INFORMATION PAGE ABOUT THESIS

Thesis title: **Bank risk, charter value and market discipline: evidence from ASEAN 5**

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1. THESIS SUMMARY

This thesis examined the interrelationships between bank risk, charter value and market discipline in Southeast Asia using a simultaneous equations model with the 3SLS estimator for a sample of 90 listed banks from 2006 to 2022. The results show a bidirectional relationship between bank risk, charter value and market discipline. Specifically:

First, the results show a bidirectional relationship between bank risk and market discipline. A negative impact of market discipline on bank risk underscores the importance of market discipline in preventing banks from taking excessive risks. Meanwhile, a positive relationship between bank risk-taking and market discipline highlights the significant role of market discipline in the banking system, offering strong incentives for banks to conduct their daily operations efficiently, soundly, and safely. This supports the recommendations of the Bank for International Settlements that authorities in the ASEAN-5 should continue to promote market discipline within banking systems, for example, by encouraging more information disclosures.

Second, the findings indicate a bidirectional association between bank risk and charter value. More specifically, a positive impact of charter value on bank risk shows that banks with higher charter value have more incentives to accumulate risk. This may imply that pursuing fast-growing policies or focus strategies may induce banks to take higher risks. However, the findings demonstrate the existence of an inverted U-shaped relation between them. Therefore, the charter value should be considered as a good tool for bank managers to control bank risk in the long term. Simultaneously, a negative relationship between bank risk-taking and charter value may argue that more risky banks tend to lower their charter value. This

thus reinforces the importance of charter value in determining bank risk-taking. Therefore, the authorities should pay more attention to bank charter value to strengthen the resilience of the banking systems in the ASEAN-5.

Third, the results show a negative two-way relationship between charter value and market discipline. To be specific, a negative impact of market discipline on charter value implies that the presence of market discipline may reduce bank charter value. Meanwhile, as bank charter value increases, market discipline may weaken, thus reinforcing the importance of market discipline in the banking system. Additionally, a U-shaped relationship between charter value and market discipline may suggest that as bank charter value increases above a certain threshold, banks tend to take excessive risks, thus increasing market discipline. Together, policymakers in this region should further promote market discipline towards Basel III to strengthen the banking systems.

Finally, this study contributes to the extant literature in several ways. The first, most prior studies have focused on the one-way relationship between bank risk charter value and market discipline. Therefore, this study will fill the above gap by studying the interrelationship between bank risk, market discipline and charter value. Second, this study will add more evidence to the literature in emerging markets, especially Asia-Pacific, by examining this interrelationship in the ASEAN-5. Lastly, in practical terms, by providing evidence regarding the association of the interrelationships between bank risk, charter value, and market discipline in ASEAN-5. Based on the results of this study, policy-makers and practitioners can provide specific standards or guidelines for commercial banks for better risk control.

2. CONTRIBUTIONS OF THE THESIS

In the theoretical aspect

This study contributes to the extant literature in several ways.

This study contributes to the existing literature in several ways. Previous studies suggest three primary research trajectories. The first strand has largely focused on examining one-way relationships between pairs of variables, such as charter value and bank risk-taking, bank risk-taking and market discipline, or market discipline and charter value. However, the findings in this area are mixed. For instance, some early studies indicate that banks with higher charter values are less likely to default (Gropp & Vesala, 2004; Keeley, 1990; Marcus, 1984), whereas others suggest that higher charter value may encourage greater risk-taking (Agusman et al., 2006). In addition, a few studies have begun to document two-way relationships among these factors (Ghosh, 2009a), underscoring the complexity of financial interactions, particularly in emerging markets like the ASEAN-5 region. The second strand of research contends that market discipline, alongside other regulatory measures, can curb excessive bank risk-taking (Ayuso et al., 2004; Flannery, 2001; Galloway et al., 1997; Hoang et al., 2014; Lindquist, 2004; Nier & Baumann, 2006). Yet, opposite findings have also emerged (Le, 2020a), and Ghosh (2009a) even shows that greater risk may reduce the presence of market discipline. The third strand explores the influence of market discipline on charter value. While some studies indicate that market discipline can enhance a bank's charter value (Akhtar & Saleem, 2021; Flannery & Rangan, 2008; Haq et al., 2019; Nier & Baumann, 2006), others present contradictory evidence (Ghosh, 2009a). Ghosh (2009a) also highlights a negative impact of charter value on depositor discipline.

Building on these existing findings, this study makes a key contribution by moving beyond one-dimensional analyses. Rather than considering isolated links—such as that between risk and charter value, or between market discipline and risk—this research establishes the reciprocal relationships among all three variables: bank risk, charter value, and market discipline. In doing so, it provides a more comprehensive and integrated framework for understanding these interdependencies.

To ensure robustness, several additional analyses were conducted. First, while previous studies have investigated the influence of bank size on risk-taking or market discipline separately (Berger & Bouwman, 2013; Demirgüç-Kunt & Huizinga, 2010), this research advances the literature by confirming that the reciprocal relationships among bank risk, charter value, and market discipline hold true for both large and small banks, albeit with significant differences. In large banks, a positive correlation between market discipline and risk emerges, which aligns with the "too big to fail" argument (Gropp et al., 2010), indicating that heightened risk leads to intensified depositor scrutiny. In contrast, small banks exhibit an inverse relationship due to information asymmetry and weaker transparency, factors not fully integrated into a three-factor framework by earlier research (Anginer et al., 2019). These distinctions are essential for developing more nuanced and adaptive bank management strategies, surpassing the traditional one-dimensional approaches found in the extant literature.

Second, while previous contributions have often examined the effects of global financial crises on individual factors (Beltratti & Stulz, 2012; Demirguc‑Kunt et al., 2013), this study demonstrates that the Global Financial Crisis exerted a substantial impact on the interrelationship among bank risk, charter value, and market discipline in the ASEAN-5 region. The crisis weakened market discipline and lowered charter value, collectively heightening banking risk. These findings emphasize the importance of incorporating external shocks beyond the partial perspectives of earlier studies into the assessment of banking stability and strategic formulation.

Third, this study underscores the role of market concentration, extending the insights of the concentration–fragility literature (Beck et al., 2006; Schaeck et al., 2009). Whereas prior research generally addressed the impact of market concentration on risk or depositor discipline in isolation, this research integrates all three factors. As a result, it reveals that high market concentration not only intensifies moral hazard in large banks but also undermines depositor discipline and weakens overall bank stability. By synthesizing these findings into a unified framework, this study provides a more comprehensive understanding than earlier investigations offered.

Fourth, institutional quality emerges as a critical factor in elucidating the relationships among bank risk, charter value, and market discipline. While previous studies have identified the positive effects of governance on banking stability (Barth et al., 2013; Laeven & Levine, 2009), few have explored how strong institutions simultaneously enhance transparency, reduce stock volatility, and elevate charter value within a single analytical model. By integrating institutional quality, this research furnishes a more holistic view than the fragmented approaches employed in prior work.

Finally, this study examines the impact of the Covid-19 pandemic, an aspect relatively neglected in earlier financial literature, which has typically focused on traditional economic crises (Laeven & Valencia, 2013). The findings indicate that the pandemic heightened banking risk and weakened market discipline, thus extending the applicability of the reciprocal relationship framework to unprecedented global health shocks. Although no direct link emerged between Covid-19 and changes in charter value, this consideration moves beyond conventional analytical boundaries, emphasizing the importance of flexible and responsive bank management strategies.

In summary, while the primary contribution of this study lies in identifying the reciprocal relationships among bank risk, charter value, and market discipline surpassing the predominantly one-way analyses of previous work the robustness checks across varying contexts (bank size, global financial crises, market concentration, institutional quality, and the Covid-19 pandemic) offer deeper and more contextually rich insights. In doing so, this research not only validates its central findings but also refines and enriches the theoretical understanding, ultimately guiding more effective and adaptive banking management strategies than prior studies have suggested.

In the practical aspect

This study makes several crucial contributions to policy to enhance the stability of banks in the ASEAN-5 region and other similar developing markets. First, strengthening market discipline mechanisms through transparency and disclosure requirements is essential to prevent excessive risk-taking. Second, promoting the charter value of banks helps reduce risks. Third, monitoring and preventing excessive concentration in the banking market is necessary to avoid bank risk. Fourth, improving institutional quality through robust legal frameworks and effective governance will ensure efficient regulatory enforcement. Finally, developing comprehensive crisis management frameworks will enable quick and effective responses to financial crises, maintaining the stability and health of the banking system.

This study makes significant practical contributions by exploring the two-way relationships between bank risk, charter value, and market discipline in the ASEAN-5 banking system. By using cross-country data and considering various economic conditions and contexts such as bank size, financial crises, market concentration, institutional quality, and the Covid-19 pandemic, the study provides a comprehensive and reliable perspective. It is the first study to examine these relationships in ASEAN-5, the findings suggest the authorities in this region should further consider market discipline and bank charter value in strengthen banking systems. Furthermore, the findings from this study are not only beneficial for banks in the ASEAN-5 region but can also be applied to banks across the broader Asia-Pacific region. Banks in this larger area can learn from the experiences of ASEAN-5 to improve risk management, enhance charter value, and promote market discipline, achieving sustainable development in an increasingly complex financial environment.

3. PRACTICAL APPLICATIONS AND FUTURE RESEARCH DIRECTIONS

Firstly, in order to strengthen the robustness and generalizability of findings, forthcoming research endeavors could consider expanding the range of research subjects. By incorporating both listed and unlisted banks into the study framework, researchers can provide a more comprehensive understanding of the phenomena under investigation, thus validating the key outcomes of this study. Additionally, to capture a broader spectrum of economic contexts and regulatory environments, it is advisable for future research to encompass both developing and developed countries. This approach enables researchers to explore potential variations in the relationships between variables across different socioeconomic landscapes, enhancing the applicability and relevance of the study findings to diverse global settings.

Secondly, future research can expand on this findings by employing a variety of methodological approaches within simultaneous equations model (SEM). One promising direction is the use of modified panel vector autoregression analysis, as demonstrated in recent studies by Camehl (2023); Yang et al. (2023). This advanced statistical technique allows for the assessment of dynamic relationships over time, accounting for both cross-sectional and temporal dependencies in the data. By incorporating this approach, researchers can further validate this results, offering a more robust and comprehensive understanding of the intricate interactions and causal pathways present in the data. Additionally, this method can help to uncover latent variables and mediating effects that may not be evident through traditional SEM techniques, thereby enhancing the depth and accuracy of the analysis. Future studies adopting these advanced methodologies can provide more detailed insights and potentially uncover new dimensions of the phenomena under investigation.

Finally, future research should consider bigtech and fintech credit factors when examining the association between bank risk, market discipline, bank charter value, and the sustainability of the banking sector, as the challenges posed by these digital lending platforms to the banking system are increasingly recognized (Le, 2022b). On the one hand, the penetration of these alternative lending channels can directly affect banks' lending activities (Hodula, 2021), potentially threatening bank profitability (Nguyen et al., 2021). Consequently, this may influence both bank charter value and the long-term sustainability of financial institutions. On the other hand, fintech may disrupt bank deposits (Yudaruddin, 2024), thus affecting depositor switching behavior. Banks may engage in alliances with fintech companies in response to the expansion of alternative credit. Such collaboration would likely influence bank profitability and deposit growth through an enhanced customer experience (Santini et al., 2019), thereby shaping market discipline, bank charter value, and sustainable banking practices. Future studies should explore these factors comprehensively to better understand their interplay and the potential implications for the overall stability and sustainability of the banking system.

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