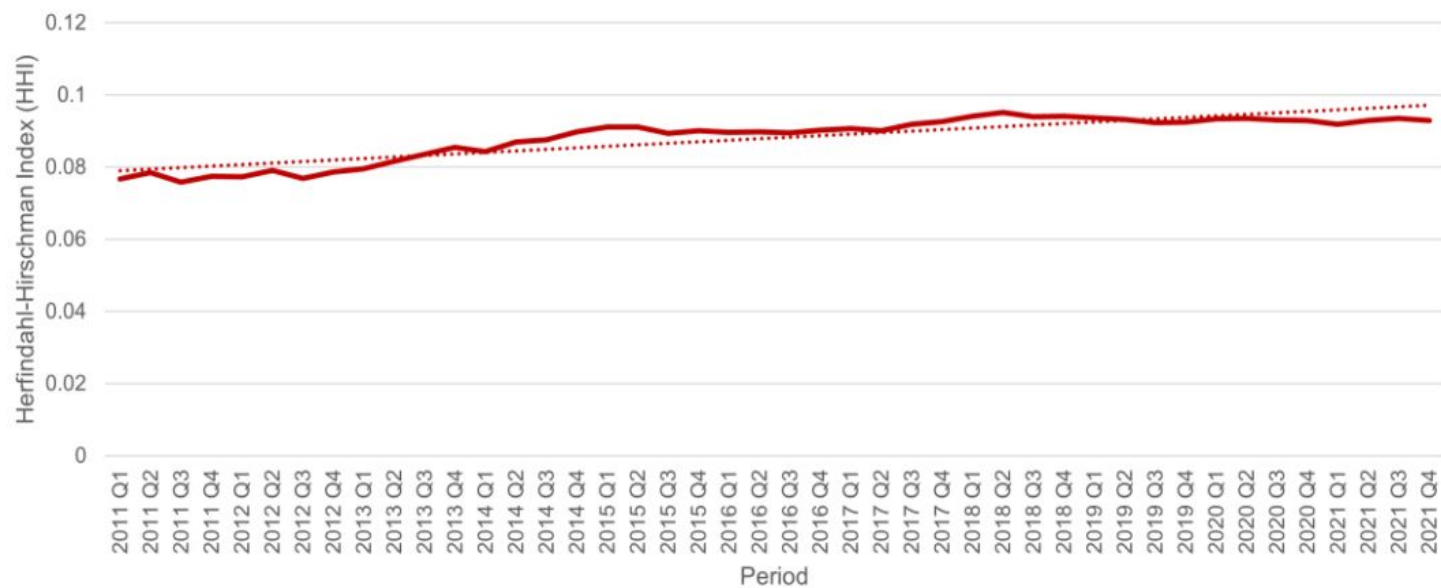
Trend Analysis

5-Bank Concentration Ratio of the UKB Group in the Philippines (March 2011-December 2021)



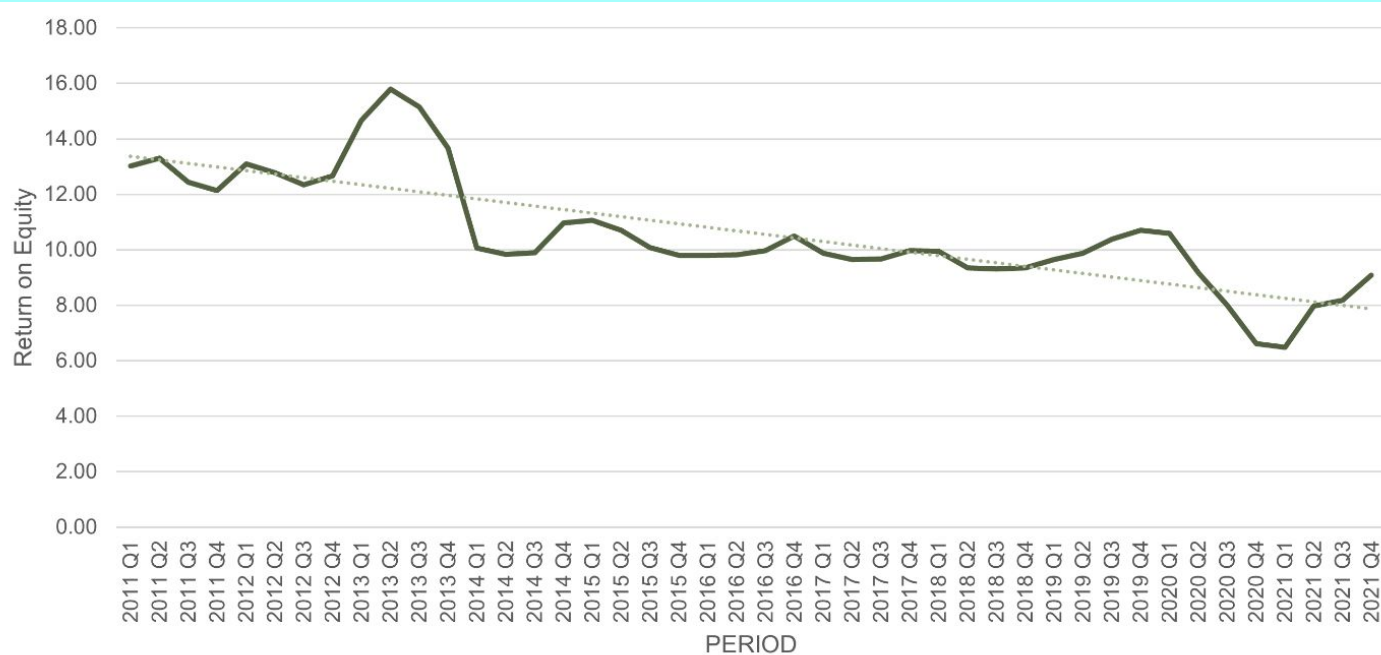
Trend Analysis

Herfindahl-Hirschman Index (HHI) of the UKB Group in the Philippines
(March 2011–December 2021)



Trend Analysis

Return on Equity (ROE) of the UKB Group in the Philippines
(March 2011-December 2021)



Regression Analysis

Random Effects Estimation Panel Regression Model
(Independent Variables)

Model	Dependent Variable			
	Return on Equity (ROE)			
	(1)	p-value	(2)	p-value
Herfindahl-Hirschman Index (HHI)	-2.655*** (0.689)	0.000		
5-Banks Concentration Ratio (CR5)			-0.509*** (0.152)	0.001
Market Shares	7.390*** (1.695)	0.000	7.391*** (1.695)	0.000

*p < 0.05, **p < 0.01, ***p < 0.001



Regression Analysis

Random Effects Estimation Panel Regression Model
(Bank-specific Characteristics)

Model	Dependent Variable			
	Return on Equity (ROE)			
	(1)	p-value	(2)	p-value
Total Assets (in natural logarithmic form)	0.003 (0.003)	0.296	0.003 (0.003)	0.298
Loans-to-Assets Ratio	-5.663*** (1.318)	0.000	-5.664*** (1.318)	0.000
Type of Bank	-0.004 (0.010)	0.662	-0.004 (0.009)	0.648
Ownership	0.016 (0.011)	0.138	0.016 (0.011)	0.139
Classification	-0.299*** (0.079)	0.000	-0.299*** (0.079)	0.000

*p < 0.05, **p < 0.01, ***p < 0.001

Regression Analysis

Random Effects Estimation Panel Regression Model
(Macroeconomic Variables)

Model	Dependent Variable			
	Return on Equity (ROE)			
	(1)	p-value	(2)	p-value
Inflation Rate	-0.001 (0.002)	0.721	-0.001 (0.002)	0.604
GDP Growth Rate	-0.004 (0.004)	0.291	-0.004 (0.004)	0.278
COVID-19	-0.122* (0.055)	0.054	-0.127* (0.054)	0.019
R2	0.155		0.154	
Adj. R2	0.149		0.149	
Chi-square	162.343*** df = 10		156.913*** df = 10	

*p < 0.05, **p < 0.01, ***p < 0.001

Causality Test

Granger Causality Test (p-values < 0.05 means precedence)

Model	Test Statistic	p-value
ROE~HHI	Z = 22.556***	2.226e-06
ROE~CR5	Z = 16.518***	5.055e-05
ROE~SHARES	Z = 0.7765	0.3783
SHARES~HHI	Z = 0	0.9958
SHARES~CR5	Z = 0.0011	0.9736

*p < 0.05, **p < 0.01, ***p < 0.001

Conclusions



Bank liberalization

The amendment of the bank liberalization law in 2014 attracted private foreign banks but it was not effective in ensuring bank competition.



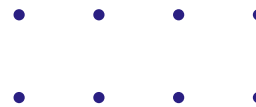
Pandemic

Despite an increase in bank size, the UKB group experienced declining profitability during the pandemic.



Concentration-performance

While the country's banking industry became more concentrated, its profitability has declined over time.



Conclusions



Quiet life

The quiet life hypothesis (QLH) applies to the Philippine banking industry.



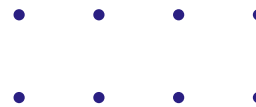
Bank profitability

There are bank-specific and macroeconomic variables that influence banking profitability.



Universal banks

Universal banks dominate the Philippine banking industry in terms of total assets and market share.



Recommendations

- Consider reorienting towards policies that promote competition in the banking industry
- Consider approaches that facilitate and incentivize the entry of private UKBs
- Address gaps in literature regarding banking structure and performance
- Use of direct measures of independent variables (as suggested by NEIO)
- Account for other variables that determine bank profitability



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