BSP RESEARCH ACADEMY

Structural Analysis of Banking Competition and Performance: Evidence from the Philippine Universal and Commercial Bank Group, 2011-2021

A Discussion */

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*/ The usual institutional disclaimer applies.

1. What the paper does

Examine the relationship between competition, efficiency, and profitability using balance sheet data of 47 UKBs in Philippines, 2011-2021

Specifically, estimate of bank-level and top 5 banks concentration ratios as indicator of competition

Assess impact of Covid-19 pandemic on bank profitability and efficiency

2. Findings broadly fit into empirical studies

- Research on impact of bank competition on bank performance rising in recent years but findings remain inconclusive
  - Impact of Covid-19 pandemic on bank performance and efficiency

- Studies focus on evaluating the influence of bank competition on bank risk and stability (Schaeck and Cihak 2014)
  - "Competition-fragility" view vs "Competition-stability" view
  - Role of efficiency on reducing bank risk and competition

- Studies on how to measure bank competition continue to evolve (de-Ramon and Straughan 2020)
  - Market power in asset market
  - Market power in deposit market (Jaume et al. 2022)

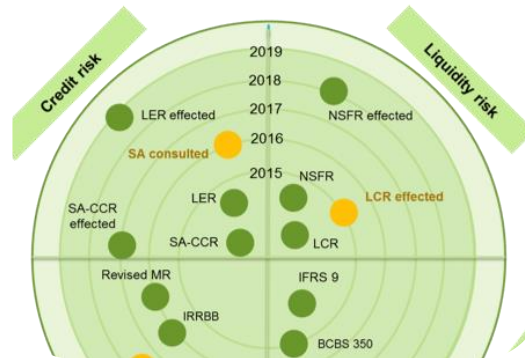# 3. But there is a more complete narrative behind these results ...

3. Intense "forces of change" in financial sector prior to Covid-19 pandemic (2011-2019) (1-3)

Financial Sector Reforms

- Promote sound, stable and globally competitive PH financial system
- FX liberalization reforms, foreign bank entry, shift to IRC, crafting of the Digital Bank Licensing Framework

BASEL Regulatory Requirements

- CAR, leverage ratio
- D-SIBs framework
- Sound credit management system
- Business Continuity Management Framework
- Liquidity standards: LCR, NSFR, MLR

Financial Technology

- Digital Payments Transformation Roadmap
- (53%) UKBs and subsidiaries ahead in digital transformation process in 2020

New Payment Methods

- InstaPay, PesoNet
- Increase in digital payments to total by volume (30% in 2021)

3. General Banking Law of 2000 (R.A. No. 8791) (2-3)

- Provides legal ground for crafting banking reforms, including enhancement of supervisory capability of the BSP, improvement of prudential standards and regulatory standards, and competition in the industry

- Risk-based supervision to strengthen financial stability

# 3. Guidelines on sound credit management shape banking sector reforms post GFC (3-3)

- **BSP Circular No. 855 – Guidelines on Sound Credit Risk Management Practices**
  - Maintaining an Appropriate Credit Control Process
    - ➢ Early identification and intervention to maintain quality of portfolio, prevent further deterioration and minimize losses
    - ➢ *Sound Loan Loss Estimation Methodology*

- **BSP Circular No. 1011 – Philippine Financial Reporting Standards (PFRS) 9**
  - *Loan loss methodology* - early recognition of allowance for credit losses before default or non-payment of the borrower

Loan loss provision is an <u>income statement</u> <u>expense</u> set aside as an allowance for uncollected loans and loan payments

4. Asset quality indicators have been manageable through the pandemic (1-2)

Figure 1: Asset Quality Indicators (%), Universal/Commercial Banking Group, 2015-2022
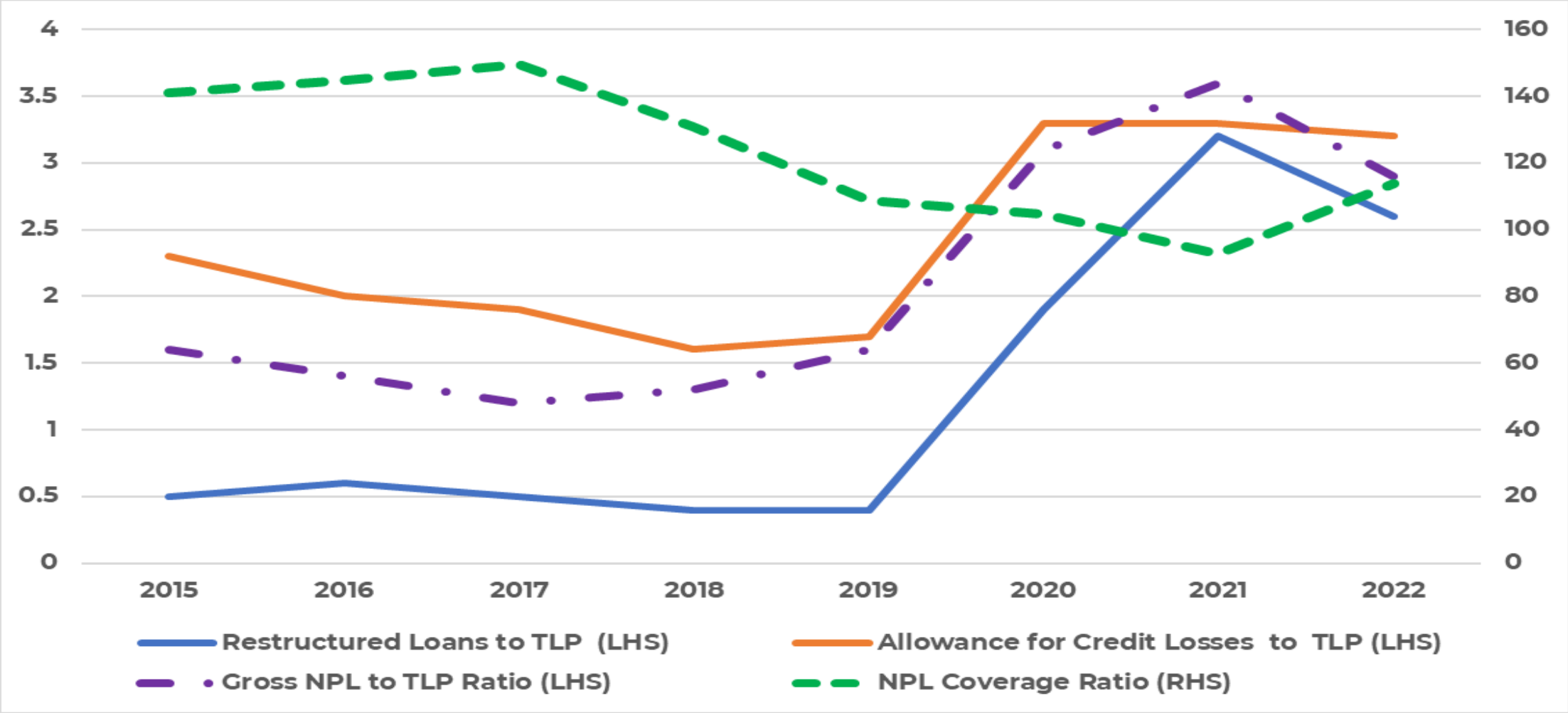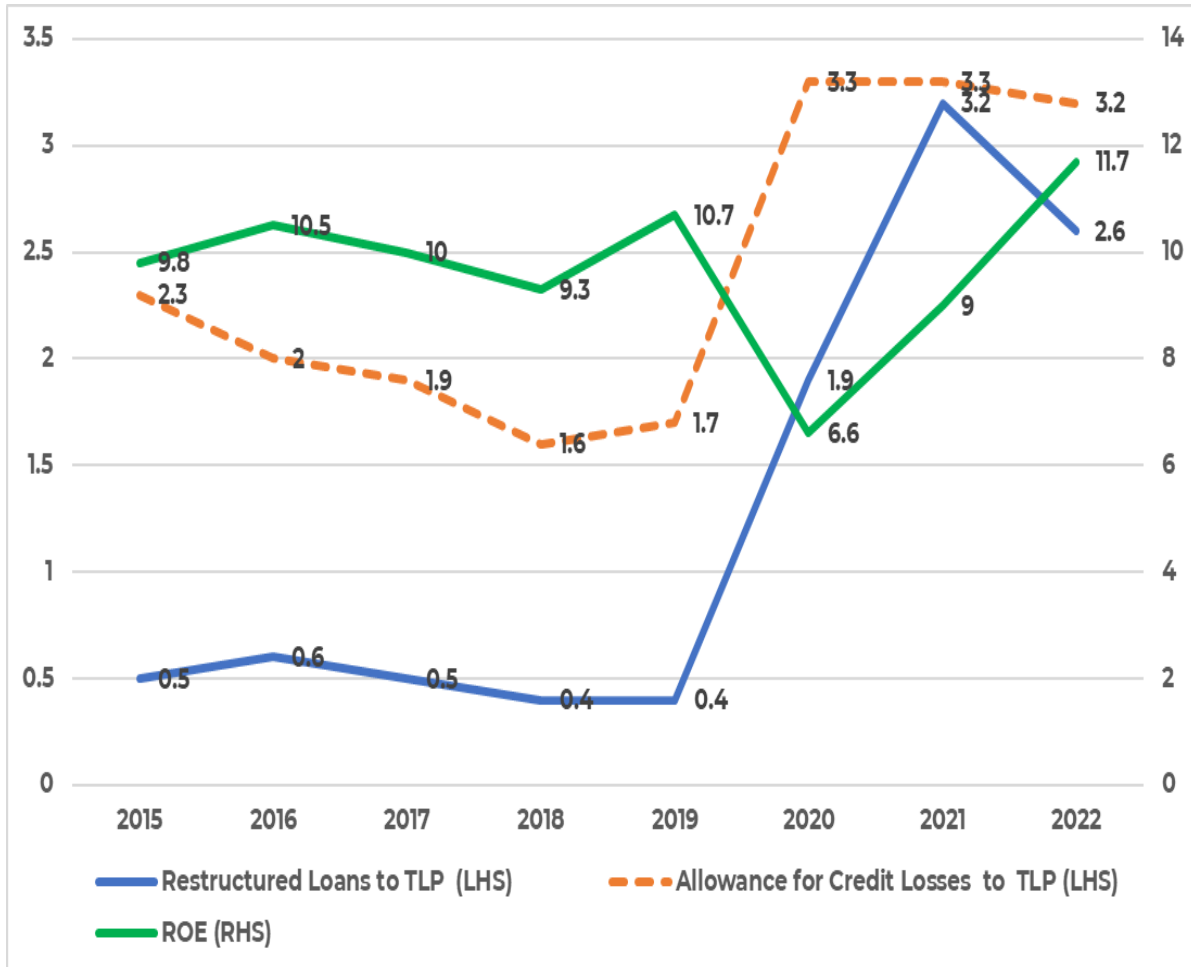

Source of data: BSP Report on the Philippine Financial System, various years.

4. To some extent, ROE tracks risk taking activities by banks (2-2)

Figure 2: Allowance for Credit Losses and ROE, Universal/Commercial Banking Group, 2015-2022

Legend:
- Restructured Loans to TLP (LHS)
- Allowance for Credit Losses to TLP (LHS)
- ROE (RHS)

Source of data: BSP Report on the Philippine Financial System, various years.

Figure 3: Allowance for Credit Losses and ROE, Universal/Commercial Banking Group, 2015-2022

Legend:
- ROE
- CAR Gap from Threshold of 10%
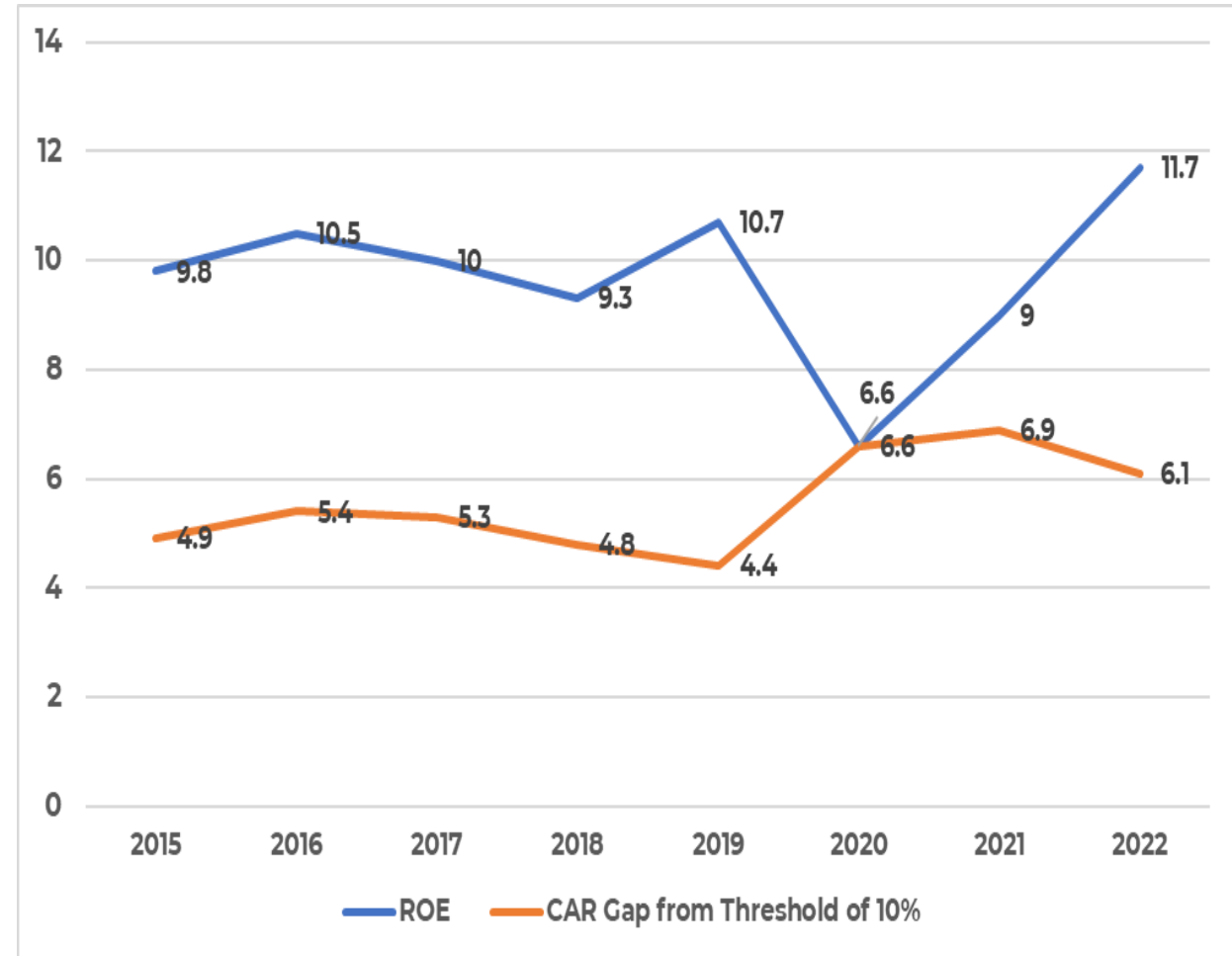
Source of data: BSP Report on the Philippine Financial System, various years.

5. Does the Return on Equity (ROE) fully capture bank efficiency?

- Shortcomings of using ROE as indicator of bank efficiency
  - As a performance indicator
  - As a risk measure
  - Should be adjusted for bank risk-taking activities (Moussu & Petit-Romec 2017)

- Return on Assets (ROA) accounts for financial leverage, debt

- Use both indicators for bank efficiency but need to be adjusted for bank risk

6. Does the HHI fully capture bank competition? (1-2)

- Many previous studies have argued to use a multipronged approach in measuring bank competition - traditional (HHI) and non-structural measures of bank competition (Demirguc-Kunt et al. 2010; Anzoategui et al. 2010)

- Using HHI as the <u>only measure</u> of bank competition could be limited
  - "Concentration" is not the same as "competition" and that even concentrated markets can remain competitive if they are contestable—that is, if barriers to the entry and exit of banks are low
  - If the banking sector is contestable, incumbent firms will feel pressure to compete

7. Does the HHI fully capture bank competition? (2-2)

- Non-structural measures of competition - Panzar and Rosse H-statistic, Lerner index, and Boone indicator

    - H-statistic uses elasticity of revenue to input prices—that is, how sensitive revenue is to changes in firms' costs. Higher numbers for the H-statistic indicate higher levels of competition (with a negative value or 0 indicating a monopoly and 1 indicating perfect competition)
    - Lerner index directly measures pricing power by examining the price markup over marginal cost (that is, the extra cost of producing an additional unit of output). Higher values for this index indicate greater market power and lower levels of bank competition
    - Boone indicator measures efficiency based on elasticity of variable profits over variable cost; Higher values (typically negative) indicate higher level of competition

- HHI and any of the three may be a good combination to flesh out the relationship between profitability, bank competition, and efficiency
    - Many studies include estimates of HHI for comparison purposes only

8. Should the methodology then address endogeneity?

- **Robustness checks**

- **Generalized Method of Moments (GMM)**

- **Quantile Regression**

- **Use either GMM or quantile regression for robustness checks**

9. Indeed a good and timely paper

- Impact of Covid-19 pandemic on bank efficiency and bank competition remains timely and useful
- Areas of future research
  - Indicator of risk-taking behavior of banks using standard deviation of ROA or ROE
  - Prudential indicators – CAR, liquidity/assets
  - Discussion on impact of Basel regulations on profitability, concentration, and competition
  - Discussion on BSP and fiscal regulatory relief measures that helped banks withstand the impact of Covid-19 pandemic
  - Use of alternative methodology for robustness checks

Thank you