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The importance of the strong capitalization of UAE banks in supporting their resilience to the risks of attacks electronic with a reading of the experience of the Central Bank of the United Arab Emirates

Benazza Hicham, Ph.D. [1], **Mekdad Yousra, Ph.D.** [2], **Boumedinimohamed Amine** [3], **Pr. Fateh Harkati** [4] and **Trifa Mohamed** [5]

[1] Assistant Professor ORCID: https://orcid.org/0009-0001-0135-7189
Laboratory of Research on Public Governance and Social Economy, *University Centre Salhi Ahmed – Naama.* (Algeria). Email: benazza.hicham@cuniv-naama.dz
[2] Assistant Professor .*University CentreSalhi Ahmed –Naama.* (Algeria). Email: mekdad.yousra@cuniv-naama.dz
[3] Management of Enterprises and Social Capital of the laboratory MECAS at the Faculty of Economics and Management of the University of Tlemcen. Email: mohamedamine.boumedini@univ-tlemcen.dz
[4] University of Batna. Email: harkati@univ-batna.dz
[5] University of Mohammed Seddik Benyahia Jijel, Algeria. Email: mohamed.trifa@univ-jijel.dz

Abstract---Emerging risks facing the financial and banking system in the UAE include slowing global growth, persistent inflation pressures, severe fluctuations in global financial markets, and the effects of high interest rates on borrowers and investments. In turn, the increasing adoption of digitization in the financial sector leads to more focus on effective cyber security.and design business models compatible with it Electronic risks represent an increasing threat to the operations and credit conditions of financial and banking institutions, which have not reached this level since the Corona pandemic accelerated the transition to online banking services. Read about the experience of the Central Bank of the United Arab Emirates.

Keywords---banking system, capitalization, banking risks, electronic risks, UAE banks.
JEL classification: E26, C97

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Introduction:

In 2022, the financial system in the United Arab Emirates witnessed a recovery based on key financial metrics, maintaining its resilience and returning to the pre-pandemic growth phase. This recovery was driven by the favorable local macroeconomic environment, as well as strong financing and liquidity conditions. In parallel with the economic recovery, the Central Bank of the UAE (the Central Bank) concluded most of the temporary support measures under its targeted comprehensive economic support plan, which was launched to address the effects of the COVID-19 pandemic. However, the Central Bank remains committed to addressing potential weaknesses due to global forecasts for 2023, which still pose risks of adverse developments. Key risk drivers include tightening financial conditions that affect debt service costs and demand for new credit, along with persistent inflationary pressures that impact disposable income, geopolitical tensions, and the resulting uncertainty in global financial markets and some banking systems.

The UAE banking system benefited from the country's macroeconomic recovery in 2022, surpassing pre-pandemic profitability levels, driven by higher net interest income and lower provisions for impairments. Liquidity and financing conditions remained extremely favorable, while the sector maintained good capitalization. Credit growth, particularly loans to the private sector, experienced a recovery, contributing to the post-pandemic rebound. Stress tests conducted by the Central Bank on banks in the country affirmed the stability of the banking sector overall. These supervisory tests assessed the ability of UAE banks to withstand negative scenarios, such as rising inflation and widespread uncertainty in global markets. The results indicated that, from a capital and liquidity perspective, the banking system could generally absorb these hypothetical negative scenarios while continuing to support the economy by maintaining credit availability to borrowers in the country.

The study aims to highlight the importance of strong capitalization for UAE banks in supporting their resilience to the risks of cyberattacks, with a focus on the experience of the Central Bank of the UAE. Based on the above, this study seeks to address the following question:

How important is strong capitalization for UAE banks in supporting their resilience to the risks of cyberattacks? With an analysis of the experience of the Central Bank of the UAE?

1. Hypotheses of the Study:

To answer the study's problem, the following hypotheses were formulated:

- The UAE banking sector enjoys a level of stability that enables it to withstand crises due to the banks' sufficient capital and comfortable liquidity.
- Stress tests contribute to financial stability by simulating severe but plausible shocks and scenarios.

1.2 Objectives of the Study:

This study aims to achieve several objectives, including:

- Highlighting the various emerging risks facing the financial and banking system in the UAE.
- Emphasizing the role of stress tests as a modern tool for managing banking risks.
- Identifying the role of stress tests in preventing crises and ensuring financial stability.
- Understanding the role of stress tests in assessing the ability of UAE banks to withstand high-level risks and crises.

1.3 Methodology of the Study:

In order to address the study's problem and analyze its dimensions, an analytical descriptive methodology was adopted, as it is suitable for the nature of the topic under investigation. The methodology involves describing and analyzing the different components and parts of the subject.

Thus, the research was divided into the following sections:

1. Evaluation of the banking system in the UAE.

2. Regulatory stress testing to assess the ability to withstand pressure in 2022.
3. The impact of cyber risks on the banking system.
4. Previous Studies:

- Study by Atea Khalaf Hussein AL-Soadoun and Laila Abdul Aarim Al-Hashemi (2023) titled "Stress tests as an Entrance to Measure Financial Strength and Its Role in Facing Banking Crises: A Case Study of the Iraqi Banking Sector"

This study focused on measuring the financial strength of Iraqi banks, represented by capital adequacy, profitability, and liquidity, using stress tests and their role in addressing banking crises. The study concluded that it is crucial to adhere to the application of stress tests and international standards, especially the Basel III regulations, in addition to following the directives of the Central Bank of Iraq, as these provide protection against future crises.

- Study by Fouzan AlQaisi and Asem Tahtamouni (2021) titled "Using Stress Testing Model in Measuring the Impact of the Financial Crisis on the Jordanian Commercial Banks"

This study examined the stability of Jordanian commercial banks under different shock scenarios, including credit shocks, liquidity shocks, and market shocks arising from the 2008 global financial crisis. Using a stress testing methodology on 13 commercial banks, the study found that the Jordanian banking system, in general, was able to withstand shocks and demonstrated sufficient flexibility in the face of unforeseen events and risks, despite weaknesses related to collateral shortages and liquid assets.

- Study by Omar Ali Kamil Al-Douri and Anmar Majid Al-Akabi (2020) titled "Multistress Testing and Its Effectiveness in Managing Banking Risks"

This study explored the impact of unexpected events and changes in the economic system on the Iraqi banking sector by using stress tests as a tool to detect banking risks before they occur. The study concluded that stress test scenarios partially affected the capital adequacy ratios in the banks in the sample, due to their strong financial resilience.

2. Evaluation of the Banking System in the UAE

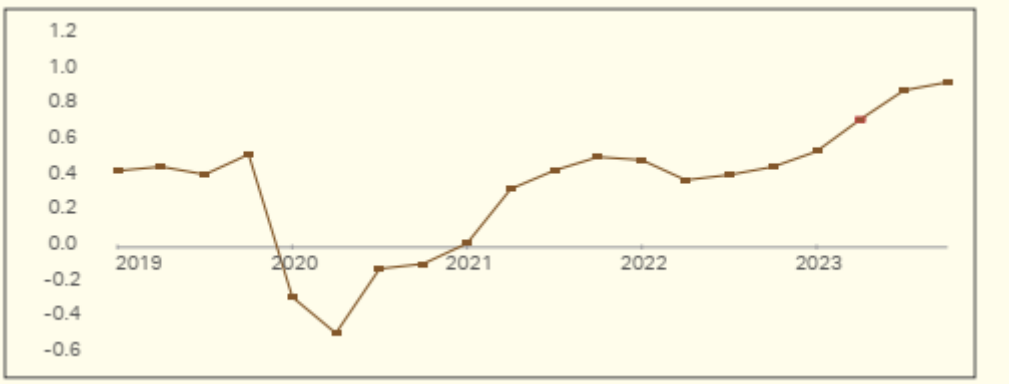
2.1 Financing Structure

By the end of 2022, the ratio of secondary liabilities to primary liabilities decreased by 2.7 percentage points compared to the previous year, reaching 22.6%. This decline was mainly due to strong growth in deposits from companies, governments, and individuals. Monitoring the financing structure using this indicator helps to assess whether credit growth is being funded from stable sources. This ratio reflects a strong and stable funding base for banks in the UAE, meaning that they have a high capacity to attract and retain domestic deposits, which enhances their ability to facilitate potential future credit growth for the economy*.

The Financial Stability Trend Indicator in the UAE combines 18 key financial indicators relevant to the country's financial system. These indicators included a historic decline in the loan-to-deposit ratio within the UAE banking system, signaling favorable funding conditions, and a strong recovery in real estate prices in Dubai.

* Masood, O., & Fry, J. M. (2011). *Risk management and the implementation of the Basel Accord in emerging countries: An application to Pakistan* (MPRA Paper No. 34163). Retrieved from https://mpra.ub.uni-muenchen.de/34163/. Posted October 17, 2011.

Figure 01: Financial Stability Trend Indicator for the UAE



Source: Central Bank of the UAE

The corporate sector in the UAE is one of the main sectors of the country's banking system. The total loans from local banks to the sector represent approximately 56% of the total loans in the UAE banking system.

Figure 02: Growth of Loans to the Domestic Corporate Sector

Source: Central Bank of the UAE

The ratios of non-performing loans (NPLs) and net non-performing loans (NPLs) in the UAE's corporate sector continued to decrease steadily, starting at 11.1% and 4.5%, respectively, at the beginning of the year, and then declining to 10.1% and 4.2%†.

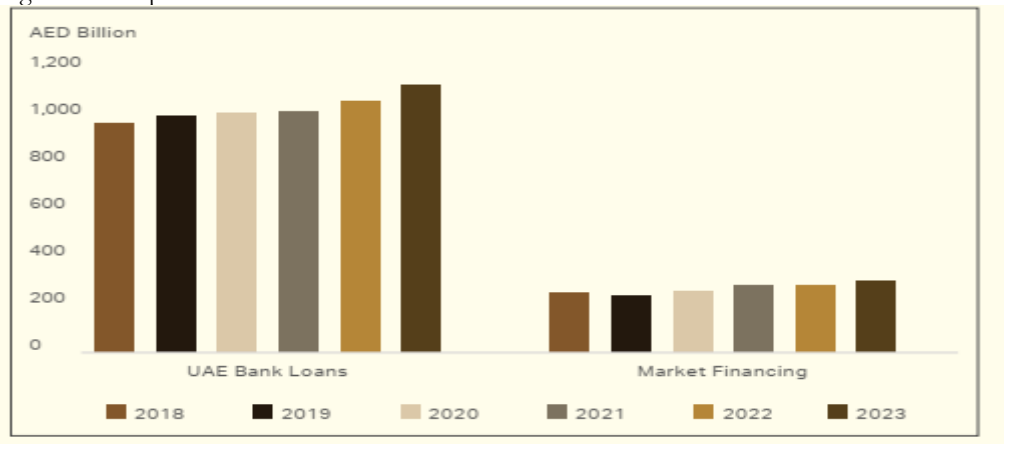
† Central Bank of the United Arab Emirates, *Official website*. Retrieved from www.centralbank.ae

Figure 03: Total Non-Performing Loans for the Corporate Sector in the UAE

Source: Central Bank of the UAE

The financing structure of credit in the UAE's corporate sector witnessed an increase in bank credit financing, while borrowing from the capital market remained relatively stable. There was an increased reliance on bank loans, especially as nearly 83% of the financing comes from the local banking sector.

Figure 04: Corporate Sector Credit in the UAE



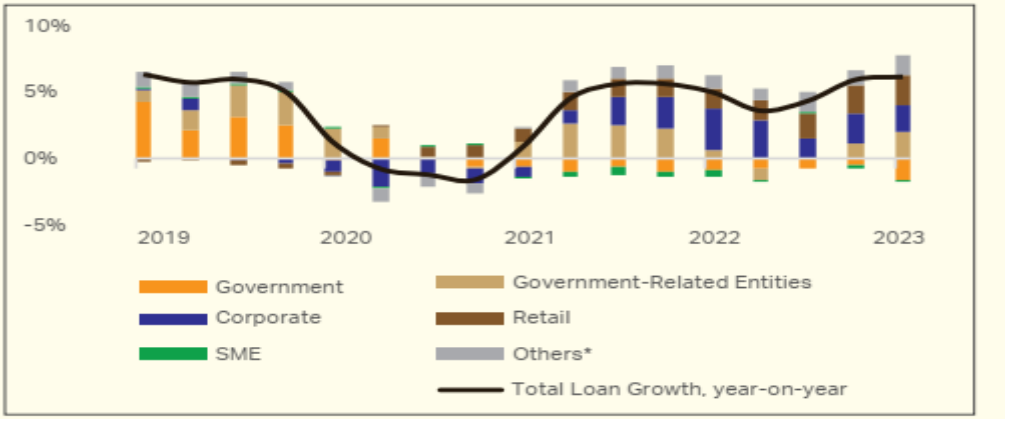
Source: Central Bank of the UAE

2.2. Banking Sector Evaluation

The banking system in the UAE maintained its resilience throughout 2022. The total capital position remained adequate during the year, supported by favorable financing and liquidity conditions. The banking sector's profitability rebounded, driven by higher net interest income and a reduction in impairment provisions. The sector demonstrated resilience during the pandemic, thanks to the wide-ranging measures implemented by the Central Bank.

Total lending in the UAE banking system grew by 4.8% during 2022, in line with the ongoing economic recovery. Strong financing conditions and substantial credit capacity supported banks' desire to grow credit extended to the domestic economy‡.

Figure 05: Loan Growth in the Banking System

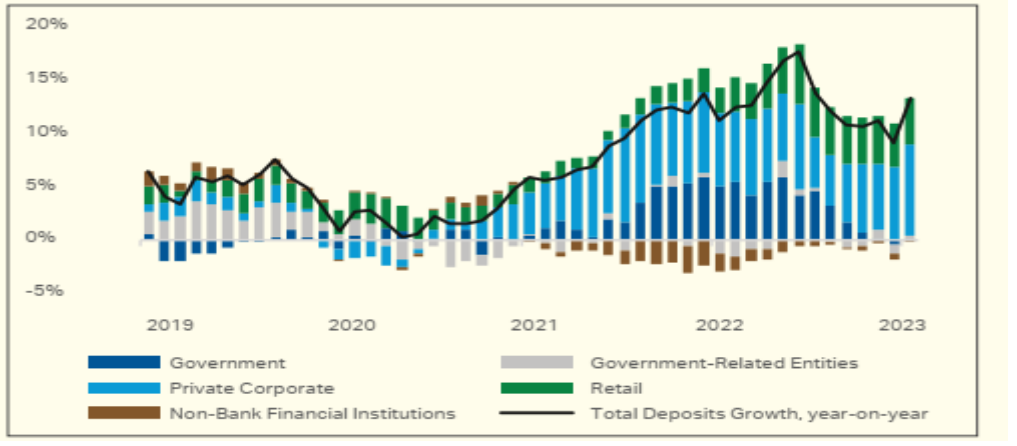


Source: Central Bank of the UAE

2.2.1. Financing and Liquidity:

Bank financing in the country remained primarily based on deposits, which represent 60.6% of total liabilities, with only a small portion coming from capital market financing at 6.3%.

Figure 06: Deposit Growth in the Banking System



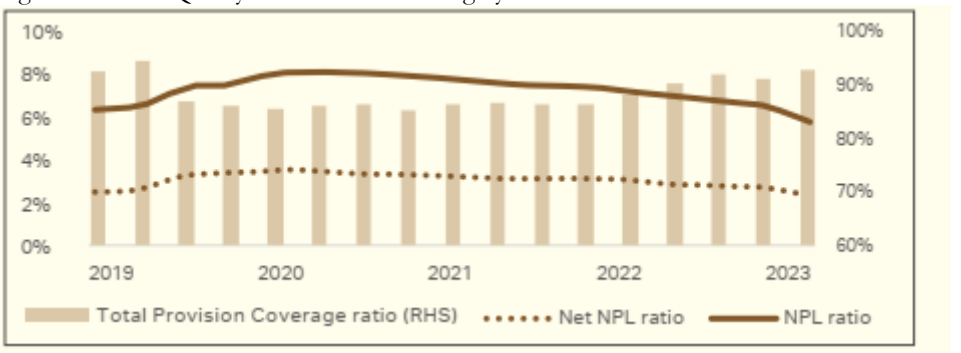
Source: Central Bank of the UAE

‡ Boutoura, F., & Smaïli, N. (2019). Keeping pace with Basel Committee decisions through internal control system legislation to enhance banking governance: The case of the Bank of Algeria. *Milaf Journal for Research and Studies*, 5(2).

2.2.2. Asset Quality

The asset quality of the UAE banking system improved after declining in the first year of the pandemic. By the end of 2022, the ratio of net non-performing loans and non-performing loans decreased to 3.0% and 7.3%, respectively.

Figure 07: Asset Quality Ratios in the Banking System

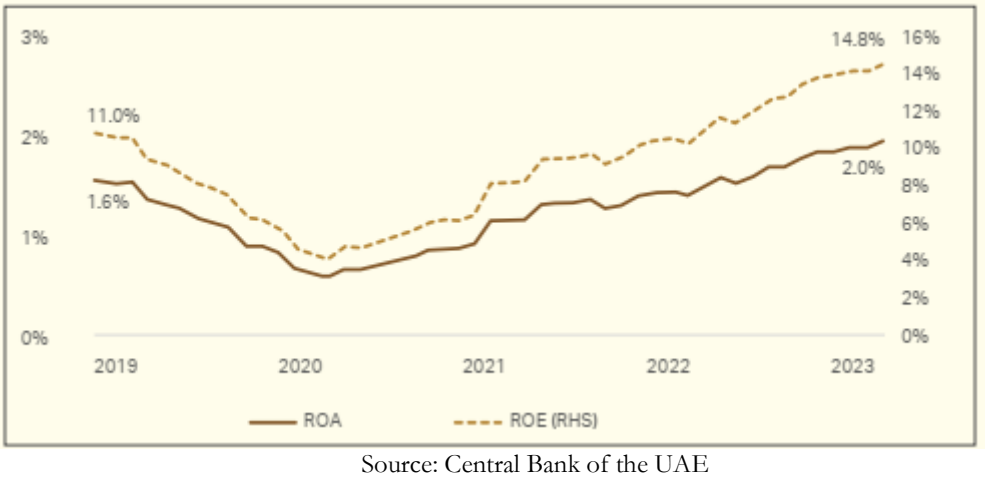


Source: Central Bank of the UAE

2.2.3. Profitability

The overall profitability of banks experienced a strong rebound in 2022, attributed to the decline in impairment provisions and the improvement in net interest income. Net profit grew by 31.8% compared to the previous year, as risk costs and provision growth decreased.

Figure 08: Profitability of the Banking System



Source: Central Bank of the UAE

2.2.4. **Capital**

The banking system in the UAE maintained good capitalization overall. Capital adequacy ratios and the common equity tier-1 ratio improved during 2022 by 0.3 percentage points and 0.2 percentage points, reaching 17.4% and 14.4%, respectively. Banks continued to maintain a leverage ratio of 9.6%, which is significantly higher than the minimum regulatory requirement of 3%§.

§ AlFawwaz, T. M., & Alrgaibat, G. A. (2015). Capital adequacy of the Jordanian banking sector for the period 2000-2013. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(1).

3. Regulatory Stress Testing to Assess Resilience in 2022

3.1. Definition and Importance of Stress Testing:

Stress testing refers to the use of various techniques by banks to assess their ability to withstand crises under difficult operating conditions. It measures the impact of such crises on a range of financial indicators of the bank. These tests are an important element in risk management systems of banks and have a future-oriented role in evaluating risks[**]. Stress testing complements, but does not replace, other tools of banking risk management.

According to the Bank for International Settlements, stress tests are described as assessments of a bank's financial position.

3.2. Scope of Stress Testing:

Banks should prepare the necessary scenarios for stress testing to cover at least the following risks:

- Liquidity risk
- Funding risk
- Market risk
- Concentration risk
- Operational risk
- Yield rate risk
- Investment risk in equities

3.3. Objectives of Stress Testing:

- To assist banks in proper capital planning through the internal assessment process of capital adequacy (ICAAP) and liquidity (ILAAP).
- To provide bank management with a future-oriented assessment of the risks they may face.
- To help banks set acceptable risk limits.
- To provide detailed data on the bank's exposure to risks, the bank's business model, the bank's risk system, and to offer a comprehensive analysis of potential weaknesses and threats faced by the bank.
- To enhance public confidence in the stability of the banking sector by publishing the results of stress tests at the overall banking sector level, reassuring the public and stakeholders that the sector can withstand shocks and high risks.
- To develop methodologies for risk mitigation and create contingency plans for dealing with different risks.
- To strengthen the process of identifying and controlling risks.
- To support sound management decision-making, as stress testing is considered an essential part of corporate governance[††].

3.4. Stress Testing Methodologies:

Stress tests are divided into two main types based on methodology as follows:

A. Sensitivity Tests:

The impact of an unusual change in one variable (with other factors held constant) on the bank's financial position is assessed. These tests are used to measure the effect of movements in risk factors

[**] Jablecki, J. (2009). The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy. *International Journal of Economic Sciences and Applied Research*, 2(1).

[††] Haddouch, S., et al. (2019). Stress testing as a financial engineering technique to determine the degree of financial stability in Islamic banks. *Al-Manhal Economic Journal*.

(each individually) on the bank's financial condition. Sensitivity tests can be conducted at the individual level, portfolio level, business line level, or at the overall bank level[#].

B. Scenario-Based Tests (Scenario Analysis):
These tests are more complex than sensitivity analysis, as they involve changes to multiple variables simultaneously. They include an analysis of historical events, future events, and forecasts.
According to the methodologies mentioned above, stress testing models are designed as follows:

A. Bank-Specific Models:

- The bank must design its own models and define the assumptions and scenarios that correspond to the internal and external risks it may face.
- The bank should develop Reverse Stress Testing as a tool for managing its risks to complement the set of stress tests it conducts[§§].
- The tests should be conducted on risk factors using varying degrees of intensity (from least impactful to most impactful).
- The tests should be comprehensive of the stress testing scope.

Guidelines and Scenarios Defined by the Central Bank of Sudan:
Under the risk-based supervision approach, the Central Bank of Sudan will provide banks with sensitivity analysis or scenario tests to be conducted, taking into account risk developments at the local, regional, and international levels[***]. These tests can include different levels of intensity and can be partially or fully adjusted depending on economic or financial developments[†††].

Table 01: Risks Assessed in Stress Tests

Type of Risk	**Possible Shocks**	**Test Application Area**
Interest Rate	Possible shocks to internal and external prices	Applied to financial portfolios typically consisting of fixed-income bonds
Exchange Rate	Change in exchange rate	Applied to financial portfolios and loan portfolios if denominated in foreign currency
Loans	Increased likelihood of default risk	Applied to loan portfolios
Financial Asset Prices	Decrease in stock market index	**Applied to financial portfolios in the stock market**

[#] Salahuddin, M. A., & Al-Shammari, S. R. (2020). Stress testing model requirements and applicability in Iraqi banks: A survey of the opinions of a sample of employees of the Central Bank of Iraq. *Journal of Economic and Administrative Sciences*, (71-19), 2020.
[§§] Suleiman, N. (2019). Islamic banks and Basel III: Advantages and challenges. *Journal of Financial and Banking Studies*, Arab Academy for Banking and Financial Sciences, Amman, Jordan.
[***] Abdullah, H. (2019). Basel III impact on the IIFS and the role of the IFSB. *AAOIFI-World Bank Annual Conference on Islamic Banking and Finance*.
[†††] Rahal, F., & Saleh, M. (2018). The impact of Basel III decisions on the Islamic banking system. *Ninth Islamic Conference on Economics and Finance*, Turkey.

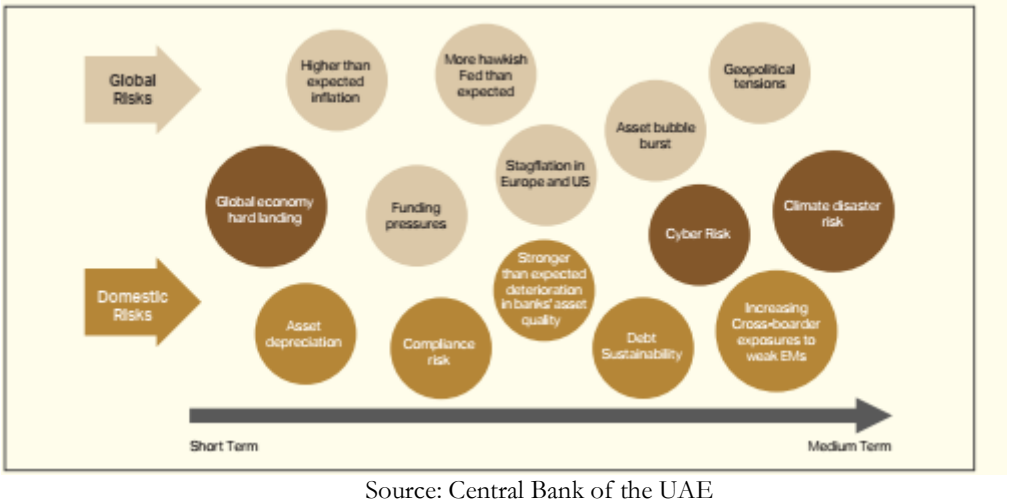
Instability	/	Applied to options portfolios in periods preceding high instability
Liquidity	Lack of liquidity in traded bonds, increased deposit withdrawals, or a decrease in interbank loans	Applied to traded financial portfolios
Commodity Prices	Decrease in the value of a key product, such as the price of oil	**Especially applied to countries that are primarily dependent on this product.**

Source: Chrouk Haddouch, Stress Testing: A Financial Engineering Technique for Determining the Financial Stability of Islamic Banks, Al-Manhal Economic Journal, 2019.

3.5. Analysis of the UAE Banking Sector's Experience in Stress Testing

The Central Bank conducted its annual stress test to assess the resilience of banks (from the ground up) in 2022, aimed at evaluating the banks' ability to withstand the impact of rising global inflation rates and widespread market uncertainties. The negative scenario for the test was based on inflation accompanied by a hypothetical economic recession, within an environment of significantly rising interest rates. The results showed that the UAE banking system would be able to withstand the studied scenario, as the average common equity tier-1 capital ratio decreased by 301 basis points from 13.6% to a lowest level of 10.6% under the negative scenario.

Figure 09: Main Hypothetical Risks to the Economy and Financial System of the UAE



Source: Central Bank of the UAE

The baseline scenario for 2022 follows assumptions similar to those agreed upon by the International Monetary Fund regarding three-year projections, assuming a gradual economic recovery. The negative hypothetical scenario for 2022 was based on inflation risks accompanied by severe global stagnation (rising inflation and recession), with increasing pressures on oil prices, real estate, and stock markets in the UAE due to fading demand. The quality of banking assets declines due to the exacerbation of the debt burden and reduced cost-bearing capacity.

Table 02: Severity Measures for the Negative Scenario of Selected Variables

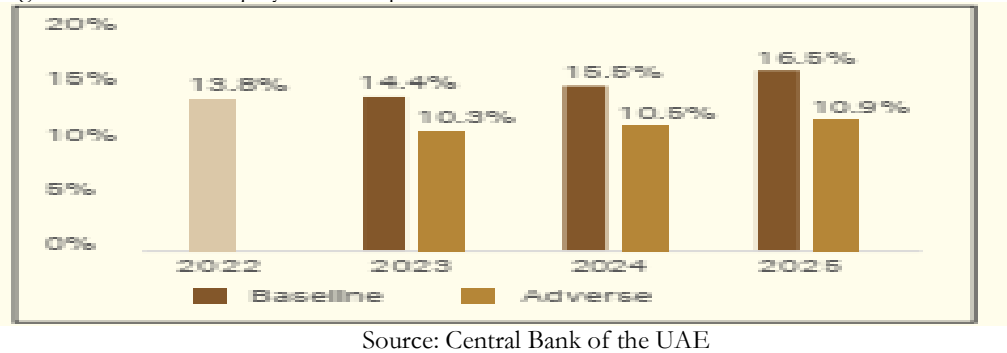
Variable Names	Percentage Change from the End of 2020 to the Lowest Level
-20.3%	Real Estate Prices (Dubai)
-19.6%	Real Estate Prices (Abu Dhabi)
-6.6%	GDP of the Country
-7.1%	Real GDP (Non-oil) of the UAE
-59.8%	Average Oil Barrel Price

Source: Central Bank of the UAE

3.5.1. Results of the Stress Test from the Ground Up

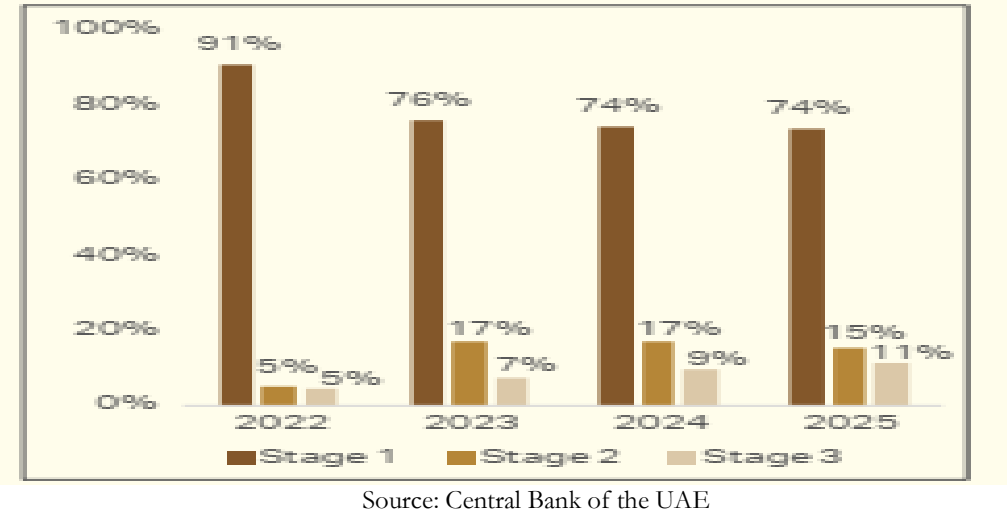
Under the baseline scenario, banks will maintain an average common equity tier-1 capital ratio of 15.1% in 2023, which is well above the minimum required for this ratio. However, under the negative hypothetical scenario, the average common equity tier-1 capital ratio for participating banks will decline by 301 basis points, from 13.6% to a low of 10.6% in 2023.

Figure 10: Common Equity Tier-1 Capital Ratios Under the Stress Test



Source: Central Bank of the UAE

Figure 11: Total Exposure According to Stages of IFRS 9 in the Negative Scenario



Source: Central Bank of the UAE

The increase in defaults, particularly within the corporate and individual sectors, contributed to higher credit risk losses and a reduction in the common equity tier-1 capital ratio. Other sectors that contributed to credit risk losses included small and medium-sized enterprises and local governments[##].

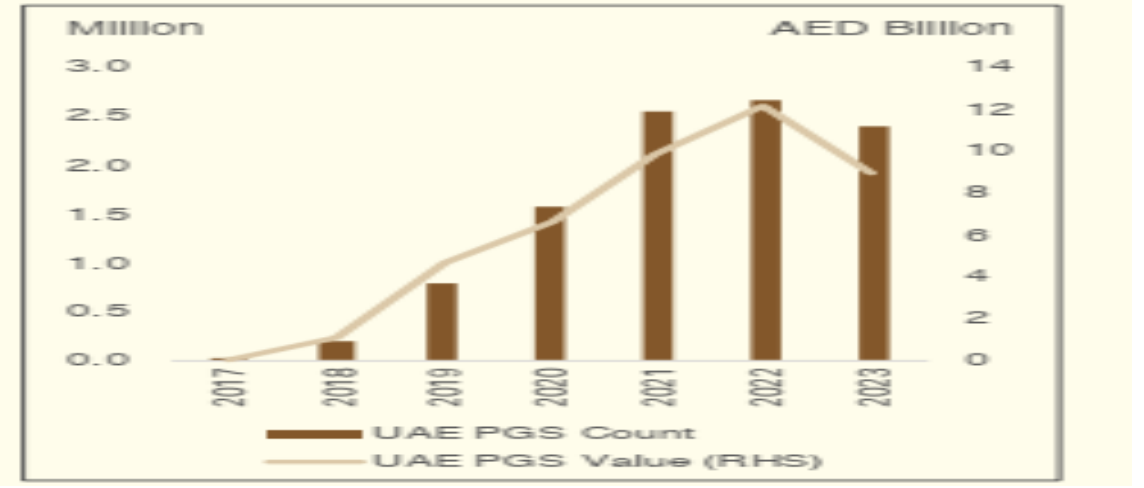
3.5.2. Liquidity Stress Testing from the Top Down

In 2022, the Central Bank conducted regular liquidity stress tests (from the top down) to assess the impact of hypothetical short-term liquidity stress scenarios on banks. These tests provide a comprehensive evaluation of the banks' resilience to non-systematic shocks at the market level by revealing their ability to provide sufficient funding to cover short-term payment obligations. The Central Bank uses a stress test methodology based on the liquidity coverage ratio, with timeframes of 30 and 60 days to assess liquidity risks.

3.5.3. Stress Testing for Payment Systems

The results of the test demonstrated the strong resilience of the system, with sufficient liquidity levels, coupled with effective liquidity management features in the UAE's financial transfer system, and a high repayment capacity of participants during the test periods.

Figure 12: Results of Payment Systems Stress Test



Source: Central Bank of the UAE

4. Impact of Cyber Risks on the Banking System

Cyber risks represent an increasing threat to the operations and credit conditions of financial institutions, a threat that has intensified since the pandemic accelerated the shift to online banking services.

S&P Global Ratings believes that the exposure of Gulf banks to cyber risks is manageable, assuming they continue to invest proactively in cybersecurity and risk management, taking into account the evolving nature of the threats. It is noted that Gulf banks have reported only a limited number of digital breaches and cyberattacks over the past decade. However, cyberattacks have the potential to harm the credit conditions of banks by damaging their reputation and causing financial losses, especially in the case of a widespread attack on a systemically important bank or several large institutions.

[##] Central Bank of the United Arab Emirates. (n.d.). *Official website*. Retrieved from www.centralbank.ae

Over the past decade, Gulf banks have reported a limited number of cyberattacks that resulted in damage to reputation or financial losses. Additionally, the total operational risk capital charges, which are part of the local capital requirements, amounted to 3.4% of total equity at the end of 2021, assuming the minimum capital requirement ratio is 8%. Banks operating in more than one country, especially those offering retail banking services on a large scale, recorded the highest costs within our sample of Gulf banks. Given that cyber risks are one of the elements covered by operational risk capital, the allocation indicates that Gulf banks consider their exposure to cyber risks to be low.

4.1. Significant Investment in Infrastructure, Equipment, and Software

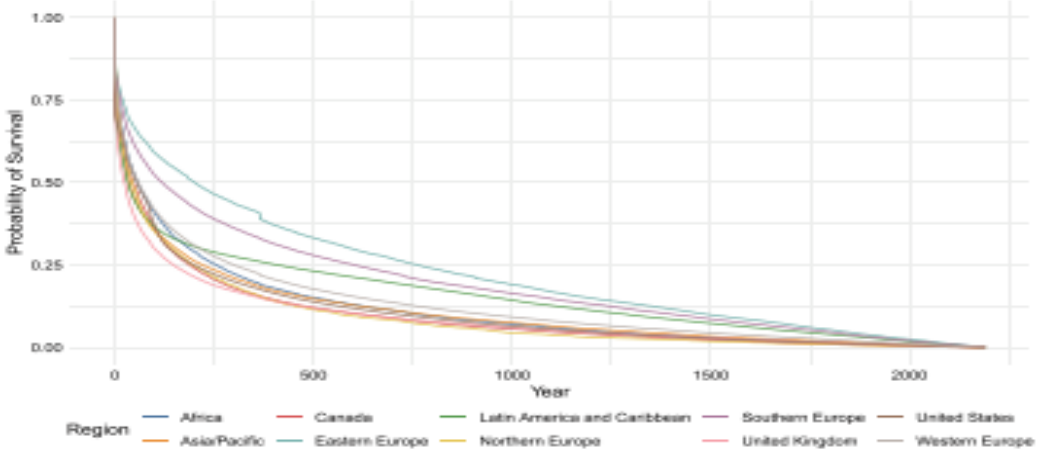
Although UAE banks have not publicly disclosed investment figures, their boards of directors and senior management place great importance on cyber risks. Gulf banks have invested in technology, equipment, and employee training to detect and mitigate exposure to cyber risks, continuously updating their policies and investments to keep up with emerging trends in cybersecurity. However, it is acknowledged that there is no perfect system, and continuous investment and adaptation are necessary to reduce risks[§§§].

4.2. Local Regulatory Frameworks and Requirements Focused on Cybersecurity

In late 2021, the Central Bank of the UAE established a Cybersecurity Operations Center to provide better protection for the local financial system from cyberattacks. The Central Bank also defined and enhanced the core pillars for effective cyber resilience in the banking system and its infrastructure.
Using the Value at Risk (VaR) calculation, which measures the average loss of the most critical 40 simulated operations in the "Guidewire" model, it is estimated that the largest 19 banks in the Gulf Cooperation Council (GCC) would suffer an average loss of 8.3% of net income and 0.7% of equity in the event of a severe cyberattack.

Guidewire's calculations suggest that operational risk capital in Gulf banks is sufficient. However, this assessment does not account for potential impacts on business conditions or the loss of revenue associated with reputational damage or cyber ransom. It is also noted that Guidewire's coverage of Gulf banks excludes some smaller entities, which may be relatively more exposed to cyber risks.

Figure 13: Average Loss Probability Due to Cyber Risks and Operational Risk Charges for Gulf Banks

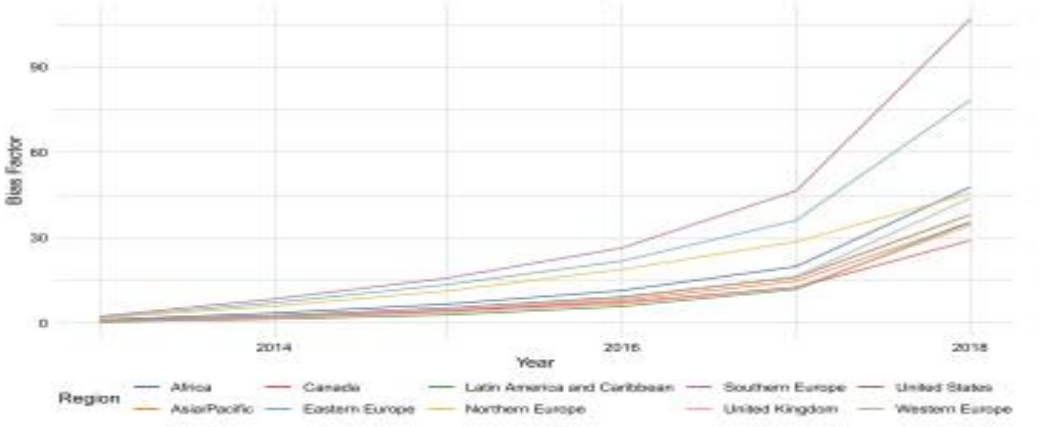


Source: Standard & Poor's

§§§ Gaidwair. (2022). *Financial reports of banks*. S&P Global Ratings.

In extreme scenarios, cyber risks may have negative effects on liquidity by causing a sudden outflow of funds, leading to liquidity pressures. It is also noted that cyber risks evolve rapidly and require continuous efforts if banks wish to remain protected. We acknowledge that no system can fully protect against unforeseen risks.

Figure 14: Estimated Loss Due to Cyber Risks



Source: Standard & Poor's

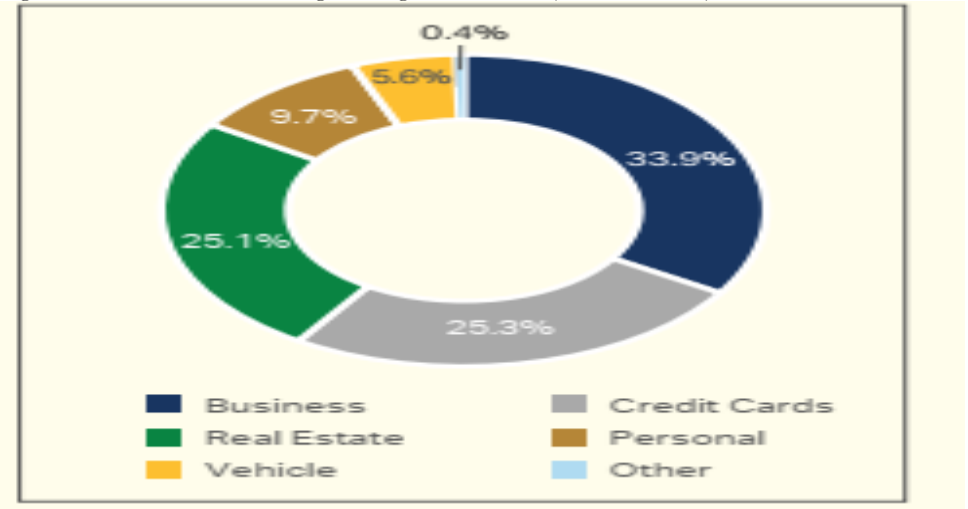
4.3. Data Breaches as One of the Largest Risks

Cyber risks range from temporary service disruptions to complete shutdowns of IT systems due to data destruction and theft related to cyber ransom. The growth of ransomware software associated with data theft, combined with the large volume of sensitive information handled by banks, indicates that this poses a major risk to lenders in Gulf countries[****], especially compared to other risks such as business interruptions. Ransomware attacks leading to data breaches increased by 82% in 2021, with 2,686 attacks recorded, up from 1,474 attacks in 2020, according to the 2022 "Global Threat Report" by CrowdStrike, a cybersecurity technology company.

Guidewire's results suggest that the cyber risk position of Gulf banks can be compared to developed markets, rather than emerging markets banks. It is worth noting that emerging markets are significantly more vulnerable than Gulf countries to indirect business disruptions caused by problems with third-party service providers. This can be explained by the substantial investment in infrastructure in Gulf countries.

[****] Ozkan, C. (2020). Regulatory and supervisory challenges of Islamic banking after Basel III. *COMECE Financial Cooperation Working Group Meeting*, Ankara. The International Bank for Reconstruction and Development, Washington, USA, p. 11.

Figure 15: Total Loss Percentage in High-Risk Cases ("Data Breach")



Source: Standard & Poor's

5. Conclusion:

Banking systems worldwide faced significant challenges during the COVID-19 crisis, as most economic projects, which banks primarily finance, were disrupted. This raised the likelihood of these projects defaulting. As a result, banks were required to adopt a hedging approach to handle defaults or delays in repayment, by maintaining additional capital that would allow them to achieve financial stability.

In recent years, stress tests have gained increasing importance in the banking sector as an effective tool for managing banking risks. They provide a new method for evaluating and measuring the banks' ability to withstand shocks and crises they may face in the long term by simulating harsh yet plausible scenarios. This approach helps in selecting appropriate corrective policies and measures to enhance the banks' capacity to withstand crises and reinforce financial system stability. The UAE Central Bank conducted stress tests to measure banks' resilience to shocks after the COVID-19 crisis hit the global and local economies, confirming that the UAE banking system remains generally capable of withstanding crises.

Findings:

- Stress tests conducted by central banks serve as a comprehensive analytical review of capital adequacy, offering structural tools for supervisors and regulators to assess whether banks have sufficient capital, and whether they can quickly and accurately determine their exposure to risks.
- The UAE Central Bank developed a reverse stress testing tool, based on the latest standards, which has demonstrated a strong ability to adapt to changing economic conditions during the COVID-19 pandemic. What distinguishes this tool is its flexible scenarios, accurate data, and ability to measure subsequent impacts, with a forward-looking perspective spanning three years. Additionally, the new framework is comprehensive in identifying potential systemic risks faced by the banking sector, with the ability to model and assess the impact of risks arising from credit and investment portfolios, interest rate changes, and liquidity risks.
- The results of the stress tests, based on the worst-case scenario assumptions (high levels of non-performing loans from the private sector), showed that the capital adequacy ratios of the UAE bankig sector were 18.9% and 19.2% for 2020 and 2021, respectively.
- The UAE Central Bank has contributed to achieving and enhancing financial stability in the UAE by issuing instructions for conducting and supervising stress tests, which are updated periodically. It has also updated its credit risk management system to include additional reports

on large exposure disclosures and issued revised supervisory instructions regarding capital adequacy requirements.

- The UAE banking sector is considered healthy and resilient, capable of withstanding crises and high risks arising from COVID-19, due to the high capital levels of UAE banks and the low levels of non-performing loans. This ensures the sector's systemic flexibility against additional pressures.
- UAE banks manage their exposure to cyber risks effectively, including by investing in digital security, and the strong profitability, capitalization, and liquidity of these banks provide them with financial resilience against potential incidents.

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