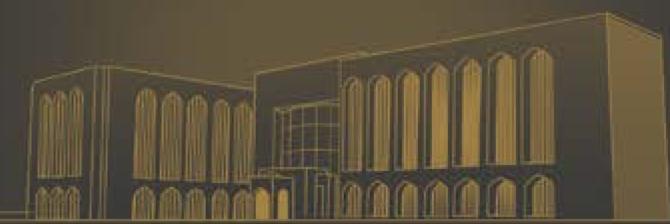
United Arab Emirates

مصرف الإمارات العربية المتحدة المركزي
CENTRAL BANK OF THE U.A.E.

FINANCIAL STABILITY REPORT 2022



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STATEMENT FROM H.E. KHALED MOHAMED BALAMA

GOVERNOR

The UAE financial system remained resilient during 2022, recovering across key financial metrics to pre-pandemic levels amidst a favourable domestic macroeconomic environment and strong funding and liquidity conditions. As the economy recovered, the Central Bank of the UAE (CBUAE) implemented a gradual exit from the major parts of the Targeted Economic Supported Scheme (TESS).

The UAE's economy continued to demonstrate notable adaptability. National economic output rebounded in 2022, even as global economic growth slowed down. On balance, the financial stability conditions in the UAE remained favourable during 2022 as the solid underlying macroeconomic conditions in the UAE offset the impact of a higher interest rate environment.

Nonetheless, the CBUAE remains committed to addressing potential vulnerabilities, given the global outlook for 2023 remains subject to downside risks. In particular, key risk drivers include tightening of financial conditions affecting debt service costs and demand for new credit; persistent inflationary pressures impacting disposable income; geopolitical tensions; and related uncertainty in global financial markets and some banking systems.

Looking further ahead, digitalisation and sustainability of the financial sector will continue to play a pivotal role in maintaining longer-term competitiveness and resilience of the financial system and the national economy. To facilitate the digital transformation of business models within the financial sector, the CBUAE launched a wide-ranging Financial Infrastructure Transformation Programme.

The CBUAE has also prioritised sustainability, with a focus on enhancing the resilience of the financial system to climate-related financial risks whilst supporting the global transition to a sustainable economy. These steps align with the country's commitment to host the COP28 summit in 2023, which the UAE government has officially designated as the 'Year of Sustainability'.

The CBUAE remains committed to ensuring that the UAE has a stable, innovative, and sustainable financial sector. In view of the complex economic, financial, and geopolitical landscapes in the year ahead, the efforts of central banks globally, including the CBUAE, will be crucial in safeguarding and fostering a resilient and sustainable economy and financial system.

EXECUTIVE SUMMARY

The global economy slowed down during 2022 in an environment characterised by elevated inflation, tightening financial conditions, and enduring geopolitical tensions. Despite these significant global headwinds, real Gross Domestic Product (GDP) growth accelerated to 7.9% in the United Arab Emirates (UAE) during the year as a result of a robust recovery in non-oil GDP and a sizable expansion of oil GDP.

The recovery in the UAE was supported by the lifting of COVID-19 restrictions, a resurgence in tourism, services, and other non-oil sectors, as well as the positive impact of globally significant events in the region, particularly the Dubai EXPO and FIFA World Cup in Qatar. Nevertheless, both global and domestic economic outlooks are projected to moderate during 2023.

Emerging downside risks facing the UAE financial system include a slowdown in global growth, persistent inflationary pressures, heightened global financial market volatility, and implications of rising interest rates for borrowers and investments. Increased financial sector digitalisation heightens the focus on effective cybersecurity and adaptation of business models.

The UAE banking system benefitted from the UAE's macroeconomic recovery in 2022. The profitability of the sector exceeded pre-pandemic levels amidst higher net interest income and lower impairment charges. Funding and liquidity conditions remained favourable and the sector remained well capitalised. Credit growth, particularly private sector loans, rebounded, supporting a post-pandemic recovery.

The CBUAE's solvency and liquidity stress tests of UAE banks confirmed overall banking sector stability. Regulatory stress tests of UAE banks assessed resilience against adverse scenarios of rising inflation and market uncertainty. Results indicated that the overall banking system could, from a capital and liquidity perspective, withstand these hypothetical adverse scenarios whilst continuing to support the economy by maintaining credit supply to UAE borrowers.

Overall, the UAE insurance sector remained prudentially sound and experienced sustained business growth, with gross written premiums surpassing pre-pandemic levels. The UAE exchange houses sector recovered further amidst an upturn in non-oil business activities. The overall UAE finance companies sector remained resilient despite a further contraction in business volumes.

Payment systems operated by the CBUAE remained robust in 2022, processing a rising volume of transactions driven by economic growth and rising digitalisation. Finally, the report concludes that the transition to a more sustainable global economy requires financial institutions to better manage climate-related financial risks and adapt their business models to sustainable finance opportunities.

01 MACRO-FINANCIAL ENVIRONMENT

1.1 MACRO-FINANCIAL DEVELOPMENTS

Global growth in real GDP declined in 2022, reflecting the material increase in policy rates to fight inflation, tighter financial conditions, the intensification of geopolitical uncertainties, and the impact of supply chain disruptions. The UAE, however, stood out as one of the fastest-growing economies worldwide, with GDP estimated to have expanded by 7.9%.

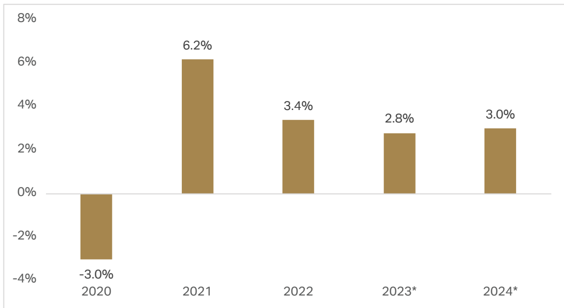
The UAE financial system continues to be strong and resilient in its ability to serve the local economy. In 2022, the macro-financial cycles in the UAE remained in stable territory, with no clear evidence of credit overheating and a trend towards a neutral position. Funding structure and private credit growth in the UAE banking system remained healthy, with resident deposit growth outpacing credit growth.

GLOBAL ECONOMY

In 2022, inflation reached high levels in many countries, despite weak economic growth. The International Monetary Fund (IMF) estimates a deceleration in global growth from the long-term trend to 3.4% in 2022, as a result of a surge in policy rates to fight inflation, tighter financial conditions, the intensification of geopolitical uncertainties, and the resurgence of COVID-19 in China. However, the re-opening of China at the end of the year increased the prospect of a swift comeback. Despite a weakening in global economic activity, inflation remained elevated in most economies and was expected to remain above the target levels of central banks in the near to medium term.

The outlook for 2023 is uncertain due to factors such as the ongoing conflict in Ukraine, the increased probability of a global economic slowdown, and the risks of cuts in global oil production. The IMF projects a slowdown in global real GDP growth to 2.8% in 2023, as tightening monetary policy stances, persistent volatility in international commodity prices, and ongoing geopolitical tensions continue to negatively impact economic activity. In 2024, global growth is predicted to marginally increase to 3.0%, but the outlook remains uncertain.

Chart 1.1.1: Global Real GDP Growth Rates

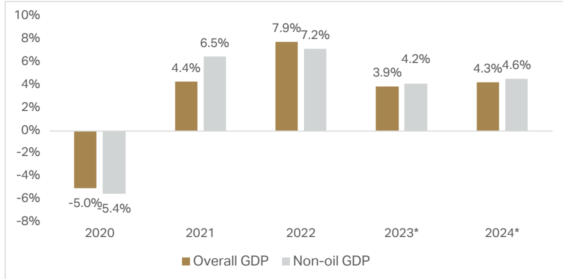


***Source:** IMF, World Economic Outlook, April 2023*
** Projections*

UAE ECONOMY

The UAE was one of the fastest-growing economies in 2022, boosted by the removal of most COVID-19-related restrictions, a recovery in global travel and the tourism, real estate and construction and manufacturing sectors, as well as increased activity associated with global events such as the Dubai EXPO and FIFA World Cup in Qatar. The UAE real GDP increased by 7.9% in 2022, compared to 4.4% in 2021. This growth is the result of a 7.2% increase in non-oil sector GDP and a 9.5% expansion in oil-sector GDP. The CBUAE projects real GDP growth to decelerate during 2023 to 3.9%, mainly due to lower oil production and more moderate growth in the non-oil sector, with oil and non-oil GDP rising by 3.0% and 4.2%, respectively.

Chart 1.1.2: UAE Total and Non-Oil Real GDP Growth Rates and Projections



***Source:** Federal Competitiveness and Statistics Centre (2015 – 2022) and CBUAE (2023 – 2024) * Projections*

In 2022, average headline inflation in the UAE increased to 4.8%, in line with global trends, but significantly below the world average. Prices were impacted by global geopolitical developments, supply chain disruptions, and increasing commodity prices, particularly for oil, raw materials and food. The largest price increases were reported in transportation (24.1%), food and beverages (7.5%), recreation, sports and culture (15.8%), and restaurants and accommodation services (8.2%), whilst a decline in the housing[1] component helped moderate inflation. The nominal effective exchange rate appreciation of the Dirham also played a role in containing inflation in the UAE.

FINANCIAL MARKET DEVELOPMENTS

Short-term interest rates in the UAE followed those in the US in 2022, steadily increasing throughout the year. The CBUAE raised its policy rate, known as the Base Rate, from 0.15% at the beginning of the year to 4.4% by year-end. Changes in the policy rate fully passed through to overnight interbank rates.

In 2022, sovereign Credit Default Swaps for Abu Dhabi and Dubai remained at relatively low levels compared to their historical averages.

MACRO-FINANCIAL CYCLES

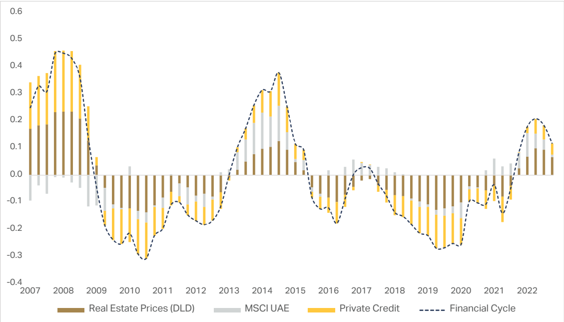
Based on analysis of the following three indicators of macro-financial cycles the UAE's financial system remained in stable territory, with no clear evidence of credit overheating and a trend towards a neutral position in the financial cycle. The CBUAE has kept the countercyclical capital buffer (CCyB) at 0% in 2022.

UAE Financial Cycle Index

The UAE Financial Cycle Index[2] measures the cyclical position of the UAE financial system based on credit, housing market and equity indicators. The index captures abrupt contractions and expansions in credit and asset prices as a warning indicator of systemic risks. The high value of the index in 2021 and early 2022 reflects rising house prices in Dubai, fast growth in equity prices in Dubai and Abu Dhabi, and a recovery in credit growth post COVID-19. Whilst the index continues to expand, growth in house prices and equity moderated in the second half of 2022, which led to the decline in the index. After the first quarter of 2022, the cycle showed signs of contraction, with the UAE stock market contributing negatively, and real estate and private credit contributing positively, albeit at diminishing levels.

[1] *Comprises mainly of housing rents.*
[2] *The UAE Financial Cycle Index is a CBUAE internal index constructed based on European Systemic Risk Board methodology combining moving averages of filtered quarterly growth rates of credit, real estate and stock market performance.*

Chart 1.1.3: UAE Financial Cycle Index

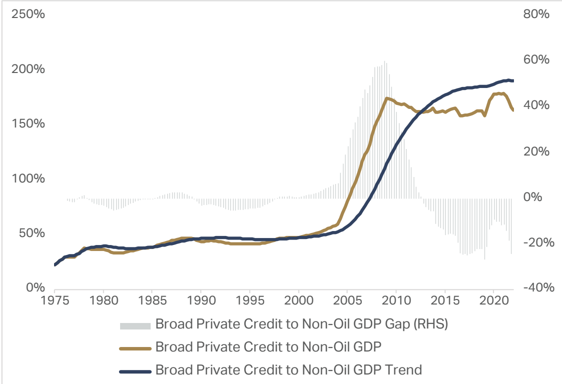


Source: *CBUAE Staff Estimates*

Credit Cycle

The analysis of the rate of growth of private sector credit compared to the level of economic activity[3] is an indicator used to detect potential build-up of systemic risk and overheating in the economy due to excessive borrowing by corporates and individuals. Private sector credit[4], which includes borrowing from UAE banks (70%), bonds issued by UAE entities (14%), and borrowings of UAE entities from abroad (16%)[5], saw an increase of 2.2% year on year. The majority of growth came from borrowing from UAE banks, which grew at 3.7% year-on-year, whilst borrowing from abroad and bond issuances decreased in 2022. The rate of non-oil GDP growth was much higher than credit growth, which caused the ratio of private credit to non-oil GDP to decline. The private-credit-to-non-oil GDP gap, which could, if positive, flag an overall risk of high leverage, decreased in 2022 and is currently at around -26 percentage points.

Chart 1.1.4: Broad Private Credit to Non-Oil GDP

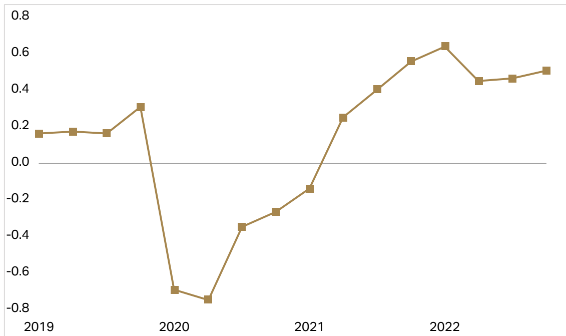


Source: *CBUAE Staff Estimates, FCSA and Bloomberg*

Financial Stability Trend Index

The UAE FSTI combines 18 macro-financial indicators[6] that are relevant to the UAE financial system. The FSTI illustrates the macro-financial characteristics of financial stability. A positive index point number indicates supportive financial stability conditions, whereas a negative index point number indicates weakening conditions. The FSTI continued its improvement that began in 2021 until the first quarter of 2022, coinciding with the UAE Financial Cycle Index. The indicators that positively affected the index in 2022 were the historically low loan-to-deposit ratio in the UAE banking system, indicating healthy funding conditions, and Dubai's strong rebound in real estate prices.

Chart 1.1.5: UAE Financial Stability Trend Index



Source: *CBUAE Staff Estimates*

[3] Non-oil GDP is used here instead of total GDP, as this is considered a more accurate measure of economic activity in the UAE when compared with levels of borrowing, and is a common tool in resource-rich countries.

[4] Total private credit is defined as the total credit borrowed by the resident private sector in the UAE, inclusive of government-related entities (GREs) and exclusive of the government sector.

[5] Includes assumptions on corporate credit from non-UAE domiciled banks based on market data.

[6] The statistical trend is calculated using a one-sided HP filter with a smoothing parameter (lambda) of 400,000.

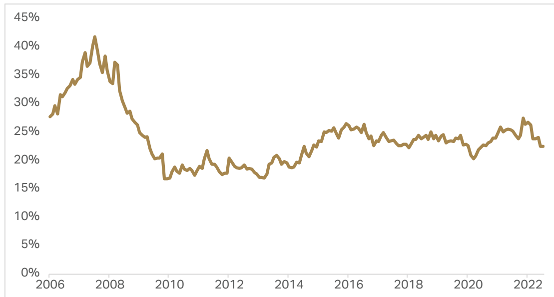
FUNDING STRUCTURE

Analysing the funding structure of the banking sector is essential in evaluating potential changes in liquidity and funding risks. To gain insight into these risks, it is helpful to distinguish between resident and non-resident deposits from non-financial entities, financial entities and capital market funding.

As of December 2022, the ratio of non-core liabilities to core liabilities[7] had decreased by 2.7 percentage points from the previous year, standing at 22.6%[8]. This was mainly due to strong growth of resident deposits from corporates, governments, and individuals. Monitoring the funding structure using this indicator helps consider whether credit growth is funded from stable sources. This ratio indicates a robust and stable funding base for UAE banks as their ability to source and retain local deposits is high, strengthening their ability to facilitate potential future credit growth for the economy.

Chart 1.1.6: Non-core Liabilities to Core Liabilities Ratio

Source: *CBUAE Staff Estimates*



GLOBAL MACRO-FINANCIAL RISKS

As the world transitioned from pandemic-imposed restrictions and their inherent risks, the conflict in Ukraine became the focus in early 2022. This fuelled a geopolitical risk component that further complicated the existing macroeconomic risks the world was facing. Global supply chains have partially adapted to this context, but disruptions in many industries still contribute to price pressures.

Risks to the global economy and especially credit markets have been growing. Waning investor risk appetite, especially in certain high-risk assets, and the continued tightening of financial conditions all add to the increasing risks of a global recession. This has already begun to impact some markets more than others, especially in frontier- and emerging-economy capital flows, currencies, and fiscal positions, in light of their significantly elevated public debt levels and accompanying servicing costs.

The risks of persistent high inflation, particularly in food and energy prices, are having an adverse effect on the cost of living for individuals, in addition to pressures on debt serviceability, as interest rates approach their highest levels in more than a decade. The degree of uncertainty about future inflation paths, and the long-term effects of structural changes to geopolitical dynamics, will be crucial factors influencing credit risk in 2023 and beyond.

The CBUAE is vigilant in monitoring these evolving trends and proactively identifying vulnerabilities and mitigating systemic risks in the UAE financial system. In addition, the CBUAE has a wide set of policy tools and instruments at its disposal to mitigate systemic risks and therefore meet its mandate of promoting financial stability.

[7] The CBUAE classifies core liabilities as resident deposits from governments, non-financial corporations, and households, whilst considering the rest as non-core liabilities.

[8] Lower value implies more stable funding profile of the banking system

THE FINANCIAL ACTION TASK FORCE (FATF)

In March 2022, following the UAE Mutual Evaluation Report (UAE MER) in 2020, the Financial Action Task Force (FATF), the leading international standard-setter for the prevention of money laundering and terrorist financing, categorised the United Arab Emirates as a 'jurisdiction under increased monitoring'. The UAE MER identified several gaps in the UAE's anti-money laundering (AML) and countering the financing of terrorism (CFT) framework. It also recognised that time was required to ensure the required actions for the AML/CFT framework were demonstrably effective.

Being categorised as a jurisdiction under increased monitoring by the FATF is not a unique situation globally. Whilst it can potentially have adverse implications for a country's financial sector, its impact is dependent upon the idiosyncratic features of that country's financial system and the strength of its remediation plan. Overall, it will increase compliance costs of licenced financial institutions and may affect the processing times of cross-border payments due to enhanced due diligence requirements. From a wider perspective, significant exposure to AML/CFT risks can lead to distortion in bank funding and pricing of assets such as real estate, and cause volatility of in-bound and out-bound capital flows.[9] Taken together, these impacts could erode confidence in financial markets over time and, from a UAE perspective, could negatively impact the country's role as a regional financial centre over the longer term.

In response to the FATF assessment and to minimise the country's exposure to AML/CFT risks, the UAE's authorities and the private sector have together taken significant concerted efforts to:

- Confirm the UAE's political commitment and technical capacity to strengthen the AML/CFT system;
- Enhance the legal framework;
- Embed the controls necessary to address the action plan requirements contained in the MER; and
- Ensure overall effectiveness of the UAE's AML/CFT regime.

Regulatory authorities have also increased their supervisory intensity and human resources to ensure compliance by licenced financial institutions and designated non-financial businesses and professionals.

This work has been undertaken under the leadership and patronage of:

- The Higher Committee of the Strategy Observation on Anti-Money Laundering and Countering Financing of Terrorism (Higher Committee);
- The National Anti-Money Laundering and Combatting Financing of Terrorism and Financing of Illegal Organizations Committee (NAMLCFTC); and
- The Executive Office of Anti-Money Laundering and Counter Terrorism Financing (EO AML/CTF).

The UAE has also demonstrated a clear improvement in coordination between various national agencies to use financial information on a large scale, as well as significantly greater international cooperation.

From a CBUAE perspective, in 2020 it established an independent and well-resourced AML department to operate a comprehensive risk-based approach, aligned to FATF's 40 Recommendations, to supervising the AML/CFT risks within its regulated firms. As part of this approach, in 2022, the department conducted 107 on-site examinations, various thematic reviews and completed comprehensive outreach initiatives on topics pertaining to targeted financial sanctions and suspicious activity reporting. The CBUAE also issued guidance notes and methodologies to ensure regulated firms have effective control systems that are aligned with international best practice. Demonstrating its appetite to take action to deter non-compliance with its AML/CFT standards, the CBUAE also applied a range of enforcement actions. In 2022, the CBUAE imposed penalties on non-compliant institutions totalling AED 51 million.

In the statement published on 24 February 2023, FATF recognised that *'the UAE has demonstrated significant progress, including by demonstrating a sustained increase in outbound Money Laundering Assistance requests to help facilitate the investigation of terrorism financing, money laundering, and high-risk predicates, showing greater use of financial intelligence to pursue high-risk money laundering threats, and combatting UN sanctions evasion, including by demonstrating a better understanding among the private sector'.*

The CBUAE views that all relevant parties should continue to take resolute measures to both necessitate a swift exit from FATF's increased monitoring regime. This will also support financial stability over the longer term. This will also support financial stability over the longer term. As a result, it is committed to continue its work to ensure a sustained increase in the application of effective, proportionate and dissuasive sanctions for breaches of AML/CFT requirements and monitoring of remedial actions, as well as work with the financial sector to achieve an increase in the number, timeliness and quality of Suspicious Transaction Reports. The remaining areas to address according to the FATF report[10] mostly relate to activities under the responsibility of law enforcement agencies and authorities overseeing non-financial businesses professions.

More broadly, the CBUAE remains vigilant to the risks posed to the financial system fr om money laundering, terrorist financing and sanctions evasion and will continue to proactively supervise the obligations of its

[9] *Biagosch, International Monetary Fund, Current Developments in Monetary and Financial Law, Vol. 5, Chapter 14*

[10] *Remaining gaps to be addressed according to the FATF are (1) designated non-financial business professions and their understanding of the money laundering and terrorist financing risks; (2) quality of suspicious activity reports; (3) the need to better understand the risk of abuse of companies and legal arrangements for money laundering purposes and (4) the need to further increase investigations and prosecutions of different types of money laundering cases. Source: United Arab Emirates (fatf-gafi.org).*

1.2 ASSET MARKETS

The UAE real estate market continued to record strong growth, particularly in Dubai, with sales values and volumes reaching high levels. Conservative borrower-based controls in real estate lending continue to restrict excessive risk taking in this market. Equity markets reached AED 3.2 trillion in market capitalisation by year-end, mainly reflecting growth in the Abu Dhabi Securities Exchange (ADX) of over 100%. Continuing the trend of the previous year, both ADX and the Dubai Financial Market (DFM) have seen more new listings. Corporate sector loans have rebounded, whilst non-performing loans (NPLs) have remained stable.

THE REAL ESTATE MARKET

The UAE real estate sector registered strong activity in 2022 amidst global economic headwinds and heightened uncertainty. Despite economic challenges worldwide, the UAE remains an attractive investment destination. The real estate sector represented 18.5%[11] of the UAE's 2021 real non-oil GDP, and 22% of UAE banking sector loans. Lending growth to the sector experienced modest growth, reaching 0.9% in 2022.

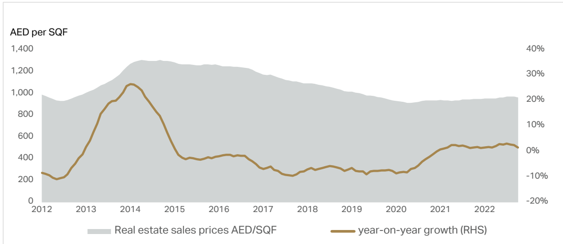
Chart 1.2.1: Real Estate Loans

Source: *CBUAE*

ABU DHABI REAL ESTATE

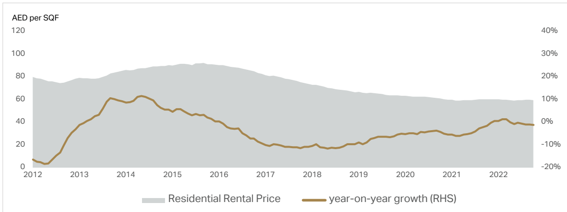
In the residential sector, prices in Abu Dhabi slightly increased, at a slower pace compared to last year, growing by 1.5%. In the rental market, Abu Dhabi rents declined by 1% over the same period. Rental yields in Abu Dhabi declined marginally, to around 6.4%.

Chart 1.2.2: Abu Dhabi Residential Real Estate Price



Source: *REIDIN*

Chart 1.2.3: Abu Dhabi Residential Rental Price



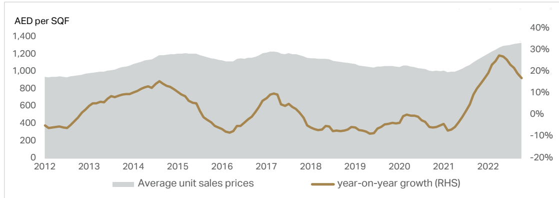
Source: *REIDIN*

DUBAI REAL ESTATE

In the residential sector, prices in Dubai increased by 17.3% in 2022, but at a slower pace than in 2021. Rents reached record levels in 2022, increasing by 26.9%, and rental yields increased to around 7.2%.

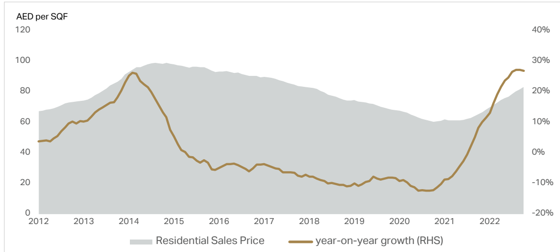
[11] *Including real estate and the construction sector.*

Chart 1.2.4: Dubai Residential Real Estate Price



Source: *DLD*

Chart 1.2.5: Dubai Residential Rental Price



Source: *REIDIN*

The value of transactions rose steeply, reaching more than AED 500 billion in 2022, the highest on record, growing by 77% from the year before. Approximately 122,000 real estate transactions in total were registered, an increase of 45% from 2021, partly driven by pent-up demand from the pandemic.

From a financial stability perspective, it is noted that, due to the level of interest in the UAE from major investors and the relatively high resident wealth, the majority of real estate transactions in Dubai were not financed by bank borrowing. Furthermore, the CBUAE maintains prudent borrower-based controls on lending in order to restrict excessive risk taking in real estate financing provided by the banking sector. These controls include loan-to-value limits for first home buyers (85% for UAE nationals, 80% for residents and 50% for off-plan) and a maximum debt burden ratio of 50% for individuals and 30% for retirees. The CBUAE has also implemented comprehensive standards for bank real estate exposures.[12]

CAPITAL MARKETS

Contributed by the Securities and Commodities Authority (SCA)

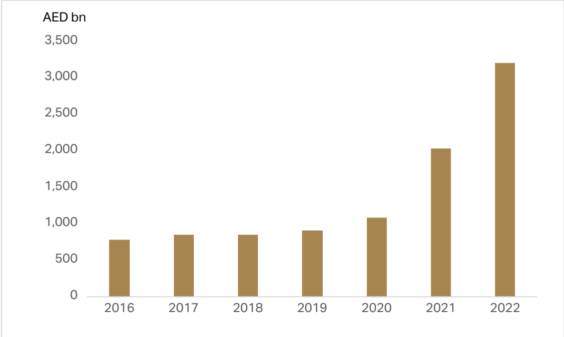
OVERVIEW OF UAE STOCK MARKETS IN 2022

The FTSE ADX General Index gained more than 20% in 2022. The ADX trading value increased by 21.9% to AED 451 billion. This increase was driven by higher levels of domestic and international investment. Foreign investment in ADX increased, with total net foreign investments recording an inflow of AED 24 billion in 2022. In addition, net institutional investments inflow reached AED 8 billion. ADX market capitalisation increased by 61.4% in 2022 to AED 2.62 trillion. The increase was supported by a series of listings. In 2022, ADX listed 18 securities, including shares, bonds, warrants, and investment funds. In the first 12 months since its launch, the ADX derivatives market achieved AED 1 billion in traded value, with more than 1 million contracts traded.

In 2022, ADX partnered with FTSE Russell to create new benchmark indices. ADX adopted FTSE Russell's Industry Classification Benchmark (ICB) for all its listed equities, and co-developed the FTSE ADX Growth Market Index (FADGMI) to track the performance of the ADX Growth Market segment. During the year, ADX and the Bahrain Bourse also announced the launch of the region's first digital exchange hub – Tabadul.

[12] *For more information, refer to 'Box: Key Bank Prudential Requirements in the UAE' in the Banking Sector Assessment section.*

Chart 1.2.6: Market Capitalisation of UAE Equity Markets[13]



Source: *SCA*

Table 1.2.1: ADX Performance

Abu Dhabi Securities Exchange	2021	2022	% Change
Index (point)	8,488	10,211	20.3%
Trading value (AED billion)*	370	451	21.9%
Trading volume (Billion shares)*	61	81	32.7%
Trades*	1,386,313	2,860,002	106.3%
Market Capitalisation (AED billion)**	1,626	2,625	61.4%
Net Foreign Investment (Buy - Sell) (AED billion)	15	24	
Net Institutional investors (Buy - Sell) (AED billion)	18	8	
Free-float market capitalisation[14]		565 AED bn	

Source: *SCA*

**Includes domestic public and private companies, direct deals, ETFs and SPACs*
***Includes public and private companies*

The DFM General Index increased by 4.4% in 2022, as total trading value increased by 24.8%, reaching AED 90 billion. Similarly, DFM market capitalisation increased by 41.7% to over AED 580 billion in 2022. Foreign investor confidence in DFM was positively impacted, as total net foreign investments recorded a value of AED 5 billion, a growth of 167%. Institutional investment inflow in DFM increased by almost 205%. Trading of derivatives was active, with approximately AED 900 million in traded value and 1 million contracts traded.

[13] UAE Equity Markets includes both ADX and DFM.
[14] Free-float market capitalisation refers to the valuation of outstanding shares held publicly.

DFM listed five state-owned and private companies. Additionally, it welcomed the listing of a retail cooperative. The new issuers raised a total of AED 31 billion.

Table 1.2.2: DFM Performance

Dubai Financial Market	2021	2022	% Change
Index (point)	3,196	3,336	4.4%
Trading value (AED billion)*	72	90	24.8%
Trading volume (Billions share)*	50	39	-22.7%
Trades*	874,590	1,443,852	65.1%
Market Capitalisation (AED billion)**	410	581	41.7%
Net Foreign Investment (Buy - Sell) (AED billion)	2	5	
Net Institutional investors (Buy - Sell) (AED billion)	1	2	
Free-float market capitalisation		178 AED bn	

Source: *SCA*

**Includes public and private companies (domestic- foreign) direct deals and ETFs.*
***Includes public and private companies*

CRYPTO-ASSET SECTOR STRESS

The year 2022 revealed substantial weaknesses in the global crypto-asset sector. These weaknesses crystallised in a high-profile period of stress that saw material volatility in crypto-asset values, an approximate $1.5tn reduction in market capitalisation[15] from just under $2.4bn at the start of 2022, the disorderly failure of several service providers operating in the sector and the loss of some of their clients' funds.

Some of these weaknesses appear inherent in the current structure of the crypto-asset system. Whilst not exhaustive, these include the speculative nature of underlying assets with limited real-world utility, lack of segregation within intermediaries providing different crypto-asset services and poor standards of corporate governance. It also exhibits features similar to the traditional financial services sector too, such as liquidity and maturity transformation and leverage[16]. However, in contrast to traditional financial institutions, it lacks the strong global standards of regulation that ensure these features are managed in a risk-sensitive manner.

This heightened risk profile was exacerbated by the fact that significant interconnectedness between crypto-asset intermediaries had become a key aspect of many business models in this space.

Overall, the impact of this severe stress period upon global financial stability have been restrained, given the relatively modest penetration of the sector into wider financial markets and key components of the broader global economy. Nonetheless, financial regulators and international standard setters continue to monitor changes in the size and nature of such interactions. In particular, stablecoins will remain an area of focus given the potential for their structure to act as a mechanism by which stress effects in the crypto-asset sector can spill over into the financial system.

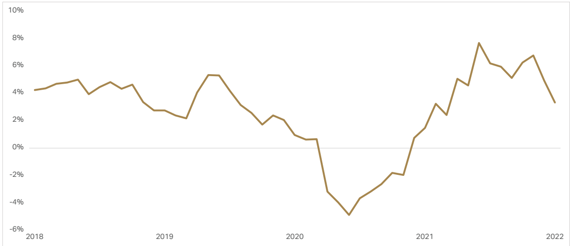
The CBUAE supports ongoing international collaboration as a means of futureproofing against potential systemic risks that could emanate from the sector's ongoing development. In 2022 this collaboration was evidenced by important work from the Financial Stability Board to help improve oversight of crypto-asset markets, the International Monetary Fund reviewing effective policy responses and the Basel Committee incorporating robust standards on crypto-assets exposures into the global prudential framework for banks.

[15] *Source: IMF Global Financial Stability Report 2023; Coingecko.*
[16] *Financial Stability Board, 2022 FSB Annual Report.*

UAE CORPORATE DEBT

The UAE corporate sector[17] is one of the main sectors for the UAE banking system. Total loans from UAE banks to the sector make up around 56%[18] of total UAE banking system loans. UAE private sector[19] credit accounts for approximately 76% of the total loans of the UAE corporate sector. Resident corporates loan growth reached 7.7% during 2022 before moderating down towards pre-pandemic levels.

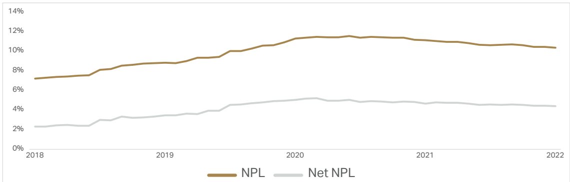
Chart 1.2.7: Resident Corporates Loan Growth



Source: *CBUAE*

The NPL and Net NPL[20] ratios of the UAE corporate sector have been steadily declining, starting the year at 11.1% and 4.5%, respectively, and dropping to 10.1% and 4.2%.

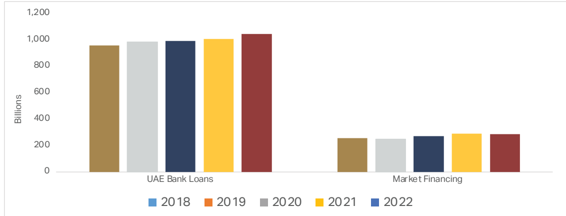
Chart 1.2.8: Overall UAE Corporate Sector Non-performing Loans



Source: *CBUAE*

The funding structure of UAE corporate sector credit has seen an increase in bank credit funding, whilst borrowing from the capital market remained relatively stable. The increase in reliance on bank loans has meant that nearly 83% of financing comes from the UAE banking sector.

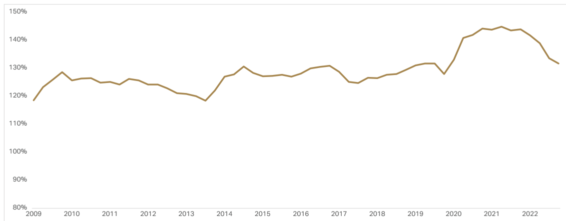
Chart 1.2.9: UAE Corporate Sector Credit



Source: *CBUAE & Bloomberg*

During 2022, the ratio of broad corporate sector credit to non-oil GDP declined to pre-pandemic levels of approximately 131%. This was driven by a combination of strong recovery in non-oil GDP with more moderate corporate sector credit growth.

Chart 1.2.10: Broad Corporate Sector Credit to Non-oil GDP Ratio



Source: *CBUAE Staff Estimates, FCSA and Bloomberg*

[17] *Corporate Sector includes resident GREs, Corporates, SMEs and HNIs.*
[18] *Does not include corporate credit from non-UAE domiciled banks.*
[19] *Private Sector includes resident Corporates, SMEs and HNIs.*
[20] *The Net NPL ratio excludes specific provisions.*

02 UAE BANKING SYSTEM ASSESSMENT

2.1 BANKING SECTOR ASSESSMENT

The UAE banking system remained resilient during 2022, supported by the macroeconomic recovery in the UAE, notwithstanding the global macroeconomic headwinds and tightening financial conditions. In 2022, the aggregate capital position remained adequate, with favourable funding and liquidity conditions. Banking sector profitability rebounded on the back of higher net interest income and lower impairment charges. The sector exhibited resilience during the pandemic, supported by broad-based measures implemented by the CBUAE. The Targeted Economic Support Scheme (TESS) was gradually wound down as the banking sector and economy fully recovered from the pandemic's repercussions.

OVERVIEW AND TRENDS IN THE UAE BANKING SECTOR

The global operating environment for banks continues to evolve rapidly, including heightened pace of digitalisation and transition to sustainable finance. In 2022, the CBUAE introduced the broad-based financial infrastructure transformation programme that aims to create a more robust, resilient, and digital UAE financial system. Increased digitalisation brings business opportunities, but also operational challenges, including a need for greater focus on cyber security, data privacy, IT outsourcing risk and business continuity resilience. The rapid growth of global ESG markets and sustainable finance is also creating opportunities for banks to generate new business to meet growing demand for sustainable financial products.

The banking sector needs to appropriately address and mitigate climate-related financial risk and vulnerabilities that are presented by physical and transition risks. The banking system will also need to remain vigilant towards emerging downside risks. Evolving vulnerabilities can be presented by global macroeconomic headwinds, heightened global financial markets volatility, idiosyncratic distress in banking systems, and the implications of rising interest rates for credit risk and market risk in banks' portfolios. Furthermore, the integrity of the international financial system requires effective implementation of and global cooperation on AML/CFT and related threats.

BANK CREDIT ENVIRONMENT

The UAE banking system's aggregate lending increased by 4.8% during 2022 as the economic recovery continued. Banks' strong funding conditions and ample credit capacity further supported bank appetite for credit growth. Growth in credit to the domestic economy was driven mainly by lending to private corporates, government-related corporate entities, and the retail sector.

Credit demand in the corporate and retail sectors also benefitted from the strong underlying economic conditions in the UAE and the government's structural policies. The CBUAE's credit sentiment survey noted that strong underlying economic conditions in the UAE in 2022 offset the impact of a higher interest rate environment on loan demand.[21]

[21] *The Credit Sentiment Survey published by the CBUAE in Q4 2022.*

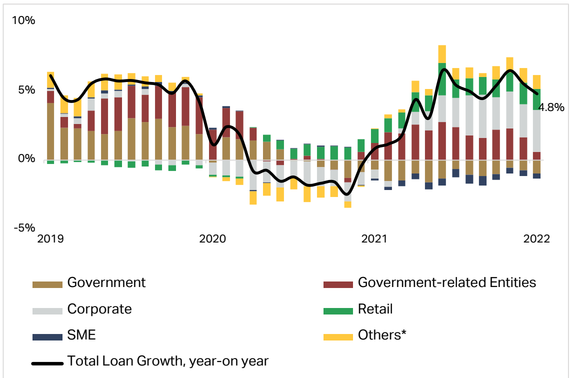
Retail Credit Exposures

Retail lending recorded strong growth for the second consecutive year. The retail loan portfolio expanded by 7.7% in 2022, the highest growth rate in six years. Growth was recorded across all key retail lending categories, reflecting the wider post-pandemic economic sentiment. Mortgage loans grew by 10.4%. Other key retail segments, personal loans and credit cards, grew by 5.7% and 15.5%, respectively. Demonstrating a broad-based recovery in retail credit, car loans and small business loans to individuals also grew, by 14.1% and 4.8%, respectively.

Wholesale Credit Exposure

Aggregate wholesale credit increased by 3.1% in 2022.[22] The largest contributor in wholesale credit was lending to the private corporate sector, which increased by 8.4%, in contrast to a decline in 2021, whilst lending to government-related corporate entities grew by 4.4%. Nonetheless, credit to SMEs continued to contract, declining by 2.5%. Lending to the government sector declined 6.6% on the back of increased revenues supported by macroeconomic recovery in non-oil sectors, hydrocarbon exports, and measures taken by some banks to diversify concentrations in loan portfolios.

Chart 2.1.1: Banking System Loan Growth



**Others comprised non-bank financial institutions, high-net worth individuals and trade bills*

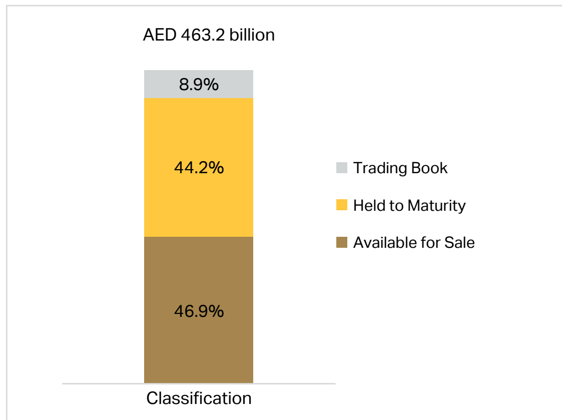
***Source:** CBUAE*

DEBT SECURITIES PORTFOLIO

The UAE banking system's investment portfolio amounted to AED 468.1 billion and accounted for 12.8% of total assets as of end of 2022. The investment portfolio was comprised mainly of debt securities, accounting for 98% of the total investment portfolio, whilst the remainder were exposures to equities and commodities. The overall debt securities held by banks expanded by 13.8%, on the back of stronger funding growth compared to loan growth. The growth was attributed to an increase in holdings of foreign and domestic debt securities, which grew by 18.3% and 4.9%, respectively, during the year.

Within the debt securities portfolio, the banking book comprised more than 91.1% (Available for Sale at 46.9% and Held to Maturity at 44.2%), with the remainder in the trading book. The rapid increase in interest rates globally has heightened attention on adequate risk management of debt securities exposures. In view of higher interest rates, the banking system will need to remain attentive to global financial market volatility and any spillover impact of financial tightening.

Chart 2.1.2: Classification Breakdown of Debt Securities Portfolio

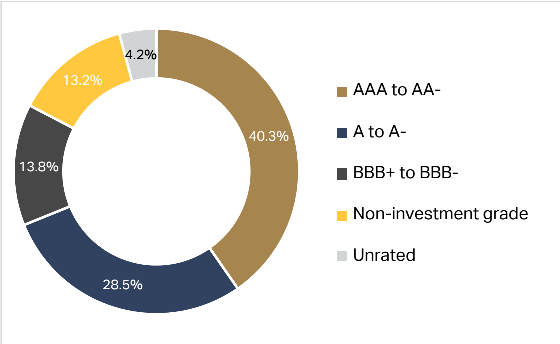


***Source:** CBUAE*

[22] *Wholesale Credit comprised of lending to the government, government-related corporates, private corporate, SMEs, trade finance and high-net-worth individuals.*

The debt securities portfolio was comprised of 82.6% investment grade securities, with around 40.3% in AA- and above rating buckets. Of the remainder, 13.2% were in non-investment grade bonds primarily in the MENA region, and in unrated securities (4.2%).

Chart 2.1.3: Composition of Debt Securities Portfolio



Source: *CBUAE*

FUNDING AND LIQUIDITY

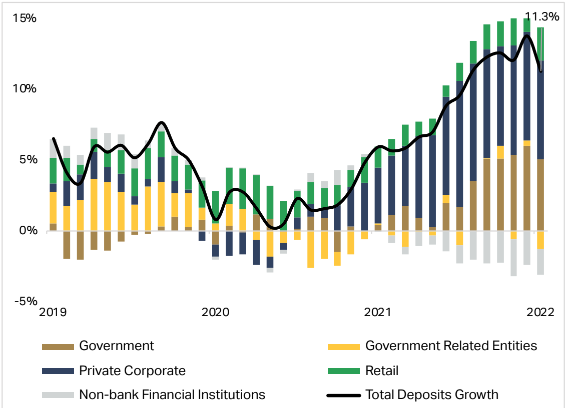
Funding and liquidity conditions in the UAE banking system remained favourable during 2022. Growth in deposits continued to increase, supporting adequate liquidity and funding buffers, and enhancing bank credit capacity. UAE bank funding remained predominantly deposit-based, representing 60.6% of total liabilities, with only a small share of capital market funding, at 6.3%.

Banking system deposits grew by 11.3% in 2022, the highest growth rate recorded in seven years. Strong deposit growth was driven by concurrent solid growth in retail deposits, private corporate deposits, and government deposits. The share of time deposits increased by 2.4 percentage points to 55.1%, reflecting shifting consumer preferences in view of higher interest rates during the year.

Capital markets funding contracted by 12.0% in 2022, driven by maturing debt instruments and moderation in new issuances due to ample deposit funding and rising interest rates. The average maturity of outstanding bank debt increased to 38 months. The majority of capital market debt financing was cross-border and denominated in US dollars, accounting for about 90% of the portfolio.

The overall Loan-to-Deposits ratio of 84.6% was at a seven-year low, reflecting ample UAE bank funding and strong lending capacity. The banking system's liquidity ratios Eligible Liquid Asset Ratio (ELAR)[23] and Liquidity Coverage Ratio (LCR)[24] reflected sufficient liquidity buffers with ratios at 19.1% and 156.0%, respectively, at the end of 2022. Similarly, funding ratios Advances to Stable Resources Ratio (ASRR) and Net Stable Funding Ratio (NSFR) reflected stable funding buffers, with ratios of 75.6% and 111.2%, respectively.

Chart 2.1.4: Banking System Deposit Growth



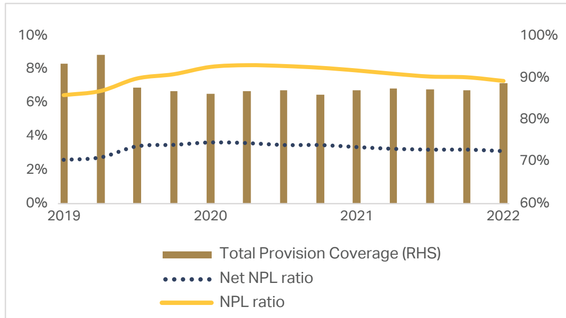
Source: *CBUAE*

ASSET QUALITY

The UAE banking system's asset quality improved following the deterioration in the first year of the pandemic. The net non-performing loan (Net NPL) ratio[25] and NPL ratios moderated to 3.0% and 7.3%, respectively, by the end of 2022. NPL moderation came on the back of economic recovery during 2022 and the CBUAE's continued supervisory assessments and associated remedial actions on write-offs. The successful implementation and gradual unwinding of the CBUAE's TESS Loan Deferral Programme[26] played a crucial role in mitigating borrower defaults due to liquidity constraints from the pandemic that could have impeded the recovery in asset quality. Provision coverage also improved, with total provision coverage increasing to 88.6%, and specific provision coverage to 60.4%, by the end of 2022.

The Net NPL ratio of the retail loan segment declined by 0.6 percentage points to 1.5% by the end of 2022. The asset quality of the corporate loan portfolio also improved, with the Net NPL ratio declining by 0.7 percentage points to 4.0%. However, banks will need to remain vigilant against potential headwinds in the global macro-economic environment that could affect borrower debt-servicing capacity.

Chart 2.1.5: Banking System Asset Quality Ratios



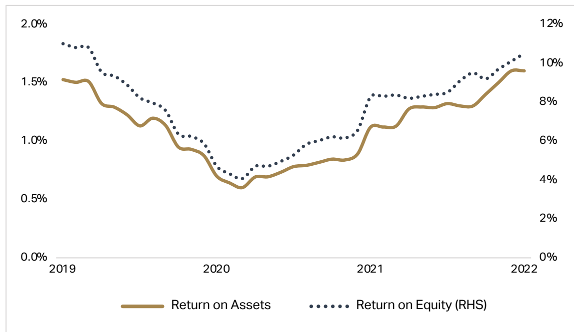
Source: *CBUAE*

PROFITABILITY

Bank aggregate profitability rebounded strongly in 2022, driven by lower impairment charges and improved net interest income. Net profit grew 31.8% from last year, whilst Return on Assets (ROA) increased to 1.4%, and Return on Equity (ROE) to 10.5%, in 2022. The cost-to-income ratio further declined to 36.6%, reflecting improved cost efficiency. Whilst bank profitability continued to benefit from higher interest income, challenges remain from potential pressure on credit risks in sectors vulnerable to higher interest rates, inflation and global market volatility.

Aggregate operating income grew by 18.7% in 2022, supported by higher net interest income, which increased by 27.7%. This was facilitated by more robust loan growth amidst economic recovery in a higher interest rate environment. On the other hand, non-interest income only grew by 2.1%. Whilst fees and commission income improved during 2022 amidst favourable macroeconomic conditions in the UAE, it was partially offset by a decline in bank trading and investment income. Net impairment charges declined a further 17.1% as the cost of risk and provision growth moderated from the peak reached during the pandemic.

Chart 2.1.6: Banking System Profitability



Source: *CBUAE*

[23] *For more details of liquidity requirements in the UAE refer to CBUAE Regulations Re Liquidity and Box on Key Bank Prudential Requirements.*
[24] *LCR and NSFR applicable to 5 approved banks.*

[25] *The Net NPL ratio excludes specific provisions and provides a better indicator of asset quality, taking into account provisioning levels in the UAE banking system.*
[26] *TESS Loan Deferral Programme supported up to 15% of bank lending portfolios, and benefitted society by providing temporary loan repayment relief to over 300,000 retail clients, more than 10,000 small and medium enterprises, and up to 2,000 private corporates.*

CAPITAL

The UAE banking system as a whole remained well capitalised. Overall, CAR and CET-1 ratios improved during 2022, by 0.3 percentage points and 0.2 percentage points, to 17.4% and 14.4%, respectively.

The moderate improvement in capital adequacy was attributed to the higher increase in total capital compared to risk-weighted assets. Total capital increased by 6.1% during 2022. In line with higher loan growth during 2022, risk-weighted assets grew by 4.5%, driven primarily by credit risk-weighted assets (CRWA).

Banks, on aggregate, continued to sustain an adequate leverage ratio of 9.6%, well above the minimum regulatory requirement of 3.0%.[27] The strong leverage ratio was supported by the traditional business model of UAE banks, focused on lending and deposit taking activities.

EXTERNAL EXPOSURES[28]

UAE Banks' External Exposures

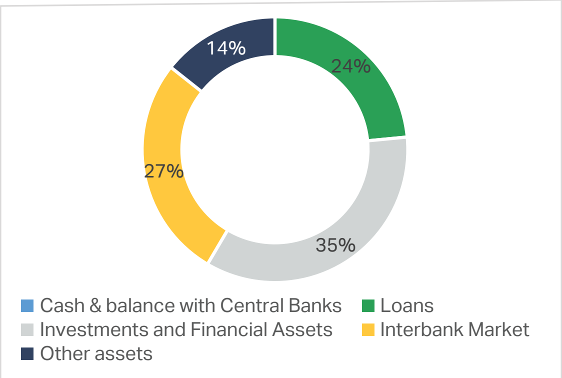
External assets of the UAE banking system accounted for 39.4% of total consolidated assets[29], a 3.1 percentage point increase from last year. UAE bank local operation cross-border assets accounted for 24.5%, and foreign branches and subsidiaries' assets accounted for 14.9%.

The UAE banking system's external liabilities accounted for 29.9% of total consolidated assets, a decline of 2.3 percentage points from last year. External liabilities of UAE banks' local operations accounted for 18.9% of total consolidated assets, whilst foreign branches and subsidiaries accounted for 11.0%.

UAE Banks' Cross-border Exposures

The increase in banks' external assets was primarily driven by cross-border exposures from UAE entities amidst ample credit capacity, economic recovery, and strong funding conditions. The cross-border assets amounted to AED 1.0 trillion as at end of 2022. The top five countries representing these cross-border exposures were Turkey, Saudi Arabia, Egypt, the United States, and the United Kingdom.

Chart 2.1.7: UAE Banking System's Local Operations' Cross-Border Asset Composition



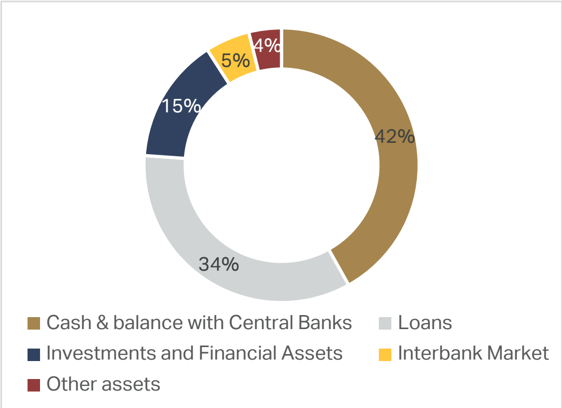
Source: *CBUAE*

The decline in external liabilities was due to the drop in capital market funding, contraction in non-resident deposits and ample funding conditions in the UAE. UAE banks have historically remained net lenders in global interbank markets, with the net cross-border interbank lending position accounting for 2.6% of total assets as of end of 2022.

UAE Banks' Foreign Subsidiaries and Branches

The global footprint of UAE banks comprised more than 20 countries following several cross-border acquisitions in recent years. The assets of UAE banking systems overseas subsidiaries and branches amounted to AED 606.0 billion by the end of 2022. The US, Turkey, the UK, Egypt, and Saudi Arabia were the top five countries with foreign subsidiaries and branches of the UAE banks measured by total assets.

Chart 2.1.8: UAE Bank Foreign Subsidiaries and Branch Asset Composition



Source: *CBUAE*

KEY BANK PRUDENTIAL REQUIREMENTS IN THE UAE

BANK CAPITAL REQUIREMENTS IN THE UAE

The CBUAE requires all banks operating in the UAE to comply with CBUAE capital regulations, which follow the standardised approach of the Basel III capital standards. In addition to the minimum Pillar 1 capital requirements, a Capital Conservation Buffer (CCB) of 2.5% in the form of CET-1 Capital applies to all banks. The counter-cyclical capital buffer on UAE exposures remained at 0%.

Table 2.1.1: Capital Requirements in the UAE

Capital Requirement	Minimum Requirement (excluding Capital Conservation Buffer)	Minimum Requirement (including Capital Conservation Buffer)
CET-1 Ratio	7.0%	9.5%
Tier-1 Ratio	8.5%	11.0%
Capital Adequacy Ratio	10.5%	13.0%
Additional Requirements		
D-SIBs Capital Buffer[30]	0.5% - 2.5% individual capital surcharge for designated D-SIBs	
Counter-Cyclical Buffer	0% counter-cyclical capital buffer for UAE exposures	

Source: *CBUAE*

[27] D-SIBs have an additional leverage ratio requirement of 0.5%.
[28] The UAE banking system's external exposures comprised of cross-border exposure of UAE licenced banks' local operations and of UAE national banks' foreign subsidiaries and branches. The consolidated exposures exclude intragroup exposures between the head office and foreign branches and subsidiaries.
[29] Total consolidated assets included assets of UAE banking system's domestic operations and UAE banking system's foreign subsidiaries and branches.

[30] For more information on DSIBs Assessment Methodology, refer to the FSR 2020. The CBUAE designated four banks in the UAE as Domestic Systemically Important Banks (D-SIBs) with additional D-SIB capital buffer requirements set for the designated banks. D-SIBs included First Abu Dhabi Bank, Emirates NBD, Abu Dhabi Commercial Bank, and Dubai Islamic Bank.

The CBUAE maintained the designation of four banks as Domestic Systemically Important Banks (D-SIBs) and their additional capital requirements were unchanged during 2022. The additional D-SIB capital-buffer requirements during 2022 for First Abu Dhabi Bank (FAB) and Emirates NBD (ENBD) were set at 1.5% of CET-1 capital, and for Abu Dhabi Commercial Bank (ADCB) and Dubai Islamic Bank (DIB) at 0.5% of CET-1 capital.

The CBUAE prudential relief measures on capital requirements that were applied during the pandemic as part of its Targeted Economic Support Scheme (TESS) were applicable until 30 June 2022, and consequently discontinued as part of the gradual TESS exit strategy.[31]

Bank Leverage Ratio Requirements in the UAE

All banks operating in the UAE must comply with CBUAE leverage ratio standards, which follow Basel III leverage ratio standards. All banks must meet the leverage ratio minimum requirements at all times with Tier 1 capital.

Table 2.1.2: Leverage Ratio Requirements in the UAE

Leverage Requirement	Minimum Requirement
Leverage Ratio	3.0%
Additional Requirements	
D-SIBs Leverage Ratio Buffer[24]	0.5% additional Leverage Ratio minimum requirement for the designated D-SIBs

Source: *CBUAE*

BANK LIQUIDITY REQUIREMENTS IN THE UAE

Following the Basel III Liquidity Standards, the CBUAE applies Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) requirements to five national banks operating in the UAE.[32] The remaining banks operating in the UAE are regulated according to UAE-specific requirements based on Eligible Liquid Asset Ratio (ELAR) and Advances to Stable Resources Ratio (ASRR).

Table 2.1.3: Liquidity Requirements in the UAE

	Requirement
Liquidity Coverage Ratio	Min 100%
Net Stable Funding Ratio	Min 100%
Eligible Liquid Assets Ratio	Min 10%
Advances to Stable Resources Ratio	Max 100%

Source: *CBUAE*

[31] *For more information on TESS, see: Overview of the CBUAE's Targeted Economic Support Scheme in Response to the Pandemic, and Prudential Relief Measures during the Pandemic, both found in FSR 2021.*

[32] *Banks subject to these LCR/NSFR requirements are First Abu Dhabi Bank, Emirates NBD, Abu Dhabi Commercial Bank, Dubai Islamic Bank, and Mashreq.*

The CBUAE prudential relief measures on liquidity, and stable funding requirements applied during the pandemic as part of the TESS were applicable until 30 June 2022 and consequently discontinued under the gradual TESS exit strategy.[28]

BANK LOAN-TO-VALUE RATIO REQUIREMENTS

The CBUAE applies Loan-to-Value (LTV) requirements to retail mortgages. LTV requirements were segmented for owner-occupied, subsequent, and off-plan properties. The CBUAE, as part of TESS, adjusted LTV ratio requirements for first-time home buyers. This measure has remained in place and was deemed appropriate in the current macro-financial environment.

Table 2.1.4: Loan-to-value Ratio Requirements

UAE Nationals	
First House / Owner Occupier	
Value of Property	**Loan-to-Value Ratio**
Less than or equal to AED 5 million	Max 85% of the value of the property
More than AED 5 million	Max 75% of the value of the property
Subsequent property	
Max 65% of property value	
Off-plan schemes	
Max 50% of property value	
Expatriates	
First House / Owner Occupier	
Value of Property	**Loan-to-Value Ratio**
Less than or equal to AED 5 million	Max 80% of the value of the property
More than AED 5 million	Max 70% of the value of the property
Subsequent property	
Max 60% of property value	
Off-plan schemes	
Max 50% of property value	

Source: *CBUAE*

BANK DEBT BURDEN RATIO REQUIREMENTS

The CBUAE applies a maximum Debt Burden Ratio (DBR) of 50% of gross salary and any regular income from a defined and specific source at any time. Where a loan repayment schedule extends beyond the retirement age, total repayments do not exceed 30% of income (or pension salary).[33]

STANDARDS FOR REAL ESTATE EXPOSURES

The CBUAE implemented comprehensive standards for bank real estate exposures. These standards cover all types of on-balance sheet loans and investments and all off-balance sheet exposures to the real estate sector. The standards introduced a new risk-based exposure ratio to measure banks' exposure concentration to real estate, based on credit risk-weighted assets. Banks with higher credit risk-weighted real estate exposures as a share of total credit risk-weighted assets in their portfolios are subject to a more extensive risk-based supervision of their underwriting standards, risk management practices, and business strategies in the real estate segment.

RESERVE REQUIREMENTS

The Central Bank of the UAE (CBUAE), as part of its exit strategy from the Targeted Economic Support Scheme (TESS), increased the ratios applicable to reserve requirements for deposit-taking licenced financial institutions. The reserve requirement ratios applicable to demand and time deposits are at 11% and 1%, respectively, effective from 12 April 2023.

The reserve requirements were temporarily lowered as part of the TESS programme during the pandemic.

LARGE EXPOSURES

The CBUAE implemented a suite of large exposure limits. Large exposure limits to a single counterparty or to a group of connected counterparties were applied in line with BCBS large exposure standards. In addition, the CBUAE applied exposure limits relevant to the UAE operating environment, comprising exposures to UAE emirates' governments and their non-commercial entities, domestic interbank exposures, and exposures to related parties.

[33] For more details, refer to Regulations No. 29/2011 Regarding Bank Loans and Other Services Offered to Individual Customers.

ISLAMIC BANKING SECTOR IN THE UAE

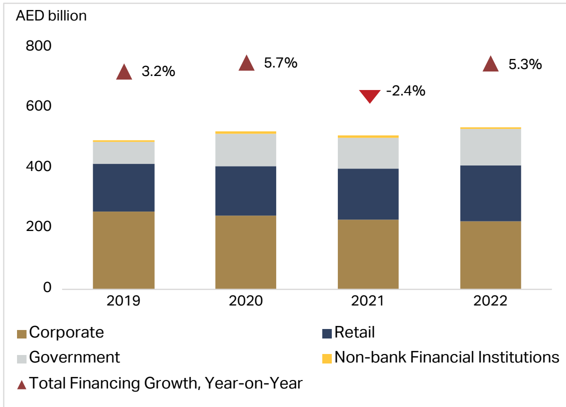
UAE ISLAMIC BANKING SECTOR OVERVIEW

The UAE Islamic banking sector assets continued to grow in 2022 to account for 23.0% of total UAE banking sector assets. In line with the overall banking sector, profitability continued to recover, with adequate capital buffers on aggregate, whilst lending capacity remained ample, supported by improved liquidity buffers. Additionally, asset quality improved, with a decline in non-performing financing and stable provision coverage.

UAE ISLAMIC BANKING SECTOR RESILIENCE

The UAE Islamic banking sector assets expanded 8.3% to AED 845.2 billion in 2022. The UAE banking system comprises eight fully-fledged Islamic banks and 17 Islamic windows established by conventional banks with total asset size of AED 630.7 billion and AED 214.5 billion, respectively. Demand for Shariah-compliant financing remained strong, with growth of 4.9% observed in 2022, taking total financing to AED 536.4 billion. This was driven by government and retail financing, whilst private corporate financing, which accounted for the majority (41.7%) of total financing, decreased by 2.1%. Personal consumer financing was the main contributor to retail financing growth, followed by mortgage and car financing.

Chart 2.1.9: Islamic Banking Sector Financing



***Source:** CBUAE*

The investment assets portfolio, accounting for 15.0% of total assets, continued to expand by 13.9% in 2022 to AED 127.2 billion. The increase was driven by growth in Sukuk holdings, which accounted for more than 97% of the total investment portfolio.

Islamic banks remained primarily well-funded with customer deposits accounting for 66.3% of total liabilities, whilst capital markets funding represented only 5.2%.

Total deposits grew 4.1% to AED 538.6 billion, a 1.3 percentage point increase compared to last year. Of total deposits, profit-sharing investment accounts (PSIA) accounted for 68.4% and grew by 15.8% in 2022. Capital market funding grew by 7.0% in 2022. The overall Islamic banking sector's ELAR and ASRR stood at 17.8% and 80.6%, respectively.

Asset quality of the financing portfolio improved, with the Net Non-Performing Financing (net NPF) ratio moderating to 3.4% and Non-Performing Financing ratio to 7.3% Provision coverage remained stable, with a total provision coverage ratio of 72.8%, and a specific provision coverage ratio of 53.0%. Profits continued to recover, with ROA increasing by 0.5 percentage points compared to last year to 1.8%. The increase in profits was attributed to higher net financing income and lower impairment charges. The cost-to-income ratio also improved to 28.9%, indicating further cost efficiency. Moreover, capital buffers remained adequate, with an aggregate CAR of 17.7%.

SUSTAINABLE FINANCE AND THE UAE BANKING SECTOR

SUSTAINABLE FINANCE MARKET

The global ESG finance market has witnessed significant growth in recent years. The CBUAE conducts in-depth surveillance of evolving sustainability risks and opportunities in financial markets and financial institutions. The assessment covers ESG developments in global, regional, and domestic financial markets and institutions, with relevant international benchmarks, best practices, and gap identification.

ESG finance represents both opportunities and risks for the banking sector. Banks play a crucial role in the sustainable finance market as key providers of sustainable finance and related financial services to businesses, governments, and individuals. Banks also act as issuers, underwriters, arrangers, and investors in relation to sustainable finance debt securities and other ESG-related financial products.

SUSTAINABLE FINANCE AND THE UAE BANKING SECTOR

ESG finance in the UAE has gained traction in recent years, with ESG debt issuances amounting to AED 23.4 billion[34] in 2022, accounting for about 18.2% of total bond issuances during the year. More than 70% of ESG fixed-income securities were issued in the UAE by banks, with the remainder issued by the UAE corporate sector. Further, the insurance companies participate in the ESG financial securities markets as investors.

The issuances of ESG debt securities in the UAE also grew in diversity, and now, in addition to green bonds, also includes sustainability bonds based on broader sustainability principles. The trend demonstrates a developing emphasis of UAE banks in incorporating ESG factors into their business models and their role in facilitating the market to support the transition to a more sustainable economy.

CBUAE'S ROLE IN SUSTAINABLE FINANCE

The UAE's focus on sustainability was reaffirmed through the designation of the year 2023 as the 'Year of Sustainability' in the UAE and the country's role in hosting the COP28 global climate summit. The CBUAE remains committed to advancing sustainable finance and addressing climate-related financial risks. The internal Session on Green and Sustainable Finance, chaired by the Governor, oversees the implementation of CBUAE's sustainability initiatives.

The CBUAE's sustainability initiatives focus on the developments of principles and guidelines for the management and supervision of climate-related financial risks, advancing the development of Islamic sustainable finance, conducting climate-risk stress tests and research, monitoring ESG financial markets developments, investing part of the CBUAE's foreign exchange reserves in ESG financial assets, and sustainability transformation of the organisation.[35]

[34] Source: CBUAE estimates based on S&P Capital IQ Database.

[35] For more detailed information on the CBUAE's role and activities in sustainability see the chapter 'Sustainability' in the CBUAE's Annual Report 2022.

2.2 REGULATORY STRESS TEST 2022

The CBUAE conducted its annual bottom-up stress testing exercise in 2022 to assess the resilience of UAE banks amidst high global inflation and market uncertainties. The adverse scenario of the stress test was based on hypothetical stagflation within a significant rising interest rate environment. The results showed that the UAE banking system would be able to withstand the considered scenario, with the average CET-1 ratio falling by 301 bps from 13.6% to a trough of 10.6% under the adverse scenario. Moreover, given the static balance sheet assumption used in the stress tests, banks were able to maintain credit flow to support the economy in a stressed macro-financial environment. In addition to the bottom-up stress test, the CBUAE conducted regular top-down liquidity stress tests, whose results showed that the UAE banking sector could withstand hypothetical stress periods (up to 60 days) involving a significant outflow of funding and limited access to the capital market.

INTRODUCTION

As a part of prudential supervision oversight to maintain financial stability in the UAE, the CBUAE conducts an annual UAE banking sector stress test. In 2022, the stress test assessed how UAE banks would perform under a hypothetical stagflation scenario. In this section, the scenarios and aggregated results are published.

The 2022 stress test included 15 UAE local banks and four foreign banks, covering more than 90% of UAE banking sector assets. The same methodology and scenarios were applied to all participating banks to assess whether they were sufficiently capitalised to absorb losses during a hypothetical severe recession.

Key new features of the stress test included:

(1) An assessment of bank cross-border lending to countries with relatively high exposures;

(2) A granular-level analysis of bank economic sector exposures; and

(3) An assessment of the composition and expenses of bank sight deposits and term deposits in a rising interest rates environment.

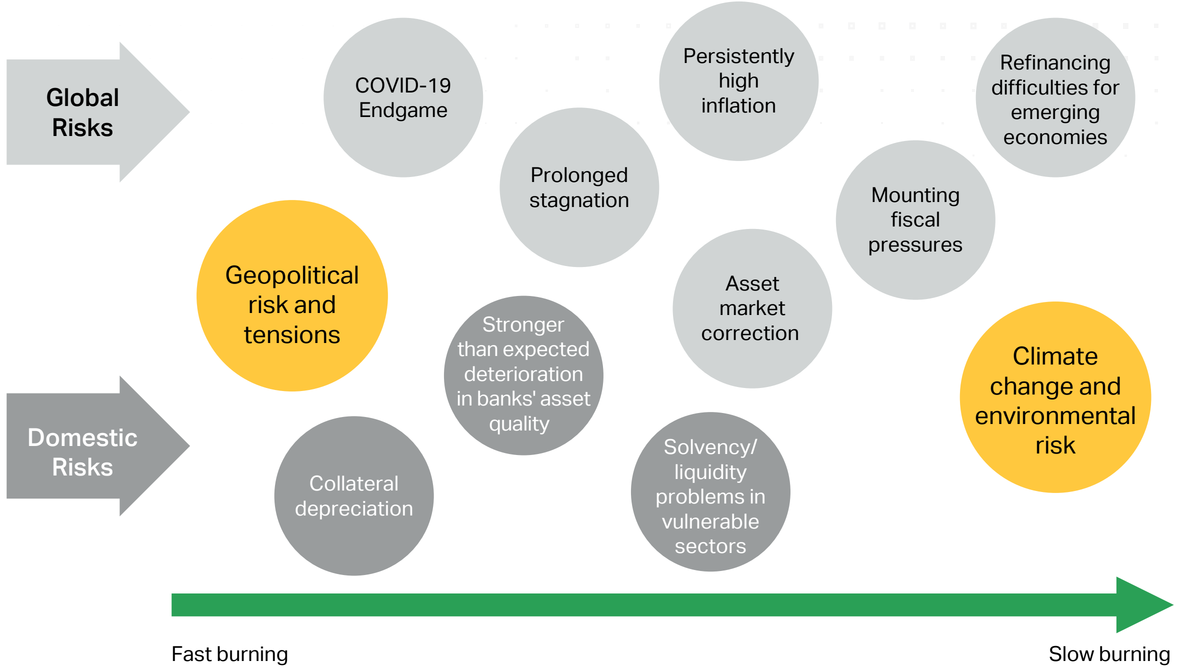
The results indicated that participating banks had sufficient ability to endure the hypothetical adverse scenario, whilst keeping sufficient levels of capital and liquidity, which can be partly attributed to strong post-pandemic profits accumulated during 2021. In addition, given the static balance sheet assumption and other constraints in the stress test, banks would be able to maintain credit supply whilst meeting minimum requirements without the beneficial capital impact from management actions.

RISK AND SCENARIOS

The CBUAE identifies salient risks to the UAE economy and financial system based on a systematic review of external publications and informed supervisory analysis and judgement.

In particular, geopolitical risks and the potential risk of severe stagflation, volatility in commodity prices (especially in oil prices) and uncertainties stemming from the prolonged COVID-19 pandemic were considered key risks for 2022 stress testing exercises.

Chart 2.2.1: Key Hypothetical Risks to UAE Economy and Financial System



Source: *CBUAE*

The 2022 baseline scenario followed a projection similar to that of consensus projections from the IMF for a three-year forecast horizon, assuming a gradual economic recovery.[36]

The 2022 hypothetical adverse scenario was based on a severe global stagflation risk (high inflation and recession) with heightened stresses in oil price, UAE real estate and equity markets, due to demand destruction.

The synchronised global recession and spike in inflation are assumed to transmit to the UAE economy through trade, fiscal, interest rate, and confidence channels. The initial spike in oil prices is followed by a significant and persistent decline. CPI inflation remains elevated due to food and core components. As the policy rate increase in the US is transmitted to the UAE, bank asset quality deteriorates due to worsening debt burden and affordability.

The severity of the adverse scenario is calibrated based on anchor variables – non-oil real GDP and oil price – combined with projections from satellite models for the other variables. The severity is compared to historical stress episodes and varies based on the current state of the economy.

Table 2.2.1: Adverse Scenario Severity Measures for Selected Variables[37]

Variable names	Percent change from end-2021 to trough
Real estate price (Dubai)	-20.3%
Real estate price (Abu Dhabi)	-19.6%
UAE real GDP	-6.6%
UAE real non-oil GDP	-7.1%
Average oil price per barrel	-59.8%

Source: *CBUAE*

[36] *Typically, two scenarios – baseline and adverse – are considered for a stress test. Stress testing scenarios consist of scenario narratives and variable paths. The scenario narrative summarises shocks and associated propagation channels. Variable paths include quarterly projections over a three-year forecast horizon for 12 main macro-financial variables, covering key sectors of the UAE economy – real GDP, real non-oil GDP, UAE oil production, CPI, oil price, real estate prices, stock price indices, three-month EIBOR, and hotel occupancy rates. Participating banks have the option to use additional variables following CBUAE approval of the relevant scenario expansion methodology and scenario paths of additional variables.*

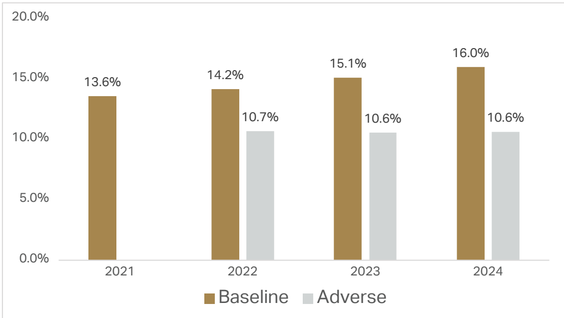
[37] *Scenarios start in Q1 2022 and end in Q4 2024. Trough typically occurs four to six quarters quarters after the start of the scenario, depending on the variable under consideration.*

The stress test scenarios are consistently used for bottom-up as well as top-down stress tests. A suite of top-down solvency and liquidity stress tests is regularly conducted to benchmark the bottom-up stress test results and update the results based on the evolving state of the economy. Top-down stress tests are conducted by the CBUAE based on regulatory and market data without banks' explicit participation in modelling and computations.

BOTTOM-UP STRESS TEST RESULTS

Banks would have an average CET-1 ratio of 15.1% in 2023 under the baseline scenario, well above the minimum CET-1 requirement. The average participating bank's CET-1 ratio would fall by 301 bps from 13.6% to a trough of 10.6% in 2023 under the hypothetical adverse scenario.

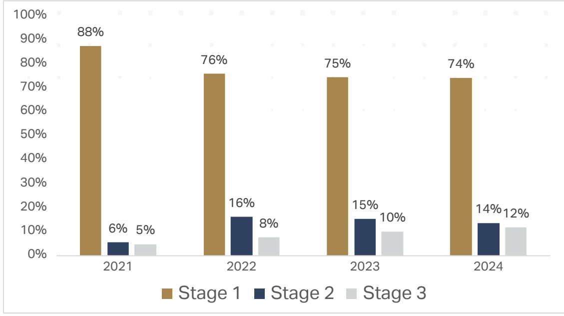
Chart 2.2.2: CET-1 Capital Ratios under the Stress Test



Source: *CBUAE*

The results showed a sizable increase in stage 2 and stage 3 exposures, mainly driven by higher default rates across all exposure classes under the adverse scenario.

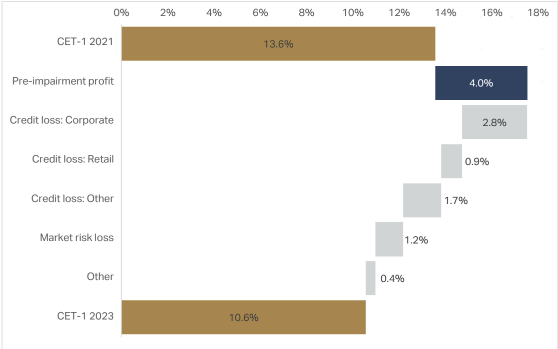
Chart 2.2.3: Total Exposure by IFRS 9 Stages in the Adverse Scenario



Source: *CBUAE*

In particular, higher defaults in corporate and retail segments contributed most to the increase of credit risk losses and the reduction of the CET-1 capital ratio. Other segments that contributed to credit risk loss included SMEs, state governments, banks and off-balance sheet items. Market risk losses were mainly driven by bank holdings of debt securities, which would, under severe interest rates, experience large losses, credit spreads shocks and the largest foreign counterparty defaults.

Chart 2.2.4: Decomposition of CET-1 Ratio Change 2021-2023



Source: *CBUAE*

In conclusion, the 2022 stress test results showed that the UAE banking sector can withstand significant shocks under the adverse scenario and maintain capital levels above the minimum requirement.

STRESS TEST REVIEW AND POLICY ACTIONS

In 2022, the CBUAE further enhanced its comprehensive review of bank submissions with an automated quality assurance tool covering data reconciliation, abnormality identification, and benchmarking with internal models.

The stress test results support and inform banking supervisors in determining whether a bank needs to take corrective measures to increase capital or liquidity buffers. The stress test results also serve as an input to inform the calibration of the Counter-Cyclical Capital Buffer and the use of other macro-prudential instruments to strengthen the financial system's resilience and reduce the likelihood of future financial crises.

TOP-DOWN LIQUIDITY STRESS TESTS

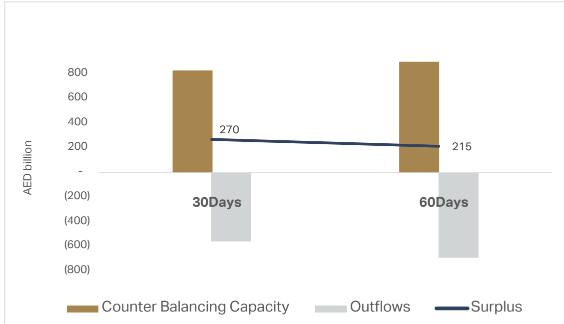
In 2022, the CBUAE performed regular top-down liquidity stress tests to identify and assess the impact of hypothetical short-term liquidity stress scenarios on banks. Liquidity stress tests provide a comprehensive assessment of bank resilience to withstand market-wide and idiosyncratic shocks by revealing the ability of a bank to generate sufficient funding to cover short-term payment obligations, arising from an unexpected liquidity drain, without taking recourse to outside liquidity support.

The CBUAE uses a survival-period methodology that is based on the liquidity coverage ratio, with 30-day and 60-day time horizons to assess liquidity risks. The scenario is calibrated based on UAE historical experience from recent global financial crisis episodes. It also incorporates other liquidity risk drivers such as asset quality deterioration, funding concentration and non-resident funding shocks.

As one of the CBUAE's risk monitoring measures, stress tests are conducted to ensure early detection and addressing of liquidity risks. The stress test covered all UAE national banks and results indicated the resilience of banks to potential short-term liquidity shocks.

The survival days analysis showed that the UAE banking sector could withstand the stress period (up to 60 days), despite a significant hypothetical outflow of deposits and limited access to market funding. Under the adverse scenario, UAE bank liquidity surplus, measured as the difference between available liquid assets post-haircuts and net cash outflows under stress, was at AED 270 billion and AED 215 billion in 30-day and 60-day horizons respectively. This translates to 55% and 44% of net liquid assets post haircut held by UAE banks pre stress.

Chart 2.2.5: Survival Days – UAE Banks



Source: *CBUAE*

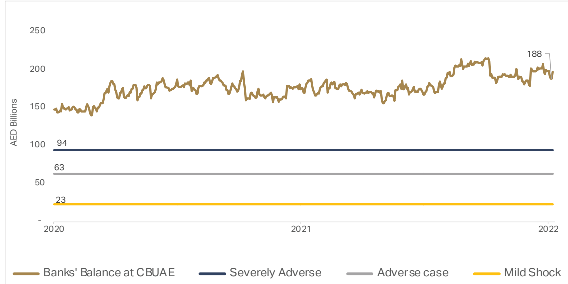
THE PAYMENT SYSTEM STRESS TEST

The CBUAE, as part of its internal risk management framework, continued the payment and settlement system stress test to evaluate the resilience of the UAE Fund Transfer System (UAEFTS). The CBUAE has established a robust framework to monitor and manage liquidity risk in compliance with Principles for Financial Market Infrastructures (PFMI) standards.

The availability and use of intraday liquidity can change in times of stress. The stress test has been developed through a sensitivity analysis of the worst net payment outflow and potential impact on payment system liquidity. It uses hypothetical stress shocks to determine the impact of the worst net payment outflow on UAEFTS liquidity levels and to evaluate whether banks would have sufficient balances with the CBUAE to manage intraday settlements arising from the highest historical aggregate payment obligation.

The stress test results showed the strong resilience of the system and sufficient liquidity levels, supported by the efficient liquidity management features of the UAEFTS, with the high payment capacity of participants during the observed periods. Furthermore, the impact of a severe hypothetical liquidity stress shock (very high net payment outflow by participants) was relatively mild, with net payment outflow far below banks' balances with the CBUAE.

Chart 2.2.6: Payment System Stress Test Results



Source: *CBUAE*

CLIMATE RISK SCENARIO ANALYSIS

Climate change risk could potentially disrupt business activities and have profound implications for financial institutions. Climate-related risks are typically classified as either physical or transition-related. Physical risk refers to the potential physical impacts from climate change events, such as extreme weather events, rising sea levels, and increased temperatures. Transition risk refers to the impacts from the policy shift towards a low-carbon economy, with reduced greenhouse gas emissions and increased reliance on renewable energy sources.

The UAE is home to many industries that could be vulnerable to the effects of climate change, such as oil and gas, transportation, construction and agriculture, among others. As potential losses from lending to climate-vulnerable sectors could affect financial stability in the UAE, the CBUAE has initiated plans for integrating climate-related risks into supervision and financial stability monitoring.

To assess potential vulnerabilities due to climate change, it is important to note the significant uncertainty in climate-related outcomes and their associated risks. Scenario analysis and stress testing are important forward-looking tools to assess the vulnerabilities of financial institutions to the highly uncertain impact of climate change risk. In 2022, the CBUAE conducted a pilot top-down stress test using three scenarios from the Network for Greening the Financial System (NGFS)[38] to perform a transition risk analysis of climate change impact across different economic sectors.

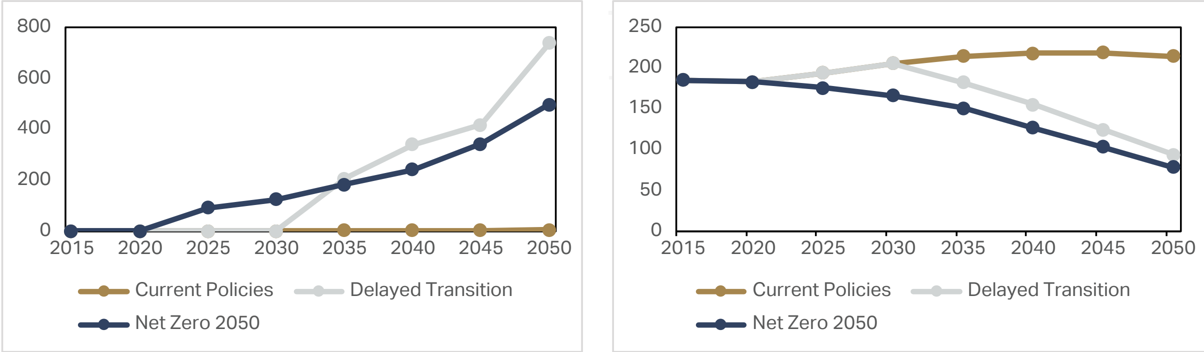
The selected scenarios are:

- Net Zero 2050 (+1.5ºC): global policy implementation (Paris Agreement) to combat climate change with relatively high transition risks but low physical risks.
- Delayed Transition (+2.0ºC): delayed policy implementation, creating a climate 'Minsky Moment' with high transition and physical risks.
- Current Policy: baseline scenario, with no or little change of current policy to combat climate change, causing high physical risks but minimal transition risk and with a global temperature increase of more than 3ºC.

The paths of certain variables from the NGFS scenarios were augmented with the CBUAE's satellite models to generate paths for additional variables relevant to the structure of the UAE's economy. For some variables, a straightforward link existed between the UAE and other country variables, for example the US policy rate and UAE EIBOR rate. In other cases, additional adjustments were applied to the series based on judgement to align the variables with observed values such as UAE GDP, oil price and UAE inflation rate.

[38] *NGFS Climate Scenarios for Central Banks and Supervisors, 2021, NGFS.*

Chart 2.2.8: UAE Carbon Prices (USD2010 per Metric Ton of CO_2) and World Oil Consumption (EJ/Year)



Source: *NGFS*

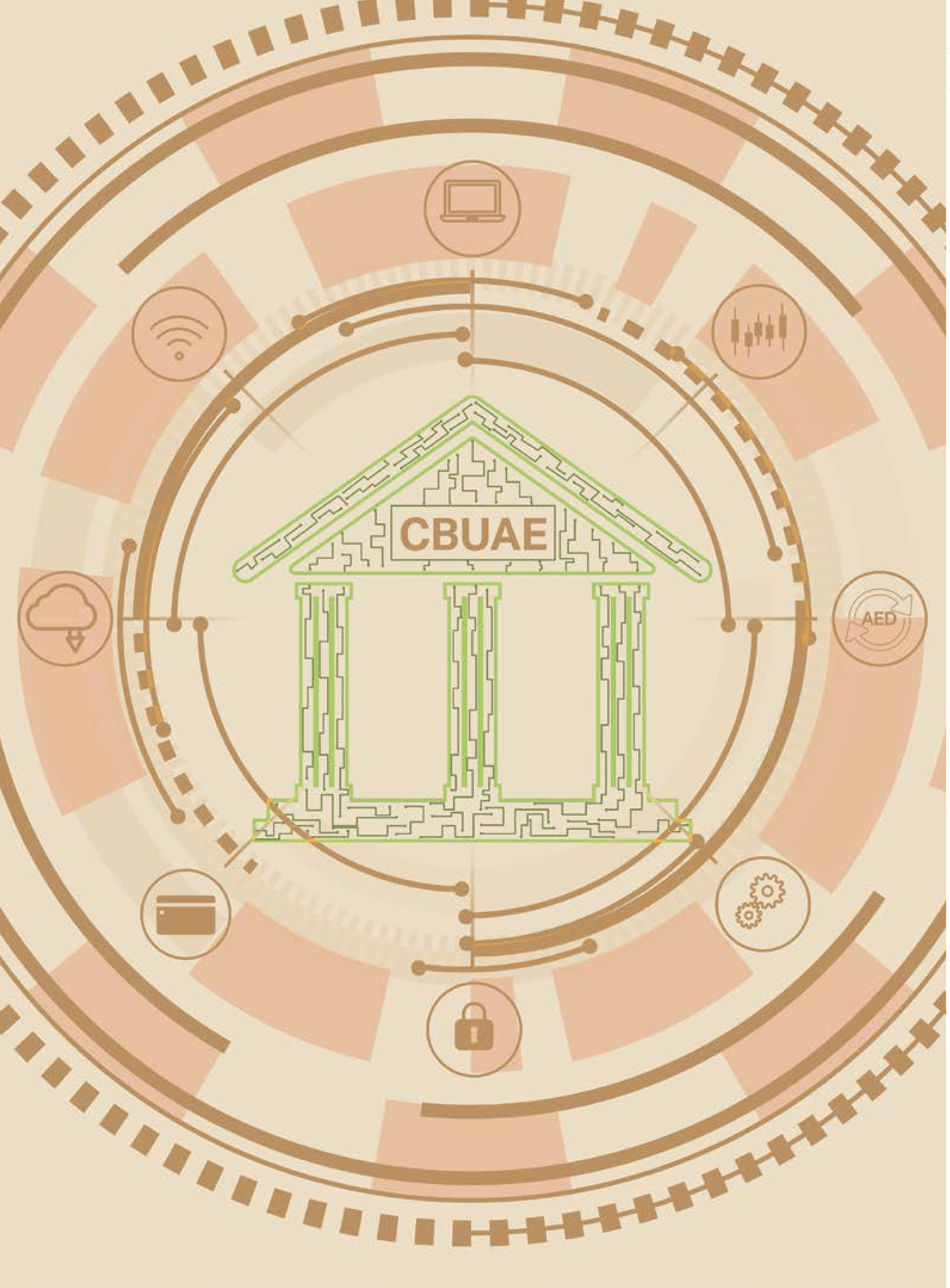
In these transition scenarios, a key assumption is a significant increase in oil prices driven by the imposition of a carbon price tax. Therefore, the high oil price paid by consumers in the transition scenarios cannot necessarily be interpreted as the price received by an oil producer or be assumed to directly translate into larger oil revenues. As a result, the scenarios' oil price increase has not been assumed to be fully passed through to UAE revenue. Moreover, transition to a net-zero-carbon economy implies a significant decline in world oil consumption, which is negatively reflected in UAE oil production and real oil GDP.

Based on research from DNB, emission-intensive sectors would face high direct costs and capital expenses under the transition scenarios.[39] Bank lending and holding of investment securities in emission-intensive sectors would be exposed to higher climate transition risk. To measure the intensity of emissions, DNB used sectoral CO_2 emission content based on global input-output models to obtain sector Transition Vulnerability Factors (TVFs). TVFs measure the vulnerability of specific economic sectors to transition risks based on embedded emissions for the sector.[40] TVFs are useful to identify the differences in exposures across banks to more vulnerable sectors and project stressed sector gross values added for the climate-sensitive sectors.

In the stress test, the CBUAE used internal satellite models to link NGFS scenarios to bank risk parameters and then calculated credit risk losses that banks would incur over a 30-year time horizon under a static balance sheet assumption.[41] Additional stress was applied to the exposures in vulnerable high-emission sectors based on TVFs that resulted in a relatively high increase in the probability of defaults and credit risk losses in those sectors. Overall, aggregate corporate default rates would increase by 21% in the Net Zero 2050 and by 27% in the Delayed Transition scenarios compared to the baseline Current Policies scenario in the five years following the transition shocks, which shows the similar magnitude of default rates increase in the period following the 2014 oil price drop.

The use of a long-time horizon considerably increases the uncertainty surrounding the quantifications of both exposure sizes and potential losses. To address this issue, the CBUAE plans to conduct bottom-up and top-down climate risk stress tests over a shorter time horizon. This would involve collecting granular data from UAE banks and developing UAE-specific climate risk stress testing methodology and scenarios. The stress test results would help in analysing climate-related risks that are relevant to a bank's portfolio and then aggregating the results to estimate the overall impact on the UAE banking system.

[39] *An Energy Transition Risk Stress Test for the Financial System of the Netherlands, 2018 - De Nederlandsche Bank.*
[40] *Embedded emissions consider direct carbon emissions as well as indirect emissions through production inputs.*
[41] *Satellite models are econometric models based on Bayesian model averaging algorithm that optimally combine forecasts from an exhaustive list of time series linear regression models under additional sign constraints on model parameters (Gross and Pobliacion, 2019).*



03 UAE NON-BANK FINANCIAL INSTITUTIONS AND FINANCIAL INFRASTRUCTURE ASSESSMENT

3.1 NON-BANK FINANCIAL INSTITUTIONS

The key non-bank financial institutions (NBFIs) licenced by the CBUAE comprise insurance companies, exchange houses and finance companies. The aggregate solvency position of the UAE's insurance companies remained adequate. The sector's business growth continued as gross written premiums expanded, surpassing pre-pandemic levels. The aggregate profitability level declined due to weaker investment performance, linked to high inflation and rising interest rates affecting the performance of the sector, particularly through a decline in the value of investment assets. In contrast, net underwriting income improved as premiums growth outpaced claims payout. The exchange houses sector remained resilient, amidst the steady upturn in business activities as the UAE economy recovered. Whilst income from core activities of exchange houses increased, the aggregate expenses declined along with more optimised cost structures. The total assets of finance companies contracted further in 2022. The sector maintained adequate overall capital and liquidity buffers. Although the majority of finance companies recorded a profit last year, profitability and asset quality remained under pressure.

UAE INSURANCE SECTOR

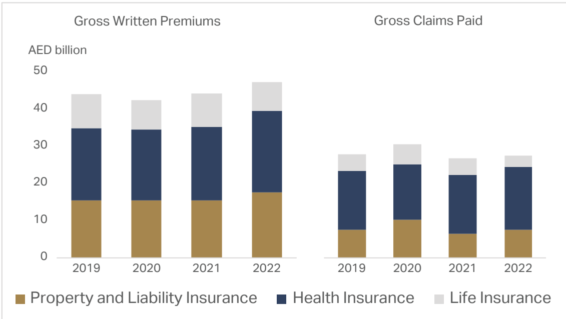
SOLVENCY

The UAE insurance sector comprised 62 insurance companies, with an asset size of AED 119.1 billion as of end of 2022. The aggregate solvency position of insurers remained adequate with a Solvency Capital Requirement (SCR) of 193.8%, compared to a minimum of 100%. The SCR declined 4.1 percentage points from the previous year due to the larger increase in required capital compared to available own funds. The increase in required capital was mainly from credit risk and underwriting risks on the back of claims and expense inflation.

GROSS WRITTEN PREMIUMS AND CLAIMS PAYOUT

Gross written premiums (GWP) of the insurance sector continued to grow at 6.6% in 2022 to AED 47.2 billion, surpassing pre-pandemic levels. The growth was mainly driven by property and liability insurance followed by health insurance, which grew 15.0% and 9.7%, respectively, during the year. In contrast, life insurance premiums declined by 15.3%. The largest premiums categories were health insurance at 46.2% of total premiums, followed by property and liability insurance at 37.7%, and life insurance at 16.1%.

Chart 3.1.1: Gross Written Premiums and Claims Paid



Source: *CBUAE*

Aggregate gross claims paid increased 2.6% during the year, led by property and liability insurance (16.9%) and health insurance claims (2.6%). Life insurance claims payout declined 31.1%.

PROFITABILITY

The overall profitability of the insurance sector declined in 2022 amidst weaker investment performance. Total profit contracted by 25.1% to AED 1.9 billion, underpinned by net unrealised losses from bonds and equity investments. This is due to the higher bond yields amidst a rising interest rates environment and weaker performance of global equities during the year. Conversely, net underwriting income improved on the back of strong premium growth compared to claims payout during the year. As a result, the gross loss ratio improved, edging lower to 54.2%.

INVESTMENT PORTFOLIO

Insurers are susceptible to financial market volatility due to sizeable equity and bond investments. The UAE insurance sector's investment portfolio amounted to about AED 62.8 billion in 2022. Equity investments are the largest share of the total investment portfolio at 35.0%, followed by debt securities at 29.9%, cash and deposits at 27.7%, real estate investments at 5.9% and the remaining amount being other assets.[42]

EXCHANGE BUSINESSES

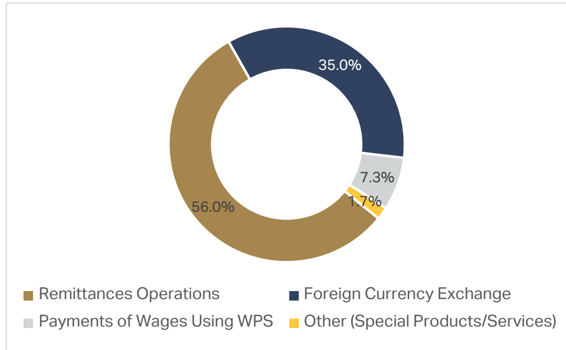
OVERVIEW OF EXCHANGE BUSINESSES

The CBUAE supervises 84 licenced exchange houses in the UAE in 2022. As the UAE economy continued to recover during 2022, the exchange business sector remained profitable, driven by an upsurge in remittance operations and foreign currency exchange. The CBUAE remained cognisant of the operating landscape and continued to strengthen the oversight of exchange houses through the year.[43]

PRODUCTS AND SERVICES OF EXCHANGE BUSINESSES

The core income of exchange houses primarily comes from remittance operations, foreign currency exchange and wage payments administration. Core income from operations in the UAE increased by 19.7% in 2022, reaching AED 2.9 billion, after the decline driven by the challenging environment conditions that affected the sector in 2020 and the repercussions of the COVID-19 pandemic.[44] Although total core income from operations in the exchange house sector increased, it remained below pre-pandemic levels.

Chart 3.1.2: Core Income of Exchange Businesses



Source: *CBUAE*

[42] *Investment in associates, accrued investment income, loans secured by life policies and derivative financial instruments.*
[43] *The UAE ranks as the second-largest source of outbound remittances globally after the US, highlighting the prominence of the UAE's exchange businesses domestically and internationally. See: World Bank. (2020). Migration and Remittances Data.*
[44] *During 2020, one of the largest exchange houses operating in the UAE discontinued operations.*

Foreign Currency Exchange

Core income from the foreign currency exchange business, which accounted for 35.0% of the total core income of exchange houses, continued to increase considerably by 58.0% in 2022 to AED 1.0 billion, maintaining the highest growth in core income operations among other business activities, and surpassing pre-pandemic levels. The foreign currency exchange business fully recovered following the sharp downturn caused by the pandemic.

Remittance Operations

Core income from remittance operations increased 3.9% in 2022 reaching AED 1.6 billion and reversing the decline in the previous year. Remittance operations remained the largest source of income in exchange house business activities, accounting for 56.0% of the total core income of the sector.

Wage Payments Administration

Payments of wages through the Wages Protection System (WPS)[45] accounted for 7.3% of total core income. Core income from administration of wage payments reached AED 0.2 billion and expanded 20.1% from last year.

AGGREGATE EXPENSES

The exchange house sector recorded a decline of 9.1% in aggregate expenses reaching AED 2.1 billion. The segment improved through lower non-interest expenses and interest expenses, signalling a more optimised cost structure.

NET PROFIT

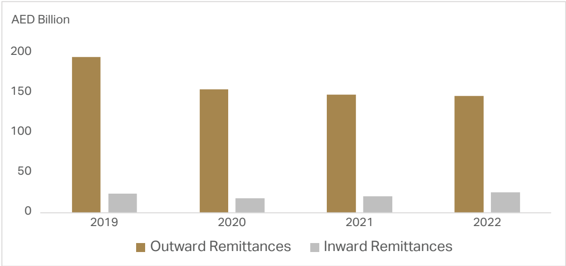
The exchange house sector recorded an upturn in net profits to AED 0.8 billion, driven by higher income from core activities and lower aggregate expenses during the year.

REMITTANCE OPERATIONS OF EXCHANGE BUSINESSES

Outward remittances through exchange houses continued to moderate for the third consecutive year, recording a decline of 1.4% to AED 145.7 billion. Outward remittances consisted mainly of personal remittances at AED 105.9 billion, followed by trade remittances at AED 28.5 billion, other remittances at AED 10.6 billion, and investment remittances at AED 0.7 million. The top three countries for outward remittances were India with 30.5% of the total, Pakistan 12.2%, and the Philippines 8.4%.

On the other hand, inward remittances through exchange houses recorded an upturn of 23.0% to AED 25.3 billion during 2022. The largest inward remittances were trade remittances at AED 13.4 billion, followed by personal remittances of AED 6.5 billion, other remittances of AED 4.8 billion, and investment remittances of AED 0.6 million. The top three countries for inward remittances were Oman with 29.7% of total, Kuwait 14.4%, and Jordan 6.2%.

Chart 3.1.3: Remittances through Exchange Houses



Source: *CBUAE*

[45] *Developed by the CBUAE, the WPS is an electronic salary transfer system that allows institutions to pay wages via banks, exchange houses, and other authorised institutions.*

CAPITAL OF EXCHANGE BUSINESSES

The aggregate capital position for the exchange business sector increased by 66.3% during 2022 to AED 3.9 billion. The sector's capital accounted for 48.1% of the sector's total assets of AED 8.3 billion as of December 2022.[46]

FINANCE COMPANIES

OVERVIEW OF FINANCE COMPANIES

The total assets of finance companies continued to decline, whilst profitability and asset quality remained under pressure in 2022. Nonetheless, the sector as a whole maintained adequate capital and liquidity buffers, although there were some notable differences between individual finance companies.

ASSETS OF FINANCE COMPANIES

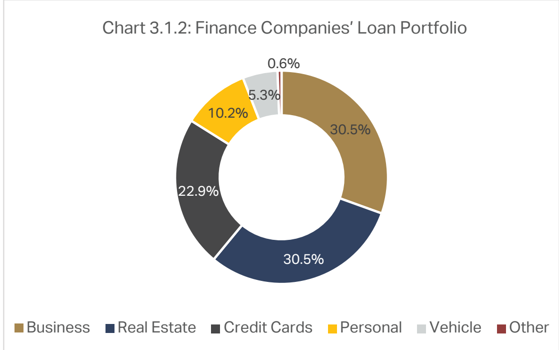
The number of active finance companies operating in the UAE decreased from 19 to 16, of which three were owned by banks. Total gross assets of finance companies declined by 8.6% during 2022 to AED 25.3 billion. Loans remained the main component of finance companies' assets, accounting for 55.7% of total assets in 2022.

LENDING ACTIVITIES

After a 12.8% reduction of underwriting activities in 2021, finance company lending in 2022 declined further by 7.2% to AED 14.3 billion.

The lending portfolio of finance companies consisted mainly of business loans and real estate loans, which combined accounted for close to two-thirds of the total loan portfolio, followed by credit cards and personal loans. Whereas the share of vehicle loans grew from 3.1% to 5.3% in 2022, all other key loan segments recorded declines.

Chart 3.1.4: Finance Companies' Loan Portfolio



Source: *CBUAE*

[46] *The required minimum paid-up capital for exchange houses based on CBUAE regulation is AED 50 million for entities incorporated as limited liability companies. For exchange houses operating as sole proprietorships or partnerships, the minimum paid-up capital ranges from AED 2 million to 10 million depending on the type of licence.*

LIABILITY AND DEPOSITS

Finance companies are prohibited, as per CBUAE regulation, from taking retail deposits. Corporate deposits, funding from banks and related parties are thus their main sources of funding. In 2022, the total funding of finance companies further contracted by 19.8% to AED 8.3 billion from AED 10.4 billion in 2021.

LIQUIDITY

The average Liquid Assets Ratio[47] of finance companies further improved in 2022 and reached 39.8%. The increase in liquidity was achieved by continuing liquidity measures taken by finance companies to mitigate COVID-19 repercussions, coupled with weaker demand for new financing during the year.[48]

ASSET QUALITY

The asset quality of finance companies continued to deteriorate in 2022. The average Net NPL ratio[49] increased to 8.6% in 2022, from 7.3% in 2021.

At the same time, loan provisions, including specific and general provisions, declined by 10.1% to AED 3.5 million. Consequently, the Provision Coverage fell from 95.1% to 92.9%.

CAPITAL ADEQUACY

Overall, the finance companies sector remained adequately capitalised in 2022, with an overall capital-to-total-assets ratio of 46.5%, up 1.7 percentage points from last year due to a rise in aggregate capital funds.[50]

PROFITABILITY

After a profit of AED 1.4 billion in 2021, the finance company sector's 2022 profit dropped to AED 3.0 million. However, this sectoral result hides the diverse profitability dynamics among finance companies. Whilst the majority of finance companies generated profits, a small number of loss- making companies were responsible for the relatively poor industry-wide result.

[47] This ratio is calculated by dividing liquid assets, as defined in Art. 12.1 of the Finance Companies Regulation, by net aggregate liabilities.
[48] Bank-owned finance companies reported a significantly higher Liquid Assets Ratio than non-bank owned institutions.
[49] The Net NPL ratio is defined as non-performing loans divided by gross loans; interest in suspense (IIS) and specific provisions are deducted from both numerator and denominator.
[50] Pursuant to Art. 11.1 of the Finance Companies Regulation, aggregate capital funds consist of paid-up capital, reserves and retained earnings.

3.2 FINANCIAL INFRASTRUCTURE

In 2022, the CBUAE pursued efforts to ensure that payment systems are sound, efficient and resilient, given their key role as the backbone of the economy. Payment systems operated by the CBUAE exhibit a high level of compliance with PFMI principles, based on the latest self-assessment completed in 2021. In addition, a stress test was undertaken on one of the UAE's key payment systems (see Section 2.2). A total of 278 million transactions amounting to AED 14.5 trillion were processed and settled through payment systems during the year. 2022 also witnessed an important transformation toward digital forms of payments.

PAYMENT AND SETTLEMENT SYSTEM

THE OPERATIONAL CAPACITY OF THE UAE PAYMENT SYSTEMS

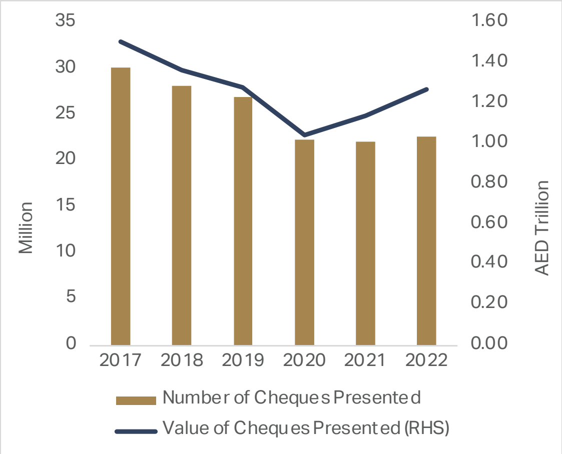
Multiple payment systems, which are categorised as a Large-value Payment Systems (LVPS) or a Retail Payment Systems (RPS), are operated by the CBUAE.

Table 3.2.1: UAE Payment Systems Overview

Large-Value Payment Systems (LVPS)	Retail Payment Systems (RPS)
A Large Value Payment System (LVPS) is a funds transfer system through which large-value and/or high-priority funds transfers are made between the participating entities in the system for their own account, or on behalf of their customers. The CBUAE owns and operates such a system known as the UAE Funds Transfer System (UAEFTS).	A Retail Payment System (RPS) typically handles a large volume of relatively low-value payments in such forms as cheques, credit transfers, direct debits and card payment transactions. The CBUAE owns, operates and manages the following Retail Payment Systems: • Image Cheque Clearing System (ICCS) • UAE Direct Debit System (UAEDDS) • UAE Payment Gateway System (UAEPGS) • UAE Switching System (ATM-Sharing Scheme) (UAESWITCH) • UAE Wages Protection System (UAEWPS) • Immediate Payment Instruction (IPI)

ICCS processed 22.7 million cheques worth AED 1.27 trillion, increases of 2.5% and 11.6% compared to last year, respectively.

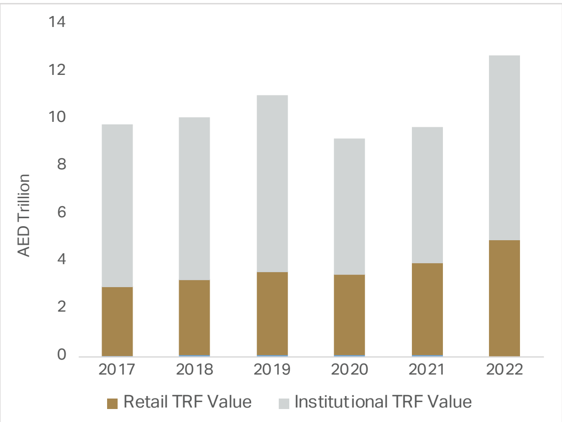
Chart 3.2.1 Presented Cheques through ICCS



Source: *CBUAE*

UAFTS surpassed pre-pandemic levels in 2022, with both retail and institutional components registering robust gains. Retail UAFTS transfers were worth AED 4.9 trillion, based on 74.5 million transactions in 2022, a 26.9% increase in value and 23.1% increase in volume, respectively, compared to the previous year. Similarly, institutional transfers amounted to AED 7.8 trillion, based on 0.6 million transactions, a 36.2% increase in value and 17.9% increase in volume, respectively.

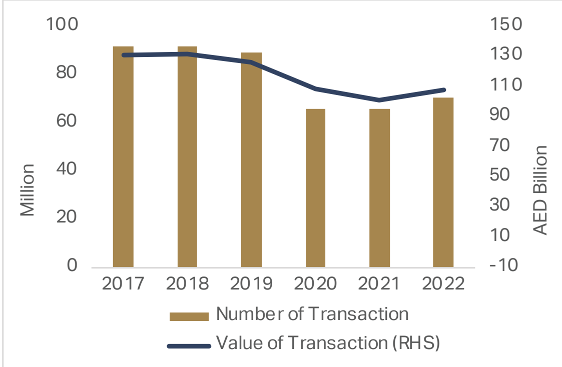
Chart 3.2.2: Value of Transactions through FTS System



Source: *CBUAE*

UAE SWITCH volume and value increased approximately by 7%, reaching 70.5 million transactions worth AED 108 billion, as compared to 66 million transactions worth AED 101 billion in 2021.

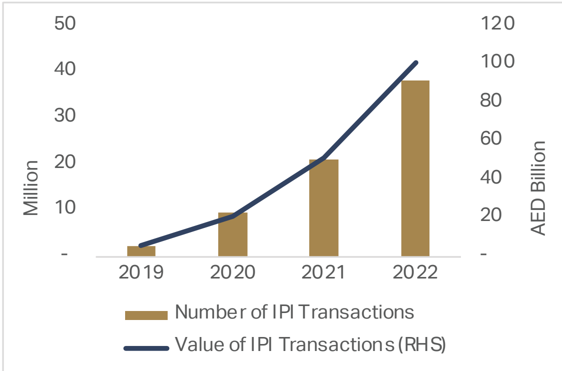
Chart 3.2.3: UAE SWITCH value and Number of Transactions



Source: *CBUAE*

The number of transactions on IPI increased noticeably to 38.3 million transactions amounting to AED 101.2 billion in 2022, compared with 21 million transactions amounting to AED 51.7 billion in 2021.

Chart 3.2.4: IPI Value and Number of Transactions



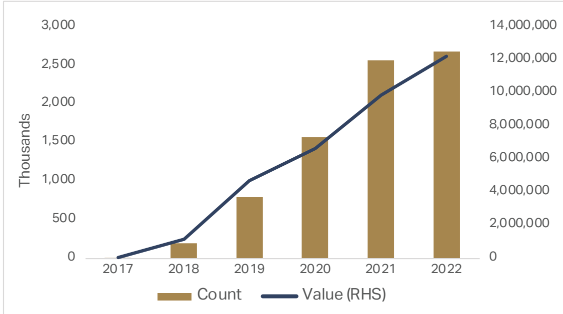
Source: *CBUAE*

UAEPGS was introduced in 2016 to allow customers of merchants connected to the service to pay their bills online, either by direct debit (through their bank account via internet banking).

The system expressed a significant increase in usage immediately after its release and the numbers started to multiply. In 2020, the system recorded nearly 1.5 million transaction counts worth AED 6.6 billion. The system further achieved another milestone in 2021 by recording around 2.5 million transactions worth AED 9.8 billion.

In 2022, UAEPGS processed 2.7 million transactions worth AED 12.2 billion evidencing an increase of 4% in the count and 24% in value compared to the previous year.

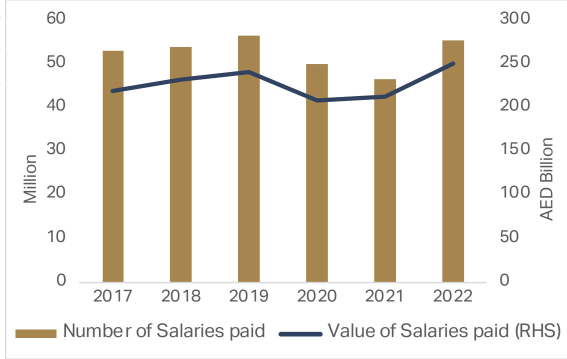
Chart 3.2.5: Transactions processed using UAEPGS



Source: *CBUAE*

The average number of registered employees on UAEWPS increased to 5.2 million in 2022 from 4.2 million in 2021. The total number of salary payments increased to 55.5 million in 2022 from 46.5 million in 2021, whilst the total amount of salary payments expanded to AED 249 billion from AED 212 billion. Moreover, the number of employers registered on 31 December 2022 in WPS increased to 275,680 from 216,690, an increase of 27% compared to 2021.

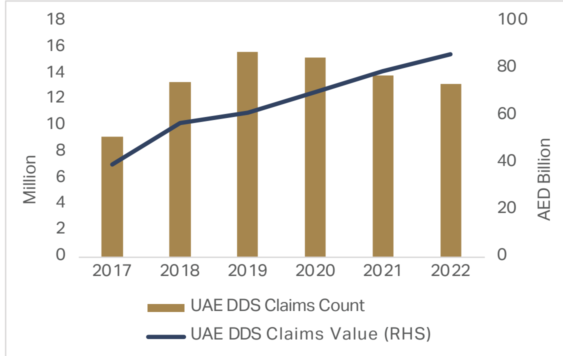
Chart 3.2.6: Transactions through Wage Protection System



Source: *CBUAE*

UAEDDS performed 13.3 million transactions worth AED 86 billion in 2022, a 4.2% decrease in the number of transactions, whilst the value of transactions increased by 9.4%.

Chart 3.2.7: Claims through UAE Direct Debt System



Source: *CBUAE*

To strengthen the acceptance of electronic means of payments, the CBUAE adopted three significant additional measures in 2022 to encourage their use.

The limit on transfers using IPI was increased to AED 25,000 from AED 10,000. The threshold for contactless card POS transactions was raised to AED 500 from AED 300 to ease processing and reduce customer waiting times. Interchange Reimbursement Fees (IRF) for debit card POS transactions were capped at a reduced value, requesting the benefit be passed on to merchants.

PAYMENT SYSTEMS RISK MITIGATION

Given that the payment system is the backbone of the UAE's financial infrastructure, the CBUAE is responsible for ensuring its safe and smooth functioning for all participants. The CBUAE has put in place a comprehensive set of measures to manage risks in payment systems owned and operated by CBUAE. This approach includes close monitoring and supervision of payment systems to assess associated risks and taking appropriate measures to mitigate risks. Payment systems operated by the CBUAE exhibit a high level of compliance with PFMI principles, based on the latest self-assessment completed in 2021.

The CBUAE also establishes and enforces risk management policies and procedures such as setting credit limits and collateral requirements to manage credit risk, and ensuring that adequate liquidity arrangements are in place to manage liquidity risks.

The CBUAE requires payment systems to have robust operational risk management frameworks and business continuity plans to ensure that critical functions operate in the event of disruption or disasters.

Cybersecurity controls have also been established and enforced to protect payment systems against cyber threats and ensure the confidentiality, integrity, and availability of payment systems data and information.

Collaboration with other stakeholders, such as other central banks, regulators, and payment system operators, is used to ensure that payment systems operate in a coordinated and effective manner.

With this risk-based approach, the CBUAE ensures the safety and efficiency of payment systems and contributes to overall financial stability.

FINANCIAL MARKET INFRASTRUCTURE

National Payment Systems Strategy

The CBUAE made significant progress in 2022 in implementing key components of the National Payments Systems Strategy (NPSS). NPSS was developed in 2019 and is aimed at designing world-class Financial Market Infrastructure (FMI) that provides innovative payment solutions and enhances customer experience.

In particular, significant progress was made with the Instant Payment Platform (IPP), with the soft go-live of the system planned for H12023. IPP is designed to facilitate instant and faster payments and allow for the transfer of funds 24/7, using bank accounts, mobile numbers, identification numbers, and other types of identifiers. The platform will also provide QR code-based payments, and electronic direct debit operations (e-DDA), in addition to electronic cheques (e-cheques).

The innovative payment services to be made available on IPP, starting in 2023 for various types of users will contribute to strengthening the position of the UAE as a leading regional financial centre from the perspective of innovation and compliance with best practices and international standards. Moreover, the platform will provide an easy, fast and smooth experience that meets the needs of consumers and companies, and hence contributes to the development of the financial infrastructure of the UAE.

In parallel, the CBUAE completed the formal establishment of a subsidiary in 2022 under the commercial name 'Al-Etihad Payments', which will be in charge of FMI development and operation at the national level. This will further enhance the efficiency of payment systems operation and lay the ground for more consolidation of national FMI.

Domestic Card Scheme

As part of its plan to ensure more localisation of payment systems operation, the CBUAE in 2022 began development of the UAE's national domestic card scheme. This is also expected to help reduce the economic cost of electronic payments, enhance oversight effectiveness and ensure payment-related data local residency.

The CBUAE is adopting a phased approach in implementing the scheme, and aims to first enable the routing of POS domestic transactions locally through the UAESWITCH in Phase 1, followed by designing the specifications and launching the full-fledged UAE-branded domestic cards in Phase 2.

PROMOTING CROSS-BORDER PAYMENTS

Readiness to Join the GCC-RTGS and BUNA

To promote cross-border trade and the UAE's role as a financial hub, the CBUAE worked actively in 2022 with the Gulf Payment Corporation and the country's financial community to ensure readiness for joining the GCC-RTGS system. In this regard, multiple testing activities were completed in 2022 with other GCC central and commercial banks participating in the system, with the target date to effectively join the system set for March 2023.

The CBUAE progressed also with its plan to onboard UAE-based banks in the Arab Regional Payment System (BUNA). The CBUAE was the first central bank to facilitate the provision of liquidity in its currency to participants in the system. In 2022, a number of banks had joined the system, and AED became the mostly used settlement currency in BUNA, with the volume of settled transactions consistently increasing.

CYBER RISK

As a result of significant digitalisation and interconnectedness, the global financial system relies heavily on information and communication technology (ICT) infrastructures to perform critical functions, including but not limited to payment and settlement systems. In addition, as the development of innovative technologies continues at pace, cyber threats, incidents and associated cyber costs have spiked in recent years.[51]

Without appropriate controls, cyber incidents and the resulting disruption at the individual firm level can spread further and more rapidly than other operational risks, threatening financial stability. As a result, it is critical to ensure that all key infrastructures performing critical functions of the financial system remain resilient, in order to prevent attacks on the weakest link.

Whilst cyber incidents cannot be completely prevented, effective risk management can minimise disruption and safeguard critical financial services during cyber incidents. Assuming that cyber incidents will occur, it is crucial to continuously monitor existing threats, identify new ones and consistently recover and learn from such incidents in order to refine cyber risk management processes.

To support cyber resilience in the UAE, the CBUAE – through its Networking and Cyber Security Operations Centre – facilitates sharing of information and threat intelligence, coordinates possible incident response, periodically evaluates the cyber resilience of regulated entities and helps develop the capacity to respond to cyber incidents.

At the system-wide level, understanding how cyber incidents can unfold, transmit and amplify through the financial sector is key to effective mitigation and recovery. Building on earlier work in 2021, the CBUAE supervised a large-scale cyber war-game simulation exercise in late 2022 in partnership with the UAE Banks Federation, UAE financial institutions, and UAE government agencies. The 2022 exercise saw increased participation from cybersecurity teams of additional large and medium-sized banks, as well as representatives from other GCC central banks attending as observers.

Unlike traditional penetration testing, cyber war-games are designed to simulate realistic cyberattacks and challenge existing processes of identifying, detecting, and responding to cyber incidents in real-time. Scenario design was informed by the latest techniques, methods and procedures used by adversaries and helped identify the factors that constitute a source of threat. An effective response to cyber incidents requires coordinated work from a variety of specialist teams within the entities as well as sufficient oversight from senior management. This structure was replicated in the war-game by the participating banks.

Overall, the exercise demonstrated the capacity of the participants to effectively respond to real-world cyber threats and, most importantly, provided valuable experience to enhance future readiness and cooperation.

In order to effectively meet its objective of maintaining financial and monetary stability, the CBUAE is committed to continuously enhance the cyber resilience of the UAE financial system as technologies and cyber-attacks increase in number and sophistication globally.

[51] *The business and academic community considers cyber security risks among the top five risks in the UAE and globally, according to the World Economic Forum's Global Risk Report 2023, as well as several previous reports.*

ANNEX - KEY BANKING INDICATORS

	2020	2021	2022
Capital Adequacy			
CET-1 capital to RWA ratio	14.8%	14.2%	14.4%
Tier 1 capital to RWA ratio	17.0%	16.0%	16.2%
Total capital to RWA ratio	18.1%	17.1%	17.4%
Profitability			
ROA	0.7%	1.2%	1.4%
Cost-to-income ratio	37.0%	36.4%	36.6%
Liquidity and Funding			
Eligible Liquid Asset Ratio	18.4%	19.6%	19.1%
Advances to Stable Resources	77.6%	77.3%	75.6%
Lending Indicators			
Loan-to-deposit	95.0%	90.0%	84.6%
Loan-to-deposit in foreign currency	73.0%	72.0%	63.3%
Asset Quality			
Net NPL ratio	3.6%	3.3%	3.0%
Specific provision coverage ratio	57.7%	60.0%	60.4%
Total Provision coverage ratio	86.1%	87.0%	88.6%

LIST OF ABBREVIATIONS

ADX	ABU DHABI SECURITIES EXCHANGE
AML/CFT	ANTI-MONEY LAUNDERING / COMBATING THE FINANCING OF TERRORISM
ASRR	ADVANCES TO STABLE RESOURCES RATIO
BPS	BASIS POINTS
BUNA	THE ARAB REGIONAL PAYMENT SYSTEM
CAR	CAPITAL ADEQUACY RATIO
CBUAE	THE CENTRAL BANK OF THE UAE
CCB	CAPITAL CONSERVATION BUFFER
CCYB	COUNTERCYCLICAL CAPITAL BUFFER (CCYB)
CET-1	COMMON EQUITY TIER-1
CFT	COMBATING THE FINANCING OF TERRORISM
COVID-19	CORONAVIRUS DISEASE 2019
CPI	CONSUMER PRICE INDEX
CRWA	CREDIT RISK-WEIGHTED ASSETS
DBR	DEBT BURDEN RATIO
DFM	DUBAI FINANCIAL MARKET
DNB	DE NEDERLANDSCHE BANK
D-SIBS	DOMESTIC SYSTEMICALLY IMPORTANT BANKS
E-DDA	ELECTRONIC DIRECT DEBIT AUTHORISATION
EIBOR	EMIRATES INTERBANK OFFERED RATE
ELAR	ELIGIBLE LIQUID ASSET RATIO
ESG	ENVIRONMENTAL, SOCIAL AND GOVERNANCE
FATF	FINANCIAL ACTION TASK FORCE
FMI	FINANCIAL MARKET INFRASTRUCTURE
GDP	GROSS DOMESTIC PRODUCT
GRES	GOVERNMENT-RELATED ENTITIES
GWP	GROSS WRITTEN PREMIUMS
HQLA	HIGH QUALITY LIQUID ASSETS
ICCS	IMAGE CHEQUE CLEARING SYSTEM
ICT	INFORMATION AND COMMUNICATION TECHNOLOGY
IMF	INTERNATIONAL MONETARY FUND
IPI	IMMEDIATE PAYMENT INSTRUCTION
IPP	INSTANT PAYMENT PLATFORM
IRF	INTERCHANGE REIMBURSEMENT FEES
LCR	LIQUIDITY COVERAGE RATIO
LTV	LOAN-TO-VALUE
LVPS	LARGE-VALUE PAYMENT SYSTEMS
NBFIS	NON-BANK FINANCIAL INSTITUTIONS
NFSR	NET STABLE FUNDING RATIO
NGFS	NETWORK FOR GREENING THE FINANCIAL SYSTEM
NPF	NET NON-PERFORMING FINANCING
NPLS	NON-PERFORMING LOANS
NPSS	NATIONAL PAYMENTS SYSTEMS STRATEGY
PFMI	PRINCIPLES FOR FINANCIAL MARKET INFRASTRUCTURES
POS	POINT OF SALE
PSIA	PROFIT-SHARING INVESTMENT ACCOUNTS
ROA	RETURN ON ASSETS
ROE	RETURN ON EQUITY
RPS	RETAIL PAYMENT SYSTEMS
SCA	SECURITIES AND COMMODITIES AUTHORITY
SCR	SOLVENCY CAPITAL REQUIREMENT
SMES	SMALL AND MEDIUM ENTERPRISES
TESS	TARGETED ECONOMIC SUPPORT SCHEME
TVFS	TRANSITION VULNERABILITY FACTORS
UAE	THE UNITED ARAB EMIRATES
UAE MER	UAE MUTUAL EVALUATION REPORT
UAEDDS	UAE DIRECT DEBIT SYSTEM
UAEFTS	UAE FUNDS TRANSFER SYSTEM
UAEPGS	UAE PAYMENT GATEWAY SYSTEM
UAESWITCH	UAE SWITCHING SYSTEM
UAEWPS	UAE WAGES PROTECTION SYSTEM
WPS	WAGES PROTECTION SYSTEM