Geopolitical Risk and Banking Performance: Evidence from Emerging Economies

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Executive summary

This study delves into the critical issue of banks' stability and profitability, pivotal for economic growth and maintaining depositors' trust. Specifically, we investigate the impact of geopolitical risks on the profitability and Solvency of banks in emerging economies in the Middle East and Africa. We compiled a sample of 125 banks operating in 13 emerging economies in the Middle East and Africa spanning from 2003 to 2019.

A key discovery from our study is that banks in the Middle East exhibit significant sensitivity to geopolitical risks. Effective anticipation or swift adaptation to these risks positively influences bank performance. However, the impact of geopolitical risk on African banking profits remains inconclusive and statistically insignificant. The implications of these findings for policymakers and the financial industry warrant further exploration.

While the financial industry recognizes the importance of geopolitical risks, there is a persistent need for more empirical investigations and data-driven analyses to precisely measure their impact on banks' financial performance. Our study distinguishes itself as a pioneering endeavour in the finance and banking literature. It is the first comprehensive exploration of the influence of geopolitical risks on bank profitability and Solvency, conducted using a substantial and diverse sample of banks in emerging economies in the Middle East and Africa.

1. Introduction

The ongoing conflict in Ukraine, the escalating tensions between China and the United States, the prolonged uncertainties associated with Brexit, and the persistent instability in the Middle East since the Arab Spring all demonstrate the significance of geopolitical risk on the economic system, making it one of the two main risks in 2023 (DTCC, 2023). These risks can significantly impact businesses, industries, and markets, leading to decreased investment, trade disruptions, and currency fluctuations. On a particular note, banks are particularly vulnerable to geopolitical risks as they operate in a global environment and are heavily reliant on the stability and security of the countries in which they operate. They can be affected by geopolitical risks through several channels, such as increased credit risk, decreased investment opportunities, and regulation changes. Yet, despite the critical nature of this topic and the potential impact of these geopolitical factors on banks' performance, they have received limited attention from researchers. In most studies dealing with banking performance, the focus remains primarily on the traditional macroeconomic determinants, such as economic growth and inflation, rather than the potential effects of geopolitical risks.

Geopolitics, historically focused on state control and territorial competition, now includes a diverse range of events involving various actors, from corporations to political parties. This broadened concept of geopolitics encompasses issues like terrorism, climate change, Brexit, and the Global Financial Crisis (Gogwitch, 2000). Geopolitical risk can be described as the risk associated with events like wars, terrorist acts, and tensions between states that disrupt the normal and peaceful course of international relations (Caldara and Lacoviello, 2018). On the same note, geopolitical risk, as defined by Balli, Uddin, and Shahzad (2019), refers to the potential adverse effects of political, economic, and social events on the stability and prosperity of a region. In the Middle East and North Africa (MENA) region, this risk is a significant concern for banks and other financial institutions, as it can significantly impact their profitability (Ghosh, 2016).

Overall, geopolitical risks, such as the Arab Spring, are significant considerations for banks in most of the Middle Eastern and African countries, and they will continue to be an essential factor for financial institutions operating in the area. Despite the diversity and growth of the region's economy, it is crucial for these institutions to carefully assess and manage their exposure to geopolitical risk to protect their bottom line. The Middle East and North Africa (MENA) region has endured political instability for many years. As a result, it is crucial for the region to focus on economic development that addresses the needs of education, healthcare, and overall social well-being (Jabbouri et al., 2022a, Naili and Lahrichi, 2022b, Jabbouri et al. 2022b). Furthermore, Lagoarde-Segot and Lucey (2010) point out that the MENA countries are facing growing population pressures and rising unemployment rates, making it even more critical for these nations to attain economic growth to preserve social and political stability. Intriguingly, despite the palpable influence of geopolitical risks on the banking sector, research remains relatively scarce when it comes to furnishing concrete evidence of their exact impact on banks' profitability and Solvency. While the financial industry recognizes the significance of these risks, there is an ongoing need for more empirical studies and data-driven analyses to quantify the precise extent of their effects on banks' bottom lines.

The current study significantly contributes to the finance and banking literature by examining the impact of geopolitical risks on bank profitability and Solvency. While there is limited existing research in this area, with only the study of Yildirim and Berkman (2022), which explores the influence of geopolitical risks on banks' profitability in G7 countries, our research is the first to investigate the direct relationship between geopolitical risks and banks' Solvency in emerging economies.

Focusing on this previously unexplored relationship, our study aims to provide valuable insights for bank regulators, policymakers, academics, and researchers. We seek to assist in assessing the impact of geopolitical risks on bank solvency, which can inform decision-making processes in the financial sector. Additionally, our study employs a large sample of banks and incorporates a more recent time frame, enhancing the robustness and applicability of our findings. The study uses a sample of 125 banks in 13 emerging countries in Africa and the Middle East to provide new and significant insights into these questions.

The rest of the research will be organized as follows. Section 2 discusses the existing literature on the impact of geopolitical risk on banks' profitability and Solvency. Section 3 outlines the data and the econometric procedure. Section 4 presents and discusses the empirical results, while section 5 concludes.

2. Literature review

Geopolitical risks represent a complex web of challenges that can disrupt financial markets, impede cross-border transactions, and erode investor confidence (Phan et al. 2022). One of the key ramifications of these risks is the potential for banks to face heightened uncertainty, leading to fluctuations in asset values, credit risks, and regulatory pressures. Banks operating in regions prone to geopolitical turmoil often find themselves grappling with increased loan defaults, counterparty risks, and the need for more robust risk management strategies. The following section provides an overview of the existing research landscape concerning the influence of geopolitical risks on the financial profitability and Solvency of banks.

2.1. Geopolitical risk and banks' profitability

While there have been many studies on bank profitability, the impact of geopolitical risk remains unclear despite its significant consequences. This makes the current study a valuable contribution to the literature as it seeks to fill this gap in the knowledge. (Phan, Tran and Iyke, 2022) surveyed the impact of geopolitical risks on banking stability and found that a rise in geopolitical risks leads to a decline in banking stability. (Demir and Danisman, 2021) investigated the effect of economic uncertainty and geopolitical risks on bank credit distribution. As per their findings, the authors observed that economic uncertainty has a significant impact on decreasing overall bank credit growth, while the effect of geopolitical risks was not significant. Istiak and Serletis (2020) studied commercial banks' risk,

uncertainty, and leverage and found that bank leverage increases when geopolitical risk and macroeconomic, policy, and equity uncertainty also rise.

The topic of geopolitical risk has garnered attention from scholars investigating its effect on macroeconomic variables. However, its direct impact on bank profitability remains understudied. Among these few studies, Yildirim and Berkman (2022) analyzed the relationship between geopolitical risk and banking profitability in the G-7 countries using quarterly data from 2012 to 2021. The authors argued that an increase in geopolitical risk negatively affects the profitability performance of the banking sector. The authors attribute their findings to the correlation between the credit slowdown in credit policies and the heightened risk perception of banks. As geopolitical risk rises, banks become more cautious in lending, which leads to a reduction in credit and negatively impacts their profitability performance. Similarly, Alsagr and Almazor (2020) conducted a study exploring the relationship between geopolitical risks and banking performance in oil and non-oil countries. Their findings emphasized the limited ability of oil rent to alleviate the negative effect of geopolitical risks on the banking sector's profitability.

2.2. Geopolitical risk and banks' Solvency

Banks' Solvency refers to a bank's ability to meet its financial obligations as they come due (Haldane et al. 2005). The impact of geopolitical risk on bank solvency can be significant as geopolitical events and decisions can lead to economic and financial instability, affecting the financial performance of banks. The connection between banking crises and financial stability is multifaceted. Both cause and effect can be seen in the relationship. Banking insolvency caused by widespread shocks to asset prices or economic activity can lead to financial instability. At the same time, systemic insolvency in the banking sector can also significantly impact asset prices and the real economy, affecting overall financial stability (Haldane et al., 2005). This complex interplay between banking crises and financial stability is called the "solvency-stability" nexus (Haldane et al., 2005). In alignment with these ideas, Ozili (2018) conducted a study on African countries and found that a lack of political stability is related to decreased bank solvency.

Specifically, the study found that banks in African countries with more stability are more likely to experience insolvency risk. Despite numerous studies evaluating the impact of macroeconomic and other specific factors on bank solvency, no research has directly examined the relationship between geopolitical risk and bank insolvency. By understanding this relationship, authorities and institutions can better prepare for and mitigate the adverse effects of geopolitical events on the financial sector. Furthermore, the findings of these studies can inform policy and regulatory measures to enhance the stability and resilience of the banking system in the face of geopolitical risk. Thus, given the limited evidence, it is worthwhile to investigate this relationship further through the following hypothesis:

2.3. Geopolitical risk index

The GPR Index measures geopolitical risks by examining the frequency of articles related to geopolitical tensions in leading international newspapers. The index, therefore, gives a reflection of the global attention to geopolitical risks at any given time. Higher values of the index indicate greater geopolitical risk, as perceived by international media coverage. The main GPR Index by Caldara and Iacoviello is global and not on a country-year basis. It captures geopolitical risks at the global level, so it does not give specific risk assessments for individual countries. The main GPR Index is global, but Caldara and Iacoviello also create regional GPR sub-indices for specific regions such as East Asia, Europe, and the MENA (Caldara and Iacoviello, 2018).

The GPR Index varies across time, with peaks during times of significant global tension, such as wars, terrorist attacks, and other geopolitical events. Its fluctuations are captured by examining the frequency of related articles in the selected international newspapers. Significant geopolitical events, such as the 9/11 terrorist attacks, the Arab Spring, tension in the South China Sea, and various wars and conflicts, have all influenced the GPR Index.

These events led to a surge in news articles about geopolitical risks, which in turn increased the index value. The GPR Index is based on media coverage, and as such, it captures the perception of geopolitical risks rather than actual events. It's an indirect measure, and like any other index, it has its strengths and limitations.

3. Data, methodology, and variables

3.1. Sample and data sources

The sample used in this study consists of 125 banks in 13 countries in the Middle East and Africa. The data covers the period from 2003 to 2019 and provides a comprehensive view of the long-term impact of geopolitical risk on banks. Our study captures diverse regulatory, economic, and cultural dynamics. Both regions are witnessing notable economic evolution, and banks are pivotal in this transformative phase. Despite each country's unique attributes, there are shared challenges and attributes in the banking sector (Lu *et al.*, 2020; Jaara, 2021).

3.2. Empirical Model

In the context of our specific model, where we're examining the impact of geopolitical risks on bank profits, using the two-step system GMM can offer several distinct advantages: Banks' profitability and their exposure to geopolitical risks, along with other variables like Solvency, credit risk, and asset growth, can be simultaneously determined. That is, while geopolitical risks might impact bank profits, the resilience and strategies of banks might, in turn, influence how they deal with such risks (Goddard, Molyneux and Wilson, 2004; Athanasoglou, Brissimis and Delis, 2008; Bouzgarrou, Sassi and Rouissi Béjaoui, 2010; Amidu and Harvey, 2015; Tan, 2017).

3.3. Variable selection

In addition to geopolitical risks, the profitability and Solvency of banks may be influenced by a range of factors, including, inter alia, growth, operational efficiency, size, credit risk, concentration, inflation, and GDP growth. This article will delve into each of these factors.

4. Results and discussion

African countries with higher ROE are less risky, and their banking sectors are less concentrated. However, Middle Eastern banks enjoy superior ROA, are more dynamic (asset growth), and exhibit higher capital ratios. They have a similar size on average. Middle Eastern banks seem more exposed to geopolitical risks than their African counterparts.

The differences between Middle Eastern and African banks can be traced to several elements rooted in economic, governmental, and geopolitical situations. Banks in the Middle East, particularly those in the Gulf, have benefited from oil and gas earnings, opening the door for state-led investments and a strong financial infrastructure. Stronger solvency ratios, dynamic asset growth, and greater ROE are the results. On the other hand, because of less established financial markets, African banks operating in different economic environments may have to contend with higher concentrations in certain banking sectors. Furthermore, there are different regulatory frameworks, with Middle Eastern banks frequently benefiting from uniform regulations that promote stability. They do, however, suffer serious geopolitical risks because of regional prominence and conflicts. While African nations have geopolitical difficulties as well, they frequently take a different form, such as domestic turmoil or political instability (Mohamed Sghaier 2023; Beck, Demirgüç-Kunt, and Merrouche 2013).

4.1. Impact of geopolitical risks on bank profitability

The persistence coefficient for the whole sample is high, suggesting a concentrated banking sector in the region with a slow speed of adjustment. However, the coefficients across areas are not uniformly distributed. Persistence is higher in African countries than in their Middle Eastern counterparts. Those results are in line with previous studies (Goddard *et al.*, 2011; Amidu and Harvey, 2015; Sarpong-kumankoma *et al.*, 2018).

Geopolitical risks have a positive and statistically significant impact on banks' ROE, especially in the Middle East, while their effect is statistically insignificant for African banks. This observation is in line with the geopolitical landscape of both regions. The Middle East was much more exposed to geopolitical instability than Africa during our study period from 2003 to 2019. The invasion of Iraq, the war on terror, and the Arab Spring affected the political and economic environment in many countries in the Middle East and North Africa (Ghosh, 2016). This positive impact results from the fact that, under highly uncertain conditions, banks can maintain their profits (Ozili and Arun, 2022). If geopolitical events are correctly anticipated, banks tend to charge higher interest rates as loan default risks increase and to cut costs. This protective approach positively impacts their financial performance.

Solvency negatively and significantly affects banking profits in the Middle East and for the whole sample, which means that a solid equity base does not necessarily allow banks to attract more customers and strengthen their confidence. For some, the higher this ratio, the lower the profitability, as banks mobilize more equity per additional unit of profit, which reduces their profitability (Abel *et al.*, 2018). This relationship is also confirmed by "portfolio theory" (profitability/risk trade-off), which states a negative association between solvency ratios and bank performance (Chronopoulos *et al.*, 2015). Indeed, to meet capital-intensive regulatory standards, most banks are abandoning the riskiest and therefore most profitable activities (Mekia Ndzana, Jumbo and Nembot Ndeffo, 2020).

Risk has a negative and highly significant impact on Middle Eastern banks' ROE. The negative and significant effect on profitability is consistent with the results of previous studies (P. Athanasoglou, Brissimis and Delis, 2008; Yong, 2016; Ferrouhi, 2017; Abel *et al.*, 2018; Bayoud, Sifouh and Chemlal, 2018; Rahman, Yousaf and Tabassum, 2020). Banks with risky loan portfolios tend to charge higher interest rates on credits to compensate for greater default probability, which reduces their competitiveness and ultimately lowers their profitability (Bouzgarrou, Sassi and Rouissi Béjaoui, 2010).

Efficiency negatively affects equity profitability for Middle Eastern banks, and the full sample, while it is insignificant for African banks. An effective cost management system reduces production costs, improving profitability (Dietrich and Wanzenried, 2011; Goddard *et al.*, 2013; Sarpong-kumankoma *et al.*, 2018).

Size harms profit persistence, but only for Middle Eastern banks. It is statistically insignificant for African banks. This finding is coherent with former research (P. P. Athanasoglou, Brissimis and Delis, 2008; Abel *et al.*, 2018). In their study, they concluded that small banks generated higher profitability than large banks. They analyzed that an increase in size led to decreasing marginal returns. They explained this phenomenon by the high agency costs, cumbersome bureaucratic processes and rigidity associated with large banks. In the same vein, according to (Barros, Ferreira and Williams, 2007) the problems of information asymmetry encountered by large players are reduced for specialized or small banks, suggesting a negative impact of size on bank profitability.

Loan growth and *inflation* positively and significantly influence the ROE of African banks. The impact of the first variable is consistent with the findings of (Sinha and Sharma, 2015), who concluded that a bank with rapid asset growth could easily invest in its current activities and develop new ones, which improves its profitability. On the other hand, the positive influence of inflation means that African regulatory authorities and managers can correctly anticipate inflation and adjust the interest rates on credits accordingly (Yong, 2016). Other empirical studies have shown that inflation can harm banks' profitability if they fail to forecast it correctly. However, if fully anticipated, all interest rates will rise to include an inflation premium (Perry, 1992). Finally, the impact of asset growth and inflation on profitability is insignificant for Middle Eastern banks.

GDP growth is also a significant and positive explanatory variable of profitability. Good business conditions drive the economy upward and boost the credit distribution dynamic, which translates into business opportunities for banks, helping them extract and maintain abnormal profit. This conclusion

aligns with the one made by (Pervan, Pelivan and Arneri, 2015; Yong, 2016; Twinoburyo and Odhiambo, 2018).

4.2. Impact of geopolitical risks on bank solvency

The highly significant coefficient of the *lagged Solvency* also confirms the dynamic character of the model specification. This persistence signifies that the solvency levels tend to resist yearly and that the adequacy level of a period explains between 74% and 79.3% of the following period's level. This finding is coherent with previous research, which observed that the lagged value of bank solvency is a significant explanatory variable of Solvency. They concluded that "the positive sign of the regression coefficient is consistent with the fact that banks gradually adjust their capital to the targeted level" (Vodová, 2019).

Geopolitical risks also have a positive and statistically significant impact on bank solvency in the Middle East and for the whole sample. Its effect is statistically insignificant for African banks. This conclusion is consistent with the effect of geopolitical risks on profitability since Solvency is enhanced by retained earnings in line with legal requirements regarding shareholders' equity**.**

Loan Growth has a statistically significant and negative impact on bank solvency in the Middle East and the entire sample. Rapid asset growth could lead to solvency problems without rigorous risk management and cost control. Furthermore, robust growth acts as a signal that investors associate with the presence of profit in a market. It attracts potential competitors, thereby reducing the profits of existing players and hence their future growth and Solvency (Cable and Mueller, 2008).

Efficiency exerts a significant effect on Solvency. Its impact is positive for African banks and negative for their Middle Eastern counterparts. For the former, the high level of expenses in some banks can signal the presence of highly qualified and paid staff, generating high productivity and performance. This explanation aligns with the "efficient wage theory" (Akerlof, 1984; Kepramareni, Apriada and Putra, 2022). On the other hand, the negative impact on Middle Eastern banks is consistent with former studies (P. P. Athanasoglou, Brissimis and Delis, 2008; Bouzgarrou, Sassi and Rouissi Béjaoui, 2010; Goddard *et al.*, 2013; Pervan, Pelivan and Arneri, 2015; Yong, 2016; Yong, Floros and Anchor, 2017; Sarpong-kumankoma *et al.*, 2018; Yuxiang, 2018) who concluded that sound and effective cost control systems lead to higher profits, which can consolidate their Solvency.

Size is also a significant explanatory variable of bank solvency. Its negative impact indicates that small banks are more solvent than large ones, *ceteris paribus*. This effect is consistent with previous research concluding that size harms bank profitability (Lemonakis *et al.*, 2015; Adel and Meknassi, 2022). Others observed that an increase in size led to diseconomies of scale, higher agency costs, and cumbersome operational processes (Abel *et al.*, 2018).

Inflation has a significant negative impact on bank solvency, especially in the Middle East, in line with previous articles that observed the same influence of inflation on banks' Solvency (Rashid, Yousaf and Khaleequzzaman, 2017). Rising prices reduce the value of banks' assets faster than their liabilities. Consequently, inflation is detrimental to them.

5. Conclusion

The banking sector plays a crucial role in the economy, providing financial services to households, businesses, and the government. The stability and profitability of banks are vital for economic growth, and their Solvency is critical for ensuring depositors' trust. Our research sheds light on the impact of geopolitical risks on the profitability and Solvency of banks, which is of great importance in today's increasingly complex and interconnected global economy. The current study employs a sample of 125 banks from 12 emerging countries for a period spanning from 2003 to 2019.

Our study's findings highlight the significant sensitivity of sampled banks' profitability and Solvency to geopolitical risks. Proper anticipation or swift adaptation to geopolitical shocks tends to affect profitability and Solvency positively. Our theoretical framework is rooted in the competitive

environment hypothesis, which suggests that in a free and competitive market with no barriers to entry or exit, profits above or below the competitive norm tend to dissipate. However, other scholars argue that companies with differentiated products and competitive production costs can extract and maintain abnormal profits, even in intensely competitive markets with unrestricted market access. In this study, we empirically examine both theories, considering the impact of geopolitical factors on the market landscape, an aspect often overlooked by previous studies that primarily focus on macroeconomic determinants such as inflation and GDP growth.

Our results validate the persistence hypothesis for African and Middle Eastern countries, indicating that bank profits and Solvency exhibit significant year-to-year persistence in both regions. Consequently, the adjustment speed towards the competitive norm is moderate. African banks demonstrate higher profitability persistence compared to their counterparts in the Middle East, suggesting the presence of competitive limitations and market rigidities. This finding aligns with the conclusion reached by Sarpong-kumankoma et al. (2018) regarding profit persistence in Sub-Saharan African banks.

Regarding the impact of geopolitical shocks, our study reveals that Middle Eastern banks' profits are sensitive to such shocks. Additionally, we find that when banks correctly anticipate or swiftly adapt to geopolitical risks, they can experience a positive impact on profitability. However, specific, unanticipated, and severe shocks, such as the Arab Spring, harm profits, particularly on return on equity (ROE) In contrast, the influence of geopolitics on African banking profits is inconclusive and statistically insignificant.

Our study identifies Solvency, efficiency, and economic growth as the primary explanatory variables for profits in both regions. Risk on the other hand, only impacts ROE in Middle Eastern banks. For African banks, asset growth, and inflation have a positive and significant effect on ROE Lastly, Concentration does not exhibit a significant influence in any of the regression analyses conducted in our study. As for Solvency, besides geopolitical risks, efficiency, size, and inflation are key explanatory variables.

The findings of this study can provide valuable insights for policymakers, regulators, and industry stakeholders to understand better and address the challenges posed by geopolitical risks to the banking sector. This research underscores the need for a more comprehensive approach to managing geopolitical risks and highlights the importance of continued research in this field. Our findings demonstrate the tension between profit persistence, which competition authorities aim to limit, and strong financials, which shareholders and central banks strive to promote. For Middle Eastern banks, there is an urgent need for executives to consider the impact of geopolitical risks on their operations. They can adjust their pricing strategies by accurately anticipating these events to protect their profits.

Conversely, in the event of sudden and unanticipated geopolitical shocks, such as the Arab Spring, banks must have agile structures to adapt quickly. On the other hand, African authorities must take bolder action to reduce market limitations. The high-profit persistence in the African banking sector hinders its ability to finance productive investments and contribute to economic growth. Ultimately, by improving our understanding of the interplay between geopolitical risks and bank performance, we can help to ensure the stability and sustainability of the financial sector and the broader economy.

References

Abel, S. *et al.* (2018) 'A Review of the Banking Sector Profit Persistence', *International Journal of Economics and Financial Issues*, 8(1), pp. 54–63.

Adel, N. and Meknassi, S. (2022) 'Profit Persistence: is There A Conglomerate Effect? The Case of Banking and Insurance in Morocco', *European Scientific Journal, ESJ*, 18(15), p. 106. Available at: https://doi.org/doi: 10.19044/esj.2022.v18n15p106.

Akerlof, G.A. (1984) ‘Gift Exchange and Efficiency-Wage Theory: Four Views’, *The American Economic Review*, 74(2), pp. 79–83.

Amidu, M. and Harvey, S.K. (2015) ‘The persistence of profits of banks in Africa’, *Review of Quantitative Finance and Accounting*, 47(1), pp. 83–108. Available at: https://doi.org/10.1007/s11156-014-0495-8.

Athanasoglou, P., Brissimis, S. and Delis, M. (2008) ‘Bank-specific, industry-specific and macroeconomic determinants of bank profitability’, *Journal of International Financial Markets, Institutions and Money*, 28(2), pp. 121–136.

Athanasoglou, P.P., Brissimis, S.N. and Delis, M.D. (2008) ‘Bank-specific, industry-specific and macroeconomic determinants of bank profitability’, *Journal of International Financial Markets, Institutions and Money*, 18(2), pp. 121–136. Available at: https://doi.org/10.1016/j.intfin.2006.07.001.

Barros, C.P., Ferreira, C. and Williams, J. (2007) ‘Analysing the determinants of performance of the best and worst European banks: a mixed logit approach’, *Journal of Banking & Finance*, 31(7), pp. 2189–2203.

Bayoud, S., Sifouh, N. and Chemlal, M. (2018) ‘Determinants of Financial Moroccan Banks Performance : Approach by the Cointegration Method’, *Mediterranean Journal of Social Sciences*, 9(4), pp. 141–148.

Bouzgarrou, H., Sassi, S. and Rouissi Béjaoui, R. (2010) ‘L’analyse des déterminants de la rentabilité des banques françaises Comparaison entre banques domestiques et banques étrangères’, in *Conférence Euro-Africaine en finance et Economies*. Université Paris 1 Panthéon-Sorbonne - France, pp. 1–32.

Cable, J.R. and Mueller, D.C. (2008) ‘Testing for Persistence of Profits’ Differences Across Firms’, *International Journal of the Economics of Business*, 15(2), pp. 201–228.

Chronopoulos, D.K. *et al.* (2015) ‘The dynamics of US bank profitability’, *European Journal of Finance*, 21(5), pp. 426–443. Available at: https://doi.org/10.1080/1351847X.2013.838184.

Demir, E. and Danisman, G.O. (2021) ‘The impact of economic uncertainty and geopolitical risks on bank credit’, *North American Journal of Economics and Finance*, 57(101444). Available at: https://doi.org/10.1016/j.najef.2021.101444.

Dietrich, A. and Wanzenried, G. (2011) ‘Determinants of bank profitability before and during the crisis: Evidence from Switzerland’, *Journal of International Financial Markets, Institutions and Money*, 21(3), pp. 307–327. Available at: https://doi.org/10.1016/j.intfin.2010.11.002.

DTCC (2023) ‘Geopolitical riska and inflation highlighted as top risks to the financial industry in 2023’, *DTCC*.

Ferrouhi, E.M. (2017) ‘Determinants of bank profitabilty performance in a developing country: evidence from Morocco’, *Organizations and markets in emerging economies*, 8(1), pp. 118–129.

Ghosh, S. (2016) ‘Political transition and bank performance: How important was the Arab Spring?’, *Journal of Comparative Economics*, 44(2), pp. 372–382. Available at: https://doi.org/10.1016/j.jce.2015.02.001.

Goddard, J. *et al.* (2011) ‘The persistence of bank profit’, *Journal of Banking and Finance*, 35(11), pp. 2881–2890. Available at: https://doi.org/10.1016/j.jbankfin.2011.03.015.

Goddard, J. *et al.* (2013) ‘Do Bank Profits Converge ?’, *European Financial Management*, 69(2), pp. 345–365. Available at: https://doi.org/10.1111/j.1468-036X.2010.00578.x.

Kepramareni, P., Apriada, K. and Putra, I.N.F.A. (2022) 'The Effect of Credit Risk, Capital Adequacy Ratio, Liquidity, Operational Efficiency, and Solvency on The Financial Performance of BPR In The City of Denpasar', *Jurnal Ekonomi & Bisnis JAGADITHA*, 9(1). Available at: https://doi.org/10.22225/jj.9.1.2022.7-14.

Lemonakis, C. *et al.* (2015) Efficiency, capital and risk in banking industry: the case of Middle East and North Africa (MENA) countries', *International Journal of Financial Engineering and Risk Management*, 2(2). Available at: https://doi.org/10.1504/ijferm.2015.074042.

Mekia Ndzana, B.A., Jumbo, E.U. and Nembot Ndeffo, L. (2020) 'Capitalisation et rentabilité du système bancaire de la CEMAC', *Repères et Perspectives Economiques*, 4(2), pp. 358–371.

Ozili, P.K. and Arun, T.G. (2022) 'Does economic policy uncertainty affect bank profitability?', *International Journal of Managerial Finance*, ahead-of-p(ahead-of-print). Available at: https://doi.org/10.1108/IJMF-04-2022-0177.

Perry, P. (1992) 'Do Banks Gain or Lose from Inflation?', *Journal of Retail Banking*, 14(2).

Pervan, M., Pelivan, I. and Arneri, J. (2015) 'Profit persistence and determinants of bank profitability in Croatia', *Economic Research-Ekonomska Istraživanja*, 28(1), pp. 284–298.

Phan, D.H.B., Tran, V.T. and Iyke, B.N. (2022) 'Geopolitical risk and bank stability', *Finance Research Letters*, 46(B). Available at: https://doi.org/10.1016/j.frl.2021.102453.

Rahman, H., Yousaf, M.W. and Tabassum, N. (2020) 'Bank-Specific and Macroeconomic Determinants of Profitability : A Revisit of Pakistani Banking Sector under Dynamic Panel Data Approach', *International journal of financial studies*, 8(42), pp. 1–19.

Rashid, A., Yousaf, S. and Khaleequzzaman, M. (2017) 'Does Islamic banking really strengthen financial stability? Empirical evidence from Pakistan', *International Journal of Islamic and Middle Eastern Finance and Management*, 10(2). Available at: https://doi.org/10.1108/IMEFM-11-2015-0137.

Sarpong-kumankoma, E. *et al.* (2018) 'Differences in bank profit persistence in Sub-Saharan Africa persistence', *African Journal of Economic and Management Studies*, 9(4), pp. 512–522.

Sinha, P. and Sharma, S. (2015) 'Determinants of bank profits and its persistence in Indian Banks : a study in a dynamic panel data framework', *International Journal of System Assurance Engineering and Management*, 7(1), pp. 35–46. Available at: https://doi.org/10.1007/s13198-015-0388-9.

Twinoburyo, E.N. and Odhiambo, N.M. (2018) 'Monetary policy and economic growth: A review of international literature', *Journal of Central Banking Theory and Practice*. Available at: https://doi.org/10.2478/jcbtp-2018-0015.

Vodová, P.K. (2019) 'Determinants of solvency in selected CEE banking sectors: Does affiliation with the financial conglomerate matter?', *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 67(2). Available at: https://doi.org/10.11118/actaun201967020493.

Yong, T. (2016) 'The impacts of risk and competition on bank profitability in China', *Journal of International Financial Markets, Institutions and Money*, 40(1), pp. 85–110.

Yong, T., Floros, C. and Anchor, J. (2017) 'The profitability of Chinese banks: impacts of risk, competition and efficiency', *Review of Accounting and Finance*, 16(1), pp. 86–105.

Yuxiang, J. (2018) *Bank Competition, Earnings Management and Profit Persistence*. University of Glasgow.