

A new era of banking

Banking perspectives Jordan 2023

September 2023 KPMG Professional Services

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Foreword

Despite global challenges, the banking sector has shown stability with increased net profits, total assets, and customer deposits. In this second edition of Banking perspectives: Jordan, we will consider the impact of rising market interest rates on loan duration and expected credit losses coverage ratio, as well as the industry's robust granting and collection strategies.

Notably, there has been a significant increase in net profits in FY2022 by approximately 42 percent compared to FY2021, and total assets have grown by 5.9 percent since 31 December 2021, demonstrating the sector's stability.

The financial landscape is undergoing a transformative evolution as fintech is increasingly integrating with legacy financial systems, requiring both substantial technological investments and regulatory support. In Jordan, notable advancements have been made, including the establishment of dedicated fintech entities by banks and innovative mobile applications offering enhanced convenience and personalized data-driven services. The upcoming wave of fintech innovation is anticipated to address critical global shifts, such as demographic impacts, the low carbon economy, automation, and emerging markets integration.

Jordan is positioned as a forwardlooking player, embracing a profound commitment to embedding sustainability within the banking and finance sector. This move aligns with the surging momentum of the environmental, social, and governance (ESG) agenda across the Middle East. Government initiatives and rising demands for transparency in sustainability reporting are major

factors driving this trend forward. However, the complexity of sustainability-related topics remains a central challenge in reporting, as it complicates the process of data collection and coordination.

In this dynamic environment, auditing quality has gained paramount importance. Businesses navigating rapid changes and disruptions must adhere to rigorous standards and meet stakeholder expectations. Technological innovations, novel approaches, cultural shifts, and a focus on talent are converging to shape an auditing framework that is both efficient and precise. This framework empowers firms to confront challenges head-on and deliver audits that excel concerning quality, timing, and deliverables.

The final stage of the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) is underway, aiming to address tax challenges stemming from the digitalization of the global economy. With the enactment of global model GloBE rules. Jordan stands among 135 nations readying themselves for forthcoming reforms. The establishment of a 15 percent global minimum corporate tax rate and the authority to impose taxation bolster nations' ability to secure fair taxation from multinational enterprises.

The impending launch of Web 3.0 is set to pave the way for banking in the metaverse—an intriguing next step. However, significant challenges continue to exist in areas that require collaboration and consensus on standards. rules, and protocols. Key questions loom, including how to verify the provenance of virtual identities and connect them with real-world individuals. While



The journey toward a more inclusive financial landscape is underscored by ESG agendas, innovation and robust regulatory reforms.

technological expertise exists, overcoming these challenges demands collective efforts.

The integration of fintech into Jordan's traditional financial systems is a trend well underway that will continue to demand significant investments from incumbents and regulatory backing from the Central Bank of Jordan (CBJ). Jordan shows a proactive stance by fostering fintech innovations and embracing sustainable financial practices. The journey toward a more inclusive financial landscape is underscored by the ESG agenda, innovation and robust regulatory reforms.



Hatem Kawasmy Managing Partner



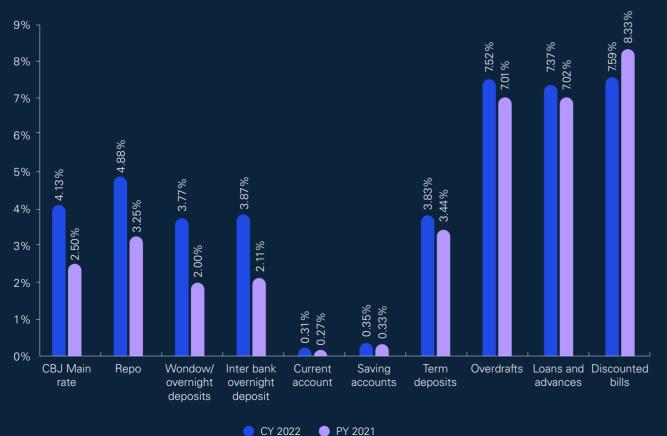
Ovais Shahab Head of Financial Services

Financial performance indicates growth in high-yield assets and profitability

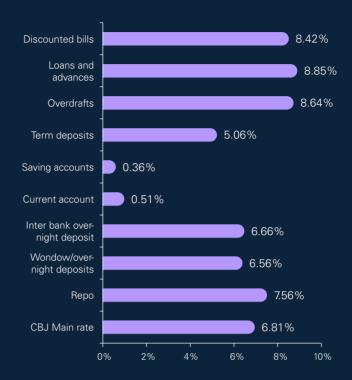
The financial results of the banking sector for FY2022 reflect a robust industry performance, particularly highlighting a significant increase in net profit by circa 42 percent as compared to FY2021, and total assets growth of 5.9 percent since 31 December 2021.

The increase in net income for YE2022 is directly linked to the increase in the analyzed bank's total assets, especially the loans which were increased by 8 percent. Also, the increase was due to the rapid increase in the market interest rate. The impact of rising market interest rates affected the loan terms since most of the loans have been impacted by both interest rate increases and holiday payments in the last two years. Accordingly, the maturity dates of the medium- and long-term loans have increased significantly. This has sparked attention to existing and new loans by reflecting the impact on the credit studies.

The average market rate for key products in 2022 compared to 2021



The average market rate for key products for the first four months in 2023



Surely such events resulted in an increase in the expected credit losses (ECL) coverage ratio for non-performing loans (NPLs) from 124.67 percent to 135.75 percent between 2021 and 2022.

Despite the news from around the globe about the decline in global economic growth, the inflation in 2022, and the global negative economic indicators, we can notice that the NPLs have almost remained the same in 2022 compared to 2021, the coverage ratio for NPLs have generally increased, and the coverage ratio per stage percentage is also high which reflects the robust granting and collection strategies implemented by the banks.

Apart from the loans, we can notice that the customer deposits have been increased by 7 percent which goes in line with the CBJ financial inclusion program.

The banking industry has continued to capture the benefits of economic expansion, evidenced by an increase in lending and reaching an industry-wide loan-to-deposit ratio of approximately 73 percent at the end of December 2022 and noticing an increase in loan book by 8 percent while witnessing an increase in customer deposits by 7 percent. The increase in net profit of 41.89 percent is contributed by the increase in average net interest income by 19.46 percent supported on the back of asset growth and interest rate increases across all portfolios. Moreover, there has been a marked increase in commission income which has increased by 11.43 percent. Another factor contributing to the increase in the net profit is that the banks' operating expenses have only increased by 4.5 percent, which is considered less than the increase in the bank's operating income by 15.26 percent.

The loan-to-deposit ratio (LDR) of 73 percent is slightly more than the last year's rate which is considered relatively healthy for the Jordanian market. This demonstrates the improved liquidity ratio (LDR), which displays an average LDR of 210 percent, exceeding the regulation minimum liquidity ratio by two times.

In the first few months of 2023, the global banking sector is faced with challenges, particularly heightened by shockwaves arising out of instances of Silicon Valley Bank and Signature Bank in the US, and the Credit Suisse merger in Europe by UBS in an attempt to save the sector from further upheaval. While these developments do not leave any substantial effect on Jordanian banks; such instances demand some introspection and risk aversion to avoid any spill-over effect.

Looking ahead, while macroeconomic indicators are supportive of further growth, industry participants have to learn from global challenges and local opportunities and pursue competition based on individual strengths. The regulator and the market participants will have a closer eye on the capital adequacy and liquidity position and a proactive approach will help market participants in acquiring market share.



Rabih Shalabi Senior Partner, Head of Audit E: rshalabi@kpmg.com

Industry performance of publicly listed banks

Net profit after tax



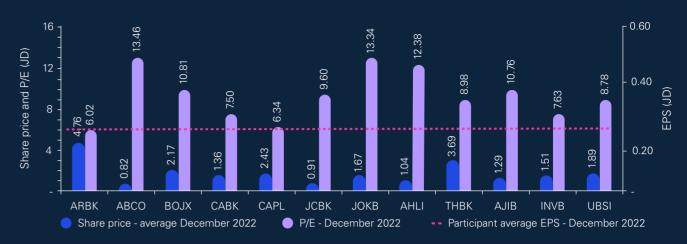
YE - 2022 net income JOD 821,858,259 (YE - 2021: JOD 579,228,735)

Total customer deposit



Total assets As of YE - 2022 JOD 87,535,836,610 (YE - 2021: JOD 82,626,422,072) ECL charge for the year YE - 2022 JOD 489,088,682 (YE - 2021: JOD 583,335,113)

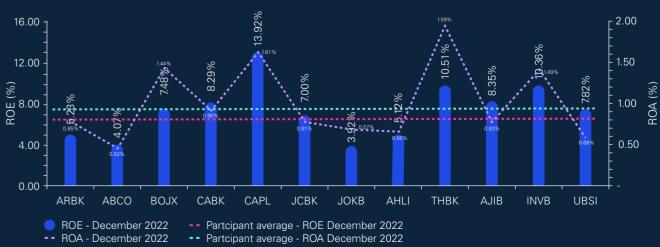
Share price, P/E & EPS

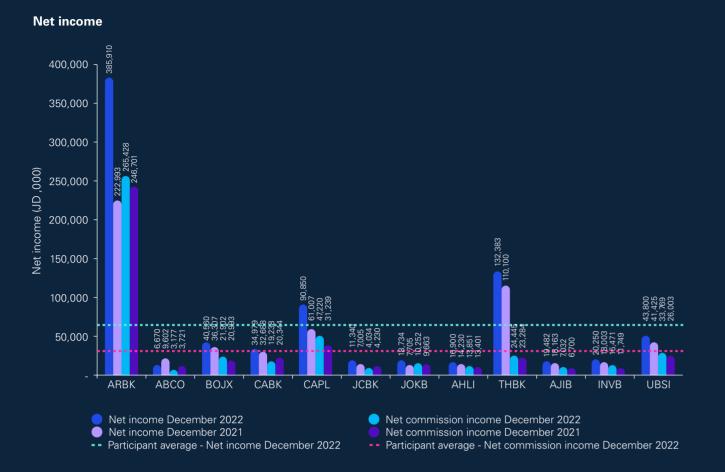




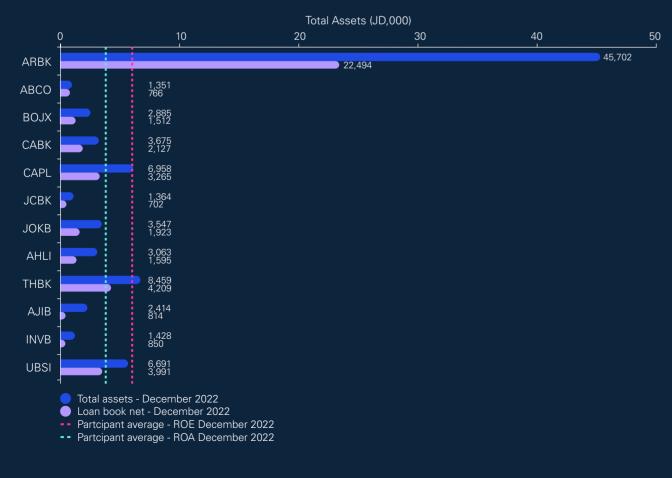


ROE and ROA Analysis



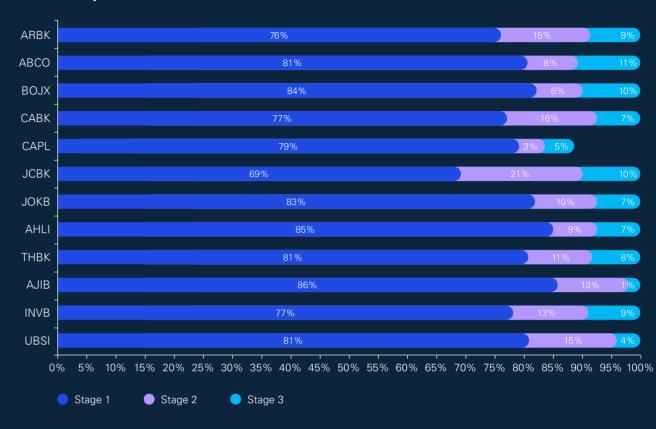


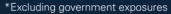
Total assets & Total loan book



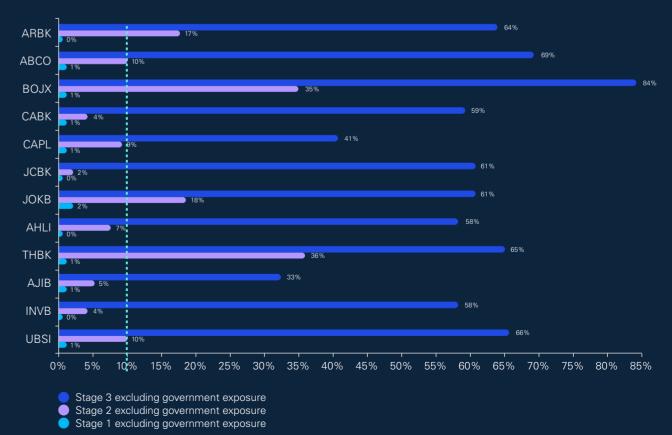
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Total loans subject to ECL*

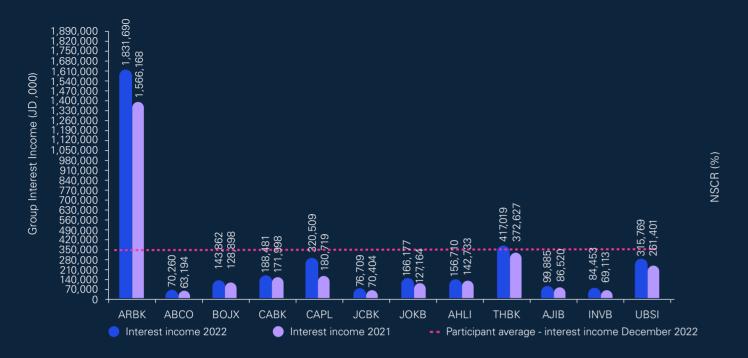




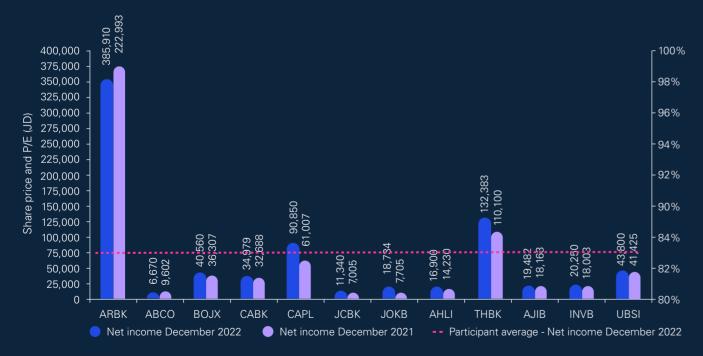
Coverage ratio per stage



Group interest income



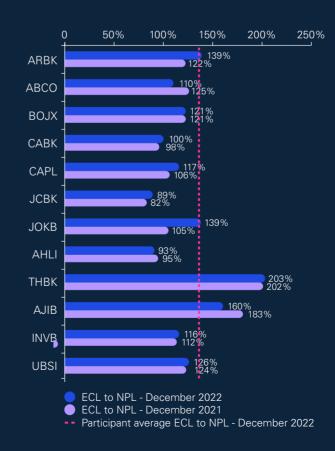
Net income analysis



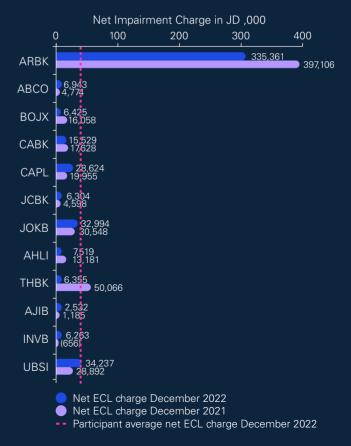
Cost-income ratio



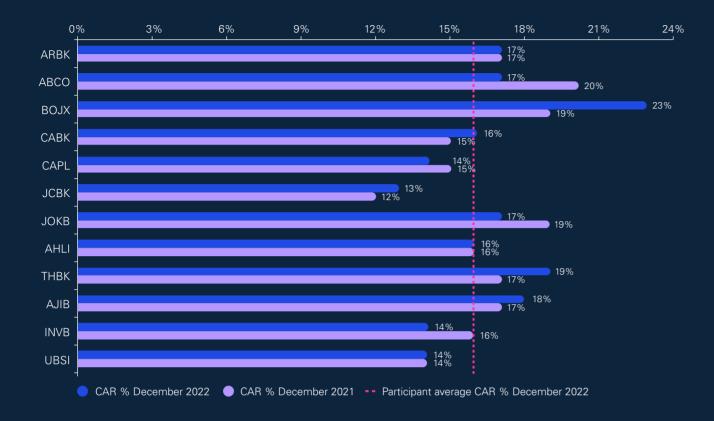
Coverage ratio (percentage)



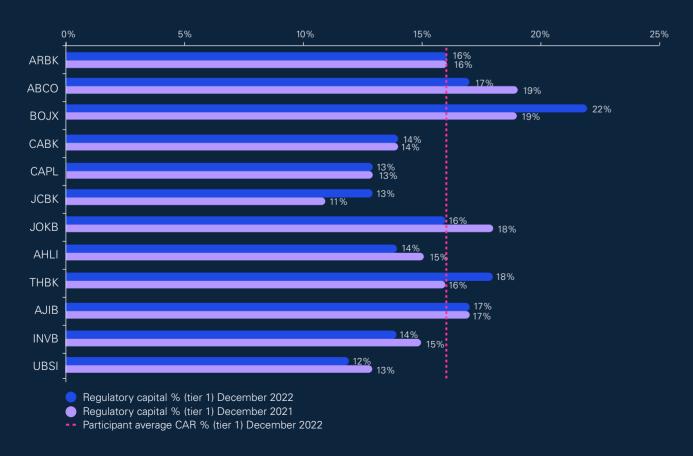
Net ECL Charge



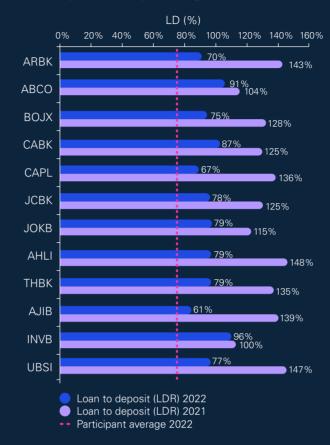
Capital adequacy ratio (percentage)



Regulatory capital (percentage)



Loan to deposits ratio percentage



Legend

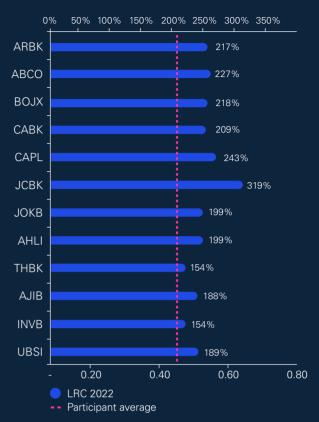
Arab Bank PLC	ARBK	Capital Bank	CAPL	Housing Bank for Trade and Finance	тнвк
Bank ABC Jordan	ABCO	Jordan Commercial Bank	JCBK	Arab Jordan Investment Bank	AJIB
Bank of Jordan	BOJX	Jordan Kuwait Bank	JOKB	INVESTBANK	INVB
Amman Cairo Bank	CABK	Ahli Bank	AHLI	ltihad Bank	UBSI

Glossary

P/E ratio is calculated as the average closing price divided by the earnings per share **(EPS). Market value** is calculated using bank share price multiplied by the number of shares outstanding/net assets representing the total shareholders' equity. **Return on equity (ROE)** is the ratio of net income for the full year period that ended 31 December 2022 to total equity. **Return on assets (ROA)** is the ratio of net income for the full year period that ended 31 December 2022 to total assets. **Coverage ratio** is the ratio of total ECL for loans and advances to total NPL. **Coverage ratio** per stage is calculated excluding government exposures and ECL. **Cost-income ratio** is calculated by dividing total operating expenses by total operating income. **Loan to deposit ratio** is the ratio of total loans and advances to total loans and advances to total deposits.

Disclaimer

This report is solely for information purposes and prepared based on financial numbers as reported in the published financial statements of the respective banks as available on Amman Stock Exchange and published financial statements and adjusted by adding/deducting to calculate some ratios. Accordingly, KPMG does not and shall not assume any responsibility for the information presented herein or the nature and extent of use of this report.



Liquidity coverage ratio

Executive summary



Jumping on the fintech bandwagon

Evolving into a landscape where fintech seamlessly fits into the legacy financial infrastructure requires massive investments in technology as well as support from the regulators to monitor, facilitate and drive it. As part of Fintech developments in Jordan some banks already invested through creation of dedicated fintech entities, also there has been considerable innovation in mobile applications offering greater levels of convenience, personalization, and access to data-driven services. The next wave of fintech innovation will likely focus on solving or supporting major global transitions such as the coming demographic impact on productivity, the low carbon economy, emerging markets integration, and automation. Disruptive or progressive, the innovative solutions developed by fintech will drive change everywhere.



Clear directions on the sustainability roadmap

Committed to achieving a deeper integration of sustainability into the banking and finance sector, Jordan takes a leap of faith to delve into the future. The momentum is building around the ESG agenda in the Middle East region, driven by numerous government initiatives and the increasing requirements for disclosure on sustainability reporting and implementations. The main challenge of sustainability reporting remains mostly related to the complexity of sustainability, which means the variety of sustainability-oriented topics has led to a challenging data collection process and coordination.



Audit quality as a cornerstone for transparency

Rapid change and disruption in the business environment, coupled with greater scrutiny and increasing demand of all stakeholders means audit quality has never been more important. We explore how new technologies, approaches, culture, and a focus on talent are delivering a more efficient and accurate auditing framework that is helping firms to rise to the challenge and perform audits that delivers across key metrics of quality, deliverables, and timing.



Countdown to global minimum taxation

After six years of negotiation and policy forming, the OECD/G20 Inclusive Framework (IF) on Base Erosion and Profit Shifting (BEPS) is finally entering its final chapter in addressing the tax challenges arising from the digitalization of the global economy. The right for jurisdictions to apply taxation and the introduction of a global minimum corporate tax rate of 15 percent means that nations will be able to protect their tax bases by forcing multinational enterprises to pay a fair share of tax wherever they operate. Jordan is one of 135 countries preparing for the new reforms by implementing the global model GloBE rules.

05 Banking in the

With the imminent launch of Web 3.0, the next seemingly small step - banking in the metaverse - is a natural progression. However, before that happens, we need to overcome several issues that may prove challenging, not because we lack the technological expertise but because many solutions require collaboration and consensus on standards, rules, and protocols. For example, proving the provenance of a virtual identity touches every aspect of banking. Just how will banks verify the identity of an avatar in the metaverse and connect it to an individual in the real world?

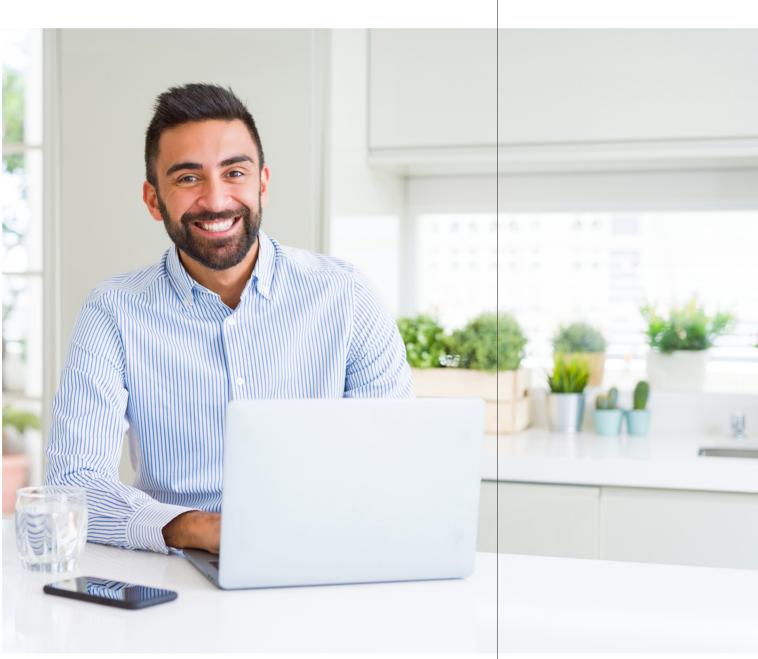
Banking in the metaverse and the question of identity

Jumping on the fintech bandwagon

Evolving into a landscape where fintech seamlessly fits into the legacy financial infrastructure requires technology as well as support from the regulators to monitor, facilitate and drive it.

Globally, 2022 was a challenging year for fintech investment, however the decline in deal value doesn't tell the whole story, as the deal volume was incredibly robust this year: the second-highest total next to 2021. Early stage deals saw record investment, which bodes well for the long-term fintech pipeline. At a sector level, reg tech investment soared to a new high.

The diversity of jurisdictions attracting significant fintech deals was also very strong. In the second half of 2022 alone, 24 different countries attracted US\$100 million+ fintech deal — ranging from traditional hubs like the US, UK, and Singapore to less mature fintech hubs like South Korea, Luxemburg, Italy, Malaysia and the UAE. This diversity reflects the myriad value propositions offered by fintech around the world, from enabling innovation in financial institutions to supporting small business growth and improving financial inclusion and access to financial products. In 2022 as a whole, there's no doubt that the fintech market globally saw both highs and lows.



Developments in Jordan

Through utilizing technology like Application Programming Interface (API's), banks can offer customers an easy way to access their financial data. Open banking and open finance carry the potential to revolutionize how people in Jordan interact with banks and other financial services providers. Additionally, it allows new entrants into the market, creating new opportunities for startups, fintech, and tech companies in Jordan who seek ways in which they can disrupt traditional finance models. In line with these developments and as responding to the need for regulatory support and monitoring of fintech services, the Central Bank of Jordan (CBJ) came across with several official announcements, including its univocal support for fintech in general.

To support this agenda, CBJ announced the Sandbox, allowing pioneers and entrepreneurs in the financial technology realm to approach CBJ and apply for regulatory mentorship and support and the availability to test FinTech solutions before going live to increase the chances of success in the market. CBJ emphasizes on its continuous support for solutions that leverage innovations like blockchain, considering in particular solutions that enhance financial access to digital financial services in a customer friendly, secure and efficient manner, having in place the highest cybersecurity measures in the financial sector.1

In November 2022, CBJ published a detailed instruction called Organizing open financial services which set the requirements need to be met from the companies that apply fintech services, within one year from the date of these instructions. These instructions have defined and covered important aspects such as governance, application programs, information security, customer data privacy, and cybersecurity.

Additionally, the third-party provider (TPP) is required to appoint an independent specialized third party to conduct vulnerabilities assessment at least once every six months, and penetration testing at least once a year or after any radical change to it.

As detailed in their circular issued on 27 August 2023, CBJ continues to integrate fintech through allowing currency exchange companies to provide a co-branded product for the services of opening



As part of the fintech developments in Jordan, there has been considerable innovation in mobile applications offering greater levels of convenience, personalization, and access to data-driven services.

electronic money accounts (like e-wallets) and issuing debit payment cards, as agents of payments and electronic funds transfer companies.

There has been considerable innovation in mobile applications offering greater levels of convenience, personalization, and access to data-driven services. Some leading examples, of diverse nature and purpose, that have come forth include the following: Some examples of diverse nature and purpose that have come forth include the following.

- *QWQ:* An agent-based payment network, providing an alternative solution to a regular ATM.
- **DareebaTech:** A platform offering smart tax preparation and consultancy.
- **Tanda Smart:** A financial solutions platform that offers alternative banking products currently offering a digitized ROSCA.
- **Tamweel Trading Company:** Offering various financing solution products, which include financing for cellular devices, home appliances, sports and electronic appliances, and furnishings.

• askPepper: A local mobile ordering and payment solution for restaurants, cafes, hotels, pools and beaches.

While the above initiatives were developed by new market entrants, also banks - as the legacy financial institutions – have moved ahead with fintech.

The JOIN Fincubator, which

stands for Jordan Innovation Fintech Incubator, is a unit led and operated by the Jordan Payments and Clearing Company (JoPACC) and its strategic partner CBJ. It was established with a commitment to modernizing Jordan's economy and leading digital transformation across its sectors. With the objective to digitize payments and financial services in Jordan and introduce innovative financial solutions to the financial ecosystem. The JOIN Fincubator's programs have been operational since the beginning of 2023 and are tailor-made for innovative technology-driven start-ups and entrepreneurs who need development tools, a testing environment, guidance on

regulatory requirements, and support in the standardization and development of access tools and instruments to better plan, expand and test their fintech solutions.²

AHLI FINTECH is an independent fintech venture, investor and incubator, financial technologies software, hardware, and professional services provider. AHLI FINTECH has become a well-known fintech hub in Jordan, contributing to events, conferences, workshops, and training sessions.

LINC by Cairo Amman Bank is a digital bank with a customizable digital interface, including on-the-go banking features. Additionally, LINC aims to combine an integral financial education incentive for its clients, as they offer courses that are backed by Bridge International whose main objective is the spread of educational equality regarding personal economies. It's

a neo bank aimed at the tech-

savvv and those that strive to

further their academic knowledge.



progressive, the innovative solutions developed by existing fintech in Jordan will drive change everywhere.

AB iHub and AB Accelerator are

initiatives by Arab Bank focused on fintech collaboration. The AB iHub builds rapid prototypes and uses fintech ecosystem collaborations and bootcamps to work directly with fintechs and individuals in the ecosystem. The AB Accelerator program focuses on the adoption of emerging fintech technologies into Arab Bank's infrastructure and network. The program conducts proofs-ofconcept with startups to validate their product-market fit within Arab Bank's environment and invests in fintech startups strategically aligned to the bank.



Fintech trends for 2023 and bevond

The next wave of fintech innovation will likely focus on solving or supporting major global transitions such as the coming demographic impact on productivity, the low carbon economy, emerging markets integration, automation, and machine learning, unbundling of business models, to name a few. The innovative solutions developed by fintech in this space will drive change across horizontal markets, industries, nations, regions, and globally.

An example is ESG or green finance, with fintech innovation holding the potential to contribute deep and lasting impact to global efforts on climate change. ESG will be the fastest growing fintech segment with a forecast of global ESG fintech deals driving a 68 percent compound annual growth rate (CAGR) to 2025, from US\$52 billion in 2023 to US\$166.7 billion in 2025.3

Another important area where fintech firms are expanding is in enhancing the resilience of finance and financial systems, whether that's safeguarding the financial system from evolving risks, enhancing protection against cyber risks, and embracing digital regulation.

In addition to increasing investment in fintech solutions aligned with ESG principles, the banking and finance industry will witness a number of fintechdriven innovations and market impact over the coming year.

In summary, we expect the following trends to further crvstalize:

• B2B solutions will continue to attract solid investment as the business embraces the benefits of streamlining processes and digitization.

that offer faster payment traditional methods.

Non-crypto blockchain-based solutions

Applying blockchain technology in banking will bolster bank security by developing robust know-your-customer (KYC) solutions and cryptography protection that verifies the identities of users on the blockchain. Information can be easily shared across the network while reducing the need for intermediaries to handle data distribution, further eliminating vulnerability. The decentralized nature of blockchain eliminates single points of failure, which also reduces the risk of data breaches. Blockchain technology will also benefit the industry in the areas of instant payments and money transfers, digital currency, and money exchange.

• Al-driven fintech solutions and Al-based tools

with their advanced With their advanced computational and analytical capabilities, these can help to optimize data aggregation and usage, mitigate regulatory and market risks, improve customer experience, and combat fraud.

• The focus on fintech deals and investment activity

In total venture, capital (VC), private equity (PE), and mergers and acquisitions (M&A) in the sector are expected to continue to grow at an estimated 30% CAGR over the next decade.

Open banking and open API

These are multifaceted and create both challenges and opportunities for the banking industry in Jordan. This means that financialization will cover areas other than economic activities, such as

Banks are developing solutions that offer modern payments processing times, lower costs, and greater transparency than

technology, market, regulation, and social. As demonstrated by the taxonomy, it will affect the distribution of banking services and the structure of the market. This will cause challenges like risk of disintermediation by third parties, that can affect the banks' ability to retain customers, and security related challenges of open API, such as potentially fraudulent third parties, digital intrusion, personification, illicit use of data and customer privacy concerns, can deter banks from efficiently moving forward with a secure open finance model. So far, these have been addressed through new CBJ instructions with more announcements expected to follow.

• Open API architecture

Open banking is dependent on the seamless access to data and the delivery of functionality served by an open API architecture. Regulators will need to ensure that third-part providers (TTPs) seeking competitive advantage keep to the spirit of the open API architecture model, by ensuring that interoperability remains unrestricted and free from protectionist business practices.

• Regulators will place more scrutiny on the crypto space

while encouraging the development of money systems that better align to a stable and sustainable digital banking system.



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Clear directions on the sustainability roadmap

The momentum is building around the ESG agenda in the Middle East region, driven by numerous government initiatives and the increasing requirements for disclosure on sustainability reporting and implementations. Committed to achieving a deeper integration of sustainability into the banking and finance sector, Jordan takes a leap of faith into the future.

In alignment with global sustainability trends and the anticipated new sustainability strategy for the banking sector of the CBJ, banks in Jordan are ramping up their efforts to implement ESG frameworks and policies. Also, other stakeholders, like investors and consumers, are increasingly demanding businesses and banks to measure and address their ESG impact.

Jordan's energy consumption is growing by five percent annually, and 97 percent of its energy comes from imports.¹ In addition, Jordan is one of the most water-scarce countries in the world. In the past two decades, Jordan's population has more than doubled – from 5 to 11 million – placing additional pressure on the country's limited natural resources.² As a result of water scarcity, rising temperatures, and extreme weather, Jordan needs to become more resourceefficient and competitive. On the positive side, developing green infrastructure creates jobs and economic value for the long-term. As part of Jordan's Nationally Determined Contributions (NDCs) under the Paris Agreement on climate change, one can identify opportunities that benefit society too.³



Regulatory efforts driving sustainability reporting

The energy sector in Jordan has been put in the spotlight in recent years, so far resulting in several new energy policies and legislations. The National Energy Strategy 2020-2030 aims to reduce the carbon emissions by 10 percent by 2030 and expand renewable energy's share from 11 percent in 2020 to 14 percent in 2030 – supported by the Renewable 2012 Energy and Energy Efficiency Law.⁴

To achieve this goal, technical committees were established with the participation of all relevant stakeholders and the objective to develop a strategy technically supported and funded by the European Renewable Energy and Energy Efficiency Program (REEE II-TA) in Jordan. Based on previous strategies, developments, achievements, and lessons learned, the committee aims to identify the available scenarios with the most appropriate options to develop an executive operational plan.

So far, the Ministry of Energy and Mineral Resources succeeded in building a legislative and procedural base on renewable energy. This led to a significant increase in the participation of renewable energy in the energy mix, whether by signing several energy purchase agreements, or using solar energy to cover consumptions of different sectors or other practices. Eventually, this should pour in the pool of sustainable local practices.

Also the strategic plan of the Amman Stock Exchange for 2021-2023, launched in line with Jordan's ten-year strategy (2015-2025), outlines several initiatives to enhance sustainability. Those include a project to oblige companies listed in the general index to issue sustainability reports starting from 2022 to identify sustainability-related risks and opportunities that may significantly affect the performance of organizations. This will help position Jordan through the listed companies - more in line with international practices and ahead of the curve in the region. That said, it will require the unwavering support from Jordanian business leaders to deliver and become corporate advocates for increasing transparency in sustainability reportina.⁵

Considering that the majority of the top 20 listed companies in Amman Stock Exchange (ASE) are banks, it translates into the growing green bankable projects in Jordan across energy, water and mobility industries and their noticeable contributions to the local economy. Also, the sustainability reporting cycles end in March and June of each year, and this will be implemented for all companies – not only the listed ones.

In 2022, the International Sustainability Standards Board (ISSB) announced its IFRS Sustainability Disclosure Standards, in order to achieve a comprehensive global baseline for sustainability-related standards. Therefore, organizations need to engage with local standard setters to understand how they plan to introduce the requirements and whether any transition relief might be permitted. Jordan is currently in a transitional period, pending further announcements on the timeline. The proliferation of voluntary disclosure frameworks from intergovernmental and non-governmental organizations fills a void left by regulators who have yet to provide clear guidance around ESG disclosures globally.



The main challenge of sustainability reporting today and due to many case studies, is mostly related to the complexity of sustainability, which means the variety of sustainability-oriented topics has led to a challenging data collection process and coordination.

Banks in Jordan getting on board with the program

It is noticeable today that banks in Jordan are not only adhering to the ongoing demand on sustainability reporting efforts but are also initiating new ways of integrating sustainability into all banking practices.

Jordan Kuwait Bank and Jordan Ahli Bank have been publishing sustainability reports for the last three to four years, following Global Reporting Initiative (GRI) standards. Arab Bank has been committed to launching annual sustainability reports since 2010, highlighting the main challenges, achievements and updates on their sustainability strategy.

Jordan Kuwait Bank sets the bar even higher and issued the first bond in Jordan in March 2023, worth US\$50 million, paving the way for the issuance of more green bonds in the Kingdom.⁶ Green bonds are one tool in the financial toolkit for enabling the desired transformation into a greener economy and developing a new asset class to the Jordanian capital market to finance sustainable and environmentally friendly projects that aim to reduce greenhouse gas emissions and unemployment rates. Such practices will earmark the proceeds for green projects and assets – including renewable energy projects, low-carbon vehicles, green infrastructure such as low-carbon transport, new energy-efficient green buildings, and sustainably managed water resources and waste.

Potential roadblocks of sustainable reporting from a banking perspective

The main challenge of sustainability reporting today and due to many case studies, is mostly related to the complexity of sustainability, which means the variety of sustainability-oriented topics has led to a challenging data collection process and coordination.

A further aspect concerns adopting the GRI guidelines, therefore, legitimacy issues connected with sustainability reports. In this case, the challenge is to increase the company's legitimacy in its operational context. All banks and corporations must aim to achieve a higher degree of comparability and readability and increase the legitimacy of sustainability related documents.



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Audit quality as a cornerstone for transparency

More than ever auditors, audit committees, investors, and regulators are seeing value in achieving high standards of audit quality.



The global market turmoil we have witnessed, and the demand for increased transparency suggest that reliable financial information supported by quality audits are key elements in enhancing market confidence and an important tool for effective banking supervision.

External audits performed in accordance with globally accepted auditing and ethics standards provide comfort that the financial information made available to the public is reliable, transparent, and useful to the marketplace and thus contributes towards strength of the banking systems. The Middle East, a region experiencing rapid change in the business environment, has also seen the bar being raised due to the efforts of regulators and the changing demands of stakeholders. Melding traditional audit practice with new technologies, such as data analytics, machine learning and algorithmic checking is providing organizations with data-driven insights and assisting with evolving reporting and regulatory requirements. A more efficient and accurate audit process is capable of delivering improvements across key metrics including the quality of assurance provided, and its timing. This is key for the banking industry and regulators alike.

Other than focusing on technology, audit firms also involve more subject-matter experts to support audit teams in testing complex areas of banking audits, like model driven loan loss allowances, valuation of financial instruments and financial risk disclosures.

And yet auditing is both a science and an art, as it relies on both applied, practical functions as well as instinctive, human interactions and behavioral elements. Fostering the right culture and values is as equally vital to attaining excellence as the process itself. An articulated strategy, a focus on audit quality, consistency, trust, and growth, must be championed by the leadership within the organization - they share accountability with the auditors. That accountability, along with the assigning of roles and responsibilities, is a result of strong oversight and robust governance.

The importance of the delivery team - appropriately gualified, experienced and with diverse perspectives - is also a must. Indeed, the pursuit of quality starts and ends with people, and for that to materialize the right talent needs to be recruited, trained, and motivated. Continuous personal development plans should be part of the program to maintain high levels of learning and development on technical expertise, professional acumen, and leadership skills - and help to retain talent. On-the-job training plays a key part in developing the personal qualities that are important for a successful career in auditing - including developing professional judgement and skepticism.

Bank audits are evolving

As financial institutions - including banks - become increasingly complex, they present new challenges to auditors. These complexities are compounded by model-determined values of various financial instruments. New risk assessments are required, often soliciting the involvement of financial risk modelling experts to challenge the credit risk associated with a bank's loans and advance portfolio (loan loss allowances and recognition of other impairments), exacerbated by insufficient data histories (new products, new issues of securities), lack of observable input parameters (collateral information may not be available or may not be sufficiently

Financial instruments are becoming increasingly complex

comparable), among other factors.

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Furthermore, these complexities can evolve further based on the market conditions whereby the current high interest rate environment poses challenges around the assessment of liquidity risk and market risk (fixed interest instruments purchased in a low interest rate environment). These require the involvement of relevant subject matter expert to effectively challenge the fair valuation estimates, adequacy of disclosures and risk exposure.



A more efficient and accurate audit process is capable of delivering improvements across key metrics including quality of assurance provided, and its timing. This is key for the banking industry and regulators alike.

Going forward

The expected challenges in the coming years are mostly concerned with how the auditors will cover the risk of the outsourced transactions conducted through other financial services companies and the need to have a unified audit and control testing. The latter for example through system and organization control (SOC) reports and testing the interface controls, automated controls such as interest and commissions calculation in the service provider system.

Another risk arises from the rapid increase in the market interest rate and the increased risk in the economies to determine the expected credit losses accurately considering that most of the mortgage loans for the retail sector, long and short-term loans for all sectors their maturities increased at least one-third of the loan's original duration or resulted in an increase of the amount of the installments which will change their credit study and credit score results.

Our focus is to continuously invest and innovate, with an unremitting improvement objective. We are always keen to invest in audit technology comprising the latest audit tools and resources including data and analytics technologies, and to keep our audit methodology updated with the latest developments in the international standards of auditing.

Driven by regulators, clients and audit firms alike, audit quality is truly the foundation of the profession, with a drive to create greater consistency in the performance of all our audits and strengthen the monitoring of engagement milestones by both engagement teams and audit leadership. In-order to achieve this objective, it is critical to leverage advanced data analytics technology to conduct data-enabled, risk-focused and high-quality audits.

In conclusion, the global drivers for raising the bar on audit quality are diverse, ranging from increased stakeholder demands to emerging technologies. Against this backdrop, the focus regulators are bringing towards audit quality, with new frameworks, approaches and technology, is contributing to an environment where businesses are held accountable, investor confidence is optimal, and trust is maintained in the integrity of the capital market.



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Countdown to global minimum taxation

In February 2023, the OECD/G20 released technical guidance on the Inclusive Framework on BEPS to assist governments with the implementation of the landmark reform to the international tax system, which will ensure that multinational enterprises (MNEs) will be subject to a 15 percent effective minimum tax rate. The framework will introduce coordinated outcomes and greater certainty for businesses as they move to apply the global minimum corporate tax rules from the beginning of 2024.



The OECD Inclusive Framework and BEPS package of reforms

In 2016, the OECD/G20 Inclusive Framework (IF) on Base Erosion and Profit Shifting (BEPS) was established to ensure interested countries and jurisdictions could participate on an equal footing in the development of standards on BEPS-related issues while reviewing and monitoring the implementation of the OECD/G20 BEPS project.

Two pillars, one unifying global tax rate

While the BEPS 1.0 initiatives led to many changes to the

international tax rules to limit profit shifting, some authorities believed that it did not adequately address the challenges of digitalization of the global economy. Many countries started to impose unilateral tax measures, including new legislation to tax companies that are active in a jurisdiction via online platforms, online sales, or other means, with the introduction of a digital services tax.

The purpose of the BEPS 2.0 project is to consolidate these types of unilateral efforts into a consensus position, avoid double taxation and generally address the tax challenges arising from the

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The below illustration highlights the key component rate (ETR) under the GloBE rules.

Covered taxes (numerator)

Current tax expense (per FS)

- + Refundable tax credits (4 years)
- +/- Uncertain tax positions
- +/- Adjusted deferred tax expense (15%)

Tax on excluded income (see below)

- +/- GloBE Loss Deferred Tax Asset (DTA) (optional)
- Other covered taxes, withholding tax (WHT), controlled foreign corporation (CFC) tax
- +/- Post-filing adjustments, tax rate changes



GloBE Income/Loss (Denominator) =

Profit of all entities in the country (as per parent's Accounting Standard)

+/- Excluded income (permanent differences)

digitalization of the global economy. The BEPS 2.0 project also aims to ensure that multinational enterprises pay a fair share of tax wherever they operate by introducing a global minimum corporate tax rate that countries can use to protect their tax bases.

GLoBE rules for a common implementation approach

On 20 December 2021, the OECD/G20 Inclusive Framework on BEPS, involving 135 countries, released Model Rules (also referred to as the "GloBE" rules) covering both pillars — Pillar 1 establishing the right for

The below illustration highlights the key components to be considered when determining the effective tax

- Allocate income and taxes
- To permanent establishment
- To owners of flow-through entities

Adjusted deferred tax exp

- Starting point deferred tax expense per accounts
- Increase for unrecognised DTA/valuation allowance
- Recast deferred taxes to 15% minimum rate
- Recapture rules (5 years) for DTLs (unless excluded)

Post filing adjustments

 Recalculate prior year ETR where post-filing adjustments decrease tax (>EUR1m)

Excluded income adjustments

- Excluded dividends (>10% holdings for >12 months)
- Excluded equity gain or loss (>10% holdings)
- Policy disallowed expenses/containing regulatory capital
- Stock-based compensation
- Asymmetric foreign currency gains and losses
- Exclusion of international shipping income



jurisdictions to apply taxation, and Pillar 2 establishing a global minimum corporate tax of 15 percent. The adoption of the new rules is based on a 'common approach' which means that jurisdictions are not required to adopt the rules, but if they choose to do so, they will implement the rules consistently with the model.

The above calculation of the ETR is further complicated by the fact that the GloBE rules allow taxpayers to make certain elections (16 in total) on how these individual components are treated. Some of these elections are time bound (i.e., the taxpayer commits to treat this component the same way for the next five



Adoption of the **OECD framework will** ensure a fairer and more transparent tax environment and align Jordan with developments in international taxation.

vears). Some elections will need to be held annually and some as one-offs. Clearly, any election needs to be assessed in detail for its further implications regarding the GloBE rules.

Implications for banking industry

Financial services businesses will need to perform certain exercises for their impact assessments, a requirement of the OECD framework. For example, the additional tax that Pillar 2 stipulates, and with it the additional compliance burden, which will include additional resource requirements in proving the effective tax rate is greater than the minimum requirement.

Mergers and acquisitions

Medium to long-term commercial and project financing will be impacted; the future tax profile/tax cash flows of borrowers might

change. There will be challenges in modeling and forecasting for the preparation of M&A prospectuses. Generally, additional information will need to be disclosed on the jurisdiction of entities, as well as the impact of any domestic minimum tax regimes on the global tax contingent. Companies offering M&A advisory services may need to review and amend deal structures accordingly, and account for how the disposal of tax-exempt capital gains is treated. There will also be minor changes in shareholding which are likely to place subsidiaries within the scope of IIR (e.g., >20 percent sales to third party). Minority shareholders might indirectly bear a portion of top up tax, and this could create further issues in apportioning indemnity cover.

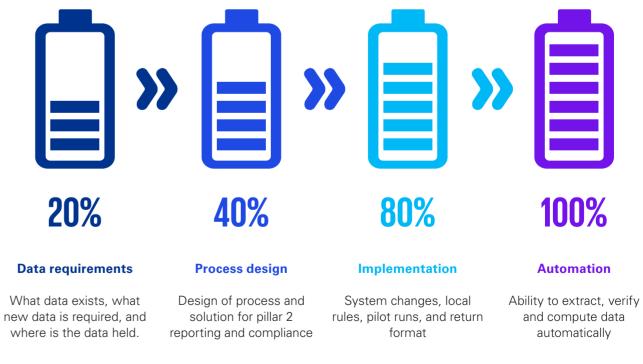
Consideration will also need to be made for convertible debt, share schemes, and joint venture

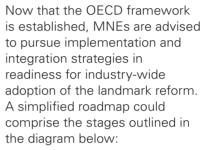
arrangements. There will also be additional requirements for new M&A provisions regarding ongoing entry and exits between jurisdictions (tax havens and low tax jurisdictions) which could extend the time it takes to complete accounts.

However, the GLoBE rules will eventually simplify group structures and financing arrangements, leading to greater transparency in M&A reporting.

Next steps

to pursue implementation and integration strategies in readiness for industry-wide adoption of the landmark reform. A simplified roadmap could comprise the stages outlined in the diagram below:







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Banking in the metaverse and the question of identity

In global terms, the banking sector is one of the leading industries where Web 3.0 technologies are implemented. Ultimately, with utility in the real world, Web 3.0 is also the foundation of a banking system in the metaverse.



One of the principal challenges for banks and regulators will be how individuals will interact with such banking platforms in the metaverse. For example, how banks will verify an individual's virtual identity, or avatar, with their real-world identity. The capability to prove the provenance of a virtual identity will touch every fundamental aspect of banking; without it, there is little possibility of tracking identity theft from impersonation or preventing fraud.

In broad terms, there are three basic approaches to managing identity in the metaverse.

The first is to allow individuals to have multiple identities for different purposes and in different sub-domains within the metaverse, with each of these identities verified by individual monetary system administrators. This approach would maintain an individual's privacy and security but could add complexity, involve multiple intermediaries (and would therefore be more prone to vulnerabilities and fraud), and would be difficult to regulate.

The second is to create a decentralized identity system. For this to work, the system would have to be what's termed 'trustless', meaning it would have to be trustworthy as a standalone system distributed among many different nodes on a blockchain. With this option, a person's real-world identity could be embodied within a non-fungible token (NFT) that would aggregate unique identifying components of information such as, for example, government-backed identity verification, social media attestations, biometric data, and personal attributes. No intermediaries would be involved. Instead, third parties, including banks, would decrypt the token to establish that someone is who they claim to be.



Proof of identity, identifiability, provenance, and trust. Without these, banking in the metaverse will not materialize.

The third is to create a global identity system, an approach that offers optimal security and privacy controls. The system would generate a real-world unique identifier that could be linked to an individual's virtual identity or identities. However, such a system would need to be universally adopted and would have to interface with the disparate array of existing identification systems used by individual nations across the world. A centralized global system would also run up against geopolitical resistance (who would govern it?) and could take decades to formulate and ratify. In this case, individual nations or consortia may resort to developing and implementing their systems, leading to a fragmentation of monetary systems, and taking us back, full circle, to a multiple identities approach.

Countries that have centralized, sophisticated identity systems in place will find themselves in a favorable position to either establish their own proprietary identity system with a distributed monetary system; or they may wish to integrate into a global identity system that will either be based on a distributed, decentralized, or mixed monetary system.

Another level of complexity is how identity will be integrated within a monetary system which may need to support a variety of fiat, digital, and crypto currencies

Technical and operational banking framework level

Web 3.0 is the process framework that will support banking in the metaverse.

• Transactions and fiat/ crypto integration These systems facilitate the transaction of value in exchange for digital assets. In the metaverse, banking transactions may involve cryptocurrencies fiat currencies or both. Exchange mechanisms between dimensions will be required.

• Digital assets

A class of intangible assets that are verifiable and ownable and include cryptocurrencies, nonfungible tokens (NFTs), native tokens, stable coins and real-world assets.

• Smart contracts

The use of verifiable contracts on the blockchain will enable contracts, agreements, and terms to be executed or enforced. An example is a payment to a commissioning agent on the sale of an NFT.

• Distributed ledger (blockchain)

The integration of a digital, decentralized, distributed ledger that facilitate the recording of transactions, yet coexists with a proprietary banking model.

that can be used by a payment transaction system that will operate across both real and virtual worlds. Banking in the real world uses a distributed system and intermediaries and entities that are vetted and trusted. identifiable and identified and have various rights and responsibilities. This enables one of the most fundamental aspects of banking – reversibility – which allows for transactions to be undone and is a mainstay of managing fraud and resolving, for a limited time, any issues with transactions.

Cryptocurrencies, on the other hand, use decentralized systems (although not all the time), typically on blockchain, which forgo identifying and restricting who can participate. Unlike a conventional payment transaction system, the participants in a transaction are identified only by cryptographic keys (a key is a long-string random number). A

private cryptographic key allows for the creation of a public key (another random number) both of which are then used by the participants to create a public key signature which is used to action the transaction. At no time during the transaction is any participant's identity revealed, which means at no point is a real-world identity associated with the transaction. How cryptocurrencies will integrate with conventional banking is not apparent; with no single identifiable third party, and no way of identifying the participants involved in the transaction, there is no way to reverse or block disallowed transactions.

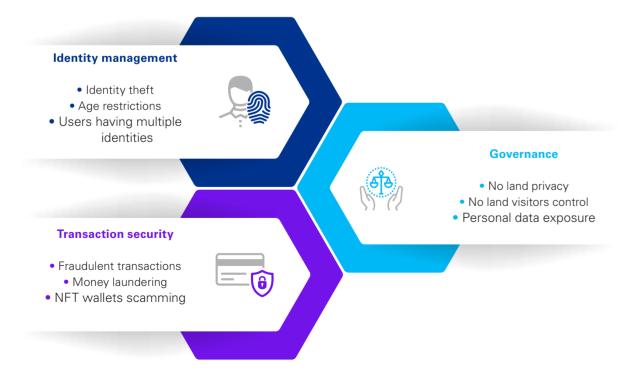
Identity management is the first of three pillars of a robust banking system in the metaverse; the other two are governance and transaction security and are at focus here. Progress is being made on all fronts and there are signs that banking in the virtual world will soon be a reality. Virtual bank branches are a next step for banks in the metaverse, whereas insurance firms are expected to start providing services for digital currencies, such as NFTs, and virtual assets such as land and buildings.

What will a secure banking model look like in the metaverse?

Theoretically, there will be three tiers to the operational model. The first is the central bank which will set the regulatory framework and award licenses and certifications to operate within the virtual realm. In time, the central bank may set its own digital currency, although the preference will be to allow the market to decide for reasons that stronger, less volatile currencies, in whatever form they may take (NFT, token, stable coin), will eventually win through and dominate.

Identity management - one of three pillars facilitating a robust banking model

Financial services institutions are facing elevated operational risks with a spectrum of functions when they choose to exist in the metaverse.



The next tier comprises the financial institutions that will establish an operating protocol that aligns with the central bank framework. Typically, this will be through, standardized smart contracts on the blockchain. Validity of each bank could be proven using land control verification, such as a soulbound token (a non-transferable NFT).

These help control identity management and increase the confidence that the user accessing the land is the same user who registered to it.

Once the bank is set up, a portfolio of services can be marketed and made available to avatars (customers) who have had their identities verified according to an accepted protocol. Any transfer of value will be processed by a transactional system that features strong multiple-factor authentication, the design of which will need to be determined and agreed on universally.

Lastly, the user – typically in the form of an avatar – will occupy the virtual world and interact with other avatars, retailers, and businesses as they go about their virtual lives. This will require a system of identity validation and verification between these various entities which will need to interface with the bank-owned transaction authentication system, much as it does in the real world. Finally, there will need to be some way of linking the virtual identity of the user and their transactions with the physical world, the simplest way being through a credit or debit card or a more sophisticated way like integrating biometric authentication to digital wallets.

Setting up the identity validation, monetary and transactional systems that will enable banking in the metaverse will be a complex task with unique challenges. However, with global giants like JP Morgan and HSBC pioneering this space, banking in the metaverse isn't far away. A space to watch.

Considering the regional landscape, an important development is Saudi Arabia's Riyad Bank launched its virtual location in the Metaverse, situated in the new King Abdullah Financial District (KAFD) - a first in the banking sector in Saudi Arabia. The new digital branch serves as a nucleus for an entry into the world of virtual reality.

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- referring back to the charts

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