# FINANCIAL STABILITY REPORT 2020

## FINANCIAL STABILITY DEPARTMENT

## PREFACE

The Financial Stability Report 2020 (JFSR 2020) reflects the Central Bank of Jordan's (CBJ) continuous endeavors to strengthen the stability of the financial and banking sector in the Kingdom, as well as to provide sufficient data for various aspects of the economy and financial sector in Jordan. According to the CBJ's amended Law of 2016, the CBJ's objectives were broadened, to include explicitly the financial stability as a main objective in tandem with the monetary stability. Financial stability is intended to enhance the capacity of banks and other financial institutions to withstand risks and to limit any structural imbalances as well.

The COVID-19 pandemic was a tremendous shock with unprecedented implications. It triggered instability among the public, and raised uncertainty in the global economy. However, the global economic system remained resilient amid the pandemic, thanks to the exceptional measures taken by the vast majority of countries worldwide in terms of the fiscal and monetary policies. This helped to curb the risks of the pandemic on the economic activity and financial stability. The global economy contracted by around -3.3% in 2020 compared with a growth of 2.8% in 2019. Jordan as other countries was affected by the pandemic and its negative implications on most economic activities; Jordan's economy contracted by -1.6% in 2020, against a growth of 2% in 2019. Nonetheless, the economic contraction recorded in Jordan was far shallower than the -3.4% expected rate at the beginning of the pandemic. The government and CBJ's precautionary and overarching measures, which are detailed in this Report, contributed incredibly to lessen the severity of the contraction, which was among the lowest in the region. The preliminary data denotes that Jordan's economy grew by 0.3% during the first quarter of 2021, which validates that the Jordanian economy is on the recovery path, especially amid the stability of the epidemiological situation in Jordan, which allowed for reopening of economic sectors that are recovering gradually.

The unprecedented threats of the global COVID-19 crisis since its outbreak at the beginning of 2020 have implied serious socio-economic consequences and costs. In an attempt to suppress the effects of these accelerating developments, and since the onset of COVID-19, the CBJ had endorsed a JD 2.7 billion (8.6% of GDP) proactive and overarching measures aimed at containing the negative ramifications of this crisis on the domestic economy. These measures included the CBJ's pumping of JD 1,050 million additional liquidity into the national economy. The CBJ injected JD 550 million to the banking sector through reducing the required reserve ratio imposed on banks' deposits from 7% to 5%, while JD 500 million were through repos conducted with banks for maturities up to one year, to meet the financing needs of the public and private sectors. This improved banks' ability to lend and enabled them to reduce the interest rates on credit facilities extended to individuals and companies. Further, the CBJ cut the interest rates on all monetary policy instruments by 150 basis points or 1.5%; banks reflected this decrease immediately on their rates before contractual due dates. In addition, the CBJ in 2020 requested banks to postpone loans installments due on individuals and companies affected by the pandemic; no additional late interest payment or commissions shall be charged until the end of 2021. Banks were permitted to restructure and reschedule the debts of clients and economic sectors affected by the pandemic, no extra down payments, fees, or commissions shall be charged until the end of 2021.

The CBJ also launched a JD 500 million soft financing program to support SMEs and assist them to confront the implications of COVID-19 crisis; these loans are 85% guaranteed by the Jordan Loan Guarantee Corporation. In 2021, the financing amount was raised to JD 700 million, and extended until the end of 2021. This is in addition to reducing the interest rates on the CBJ's JD 1.2 billion program to finance and support economic sectors and further easing its terms. During the pandemic, the use of e-payment services and digital financial services was enhanced and promoted.

The banking and financial sector in 2020 was stable despite the challenges and risks arising from the COVID-19 pandemic, and their ramifications on the economic and financial conditions in Jordan, thanks to the policies of the government and the CBJ, which helped to mitigate the effects of these challenges. Jordan enjoys a sound and robust banking system, which is broadly resilient to shocks and high risks due to banks' high levels of capital, and comfortable levels of liquidity and profitability as well.

The CBJ will keep improving this Report taking into consideration the development of risks at the domestic, regional, and international levels, to enhance the pillars of the financial stability in the Kingdom. This report is published online on the CBJ's website http://www.cbj.gov.jo.

**The Governor**

**Dr. Ziad Fariz**

## EXECUTIVE SUMMARY

### GLOBAL FINANCIAL STABILITY:

The global economy has proven to be resilient amid the COVID-19 crisis due to the exceptional measures taken by the vast majority of countries worldwide, in terms of the fiscal and monetary policies. This contributed to curbing the risks of the pandemic on the global economic activity and the financial stability. However, a year and a half since the onset of the COVID-19 pandemic, uncertainty prevails the global economic outlook, this is due to divergent economic recoveries among countries, as well as the developments of the financial conditions, the prices of primary commodities, and the economy's ability to adapt. The global economy contracted in an unprecedented speed by -3.3%, against a growth of 2.8% in 2019.

**The COVID-19 crisis was a tremendous shock with unprecedented ramifications that triggered instability among the public and high uncertainty in the global economy.**

### JORDAN ECONOMY:

The Jordanian economy as other economies was affected by the COVID-19 pandemic and its negative implications on most economic activities; it contracted by -1.6% in 2020, compared to a growth of 2% in 2019. However, the contraction recorded was far fewer than the expected -3.4% at the beginning of the pandemic. The government and the CBJ's proactive and overarching measures, which are mentioned in this Report, have substantially contributed to mitigating the contraction severity, which was among the least in the region. As for the outlook, the International Monetary Fund (IMF) estimates that the Jordanian economy is projected to grow in 2021 and 2022 by 2% and 2.7% respectively. With respect to the financial stability in Jordan, it remained stable propelled by sound economic policies, in particular, the monetary and macro- and micro-prudential policies that continued to support and preserve the attractiveness of the JD and maintain a sound and resilient financial sector amid the tremendous challenges lying ahead.

**The government and the CBJ's proactive and overarching measures have substantially contributed to mitigating the repercussions of the COVID-19 pandemic on the Jordanian economy.**

**The financial stability in Jordan, remained stable propelled by sound economic policies despite the challenges.**

### THE BANKING SECTOR IN JORDAN:

Despite the tough and unprecedented conditions that faced Jordan, the region, and the world due to the COVID-19 pandemic, the banking sector in Jordan maintained sound and resilient financial and administrative conditions. The developments of the financial ratios and indicators for banks are indicated below:

**The banking sector in Jordan enjoys high stability, despite the unprecedented conditions, which affected Jordan and the world due to the COVID-19 pandemic.**

- **CAPITAL ADEQUACY:**

The banking system in Jordan enjoys a high capital adequacy ratio (CAR) that ranged between 17% and 21% during the years (2007-2020), with a comfortable margin that is well above the CBJ's minimum requirement of 12% and the Basel Committee's minimum requirement of 10.5%. In 2020, the CAR maintained its level recorded in 2019 of 18.3%, which is notably higher than its level of 16.9% recorded in 2018. This increase was influenced by the CBJ's decision requesting banks to postpone distributing dividends realized for the fiscal year 2019, to support banks' capital base, hence increasing their ability to counter the ramifications of COVID-19 pandemic and support the national economy. In 2020, the CBJ allowed banks to distribute dividends, which shall not exceed 12% of bank's paid-in capital, provided that the bank must realize profits in 2020; the dividends distribution shall not violate the requirements of the law and regulations governing capital and legal liquidity ratios as well.

**In 2020, the CAR maintained its high level of 18.3%.**

- **QUALITY OF ASSETS:**

Despite the Covid-19 pandemic ramifications, the ratio of non-performing loans (NPLs) to total loans increased only slightly by the end of 2020 to reach 5.5% compared to 5% at the end of 2019, which suggests that banks in Jordan have good quality assets. As for the coverage ratio of NPLs, it reached to 71.5% at the end of 2020 compared to 69.5% at the end of 2019, indicating that the provisions sufficiently cover almost 71.5% of NPLs at banks.

**Despite the repercussions of COVID-19 pandemic, the NPLs increased only slightly to 5.5% in 2020, compared to 5% in 2019. Around 72% of NPLs are covered by provisions.**

- **LIQUIDITY:**

The Jordanian banking sector enjoys a safe liquidity as indicated by the liquidity ratios registered at the end of 2020. The total high-liquid assets accounted for 46.3% of total assets at the end of 2020 compared to 45.6% at the end of 2019. This increase in the liquidity ratio is due to the CBJ's adoption of a set of precautionary and overarching measures to curb the negative ramifications of COVID-19 on the national economy. These measures included the provision of JD 1,050 million additional liquidity to the banking sector. Legal liquidity increased to 136.5% at the end of 2020, compared to 133.8% at the end of 2019; the minimum requirement of legal liquidity is 100%.

**The CBJ injected additional liquidity to the banking sector, which raised the liquidity ratios of banks, and enabled them to postpone the debts repayments due on clients affected by the pandemic and to proceed with financing the economy.**

- **PROFITABILITY:**

The after-tax net profit of banks operating in Jordan reached JD 328.2 million, against JD 586.5 million in 2019, declining by JD 258.3 million, or 44%. This decline is attributed to the high provisions allocated by banks in 2020 to hedge against the COVID-19 crisis risks, in addition to postponing the debt installments due on clients affected by the pandemic, as well as the rescheduling of

**Banks' profits declined by 44% in 2020, due to high provisions allocated by banks for hedging against the risks of the pandemic, besides the postponement of the debt installments due on clients infected by the pandemic.**

loans for certain affected economic sectors without charging any additional fees and/ or late payments interests. Given the decline in the profits of banks, the Return on Assets (ROA) reached to 0.6% at the end of 2020, against 1.2% at the end of 2019. In addition, the Return on Equity (ROA) declined to 5.1% at the end of 2020, down from 9.4% in 2019.

- **CONCENTRATION IN THE BANKING SECTOR:**

In 2020, the concentration ratios in the banking sector in Jordan continued to follow a downward trend, while the competitiveness levels kept their upward trending. The assets of the largest five banks out of 24 banks accounted for 54.1% of licensed banks' total assets at the end of 2020, compared to 60% at the end of 2006. The improvement in the competitiveness is due to banks continuous enhancement and continuously seeking to upgrade their businesses and products to increase their competitive capabilities.

**The concentration ratios in the banking sector in Jordan continued to follow a downward trend, while the competitiveness levels kept their upward trend.**

- **CREDIT GROWTH:**

The direct credit facilities extended by banks grew by 5.4% at the end of 2020 to reach JD 27.9 billion, compared to 3.1% in 2019. A large part of this notable growth is explained by the banks postponements of loan installments due on clients affected by the COVID-19 pandemic, in addition to the CBJ's financing programs, which were launched to support affected SMEs and affected economic sectors. It is noteworthy, that the total credit facilities accounted for 90% of GDP at the end of 2020, compared to 83.8% at the end of 2019; Jordan ranked in the middle compared to a number of countries in the region. This remarkable increase is attributed to two main reasons; first, is the high credit growth which is largely explained as mentioned earlier by the postponement of debt installments due on clients affected by the COVID-19 pandemic (indicating that it is an abnormal growth), while the second is the GDP's unusual decline due to COVID-19 crisis repercussions.

**The credit facilities increased in 2020, mainly due to the postponement of debt installments due on clients affected by the pandemic, as well as the CBJ's financing programs.**

- **STRESS TESTING:**

The stress testing results, which are used to measure banks' ability to withstand shocks, revealed that the Jordanian banking system is broadly capable to withstand high shocks and high risks. A hypothetical scenario was applied, assuming that the negative ramifications of the novel COVID-19 and the challenges it brings to the national economy are further deepened, resulting in the decrease in tourism income and direct investment, as well as the decline in national exports and the return of expatriates from abroad. This may lead to a significant contraction in economic growth rates compared to projected rates, high level of unemployment rate, and a deterioration in the financial market. It was also assumed that the interest rates on the Jordanian dinar would increase to curb inflationary pressures and maintain the attractiveness of the JD as a saving

**The stress testing results revealed that the Jordanian banking system is broadly capable to withstand high shocks and high risks arising from the repercussions of COVID-19 pandemic as banks enjoy high levels of capital and sufficient levels of liquidity and profitability as well.**

currency. The results of these tests indicated that the CAR of the banking sector in Jordan after assuming the abovementioned scenario is expected to reach 17.2%, 15.4% and 13% for the years 2021, 2022, and 2023 respectively. Accordingly, under the severe scenario, the CAR will remain above the minimum requirement of 12% applied in Jordan, and the minimum requirement determined by the Basel Committee of 10.5%.

**The financial stability index revealed that the banking sector in Jordan is highly stable, despite the unprecedented conditions that challenged Jordan and the world due to COVID-19 pandemic.**

- **THE FINANCIAL STABILITY INDEX IN JORDAN:**

This index was developed in 2016, considering the practices of several countries in building their financial stability indices; it recorded 0.44 in 2020, which indicates that the financial system in Jordan is sufficiently stable despite the unprecedented conditions that hit Jordan and the world due to COVID-19 pandemic. The banking stability index in particular indicates that Jordan enjoys a highly sound, resilient, and stable banking sector, as Jordan ranked fourth among (23) countries with indices using the same methodology of the Financial Stability Index for Jordan.

### THE HOUSEHOLD SECTOR:

The household debt increased to reach JD 12 billion at the end of 2020, compared to JD 11.2 billion in 2019 growing by 6.9%, which is higher than the growth recorded in 2019 of 4%. A large part of the household indebtedness growth in 2020 does not reflect a real growth as it resulted from the postponements of debt installments due on clients affected by the COVID-19 pandemic.

**The DBR for households reached to around 45%, which is acceptable according to international standards.**

As for the household debt relative to their income (Debt Burden Ratio (DBR)), which is measured by the value of monthly installments and interest payments paid by the borrower relative to his/ her regular income, it increased in 2020 to reach around 45.2% compared to 43% at the end of 2019. This is attributed to the decline of households' income due to the repercussions of COVID-19 pandemic. Despite the increase of this ratio in 2020, it is still considered acceptable according to international standards, as most countries recorded an average ranging between (40%-50%).

### THE CORPORATE SECTOR:

The year 2020 was a tough year for the corporate sector in general, as most financial indicators for non-financial corporates deteriorated, primarily due to the ramifications of COVID-19 crisis and its implications on the companies' performance and operational activities. This led the CBJ to allow banks to defer loan installments due on affected companies, in addition to initiating soft financing programs to assist these companies alleviating the repercussions of the COVID-19 pandemic on their business. On another front, in the second half of 2020, the profits of non-financial corporates improved compared to their level in the first half of 2020; the listed companies' profits increased to reach approximately JD 339.8 million, compared to JD 43.3 million during the first half of 2020. This is a reason for optimism that companies' performance will improve

**In 2020, most financial indicators for the corporate sector had deteriorated due to the ramifications of COVID-19 pandemic, yet indicators are showing signs of recovery in light of the reopening of economic sectors.**

in the next coming period in light of the reopening of economic sectors, the positive developments in terms of the expansion in vaccines rollout campaigns, and the expectations of achieving growth rates next years.

## THE REAL ESTATE SECTOR:

In 2020, the real estate trading volume dropped by 26% compared to its level in 2019. The real estate price index (REPI) decreased by 0.1% owing to the ramifications of COVID-19 pandemic, which substantially affected the majority of economic sectors in Jordan including the real estate sector. This notable slowdown in the real estate sector requires some banks to reconsider the maximum limit of Loan-to-Value ratio (LTV) of real estate mortgages, especially for banks with LTV ratios exceeding 80%, to avoid any potential risks that may arise from the decline in real estate prices.

**In 2020, the real estate trading volume dropped by 26% compared to 2019. The ramifications of COVID-19 pandemic affected the majority of economic sectors in Jordan including the real estate sector.**

It is worth mentioning that credit facilities extended to the real estate sector for residential and commercial purposes amounted to JD 5.59 billion at the end of 2020 (forming 19.8% of total credit facilities extended by banks), compared to JD 5.44 billion at the end of 2019, increasing by 2.8% compared to a decline of -0.4% in 2019. The growth in 2020 is mainly attributed to banks postponement of debt installments due on clients impacted by the COVID-19 pandemic.

**The credit facilities extended to the construction sector reached JD 5.6 billion, accounting for about 20% of credit facilities extended by banks.**

## THE FINANCIAL INCLUSION:

On 4/12/2017, the CBJ launched the National Financial Inclusion Strategy (NFIS) for (2018-2020) under the patronage of his Majesty King Abdullah II and in the presence of the Prime Minister. The Strategy aims at enhancing the access to the financial services of the formal financial sector by different segments of society, in a fair, transparent, and responsible manner. The strategy comprises five pillars, namely; enhancing financial education, financial consumer protection, financing Small and Medium sized Enterprises (SMEs), microfinance services, and digital financial services. A database that supports these five pillars was established to ensure the accuracy and the implementation of goals, and the vision clarity of each pillar. This Report reviews the main accomplishments and actions taken in each pillar of the strategy. The strategy aims at achieving two main goals; the first goal is to raise the level of financial inclusion, measured by the number of adults owning accounts in financial institutions, from 33.1% in 2017 to 41.5% by 2020. The second goal is to reduce the gender gap regarding the access to finance from 53% to 35%.

**The NFIS (2018-2020) achievements outperformed their targeted levels in the strategy.**

It is worth mentioning that in 2020, the achievements outperformed their targeted levels in the strategy; the financial inclusion increased to around 50% exceeding the targeted 41.5%, while the gender gap decreased to 29% below the targeted 35%. This denotes the huge success of implementing the NFIS. It is noteworthy that the CBJ is intending to conduct a diagnostic study on the financial inclusion status quo in 2021, to include the supply and demand factors thereof. This is in the context of preparing a new strategy for financial inclusion.

**WOMEN EMPOWEREMENT AND SUPPORT:**

The CBJ continued to adopt more policies and procedures to support and empower women in the economy in general, and in the banking sector in particular. As mentioned above, on the national level, these policies have increased the financial inclusion to exceed 50%, and lessened the gender gap for access financing from 53% to 29%, which is better than the targeted level in the NFIS (2018-2020). Women's access to financial and banking services and products and removing the obstacles for her access will enhance her ability to exercise her rights in a fair financial environment. Thus, the participation of women becomes more influential in supporting economic growth through enhancing her ability to save and invest, strengthening her financial resources' management, and increasing the success opportunities of her business, which will reflect positively on women, their families, and their communities.

**The CBJ continued to adopt the policies and measures to support and empower women to access financial and banking services and products tailored to their needs.**

**Women constituted 35% of total depositors with banks, and 19% of total borrowers.**

In order to support and empower women's participation in the Jordanian banking sector, the CBJ directed a memo to licensed banks on 29/4/2021, through the Association of Banks in Jordan. It aims at enabling women's access to financial and banking services and products tailored to their needs, removing any obstacles that may prevent their access, and promoting the participation of women in the bank's boards of directors and senior management. This will enhance women's ability to exercise their rights in a fair financial environment, which in turn reflects positively on the performance of banks by increasing diversity and efficiency in decision-making, expanding the customers' base, and increasing the banks' market share. This memo suggested a number of proposals and recommendations for banks to consider, namely; banks shall specify a quota of not less than 20% for women's representation in the boards of directors, and a quota of not less than 25% in senior management by the year 2024. This is in addition to offering women-friendly financial services, and strengthening the institutional culture supporting women in banks through the foundation of a women-friendly and supportive institutional culture and human resources management, as well as setting policies that ensure non-discrimination, equal opportunities, and gender equality. This is in addition to the capacity building of banks' employees with regard to gender, and preparing and publishing detailed data by gender. On the other hand, the CBJ is currently preparing for a new financial inclusion strategy, which will involve putting in place a special action plan for women's projects in the Kingdom. It is noteworthy that women are forming 35% of total depositors with banks and 19% of total borrowers from banks.

**LEGISLATIVE FRAMEWORK:**

In 2020, the CBJ continued its comprehensive review of the legislative framework governing the practices of the banking and financial institutions under its supervision. Chapter Two of this Report illustrated major supervisory amendments conducted by the CBJ during the years 2019, 2020, and the first half of 2021, namely: the Amended Banking Law No. (7) of 2019, Regulating Insurance Business Law No. (12) of 2021, and the Amended Law of Jordan Deposits Insurance Corporation No. (8) of 2019, in addition to various significant banking regulations that were issued to keep up with latest developments and international

**The CBJ officially included the insurance sector under its regulatory umbrella.**

best practices and experiences regarding the role of central banks in maintaining monetary and financial stability.

The new law for regulating the insurance business reflects the CBJ's vision and its endeavors to strengthen the regulatory and supervisory frameworks for insurance business. This is in line with international standards and best practices, and within the CBJ's tendency towards enhancing the stability, safety and development of the insurance sector to enable it to perform its expected role in serving the national economy. The provisions of this law shall apply to all insurance companies, reinsurance companies, insurance service providers, and all relevant entities and means to regulate the insurance sector and the supervision on this sector. This is in a manner that ensures the rights of the insured persons and the beneficiaries, and the soundness of the financial positions of insurance companies and reinsurance companies as well.

## DIGITAL FINANCIAL SERVICES AND DIGITAL BANKS:

**The CBJ continued to strengthen and enhance digital financial services and support initiatives and innovations using international cutting edge Fintech.**

Jordan achieved tremendous progress in the Fintech and innovation area; Jordan enjoys an investment environment that supports innovation, besides the increasing demand for Fintech in the Jordanian market. To this end, the CBJ announced its support for initiatives and innovations that use the cutting edge Fintech, especially those promoting the feasible, efficient, and secure access to digital financial services. However, strengthening cyber security is essential for financial services in general. In 2020, the CBJ proceeded with restructuring the payment and settlements systems in the Kingdom, in partnership with banks operating in Jordan and relevant stakeholders. The CBJ continued to provide the electronic bill presentment and payment through (eFAWATEERcom) system, which is operated by Madfooatcom for electronic payment. The CBJ has also finalized the automation of government payments project plan, in cooperation with a number of Ministries and government institutions.

It is worth mentioning that at the beginning of 2018, the CBJ launched the regulatory guide for the Fintech Regulatory Sandbox. This aims at creating an incubator for entrepreneurs to support and encourage innovation and development in the Fintech sphere, to enhance competitiveness in digital financial services area, and enhance the efficiency, effectiveness, and security in transferring funds. This is in addition to enhancing the access to formal financial services, as well as preserving the integrity and stability of the financial sector, and protecting rights and data of the financial consumer.

**Digital banks do not exist physically in the form of branches (physical location) with the exception for certain requirements related to the general management. These banks virtually finalize the requirements for establishing the banking relationship, provide the services and products, and conduct banking transactions with their clients (without timing or location restrictions) over the internet platforms, mobile applications, and other electronic channels using innovative technological solutions.**

On 29/7/2021, the CBJ issued **"Regulating Digital Banks in the Hashemite Kingdom of Jordan"** document. This is in response to the rapid trends in innovations in the Jordanian banking sector, the change in the financial consumer behavior, and the market's needs and requirements. It is parallel with the trends in cutting edge technologies and the innovations thereto, as well as the entrance of new service providers competing to provide new comprehensive financial products that meet consumer's needs and desires and providing attractive and cost-effective offers and solutions. This document aims to state the CBJ's stance towards regulating integrated digital banks in the Kingdom. It also lays the ground towards putting in place the essential rules for licensing digital banks. This includes the nature of shareholders/ owners, capital requirements, and the nature and quality of services and products that digital banks can provide in light of the developments and trends of the Fintech solutions in the banking sector, in a manner that takes into account the interests of all parties and the economy as a whole. The CBJ's orientation in this regard aims to preserve and support the sustainable development and innovation that ensures achieving the targeted growth in the Jordanian banking sector and paving the way into an inclusive and developed digital economy according to the Royal visions. This document has been disseminated to all banks operating in the Kingdom in coordination with the Association of Banks to strengthen the CBJ's principle of partnership and consultation with the institutions under its supervision. The CBJ also solicited banks to address the importance of digital banks, and to state their views towards regulating digital banks in a manner that takes into account the expected benefits, supporting the impetus and development of the banking sector in Jordan, and the sustainable keeping pace with the trends.. This is in parallel with meeting the needs and desires of the public's various segments and enhancing the financial inclusion in the Kingdom.

## TOKENIZATION OF ASSETS AND INVESTMENTS AND ASSOCIATED RISKS:

**The Financial Stability Board (FSB, 2019) defined tokenization as the process of digitally representing existing assets like shares, bonds, real estates, commodities, and other assets on a distributed ledger technology (DLT), in particular the Blockchain, and convert their value into tokens tradable in different exchanges and markets.**

The Fintech sector developments and using cutting-edge electronic technology are growing rapidly in recent years, inducing a paradigm shift in the financial sector, global financial markets, and the overall global macro economy. The COVID-19 pandemic negatively affected various sectors, yet it encouraged the transformation towards a digital economy and using digital financial services and digital financing, including blockchain-based Tokenization, which became widely used in a short period. However, it created challenges to the global economy in terms of finding a balance between utilizing the technological progress and raising the effectiveness of financial systems, and managing the potential risks associated with these developments, which may jeopardize the global financial system and the financial stability as a whole. It is worth noting that tokenization is not implemented yet in Jordan, nonetheless, the CBJ opted to raise this issue given the increasing attention paid to tokenization as a tool for the infrastructure development of various asset markets. It is applicable to all real estate, commercial, and financial services sectors, and achieves several goals such as supporting the capital needed for investment, providing more liquidity, and increasing the investors' base, especially small investors. Accordingly, the tendency towards using the digital Fintech has increased, including tokenization of assets, especially after the spread of the COVID-19 pandemic and the respective lockdowns. To implement the tokenization of assets optimally and avoid their disadvantages and risks, several aspects must be considered, mainly the regulatory legislations, which shall regulate the tokenization-based markets and reduce associated risks to maintain the financial stability, in addition to creating the infrastructure required to apply this technology. This is in addition to raise the public's awareness of using and dealing with this technology, besides its associated risks, as well as protecting the investors and their funds.

## LESSONS LEARNT FROM THE COVID-19 PANDEMIC ACCORDING TO THE FINANCIAL STABILITY BOARD REPORT:

**The COVID-19 pandemic was the first real test for the global financial system, its flexibility, and ability to withstand shocks since the G20 regulatory and financial reforms after the global financial crisis in 2008.**

The COVID-19 pandemic is the first real-life test of the global financial system that examined its flexibility and ability to withstand shocks, especially since the regulatory and financial reforms conducted by the Financial Stability Board and the Basel Committee on the global financial system, which were adopted by the vast majority of countries aftermath the global financial crisis in 2008. These reforms have significantly helped to mitigate the repercussions of this pandemic. The financial system underwent this crisis equipped with high levels of capital adequacy ratios and comfortable levels of liquidity in addition to a solid infrastructure, which mitigated the negative impacts of this pandemic on the stability of the banking sector and financial markets that remained resilient, and proceeded with their business as required. This is in addition to the exceptional fiscal and monetary policy measures taken by most countries worldwide, which extremely helped in containing the risks of this pandemic on the financial stability.

From a financial stability perspective, the COVID-19 pandemic introduced a number of lessons learnt, which were addressed in the recent FSB's report published in July 2021. The report initially included an assessment of the impact of the pandemic on the global financial system and financial markets, and the measures taken by countries to mitigate these ramifications. Afterwards, the report stipulated several lessons and recommendations arising from the COVID-19 pandemic, which are summarized as follows:

1- One of the main challenges that central banks may face during the coming period is how to balance between containing inflationary pressures represented by the rise in the prices of goods and services globally, and proceeding with supporting the economic recovery from the pandemic effects.

2- Accordingly, the governments and central banks shall evaluate the exceptional measures that have been taken to support individuals and companies during the pandemic, and exit these measures gradually to ensure that economic recovery is not impacted adversely.

3- The COVID-19 pandemic has highlighted the divergence in solvency among the global financial systems, as countries adopted regulatory and financial reforms after the global financial crisis in 2008, mainly Basel III reforms, enjoyed greater resilience and higher capability to withstand the consequences of this pandemic.

4- The pandemic also stressed out the importance of finalizing the implementation of other regulatory and financial reforms, especially with regard to enhancing the soundness of non-banking financial institutions sector and the strengthening of the crises management system.

5- The pandemic has also emphasized the significance of effective operational risk management, and enhancing the resilience in terms of the cybersecurity amidst rapid technological change.

6- Banks and non-banking financial institutions may encounter additional losses after terminating the support measures for the affected sectors. This requires these banks and institutions to build sufficient provisions to hedge against future risks.

It is worth noting that the FSB will cooperate with relevant competent authorities regarding the preliminary results and issues raised in this Report. The final report, which will be disseminated to the G20 Summit in October 2021, will include the upcoming actions to address the COVID-19 pandemic consequences on the global financial stability.

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# CHAPTER ONE: GLOBAL AND DOMESTIC ECONOMIC AND FINANCIAL DEVELOPMENTS AND PROSPECTS

## 1-1 THE GLOBAL ECONOMIC DEVELOPMENTS AND ECONOMIC GROWTH

The global economic system has remained resilient during the COVID-19 pandemic thanks to the exceptional fiscal and monetary policy measures conducted by most countries worldwide, which helped to mitigate the risks of the pandemic on global economic activity and financial stability.

However, more than a year and a half now since the onset of the COVID-19 pandemic, the global economic outlook is surrounded by high uncertainty related to divergent recoveries among countries, the development of financial conditions, the primary commodities prices, as well as the economy's ability to adapt. According to the IMF's world economic outlook (WEO) issued in April 2021, the most prominent downside risk factors include: new variants of coronavirus, and the delays in the production and distribution of vaccines. This is in addition to rising inflationary pressures, the increasing frequency of natural disasters arising from climate change, the geopolitical risks, risks of international trade tensions especially between the US and China, and cyber risks which were and remain one of the major technological risks.

The global economic growth contracted in an unprecedented speed by -3.3% in 2020; compared to a growth of 2.8% in 2019.

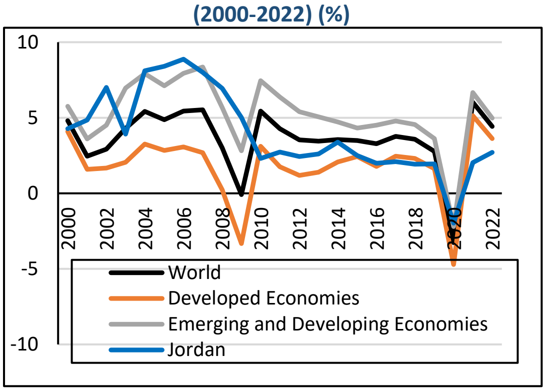
The IMF's forecasts projected the global economy to rebound strongly in 2021 and 2022, compared to previous forecasts. The global economy is set to grow by 6% in 2021 and to slowdown in 2022 by 4.4%. The contraction recorded in 2020 was less than the projected in the October 2020 WEO by 1.1 percentage points, which denotes the higher growth in the second half of 2020 in most regions after easing the lockdowns procedures and the economies being adapted to new ways of work. The growth forecasts for 2021 and 2022 were higher by 0.8 and 0.2 percentage points than the forecasts in the WEO of October 2020. This reflects the additional support for the public finances in a number of developed economies and the expected recovery anticipated due to the availability of vaccines in the second half of 2020. (Table 1-1 and Figure 1-1).

**TABLE 1-1: WORLD ECONOMIC OUTLOOK 2020 AT A GLANCE**

| | Year | The World | Developed Economies | Emerging Economies |
|---|---|---|---|---|
| Actual Data | 2019 | 2.8 | 1.6 | 3.6 |
| | 2020 | -3.3 | -4.7 | -2.2 |
| Latest Estimates April 2021 | 2021 | 6.0 | 5.1 | 6.7 |
| | 2022 | 4.4 | 3.6 | 5.0 |
| Estimates of October 2020 Report | 2021 | 5.2 | 3.9 | 6.0 |
| | 2022 | 4.2 | 2.9 | 5.1 |

Source: IMF, WEO Database, October 2020 and April 2021.

**FIGURE 1-1: REAL GDP GROWTH TRENDS AND PROSPECTS FOR JORDAN AND THE WORLD (2000-2022) (%)**

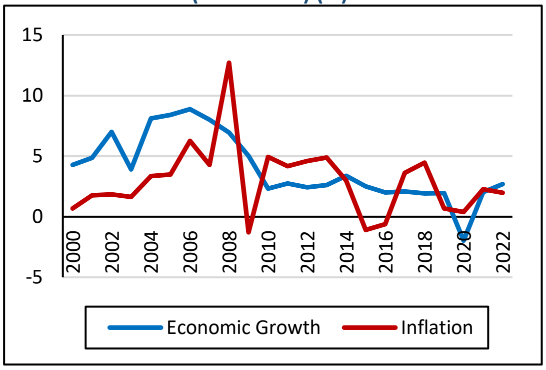



Source: IMF, World Economic Outlook Report Database, April 2021.

The Jordanian economy contracted in 2020 by -1.6%, compared to a growth of 2% in 2019, affected like other countries worldwide by the COVID-19 pandemic, and its negative repercussions on most economic activities. However, the contraction recorded in the Jordanian economy in 2020 was much less than the -3.4% expected in the beginning of the pandemic. The government and CBJ proactive and overarching measures, which will be discussed later, contributed significantly to mitigating the severity of the downturn, and led the Jordanian economy to contract with a rate among the lowest in the region. Furthermore, according to the IMF's estimates in the WEO April 2021, the Jordanian economy is set to recover in 2021 and 2022 by 2% and 2.7%, respectively. (Figure 1-2).

The domestic financial stability maintained its level, propelled by prudent economic policies, in particular the monetary and the macro and micro prudential policies, which continued to support the Jordanian dinar and maintain its attractiveness, as well as ensuring a robust and sound financial sector despite the tremendous challenges ahead.

FIGURE 1-2: THE REAL GDP GROWTH AND INFLATION RATE DEVELOPMENTS AND PROSPECTS IN JORDAN (2000-2022) (%)




Source: IMF, WEO Database, April 2021.

## 1-1-1 PUBLIC FINANCE DEVELOPMENTS

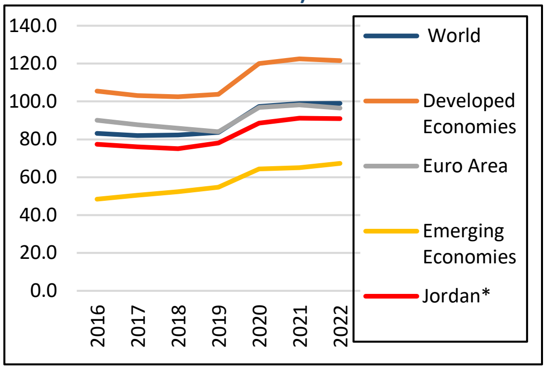
The global growth prospects are surrounded by unprecedented high uncertainty. The vaccine race is still running against COVID-19, yet the frequency of vaccinations varies among countries worldwide, especially between the developed and emerging and developing countries. However, if vaccinations rollouts proceeded faster than expected, the pandemic is probably set to end, thus enhancing revenues realization and reducing the need for further public finance support. In contrast, the prolonged economic downturn, a sudden tightening of financial conditions under high levels of debt, a surge in bankruptcies of companies, or the volatility of primary commodities prices would dampen recovery. Broadly speaking, the longer the pandemic is, the greater the challenge on public finance will be.

## 1-1-2 PUBLIC DEBT

The IMF's Fiscal Monitor report of April 2021 illustrated that the public finance support has resulted in decreasing revenues, and increasing the public deficit and public debt levels to high records for all countries regardless of their income.

The IMF report indicated that the average global public debt in percent of GDP hit a record high of 97.3% in 2020, and is set to rise to reach 99% of GDP in 2021 and 2022. (Figure 1-3).

FIGURE 1-3: PUBLIC DEBT (2016-2022) (IN PERCENT OF GDP %)



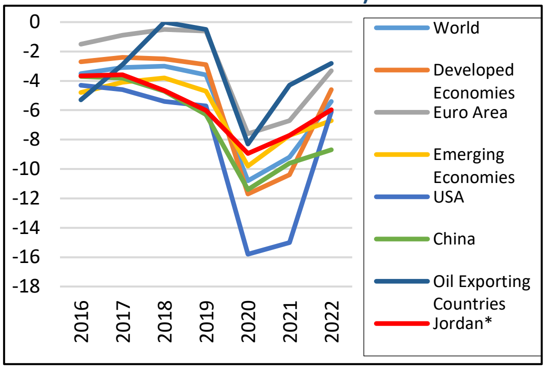

Source: IMF, Fiscal Monitor Database, April 2021.
*: Jordan, IMF, WEO Database, and April 2021.

In advanced economies, the public debt to GDP ratio increased to a record high of 120.1% in 2020 up from 103.8% in 2019. As for emerging markets and developing economies, the public debt to GDP ratio increased from 54.7% in 2019, to reach 64.4% in 2020; and is expected to rise to 67.3% by the end of 2022. The report indicated that fiscal policy priorities include continued support as required, proceeding with vaccinations, and strengthening recovery. This is in addition to addressing long-term public finance's vulnerabilities, putting in place medium-term strategies for risk management of public finance and financing, and strengthening efforts to achieve sustainable development goals.

## 1-1-3 FISCAL DEFICIT

According to the IMF's Fiscal Monitor report of April 2021, the public finances trends demonstrated divergence among major countries and economies worldwide. The global fiscal deficit increased as a percentage of GDP to reach 10.8% in 2020, compared, to 3.6% in 2019, due to the repercussions of COVID-19 pandemic. However, it is expected to improve to 9.2% and 5.4% in the couple next years of 2021, and 2022, respectively. (Figure 1-4).

FIGURE 1-4: FISCAL DEFICIT OF JORDAN AND SELECTED MAJOR ECONOMIES AND COUNTRIES (2016-2022) (IN PERCENT OF GDP %)




Source: IMF, Fiscal Monitor Database, April 2021.
*: Jordan IMF, WEO Database, April 2021.

In addition, the fiscal deficit in percent of GDP increased to 11.7% by the end of 2020 in advanced economies, compared to 2.9% in 2019. However, it is set to decline notably to reach around 4.6% by the end of 2022. As for emerging markets, the fiscal deficit increased from 4.7% in 2019 to 9.8% in 2020; it is projected to decline to 7.7% and 6.7% in 2021 and 2022, respectively. The oil exporting countries fiscal deficit to GDP ratio increased to 8.3% in 2020 substantially up from 0.5% recorded in 2019 triggered by the COVID-19 crisis ramifications. However, it is projected to decline to reach 4.3% and 2.8% in 2021 and 2022, respectively. With regard to US and China, the forecasts illustrates that a speedy recovery is expected by 2022, after a sharp increase in the fiscal deficit due to the pandemic and its repercussions.

## 1-2 GLOBAL FINANCIAL SYSTEM STABILITY

### 1-2-1 GLOBAL FINANCIAL STABILITY

The IMF's Global Financial Stability Report of April 2021 indicated that the exceptional measures taken to contain the impacts of the pandemic led to easing fiscal conditions and supported the economy, which helped to mitigate the financial stability risks. The recovery is expected to be divergent in terms of speed and depth among developed and emerging economies. This is in light of the tremendous financing needs, especially if the US interest rates continue to rise leading to repricing of risks and further tightening of financial conditions. In several countries, the corporate sector is seemingly burdened with high debts during the pandemic, which will adversely affect banks and increase defaults, thus affecting the quality of banks' credit portfolios. The IMF experts' analysis indicated that the performance differs among sectors and among companies according to their size, as the pressures resulting from the repercussions of the COVID-19 pandemic are particularly high for SMEs in most sectors and across various countries.

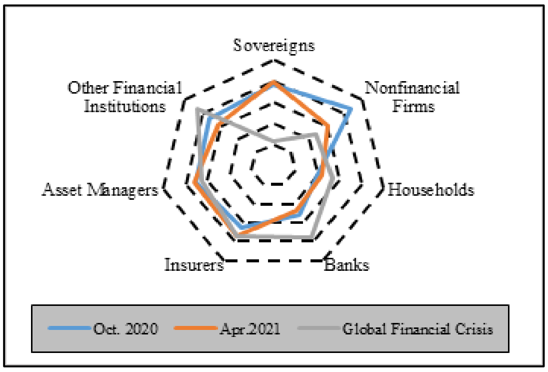
On another front, when the pandemic hit, banks were equipped with high capital buffers and liquidity, thanks to the regulatory reforms implemented since the global financial crisis in 2007-2008, which provided banks the resilience to withstand the pandemic so far. The report also indicated that supporting the economy is still essential until a firmly established sustainable recovery is achieved, to keep credit flowing into the economy and prevent jeopardizing the global financial system. The monetary policy shall remain accommodative until policy objectives are achieved. However, policymakers shall react early to prevent entrenching of financial vulnerabilities and avoid them turning into fundamental problems. This is besides the need to tighten certain macro prudential policy tools, yet avoiding broad tightening of financial conditions. The Report highlighted that the vulnerabilities threaten the global financial stability to remain high across several sectors according to the Report's methodology.

In the public sector, vulnerabilities are higher in systemically important countries, which represent around 80% of GDP for countries in the sample[1], where debt levels hit records high due to the repercussions of the COVID-19 pandemic. As for the corporate sector, non-financial companies have benefited from easing of the financing terms, especially in US and some advanced economies, which led to the accumulation of debts and high financial

[1] Countries in the sample are developed economies (US, Euro area, and other countries), and emerging economies and countries (China and other countries).

leverage ratios in the corporate sector. Therefore, policy makers must balance between short-term economic easing actions and the risks associated in the medium term. As for households sector, vulnerabilities are still high in China and some advanced economies. In the financial sector, nearly half of banks in the systemically important economies fall in the medium-high to high category in terms of the magnitude of vulnerabilities. Meanwhile, in other financial institutions sector, vulnerabilities in general ranged from medium to high. In the insurance sector, vulnerabilities have risen in some advanced economies due to the pandemic, and the mutual investment funds vulnerabilities have not changed significantly since the Global Stability Report of October 2020, yet the interconnectedness remains a concern for the mutual funds sector because of large lines of credit with banks. (Figure 1-5).

**FIGURE 1-5: GLOBAL FINANCIAL VULNERABILITIES**




Source: IMF, Global Financial Stability Report, April 2021

## 1-3 DOMESTIC ECONOMIC AND FINANCIAL TRENDS AND PROSPECTS

### 1-3-1 OVERVIEW

The Middle East during the period 2012-2019 underwent political and security instability. At that time, the deepening political and security unrest has led to a slowdown in the national economy, as economic growth rates were modest and not exceeding 2%.

The COVID-19 pandemic, the flagship event at the beginning of 2020, is a global pandemic that has affected the stability of different economies. In addition, it was considered as a multifaceted crisis with health, economic, and social consequences.

### 1-3-2 ECONOMIC GROWTH

The GDP at constant prices has contracted by -1.6% in 2020, compared to an economic growth of 2% in 2019, due to the COVID-19 pandemic. As mentioned previously, the contraction of Jordan's economy was far shallower than expected, thanks to the proactive and overarching measures taken by the CBJ and government, which lessened the severity of the pandemic on the national economy. As for the GDP in current prices, it contracted by -1.8% in 2020, against a growth of 3.7% in 2019. (Table 1-2).

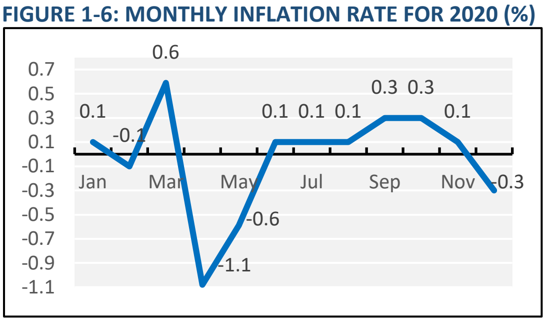
### 1-3-3 UNEMPLOYMENT

The COVID-19 pandemic has a toll on the labor market. The unemployment rate increased to 23.2% by the end of 2020, increasing by 4.1 percentage points compared to its level in 2019. The unemployment rate peaked in the fourth quarter of 2020 to reach 24.7% (22.6% for males, and 32.8% for females).

### 1-3-4 INFLATION

The general prices level, measured by the consumer price index increased by 0.3% in 2020, compared to 0.8% in 2019. (Figure 1-6).

**FIGURE 1-6: MONTHLY INFLATION RATE FOR 2020 (%)**



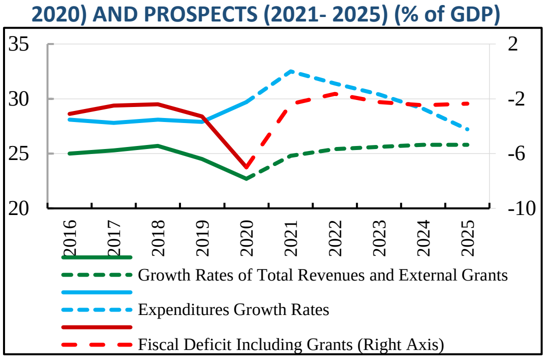

Source: CBJ, Statistical Database, April 2021.

### 1-3-5 PUBLIC FINANCE DEVELOPMENTS

During the pandemic, the overall fiscal deficit including grants increased to JD 2,182.4 million in 2020 (7% of GDP) compared to JD 1,058.4 million (3.3% of GDP) in 2019. The decline in domestic revenues in 2020 that amounted to JD 727.9 million (due to the lockdown in Jordan's economy after mid-March 2020 because of the COVID-19 pandemic) contributed to an increase in the fiscal deficit to the above-mentioned levels. (Figure 1-7).

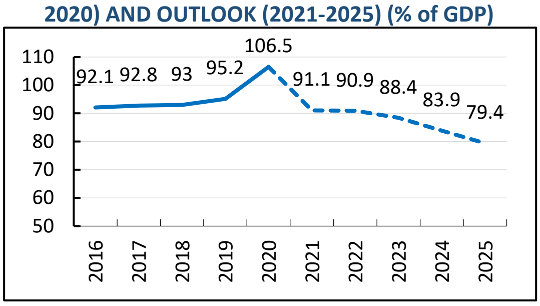
Total public debt reached to JD 33,032.1 million at the end of 2020, or 106.5% of GDP, compared to JD 30,076.3 million, or 95.2% of GDP at the end of 2019. (Figure 1-8).

FIGURE 1-7: PUBLIC FINANCE TRENDS IN JORDAN (2016-2020) AND PROSPECTS (2021- 2025) (% of GDP)




Source: Ministry of Finance, Monthly bulletin, January 2021.
IMF estimates, WEO database April 2021.
Estimates are available until 2026.

FIGURE 1-8: TOTAL PUBLIC DEBT IN JORDAN (2016-2020) AND OUTLOOK (2021-2025) (% of GDP)

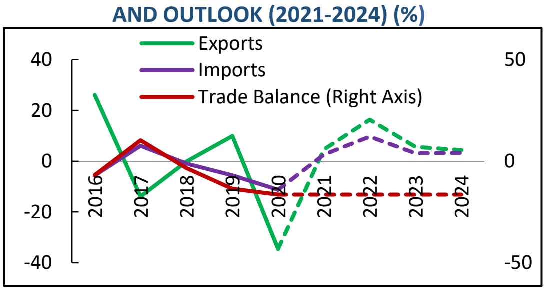



Source: Ministry of Finance, Monthly bulletin, January 2021.
IMF Projections, WEO database April 2021.
Estimates are available until 2026.
**The public debt (including the Social Security Investment Fund (SSIF))

## 1-3-6 EXTERNAL SECTOR

In 2020, total exports declined by 4.5% to reach JD 5,639.7 million. In addition, imports decreased by 11.3% to reach JD 12,077.8 million. This made the Kingdom's trade balance to shrink by 16.5% compared to its level in 2019 to reach JD 6,438.1 million. (Figure 1-9) and (Figure 1-10).

FIGURE 1-9: SUMMARY OF EXTERNAL TRADE STATISTICS IN JORDAN (2016- 2020) AND OUTLOOK (2021-2024) (%)



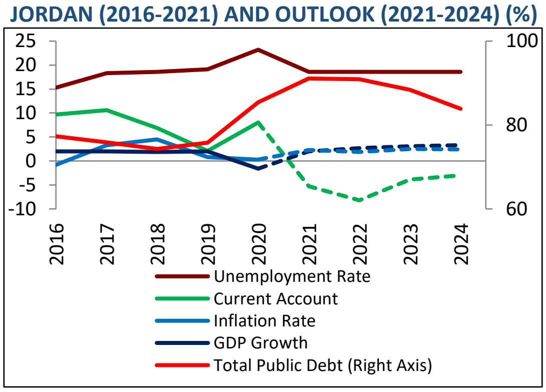

Source: CBJ, Monthly Statistical Bulletin, April 2021.
IMF Projections, WEO database April 2021.
Projections are available until 2026.

ABLE 1-2: SELECTED MAJOR ECONOMIC INDICATORS FOR JORDAN & THEIR PROSPECTS (2005-2024)

| Year | GDP Growth Rate (%) | Inflation Rate (End of Period) (%) | Unemployment Rate (% of Labor Force) | Population (Growth Rate) | Public Debt (% of GDP) | Current Account (%of GDP) |
|---|---|---|---|---|---|---|
| 2005 | 8.1 | 3.5 | 14.8 | 2.8 | 84.3 | -18.1 |
| 2006 | 8.1 | 6.3 | 14.0 | 2.9 | 76.3 | -11.5 |
| 2007 | 8.2 | 4.7 | 13.1 | 3.0 | 73.8 | -16.8 |
| 2008 | 7.2 | 14.0 | 12.7 | 3.0 | 59.6 | -9.3 |
| 2009 | 2.0 | -0.7 | 12.9 | 3.1 | 64.4 | -5.2 |
| 2010 | 3.5 | 4.8 | 12.5 | 3.2 | 66.9 | -7.1 |
| 2011 | 3.3 | 4.2 | 12.9 | 4.3 | 70.6 | -10.2 |
| 2012 | 2.0 | 4.5 | 12.2 | 6.0 | 80.2 | -15.2 |
| 2013 | 2.2 | 4.8 | 12.6 | 8.8 | 86.6 | -10.4 |
| 2014 | 3.5 | 2.9 | 11.9 | 8.2 | 88.5 | -7.2 |
| 2015 | 2.8 | -0.9 | 13.0 | 7.9 | 92.4 | -9.2 |
| 2016 | 2.0 | -0.8 | 15.3 | 2.8 | 92.1 | 9.7 |
| 2017 | 2.0 | 3.3 | 18.3 | 2.6 | 92.8 | 10.6 |
| 2018 | 1.9 | 4.5 | 18.6 | 2.5 | 92.9 | 6.9 |
| 2019 | 2.0 | 0.8 | 19.1 | 2.4 | 95.2 | 2.1 |
| **2020** | **-1.6** | **0.3** | **23.2** | **2.4** | **106.5** | **-8.0** |
| 2021 | 2.0 | 2.2 | - | 1.1 | 91.2 | -8.3 |
| 2022 | 2.7 | 1.9 | - | 0.8 | 90.9 | -4.0 |
| 2023 | 3.1 | 2.5 | - | 0.7 | 88.4 | -3.0 |
| 2024 | 3.3 | 2.5 | - | 0.9 | 83.9 | -2.7 |

Source: CBJ, Monthly statistical Bulletin, IMF projections, IMF World Economic Outlook Database, April 2021. Projections are available until 2026.

FIGURE 1-10: SELECTED ECONOMIC INDICATORS FOR JORDAN (2016-2021) AND OUTLOOK (2021-2024) (%)




Source: CBJ, Monthly Statistical Bulletin, April 2021.

## 1-3-7 MONETARY DEVELOPMENTS

In 2020, the CBJ cut interest rates on all monetary policy instruments by 150 basis points, and 1.5% in response to COVID-19 pandemic. Banks have responded swiftly to this cut by reducing their interest rates before contractual due dates.

With regard to the CBJ's total foreign reserves, including gold and SDRs, they reached JD 15,919.8 million at the end of 2020. It is a comfortable level and sufficiently covers 9.2 months of imports, and is considered safe and exceeds the acceptable rates according to international standards.

## 1-4 THE RISKS OF COVID-19 PANDEMIC AND NATIONAL ECONOMY OUTLOOK: A REAL PERSPECTIVE

The COVID-19 pandemic in 2020 was a tremendous shock with unprecedented socio-economic impacts. At the peak of the pandemic, Jordan conducted fiscal and monetary policies emergency measures, which mitigated the severity of the repercussions of the pandemic. Nonetheless, these repercussions came with a negative impact on the national economy. The economic activity (measured by the GDP in constant prices) contracted by -1.6% in 2020, compared to a growth of 2% in 2019. (Table 1-2).

The COVID-19 crisis affected the economic sectors differently. Some sectors, deteriorated sharply because of the lockdown, such as tourism, restaurants, hotels, the air travel and land transport sector, as well as the social and personal services sector including; education, training, and entertainment. Meanwhile, certain sectors experienced a slowdown in their income, such as the government services sector, the financial and insurance sector, and the agricultural sector.

The local economy has adapted relatively well to temporary internal, regional, and global conditions. The precautionary measures taken by the government and the CBJ to mitigate the repercussions of the pandemic on the local economy are elaborated next:

- **The social protection:** a set of announcements were released based on the provisions of defense orders for the year 2020, mainly the suspension of the ministries and official departments and public institutions and entities operations after mid-March 2020. This is in addition to other announcements recommending the adherence to the preventive measures related to the wearing of masks, social distancing, and quarantine to maintain public health, as well as the closure of schools, commercial centers, and places of worship, and restrictions on travel.
- **Supporting economic sectors:** a bundle of measures was carried out to mitigate the effects of the pandemic on the most affected sectors including:

1) Exempt the tourism associations from the licensing fees and fines due for 2020 and 2021.
2) The installment of income tax due on the tourism sector for the year 2019 without fines or late payment interests.
3) Reduce the general sales tax for hotels and touristic restaurants from 16% to 8%, and reducing the services tax from 10% to 5% starting from 1/7/2020.
4) Reduce the fees charged on work permits for non-Jordanian workers in the agricultural sector and bakeries from JD 400 to JD 200.
5) Exempt the employer from the stamps charged on work permits.
6) Exempt the first time registered agricultural cooperative associations from the service fees and audit allowance for a period of one year, in addition to exempt new cooperative societies from fees for one year. This is in addition to providing a one-time exemption for the agriculture owners in the agricultural and livestock production sector and farms owners from all registration fees as a sole proprietorship, and exempting farmers and seed production companies and agricultural consignments from laboratory examination fees for one year.

- **The monetary and banking policy:** the CBJ conducted a set of proactive and overarching measures to contain the negative repercussions of this crisis on the national economy and the banking sector, which totaled JD 2.7 billion, or 8.6% of GDP. Following are the main measures taken:

1) Inject an additional liquidity of JD 1,050 million into the national economy through the following:

a- Reduce the required compulsory reserve ratio on banks’ deposits from 7% to 5%, which provided the banking sector with additional liquidity of JD 550 million, and enabled banks to lend and reduce the interest rates they charge on credit facilities provided to individuals and corporates. It is noteworthy that this was the first cut since 2009.

b- Conduct JD 500 million repurchase agreements with banks, for maturities that reach up to one year, to provide financing for the public and private sectors.

2) Reduce all monetary policy rates by 150 basis points, or 1.5%. Banks responded immediately and cut their interest rates before contractual due dates.

3) As for individuals and corporates affected by the pandemic, banks were requested to postpone loans repayments. No late payment interests or additional commissions shall be charged in 2020. This measure was extended until the end of 2021.

4) Allow banks to restructure and schedule loans due on clients and economic sectors affected by the pandemic. No down payment is required nor are any additional costs or commissions until the end of 2021.

5) The CBJ launched a JD 500 million soft financing program to support SMEs and help them counter the effects of the COVID-19 crisis. These loans were 85% guaranteed by the Jordan Loan Guarantee Corporation. In 2021, the amount of the program was upgraded to JD 700 million until the end of 2021.

6) Approve the following measures regarding the outstanding and future facilities within the CBJ's JD 1.2 billion-refinancing program to support economic sectors, as follows:

1. Reduce the refinancing program's interest rate from 1.75% to 1%, for projects in Amman, and from 1% to 0.5% for projects in other governorates. This is in addition to extending the maturities of loans provided inside Amman to targeted sectors in the refinancing program up to 10 years, as they are in other governorates, including two years waiver period upon the client's request.
2. Postpone credit facilities repayments for all borrowers within the program for the period starting in March 13, until June 2020. This is in addition to allowing banks to postpone repayments due on impacted borrowers until the end of 2021.
3. New loans and financing within this program are risk weighted at (0%) for calculating the CAR.
4. Credit limits were raised to JD 3 million for all sectors, keeping the limit for renewable energy and transportation sectors at JD 4 million.
5. Expand the coverage of the program to include the export sector (sectors currently covered are the industry, tourism, agriculture, renewable energy, information technology, transportation, health, technical and vocational education and engineering consulting). In 2021, the financing ceiling available for the tourism sector was raised from JD 3 million to JD 4 million; the financing available for other sectors remained unchanged.

7) The CBJ decided not to blacklist clients with returned checks due to financial reasons. No commission shall be charged, for all checks returned during the period 18/3/2020 to 30/04/2020.

8) Reduce the commissions of loan guarantees, and expand the insurance coverage for the local sales guarantee program.

9) Promote using electronic payment services and encourage the use of digital financial services amid the COVID-19 pandemic.

- **The public finance:** the Ministry of Finance during the pandemic tended to borrow from international financial markets by issuing Eurobonds in order to finance part of the financing needs, and to reduce the crowding out effect, and provide available liquidity for the private sector. In addition, a set of measures were carried out to mitigate the ramifications of the pandemic including:

1. Postponing the sales tax due date until payment is received and not on sale transactions (with the possibility of postponing the payment without interest).
2. Putting off the submission of tax returns for income and sales tax department until 30/6/2020.
3. The settlements of lawsuits between the income and sales tax department and the customs department and their taxpayers.
4. Allow companies listed in the golden and silver lists to pay only 30% of customs

duties, and pay the remaining 70% later.

5. Repay a large amount of the arrears balance and claims due to the private sector.
6. Postpone the regulation fees imposed on lands, and allow for the transactions of secretion between heirs and partners in the same sector; payment of returns is deferred until the ownership is transferred to owners.
7. Reduce the expenditures in the general budget law for the fiscal year 2020 by JD 352 million, of which JD 22 million is allocated for current expenditures, while JD 330 million is allocated for capital expenditures.

The COVID-19 pandemic represents various downside risks and exposures that can test the resilience and soundness of the national economy, and its ability to absorb such shocks. However, the pandemic is an opportunity to reset future priorities and visions towards sustainability and comprehensive prosperity, as well as the optimal utilization of resources and capabilities. Since the beginning of May 2021, challenges have diminished and conditions have improved, yet the economic, social, and health challenges remain a concern.

## 1-5 JORDAN IN SELECTED INTERNATIONAL INDICATORS

### 1-5-1 TRANSPARENCY AND CORRUPTION PERCEPTION INDEX

The Corruption Perception Index in its special edition for 2020 addressed COVID-19 pandemic as a global corruption crisis besides being a health, economic, and social crisis. It also indicated that corruption has weakened the response to the repercussions of the pandemic worldwide.

In the annual report of this year, the index shows that the vast majority of countries and territories are showing a slight improvement in their overall anti-corruption practices. Two thirds of the countries included have recorded points less than 50. In 2020, Jordan maintained the same ranking of (60) with a score slightly improved by one point compared to the score recorded in 2019. (Table 1-3).

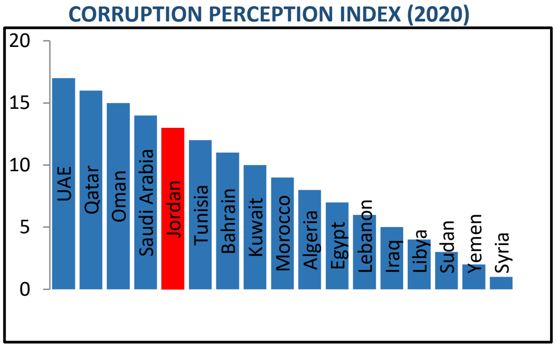
**TABLE 1-3: JORDAN'S RANKING IN TRANSPARENCY AND CORRUPTION PERCEPTION INDEX**

| Rank* | | | Score** | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2018 | 2019 | 2020 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| 58 | 60 | 60 | 53 | 48 | 48 | 49 | 48 | 49 |

Source: Transparency International, Corruption perception Index, 2021.
* Rank: The closer the rank is to one, is better.
** Score: Ranges from zero to 100. The higher the score is better.

The MENA countries recorded a score of 39 points during the last three years. Countries in the region remained weak in combating corruption; however, a modest improvement was achieved thereupon. Jordan ranked fifth out of 17 Arab countries in terms of transparency and corruption perception index preceded by the United Arab Emirates and Qatar that recorded 71 points and 63 points, respectively. Whereas, Libya recorded 17, Sudan 16, Yemen 15, and Syria 14. (Figure 1-11).

**FIGURE 1-11: JORDAN AND SELECTED ARAB COUNTRIES RANKINGS IN TRANSPARENCY AND CORRUPTION PERCEPTION INDEX (2020)**




Source: Transparency International. 2020. Corruption perception Index.

### 1-5-2 HUMAN DEVELOPMENT INDEX

The United Nations Development Program (UNDP) issues an annual report that summarizes the achievements and trends in three key dimensions of human development: a healthy life and a high life expectancy rate, being knowledgeable and educated, and having a decent standard of living.

The latest report for 2019 addressed the most influencing issues, such as climate change, the level of inequality between countries in the human development dimensions (health, education, and income), and the lack of participation of local communities in decision-making. The report also highlighted that if the practices causing environment imbalance are not terminated, the COVID-19 pandemic crisis will not be the least. It also pointed out that the COVID-19 pandemic and post-pandemic phase should represent a new era in the course of the human development for new generations.

Jordan ranked (102) out of (189) countries in 2019, which is according to the human resources development Index (HDI) is considered high. (Table 1-4).

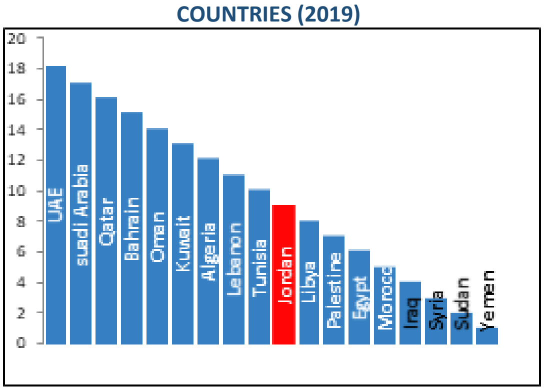
**TABLE 1-4: JORDAN'S RANKING IN THE HDI DIMENSIONS 2019***

| Rank | HDI Ranking | HDI (net) | Inequality Adjusted HDI (IHDI) | Gender Development Index* (GDI) | Gender Inequality Index** (GII) | Multidimensional Poverty Index (2008- 2019) |
|---|---|---|---|---|---|---|
| | | Value | | | | |
| 102 | High Human Development | 0.729 | 0.622 | 0.875 | 0.450 | 0.002 |

Source: UNDP, Human development Report 2020.
Latest data available for 2019 as indicated in the table.
*Jordan classified in group 5 of the HDI gender equality index.
** Jordan ranked 109 out of 189 countries in Gender Inequality Index.

Compared to 18 Arab countries included in the Report, Jordan ranked in the middle, outperforming a number of Arab countries including Libya, Palestine, Egypt, Morocco, Iraq, Syria, Sudan, and Yemen. (Figure 1-12).

**FIGURE 1-12: HDI RANKING OF JORDAN AND ARAB COUNTRIES (2019)**




Source: UNDP, 2020 Human Development Indicators.

## 1-5-3 COMPETITIVENESS INDEX

The Global Competitiveness Index Report of 2020 indicated that the COVID-19 crisis was a global health and economic crisis that spread and affected business activities and health care and social protection schemes. In the edition of 2020, titled (How countries are preparing towards recovery), the indicator exceptionally did not address any ranking scale for countries and regions, rather the report provided a methodology that helps countries to reshape their own economic systems to cope with their future needs. It also provides a foundation to support a deep-seated shift towards prosperity, productivity, and sustainable economic growth via several priorities that increase the chances for recovery from the repercussions of COVID-19. The report also addressed a historical analysis of a set of factors related to the competitiveness, future recovery initiatives, and recommendations, for periods prior to the crisis (historical stability), amid the crisis (emergency response), and afterwards (economic recovery). These recommendations addressed the following issues:

- Providing a supportive environment: transforming towards an appropriate infrastructure for information technology to digitize public services.
- Enhancing intellectual capital: the shift towards knowledgeable human resource through seizing market opportunities based on investing in skills and education.
- Improving market conditions: by increasing the financial incentives for private companies to experience a comprehensive and sustainable investment in the local market.
- Transformation towards innovation and creativity: shift towards innovation through reviving public and private investment opportunities in scientific research and development.
- Enhancing the Economic Infrastructure: assessing the economic transformation readiness and setting recommendations for achieving productivity, prosperity, and sustainability.
- Assessing the investment and business conditions: assessing the impact of the crisis on entrepreneurs in terms of competition and cooperation in the market and other business-related factors.

### 1-5-4 DOING BUSINESS INDEX

Since 2004, the World Bank is issuing an annual doing business Index, which primarily measures the economic performance for 190 economies worldwide using a set of quantitative indicators to measure the quality and effectiveness of business environment. It also investigates government policies, laws, bylaws, and regulations that enhance or discourage business practices.

In the recent report of 2020, Jordan was one of the top ten economies that showed an improvement in the ease of doing business, thanks to the numerous regulatory reforms conducted by the government. The Kingdom achieved a significant progress in 2019 ranking (75) and scoring (69/100), compared to ranking (104) and a score of (60.9/100) in 2018. Jordan progressed markedly, especially in the sub-index related to access to credit, as it improved from ranking (134) to ranking (4). (Table 1-5).

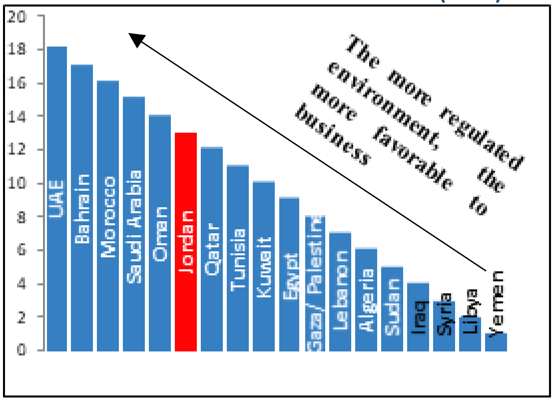
Over the past few years, and since 2017, Jordan started to record a distinguished progress in the index performance, which is due to a set of reforms that addressed key aspects of the regulatory business environment. These reforms included; improving access to credit information through establishing a credit bureau, facilitating trading across borders, facilitating customs clearance, introducing a one-stop investment window, facilitating electronic payment mechanisms for different invoices and tax obligations, issuing the insolvency law, and launching the National Financial Inclusion Strategy in 2017.

TABLE 1-5: JORDAN RANKING IN DOING BUSINESS INDEX (2020)

| Jordan Ranking in Doing Business indicators 2019 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2019 Ranking: (75) | | Score: (69.0) | | | | Change: (7.7) | | | |
| Starting a Business | | Dealing With Construction Permits | | Getting Electricity | | Registering Property | | Getting Credit | |
| Rank | Score | Rank | Score | Rank | Score | Rank | Score | Rank | Score |
| 120 | 84.5 | 138 | 60.3 | 69 | 80.5 | 78 | 66.4 | 4 | 95.0 |
| Protecting Minority Investors | | Paying Taxes | | Trading across Borders | | Enforcing Contracts | | Resolving Insolvency | |
| Rank | Score | Rank | Score | Rank | Score | Rank | Score | Rank | Score |
| 105 | 50 | 62 | 78.7 | 75 | 79.0 | 110 | 55.6 | 112 | 39.7 |

Source: World Bank, Doing Business 2020.
*The closer the economy to 1, is better, and means the regulatory environment is more conducive to the starting and operation of a local firm.
**Indicators of labor market regulation and contracting with the government were excluded from this year's rankings.
*** The ranking is determined based on the scores of 10 indicators, as each indicator has several sub-indicators, which are equally weighted.

FIGURE 1-13: JORDAN RANKING IN DOING BUSINESS INDEX COMPARED TO ARAB COUNTRIES (2019)




Source: World Bank, Doing Business, 2020.

### 1-6 CONCLUSION

The COVID-19 pandemic was a major shock with unprecedented effects that triggered instability among the public and high uncertainty in the economy. Despite the unexpected developments associated with the repercussions of the aforementioned pandemic, the local economy has been able to adapt relatively well to the temporary internal, regional, and global conditions. The precautionary measures and policies adopted by the government and the CBJ helped to mitigate the severity of these repercussions, and to maintain the economic, monetary, and financial stability in Jordan.

# CHAPTER TWO: THE FINANCIAL SYSTEM INFRASTRUCTURE AND LEGISLATIVE STRUCTURE

## 2-1 INTRODUCTION

The proper infrastructure and legislative structure are essential elements and factors to achieve financial stability. During the previous period, the CBJ continued pursuing the development of the financial system's infrastructure and respective financial legislations. The CBJ endeavors emphasized two main aspects: strengthening the responsible and prudent financial inclusion, and enhancing the legislative framework of the financial system.

## 2-2 PROMOTING FINANCIAL INCLUSION

### 2-2-1 THE CONCEPT OF FINANCIAL INCLUSION

Financial inclusion is "the state wherein individuals and businesses have access to useful and affordable different financial products and services (payment transactions, saving, credit, money transfer, and insurance) delivered in a responsible and sustainable way, in a manner that meets their needs and improves their standard of living". In this context, the fiscal and monetary policy makers in developing and emerging markets economies have embraced financial inclusion as a top priority in their policies and objectives to achieve the inclusive and sustainable growth.

Jordan recognizes financial inclusion as an essential pillar to achieve inclusive and sustainable growth in the Kingdom. The Jordanian government embarked on building a robust and sound financial infrastructure in addition to putting in place legislative and legal frameworks conducive for an inclusive financial system. The CBJ has assumed the lead role in this process, supported by stakeholders from the public and private sectors, in order to ensure the coordination and cooperation in formulating and implementing several key initiatives thereof.

Since 2012, the CBJ has been focusing on promoting financial inclusion in the Kingdom, by keeping up with latest regional and international developments of promoting financial inclusion policies. In 2015, the CBJ started to guide and oversee the formulation of the National Financial Inclusion Strategy (NFIS) in the Kingdom, according to the Prime Minister's decision to form the National Financial Inclusion Steering Committee chaired by the CBJ's Governor. The strategy is directed towards achieving financial inclusion for low-income segments, the youth, women, refugees, and Micro, Small, and Medium Enterprises (MSMEs).

As mentioned in the Jordan Financial Stability Report of 2019, the NFIS (2018-2020) was launched on 04/12/2017. The strategy covers a number of core pillars, namely:

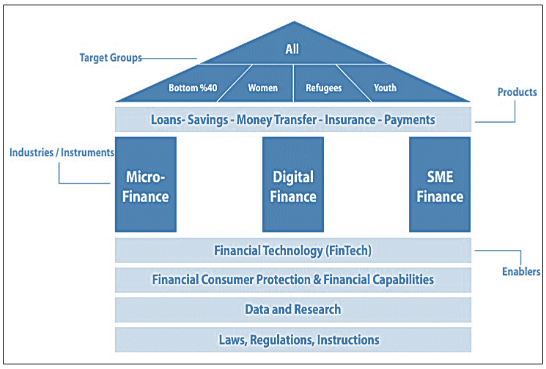
- SMEs.
- Microfinance.
- Financial Capability and Financial Education.
- Financial Consumer Protection.
- Digital Financial Services.

### 2-2-2 VISION AND GENERAL FRAMEWORK OF FINANCIAL INCLUSION IN JORDAN

As mentioned in the JFSR 2019, the NFIS builds on a set of priority policy areas, three of which form the core pillars of financial inclusion: microfinance, digital financial services, and SMEs finance. On another hand, four areas are considered as cross-cutting enablers, which facilitate the success of the NFIS and contribute to achieve planned objectives. These enablers include the use of financial technology (Fintech), financial consumer protection and enhancing financial capabilities of all segments in the society, data and research, and laws and legislations.

While the NFIS targets all segments of the population and MSMEs; yet it gives special attention to the empowerment of vulnerable groups excluded from the financial services, especially vulnerable low-income groups of the bottom 40% households in Jordan, women, youth (15-18 year old), and refugees.

**FIGURE 2-1: THE NFIS GENERAL FRAMEWORK**




Source: NFIS for Jordan (2018-2020).

The NFIS has two high-level goals:

1- To increase the financial inclusion, in terms of account ownership by adults in financial institutions, from 33.1% in 2017 to 41.5% by 2020.
2- To reduce the gender gap from 53% to 35%.

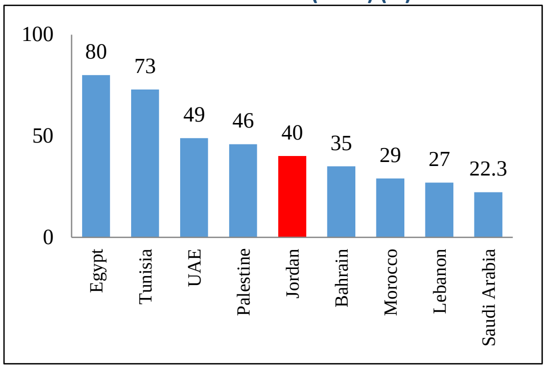
It is worth mentioning that in 2020, actual figures have outperformed the targeted levels in the strategy. The financial inclusion increased to around 50% up from the targeted level of 41.5%, while the gender gap decreased to 29% below the targeted 35%, which indicates a huge success of implementing the NFIS in Jordan.

### 2-2-2-1 SMEs

The SMEs are essential cornerstones for the economy in most countries worldwide, and one of the most significant job creators. The SMEs account for about 90% of all corporates in the vast majority of countries in the world, and they create more than 50% of jobs globally. A study released by the International Finance Corporation (IFC) revealed that the "official" SMEs contribute to 40% of the GDP in developing countries and emerging market economies, and contribute to 55% of the GDP in developed countries. These figures go up markedly when including the SMEs operating in the unofficial sector. According to the World Bank data, the SMEs contribute to create 60% of jobs in the official sector.

In addition, "the advancement of MSMEs in Arab countries" book issued by the Arab Monetary Fund (AMF) in 2019, indicated that these enterprises contribute to (22% - 80%) of GDP in Arab countries (figure 2-2). They also contribute to create (10% - 49%) of job opportunities.

**FIGURE 2-2: SMES CONTRIBUTION TO GDP IN SELECTED ARAB COUNTRIES (2020) (%)**




Source: AMF (2019), publication "The Advancement of MSMEs in Arab countries", February.

The CBJ believes in the essential role that the MSMEs play in supporting economic growth, reducing unemployment, and fighting poverty, therefore; and aiming at enabling these companies to access finance with medium or long maturities and competitive interest rates, the CBJ has formulated an internal committee for enhancing financial inclusion projects management, including increasing the SMEs access to finance. To this end, during the past period, the CBJ cooperated with the Ministry of planning and international cooperation as well as international and regional financing institutions to attract around US$ 425 million funding for the SMEs sector, at competitive interest rates and reasonable tenors. The funds transferred to Jordan amounted to US$ 250 million, which were provided as loans to more than 17 thousand MSMEs, of which more than 64% are located outside Amman. The financing approximately created 7,000 new jobs, and the CBJ intends to withdraw the remaining balance of US$ 175 million in 2021 and 2022. This is in addition to the credit line of US$ 120 million provided directly to banks by the European Bank for Reconstruction and Development (EBRD) to support MSMEs; the CBJ supports and facilitates banks' access to the credit line. The EBRD has signed US$ 90 million agreements with three banks.

The CBJ rolled out financing programs directed to the sectors of manufacturing, renewable energy, tourism, agriculture, information technology, engineering consulting, health, education (vocational, technological and technical training), transportation, and exporting (including SMEs). These programs are currently offered at an interest rate of 0.5% for financing projects located in governorates outside Amman and at 1% for projects inside Amman; amounting to around JD 1.2 billion. Approximately, 1,564 projects have benefited from these programs, receiving JD 1,065 million as end of Dec 2020. These loans were provided to the sectors of manufacturing, renewable energy, tourism, agriculture, information technology, engineering consulting, health, education (vocational and technological and technical training), and the transportation amounting to JD 535.4 million, JD 240 million, JD 112.1 million, JD 79.8 million, JD 22.8 million, JD 5 million, JD 25.9 million, JD 15.5 million, and JD 28.4 million, respectively. In addition, JD 62 million were provided to finance salaries payments for around 49 thousand workers.

The financing provided under these programs have also contributed to create 13.2 thousand new jobs opportunities in different governorates in the Kingdom. Since 2015, the CBJ also has improved the terms of lending for these programs to match the financing programs applied by Islamic banks.

With respect to promoting entrepreneurships and combating unemployment, the CBJ in 2020 allocated JD 100 million to finance the National Self-Employment Program “INHAD”. This is in line with the royal vision to reduce unemployment, and provide job opportunities for the youth by promoting self-employment rather than being employed, and enabling the youth to establish development projects that offer them job opportunities and a permanent source of income. The program has benefited (195) projects, for JD 5.4 million as end of December 2020.

In addition, the CBJ at the beginning of April 2020 initiated a JD 500 million program to finance SMEs, and empower them to withstand the ramifications of the COVID-19 pandemic. In 2021, the amount of financing was upgraded to JD 700 million, and the program was extended until the end of 2021. As end of December 2020, (4,919) projects benefited from the program with an amount of JD (447) million. Further, 40% of these amounts were used to cover the salaries and wages of workers in these companies, totaled approximately JD 177 million, which served 84,500 workers.

In this context, the CBJ and the Jordan Loan Guarantee Corporation (JLGC) in 2020 signed a JD 300 million special advance agreement to create the national program of loans guarantee to withstand COVID-19 crisis. The program aims to facilitate financing for professionals, craftsmen, sole proprietorship, and SMEs to enable them to obtain financing on favorable terms and affordable costs, and to help them cover their operating expenses and working capital including the payment of salaries and wages, maintaining their business, and enabling them to resume and expand their activities in the future. The program offers a guarantee of 85% of the risks of financing granted under this program, given the conditions that the Jordanian economy is going through because of the repercussions of COVID-19 pandemic.

### 2-2-2-2 MICROFINANCE

The microfinance sector which has become a part of the formal financial system in 2018 comprises (9) licensed Micro Finance Institutions (MFIs), of which two MFIs provide financing in accordance with the provisions of Islamic Sharia. Within the context of the CBJ’s endeavors to strengthen the governance and internal control rules for the entities under its supervision and oversight, in 2020, a set of regulatory instructions was issued for the microfinance sector as follows:

1. Corporate Governance Instructions for Microfinance Companies No. (10/ 2020) dated 6/12/2020, which aims to apply the rules and fundamental principles of corporate governance to the MFIs, according to international standards and best practices tailored to the sector. The

instructions mentioned included the main following issues: (the composition of the board of directors and suitability criteria of the board, the Sharia Supervisory Board and the Senior Executive Management, and the committees of the board, the duties, responsibilities, and meetings of the board, shareholders' rights, disclosure and transparency).

2. The Instructions for Internal control and supervision systems for MFIs No. (11/ 2020) dated 6/12/2020 in accordance with international standards and best practices. The instructions include the following main topics: (what should be included in an MFI internal control and supervision systems, the duties and responsibilities of the board of directors thereof, the duties and responsibilities of senior executive management, the functions of the internal and external audit, the risk management, the compliance supervision, the financial and accounting systems requirements, information management systems, and security and safety requirements).

3. The Anti-Money Laundering and Counter Terrorist Financing Instructions for MFIs No. (8/ 2020) dated 28/9/2020, which keeps pace with international standards and best practices thereto.

### 2-2-2-3 FINANCIAL CAPABILITIES AND FINANCIAL EDUCATION

Promoting financial and banking education is vital to strengthen the financial inclusion and enhance the financial consumer protection. Several studies have indicated that raising individuals' financial literacy is a key factor to increase their savings, and thus, supporting economic growth through providing liquidity needed for investment. In turn, this enhances countries capability to withstand financial and economic crises. In Jordan, the CBJ highly prioritizes the financial education given its importance in strengthening the financial, economic, and social stability in the Kingdom.

The CBJ believes that financial education is essential to the Kingdom; accordingly, the CBJ initiated a project to promote and deepen financial literacy in the Kingdom aiming to raise the capabilities of Jordanian Citizens in terms of the following:

- Comprehend the fundamental principles and concepts in the financial and banking sphere.
- Manage, and optimally invest savings and personal properties.
- Increase the chances of benefiting from financial sources, services, and facilities provided by banks and financial institutions.
- Strengthen financial inclusion and enhance financial, economic, and social stability in the Kingdom.

The project deploys numerous programs that target key sectors in the society. The main financial education program in schools was rolled out in cooperation with the Ministry of Education and INJAZ (a Jordanian non-profit organization). Financial education in schools started for the 7$^{th}$ grade curriculum in the academic year 2015/2016, for the 8$^{th}$ and 11$^{th}$ grades curricula in 2016/2017, for the 9$^{th}$ and 12$^{th}$ grades curricula in 2017/2018, and for 10$^{th}$ grade curriculum in 2018/2019.

In addition to the financial education program at schools, the project will include several other programs in the future as follows:

a- Financial education in higher education institutions.
b- Promoting financial education using media.
c- Financial education for start-ups.
d- Financial education at workplace.
e- Financial education for woman and rural areas.
f- Electronic financial education.

### 2-2-2-4 FINANCIAL CONSUMER PROTECTION

Within the framework of promoting financial inclusion in the Kingdom and enhancing transparency and fairness in the dealings of the financial institutions under the supervision and oversight of the CBJ with their customers, the

CBJ through the Financial Consumer Protection Department has initiated several activities thereof:

On the legislative side, a number of regulations and circulars were issued to provide sufficient protection for the users of the financial and banking services. The Instructions of financial consumer protection for licensed exchange companies were enacted, aiming at laying the ground for a clear legislative framework that identifies the relationship between clients and the exchange companies within an overarching framework for the financial consumer protection. In addition, a circular was disseminated to banks to extend offering prizes on saving accounts in 2021 that are subject to quantitative and qualitative controls stipulated thereto. This is to regulate the provision of prizes and enhance the competitiveness in attracting saving deposits by banks, as well as to enhance fair competition between banks. Furthermore, a circular was disseminated to banks stipulating that documents signed by clients/ guarantors shall not include any items that require canceling/ withdrawing the terms of banking secrecy. In order to mitigate the burdens on financial and banking consumers during the COVID-19 pandemic, a circular was disseminated to banks so that all affected sectors shall be treated with the highest flexibility. In addition, all costs and interests associated with the postponement of loan installments shall be disclosed clearly.

With regard to reports, the financial consumer protection department introduced its first annual report for 2020, which aimed to highlight the CBJ's activities for strengthening the financial consumer protection system in the Kingdom during the period (2018-2020). The report addresses the CBJ's measures to protect the financial consumer amid the repercussions of the COVID-19 crisis, as well as the supervisory procedures and activities on banks and financial institutions under the CBJ's supervision. This is in addition to the financial education and awareness activities in Jordan.

The report also addressed several phenomena in the Jordanian market related to fraud in general. Meanwhile, the Department also issued the complaints report of banks and non-banking financial institutions clients in 2020, as the report provides an analysis of clients' complaints against banks and financial institutions under the CBJ's supervision. This report is particularly significant as it analyzes clients' complaints and highlights the main complaints to identify their causes, and set the priorities which need to be emphasized to reduce these complaints, as well as focusing on banks and financial institutions efficiency in handling complaints. The report illustrates a thematic classification of complaints, and the channel used to file these complaints. The number of complaints received by the CBJ from customers of banks and non-banking financial institutions reached around (2,827) complaints in 2020, mainly about contracts and terms of conduct, and interest rates on loans. In addition, the number of consumers' complaints received and handled by the complaints handling units at banks operating in the Kingdom, MFIs, and the electronic payment and transfers companies totaled (165,107) complaints, mainly about electronic services.

As for the on-site and off-site supervision, the Department conducted the off-site supervision on banks and non-banking financial institutions by reviewing the contracts of credit products, monitoring the commissions and fees of products and services provided to consumers to ensure the adherence to the maximum limits of commissions and fees set forth in the CBJ's instructions. This is in addition to monitoring electronic links of banks and non-banking financial institutions, examining the prices of fees and commissions on the products and services of retail clients published on banks' websites, and evaluating the compliance with the CBJ's regulations in terms of the maximum limits of fees, and including fees other than stipulated in the effective regulations. Furthermore, the Department also monitors the advertisements of banks and evaluates their content. It also assessed the statements of acknowledgement/ inquiries/ data exchange forms signed by clients to evaluate their consistency with banking secrecy. As for the on-site supervision, several inspection visits on banks and non-banking financial institutions were carried out to ensure compliance with the financial consumer protection regulations.

With regard to promoting the financial awareness and literacy, the CBJ in early 2020 launched the first electronic financial campaign "start it right" through the CBJ's page on Facebook. The campaign included financial literacy messages dedicated for citizens to encourage them having sound financial practices. Other topics were added to match the requirements of that period and cover the CBJ's measures to mitigate the impact of COVID-19 on citizens. The CBJ continues its previous interactive financial literacy programs prior to deepening pandemic situations. An awareness campaign was carried out on the International Women's Day, in cooperation with several banks and other financial institutions, targeting women in workplace and centers specialized in women's affairs, aiming to highlight women empowerment to access responsible financial and banking services, and to ensure that they are not exposed to any aspect of economic violence.

A second electronic campaign has also been initiated entitled "Understand your financial obligations" during the last months of 2020 in the form of financial education and awareness videos (Motion Graphics), which considered consumers' complaints received by the CBJ as well as the conditions prevailing at the time. With respect to upgrading the CBJ's website in terms of enhancing the financial education for society, a special item related to the financial consumers' most frequent inquiries has been added, including answers, so that citizens can navigate and find adequate answers regarding their concerns. Given the importance of assessing the level of financial literacy in the Kingdom and identifying the most prominent weaknesses, a study was conducted to measure the level of financial literacy in the Kingdom according to the (OECD/INFE) methodology of measuring financial literacy for the year 2018.

### 2-2-2-5 BUILDING AN ENABLING INFRASTRUCTURE FOR ENHANCING FINANCIAL INCLUSION

#### 2-2-2-5-1 DIGITAL FINANCIAL SERVICES

In 2020, the CBJ continued to upgrade and restructure the payment and settlements systems in the Kingdom in collaboration with banks operating in Jordan, and the other relevant stakeholders. This aims at maintaining the security and efficiency of the payment and settlements systems, to reduce systemic and credit risks, as well as to facilitate the circulation of money in the economy to enhance economic efficiency.

- The CBJ continued to operate the Real Time Gross Settlement System (RTGS-JO) to carry out transfer transactions between the accounts of member banks in Jordanian Dinar, US Dollar, Euro, and Pound Sterling. In addition to transactions in the secondary market. The number of transfer transactions executed via the system stands at 313 thousand orders in 2020, amounting to JD 94.3 billion, compared to 292 thousand orders, amounting to JD 123.8 billion in 2019. The total transactions executed in the secondary market through the RTGS-JO system reached to 6,962 transactions in 2020, and amounting to JD 12,091 million.
- In 2020, the CBJ continued to provide electronic services to its clients including ministries, and governmental institutions and departments through the E-Banking system, which provides electronic banking services for the CBJ's clients. The system in 2020 allowed the inquiry service for 133 of the CBJ's clients to view their account balances and extract statements of accounts and notices. In addition, a number of E-services will be launched consecutively, to enable customers to conduct financial transfers between accounts.
- The CBJ also maintained operating the Automated Clearing House system (ACH) which supports the new ISO standard (ISO 20022). The ACH system provides a secure

infrastructure to execute retail payments between member banks and their clients, including the CBJ. The system processes the credit and debit money transfers, pre-mandated debit transfers, and the payments of government and financial institutions, as well as other private sector institutions. The number of transfer transactions executed in the system in 2020 reached (6.9) million orders, amounting to JD 5.4 billion against (3.1) million orders with a total value of JD 3.8 billion in 2019.

- In 2020, the CBJ maintained providing the Electronic Bill Presentment and Payment service (eFAWATEERcom), which is operated by Madfooatcom Company for electronic payments. The system is connected to all banks operating in the Kingdom to provide the service through various banking payment channels via the Electronic Payment Portal. This is to enable all Jordanian citizens who reside inside Jordan or abroad to inquire and pay their bills, and execute other payments using their credit cards issued by various banks worldwide, easily and securely
- On another front, the number of billers participating in the system reached to 325 billers in 2020, compared to 196 billers in 2019. The number of payment transactions executed through the service reached 22,625,416 transaction totaling JD 7.4 billion in 2020, compared to 14,529,302 transaction with an amount of JD 6.7 billion in 2019.
- The CBJ's membership in the Alliance for Financial Inclusion (AFI) and its working groups was extended. AFI aims directly at enhancing best practices for setting the financial inclusion policies and standards. The Global Policy Forum, the world's prominent annual event for financial inclusion, was set to be hosted in Jordan in 2020; however, it was put off because of COVID-19 pandemic until conditions are improved.
- The CBJ extended its membership in Better Than Cash Alliance (BTC), which substantially contributes to achieving the best ways to reduce the cost and time for government agencies in delivering subsidies through digital financial services to less fortunate people and vulnerable groups excluded from the official financial system.
- In cooperation with several ministries and government institutions, the CBJ has finalized the implementation of automating government payments project plan.
- The CBJ, and in collaboration with the German Agency for International Cooperation (GIZ) and the electronic payment service providers, through the Digital Remittances project (Digi#ances), worked to support using e-payment instruments and to enhance financial literacy. The project aims at improving the access to financial services by less fortunate people excluded from the formal financial system including women, refugees, and others.
- The CBJ finalized receiving solicitations for cooperation and partnership and obtaining grants within the Mobile Money for Resilience (MM4R) initiative. This is in addition to proceeding with implementing the projects involving financing agreements signed in 2019.
- In 2020, (3) new financing grants projects were approved making the total number of projects financed through the MM4R initiative to reach (10) projects by the end of 2020, with a total amount of JD 1,786,573.
- During the COVID-19 crisis, the initiative of "COVID-19 Response Challenge Fund" was initiated to motivate the mobile payment service providers to encourage merchants to accept and use e-payment channels, in particular "contactless" ones. A JD 100 thousand agreement was signed with a group of payment services providers in the Kingdom to provide incentives for these companies to accept merchants and use the e-payment channels via using the QR Code.

### 2-2-2-5-2 CREDIT INFORMATION COMPANY

Since its licensing, CRIF- Jordan expanded its database in terms of the number and the diversity of sectors of information providers. By the end of 2020, CRIF signed agreements with (66) providers, compared to (62) providers in 2019 to benefit from credit inquiry service. In terms of

sectors, the agreements were signed with (24) banks, (11) financial leasing companies, (9) MFIs, and (22) other sectors.
On another hand, CRIF pursued developing new services to include value-added services. In 2019, CRIF initiated the credit scoring service, the Portfolio Alert service, and the Batch Enquiry service.

## 2-3 THE LEGISLATIVE INFRASTRUCTURE OF THE FINANCIAL SYSTEM

The foundation of an appropriate legislative framework for the financial system would definitely enhance the financial stability; practices demonstrated that inappropriate supervisory and regulatory legislations for the financial system would substantially contribute to deepening systemic financial crises once they occurred. The CBJ verifies on an ongoing basis the business and performance of the banking and financial institutions under its supervision, and ensures the soundness of their financial positions in consistency with effective laws, bylaws, regulations, and banking norms to reach the requirements of the banking soundness and the monetary and financial stability. The CBJ in 2020 proceeded with a comprehensive review of the legislative framework governing the practices of the banking and financial institutions under its regulatory umbrella. This is in line with the CBJ's strategy for effective banking supervision that complies with international best standards and practices. This review extends the CBJ's efforts exerted to lay a robust ground for the banking and financial industry, as follows:

### 2-3-1 LAWS AND BYLAWS

#### 2-3-1-1 THE CBJ LAW

As mentioned earlier in the JFSR 2019, a Royal Decree was issued to pass the Amended Central Bank Law No. (24) of 2016, published in the official gazette on 16/06/2016.

#### 2-3-1-2 AMENDED BANKING LAW

As mentioned previously in the JFSR 2019, a Royal Decree was issued to pass the Amended Banking Law No. (7) of 2019, published in Gazette on 01/04/2019. It shall be read in conjunction with the Law No. (28) of 2000.

This amendment came amid the rapid local, regional, and international developments in the banking supervision industry, which implies that it is necessary to cope with these developments in order to strengthen the CBJ's supervision on banks. The amended Banking Law will contribute to regulate the effective ownership interest in banks' capital, and entitle the CBJ to set controls and standards for selecting banks' external auditors, as well as to enable the CBJ to take standby measures to address troubled banks to prevent their liquidation, and achieve the financial and banking stability.

Enhancing the corporate governance in Jordanian banks is one of the main amendments in the Law. The Law sets forth new articles to support the separation of executive management from the Board of Directors. The selection mechanism of the Board members for banks has been altered, so that the focus is on their competencies, rather than their financial capabilities. The number of members in the banks' Board shall not be less than seven members, of which independent members shall not exceed half of the Board's members. The CBJ's prior written consent is now required for the direct and indirect ownership amendment or transfer of bank shares, whether for one transaction or more. In addition, certain amendments are intended to improve the supervisory tools on banks, including the duties and authorities of the audit committee. Furthermore, several provisions were amended; the CBJ's prior consent for acquiring an effective ownership interest in a bank (10% of a bank's capital) is required. The CBJ is entitled to impose regulatory ratios in accordance with the developments in international accounting and supervision standards, in addition to putting in place the conditions and ad hoc requirements that the external auditor must fulfill to be qualified to audit a bank's accounts. The CBJ is entitled also to outsource a consulting body so that the CBJ can build a valid and precise perception about the bank's business.

The law also introduced certain amendments dedicated to improve the banking business environment and respond to the development of other legislations, so that banks are permitted to contribute in certain types of non-financial companies related to their banking activities, including money transfer companies and electronic payment systems. This lays the foundation for a legal framework for the recognition of electronic banking business in accordance with the requirements of the Electronic Transactions Law of 2015, or entitling banks to use electronic archiving systems instead of the currently used systems. In addition, members of the Board are allowed to attend meetings by any of the cutting-edge virtual means of communication.

The law also included amendments to keep abreast of developments in Islamic banking industry. The most important amendment is Article (58) which intends to apply the rules of governance of the Sharia supervisory boards for Islamic banks. The internationally recognized procedures followed by Islamic banks were rationalized, to maintain their ability to attract public's deposits, whether in terms of the profit equalization reserve or by increasing the share of depositors in profits.

#### 2-3-1-3 REGULATING THE INSURANCE BUSINESS LAW

A Royal Decree was issued to pass Regulating the Insurance Business Law no (12) of 2021, published in the gazette on 16/5/2021, to be in force thirty days after publication. The provisions of this Law are applied to insurance companies, reinsurance companies, insurance services providers, and all entities and means related to the insurance sector and the supervision of it, in a manner that ensures the rights of the insured persons and beneficiaries. This is in addition to ensuring the soundness of the insurance and reinsurance companies financial positions.

The Law reflects the CBJ's vision and its endeavor towards improving the regulatory and supervisory frameworks of the insurance activities in accordance with international best standards and practices. This is also in line with the CBJ's tendency to strengthen the stability and soundness of the insurance sector and to improve it to be able to perform its prospective role in serving the economy.

#### 2-3-1-4 AMENDED DEPOSIT INSURANCE CORPORATION LAW

As mentioned earlier in the JFSR 2019, the amended Deposit Insurance Corporation Law No. (8) of 2019 was issued by a Royal Decree and was gazetted on 1/4/2019. It shall be read in conjunction with the Law No. (33) of 2000.

The amended Law included Islamic banks under the umbrella of deposits insurance in accordance with the provisions of Islamic Sharia. This is to protect all depositors at banks in the Kingdom, and to give the corporation a role in addressing the situation of troubled banks in line with the amendments of the Banking Law. It also intends to boost the confidence in the banking system by paying the amount of insurance owed to the depositor without the condition to submit a claim. The amended law stipulates that the corporation shall establish a fund at Islamic banks based on Wakalah agency contract. The fund's management according to a recommendation of the Ifta Council shall appoint a sharia advisor, whose task is to provide an opinion on the legal wording of contracts necessary for the business and activities of the fund, in terms of their commitment to the provisions of Islamic Sharia, provided that the advisor's opinion is binding.

### 2-3-2 INSTRUCTIONS

#### 2-3-2-1 INSTRUCTIONS FOR BANKS OWNERSHIP OF STOCKS AND SHARES IN COMPANIES CAPITALS

The Instructions No. (5/2021) for banks ownership of stocks and shares in companies capitals were issued on 6/4/2021. The Instructions aim to mitigate the risks of using the funds of banks and their subsidiaries inside and outside Jordan to preserve banks' solvency.

### 2-3-2-2 THE INSTRUCTIONS OF FINANCIAL CONSUMER PROTECTION FOR ELECTRONIC PAYMENT AND MONEY TRANSFER COMPANIES

The Instructions of financial consumer protection for electronic payment and money transfer companies No. (3/2021) were issued on 3/3/2021. These instructions shall be effective three months after being enacted, and shall be applied on all electronic payment and money transfer companies licensed in the Kingdom to practice any of the payment services or administrating and operating the electronic payment systems. The instructions address the relationship governing the payment service provider and the client in terms of several issues namely: the disclosure and transparency, commissions and fees, contracts, personal data protection, the protection of electronic payment accounts against fraud and penetration, handling consumers' complaints, and others.

### 2-3-2-3 THE INSTRUCTIONS OF EXTENDING DIRECT FACILITIES IN FOREIGN CURRENCY AND THE CONTROLS OF PROVIDING CREDIT FACILITIES FOR PERSONS NOT PRACTICING AN ACTIVITY INSIDE THE KINGDOM AND/ OR FINANCING ACTIVITIES OUTSIDE THE KINGDOM

The CBJ enacted the Instructions of extending direct facilities in foreign currency and the controls of providing credit facilities for persons not practicing an activity inside the kingdom and/ or financing activities outside the kingdom No. (2/2021) on 3/3/2021. The Instructions aim to set a framework for the regulations and circulars governing the provision of direct credit facilities in foreign currencies by banks as well as providing credit facilities for persons not performing an activity inside the Kingdom and/ or financing activities outside the Kingdom so that they are all included in one document. These Instructions shall be effective on the date of issuance, and banks shall furnish the CBJ with the data related to the Instructions on a quarterly basis, starting from the end of March 2021, using the forms designated thereto.

### 2-3-2-4 THE INSTRUCTIONS OF FINANCIAL CONSUMER PROTECTION FOR EXCHANGE COMPANIES CLIENTS

The CBJ issued the Instructions of financial consumer protection for the exchange companies clients No. (1/2021) on 11/1/2021. The provisions of these Instructions shall be applied on licensed exchange companies in the Kingdom under the CBJ's supervision and oversight. The Instructions stipulated that the services provided by the exchange companies shall be clear and overarching, the clients data shall be protected, the clients shall be treated with fairness and respect, and their complaints shall be handled. The Instructions also included that exchange companies are required to publish these Instructions on their websites.

### 2-3-2-5 THE INSTRUCTIONS OF THE INTERNAL CONTROL AND SUPERVISION SYSTEMS FOR MICROFINANCE INSTITUTIONS

The CBJ issued the Instructions of the internal control and supervision systems for microfinance institutions No. (11/2020) on 6/12/2020. These Instructions included several aspects namely, the systems of internal control and supervision, the duties and responsibilities of the board of directors and the senior management, the internal and external audit, compliance control, risk management, the requirements of the financial and accounting systems and information management systems, as well as the safety and security requirements.

### 2-3-2-6 THE INSTRUCTIONS OF CORPORATE GOVERNANCE FOR MICROFINANCE INSTITUTIONS

The CBJ enacted the Instructions of corporate governance for microfinance institutions No. (10/2020) on 6/12/2020. The Instructions cover the corporate governance manual, the duties and responsibilities of the board of directors, the shareholders rights, disclosure and transparency, as well as other general provisions.

### 2-3-2-7 THE INSTRUCTIONS OF ANTI MONEY LAUNDERING AND COUNTER TERRORIST FINANCING FOR MICROFINANCE INSTITUTIONS

The CBJ enacted the Instructions of anti-money laundering and counter terrorist financing for microfinance institutions No. (8/ 2020) on 28/9/2020. The Instructions included several aspects mainly: the risk based approach, due diligence requirements, identification of customers and beneficial owner, enhanced and simplified due diligence, training and qualification, as well as reporting suspicious transactions related to money laundering or terrorist financing.

### 2-3-2-8 THE MERGERS INSTRUCTIONS FOR EXCHANGE COMPANIES

The CBJ issued the mergers Instructions for exchange companies No. (149/2020) on 29/7/2020 pursuant to the provisions of article (25) of the exchange companies Law No. (44) of 2015. These Instructions shall be effective as of the date of issuance. The Instructions state that the provisions stipulated in the Jordanian companies Law in force and related to mergers of companies shall be applied on the mergers of the licensed exchange companies as applicable. The Instructions also cover the merger application and mergers types, as well as the obligations of the merged companies and companies arising from a merger.

### 2-3-2-9 THE INSTRUCTIONS FOR IMPLEMENTING THE INTERNATIONAL FINANCIAL ACCOUNTING STANDARDS OF THE AAOIFI

The Instructions No. (6/2020) for implementing the financial accounting standards issued by the Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) were issued on 5/7/2020. The Instructions included four main aspects:

1. Impairment and Credit Losses and Onerous Commitments No. (30).
2. Risk Reserves No. (35).
3. Investments in Sukuk, Shares and Similar Instruments No. (33).
4. Investment in Real Estate No. (26).

These Instructions shall be applied to all Islamic banks operating in the Kingdom and at all levels. The Instructions included the scope of the implementation of Accounting Standard No. (30), which includes the accounting framework and the mechanism of risk management; in particular the credit risk management to maintain the soundness and robustness of the bank's financial position. The Financial accounting standard No. (35) identifies and sets accounting and financial reporting principles for risk reserves in line with international accounting and risk management best practices. The Financial Accounting Standard No. (33) classifies the Sharia-compliant investment instruments. According to the Accounting Standard No. (26), the bank shall put in place the accounting rules that govern the recognition, measurement, presentation, and disclosure of Islamic banks investments in real estates acquired.

### 2-3-2-10 THE INSTRUCTIONS OF LIQUIDITY COVERAGE RATIO

The Instructions of Liquidity Coverage Ratio (LCR) No. (5/2020) were issued on 22/6/2020. These Instructions are intended to enhance the liquidity risk management in the short term by ensuring that the bank have sufficient high-quality unencumbered liquid assets, which can be converted easily and quickly into cash, to survive a 30-day stress scenario. These Instructions shall be applied to all licensed banks operating in the Kingdom, including branches of foreign banks. In order to apply the liquidity coverage standard, a consolidated mechanism was included in the Instructions, in addition to the requirements and method of calculating the LCR, the components of the numerator and the denominator of the LCR, and general provisions. It is noteworthy that the CBJ's requirements of LCR are in general consistent with Basel III framework.

### 2-3-2-11 AMENDED INSTRUCTIONS FOR THE CBJ'S PROGRAM TO FINANCE AND SUPPORT ECONOMIC SECTORS (MEDIUM TERM CREDIT TO LICENSED BANKS)

The CBJ enacted amended Instructions No. (3/6/4658) on 5/4/2020 for the CBJ's program to finance and support economic sectors. These

Instructions were issued in the context of the CBJ' measures to alleviate the negative ramifications of the COVID-19 pandemic on the national economy, and to maintain the functioning of various economic sectors and enable them to retain their workforce. The amended Instructions aim to include financing operational expenses and working capital, including salaries and wages of employees within the purposes targeted in the program. The amended Instructions also obliged banks to ensure that the salaries, wages, and expenses are deducted from the financing amount, which shall be evidenced by transactions or transfers to the accounts of workers and the service providers. The borrower is required to provide banks with a monthly statement of his/ her employees and their salaries from the Social Security Corporation upon paying these wages and salaries, which shall be proved to the CBJ.

### 2-3-3 SUPERVISORY CIRCULARS

The CBJ in 2020 and the first half of 2021 has enacted several supervisory circulars; the main circulars are listed below:

- Circular No. (10/1/857) dated 16/1/2020, directed to banks operating in the Kingdom. The Circular allows banks to open letters of credit (LCs) and finance them for the purposes of supplying goods outside the Kingdom without passing through the Kingdom's boarders provided that cash insurance shall cover 100% of the LC's amount, using the same currency in which the LCs were issued.
- Circular No. (10/5/4374) dated 15/3/2020, directed to all licensed banks. The CBJ reduced the compulsory reserve ratio on deposits from 7% to 5% to enhance the liquidity available for financing, reduce the cost of credit, and enhance the attractiveness of assets denominated in Jordanian dinar, in order to alleviate the impacts of the COVID-19 spread on economic sectors.
- Circular No. (3/6/4463) dated 16/3/2020, directed to banks operating in the Kingdom. The Circular considers reducing interest rates on the outstanding loans of the CBJ's soft financing program dedicated to finance and support economic sectors.
- Circular No. (10/3/4375) dated 15/3/2020, directed to banks operating in the Kingdom. The Circular allows banks to postpone loans repayments of individuals and corporates in the sectors impacted by the COVID-19 pandemic; no commissions or late payment interest shall be charged. Banks also were allowed to schedule and reschedule loans due on clients without any down payment needed nor any additional commission charged.
- Circular No. (3/6/4657) dated 31/3/2020, directed to all licensed banks. The Circular allows banks to postpone due repayments for loans granted during 18/3/2020 to 30/6/2020 within the CBJ's financing program to finance and support economic sectors. In addition, interest payments due in March and April were also postponed.
- Circular No. (3/6/4723) dated 14/4/2020, directed to all licensed banks. For the purposes of the CBJ's program intended to support SMEs to withstand the COVID-19 crisis, the definition of medium companies was broadened to include companies with less than 200 workers and companies with total assets or sales less than JD 5 million.
- Circular No. (27/1/4872) dated 27/4/2020, directed to all licensed banks in the Kingdom. The Circular concerns the impact of interest rates fluctuations on credit facilities extended to clients, whereby interest rates shall be altered on a quarterly basis, and applied to all outstanding credit facilities. However, banks are not permitted to raise interest rates on clients unless the CBJ changes the interest rates; banks shall notify clients with new interest rates and installments.
- Circular No. (28/1/4869) dated 27/4/2020, directed to all microfinance companies in the Kingdom, regarding the procedures required to provide the necessary support for clients to withstand the repercussions and risks of COVID-19 spreading.
- Circular No. (23/2/5091) dated 5/5/2020,

directed to banks operating in the Kingdom. The Circular is regarding the stress testing that banks are required to conduct for the data of 31/12/2019, including the tests of the effect of COVID-19; the testing shall be on the bank's branches in Jordan level and on the consolidated financial data level as well.

- Circular No. (10/4/7096) dated 22/6/2020, directed to banks operating in the Kingdom. The Circular informs banks that the analysis of their data according to the risk-based approach related to anti money laundering and counter terrorist financing revealed that inherent risks facing the banking sector are classified into high and medium risks according to certain categories. Anti money laundering and counter terrorist financing policies and procedures shall be effective in banks, as well as strengthening the internal control and supervision systems and risk management, and steering the financial and human resources towards high risks to mitigate and curb these risks effectively.
- Circular No. (10/5/7612) dated 28/6/2020, directed to banks operating in the Kingdom. Under this Circular banks are required to provide the CBJ on a monthly basis with the previous month's weighted average interest rates on newly extended, and renewed credit facilities, and the average interest rates on accepted deposits and renewals, as well as the unweighted average nominal interest rates for deposits and direct credit facilities in the previous month. This aims to improve the accuracy of evaluating fluctuations of banks' interest rates on deposits and facilities, and link them to the periods during which they are altered, and assess how they are consistent with the monetary policy stance.
- Circular No. (9/1/8409) dated 14/7/2020, directed to licensed exchange companies regarding the modified lists issued by the Financial Action Task Force (FATF) regarding high risk countries and countries under increased monitoring related to the compliance with the anti money laundering and counter terrorist financing standards. This is in addition to ensuring the importance of conducting enhanced due diligence procedures commensurate with the degree of risk for business relationships and transactions conducted with natural and legal persons.
- Circular No. (9/2/10419) dated 18/8/2020, directed to licensed exchange companies. Exchange companies are required to enhance their competent and qualified human resources in the compliance area. This is in addition to upgrading their training programs related directly to anti money laundering and counter terrorist financing issues dedicated in particular for the company's compliance officers and their substitutes. These programs shall include setting scenarios and suspicion indicators in a manner that ensures the on time examining of red flags.
- Circular No. (27/1/10830) dated 26/8/2020, directed to banks and MFIs in the Kingdom, regarding some banks and MFIs refusing to provide credit facilities to clients, which is justified by CRIF Jordan. Accordingly, the Circular requires that clients shall be provided with a copy of their credit reports upon rejection of their credit applications. Banks and MFIs are committed to abide by the cases stipulated in the Credit Information Law No. (15) of 2010, wherein clients can refer to the credit information company. They are also regularly required to provide CRIF-Jordan with related credit information of any customer or any modification.
- Circular No. (10/1/11447) dated 7/9/2020, directed to banks operating in the Kingdom, emphasizing that banks shall use financial data duly certified by a chartered accountant, and to obtain the accreditation of the Jordan association of certified public accountants for the signature of the chartered accountant on the clients' financial data. Banks commitment to these requirements shall be verified during the inspection visits, and penalties and/ or financial fines will be imposed on violating banks.
- Circular No. (1/3/12894) dated 5/10/2020, directed to banks operating in the Kingdom.

Banks shall acknowledge all their branches regarding facilitating the provision of the basic bank account services for those meeting the requirements. In addition, according to the basic bank account instructions, any basic accounts with no deposit or withdrawal transactions, or with zero balance for a period not exceeding 6 months shall not be closed.

- Circular No. (26/2/13304) dated 7/10/2020, directed to licensed electronic payment and money transfer companies and exchange companies, regarding issuing a regulatory framework to provide cross border electronic transfers. This framework shall set the foundation for the provision of electronic financial transfers in a cooperative manner by licensed electronic payment and money transfer companies and exchange companies.
- Circular No. (9/3/14/14142) dated 28/10/2020, directed to licensed exchange companies regarding extending the approvals granted to exchange companies to deal with foreign currencies and precious metals with foreign entities until 17/4/2021, or until the issuance of bylaws and regulations stipulated in the effective exchange business law whichever is earlier.
- Circular No. (27/3/14218) dated 1/11/2020, directed to banks operating in the Kingdom regarding extending the circular no. (27/5/3808) dated 10/3/2019, which involves prizes on saving accounts, until the end of 2021. This is to regulate the final exit of this phenomenon. In addition, the circular aims to provide active banks in providing prizes with a sufficient period to exit without affecting their business. The provision of prizes on saving accounts is regulated based on quantity and quality controls stipulated in the circular. All banks shall seek the CBJ's approval before the advertisement and/ or the promotion to any of the prizes linked to all accounts.
- Circular No. (27/4/15606) dated 3/12/2020, directed to mobile payment companies regarding ensuring that clients' complaints are treated in a professional, efficient, and effective manner. In case of receiving any complaint by the CBJ, the CBJ will verify if the client referred first to the company, through the complaint's reference number and/ or receiving the company's reply on his/ her complaint.
- Circular No. (10/1/929) dated 14/1/2021, directed to banks operating in the Kingdom, regarding that one of the board of directors' responsibilities as part of the disclosure and transparency requirements is to ensure that the annual report for banks includes the shareholders with (1%) of capital. This is in addition to identifying the beneficial owner of all or part of these contributions. Shares shall also be indicated if they are encumbered fully or partially, as well as ensuring that the data of these beneficial owners are updated regularly.
- Circular No. (10/3/1228) dated 20/1/2021, directed to banks operating in the Kingdom, permitting licensed banks to distribute dividends not exceeding (12%) of the bank's paid-in capital, provided that the bank shall realize profits in 2020. In addition, distributing dividends shall not breach the requirements of the Law and regulations regarding the capital adequacy ratios and legal liquidity ratios.
- Circular No. (10/2/4416) dated 11/3/2021, directed to banks operating in the Kingdom, regarding revoking the license provided to Audi bank (Jordan), starting from 11/3/2021. All assets and liabilities of Audi bank are transferred to Jordan Capital Bank as stipulated in the agreement between the two banks.
- Circular No. (10/3/4515) dated 15/3/2021, directed to banks operating in the Kingdom regarding extending circular No. (10/3/14960) dated 22/11/2020. Banks, and according to their assessment and estimation of the clients' cash flows, can postpone repayments due exclusively on individuals and corporates impacted by the COVID-19 pandemic; they shall not be considered as restructuring or rescheduling until

31/12/2021. In addition, periods related to repayments postponed are to be excluded from the maximum tenor of the retail credit portfolio of 10 years, which provides more easing for clients.

- Circular No. (10/1/5134) dated 24/3/2021, directed to banks operating in the Kingdom. The checkbook shall be proportionate to the client's financial transactions volume and his/ her balances, as well the client's credibility in general. In addition, Checkbooks shall not be issued shortly after opening the account and without solid justifications to do so. They also shall be issued commensurate with the client's transactions or cash flows to their accounts. A supervisory entity at the bank shall be in place to monitor and follow-up the provision of Checkbooks.
- Circular No. (23/2/5174) dated 28/3/2021, directed to banks operating in the Kingdom, regarding stress testing including sensitivity analysis and scenario tests that banks must conduct on the data of 31/12/2020. Sensitivity analysis including tests for COVID-19 pandemic effects shall be conducted on the level of all branches in Jordan and on consolidated financial data level, yet scenario analysis shall be applied on branches in Jordan only.

# CHAPTER THREE: DEVELOPMENTS AND RISKS OF THE FINANCIAL SECTOR

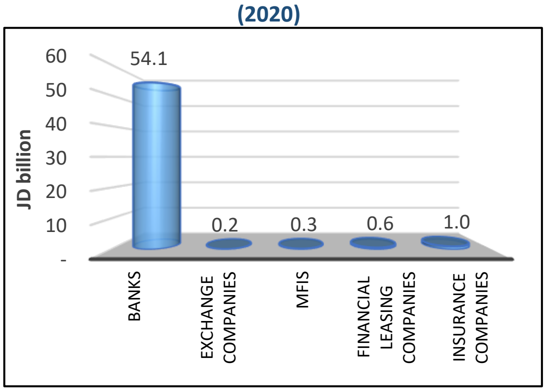
## 3-1 INTRODUCTION

The financial sector in Jordan consists of banks, insurance companies, exchange companies, financial intermediation and financial services companies, MFIs, financial leasing companies, in addition to multi-finance companies.

The CBJ assumes the oversight and supervision of the banking sector, the exchange companies, and the MFIs, which were covered under the CBJ's regulatory umbrella since 1/6/2015. In addition, a Royal Decree was issued to pass the Law of Regulating Insurance Business No. (12) of 2021, published in gazette on 16/5/2021, whereby the CBJ is in charge of overseeing and supervising the insurance sector.

Banks dominate the financial sector in Jordan; with total assets of JD 56.2 billion, accounting for 96.2% of the financial sector's total assets at the end of 2020. (Figure 3-1).

**FIGURE 3-1: TOTAL ASSETS OF THE FINANCIAL SECTOR IN JORDAN ACCORDING TO THE FINANCIAL SECTOR PILLARS (2020)**

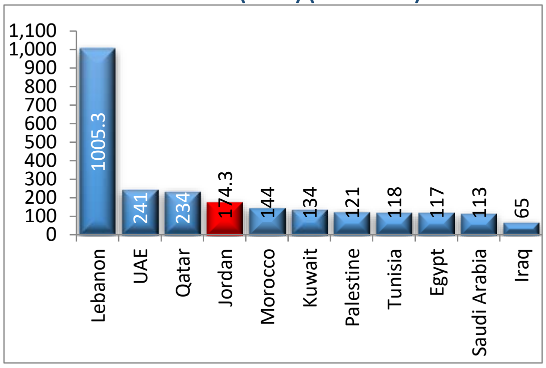



Source: CBJ.

## 3-2 MAJOR DEVELOPMENTS OF THE BANKING SECTOR IN JORDAN (ASSETS AND LIABILITIES OF BRANCHES OPERATING IN JORDAN)

Licensed banks' assets stand at JD 54.1 billion at the end of 2020, forming 174.3% of GDP, compared to 161.9% recorded in 2019. This remarkable increase is due to the decline in the GDP for the first time in 2020 because of the repercussions of COVID-19 pandemic. Jordan is ranked fourth amongst Arab countries selected for comparison. (Figure 3-2).

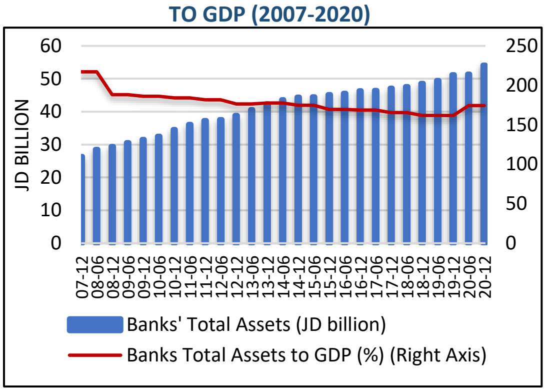
**FIGURE 3-2: TOTAL ASSETS OF BANKS IN SELECTED ARAB COUNTRIES (2020) (% OF GDP)**




Source: The Financial Stability in Arab Countries Report 2020.

Although banks' assets as percent of GDP have increased in Jordan, they were on the decline during the period (2007-2020). They decreased from 217.2% at the end of 2007 to reach 174.3% at the end of 2020. (Figure 3-3).

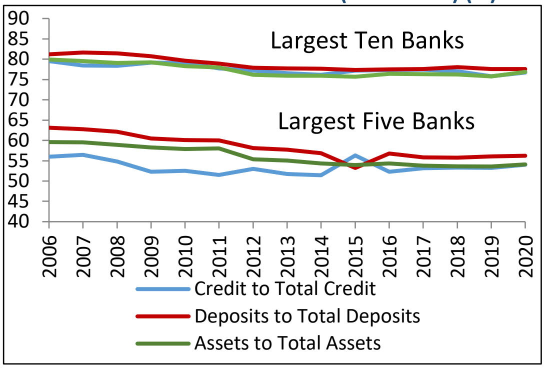
**FIGURE 3-3: DEVELOPMENTS OF ASSETS OF BANKS OPERATING IN JORDAN, AND THEIR RATIO TO GDP (2007-2020)**




Source: CBJ.

With respect to the market share of banks (concentration), the assets of the largest five banks (out of 24 banks) accounted for 54.1% of licensed banks' total assets at the end of 2020, while the assets of the largest ten banks approximated 76.9%. It is noteworthy that the market shares of the largest five and largest ten banks are shrinking, as they were 59.6% and 79.9%, respectively in 2006. Therefore, the concentration ratio of licensed banks are declining (Figure 3-4). Nevertheless, the concentration in the banking sector in Jordan is still relatively high.

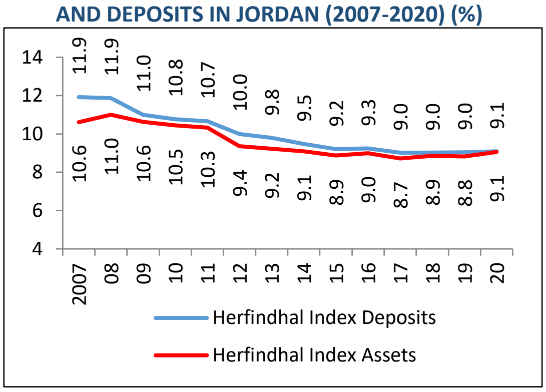
**FIGURE 3-4: THE CONCENTRATION RATIO FOR THE BANKING SECTOR IN JORDAN (2006-2020) (%)**




Source: CBJ.

As for the competitiveness of the banking sector in Jordan; according to the Herfindahl Index (HI) of the banking sector's assets, the competitiveness was improved, as the HI declined from 10.6% in 2007 to reach 9.1% by the end of 2020. These numbers suggest that competitiveness of the banking sector in Jordan is improving continuously. This is due to banks enhancement of their businesses and products to boost their competitiveness. It is worth indicating that the decline in the concentration ratios and the enhanced competitiveness in the banking sector in Jordan are reflected positively on the financial stability in Jordan (Figure 3-5).

**FIGURE 3-5: HERFINDAHL INDEX FOR BANKS' ASSETS AND DEPOSITS IN JORDAN (2007-2020) (%)**

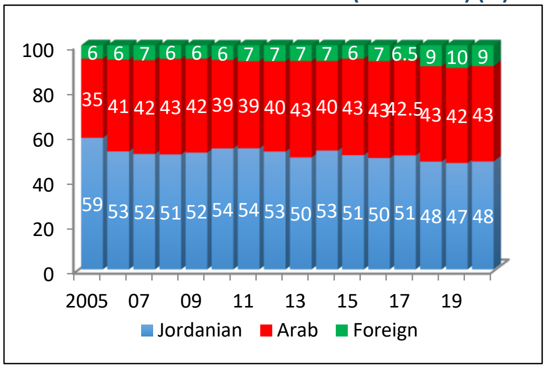



Source: CBJ.

## 3-2-1 BANKS' OWNERSHIP STRUCTURE

The share of foreigners (Arabs and Non-Arabs) in the capital of licensed banks in Jordan reached to 52% at the end of 2020, against 53% at the end of 2019, which is considered amongst the highest in the region; due to no restrictions imposed. It is worth mentioning that this share declined in 2010 and 2011, and increased again afterwards, which reflects the improvement of investors' confidence in the banking system in Jordan in particular, and the Jordanian economy in general. Most foreigners capital ownerships are stable strategic contributions (Figure 3-6).

**FIGURE 3-6: OWNERSHIP STRUCTURE OF THE BANKING SECTOR OPERATING IN JORDAN (2005-2020) (%)**

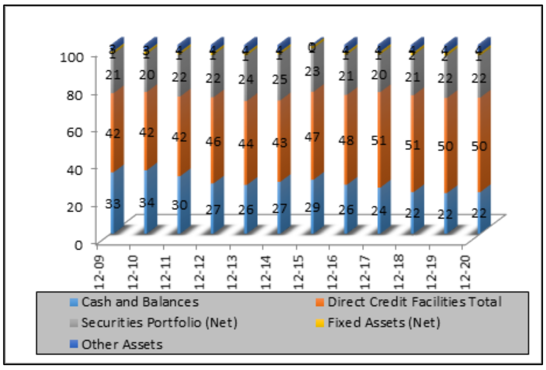



Source: CBJ.

## 3-2-2 USES OF FUNDS (ASSETS)

As for the structure of assets of banks operating in the Kingdom (uses of funds), credit facilities portfolio is still the largest component accounting for around 50.1% of banks' total assets at the end of 2020, compared to 50.3% at the end of 2019. This decrease is due to the growth of assets at rates higher than the growth of credit facilities (Figure 3-7).

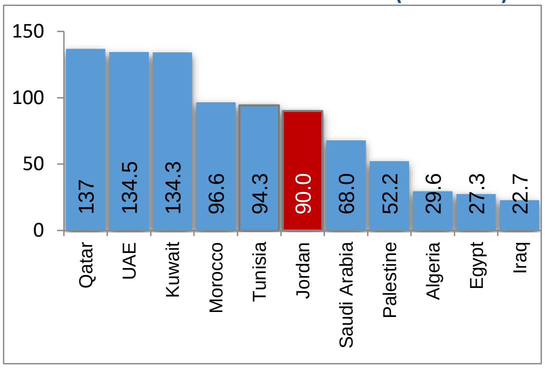
**FIGURE 3-7: STRUCTURE OF THE ASSETS OF THE BANKING SECTOR OPERATING IN JORDAN - USES OF FUNDS (2009-2020) (%)**




Source: CBJ.

Direct credit facilities grew by 5.4% at the end of 2020 to reach around JD 27.9 billion, compared to a growth of 3.1% in 2019, a large part of this increase is due to the postponement of repayments due on clients impacted by the COVID-19 pandemic. It is worth mentioning that total credit facilities as a percentage of GDP approximated 90% at the end of 2020 compared to 83.8% in 2019. Jordan ranked in the middle compared to selected countries in the region (Figure 3-8).

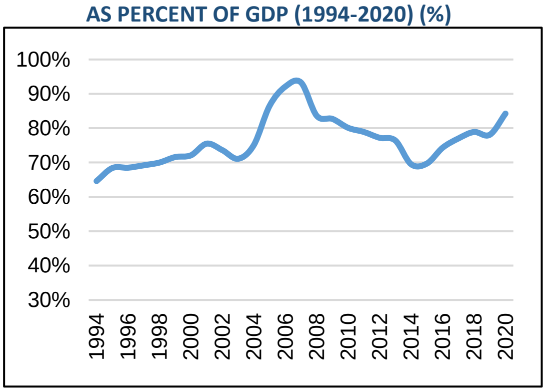
**FIGURE 3-8: CREDIT FACILITIES FOR JORDAN AND SELECTED ARAB COUNTRIES IN 2020 (% OF GDP)**




Source: The Financial Stability in Arab Countries Report 2020.

This notable increase is attributed to two main factors: the increase in credit, which is largely explained by the postponement of loans repayments due on clients impacted by the COVID-19 pandemic (i.e. it is an abnormal growth), and the unprecedented decline in the GDP due to COVID-19 pandemic repercussions. Despite the increase in ratio by 5.3%, no additional capital buffer shall be imposed on banks. According to Basel III Accord, a capital buffer shall be imposed on banks if the credit growth is not proportionate with the economic activity, which denotes that the accumulation of systemic risks and price bubbles are likely to occur. However, this year was extraordinary, as the gap of the credit to GDP ratio and its trend has increased due to the debt repayments deferrals, and the decline in the GDP that resulted from the pandemic. (Figure 3-9).

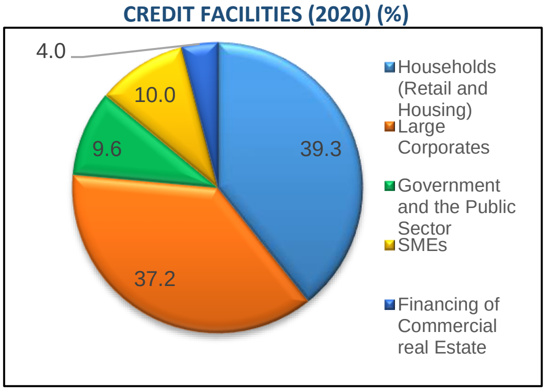
**FIGURE 3-9: CREDIT EXTENDED TO THE PRIVATE SECTOR AS PERCENT OF GDP (1994-2020) (%)**




Source: CBJ

With regard to the distribution of direct credit facilities as of end 2020, facilities extended to households accounted for the largest share with 39.3% of these facilities. Credit facilities extended to corporates formed the second largest share of 37.2% of total direct credit facilities, and credit facilities granted to the government and the public sector accounted for approximately 9.6% at the end of 2020 compared to 9.9% at the end of 2019. Moreover, credit facilities extended to the SMEs increased at the end of 2020, accounting for 10% of total credit facilities, against 9.1% at the end of 2019, thanks to the CBJ's programs initiated at the onset of the pandemic to support SMEs and mitigate the impact of the pandemic on them. Credit facilities extended for the purposes of financing commercial real estates accounted for the lowest share of 4% at the end of 2020, compared to 4.4% at the end of 2019. (Figure 3-10).

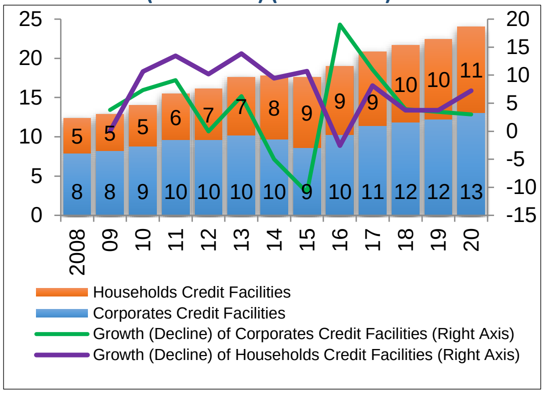
**FIGURE 3-10: SECTORAL DISTRIBUTION OF BANKS' CREDIT FACILITIES (2020) (%)**




Source: CBJ

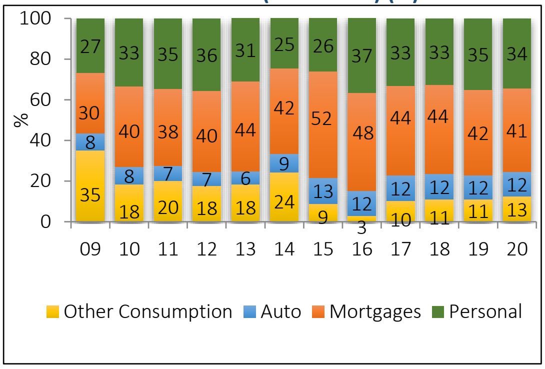
As for credit facilities extended to households, mortgages accounted for the largest share of around 41.1% of households' loans as of end 2020, compared to 42.1% at the end of 2019, followed by personal loans, which formed 34.4% of households' loans at the end of 2020, compared to 34.6% at the end of 2019. Furthermore, consumption loans accounted for 12.5% of households' loans at the end of 2020, against 11% at the end of 2019. Auto loans share of households' loans declined slightly from 12.1% at the end of 2019 to 12% at the end of 2020. In addition, credit facilities extended to corporates grew by 6.8% at the end of 2020, compared to 3.5% at the end of 2019, due to loans repayments postponement, structuring, and reschedules conducted by banks as mentioned previously. (Figures 3-11, 3-12).

**FIGURE 3-11: DEVELOPMENTS OF CREDIT FACILITIES EXTENDED TO HOUSEHOLDS AND CORPORATES (2008-2020) (JD BILLION)**




Source: CBJ

**FIGURE 3-12: TYPES OF CREDIT FACILITIES EXTENDED TO HOUSEHOLDS (2009-2020) (%)**

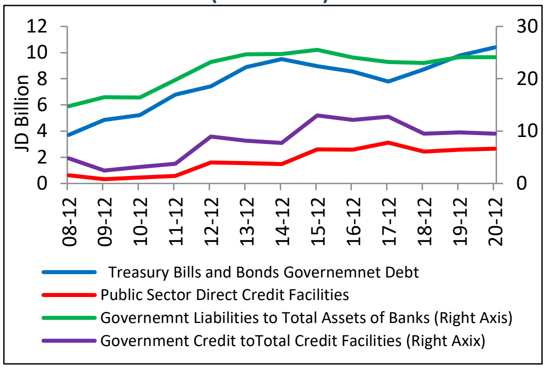



Source: CBJ

In terms of banks' exposure to government debt, whether in the form of investment in government bonds or providing government- guaranteed loans to certain public institutions, the government debt held by banks reached around JD 13.1 billion (accounting for 24.1% of banks' total assets) at the end of 2020. This is compared to JD 12.3 billion at the end of 2019. It is worth indicating that government debt owed to banks consists of JD 10.4 billion government bonds, and JD 2.7 billion credit facilities.

Banks' exposure to the government or government-guaranteed debt relative to banks' assets increased from 14.8% at the end of 2008 to reach 24.1% at the end of 2020 (Figure 3-13).

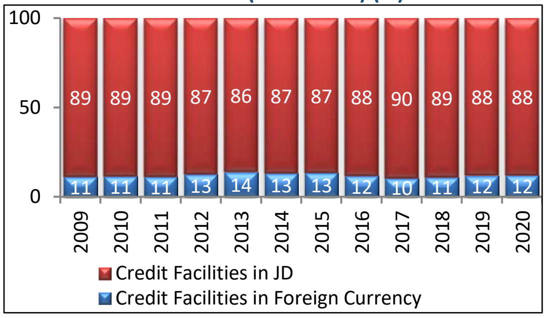
**FIGURE 3-13: BANKS EXPOSURE TO GOVERNMENT DEBT (2008-2020)**




Source: CBJ

With regard to credit facilities according to currency, they are primarily denominated in JDs constituting about 88% of total credit facilities at the end of 2020, which is the same level recorded at the end of 2019 (Figure 3-14).

**FIGURE 3-14: CREDIT FACILITIES EXTENDED BY BANKS OPERATING IN THE KINGDOM ACCORDING TO CURRENCY (2009-2020) (%)**

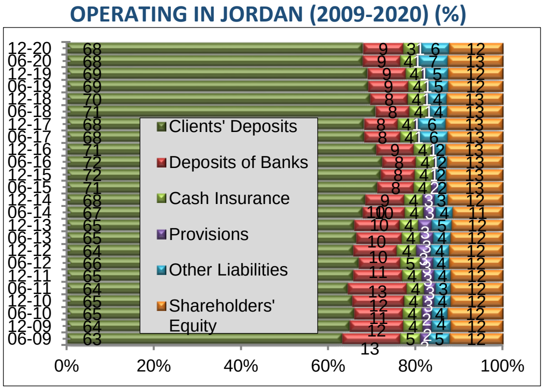



Source: CBJ

## 3-2-3 SOURCES OF FUNDS (LIABILITIES)

Analyzing the sources of funds in the banking system reveals that deposits represent the major source of funding, accounting for 68% of total sources at the end of 2020 compared to 69% at the end of 2019. (Figure 3-15).

**FIGURE 3-15: LIABILITIES STRUCTURE OF BANKS OPERATING IN JORDAN (2009-2020) (%)**



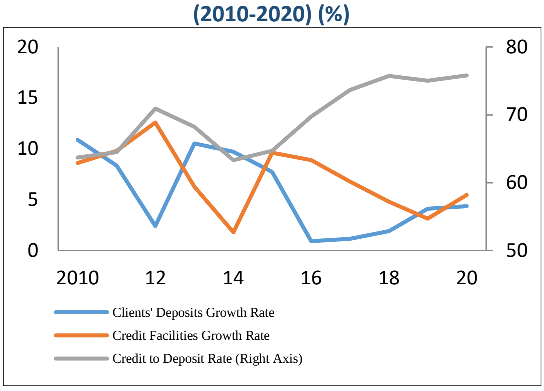

Source: CBJ

The second main source of funding is the shareholders' equity, which increased from JD 6.3 billion at the end of 2019 to reach JD 6.6 billion at the end of 2020.

Deposits of banks are the third source of funds in terms of importance; they accounted for 9.3% of total sources of funds at the end of 2020, compared to 8.8% at the end of 2019.

With regard to developments of clients' deposits in the banking sector, they increased by 4.2% in 2020 to reach around JD 36.8 billion, against a growth of 4.3% in 2019. The ratio of credit facilities to deposits at the banking system in Jordan increased from 75% at the end of 2019 to reach 75.8% at the end of 2020 (Figure 3-16).

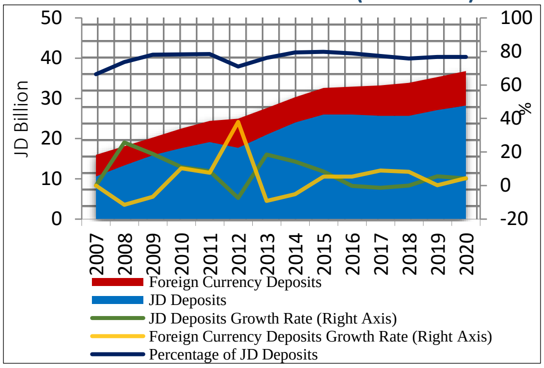
**FIGURE 3-16: DEPOSITS AND CREDIT FACILITIES GROWTH RATES, AND CREDIT TO DEPOSIT RATIO (2010-2020) (%)**




Source: CBJ

As for the composition of deposits in terms of currency, the JD-denominated deposits account for the largest share of deposits. Analyzing the changes in the ratio of JD-denominated deposits in respect to total deposits indicates that it increased notably from 66.4% at the end of 2007 to reach 78.4% at the end of 2011. However, it started to decline reaching its record low of 71% by the end of 2012 owing to unfavorable economic conditions that hit Jordan in 2012. Nevertheless, during the years 2013, 2014, and 2015, and due to the improving economic conditions as most economic and monetary fundamentals have improved, the JD-denominated deposits retrieved the upward trending to reach its peak of 79.8% of total deposits at the end of 2015. During the period (2016- 2018) the JD deposits decreased to 75.8% at the end of 2018 to increase again at the end of 2019 and 2020 to reach 76.8% and 76.7%, respectively. This is considered a comfortable level that reflects the confidence in the Jordanian dinar as a saving currency, and strengthens the monetary and financial stability in the Kingdom (Figure 3-17).

**FIGURE 3-17: JD AND FOREIGN CURRENCY DEPOSITS LEVELS AND GROWTH RATES (2007-2020)**




Source: CBJ

## 3-2-4 RISKS OF THE BANKING SECTOR IN JORDAN- FINANCIAL SOUNDNESS INDICATORS

Despite that Jordan and the World underwent challenging conditions due to COVID-19 pandemic; the financial and administrative positions of the banking sector in Jordan were broadly sound and resilient. The next sections elaborate on the main developments of banks' financial ratios and indicators.

### 3-2-4-1 LIQUIDITY

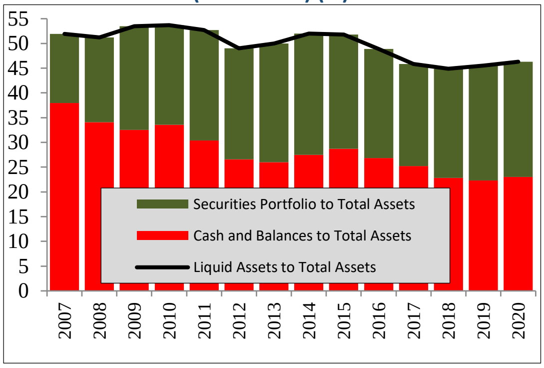
The banking sector in Jordan enjoys a safe liquidity position, as liquidity indicators at the end of 2020 denote that the liquidity position of banks is sound and robust. The cash and balances stand at 23% of total assets at the end of 2020 compared to 22.3% at the end of 2019, while the share of securities portfolio (highly liquid) to total assets reached 23.3% at the end of 2020 compared to 23.2% at the end of 2019.

Accordingly, high-liquid assets accounted for around 46.3% of total assets at the end of 2020 compared to 45.6% at the end of 2019 (Figure 3-18). This increase is explained by the CBJ's proactive and overarching measures dedicated to contain the negative repercussions of COVID-19 pandemic that affected the national economy. Part of these measures involves providing JD

1,050 million additional liquidity to the banking sector through the following:

1. Reduce the required reserve ratio from 7% to 5%, which pumped JD 550 million additional liquidity to the banking sector, which enhanced banks' ability to provide credit. In addition, it enabled banks to reduce interest rates on credit extended to all economic sectors including individuals and corporates.
2. Conduct JD 500 million repurchase agreements with banks for maturities up to one year, to provide financing needs for the public and private sectors.

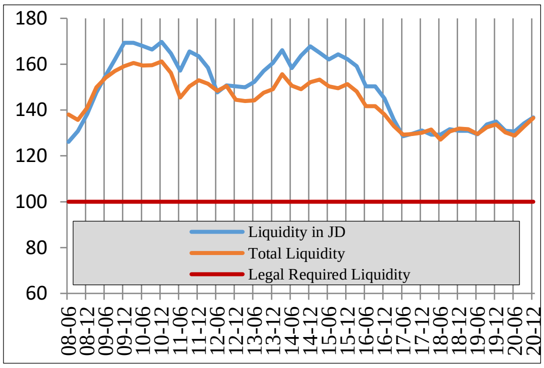
**FIGURE 3-18: LIQUID ASSETS TO TOTAL ASSETS (2007-2020) (%)**




Source: CBJ

The legal liquidity ratio imposed by the CBJ on banks (the minimum requirement is 100%) increased from 133.8% at the end of 2019 to reach 136.5% at the end of 2020 (Figure 3-19).

**FIGURE 3-19: LEGAL LIQUIDITY RATIO (IN TOTAL AND IN JD) (2008-2020) (%)**



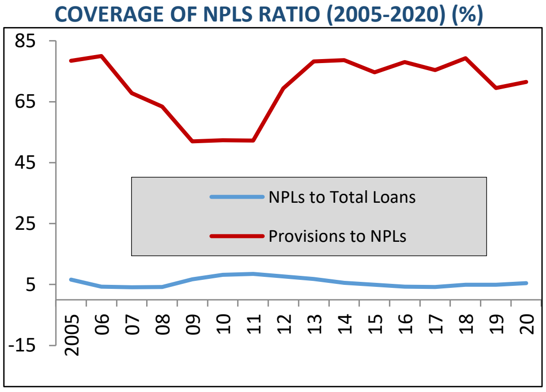

Source: CBJ

## 3-2-4-2 QUALITY OF ASSETS

The ratio of NPLs to total loans declined further during the period (2012-2017) to reach 4.2% at the end of 2017 compared to 7.7% at the end of 2012. The NPLs ratio to total loans increased moderately during the period (2018-2020) to reach 5.5% at the end of 2020, compared to 5% at the end of 2019. This implies that despite the ramifications of COVID-19 pandemic, the ratio did not increase sharply which denotes the high quality of Jordanian banks' assets.

As for the provisions coverage ratio to the NPLs, it increased to 71.5% at the end of 2020, compared to 69.5% at the end of 2019, which is a positive indicator that around 71.5% of NPLs are covered. (Figure 3-20).

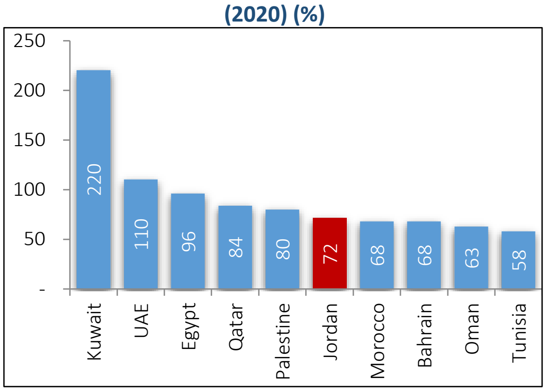
**FIGURE 3-20: THE NPLS RATIO AND THE PROVISIONS COVERAGE OF NPLS RATIO (2005-2020) (%)**




Source: CBJ

The banking system in Jordan ranked in the middle of 10 Arab countries in terms of the NPLs coverage ratio. (Figure 3-21).

**FIGURE 3-21: THE PROVISIONS COVERAGE RATIO OF NPLS FOR JORDAN AND SELECTED ARAB COUNTRIES (2020) (%)**

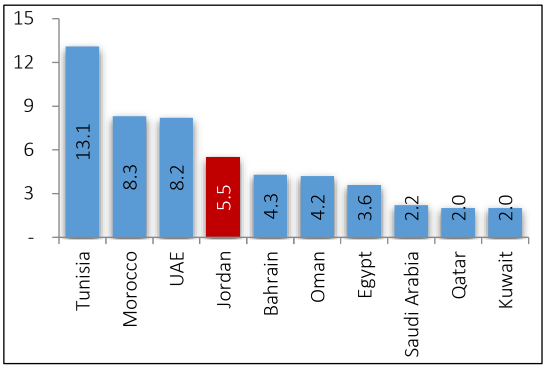



Source: for Jordan's data: CBJ.
Data of other Arab countries: database of the Financial Stability in Arab Countries Report.

The outstanding balance of NPLs (excluding interest in suspense) at the banking system stands at JD 1,496 million at the end of 2020; an increase of JD 197 million, compared to its level in 2019 of JD 1,299 million. This is expected in light of the repercussions of COVID-19 pandemic and its impact on borrowers. However, and as mentioned previously despite the increase of NPLs as an absolute number, the NPLs to total debt did not show a major increase. In addition, most NPLs are covered with sufficient provisions; banks in 2020 built large credit provisions to hedge against COVID-19 pandemic risks.

The NPLs ratio for Jordan is less than those in Tunisia, Morocco, and UAE, yet it is higher than other GCC countries and Egypt. (Figure 3-22).

**FIGURE 3-22: THE NPLs TO TOTAL LOANS FOR JORDAN AND SELECTED ARAB COUNTRIES (2020) (%)**

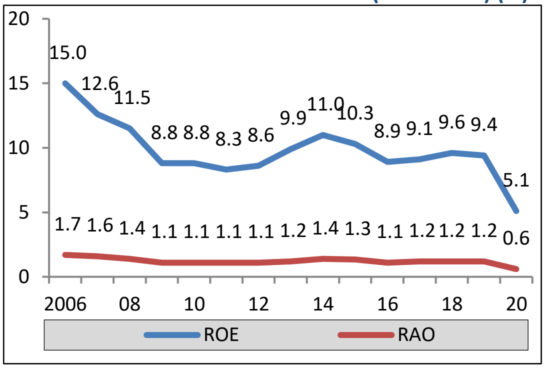



Source: for Jordan's data: CBJ.
Data of other Arab countries: database of the Financial Stability in Arab Countries Report.

### 3-2-4-3 PROFITABILITY

The after tax profit for banks totaled JD 328.2 million in 2020, compared to JD 586.5 million in 2019, declining by JD 258.3 million, or 44%. This substantial decline is driven by the allocation of credit provisions at banks to hedge against COVID-19 risks. This is in addition to postponing debt repayments due on clients impacted by the pandemic and rescheduling part of loans extended to the affected economic sectors with no additional fees and/ or late payment interests. Consequently, the ROA of the banking system in Jordan declined to 0.6% in 2020 compared to 1.2% in 2019. Historically, the ROA of the banking system recorded 1.7% at the end of 2006 and declined gradually to 1.1% at the end of 2009 affected by the ramifications of the global financial crisis impact on banks' profits. The ROA maintained that low level until the end of 2012, to increase to 1.2% and 1.4% in 2013 and 2014, respectively, due to the remarkable growth of banks' profits. In 2015 and 2016, banks' ROA declined to 1.3% and 1.1%, respectively, which is attributed mainly to the increase of income tax rate on banks from 30% in 2014 to 35% in 2015. However, banks' ROA increased again at the end of 2019 to reach 1.2%. (Figure 3-23).

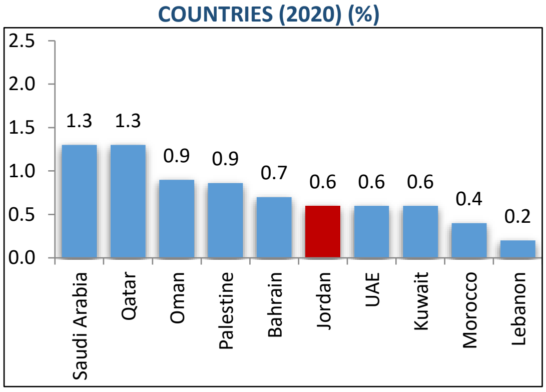
**FIGURE 3-23: BANKS' ROE AND ROA (2006-2020) (%)**




Source: CBJ

The comparison to selected Arab countries in terms of banks' ROA in 2020 indicates that Jordan on par with Kuwait and UAE ranked in the middle among 10 Arab countries with available data. Lebanon ranked as the lowest ROA of 0.2%, whereas Saudi Arabia and Qatar ranked first with a 1.3% ROA ratio. (Figure 3-24).

**FIGURE 3-24: ROA FOR JORDAN AND SELECTED ARAB COUNTRIES (2020) (%)**

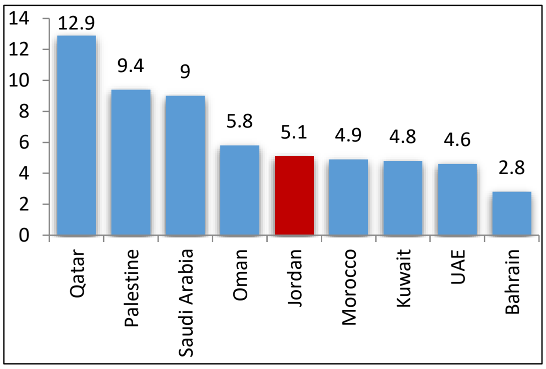



Source: for Jordan's data: CBJ.
Data of other Arab countries: database of the Financial Stability in Arab Countries Report.

As for the return on equity (ROE), it declined sharply at the end of 2020 to reach 5.1%, compared to 9.4% at the end of 2019, which is attributed to the decline in banks' profits as mentioned previously. (Figure 3-23).

In comparison with selected Arab countries, Jordan occupied a middle rank among nine Arab countries. Bahrain had the lowest ROE of 2.8%, while Qatar had the highest rate of 12.9%. The modest ROE rate in Jordan compared to most of Arab countries is due to banks' conservatism and risk aversion, in addition to the high levels of capital held by banks in Jordan and the relatively high rates of income tax paid by banks in Jordan. (Figure 3-25).

**FIGURE 3-25: BANKS' ROE FOR JORDAN AND SELECTED ARAB COUNTRIES (2020) (%)**



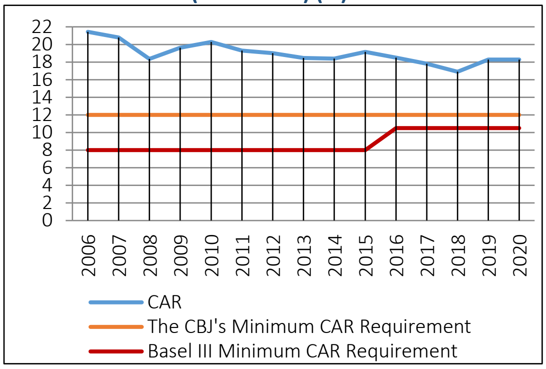

Source: for Jordan's data: CBJ.
Data of other Arab countries: database of the Financial Stability in Arab Countries Report.

## 3-2-4-4 CAPITAL ADEQUACY

The CAR of the banking sector in Jordan is high; it ranged from 18% to 21% during the period (2007-2016). It is broadly well above the 12% minimum requirement of the CBJ, and the 10.5% minimum requirement of Basel Committee. However, the CAR decreased in 2017 and 2018 to 17.8% and 16.9%, respectively. Part of the CAR's notable decline in 2018 is attributed to the implementation of IFRS 9, which requires building additional provisions for credit losses; these amounts are transferred from shareholders' equity account, in particular retained earnings. At the end of 2019, the CAR increased significantly, to reach 18.3%; owing mainly to the CBJ's request from banks not to distribute dividends in order to support banks' capital base and enable them to confront the ramifications of COVID-19 pandemic, as well as to support the national economy. In 2020, the CBJ allowed banks to distribute dividends, provided that these dividends shall not exceed 12% of the paid-in capital, and the bank shall realize profits in 2020. However, these distributions shall not violate the requirements of the law and instructions regarding the capital adequacy ratio and liquidity ratios. The postponement of dividends distribution contributed to enhance the capital base of banks and helped to achieve a stable CAR in 2020, which remained stable at its 2019 level of 18.3%.

It is worth mentioning that tier I core capital ratio declined slightly at the end of 2020 to reach 17.5%, compared to 18.1% at the end of 2019. This denotes that most of banks' capital in Jordan is composed of tier I core capital, which is the capital's highest quality component and the most capable to withstand losses (Figure 3-26).

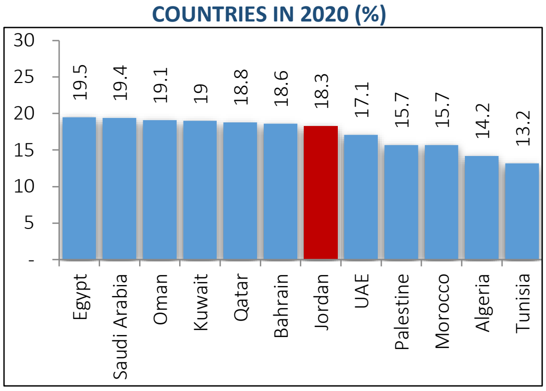
**FIGURE 3-26: ACTUAL CAR COMPARED WITH THE CBJ AND BASEL COMMITTEE MINIMUM REQUIREMENTS (2006-2020) (%)**




Source: CBJ

In comparison with selected Arab countries, the CAR in Jordan ranked in the middle among 12 Arab countries with available data. (Figure 3-27).

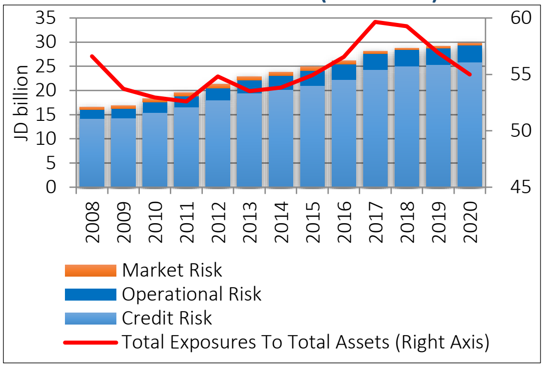
**FIGURE 3-27: CAR FOR JORDAN AND SELECTED ARAB COUNTRIES IN 2020 (%)**




Source: for Jordan's data: CBJ.
Data of other Arab countries: database of the Financial Stability in Arab Countries Report.

With regard to major risks faced by banks, the credit risk is the most significant forming 87% of total risks as of end 2020, followed by operational risk, which constituted around 11.7% of total risk, and the market risk, which accounted for 1.3% of total risk. These figures are close to their levels in 2019 reflecting the relative stability of the risks structure in banks with no substantial changes occurred. (Figure 3-28).

FIGURE 3-28: COMPONENTS OF TOTAL EXPOSURES IN THE BANKING SECTOR (2008-2020)




Source: CBJ

## 3-2-5 OPERATIONAL EFFICIENCY OF BANKS

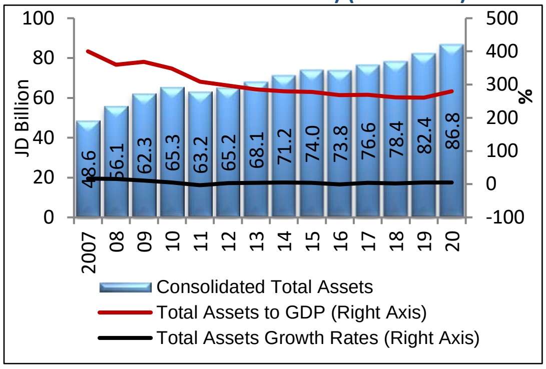
The operational efficiency for banks is measured primarily by the Cost (excluding interests) to income ratio (CIR). The CIR of banks reached to around 74.4% at the end of 2020 compared to 57.1% at the end of 2019. However, this notable increase is due to the decline in banks' income due to previously mentioned reasons associated with the repercussions of COVID-19 pandemic, therefore the increase of the CIR ratio in 2020 is an abnormal increase resulted from the extraordinary conditions that affected countries worldwide.

## 3-3 ASSETS AND LIABILITIES OF CONSOLIDATED BANKING SECTOR IN JORDAN (BRANCHES OPERATING IN JORDAN AND ABROAD AND SUBSIDIARIES)

### 3-3-1 ASSETS

At the end of 2020, the number of Jordanian banks operating abroad reached to (8) banks. The Arab Bank's assets abroad constituted around 83.9% of total assets of banks operating abroad, and 71% of the Arab Bank's consolidated total assets as of end 2020. The total assets of the Jordanian consolidated banking sector approximated JD 86.8 billion at the end of 2020 compared to JD 82.4 billion at the end of 2019, increasing by JD 4.4 billion or 5.4%. Assets of branches in Jordan accounted for 62.3% of total assets of consolidated banks at the end of 2020 compared to 62.1% at the end of 2019. Despite the increase of the consolidated banking sector's assets from JD 48.6 billion at the end of 2007 to JD 86.8 billion at the end of 2020, their growth rate was trending downward from approximately 17% in 2007 to 5.1% in 2019. However, it increased slightly in 2020 to record 5.4%. (Figure 3-29).

FIGURE 3-29: TRENDS OF TOTAL ASSETS OF CONSOLIDATED BANKS (CONSOLIDATED LEVELS AND AS % OF GDP) (2007-2020)



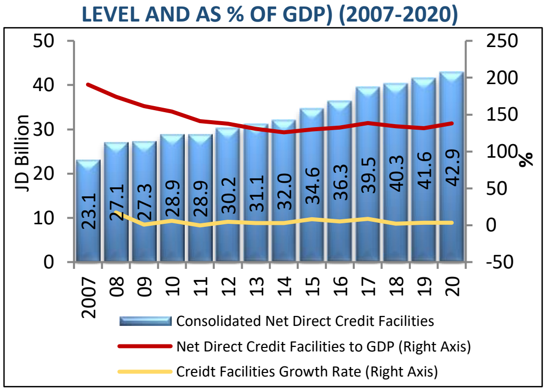

Source: CBJ

As for the assets of the consolidated banking sector relative to GDP ratio, it was on a continuous downward trend during the period (2007-2019) as it declined from 400% in 2007 to around 260.7% at the end of 2019. Afterwards, it increased in 2020 to reach 279.7% due to the extraordinary decline in the GDP resulted from the repercussions of the COVID-19 pandemic.

### 3-3-2 CREDIT FACILITIES

The net balance of consolidated credit facilities of the banking system grew by 3.2% to reach JD 42.9 billion at the end of 2020, compared to JD 41.6 billion at the end of 2019 (a growth of 3.3%). The consolidated credit facilities as percent of GDP reached 138.3% at the end of 2020 compared to 131.6% at the end of 2019 (Figure 3-30).

FIGURE 3-30: DEVELOPMENT OF CONSOLIDATED BANKS' CREDIT FACILITIES (CONSOLIDATED LEVEL AND AS % OF GDP) (2007-2020)

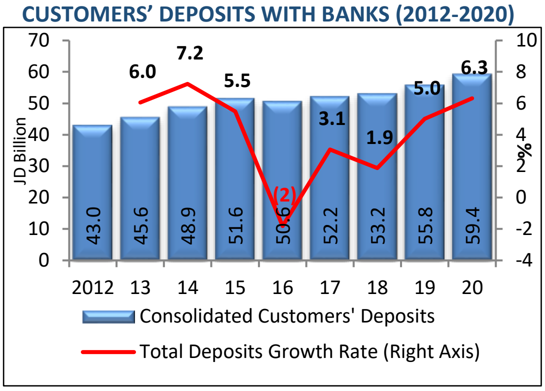



Source: CBJ

### 3-3-3 DEPOSITS

Customers' deposits (consolidated level) increased to JD 59.4 billion, at the end of 2020, growing by 6.3% compared to JD 55.8 billion (a growth of 5%) at the end of 2019. (Figure 3-31).

**FIGURE 3-31: DEVELOPMENTS OF CONSOLIDATED CUSTOMERS' DEPOSITS WITH BANKS (2012-2020)**

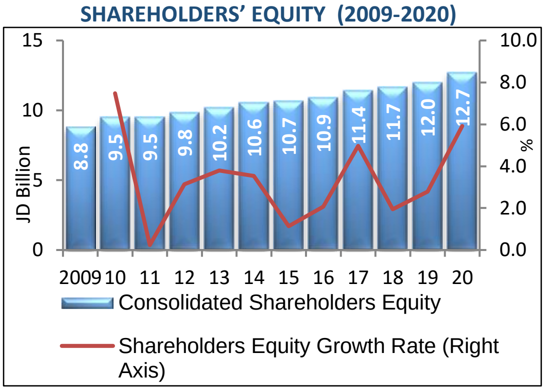



Source: CBJ

### 3-3-4 SHAREHOLDERS' EQUITY

The balance of consolidated banks' shareholders' equity totaled JD 12.7 billion at the end of 2020, compared to JD 12 billion at the end of 2019. It is worth mentioning that the balance of shareholders' equity followed an upward trend since 2009 (Figure 3-32). This enhances banks' solvency and resilience to withstand risks, and strengthens the financial sector stability.

**FIGURE 3-32: TRENDS OF CONSOLIDATED BANKS SHAREHOLDERS' EQUITY (2009-2020)**



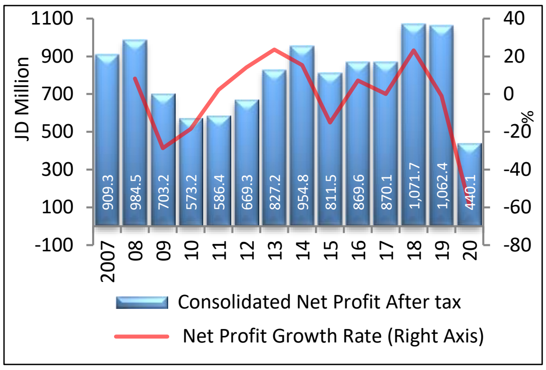

Source: CBJ

### 3-3-5 NET PROFIT AFTER TAX, ROA, AND ROE

#### 3-3-5-1 NET PROFIT AFTER TAX

Consolidated banks' net profit after tax recorded a substantial decline as it reached to JD 440.1 million at the end of 2020, compared to JD 1,062.4 million at the end of 2019, decreasing by 58.6%. This is due to the aforementioned reasons related to the COVID-19 pandemic repercussions. (Figure 3-33).

**FIGURE 3-33: TRENDS OF NET PROFIT AFTER TAX FOR CONSOLIDATED BANKS (2007-2020)**




Source: CBJ

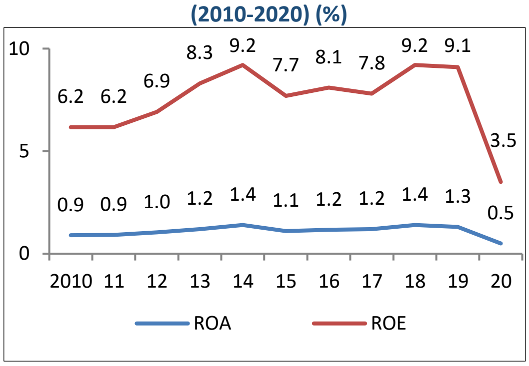
#### 3-3-5-2 ROA

The ROA of consolidated banks decreased to stand at 0.5% as of end 2020, compared to 1.3% at the end of 2019, due to the substantial decline in consolidated banks' profits. (Figure 3-34).

#### 3-3-5-3 ROE

The ROE of consolidated banks decreased at the end of 2020 to reach 3.5% compared to 9.1% at the end of 2019. (Figure 3-34).

**FIGURE 3-34: ROA AND ROE OF CONSOLIDATED BANKS) (2010-2020) (%)**




Source: CBJ

## 3-4 FINANCIAL STABILITY INDEX

### 3-4-1 INTRODUCTION

As mentioned in previous financial stability reports, the CBJ in 2017 developed Jordan Financial Stability Index (JFSI) based on several practices of countries designing their own indices, as each country uses different approaches in terms of variables, statistical methods, weights, and other factors. Therefore, the JFSI was developed according to international best practices thereon, considering the features of the

Jordanian economic and financial system.

The JFSI is a composite of three sub-indices; each index represents a key element of the Jordanian financial system, namely: the banking sector index, which constitutes of nine variables, the macroeconomics index, which is represented by seven variables, and the capital market index, which consists of two variables. These 18 indices were calculated and analyzed by using historical data for the period (2007-2020).

### 3-4-2 THE METHODOLOGY

The methodology used to develop the JFSI is one of the most widely used by countries[1] calculating the same index. The JFSI was developed based on international best practices thereupon, taking into account the specific features of the financial sector in Jordan, which is dominated by the banking sector, therefore more than half of the indices used to calculate the composite JFSI refer to the banking sector indicators. A synopsis of the methodology used to calculate the JFSI is set out below.

**Data Normalization:**

The re-scaling methodology was used to re-measure the sub-indices, by subtracting the minimum value of the sub-index from the value of the index and then divide the output by the range of the sub-index according to the formula (1) below.

$$di = \frac{Ai - min}{Max - min} \quad \text{.................} \quad (1)$$

Where min[2] and Max represent the minimum and maximum values of the di sub-index.

**Calculation of sub-indices:**

The sub-index is calculated by using the weighted average of normalized indices, and determining the weights based on the relative importance of indices. Many methods are available for selecting the weights of indices; however, the best-used one is to rely on the professionals and experts' opinions, as weights are estimated according to the significance of the sub-index and its impact on the financial stability in the Kingdom. Subsequently, the following weights were allocated to the banking sector indices:

| Variable | Weight |
|---|---|
| CAR | 28.3% |
| Quality of Assets | 28.3% |
| Liquidity | 28.3% |
| Profitability | 15% |
| Total | 100% |

The sub-indices of the banking sector, macroeconomics, and the capital market were calculated using the following formulas:

**Banking Sector Index** (weighted average of sub-indices):

$$Bsi = \frac{\sum_1^9 W_b d_b}{9} \quad \text{....................} \quad (2)$$

**Macroeconomics Index:**

$$Esi = \frac{\sum_1^7 d_E}{7} \quad \text{.........................} \quad (3)$$

**Capital Market Index:**

$$Msi = \frac{\sum_1^2 d_M}{2} \quad \text{......................} \quad (4)$$

**Calculating the Composite Financial Stability Index:**

Using the weighted average of the three sub-indices, the JFSI is calculated using the following formula:

JFSI= ((9/18)*Bsi) + ((7/18)*Esi) + ((2/18)*Msi)…. (5)

The JFSI's value ranges from zero to 1.

### 3-4-3 THE JFSI RESULTS

As mentioned previously, the value of the JFSI ranges from zero to one. The closer the value to one, the greater the stability of the financial system. The pre-crisis value of the JFSI was 0.64 at the end of 2007, and dropped to 0.5 by the end of 2008 due to the global financial crisis. The JFSI increased to 0.64 at the end of 2009 to fall again during the period (2010-2012) with the lowest value recorded at the end of 2012 of 0.36, influenced by the Arab Spring and the refugees' crisis as well as the challenging economic conditions that hit the Kingdom, particularly in 2012. The JFSI started to recover and reached 0.57 by the end of 2015. However, the JFSI had declined during the years (2016-2018), to reach 0.46 at the end of 2018. In 2019, the JFSI improved compared to the period (2016- 2018[3]) to record 0.55, due to better liquidity ratios and CARs, as well as the financial leverage of banks operating in Jordan, besides the improvement in foreign reserves and gold. In 2020, the COVID-19 pandemic broadly affected the economic and financial conditions in the Kingdom; the JFSI declined to 0.44 due to the decrease in the banking stability index, which declined because of the decreasing profits of banks owing to the COVID-19 pandemic repercussions. In the same

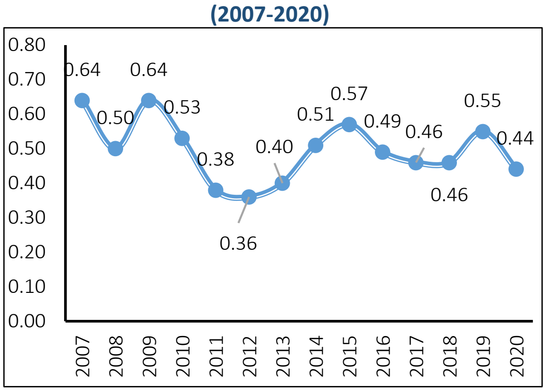
[1] Banking Stability Index: A Cross-Country Study.

[2] The minimum value is determined according to the minimum values stipulated in respective effective regulations instead of the minimum values mentioned in the study.

[3] One of the main drawbacks of the Financial Stability Index, which was recognized by most countries that developed such index, is that it is highly sensitive to any changes in the values of the sub-indices included in the calculation, regardless how small these changes are.

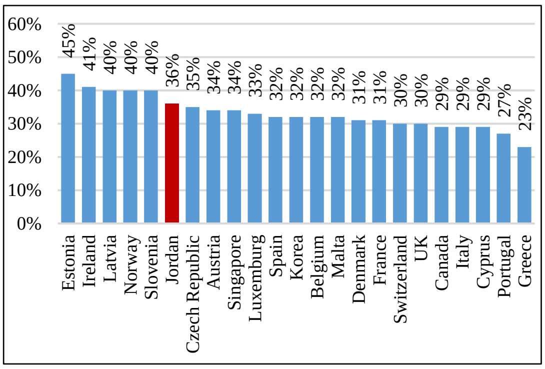
context, the macroeconomic stability index declined from 0.63 in 2019 to 0.53 in 2020, due to the contraction of the Jordanian economy by (1.6%) in 2020, as compared to an economic growth of 2% in 2019. This is in addition to the increase in the current account deficit to 8% of GDP in 2020, against a deficit of 2.1% of GDP in 2019, due to the imports and exports being blocked between countries due to the pandemic. (Figure 3-35).

FIGURE 3-35: JORDAN FINANCIAL STABILITY INDEX (JFSI) (2007-2020)




In comparison of the Banking Sector Stability Index for Jordan with 23 countries that developed a similar index, Jordan occupied the fourth rank as indicated in (Figure 3-36). This ensures that the banking sector in Jordan is highly stable, despite the unprecedented conditions that affected Jordan and the World due to the COVID-19 pandemic.

FIGURE 3-36: THE BSI COMPARED TO BANKING STABILITY INDICIES FOR SELECTED COUNTRIES




## 3-5 DEVELOPMENTS OF NON-BANKING FINANCIAL SECTOR (NON-BANKING FINANCIAL INSTITUTIONS)

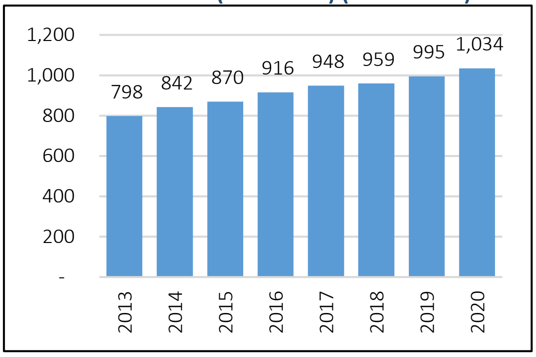
### 3-5-1 THE INSURANCE SECTOR

The insurance sector is a vital component of the financial system. It protects individuals and properties against risks, in addition to attracting and investing national savings to support economic development. The contribution of insurance premiums to GDP reached around 2% in 2020. Given the importance of this sector in promoting financial stability, the Cabinet on 24/02/2016 entitled the CBJ to supervise the insurance sector according to international practices of regulatory authorities. To this end the CBJ in cooperation with the Ministry of Industry, Trade, and Supply drafted the Law for regulating insurance business of 2019; the Parliament passed the draft Law in March 2020. A Royal Decree was issued to pass the Regulating Insurance Business Law No. (12) of 2021, and was published in Gazette on 16/05/2021. The provisions of this Law shall be applied on insurance companies, reinsurance companies, insurance services providers, and all entities and means related to regulating and supervising the insurance sector. This is to ensure the rights of the insured persons and beneficiaries as well as the soundness of the financial positions of insurance companies and reinsurance companies. The Law reflects the CBJ's vision and endeavor to strengthen the regulatory and supervisory frameworks of the insurance business in accordance with international standards and best practices. This is in the context of the CBJ's dedication towards enhancing the stability and soundness of and developing the insurance sector so that it can achieve its prospected role in the economy.

The Insurance sector consists of (24) licensed insurance companies operating in Jordan. One company is licensed to provide life insurance (a branch of foreign company); (8) companies are licensed to practice general insurance business; while (15) companies are licensed to carry out both types of insurance (general insurance and life insurance), two of which are providing Takaful insurance, and licensed to practice life insurance and general insurance. In addition, the insurance sector also includes (1,121) entities providing supporting insurance services, including insurance agents and brokers, reinsurance brokers, loss settlement specialists, inspectors, authorized delegates to subscribe, actuarists, insurance consultants, insurance business management companies, banks licensed to practice insurance business, as well as reinsurance brokers residing abroad.

Total assets of insurance companies in the Kingdom totaled JD 1,034 million at the end of 2020, compared to JD 995 million at the end of 2019; growing by 3.9% (Figure 3-37).

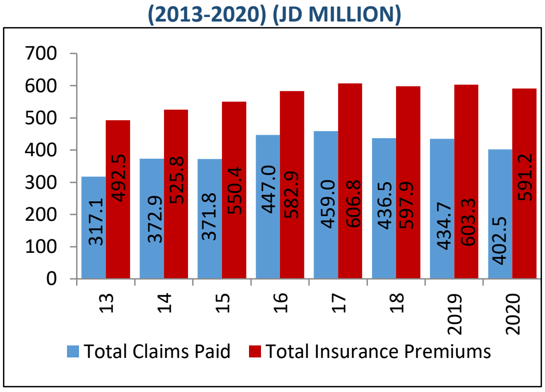
FIGURE 3-37: TRENDS OF INSURANCE COMPANIES TOTAL ASSETS (2013-2020) (JD MILLION)




### 3-5-1-1 THE INSURANCE SECTOR MAIN INDICATORS

Total insurance premiums decreased by 2% in 2020, to reach JD 591.2 million in compared to JD 603.3 million in 2019. Meanwhile, total claims paid decreased by 7.4% to reach JD 402.5 million in 2020, compared to JD 434.7 million in 2019 (Figure 3-38).

FIGURE 3-38: DEVELOPMENTS OF TOTAL INSURANCE PREMIUMS AND TOTAL CLAIMS PAID (2013-2020) (JD MILLION)




With regard to the financial results of the insurance companies, total investments increased from JD 576.1 million in 2019 to JD 590.1 million in 2020. Meanwhile, paid in capital increased from JD 271.3 million in 2019 to JD 271.8 million in 2020 (Table 3-1). The net profit after tax for insurance companies stood at JD 28.9 million in 2020, against JD 19.9 million in 2019, increasing approximately by 45.2%.

TABLE 3-1: FINANCIAL RESULTS OF INSURANCE COMPANIES (2014-2020)

| Item | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| Total Investments | 534.4 | 533.6 | 543.5 | 569 | 563.4 | 576.1 | 590.1 |
| Total assets | 842.2 | 869.7 | 915.6 | 948 | 959 | 995.1 | 1,034 |
| Shareholders' equity | 332.8 | 330.7 | 343.7 | 335 | 317.9 | 327.1 | 344.3 |
| Total written premiums in Jordan | 525.8 | 550.4 | 582.9 | 606.8 | 597.9 | 603.3 | 591.2 |
| Total claims paid in Jordan | 372.9 | 371.8 | 447 | 459 | 436.5 | 434.7 | 402.5 |
| Paid in capital | 268 | 269 | 267 | 265 | 266.4 | 271.3 | 271.8 |

Source: The statements of financial position for insurance companies 2020

## 3-5-2 NON-BANKING FINANCIAL INSTITUTIONS

Non-banking financial institutions play a fundamental role in the economy as they provide credit to segments facing difficulties to access banks.

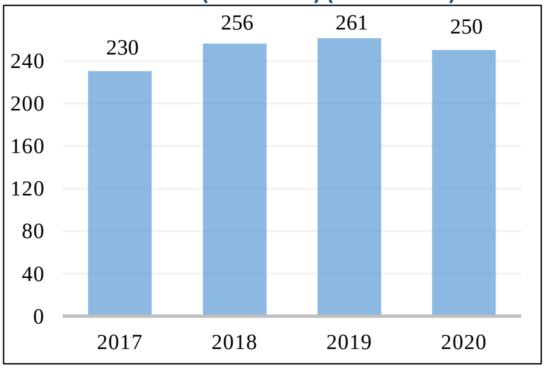
Non-banking financial institutions extend credit to customers without accepting deposits, and are subject to the oversight of the Ministry of Industry, Trade, and Supply. However, as part of the CBJ's endeavor to include non-banking financial institutions under its supervision umbrella, the CBJ in 2015 embarked the oversight and supervision on MFIs in the first stage of including unregulated non-banking financial institutions under the CBJ's supervision; other unregulated non-banking financial institutions are to be regulated in the second stage.

### 3-5-2-1 MICROFINANCE SECTOR

The microfinance sector in Jordan started its business in 1994, and expanded rapidly in the last few years. Microfinance loans portfolio recorded a steady growth rate during the period (2017-2019) that averaged 7.1%. In 2020, the loans portfolio declined by 4.3%, owing to the ramifications of COVID-19 pandemic and respective lockdown. (Figure 3-39).

Total loans portfolio of microfinance reached to JD 250 million at the end of 2020, compared to around JD 261 million at the end of 2019. The number of borrowers decreased by 8% to reach 431 thousand borrowers at the end of 2020 compared to 469 thousand borrowers at the end of 2019. In addition, the average value of loans increased from JD 689 at the end of 2019 to JD 713 at the end of 2020, an increase of 3.5%.

**FIGURE 3-39: DEVELOPMENTS OF MFIs LOANS PORTFOLIO (2017-2020) (JD MILLION)**



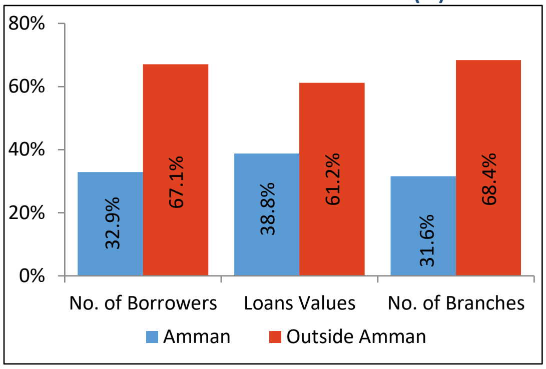

Source: CBJ's data.

The MFIs activities mainly target women, aiming to empower them and enhance their contribution to the economy and society. In addition, the MFIs services also focus on borrowers outside Amman to achieve economic and social development throughout the Kingdom as follows:

### 3-5-2-2 THE MICROFINANCE SECTOR ACTIVITIES OUTSIDE AMMAN

The microfinance sector activities are concentrated outside Amman, as 67.1% of borrowers, 61.2% of total value of loans, and 68.4% of MFIs branches are located outside Amman (figure 3-40).

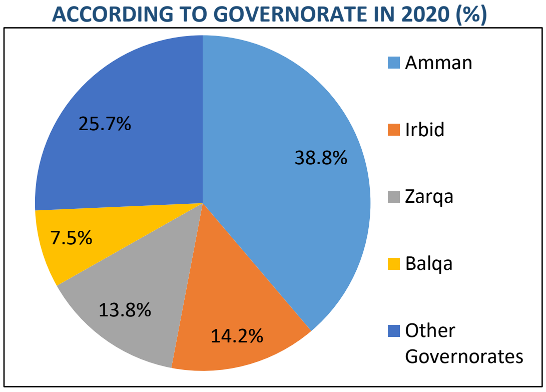
**FIGURE 3-40: MICROFINANCE SECTOR ACTIVITY INSIDE AND OUTSIDE AMMAN IN 2020 (%)**




Source: CBJ's data.

As for the distribution of MFIs Loans according to governorates in 2020 (figure 3-41), Amman received 38.8% of MFIs loans, followed by Irbid 14.2%, Zarqa 13.8%, Balqa 7.5%, while the remaining governorates received 25.7% of total loans.

**FIGURE 3-41: DISTRIBUTION OF MFIs LOANS ACCORDING TO GOVERNORATE IN 2020 (%)**




Source: CBJ's data.

### 3-5-2-3 FINANCIAL LEASING COMPANIES[4]

Total assets of financial leasing companies which are subsidiaries to banks in Jordan totaled JD 649.4 million at the end of 2020, compared to JD 604.6 million at the end of 2019; a growth of 7.4%. Further, shareholders' equity increased from JD 323 million at the end of 2019 to JD 333 million at the end of 2020. As for the financial results of the financial leasing companies, the net profit after tax decreased from JD 21.8 million at the end of 2019 to JD 13.5 million at the end of 2020, declining by 38%, which is attributed to the

[4] The data covers (8) financial leasing companies, which are subsidiaries of banks, and dominate the financial leasing activity in Jordan. However, the financial leasing transactions provided by Islamic banks are not included in calculations.

COVID-19 pandemic and its negative repercussions on the profits of these companies. The ROE decreased from 6.9% in 2019 to reach 4.1% in 2020. The ROA also declined from 3.7% in 2019 to reach 2.1% in 2020. (Table 3-2).

TABLE 3-2: DEVELOPMENTS OF FINANCIAL LEASING COMPANIES (2016- 2020) (JD MILLION)

| Item | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Revenues | 32.3 | 37.7 | 43.3 | 53.2 | 51.5 |
| Paid-In Capital | 121 | 142.5 | 175 | 210 | 212.5 |
| Total Assets | 401.6 | 499.7 | 582 | 604.6 | 649.4 |
| Shareholders' Equity | 227.8 | 251.8 | 309 | 323 | 333 |
| Profit After tax | 17.3 | 17.6 | 17.7 | 21.8 | 13.5 |
| ROE (%) | 8% | 7.3% | 6.8% | 6.9% | 4.1% |
| ROA (%) | 4.8% | 3.9% | 3.5% | 3.7% | 2.1% |

Source: annual statements of financial position for financial leasing companies (subsidiaries of banks).

## 3-5-3 THE EXCHANGE SECTOR

The number of licensed exchange companies stands at 125 companies in the Kingdom, operating through headquarters and 163 branches located in governorates all over Jordan, totaling 288 exchange sites (Table 3-3).

TABLE 3-3: NO. OF EXCHANGE COMPANIES AND BRANCHES

| Governorate | No. of Companies | No. of Branches | Total |
|---|---|---|---|
| Amman | 74 | 103 | 177 |
| Zarqa | 13 | 15 | 28 |
| Irbid | 7 | 21 | 28 |
| Aqaba | 5 | 7 | 12 |
| Other Governorates | 26 | 17 | 43 |
| Total | 125 | 163 | 288 |

In light of the developments of the exchange sector and its notable growth in the last two decades, which made it one of the most significant and vital sectors in the Kingdom, and to respond to economic updates and developments, the Money Exchange Business Law No. 44 of 2015 was enacted on 18/10/2015. This Law supersedes the old law No. 26 of 1992.

The new Law provides the legislative framework that governs the exchange activity in the Kingdom, by setting the conditions and requirements for licensing, merging, liquidation, and the management of exchange companies. In addition, it addresses the records and documents that must be retained by exchange companies, as well as validating the role of the chartered accountant in auditing the exchange companies' business, in terms of expanding the scope of the auditor's functions according to best practices. The Law also contributed to establishing the legal basis for informing exchange companies with any decisions or instructions issued by the CBJ, and expanded the CBJ's authority to enact instructions regarding the acceptable ratios and limits for sound financial positions of the exchange companies, and the size of non-Jordanian workforce. The Law lays down the legal basis for the formulation of an ad hoc committee dedicated to handle complaints submitted to the CBJ about the exchange companies' services.

The CBJ conducts on-site and off-site supervision on the exchange sector. The off-site supervision mainly involves examining and analyzing the periodic statistical data and audited financial statements of exchange companies, and sets appropriate recommendations thereon. Meanwhile, the on-site supervision, which is carried out by the on-site inspection teams, verifies the compliance of the exchange companies with all respective effective laws and regulations, in addition to the role of external auditors of the exchange companies as stipulated in the provisions of the Law.

As for the results of the exchange sector business in 2020, total assets (business size) approached JD 161.7 million, compared to JD 173.7 million in 2019. The ROA and return on capital declined in 2020 to reach -2.35% and -3.97% respectively, compared to 1.74%, and 3.18% in 2019. This remarkable decline in the net profits for exchange companies is attributed to the effect of the COVID-19 pandemic and respective lockdowns for various economic sectors as well as the decrease in inbound and outbound remittances resulting from the decline of expatriates' remittances. (Table 3-4).

TABLE 3-4: LEADING INDICATORS OF THE EXCHANGE SECTOR IN 2020

| Indicator | JD Million |
|---|---|
| Total Business size* | 161.7 |
| Total Capital | 100.4 |
| Total Financial guarantees offered | 32.8 |
| Total Purchases of foreign currency | 5960 |
| Total Sales of foreign currency | 5974 |
| Return on capital* | -3.97% |
| ROA* | -2.35% |

*Preliminary data that might change.

### 3-5-4 SOCIAL SECURITY CORPORATION[5] (SSC)

The Social Security Corporation (SSC) plays a significant role in the society as the social security umbrella includes 54,806 active firms, of which 59.2% are based inside Amman as indicated in the SSC annual report of 2019. The SSC umbrella extended to cover 1.3 million insured persons working in more than 81 thousand active enterprises in the public and private sectors. The umbrella also expanded to cover the voluntary participation of Jordanians, which reached to 72 thousand subscriber. The ratio of workers covered in the SSC to total workers reached 77%, thanks to the SSC's efforts represented by issuing the regulations intended to cover freelancers on 29/8/2019, which came in force on 1/1/2020.

In addition to its fundamental role in the society, the SSC significantly contributes in achieving the financial stability through its massive investments portfolio in financial and non-financial assets, and in effective lending to the government through treasury bills and bonds. The main features of the SSC are listed below:

- The SSC has a big investment capacity with a long-term investment horizon, as it invests to finance the retirement claims of individuals in different ages, which enables the SSC to undertake investments at different maturities, and helps to diversify the risk premium for various maturities. This policy is particularly important during the financial crises when market suffers shortages of liquidity. In this regard, the SSC's investments accounted for 36% of GDP at the end of 2020, compared to 35.4% in 2019.
- The SSC pursues self-financing investments, as the source of funds are the subscribers' deductions not borrowings or deposits (such as banks). Therefore, the SSC is not exposed to high leverage ratio, or risks of maturity mismatch of sources and uses of funds. These two factors led to failures among several international banks during the last global financial crisis in 2008. Therefore, the SCC is not a possible source of systemic risk in the financial system.
- The deductions of workers and employers are retained for a long period and unlike deposits at banks, they cannot be withdrawn. This implies that funds are protected against liquidity runs.

The SSC played a vital role during the COVID-19 crisis, through following a clear and determined approach to respond to this crisis. The SSC's approach consists of two pillars: the first represents the corporation's dedication as a cornerstone to provide the social protection for workers in the Kingdom, while the second is the provision of liquidity to the private sector enterprises and assisting them in getting over the pandemic. The SSC also has embarked intervention programs that were launched by several defense orders, and announcements issued thereof. These programs resulted in JD 205 million direct support to individuals and companies, in addition to the indirect contribution, which provided JD 153 million liquidity to the private sector enterprises.

Given the importance of the SSC in stimulating investments, and in order to boost its funds, the Social Security Investment Fund (SSIF) was founded and started its business at the beginning of 2003. The SSIF assumes the investments of the SSC's funds, aiming to realize meaningful and

[5] Despite the SSC is not considered a non-banking financial institution; financial stability reports in most countries include it with non-banking financial institutions, given their fundamental role in achieving financial stability through their investments in financial and non-financial assets.

constant returns, in addition to maintaining the real value of the SSC assets, as well as providing sufficient liquidity to meet the SSC's obligations. The SSIF's assets reached to JD 11.2 billion at the end of 2020, compared to JD 11 billion at the end of 2019, increasing by 1.8%. In addition, the SSIF's net income declined by JD 47.6 million, or 8.6% to reach JD 508.6 million at the end of 2020, compared to JD 556.2 million at the end of 2019, which is attributed to the economic consequences of the COVID-19 pandemic on the national economy, which impacted the performance of some SSIF's investment portfolios. The main drivers for that decline are referred to the fact that some companies where the SSIF invests postponed the distribution of dividends realized on their business in 2019, while other companies reduced dividends previously decided. This is in addition to the decline in the interest rates on fixed-income instruments, as well as the deterioration of the Amman Stock Exchange performance, and the massive deterioration in the tourism sector. The SSIF's investment portfolios consist of seven major portfolios. (Table 3-5).

**TABLE 3-5: DISTRIBUTION OF THE SSIF PORTFOLIOS (2019-2020) (JD MILLION)**

| Investment Portfolios | 2019 | 2020 |
|---|---|---|
| Money Market Instruments Portfolio | 1,353.2 | 1,434 |
| Bonds portfolio | 5,970.0 | 6,410 |
| Loans portfolio | 330.9 | 396 |
| Equity portfolio | 1,950.3 | 1,555 |
| Real estate portfolio | 659.0 | 717 |
| Tourism portfolio | 288.1 | 292 |
| Other assets | 445.4 | 363 |
| Total | 10,997.0 | 11,167.7 |

Source: SSIF.

The SSIF's investments are distributed among various economic aspects. The SSIF is the second largest buyer (after banks) of government treasury bills and bonds, and government-guaranteed bonds which are allocated to the money market instruments portfolio (mature in less than one year), and the bonds portfolio (mature in more than one year). Moreover, the SSIF loans portfolio consists of medium and long-term loans including direct loans and syndicated loans. The equity portfolio consists of the stocks of listed public companies in ASE and stocks of the strategic private placements companies, as applicable by the SSIF's investment policy. The real estate portfolio includes all real estate investments such as lands, commercial buildings, and real estate development, while the tourism portfolio constitutes of all investments in the tourism sector. The allocation of the SSIF's investments among these portfolios aims to diversify the investment portfolios, and to reduce risks, abiding by the constraints of investment.

It is worth mentioning that the SSC is a strategic shareholder in the capital of several banks in Jordan. The total contribution of the SSC in banks' capital approached JD 789.9 million at the end of 2020, accounting for 12.4% of the market value of banks' shares in Jordan (Table 3-6).

**TABLE 3-6: DISTRIBUTION OF THE SSC CONTRIBUTION IN BANKS TOTAL CAPITAL IN JORDAN AS OF END 2020 (JD MILLION) (%)**

| Bank | Contribution (JD Million) | Share (%) |
|---|---|---|
| Jordan Kuwait Bank | 45.4 | 21.04% |
| Jordan Commercial Bank | 16.4 | 19.84% |
| Arab Bank PLC. | 453 | 17.16% |
| Housing Bank for Trade & Finance | 145.7 | 15.42% |
| Jordan Ahli Bank PLC | 15.8 | 10.22% |
| Capital Bank | 18.4 | 9.39% |
| Safwa Bank | 13.1 | 9.38% |
| Cairo Amman Bank | 16 | 8.04% |
| Bank al Etihad | 21.1 | 8.47% |
| Jordan Islamic Bank | 35.8 | 5.82% |
| Arab Jordan Investment Bank | 7.3 | 4.08% |
| ABC Bank | 1.6 | 2.05% |
| Bank of Jordan | 54.5 | 0.01% |
| Total | 789.9 | 12.4% |

Source: SSIF

## 3-5-5 AMMAN STOCK EXCHANGE (ASE)

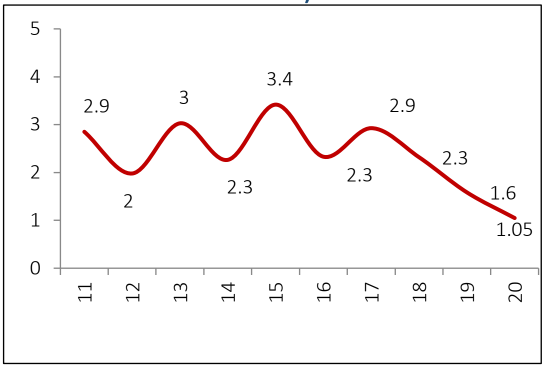
The ASE as other stock exchanges worldwide was affected by the repercussions of the COVID-19. The ASE indicators deteriorated and the profits of listed companies were impacted by the lockdowns of economic sectors as well as the uncertainty, and the slowdown of demand and supply. The ASE indicators deteriorated incredibly in 2020 compared to the previous year, as the trading volume declined by 33.8%, while the free float share price index declined by 8.7%. Meanwhile, market capitalization of listed shares decreased by JD 2,007 million, or 13.5%, to reach

JD 12,907.8 million, which is equivalent to 41.6% of GDP. The ASE's key performance indicators in 2020 are summarized next.

The trading volume in ASE dropped by JD 536.6 million to reach JD 1,048.8 million in 2020 (figure 3-42). This decline is due to the following factors:

1. The decrease of the trading volume in the industrial sector by JD 107 million.
2. The decrease of the trading volume in the financial sector by JD 383.4 million.
3. The decrease of the trading volume in the services sector by JD 46.2 million.

FIGURE 3-42: TRADING VOLUME IN ASE (2011-2020) (JD BILLION)




Source: ASE

The number of shares traded decreased by 104.4 million shares to reach 1,142.7 million shares, against 1,247.2 million shares traded in 2019. In contrast, the number of executed contracts decreased to 421 thousand contracts at the end of 2020, down from around 503 thousand contracts at the end of 2019. As for shares traded by sector, the financial sector had the largest share that accounted for 62.6% of the trading volume in 2020, followed by the services sector accounting for 20%, and the industrial sector forming 17.4% of the trading volume. (Table 3-7).

TABLE 3-7: RELATIVE IMPORTANCE OF TRADING VOLUME BY SECTOR (2012-2020) (%)

| Sector | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|
| Industrial | 19.5 | 13.1 | 16.7 | 10.1 | 30.2 | 22.4 | 42.2 | 18.2 | 17.4 |
| Services | 20.4 | 13.5 | 16.5 | 21.2 | 18.2 | 12.8 | 9.8 | 16.2 | 20 |
| Financial | 60.1 | 73.4 | 66.8 | 68.7 | 51.6 | 64.8 | 48 | 65.6 | 62.6 |

With regard to transactions of non-Jordanian investors in ASE, shares bought by non-Jordanian investors reached around JD 96.8 million in 2020, while the shares sold by non-Jordanian investors totaled JD 164.4 million (Table 3-8).

TABLE 3-8: PURCHASES AND SALES OF SHARES BY NON-JORDANIAN INVESTORS IN ASE (2013-2020) (JD MILLION)

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| **Total Purchases** | 939.5 | 362.7 | 981.7 | 666.5 | 994.9 | 1231.8 | 528.7 | 96.8 |
| Arabs | 818.5 | 262.1 | 894.3 | 520.3 | 638.7 | 214.4 | 147.5 | 75.7 |
| Foreigners | 121.0 | 100.6 | 87.4 | 146.2 | 356.3 | 1,017.4 | 381.2 | 21.1 |
| **Total Selling** | 792.6 | 384.8 | 971.1 | 429.4 | 1329.2 | 747.3 | 414.6 | 164.4 |
| Arabs | 693.2 | 247.8 | 873.5 | 304.1 | 1177.6 | 177.1 | 374.8 | 94.1 |
| Foreigners | 99.4 | 137 | 97.6 | 125.3 | 151.6 | 570.2 | 39.8 | 70.3 |
| **Net Investment** | 146.9 | -22.2 | 10.6 | 237.1 | -334.3 | 484.5 | 114.1 | -67.5 |
| Arabs | 125.3 | 14.3 | 20.7 | 216.2 | -538.9 | 37.3 | 227.3- | -18.4 |
| Foreigners | 21.6 | -36.5 | -10.1 | 20.9 | 204.7 | 447.2 | 341.4 | -49.1 |

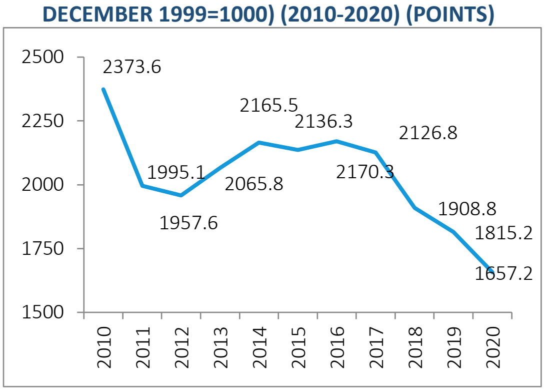
### 3-5-5-1 THE FREE FLOAT WEIGHTED SHARE PRICE INDEX

The free float weighted share price index declined to reach 1,657.2 points at the end of 2020, compared to 1,815.2 points at the end of 2019; dropping by 8.7%. The ASE20 also declined to reach 806.5 points at the end of 2020, compared to 891 points at the end of 2019.

### 3-5-5-2 THE MARKET CAPITALIZATION WEIGHTED SHARE PRICE INDEX

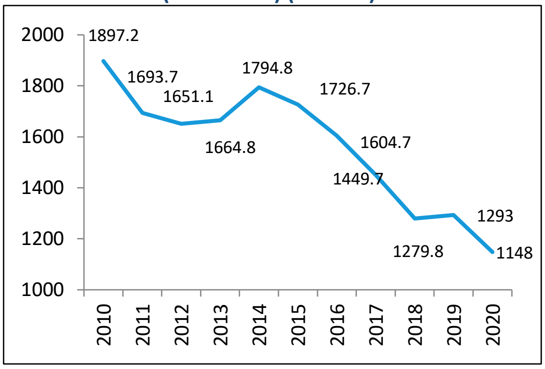
The market capitalization weighted share price index declined by 464.2 points in 2020 from its level recorded in the previous year to reach 3,049.6 points, compared to declining by 283.3 points in 2019. This drop is attributed to the decrease of the indices of banks, financial companies, and services companies.

FIGURE 3-43: FREE FLOAT MARKET CAPITALIZATION WEIGHTED SHARE PRICE INDEX (CLOSING PRICE OF DECEMBER 1999=1000) (2010-2020) (POINTS)



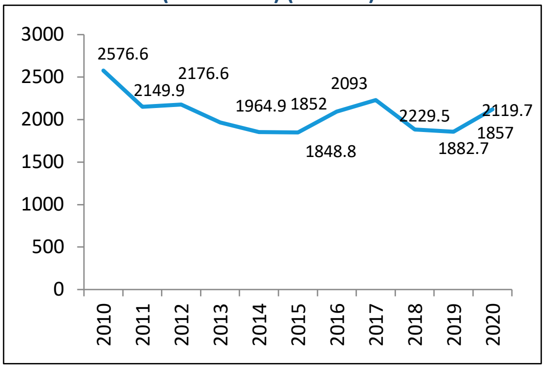

Source: ASE

**FIGURE 3-44: FREE FLOAT MARKET CAPITALIZATION WEIGHTED SHARE PRICE INDEX OF THE SERVICES SECTOR (CLOSING PRICE OF DECEMBER 1999=1000) (2010-2020) (POINTS)**



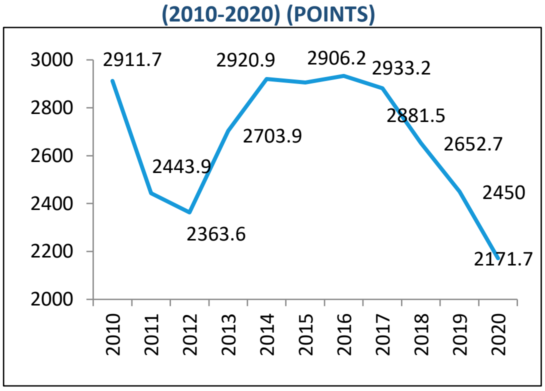

Source: ASE

**FIGURE 3-45: FREE FLOAT MARKET CAPITALIZATION WEIGHTED SHARE PRICE INDEX OF THE INDUSTRIAL SECTOR (CLOSING PRICE OF DECEMBER 1999=1000) (2010-2020) (POINTS)**




Source: ASE

**FIGURE 3-46: FREE FLOAT MARKET CAPITALIZATION WEIGHTED SHARE PRICE INDEX OF THE FINANCIAL SECTOR (CLOSING PRICE OF DECEMBER 1999=1000) (2010-2020) (POINTS)**




Source: ASE

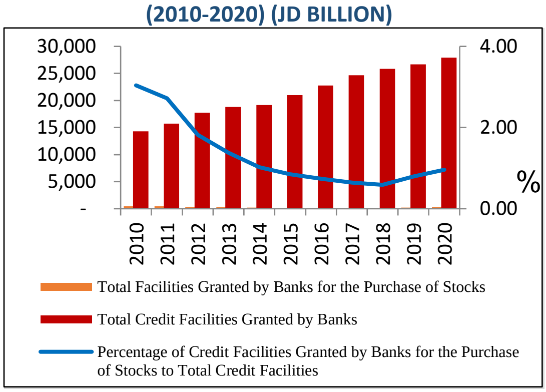
## 3-5-5-3 BANKS' EXPOSURE TO STOCK MARKETS RISKS

Capital markets are essential to stimulate the economy's impetus as they attract foreign investments, encourage national savings, and provide financing sources for economic projects, which ultimately serve the national economy. Given the significance of capital markets, risks facing these markets are gaining an increasing attention especially after the global financial crisis of 2007, through monitoring stock prices bubbles and assessing risks in stock markets, as well as the exposure of banks to these risks. Regarding the exposure of banks to stock market risks in Jordan, it could evolve from credit facilities extended by banks to finance the purchase of shares or investments of banks in shares. The size of banks' exposure to these risks is analyzed below:

## 3-5-5-4 CREDIT FACILITIES EXTENDED BY BANKS FOR PURCHASING SHARES

Credit facilities extended to finance the purchase of shares constitute a minimal percentage of total credit facilities extended by licensed banks. They reached to JD 268.7 million at the end of 2020, representing 0.96% of total credit facilities, compared to JD 212.2 million at the end of 2019 with an increase of 26.6%. (Figure 3-47).

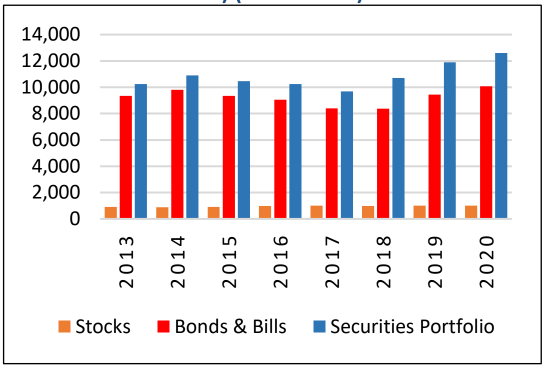
**FIGURE 3-47: CREDIT FACILITIES EXTENDED BY BANKS FOR PURCHASING SHARES & TOTAL CREDIT FACILITIES (2010-2020) (JD BILLION)**




## 3-5-5-5 THE SIZE OF BANKS' INVESTMENTS IN SHARES

The securities portfolio of banks in Jordan reached around JD 12,610 million at the end of 2020, compared to JD 11,904 million at the end of 2019, increasing by 6%. Banks' investments in shares accounted for 8% of total investments in securities at the end of 2020, compared to 8.5% at the end of 2019, which is much lower than investments in bonds (mostly government bonds) that capture the largest share of banks' investments in securities. Banks' investments in shares are low due to the slowdown in the ASE, as well as the restrictions imposed by the Banking Law and the CBJ's instructions on these investments (Figure 3-48).

**FIGURE 3-48: BANKS' INVESTMENTS PORTFOLIO (2013-2020) (JD MILLION)**



# CHAPTER FOUR: DEVELOPMENTS AND RISKS OF THE NON-FINANCIAL SECTOR

## 4-1 HOUSEHOLD SECTOR

### 4-1-1 EXPOSURE OF BANKS AND FINANCIAL INSTITUTIONS TO THE HOUSEHOLD SECTOR

In the context of the CBJ's framework for monitoring household indebtedness towards banks and non-banking financial institutions, the major developments of household indebtedness and related ratios are illustrated below.

### 4-1-2 THE HOUSEHOLD INDEBTEDNESS TO BANKS AND NON-BANKING FINANCIAL INSTITUTIONS

Table (4-1) illustrates the development of household indebtedness to banks and non-banking financial institutions during the period (2016-2020). The table indicates that household indebtedness approached JD 12 billion at the end of 2020, up from JD 11.2 billion at the end of 2019, increasing by 6.9%, compared to growing by 4% in 2019. A large part of the increase in 2020 does not reflect a real growth, as banks postponed loans repayments due on clients impacted by the COVID-19 pandemic.

**TABLE 4-1: HOUSEHOLD INDEBTEDNESS TO BANKS AND NON-BANKING FINANCIAL INSTITUTIONS (2016-2020) (JD MILLION)**

| Indebtedness | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| The Banking System (JD Million) | 8,737.2 | 9,452.5 | 9,801.3 | 10,167 | 10,902.1 |
| Growth (YOY) (%) | -2.6 | 8.2 | 3.7 | 3.7 | 7.2 |
| Non-Banking Financial Institutions (JD Million) | 853.9 | 986.3 | 1,014.7 | 1,083.7 | 1,120.7 |
| Growth (YOY) (%) | 9.3 | 15.5 | 2.9 | 6.8 | 3.4 |
| Total Indebtedness (JD Million) | 9,591.1 | 10,438.8 | 10,816 | 11,250.7 | 12,022.8 |
| Growth (YOY) (%) | -1.6 | 8.8 | 3.6 | 4.0 | 6.9 |

The rise in household indebtedness in 2020 is mainly due to the increase in indebtedness to banks by JD 735.1 million, or 7.2%, and to non-banking financial institutions by JD 37 million, or 3.4%. Table (4-2) illustrates the details of household indebtedness to non-banking financial institutions.

**TABLE 4-2: HOUSEHOLD INDEBTEDNESS TO NON-BANKING FINANCIAL INSTITUTIONS (2016-2020) (JD MILLION)**

| Company | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| MFIs* | 213.0 | 230.4 | 256.1 | 261.3 | 250.0 |
| Listed Companies in ASE | 185.7 | 221.4 | 236.9 | 217.8 | 221.3 |
| Financial Leasing Companies (Subsidiaries of Banks) | 455.2 | 534.5 | 521.7 | 604.6 | 649.4 |
| **Total** | **853.9** | **986.3** | **1014.7** | **1083.7** | **1120.72** |

*: Source: the Supervision on Microfinance Department

The number of household borrowers from banks approximated 1.17 million borrower at the end of 2020, compared to 1.16 million borrower at the end of 2019, increasing by 10 thousand borrowers (0.9%).

With regard to the classification of borrowers according to gender, male borrowers reached around 953.9 thousand borrowers, accounting for 81.3% of total household borrowers. The female borrowers accounted for 18.7% of total borrowers to reach 219.8 thousand borrowers.

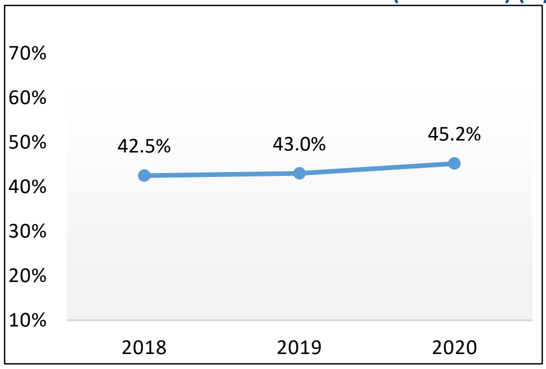
### 4-1-3 HOUSEHOLD DEBT BURDEN RATIO

The Debt Burden Ratio (DBR), which is measured by the monthly installments and interests payments paid by the borrower relative to his/ her regular monthly income, is one of the key ratios that measure the risks of household indebtedness for banks and the individuals alike. High DBR imposes negative effects on the financial and economic stability, as it leads to a decline in the ability of individuals to repay their loans, which increases the default rates at banks and other financing institutions. In addition, high DBR dampens the ability of individuals to spend and consume, which adversely affects economic growth.

Figure (4-1) illustrates the developments of the household average DBR in Jordan during the period (2018-2020). The DBR increased from 42.5% at the end of 2018, and 43% at the end of 2019, to reach 45.2% at the end of 2020, due to the decline in households' income because of the repercussions of COVID-19 pandemic. Despite the increase of the DBR in 2020, it is still acceptable according to international standards, as the average DBR in most countries ranges (40%-50%).

The actual average DBR for households in terms of individual banks is less than 50% for 17 banks, while the ratio exceeds 50% in three banks.

FIGURE 4-1: AVERAGE HOUSEHOLD DBR (2018-2020) (%)

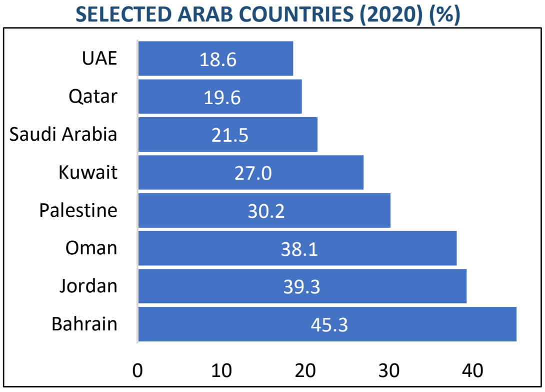



Source: CBJ

### 4-1-4 HOUSEHOLD INDEBTEDNESS IN SELECTED ARAB COUNTRIES

Data for household indebtedness in Arab countries is limited. However, it is possible to measure household indebtedness by using the ratio of facilities extended to households relative to the total facilities extended by banks. This ratio stood at 39.3% in 2020 in Jordan, ranking second among selected Arab countries; the ratio in Jordan is lower than Bahrain, yet is higher than Oman, Palestine, Kuwait, Saudi Arabia, Qatar, and UAE. (Figure 4-2).

FIGURE 4-2: CREDIT FACILITIES EXTENDED TO HOUSEHOLDS RELATIVE TO TOTAL CREDIT FACILITIES EXTENDED BY BANKS IN JORDAN AND SELECTED ARAB COUNTRIES (2020) (%)




Source: Central Banks websites of selected countries.

### 4-1-5 SUMMARY

Trends of the household DBR during the last three years (2018-2020), indicate that this ratio increased slightly during this period to reach around 45.2% at the end of 2020, yet it is still within the international acceptable limits, which range between (40% -50%). This implies that in Jordan the risks of household indebtedness to banks and the individuals themselves fall within the normal and acceptable levels compared to other countries. Nevertheless, banks with household DBR exceeding 50% should reconsider to lower this ratio to mitigate the risks arising from the continuous increase in households' indebtedness.

## 4-2 NON-FINANCIAL COMPANIES SECTOR

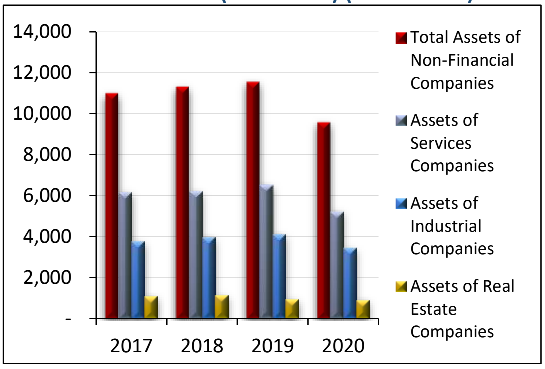
### 4-2-1 INTRODUCTION

The corporate sector in Jordan consists of non-banking financial companies and non-financial companies[1]. The non-banking financial companies sector includes insurance companies, securities companies, MFIs, financial leasing companies, and other companies providing diversified financial services. The non-financial companies sector listed in ASE includes the industrial, services, and real estate sectors, which are subject to the supervision of the Ministry of Industry, Trade, and Supply. In 2020, total assets of non-financial companies amounted to JD 9,567.9 million, compared to JD 11,545.3 million at the end of 2019, declining by 17%, due to the repercussions of COVID-19 pandemic.

The services companies' total assets amounted to JD 5,223.9 million, accounting for 55% of non-financial companies sector total assets at the end of 2020, while total assets of the industrial companies amounted to about JD 3,450.5 million, or 36% of total assets of non-financial companies. The total assets of real estate companies stood at around JD 893.6 million forming 9% of the total assets of the non-financial companies sector at the end of the 2020 (Figure 4-3).

[1] Based on data of non-financial companies listed in ASE for 2020, data for non-financial companies not listed in ASE is not available (noting that some data for previous years were changed from the source).

FIGURE 4-3: TOTAL ASSETS OF COMPANIES LISTED IN ASE BY SECTOR (2017-2020) (JD MILLION)



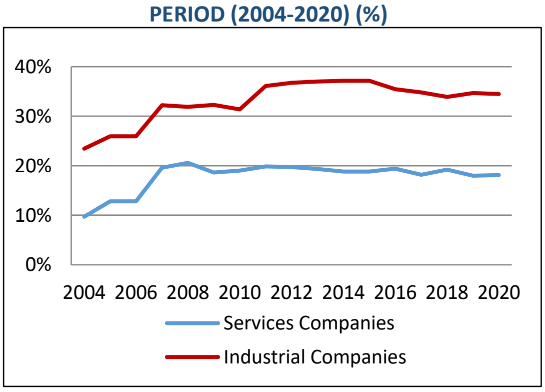

Source: ASE Website.

The following section elaborates on the developments of the non-financial companies sector (industrial, services, and real estate), which consisted of 179 listed companies in ASE at the end of 2020, compared to 191 companies in 2019, according to the ASE's annual report. With regard to the evolution and risks of the financial companies' sector, they were detailed in chapter three.

## 4-2-2 THE OWNERSHIP STRUCTURE OF NON-FINANCIAL COMPANIES

According to the Securities Depository Center data, the non-Jordanian ownership (Arabs and foreigners) in non-financial industrial and services companies reached 34.5% and 18.1%, respectively, at the end of 2020 (in the form of shares, bonds, and subscription rights), compared to 34.6% and 18%, respectively, at the end of 2019. The non-Jordanian ownership in these companies broadly reflects the investors' confidence in the Jordanian economy; non-Jordanian ownerships are stable contributions (Figure 4-4).

FIGURE 4-4: NON-JORDANIAN OWNERSHIP (ARABS AND FOREIGNERS) IN NON-FINANCIAL COMPANIES FOR THE PERIOD (2004-2020) (%)

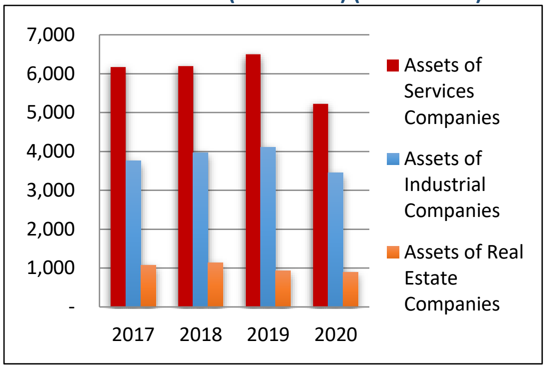



Source: ASE Website.

## 4-2-3 ASSETS OF THE NON-FINANCIAL COMPANIES

Assets of non-financial companies listed in ASE approached JD 9,567.9 million at the end of 2020, compared to JD 11,545 million at the end of 2019, declining by 17%. As mentioned previously, this decrease is attributed to the repercussions of COVID-19 pandemic as the industrial companies' assets declined to reach JD 3,450.5 million at the end of 2020, compared with JD 4,113 million at the end of 2019, decreasing by 16%. Furthermore, the assets of services companies and real estate companies declined by 20% and 4.3%, respectively, as assets of services companies decreased from JD 6,498.6 million in 2019 to JD 5,223.9 million in 2020, while assets of the real estate companies declined from JD 933.7 million in 2019 to JD 893.6 million at the end of 2020. (Figure 4-5).

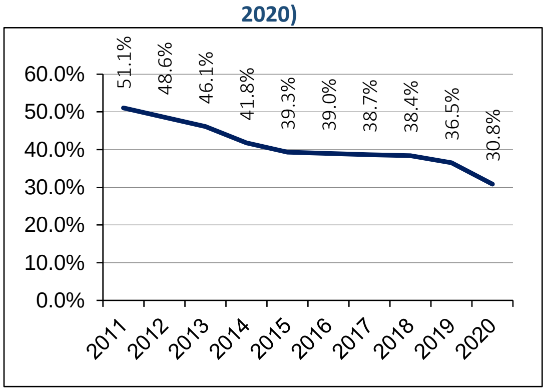
FIGURE 4-5: ASSETS OF NON-FINANCIAL COMPANIES FOR THE PERIOD (2017-2020) (JD MILLION)




Source: ASE Website.

The assets of non-financial companies relative to GDP recorded 30.8% at the end of 2020 compared to 36.5% at the end of 2019 and 51.1% at the end of 2011. (Figure 4-6).

FIGURE 4-6: ASSETS OF NON-FINANCIAL COMPANIES SECTOR AS PERCENT OF GDP FOR THE PERIOD (2011-2020)

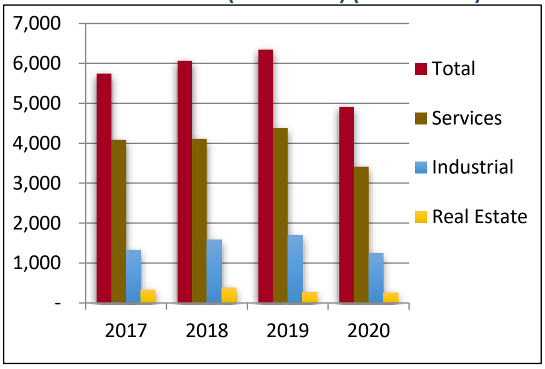



Source: ASE Website, and staff calculations.

### 4-2-4 LIABILITIES OF NON- FINANCIAL COMPANIES

Liabilities of non-financial companies amounted to JD 4,911.4 million at the end of 2020, compared to JD 6,349.3 million at the end of 2019, a decline of 22.6%. Liabilities of the service companies reached approximately JD 3,408.4 million at the end of 2020 compared to JD 4,384.2 million at the end of 2019. Liabilities of the industrial companies reached to JD 1,241.9 million at the end of 2020 compared to JD 1,691.5 million at the end of 2019. As for the real estate companies, their liabilities reached to JD 261 million at the end of 2020 compared to JD 273.7 million at the end of 2019 (Figure 4-7).

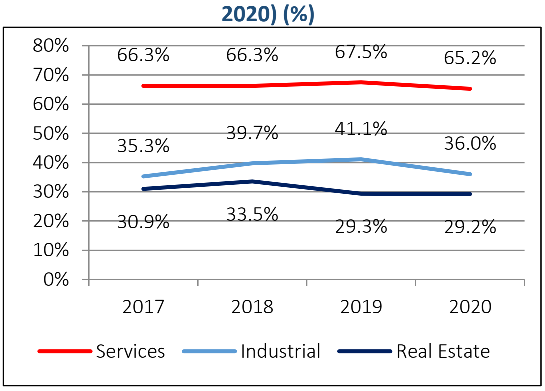
FIGURE 4-7: LIABILITIES OF NON-FINANCIAL COMPANIES FOR THE PERIOD (2017-2020) (JD MILLION)




Source: ASE Website.

In addition, the liabilities to assets ratio decreased slightly for all sectors to reach 29.2%, 36%, and 65.2% for the real estate, industrial, and services companies sectors, respectively, at the end of 2020, down from 29.3%, 41.1% and 67.5% for the same sectors, respectively, in 2019 (Figure 4-8).

FIGURE 4-8: LIABILITIES TO ASSETS RATIO FOR THE NON-FINANCIAL COMPANIES DURING THE PERIOD (2017-2020) (%)

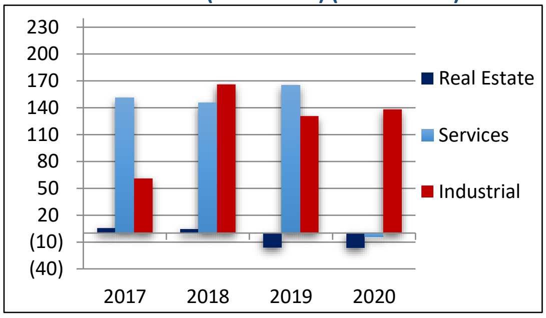



Source: ASE Website.

### 4-2-5 PROFITABILITY OF NON-FINANCIAL COMPANIES

Net profit of non-financial companies declined sharply by 58% to reach JD 117.3 million at the end of 2020 compared to JD 279.6 million at the end of 2019, owing to the repercussions of COVID-19 pandemic. This decline is mainly due to the remarkable decline in net profit of the services companies, which were the most affected by the pandemic ramifications; these companies recorded JD 4.3 million losses in 2020, compared to profits of JD 165.2 million in 2019, declining by 103%. The losses of the real estate companies increased by 3%, from JD 16.2 million at the end of 2019 to JD 16.7 million at the end of 2020. In contrast, the industrial companies' profits increased from around JD 130.6 million at the end of 2019 to reach JD 138.2 million at the end of 2020. (Figure 4-9).

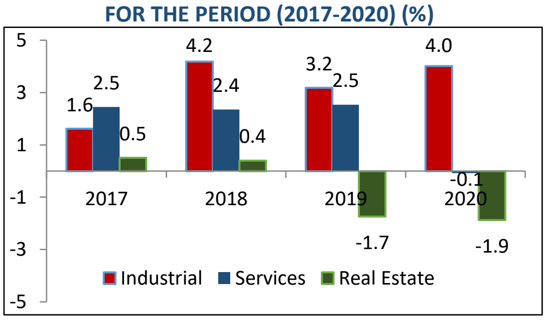
FIGURE 4-9: NET PROFITS OF NON-FINANCIAL COMPANIES (2017-2020) (JD MILLION)




Source: ASE Website.

The ROA for services companies declined to -0.1% at the end of 2020, compared to 2.5% at the end of 2019, while the ROA for real estate companies declined form -1.7% at the end of 2019, to reach -1.9% at the end of 2020. In contrast, the ROA of the industrial companies increased from 3.2% at the end of 2019 to reach 4% at the end of 2020. (Figure 4-10).

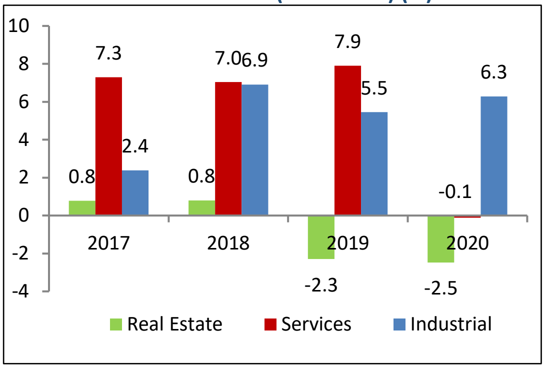
FIGURE 4-10: ROA OF THE NON-FINANCIAL COMPANIES FOR THE PERIOD (2017-2020) (%)




Source: ASE Website

In addition, the ROE for the services companies declined to -0.1% at the end of 2020 compared to 8% at the end of 2019. The real estate companies' ROE decreased to reach -2.5% at the end of 2020, compared to -2.3% at the end of 2019. Meanwhile, the ROE for the industrial companies increased form 5.5% at the end of 2019, to reach 6.3% at the end of 2020. (Figure 4-11).

FIGURE 4-11: ROE OF THE NON-FINANCIAL COMPANIES FOR THE PERIOD (2017-2020) (%)

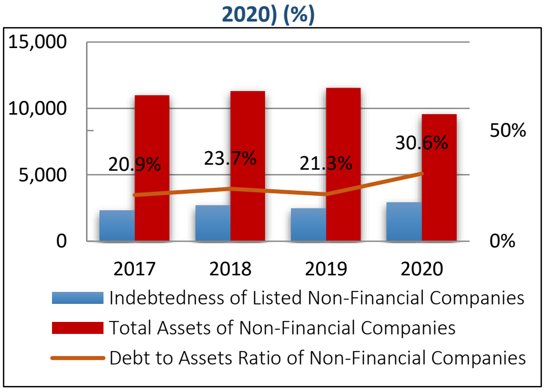



Source: ASE Website.

## 4-2-6 FINANCIAL LEVERAGE FOR NON-FINANCIAL COMPANIES

Most non-financial companies listed in ASE are still less dependent on borrowing. This is despite the high debt to assets ratio of non-financial companies, which stood at 30.6% at the end of 2020, compared to 21.3% at the end of 2019. This is due to the increase in non-financial companies indebtedness because of the postponement of debts repayments due on companies impacted by the COVID-19 pandemic, in addition to the decrease in the assets of non-financial companies due to the repercussions of COVID-19 pandemic (Figure 4-12).

FIGURE 4-12: DEBT TO ASSETS RATIO FOR NON-FINANCIAL COMPANIES DURING THE PERIOD (2017-2020) (%)

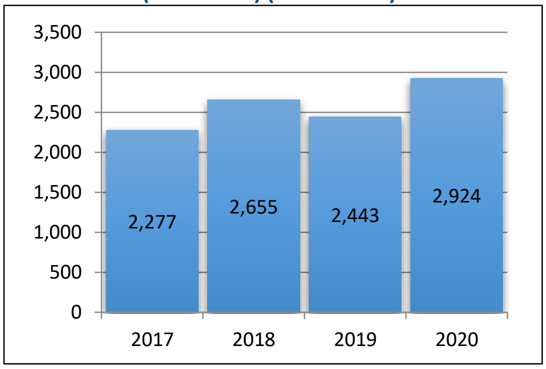



Source: ASE Website.

## 4-2-7 INDEBTEDNESS OF NON-FINANCIAL COMPANIES TO THE BANKING SECTOR

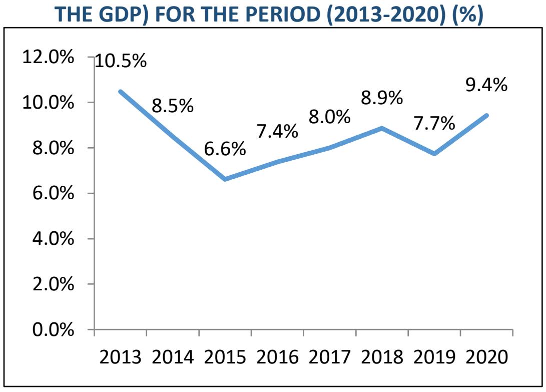
The facilities extended by banks to non-financial companies listed in ASE reached to JD 2,924 million at the end of 2020 compared to JD 2,443 million at the end of 2019, an increase of 16.4%. As mentioned earlier, this increase was mainly due to banks postponement of debts repayments due on the companies impacted by the COVID-19 pandemic (Figure 4-13). The indebtedness of listed non-financial companies at ASE in percent of GDP increased consecutively during the period (2015-2020) to reach 9.4% at the end of 2020, against 6.6% at the end of 2015. (Figure 4-14)

FIGURE 4-13: INDEBTEDNESS OF NON-FINANCIAL COMPANIES TO THE BANKING SECTOR FOR THE PERIOD (2017-2020) (JD MILLION)




Source: ASE Website.

FIGURE 4-14: INDEBTEDNESS OF NON-FINANCIAL COMPANIES TO THE BANKING SECTOR (IN PERCENT TO THE GDP) FOR THE PERIOD (2013-2020) (%)




Source: ASE website and staff calculations.

## 4-2-8 STRESS TESTING FOR NON-FINANCIAL COMPANIES

Stress tests were conducted for the non-financial public shareholding companies to assess the soundness of the corporate sector and its ability to withstand shocks, thus evaluating the companies' ability to repay their debts to banks and the financial sector in general. The Financial Stability Department in the CBJ built a model for stress testing for the corporate sector, which relies on the Interest Coverage Ratio (ICR) for the borrowing companies, which is a widely used and significant measure to assess the companies' ability to repay their debts. The ICR is the ratio of earnings before interest and tax (EBIT) to interest expenses paid on loans. The ratio assesses the ability of borrowing companies to cover the interest expense of extended loans using current period revenues; the debt is totally covered when the ICR exceeds 150%. However, if the ICR falls within (100%-150%), it means that the debt is at risk, however, the debt is uncovered if the ICR declines below 100%.

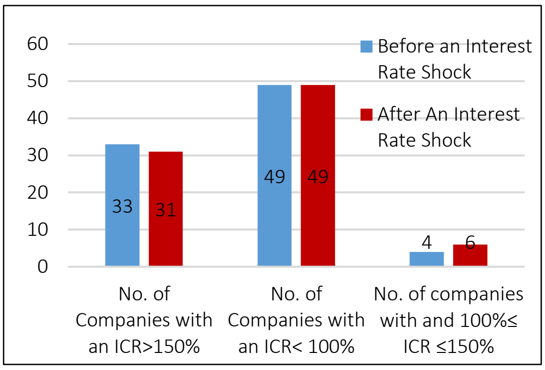
The tests assume shocks of interest rate hike or the decline in companies' profits due to the slowdown of the economic activity in the Kingdom, and the potential effects of the COVID-19 pandemic. The impact of each shock on the ICR was measured; the after-shock ICR is used to assess the companies' ability to repay their debts to banks.

### 4-2-8-1 A SHOCK OF INCREASING INTEREST RATES

An increase in interest rates will raise the banking interest expenses paid by the borrowing companies; provided that their revenues remain constant. This will negatively affect the companies' ability to pay their interest expenses to banks, thus the ICR will decline as interest expenses will increase. If interest rates on loans provided to these companies increase by 200 basis points, the ICR will decline from 202% to 154%, which is still slightly above the minimum acceptable limit of 150%. This means that the effect of this shock on companies will be limited in general.

On the individual level, (2) companies will have their ICRs between (100%-150%) which will decrease the number of companies with a covered ICR from (33) to (31) companies. The number of companies with an ICR between (100%-150%) will increase from (4) to (6) companies, and the number of companies with an ICR below 100% will remain stable at (49) companies. (Figure 4-15).

FIGURE 4-15: THE ICR FOR COMPANIES BEFORE AND AFTER AN INTEREST RATE INCREASE SHOCK



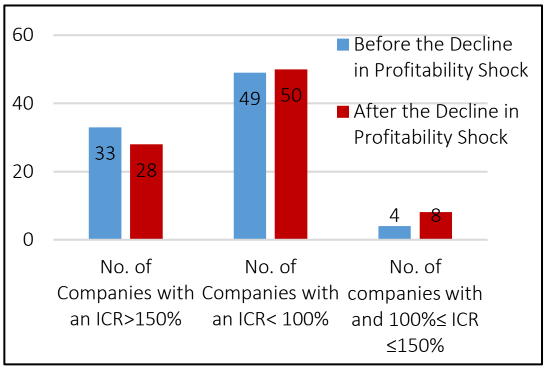

On the sectoral level, the average ICR will decrease from 305% to 227% for industrial companies, and from 90% to 70% for services companies. It is noteworthy that the ICR for services companies had high ICR before the COVID-19 pandemic, as it reached 225% in 2019; however, it declined sharply in 2020 to 90%, as the services sector was impacted heavily by the pandemic repercussions. However, the ICR of the real estate companies is already negative even before the shock, as most of real estate companies recorded losses in 2020.

### 4-2-8-2 A SHOCK OF A DECLINE IN PROFITS OF BORROWING COMPANIES

If the profits of borrowing companies declined by 25% due to the weak economic activity in the kingdom, arising from the repercussions of COVID-19, the average ICR for these companies will drop from 202% to 117%. The effect of this shock will be higher than the interest rates hike shock.

On the individual level, one company will have an ICR below 100% thus the number of companies with an ICR below 100% will increase from (49) to (50) companies. The number of companies with an ICR between (100%-150%) will increase from (4) companies to (8) companies. (Figure 4-16).

**FIGURE 4-16: THE ICR FOR COMPANIES BEFORE AND AFTER THE SHOCK OF A DECLINE IN COMPANIES' PROFITABILITY**




On the sectoral level, the average ICR will decrease from 305% to 209% for industrial companies, and from 90% to 24% for services companies. However, the ICR of the real estate companies as mentioned previously is already negative even before the shock, as most of real estate companies recorded losses in 2020.

## 4-2-9 SUMMARY

The year 2020 was tough for the corporate sector in general. As discussed previously, most indicators of the non-financial companies have deteriorated, in particular the services and real estate companies. This decline was mainly due to the COVID-19 pandemic and its impact on the performance of companies and their operational activities. On another front, in the second half of 2020, the profits of non-financial companies improved compared to the first half of 2020. The profits of listed companies during the second half of 2020 reached to JD 339.8 million compared to JD 43.3 million in the first half of 2020. This is a positive indicator for an upcoming improvement in the performance of corporates, in light of reopening of economic sectors and the positive developments of increasing vaccinations and the expectations for higher positive economic growth rates in the coming years.

## CHAPTER FIVE: THE EXPOSURE OF BANKS IN JORDAN TO THE REAL ESTATE MARKET RISKS AND THE REAL ESTATE PRICE INDEX

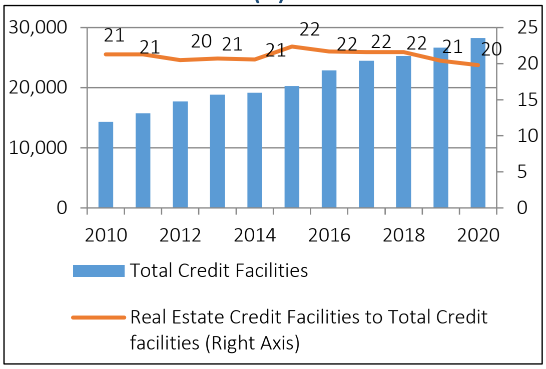
### 5-1 INTRODUCTION

The risks of the real estate sector and the financing provided to this sector captured an increasing attention after the global financial crisis, which started with a real estate bubble in US in 2007, which affected most economies worldwide, including Jordan.

During the last two decades, the real estate market in Jordan experienced successive spikes driven mainly by the political and economic conditions in the region, and the resulting abnormal population growth in Jordan, owing to the influx of large numbers of Arabs from neighboring countries, especially from Iraq and Syria. This chapter will highlight the real estate sector in Jordan and the exposure of banks operating in Jordan to the risks of this sector. Furthermore, this chapter will also discuss the development of real estate prices in the Kingdom by analyzing the Real Estate Price Index (REPI), which is an indicator developed in cooperation between the CBJ and the Department of Lands and Survey.

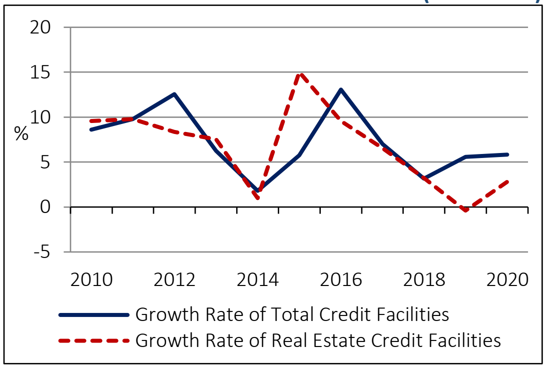
Credit facilities extended to the real estate sector for residential and commercial purposes amounted to JD 5.59 billion at the end of 2020, accounting for 19.8% of total credit facilities provided by banks, compared to JD 5.44 billion at the end of 2019; a growth of 2.8% in 2020 compared to a decline of -0.4% in 2019. The growth is mainly attributed to the postponement of loans repayments due on clients affected by the COVID-19 pandemic. It is noteworthy that the average annual growth rate during the years 2010-2020 reached 6.6% (Figure 5-1).

FIGURE 5-1: DIRECT CREDIT FACILITIES TO THE REAL ESTATE SECTOR AND THEIR RATIO TO TOTAL DIRECT CREDIT FACILITIES DURING (2010-2020) (JD MILLION) (%)




The average annual growth rate of facilities extended to the real estate sector during the period 2010-2020 was slightly lower than the average annual growth rate of total facilities; it reached 6.6% compared to 7.2% growth in total credit facilities (Figure 5-2). In addition, the trading volume at the real estate market in Jordan decreased by 26% in 2020 compared to 2019, to approach JD 3,418 million, due to the repercussions of the COVID-19 pandemic.[1]

FIGURE 5-2: THE REAL ESTATE CREDIT FACILITIES GROWTH RATES COMPARED TO TOTAL CREDIT FACILITIES GROTH RATES FOR THE PERIOD (2010-2020)

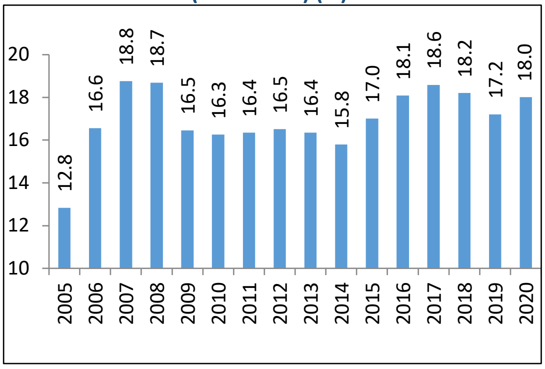



The credit facilities extended to the real estate sector as percent of GDP reached 18% in 2020, compared to 17.2% in 2019. The Figure (5-3) illustrates the evolution of the facilities extended to the real estate sector as percent of GDP during the period 2005-2020. The figure indicates that during the period 2005-2008 it increased markedly to reach 18.7% at the end of 2008, and fell to 15.8% at the end of 2014 due to the repercussions of the global financial crisis and the

[1] Department of Lands and Survey, the Real estate publication 12-2020.

situations in the region. Afterwards, this ratio kept fluctuating and reached to 18% at the end of 2020.

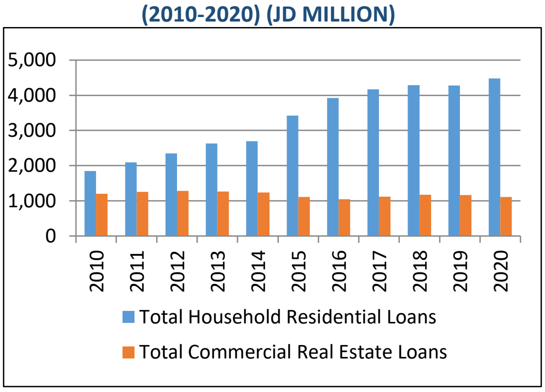
**FIGURE 5-3: CREDIT FACILITIES EXTENDED TO THE REAL ESTATE SECTOR AS PERCENT OF GDP FOR THE PERIOD (2005-2020) (%)**




## 5-2 COMPONENTS OF CREDIT FACILITIES EXTENDED TO THE REAL ESTATE SECTOR

With regard to the components of credit facilities extended to the real estate sector, the household residential real estate loans accounted for 80% of these facilities at the end of 2020. The commercial real estate loans accounted for 20% of total real estate credit facilities (Figure 5-4).

**FIGURE 5-4: HOUSEHOLD HOUSING LOANS AND COMMERCIAL REAL ESTATE LOANS FOR THE PERIOD (2010-2020) (JD MILLION)**




### 5-2-1 HOUSEHOLD RESIDENTIAL LOANS

Total household real estate residential loans extended by banks grew by 4.7% to reach JD 4,479 million at the end of 2020, compared to JD 4,277 million at the end of 2019, and as mentioned previously the growth was mainly due the postponement of loans repayments due on clients affected by the COVID-19 pandemic. During the pre-crisis period of (2006-2008), the household residential loans increased significantly, due to high demand for real estate, especially by non-Jordanians; during this period the average growth rate of residential loans reached to 30%. Thereafter, during the period (2009-2010), the growth pace started to slow down due to the ramifications of the global financial crisis in tandem with uncertainty conditions as well as banks reluctance to provide real estate loans. The growth of residential loans bounced back during the period (2011-2015) as the impacts of the global financial crisis have faded, market conditions improved, and the demand for real estate increased due to the influx of Arab refugees, especially from Syria. However, during (2016-2019) the growth of residential loans was gradually slowing down due to the geopolitical developments in the region and the increase of uncertainty and its impacts on the economic sectors in the Kingdom, in particular the real estate sector. (Figure 5-5) and (Figure 5-6).

**FIGURE 5-5: RESIDENTIAL LOANS RATIO TO TOTAL CREDIT FACILITIES EXTENDED FOR THE REAL ESTATE SECTOR (2005-2020) (JD MILLION)**

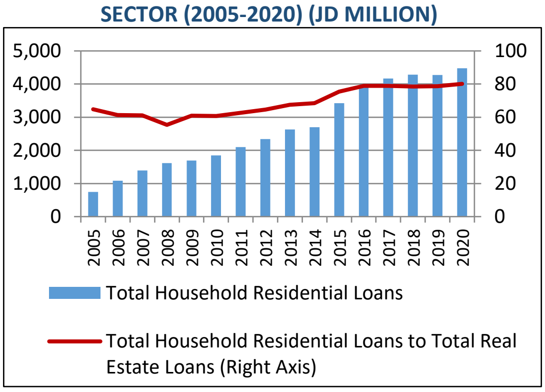
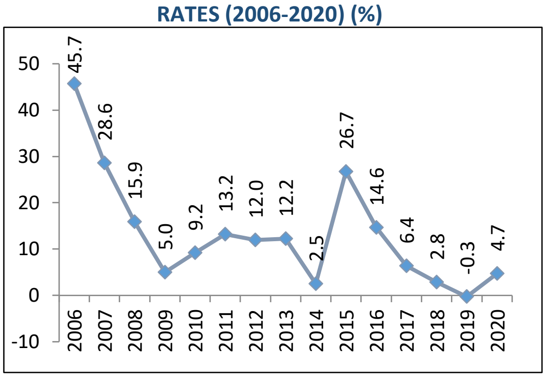
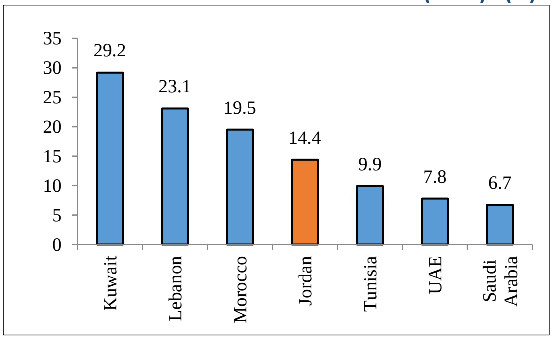



**FIGURE 5-6: HOUSEHOLD RESIDENTIAL LOANS GROWTH RATES (2006-2020) (%)**



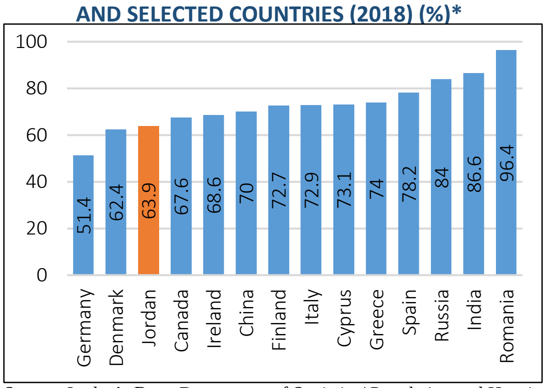
The household residential loans as percent of GDP stood at 14.4% at the end of 2020, against 13.5% at the end of 2019. Jordan occupies a middle rank among selected Arab countries; Jordan is much lower than Kuwait, Lebanon and Morocco, and higher than Tunisia, UAE, and Saudi Arabia (Figure 5-7). The low household residential loans to GDP ratio in Jordan, is due to the high homeownership rate of 63.9% in Jordan according to a survey of the General Statistics Department conducted in 2018. The low ratio is also attributed to alternative lending channels offered to Jordanians to finance their houses, including employees' residential loans, and loans provided from institutions, cooperative funds, and societies such as the Housing and Urban Development Corporation.

FIGURE 5-7: RESIDENTIAL LOANS IN PERCENT OF GDP IN JORDAN AND SELECTED ARAB COUNTRIES (2020)* (%)




*Data of selected countries refers to 2019

FIGURE 5-8: THE HOME OWNERSHIP RATE IN JORDAN AND SELECTED COUNTRIES (2018) (%)*




Source: Jordan's Data: Department of Statistics/ Population and Housing Census 2017.
Selected Countries Data refer to 2017.

It is noteworthy that the number of apartments sold in 2020 approached 29,016, compared to 33,917 apartments in 2019, declining by 14.4%, as the ramifications of the COVID-19 pandemic apparently affecting most economic sectors, including the real estate sector.

## 5-2-2 COMMERCIAL REAL ESTATE LOANS

Total commercial real estate loans extended by banks reached to JD 1,110 million at the end of 2020, forming 20% of total credit facilities for the real estate sector, compared to JD 1,160 million at the end of 2019, a decline of 4.3%. The commercial real estate loans were substantially growing during the pre-crisis period (2005-2008); they increased from JD 400 million to JD 1,300 million, with an average annual growth rate of 49%. Afterwards, they declined noticeably in 2009 to reach around JD 1,089 million due to the significant negative effect of the global financial crisis on the commercial real estates. The commercial real estate loans were slowing down during the period (2010-2012), and declining during the period (2013-2016), however, these loans increased again in 2017, and 2018, yet they decreased in 2019 and 2020 as figures (5-9) and (5-10) indicate.

FIGURE 5-9: COMMERCIAL REAL ESTATE LOANS GROWTH RATES (2008-2020) (%)

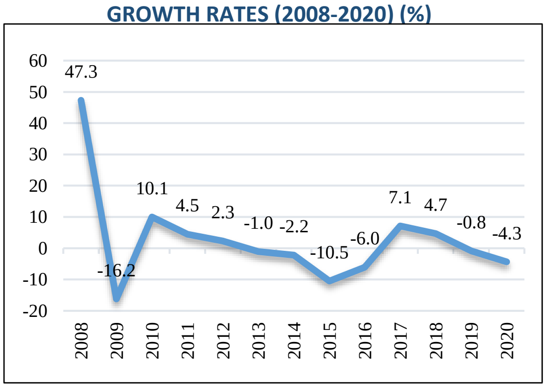
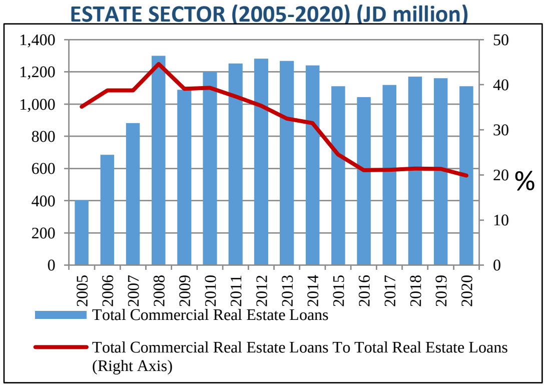



FIGURE 5-10: COMMERCIAL REAL ESTATE LOANS TO TOTAL CREDIT FACILITIES EXTENDED FOR THE REAL ESTATE SECTOR (2005-2020) (JD million)

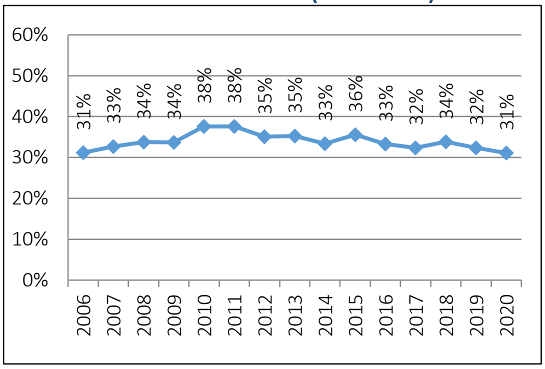


## 5-3 DIRECT FACILITIES PROVIDED USING REAL ESTATES AS COLLATERALS

Banks are directly exposed to the real estate market risks as they provide credit facilities to finance the purchase or construction of residential or commercial real estates; these real estates are generally used as collaterals for these loans. Banks are also exposed to the real estate market risks by the use of real estates as collaterals to secure the credit facilities extended by banks for different purposes. Therefore, the decline in real estates prices will affect the value of collaterals, and dampen the ability of banks to recover their funds in case the borrower defaults and is unable to repay. Total direct credit facilities extended by banks for other purposes using real estate as collaterals amounted to JD 3,194 million at the end of 2020 compared to JD 3,151 million in 2019.

Total direct credit facilities extended using real estates as collaterals for residential, commercial, and other purposes reached around JD 8,783 million, accounting for 31.1% of total facilities at the end of 2020, compared to 32.4% in 2019. (Figure 5-11).

**FIGURE 5-11: CREDIT FACILITIES EXTENDED BY BANKS USING REAL ESTATES AS COLLATERALS TO TOTAL CREDIT FACILITIES % (2005- 2020)**



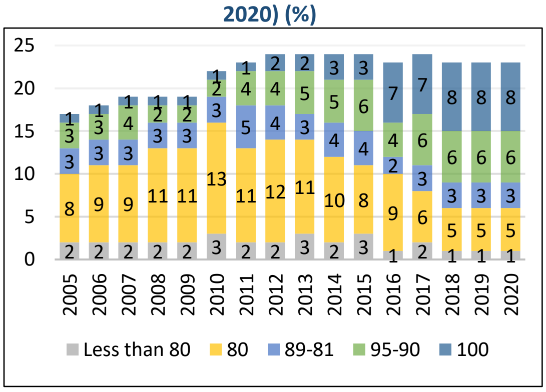

## 5-4 THE LTV RATIO UPPER LIMIT FOR HOUSEHOLD RESIDENTIAL AND COMMERCIAL REAL ESTATE LOANS IN JORDAN

The loan to the value of the mortgaged real estate (LTV) ratio is one of the most essential rates and indicators to monitor in order to assess the level of banks' exposure to the real estate market risks. The immense increase in this ratio may expose banks to high risks if the real estate prices fall, thus deterring banks' ability to recover their funds in case of clients' default due to the drop in the value of real estate collaterals for these loans. In addition, if the real estate market signals for a price bubble, countries usually set limits on the LTV ratio, to curb the real estate prices bubble, to reduce the probability of bankruptcy when house prices fall down, and to reduce losses by raising the value of collateral, which enhances banks' ability to face these risks.

To analyze the LTV ratio in Jordan, the CBJ has compiled some LTV data from banks in terms of the upper limits and actual average.

Figure (5-12) illustrates the upper limits of the LTV ratio for household residential loans. The figure illustrates that the LTV ratio for (6) banks (accounting for 26.1% of banks providing household residential loans) does not exceed 80%, (3) banks have an LTV ratio between 81% and 89%, whereas, (6) banks have an LTV ratio between 90% and 95%, and the remaining (8) banks have a 100% LTV ratio.

**FIGURE 5-12: THE LTV RATIO UPPER LIMIT FOR HOUSEHOLD RESIDENTIAL LOANS FOR BANKS (2005-2020) (%)**

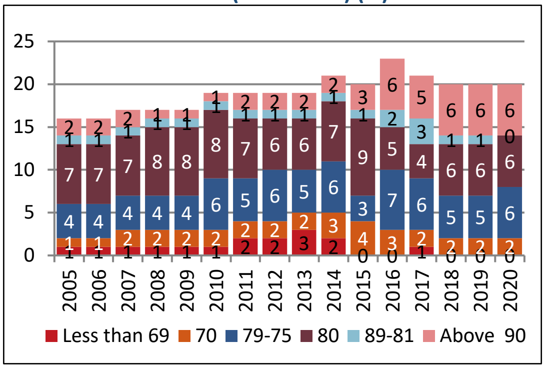



The figure above indicates that the number of banks with an LTV upper limit of 100% increased from (3) banks in 2015 to (8) banks in 2020, which implies that some banks in Jordan have a tendency to provide loans that exceed the values of residential real estates in the Kingdom.

The majority of banks set the LTV upper limit for commercial real estate loans to lower than the ratio for residential loans, as 70% of banks providing commercial real estate loans have an

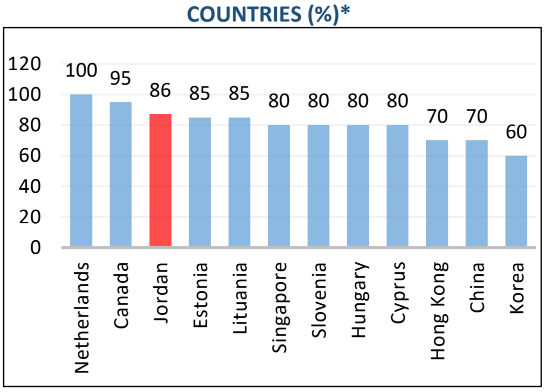
LTV ratio that does not exceed 80% (Figure 5-13).

**FIGURE 5-13: BANKS DISTRIBUTION ACCORDING TO THE LTV RATIO CEILING FOR COMMERCIAL REAL ESTATE LOANS (2005-2020) (%)**




The average LTV ratio upper limit varies among countries, ranging between 60% and 100%. Banks in Jordan had an average LTV upper limit of around 86%, ranking third amongst 12 countries with available LTV data (Figure 5-14).

**FIGURE 5-14: LTV RATIO UPPER LIMIT FOR REAL ESTATE LOANS (RESIDENTIAL AND COMMERCIAL) FOR SELECTED COUNTRIES (%)***

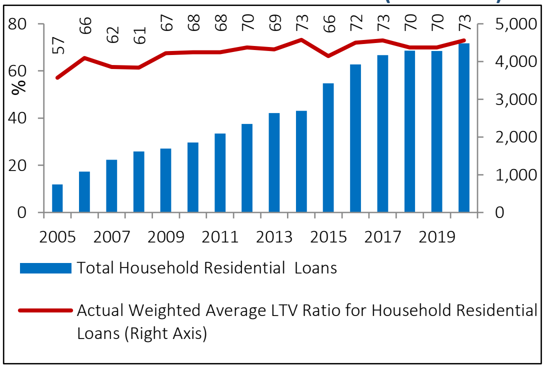



*: Data of compared countries is for 2018.

## 5-5 ACTUAL AVERAGE LTV RATIO FOR HOUSEHOLD RESIDENTIAL AND COMMERCIAL REAL ESTATE LOANS

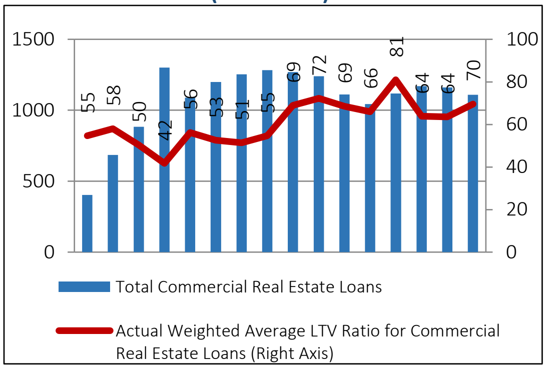
Despite the increase of the LTV ratio upper limit for mortgaged household residential loans in some banks, the actual average of the LTV ratio upper limit is below the upper bound banks can afford (i.e. the ratio specified in banks' credit policies). The actual weighted average of the LTV ratio stood at 73.2% in 2014, dropped to 66.3% in 2015, and resumed its upward trend to reach 72% in 2016 and 73% in 2017. The weighted average of the LTV ratio declined again to reach 70% in 2018 and 2019, yet it increased to 73% in 2020 (Figure 5-15).

**FIGURE 5-15: TOTAL HOUSEHOLD RESIDENTIAL LOANS AND ACTUAL WEIGHTED AVERAGE LTV RATIO FOR HOUSEHOLD RESIDENTIAL LOANS (2005-2020)**




With regard to the actual average of the LTV ratio for commercial real estate loans, it increased to 70% in 2020, against 64% in 2019 (Figure 5-16).

**FIGURE 5-16: ACTUAL WEIGHTED AVERAGE LTV RATIO FOR COMMERCIAL REAL ESTATE LOANS AND TOTAL COMMERCIAL REAL ESTATE LOANS FOR THE PERIOD (2005-2020)**




## 5-6 THE CBJ MEASURES TO MITIGATE BANKS' EXPOSURE TO THE REAL ESTATE MARKET RISKS AND ENHANCING BANKS ABILITY TO WITHSTAND THESE RISKS

As mentioned in previous Financial Stability Reports, the CBJ has put in place certain limitations, aiming at reducing banks' exposure to the real estate market risks and enhancing their ability to confront these risks as follows:

1. The CBJ's Instructions of Capital Adequacy in force specified the risks weighting for residential loans with LTV ratios not exceeding 80% to be 35%; however, it increases to 100% if the LTV ratio exceeds 80%. In other words, if the LTV ratio is above 80%, residential loans

are subject to higher capital requirements, which improves banks' ability to withstand these risks, and strengthens the financial stability in the Kingdom.

2. The issuance of the Instructions for Large Exposure Limits and Credit Controls No. (2/2019) on 4/3/2019, which superseded the Instructions for Credit Concentrations No. (9/2001). These Instructions set the maximum limit of credit provided by banks for establishing or purchasing real estates purposes at 20% of total customer JD deposits. These Instructions came into effect on 30/6/2019.

### 5-6-1 THE REAL ESTATE ASSETS PRICE INDEX IN JORDAN

The real estate assets total value is a fundamental anchor for investment activities in the economy. This is due to their high interlinkages with other investment sectors, and the implications of the real estate prices and developments on inflation, the monetary policy, and the financial stability. Drawing on the high importance to calculate a real estate assets price index (Real Estate Price Index "REPI"), and as already mentioned in previous reports, in the beginning of 2014, the CBJ in cooperation with the Department of Lands and Survey developed an REPI for Jordan. The calculation is based on international best practices taking into consideration the data available at the Department of Lands and Survey. The REPI index is significant to interpret several developments such as detecting price bubbles of the real estate assets, thus estimating the real estate market risks, in addition to forecasting economic growth, estimating the value of houses, which is used to estimate wealth, and as a benchmark for international comparisons.

Figures (5-17 to 5-22) illustrate the REPI in Jordan and the change in this index during the period (2005-2020). These figures depict that the REPI in Jordan dropped from 119.7 points in 2019 to 119.6 points in 2020, a decline of 0.1%, compared to a decline of 0.5% in 2019 and a growth of 0.2% in 2018, decline by 0.9% in 2017, a growth of 1.8% in 2016, and a growth of 3.4% in 2015.

In 2020, that slight decline in REPI is attributed mainly to the increase in the lands price index by 1.2% and the decline in the residential and non-residential indices by 2% and 0.7%, respectively. In this regard, and as mentioned in previous reports, the REPI passed through several stages, which are summarized in three phases as follows:

The first phase, pre-global financial crisis phase, (2005-2008): the demand for real estate especially by non-Jordanians was considerably high, and the prices of residential and non-residential real estates increased substantially. While the second phase (2009-2010) was prevailed by the repercussions of the global financial crisis and uncertainty, and a contraction in loans extended by banks, all of which apparently contributed to the decrease in the demand for real estate assets, and subsequently the decline in their prices. Accordingly, the government in mid-2009 expanded the scope of the exemptions for apartments, which also included lands to promote the real estate market activities. During the third phase (2011-2016), the real estate investments bounced back, yet at a slower pace than pre-global financial crisis era.

During the period (2017-2020), the real estate assets prices dropped owing to several factors including, the slowdown in economic activity in the Kingdom and its repercussions on the real estate sector, and the worsening of Jordanian workers conditions in the Gulf countries, who are considered the group most willing to purchase real estates. This is in addition to the COVID-19 pandemic and its repercussions which affected most sectors including the real estate sector.

FIGURE 5-17: THE REPI (RESIDENTIAL, COMMERCIAL, AND LANDS) IN JORDAN (2005-2020)

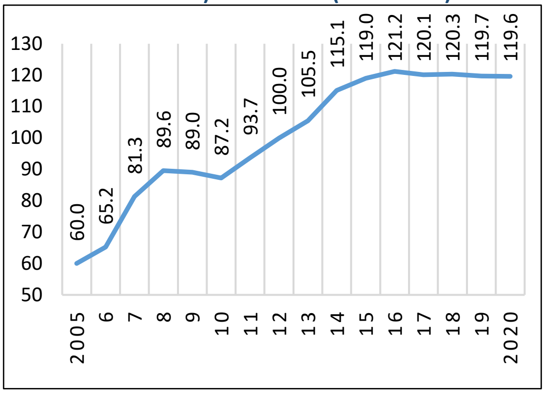



FIGURE 5-18: CHANGES IN REPI (RESIDENTIAL, COMMERCIAL, AND LANDS) IN JORDAN (2006-2020) (%)

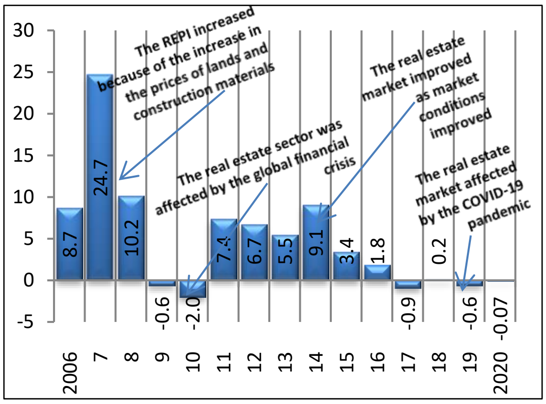



FIGURE 5-19: REPI (RESIDENTIAL, COMMERCIAL, AND LANDS) IN JORDAN AND TOTAL REAL ESTATE CREDIT FACILITIES (2005-2020)

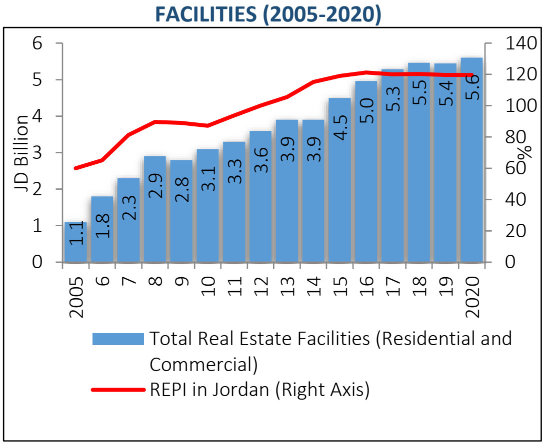



FIGURE 5-20: RESIDENTIAL REPI IN JORDAN AND ITS PERCENTAGE CHANGE (2006-2020)

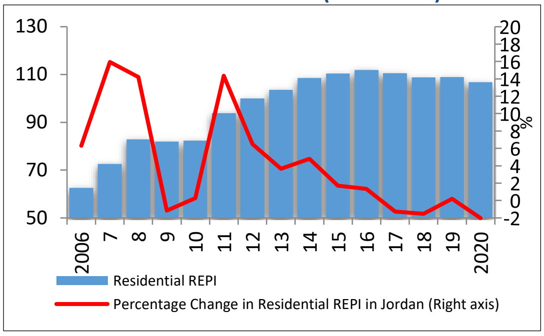



FIGURE 5-21: NON-RESIDENTIAL REPI IN JORDAN AND ITS PERCENTAGE CHANGE (2006-2020)

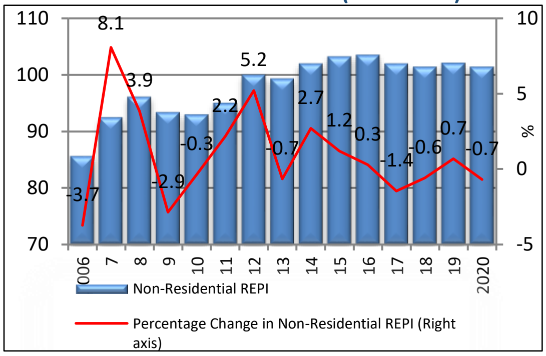
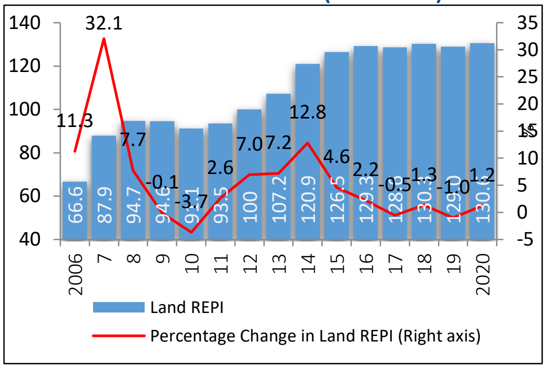
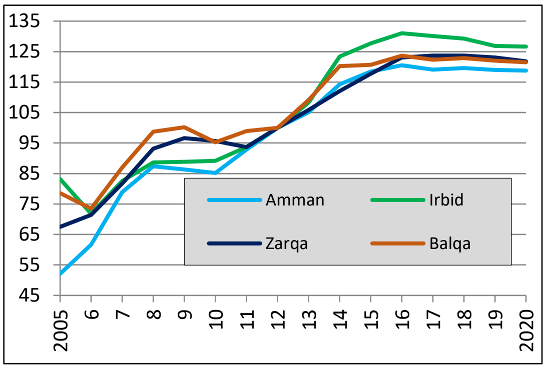



FIGURE 5-22: LAND REPI IN JORDAN AND ITS PERCENTAGE CHANGE (2006-2020)



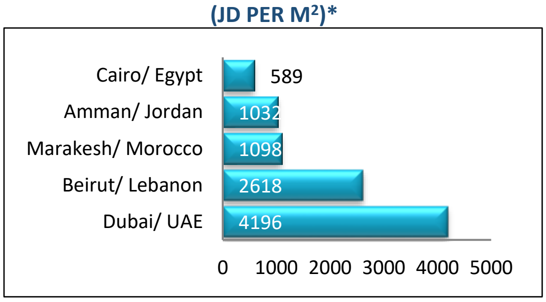

With regard to the REPI for main governorates in Jordan, it dropped slightly in Amman in 2020 compared to 2019; the REPI has decreased in 2020 by 0.2% from 119 points in 2019, to 118.8 points in 2020. In addition, in Irbid it decreased from 126.8 points in 2019 to reach 126.6 in 2020, declining by 0.2%. The REPI in Zarqa was the most effected by the decline as it decreased from 123.1 points in 2019 to 121.8 points in 2020, a decline of 1%. (Figure 5-23).

FIGURE 5-23: THE REPI FOR MAJOR GOVERNORATES IN JORDAN (2005-2020)



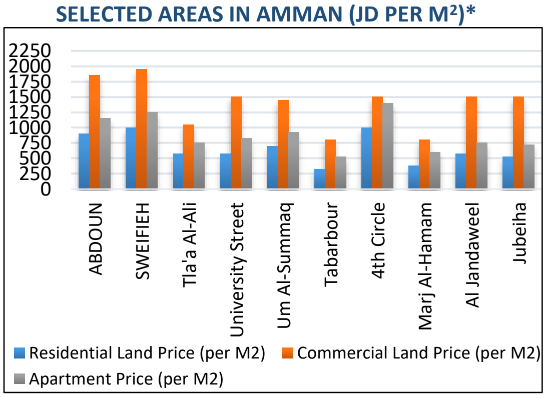

As for the average residential price per square meter in Amman, and according to the information available for West Amman areas (the most attractive for investment), the average residential price per square meter reached to JD 1,032 in 2017. It is noteworthy that the price per square meter in several Arab cities is higher than in Amman such as Marrakech, Beirut and Dubai (Figure 5-24 and Figure 5-25).

FIGURE 5-24: SQUARED METER PRICES IN AMMAN COMPARED TO SELECTED ARAB CITIES (2017) (JD PER M²)*




*:Source: http://www.globalpropertyguide.com (website)

FIGURE 5-25: THE PRICE OF ONE SQUARED METER IN SELECTED AREAS IN AMMAN (JD PER M²)*

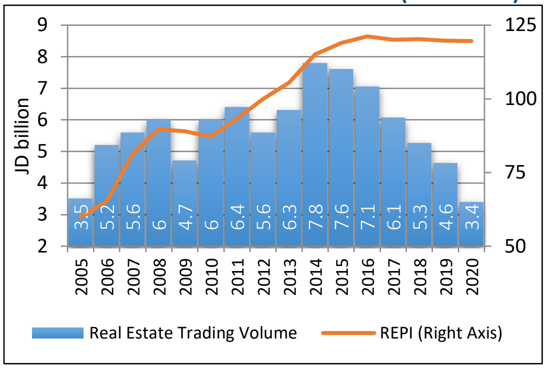



*: Source: www.qoshan.com

## 5-6-2 TRADING VOLUME IN THE REAL ESTATE MARKET IN JORDAN

The real estate publication 2020 of the Department of Lands and Survey stated that the trading volume in the real estate market in Jordan dropped by 26% in 2020, to reach JD 3,418 million compared to JD 4,632 million in 2019. This is due to the repercussions of COVID-19 pandemic, which affected most sectors including the real estate sector. Figure (5-26) indicates the developments of the real estate trading volume and the REPI for Jordan during the period (2005-2020).

FIGURE 5-26: THE REAL ESTATE TRADING VOLUME AND THE REPI IN JORDAN FOR THE PERIOD (2005-2020)




Sales to non-Jordanians reached to JD 179 million at the end of 2020, constituting only 5.2% of total real estate trading volume. Sales to Iraqis accounted for the largest share in 2020 with an investment of JD 76.7 million, or 43% of total estimated sales to non-Jordanians in 2020 (Table 5-1).

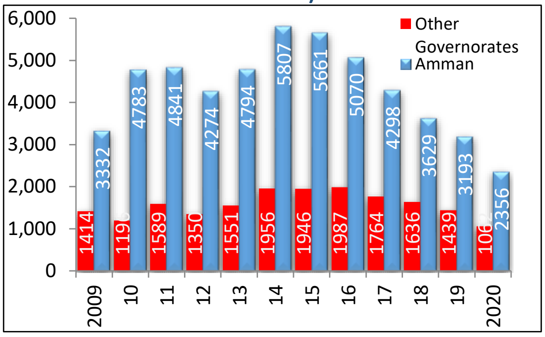
TABLE 5-1: SALES TO NON-JORDANIANS (2014-2020) (JD MILLION)

| Nationality | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| Iraqi | 266.3 | 215.1 | 168.4 | 157.2 | 111.5 | 86.1 | 76.7 |
| Saudi | 64.1 | 66.4 | 50.2 | 63.4 | 44.0 | 30.9 | 34.9 |
| Syrian | 28.6 | 17.5 | 19.4 | 18.1 | 17.5 | N.A | 11 |
| American | N.A. | N.A. | 21.5 | N.A. | N.A | N.A | N.A |
| Emirati | 17.4 | N.A. | N.A. | N.A. | N.A | N.A | N.A |
| Kuwaiti | N.A. | 22.9 | N.A. | N.A. | N.A | N.A | N.A |
| Yemeni | N.A. | 17.3 | 18 | N.A. | N.A | N.A | N.A |
| Other | 115.6 | 93.0 | 97.6 | 83.1 | 111.4 | 30.2 | 16 |
| Total | 492.0 | 432.2 | 115.6 | 321.8 | 284.4 | 236.2 | 179 |

Source: Department of Lands and Survey

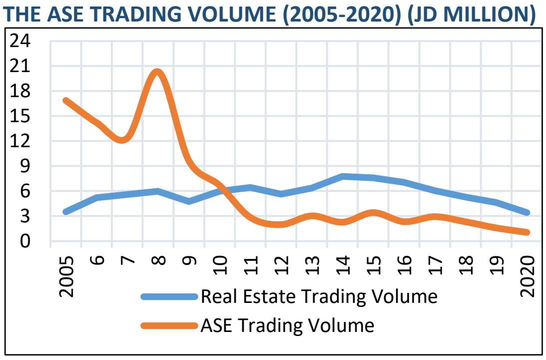
As for the trading volume for governorates, Amman is the largest with a trading volume of JD 2,356 million in 2020, accounting for 69% of total trading volume in the real estate market. Other governorates' trading volume amounted to JD 1,062 million, or 31% of total trading volume (Figure 5-27).

FIGURE 5-27: REAL ESTATE TRADING VOLUME FOR AMMAN AND OTHER GOVERNORATES (2009-2020) (JD MILLION)




With regard to the real estate trading volume compared to the trading volume in ASE, the trading volume in the financial market was much higher than the trading volume in the real estate market during the period 2005-2009. This is due to the boom of the ASE during that period, accompanied by a large inflow of liquidity to the financial market by Arabs, especially Iraqis. This led prices to increase immensely in the financial market, which also attracted many Jordanian investors to join. However, after the deepening of the global financial crisis impact and the significant decline of prices in the financial market, the trading volume dropped sharply in the financial market to reach below the trading volume in the real estate market. The real estate investments are safe haven compared to financial investments. (Figure 5-28).

FIGURE 5-28: THE REAL ESTATE TRADING VOLUME AND THE ASE TRADING VOLUME (2005-2020) (JD MILLION)




To proceed with the stimulation of the real estate sector, and due to the effects of COVID-19 pandemic on the real estate sector, the government decided to expand the exemption measures provided to apartments and single houses from registration fees until the end of 2020. This is in order to finalize the first set of stimulation measures for the real estate sector and housing. In addition, the remaining area exceeding 150 meters is subject to lower fees and taxes, which total 50% of the rates stipulated in the law.

The decision also lowered land sale fees by 50% of the rate mentioned in the law, including transactions among relatives, partners, and others. The tax on selling real estate has also been lowered to 50% of the rate stipulated in the law.

The Cabinets' decision of May 2019 was also expanded until the end of 2020, regarding the exemption of heirs form fees related to ownership transfer and disassociation to enable heirs to manage their real estates whether by sale, subdivision, or investments.

## 5-7 Summary

The trading volume in the real estate market and the REPI in Jordan indicate that the real estate market started being affected by the slowdown of the economic activity in the Kingdom and the economic and political developments in the region more apparently in 2017. In 2020, the ramifications of the COVID-19 further deepened the slowdown of the real estate sector; the real estate trading volume decreased by 26%, while the residential and commercial REPIs fell by 2%, and 0.7%, respectively.

The notable slowdown in the real estate sector requires some banks to consider the upper limit of the LTV ratio, especially banks with an LTV ratio exceeding 80%, to avoid any risks arising from falling real estate prices.

# CHAPTER SIX: STRESS TESTING

## 6-1 INTRODUCTION

Stress testing is an important tool used by regulatory authorities and banks to assess banks' ability to withstand the shocks and high risks they may confront. The objective of these tests is to evaluate the financial position of a bank under severe yet plausible scenarios, thus using the tests results to determine the level of capital and liquidity that banks are required to hold in order to withstand financial shocks and high risks.

These tests are forward-looking risk assessments, which use sophisticated tools rather than statistical methods that are based on historical information. These tests also help senior management to understand bank conditions in times of crises. Stress testing is an essential part of risk management as well as the planning for capital and liquidity. Nonetheless, stress testing cannot overarch all aspects of a bank's vulnerabilities, it operates within an integrated risk management policy to enhance the soundness and robustness of banks and strengthen the entire financial system.

## STRESS TESTING FOR THE BANKING SECTOR

## 6-2 FIRST: SENSITIVITY ANALYSIS

In general, the sensitivity analysis tests are used to measure the impact of changes in risk factors -individually- on a bank's financial position such as the increase of NPLs ratio, changes in interest rates, changes in exchange rates, and changes in stock prices. The source of the shock (i.e. the source that lead to this type of risk) is usually not identified in these tests. The sensitivity analysis that have been conducted by banks operating in the Kingdom on several risk factors are illustrated next.

### 6-2-1 SENSITIVITY ANALYSIS OF CREDIT RISK

The sensitivity analysis of credit risk assumed an increase of 100% in NPLs (default rate at banks), and a 50% decline in banks' profits in 2021 compared to their levels in 2020, in light of the continuous repercussions of COVID-19 pandemic and its impact on the economic conditions in Jordan. The loss Given Default (LGD) ratio is also supposed to reach 65% of NPLs. In this case, the CAR of the banking sector in Jordan will drop from 18.3% to 14.5%, which implies that the banking sector is broadly capable to withstand this shock; the after-shock CAR remains higher than the 12% minimum requirement of CAR applied in Jordan.

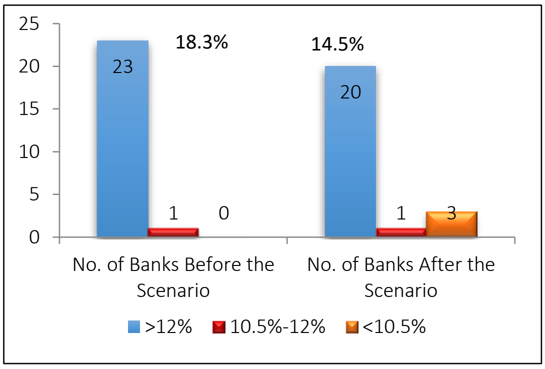
The limited impact of this shock is due to the following:

1- High CARs at banks in Jordan, which are considered among the highest in the region.

2- Banks have high profits levels, which enable them to absorb the additional provisions and losses resulting from the shock when it occurs, without significantly affecting the capital, which in turn protects banks' capital.

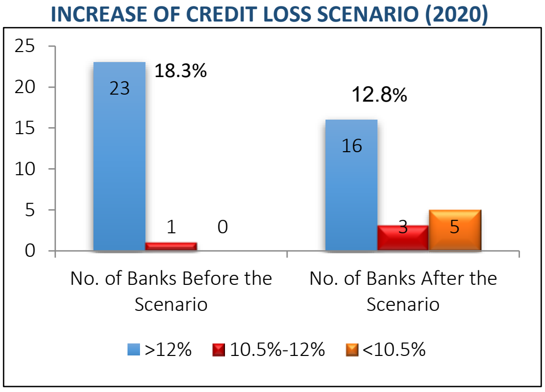
On the individual level, the CAR will remain higher than 12% for (20) banks, while it will get below 12% for (4) banks, one of them will maintain a CAR above the 10.5% international minimum requirement, which points to the ability of most banks in Jordan to withstand this shock (Figure 6-1).

FIGURE 6-1: THE CAR BEFORE AND AFTER APPLYING THE INCREASE OF CREDIT LOSS SCENARIO (2020)



To assess banks' ability to withstand greater ramifications of the COVID-19 pandemic, the previous test was intensified; the same test was applied (an increase of NPLs (banks' default rate) by 100%) under more severe scenarios. The LGD was assumed to reach 85% of NPLs value, and banks' profits will decrease by 75% in 2021 compared to their levels in 2020. Under this scenario, the CAR of the banking sector will decrease from 18.3% to 12.8%. This validates the conclusion that the banking sector will be able to withstand this shock and these severe scenarios as well. On the individual level, the CAR will remain above 12% for (16) banks, and will drop below 12% for (8) banks, of which (3) banks will have CAR above 10.5%. (Figure 6-2).

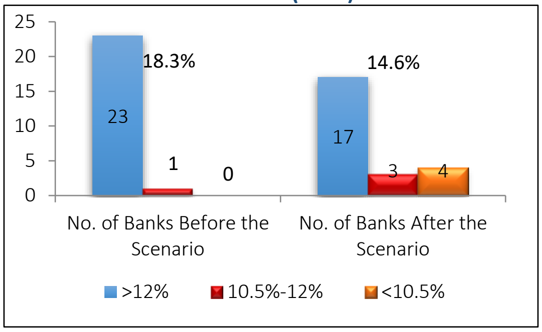
**FIGURE 6-2: THE CAR BEFORE AND AFTER APPLYING THE INCREASE OF CREDIT LOSS SCENARIO (2020)**




## 6-2-2 SENSITIVITY ANALYSIS OF CREDIT CONCENTRATION RISKS

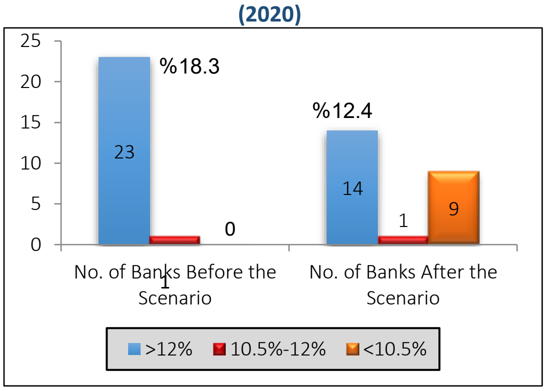
As for the credit concentrations risks, and assuming the default of the largest three borrowers (excluding credit facilities provided to the government of Jordan and the government-guaranteed facilities) on the individual bank level, the CAR will remain above the minimum requirement of 12% for (17) banks. It will fall below 12% for (7) banks, one of which will maintain a CAR above the international minimum requirement of 10.5%. The CAR for the banking sector will drop from 18.3% to 14.6%, thus the CAR for the banking sector will remain higher than the required limit. (Figure 6-3).

**FIGURE 6-3: THE CAR BEFORE AND AFTER APPLYING THE DEFAULT OF THE LARGEST THREE BORROWERS SCENARIO (2020)**




However, under the assumption of the default of the largest six borrowers (excluding credit facilities provided to the government of Jordan and the government-guaranteed facilities) for each individual bank, the CAR of the banking sector will decline from 18.3% to 12.4%, yet remains above the minimum requirement of 12%. On the individual bank level, the CAR will remain above 12% for (14) banks, while it will fall below 12% for (10) banks, which validates that some banks need to reduce their concentration risks. It is worth mentioning that the CBJ monitor banks' concentration risks on ongoing basis through credit concentration instructions (Figure 6-4).

**FIGURE 6-4: THE CAR BEFORE AND AFTER APPLYING THE DEFAULT OF THE LARGEST SIX BORROWERS SCENARIO (2020)**



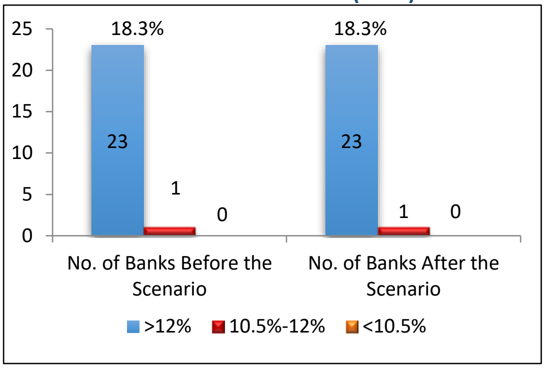

## 6-2-3 SENSITIVITY ANALYSIS OF MARKET RISKS

A number of tests were conducted to assess banks' sensitivity to market risks and their impact on capital adequacy. The analysis was limited to three types of shocks: interest rates, exchange rates, and stock prices; the most commonly used variables thereupon.

### 6-2-3-1 INTEREST RATE SHOCK

Assuming a 200 basis points increase in interest rates, the CAR of the banking sector will remain unaffected at 18.3%[1], which indicates that the impact on the banking sector in general is insignificant. On the individual level, the CAR will remain above 12% for (23) out of (24) banks, which denotes the ability of banks in Jordan to withstand this shock (Figure 6-5).

**FIGURE 6-5: THE CAR BEFORE AND AFTER APPLYING THE INTEREST RATE SHOCK (2020)**

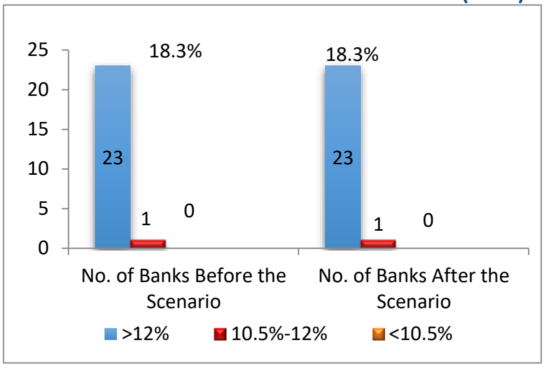



If the interest rates go up by 200 basis points, the CAR for the banking sector as a whole and for each individual bank will not be affected.

### 6-2-3-2 FOREIGN EXCHANGE RATE SHOCK

Assuming a 25% decline in the exchange rate of the Jordanian dinar[2] against all foreign currencies, the banking sector's CAR will not be affected and will remain at 18.3%[3]. This indicates that the banking sector is highly capable to withstand this shock thanks to the comfortable coverage of foreign currency assets to banks' foreign currency liabilities; long foreign currency positions for most banks. On the individual level, the CAR will remain above 12% for (23) banks out of (24) banks as the case prior to the shock. (Figure 6-6).

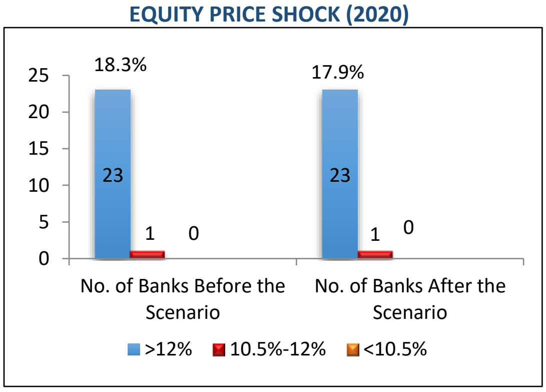
**FIGURE 6-6: THE CAR BEFORE AND AFTER APPLYING THE FOREIGN EXCHANGE RATE SHOCK SCENARIO (2020)**




### 6-2-3-3 EQUITY PRICE SHOCK

Assuming the stock prices in the financial market went down by 30%; the CAR of the banking sector in Jordan will decline from 18.3% to 17.9%, which implies that the effect of this shock on the banking sector is immaterial in general. On the individual level, the ratio will remain above 12% for (23) banks, exactly as before the shock. (Figure 6-7).

**FIGURE 6-7: THE CAR BEFORE AND AFTER APPLYING THE EQUITY PRICE SHOCK (2020)**




This indicates that banks in Jordan are able to withstand the shock of equity price risks due to the low exposure of banks to the financial market in Jordan.

[1] The impact of the shock was calculated using the gap analysis test that examines the current state of banks in terms with the balance of assets and liabilities sensitive to interest rate risk.

[2] This is a hypothetical scenario that aims primarily to examine banks' exposure to exchange rate risk, noting that the CBJ's foreign currency reserves at the end of July 2021 reached to USD 16.7 billion, sufficient to cover around 9.2 months of the Kingdom's imports, which is a very comfortable level and significantly strengthens the stability of the dinar exchange rate.

[3] This analysis does not consider the indirect effects of the decline in the exchange rate of the Jordanian dinar on the economy, hence, the effects on banks' NPLs is not assessed.

## 6-3 SECOND: MACRO-STRESS TESTING

Credit risk is one of the most significant risks facing banks and affecting their solvency. Therefore, the Satellite Model was used to predict the NPLs ratio for the period 2021-2023. In this context, a series of scenarios have been assumed; medium and severe macro-stress scenarios represent hypothetical scenarios designed to assess banks' ability to withstand shocks. Assuming the worsening of unfavorable ramifications of the novel COVID-19 pandemic, and the challenges it imposes on Jordan's economy, namely; the decline in tourism income, direct investment, and national exports, and the return of Jordanian expats from abroad, the economic growth rates will slow down substantially compared to projected rates. In addition, the unemployment rate will increase, and the financial market will deteriorate. Moreover, the interest rates are also assumed to increase to curb inflationary pressures and to preserve the attractiveness of the Jordanian dinar as a saving currency. To measure the impact of these assumptions on banks, the GDP growth rate (economic growth rate) was used as one of the major economic variables affecting the NPLs, and measuring its impact on the regulatory CAR and Tier1 capital[4] for a bank. Economic researches state that the decline in economic growth rate will increase the NPLs, as the decline in economic activity affects the customers' ability to repay their debts. Other variables such as the interest rates, stock prices, and the unemployment rate, were also used to predict the NPLs ratio.

To project the NPLs ratio, the stress testing methodology using the Satellite Model included the assumption of (3) scenarios to predict the value of the dependent variable (NPLs ratio) and to examine their effect on the CAR of banks for the coming years. These scenarios, in terms of severity, are classified as follows:

- Baseline Macro Stress Scenario
- Medium Macro Stress Scenario
- Severe Macro Stress Scenario

To forecast the NPLs ratio, the following model was used[5]:

$$\mathbf{NPL_t = C + B_1\, NPL_{(t-1)} + B_2\, \Delta RGDP_{(t-1)} + B_3 UNEMP_{(t-1)} + B_4\, RIR_t + B_5\, ASE100_t}$$

Where:

$NPL_t$= Projected NPLs ratio for 2021

C= Constant

$NPL_{t-1}$= NPLs ratio of the preceding year

$\Delta RGDP_{t-1}$= Real GDP growth rate (economic growth rate)

$UNEMP_{t-1}$= Unemployment rate of the previous year

$RIR_t$= Real interest rate

$ASE100_{t=}$ ASE general price index

The statistical tests revealed a significant inverse relationship between the economic growth rate and the NPLs ratio, a significant positive relationship between the unemployment rate and the NPLs ratio, a significant positive relationship between the interest rates and the NPLs ratio, and a significant inverse relationship between stock prices and the NPLs ratio at banks, according to the following equation:

$$\mathbf{NPL_t = -9.0 + 0.68\, NPL_{(t-1)} - 0.37\, \Delta RGDP_{(t-1)} + 0.59\, UNEMP_{(t-1)} + 0.39\, RIR_t - 0.04\, ASE100_t}$$

The following table shows the results of the econometric analysis of the model mentioned above:

**TABLE 6-1: RESULTS OF THE ECONOMETRICS ANALYSIS**

| Variable | Coefficient | T-Statistic |
|---|---|---|
| C | -9.0 | -2.3 |
| NPL(-1) | 0.68* | 7.3 |
| RGDP(-1) | -0.37** | -1.7 |
| UNEMP | 0.59* | 2.4 |
| RIR | 0.39* | 4.1 |
| ASE100 | -0.04* | -3.4 |
| Coefficient of Determination ($R^2$) | 91.1% | |
| Adjusted $R^2$ Coefficient | 87.4% | |

(*): Statistically significant at 95% confidence level
(**): Statistically significant at 90% confidence level

[4] According to Basel III definition

[5] This model was estimated using the Fully Modified Ordinary Least Squares (FMOLS) method, which provides optimal estimates for cointegrated regressions by modifying the least squares to calculate the effects of autocorrelation and homoscedasticity in the dependent variables, which result from an autocorrelated relationship between the dependent variable and the independent variables.

## 6-3-1 ASSUMPTIONS OF THE MODEL

The CBJ has developed stress tests so that the NPLs ratio and its effect on banks' CAR are predicted for several coming years (Multiple-Period Stress Testing), instead of a single year. Consequently, the NPLs ratio for the period 2021-2023 was projected based on changes assumed in the economic growth rate, the unemployment rate, interest rates, and stock prices. The following scenarios have been assumed, noting that the model used is based on the assumption that banks' profits in 2021 will drop by 50% compared to their levels in 2020 owing to the repercussions of the COVID-19 pandemic, and assuming that the LGD will hit 65% of NPLs:

**TABLE 6-2: MACRO STRESS TESTING SCENARIOS FOR THE YEARS 2021-2023**

| Year | Variable | Economic Growth Rate | Unemployment Rate | Real Interest Rate RIR* | General Shares Price Index |
|---|---|---|---|---|---|
| Scenarios of 2021 | Baseline Scenario | 2.0 | 25.8 | 6.9 | 3050 |
| | Medium Macro Stress Scenario | -0.5 | 28.4 | 7.9 | 2287 |
| | Severe Macro Stress Scenario | -2.9 | 31.0 | 8.4 | 1525 |
| Scenarios of 2022 | Baseline Scenario | 2.7 | 23.2 | 8.4 | 1525 |
| | Medium Macro Stress Scenario | 0.2 | 25.8 | 9.4 | 1144 |
| | Severe Macro Stress Scenario | -2.2 | 28.4 | 9.9 | 762 |
| Scenarios of 2023 | Baseline Scenario | 3.1 | 23.2 | 9.9 | 762 |
| | Medium Macro Stress Scenario | 0.6 | 25.8 | 10.9 | 571 |
| | Severe Macro Stress Scenario | -1.8 | 28.4 | 11.4 | 381 |

**The shock scenarios were assumed according to the following methodology:**

**Medium Macro Stress Scenario**: The projected GDP growth rate for 2021 minus one standard deviation of economic growth rate data for the period (1994-2020). The projected unemployment rate for 2020 plus one standard deviation of the unemployment rate data for the period (1994-2020), (noting that a one standard deviation was added to the unemployment rate of 2020 to forecast the unemployment rate of 2021 due to the COVID-19 crisis effect on the unemployment rate in 2021).

**Severe Macro Stress Scenario:** The projected GDP growth rate of 2021 minus two standard deviations of economic growth rate data for the period (1994-2020), the 2020-projected unemployment rate plus two standard deviations of the unemployment rate data for the period (1994-2021).

**For actual interest rates and stock prices**, the interest rates were assumed to increase by 100 and 150 basis points, while stock prices were assumed to decrease by 25% and 50% for the medium and severe scenarios, respectively. These values were set based on the assumptions included in the CBJ's Stress Testing Instructions and Basel Committee Guidelines. *Represents the weighted average interest rates on credit facilities/ loans and advances minus inflation rate.

## 6-3-2 RESULTS

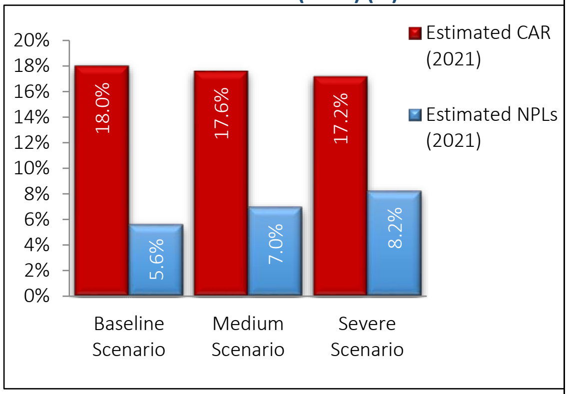
Table (6-3) and Figure (6-8) illustrate NPLs ratio and CAR ratios projected for 2021, assuming the occurrence of the above scenarios; under the severe scenario, the NPLs ratio will increase from 5.5% in 2020 to 8.2% in 2021, thus the CAR will drop from 18.3% to 17.2% in 2021.

**TABLE 6-3: MACRO STRESS TESTS RESULTS FOR 2021**

| Scenarios | Projected NPLs (2021) | Projected CAR (2021) |
|---|---|---|
| Baseline Scenario | 5.6% | 18.0% |
| Medium Macro Stress Scenario | 7.0% | 17.6% |
| Severe Macro Stress Scenario | 8.2% | 17.2% |

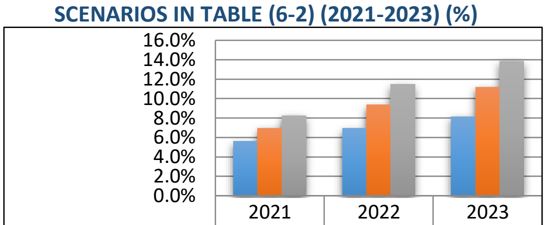
* The NPLs ratio at the end of 2020 stood at about 5.5%.
** The CAR at the end of 2020 reached to 18.3%

**FIGURE 6-8: CAR AND NPLs AFTER THE APPLICATION OF ALL SCENARIOS (2021) (%)**




If these scenarios occur (Table 6-2: scenarios), the projected NPLs ratios for 2021-2023 assuming the (three) scenarios will be as illustrated in Figure (6-9).

**FIGURE 6-9: THE NPLs AFTER ASSUMING THE SCENARIOS IN TABLE (6-2) (2021-2023) (%)**

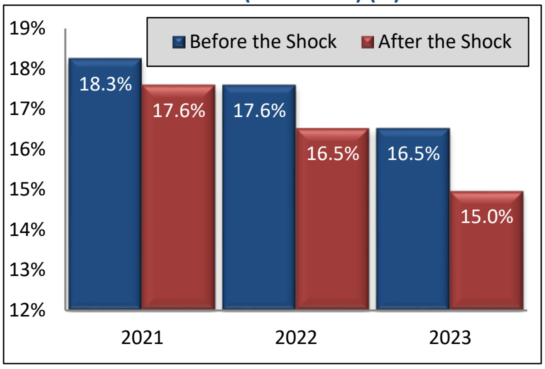



| | 2021 | 2022 | 2023 |
|---|---|---|---|
| Baseline Scenario | 5.6% | 6.9% | 8.1% |
| After Medium Scenario | 7.0% | 9.4% | 11.2% |
| After Severe Scenario | 8.2% | 11.5% | 13.9% |

Accordingly, after applying the medium scenario, the CAR for the years 2021-2023 will decline to

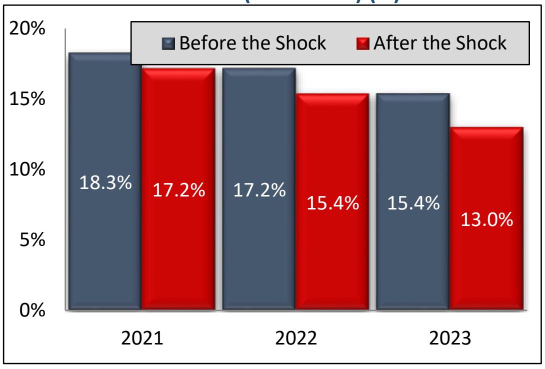
15% in 2023, which is still sufficiently higher than 12% for the three years (2021-2023). This implies that the banking sector in Jordan is capable to withstand this shock (figure 6-10).

FIGURE 6-10: THE CAR AFTER APPLYING THE MEDIUM SCENARIO (2021-2023) (%)




In addition, implementing the severe scenario indicates that the CAR will drop to 13% in 2023, yet it will remain higher than 12% for the years (2021-2023), which means that the banking sector's CAR is high, thus the banking sector is capable to withstand this shock as well (figure 6-11).

FIGURE 6-11: THE CAR AFTER APPLYING THE SEVERE SCENARIO (2021-2023) (%)




## 6-4 SUMMARY

According to the results for the years (2021-2023), the banking sector is broadly capable to withstand the shocks and high risks resulting from the ramifications of the COVID-19 pandemic on the national economy. The CAR of the banking sector for the years 2021, 2022 and 2023 will reach to 17.2%, 15.4% and 13%, respectively, assuming the most severe scenario. These positive results are attributed to high levels of banks' capital, and comfortable level of profits, which enable banks to absorb the additional provisions and losses resulting from the assumed shocks without a significant impact on the capital, which provides a sufficient protection for banks' capital. Furthermore, the sensitivity analysis revealed that the credit concentration risk has a greater impact on some banks compared to other risks, which requires these banks to reduce their concentration risk. The CBJ will continue to conduct and upgrade these tests taking into consideration the risks developments at the international, regional, and national levels to ensure the soundness and robustness of the banking sector in Jordan.

## CHAPTER SEVEN: DIGITAL FINANCIAL SERVICES AND DIGITAL BANKS

Jordan achieved tremendous progress in the Fintech and innovation area; Jordan enjoys an investment environment that supports innovation, besides the increasing demand for Fintech in the Jordanian market. To this end, the CBJ announced its support for initiatives and innovations that use cutting edge Fintech, especially, those promoting the access to digital financial services easily, efficiently, and securely. However, strengthening cyber security is essential for the financial services in general. The CBJ in 2018, launched the Fintech Regulatory Sandbox to create an incubator for entrepreneurs to promote and encourage innovation and development in the Fintech sphere. This will enhance the competitiveness in the digital financial services area, improve the efficiency, effectiveness, and security in transferring funds, and support the access to formal financial services, while maintaining the integrity and stability of the financial sector and protecting the rights and data of financial consumers.

In 2020, the CBJ proceeded with restructuring the payment and settlement systems in the Kingdom, in partnership with banks operating in Jordan and relevant stakeholders, to provide the electronic services for its clients of ministries, and governmental departments and institutions through the provision of electronic banking services system (E-banking). The CBJ also continued to provide the electronic bill presentment and payment through (eFAWATEERcom) system, which is operated by Madfooatcom company for electronic payment. The system is connected to all banks operating in the Kingdom to provide the service through various banking payment channels through the Electronic Payment Portal. This is to enable all Jordanian citizens who reside inside Jordan or abroad to inquire and pay their bills, and conduct other payments using their credit cards issued by various banks worldwide, easily and securely.

The CBJ has also finalized the automation of government payments project plan, in cooperation with a number of Ministries and government institutions. The CBJ also extended its membership in Better Than Cash Alliance (BTC), which substantially contributes to reduce the cost and time for government agencies delivering support through digital financial services to less fortunate people and vulnerable groups excluded from the formal financial system.

During the COVID-19 crisis, the initiative of “COVID-19 Response Challenge Fund” was initiated to motivate the mobile payment service providers to encourage merchants to accept and use e-payment channels, in particular “contactless” ones. A JD 100 thousand agreement was signed with a group of payment services providers in the Kingdom to provide incentives for these companies to accept merchants and use the e-payment channels via using the QR Code.

The CBJ also collaborated with the GIZ and the electronic payment service providers through the Digital Remittances project (Digi#ances), to support using e-payment instruments and to enhance financial literacy. The project aims at improving the access to financial services by less fortunate people excluded from the formal financial system including women, refugees, and others.

On 29/7/2021, the CBJ issued **“Regulation of Digital Banks in the Hashemite Kingdom of Jordan”** document. This is in response to the rapid trends in innovation in the Jordanian banking sector, the change in the financial consumer behavior, and the need and requirements of the market. It is parallel with the developments in cutting edge technologies and the innovations thereto, as well as the entrance of new service providers competing to provide comprehensive new financial products that meet consumers’ needs, and are provided in attractive and cost-effective offers and solutions. This document aims to state the CBJ’s stance towards regulating integrated digital banks in the Kingdom. It lays the ground to put in place the main rules for licensing digital banks, including: the nature of shareholders/owners, capital requirements, and the nature and quality of services and products that digital banks can provide in light of the developments and trends of Fintech solutions in the banking sector. This is in a manner that takes into account the interests of all parties and the economy as a whole. The CBJ's orientation in this regard aims to preserve and support the sustainable development and innovation in a manner that achieves the targeted growth in the Jordanian banking sector to pave the way into an inclusive and developed digital economy according to the royal visions.

This document has been disseminated to all banks operating in the Kingdom in coordination with the Association of Banks to enhance the CBJ's principle of partnership and consultation with the institutions under its supervision. The CBJ requested banks to study the document thoroughly and to state their views towards regulating digital banks taking into consideration the expected benefits, and the contribution to supporting the impetus and development of the Jordanian banking sector and keeping pace with the developments in a sustainable manner. This is in parallel with meeting the needs and desires of the various categories of the public and enhancing the financial inclusion in the Kingdom.

The CBJ's governor Dr. Ziad Fariz stressed out that these digital banks will be subjected to the same oversight and supervision requirements applied to banks operating in the Kingdom, taking into consideration the technical aspects, cyber security, anti money laundering and counter terrorist financing, and operational risks aspects.

In the same context, the CBJ issued its instructions to all banks and electronic payment and money transfer companies to regulate the Digital Onboarding and e-KYC. These instructions are the fundamental backbone that will enable banks and payment companies to provide their services digitally. Furthermore, these instructions include assisting these companies to put in place the policies to regulate their internal work procedures through fulfilling the KYC requirements and building the banking relationship with the customer electronically and virtually without the need of the client's physical existence at the bank or the payment company. This shall be performed in a manner that ensures the consistency with the existing regulatory and legislative environment in the Kingdom, and increases the effectiveness of the anti money laundering and counter terrorist financing.

It is worth mentioning that digital banks do not have a physical existence in the form of branches (physical location) except for some requirements related to public administration. These banks finalize the requirements for initiating the banking relationship, providing services and products, and conducting banking operations with its clients virtually (no time or place restrictions) using online platforms, mobile applications, and other modern solution based e-channels. These banks offer the same services provided by traditional banks, yet they rely on electronic means that do not require the physical existence of the client at any of the bank's branches nor in any form.

# CHAPTER EIGHT: TOKENIZATION OF ASSETS AND INVESTMENTS, AND ASSOCIATED RISKS

## 8-1 INTRODUCTION

The Fintech sector developments and use of the cutting edge electronic technology have accelerated rapidly in recent years, inducing a paradigm shift in the financial sector and global financial markets and on the global macro economy as a whole.

The repercussions of the COVID-19 pandemic negatively affected various sectors, but it encouraged the shift towards a digital economy and use of digital financial services and digital financing techniques, including Tokenization via the blockchain technology, which captured a tremendous attention in a short time. Concurrently, it created challenges to the global economy represented by how to balance between deploying technological progress and making the financial systems more effective; and managing the risks associated with these developments, which may pose a threat to the global financial system and the overall financial stability.

The Financial Stability Board (FSB, 2019) defined tokenization as the process of digitally representing existing assets like shares, bonds, real estates, commodities, and other assets on a distributed ledger technology (DLT), in particular the Blockchain, and convert their value into tokens tradable in different exchanges and markets. Tokenization is beneficial for several fields in particular e-commerce, trading assets, and payment systems, due to its significant role in protecting, storing, transferring, and verifying data securely. Despite that tokenization of assets is spreading rapidly worldwide, but its continuity in the future is still uncertain. This is attributed to the fact that the risks that may encounter financial markets if such technologies were used excessively are still obscure, which may dampen the tokenization expected benefits in several sectors.

## 8-2 TYPES OF TOKENIZATION OF ASSETS

Tokenization is conducted through representing existing assets like shares, bonds, real estates, and converting them into tokenized assets using the blockchain technology. Their ownership is registered through the DLT, or through security token offerings (STOs). These securities are similar to the traditional securities; each token represents a certain amount; a share of any tradable asset such as shares and bonds. It is also applicable for intellectual property, as well as publications and writing. The tokenized assets are classified into three main categories, namely[1]:

1- **Asset-based tokens:** these tokens allow for trading fixed assets digitally through the blockchain. They represent the ownership of certain assets or part of them like real estate, commodities, or fine arts.

2- **Debt-based tokens:** these tokens represent the value of bonds or cash debts including short-term loans. The prices of debt-based tokens are determined according to two main factors: risks and profits.

3- **Equity-based tokens:** these tokens represent the equity shares. The equity ownership identity is registered and verified by the DLT and is unchangeable.

Recent studies and reports have indicated that in recent years, the number of investors in Tokenized assets increased remarkably, as the global tokenization market size approximated US$1.8 billion at the end of 2019 and increased to US$ 1.9 billion at the end of 2020, compared to US$ 1.2 billion in 2016. It is expected to

[1] Schletz M., Nassiry D. and Kyoon Lee M. (2020), "Blockchain and Tokenized Securities: The Potential for Green Finance. ADBI Working Paper 1079. Tokyo: Asian Development Bank Institute. Available: https://www.adb.org/publications/blockchain-tokenized-securitiespotential-green-finance

approach US$ 4.8 and US$ 5.8 billion in 2025 and 2026, respectively.[2]

## 8-3 TOKENIZATION AND DEMOCRATIZATION OF INVESTMENTS

Tokenization of assets technology is thriving; it is vital for building the future of markets, improving the services provided, enhancing digital innovations for commodities, real estates, and investment funds, as well as enabling small investors to participate in these investments. Tokenization of assets is particularly significant to enhance and upgrade the existing financial markets' infrastructure to more effective platforms for securities exchange and trading. Typically, Tokenization is a global financing method available to everyone; they can access funds locally and internationally from a broader base of investors worldwide regardless of their size in a safe and effective manner. Tokenization of asset technology is featured with the democratization of investments in two main aspects[3]:

a- **Entrepreneurship:** through providing entrepreneurs with new financing methods to raise funds from all kinds of investors regardless of their size.
b- **Evolution:** through providing entrepreneurs with new methods to upgrade and promote new decentralized financing techniques and applications.

Tokenization is mainly aiming at facilitating access to capital, providing liquidity, enhancing financial inclusion, and offering new investment opportunities in all sectors, which will enhance the financial stability. The advantages of tokenization of assets are illustrated next for both investors and tokens issuers:[4]

1- **Enhance the efficiency of markets and transparency:** the blockchain and smart contracts allow the issuance of digital securities tokens services and trading them with high efficiency, while ensuring the legal rights and responsibilities of tokens holders. Each token is embedded with immutable record of ownership, which helps to enhance the security of markets, conducting transactions transparently and securely, as well as finding effective solutions for assets and risks management in sophisticated ways. Tokenization helps to conduct faster deal execution at lower costs. Tokenization and smart contracts enhance the efficiency of several administrative operations and significantly reduce costs.

2- **Enhance liquidity:** in light of the need of several sectors and fields to enhance the investment opportunities, provide large capital, and access long investment horizons, tokenization of assets allows for increasing cash flows for investors and provides high liquidity required to finance their projects and investments. Tokenization provides liquidity for illiquid assets such as private placements of unlisted securities and shares in companies' capital, as well as for near-illiquid assets such as the securities of SME's or venture capital funds, and private equity funds, which would increase the trading volume and the economic activity. In addition, the trading of tokenized assets in secondary markets enhances the liquidity and increases the capital flows[5].

3- **Fractional ownership and broader investment base:** the tokenization of assets provides the investors (regardless of their size) with larger opportunities to diversify their investment portfolios. Tokenization allows for fractional ownership in certain assets including: a share in a company or

[2] (KPV Research Knowledge based value, (2021), "Global Tokenization Market Analysis (2020 - 2026)" https://www.kbvresearch.com/tokenization-market/.CAGR:Compound Annual Growth Rate

[3] (Chen Y. (2018), "Block chain tokens and the potential democratization of entrepreneurship and innovation", Kelly School of Business, 61, 567-575

[4] Laurent P., Chollet T., Burke M. & Seers T. (2020), "Deloitte – The tokenization of assets is disrupting the financial industry. Are you ready", Inside magazine issue 19?

[5] (OECD (2020), The Tokenisation of Assets and Potential Implications for Financial Markets, Blockchain Policy Series

contribution in an investment fund, or real estates ownership; it enables them to realize profits and returns transparently. Tokenization is distinguished in the fact that it is international, and not limited to a certain geographical location. Blockchain tokens are actively traded on digital currency exchanges such as Poloniex, Bitfinex, and Bittrex.

4- **Payment systems protection:** tokenization of assets protects the value of stored data and allows for higher protection compared to encryption. Tokenization can be applied to all data including: credit cards numbers, social security numbers, health records, addresses, personal information, and other sensitive information and data that must be protected in an effective and secure manner. Tokenization supports the innovations in payment systems, as tokenization provides the protection and makes the payment process more feasible and secure. Figure (8-1) illustrates the benefits of tokenization of assets for both the investors and issuers.

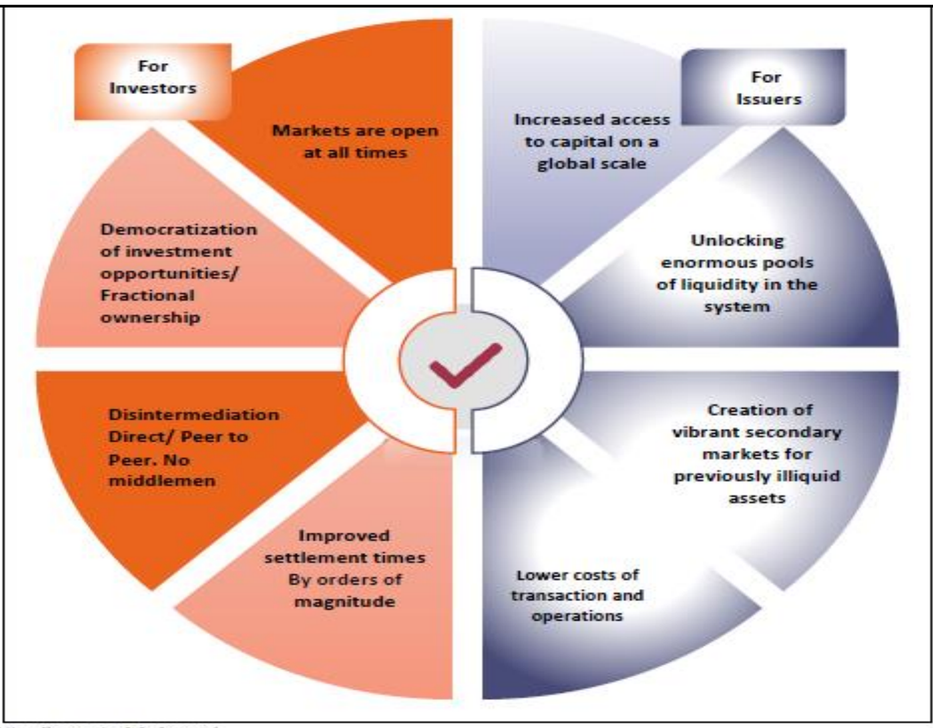
## 8-4 TOKENIZATION OF ASSETS RISKS AND THEIR IMPACT ON THE FINANCIAL STABILITY

Despite the advantages and features the tokenization of assets technology provides, which makes them worthwhile by users, it has some drawbacks and risks that may affect the financial stability because of its direct impact on financial institutions and markets. This is due to the limited use of this technology and limited markets using tokenization currently, therefore tokenization impacts are not clear yet.

Illustrated next are the main drawbacks and risks that may arise from tokenization of assets[6]:

1- **Decentralized finance:** the blockchain technology allows for the electronic means of payments and transferring ownership of digital tokens contracts. Tokenization is decentralized, featured with disintermediation, and is not subject to the

FIGURE 8-1: BENEFITS OF ASSETS TOKENIZATION FOR ISSUERS AND INVESTORS OF TOKENIZED ASSETS




Source: https://www.stoglobalx.com/
"Paving the future of tokenized securities; transforming capital market"

[6] Laurent P., Chollet T., Burke M. & Seers T. (2020), "Deloitte – The tokenization of assets is disrupting the financial industry. Are you ready", Inside magazine issue 19

supervision of any government entity or official authority which made it exposed to the risks of money laundering, terrorist financing, and tax evasion.

2- **Regulatory and supervisory risks:** the tokenization of assets technology lacks the regulatory and legal environment required to regulate the transactions related to tokenization. The main type of these risks is so-called regulatory arbitrage as it is hard to ensure if the supervisory legislations are sufficient to cover all aspects of tokenization. This is particularly difficult because it is a new technology and classification of tokenized assets differs from one country to another. Accordingly, there are several legal deficiencies in laws and regulations related to tokenization, which could be exploited, thus jeopardizing one of the main objectives of these legislations is to maintain financial stability. In addition, non-compliance with related legislations is likely to occur.

3- **Systemic risk:** given the spread of using tokenization by traditional financial institutions, the competitiveness environment in the financial system could be impacted which could increase the non-supervised exposures for financial institutions. Accordingly, these institutions may incur large losses, which may result in contagion risk and reputational risk in the financial system.

In 2019, the IMF indicated that despite the increasing tendency towards the cutting edge digital systems and electronic platforms and their remarkable spread in several countries, the broad use of tokenization of assets might encounter several systemic risks including the credit and liquidity risks. This is including the transformation of liquidity from traditional markets to blockchain-based markets, which will affect the overall financial stability.[7]

4- **Market risk:** these risks arise from the assets price volatility (tokenized assets) including real estates, and securities, which could lead to huge losses for investors.[8] One of the challenges for assets tokenization is the lack of a broad sound infrastructure, besides the absence of sound secondary markets to trade in these assets.

5- **Operational and cyber risks:** one of the key operational and cyber risks associated with assets tokenization that may face the issuers of tokens and trading platforms is the foundation of a sound and stable internet connection all the time. This is in addition to possible wrongly stored trading data entry and tokens that cannot be modified such as the prices of shares and tokens. In addition, they are more vulnerable to fraud and cyber piracy compared to traditional trading transactions. Many digital exchanges try to mitigate these risks through electronic insurance contracts or establishing compensation funds, yet no safety net is available to compensate affected persons such as deposits insurance schemes.

## 8-5 SWOT ANALYSIS

The Asian Development Bank Institute (ADBI) issued a study in 2020, whereby a SWOT analysis was conducted for assets tokenization. The following table illustrate the major results in the analysis[9]:

[7] Cuervo C., Morozova A. & Sugimoto N. (2019) , “Regulation of Crypto assets-Fintech Note”, International Monetary Fund IMF ,NOTE/19/03

[8] Chen Y. (2018), “ Block chain tokens and the potential democratization of entrepreneurship and innovation”, Kelly School of Business, 61, 567-575

[9] Schletz M., Nassiry D. and Kyoon Lee M. (2020), “Blockchain and Tokenized Securities: The Potential for Green Finance. ADBI Working Paper 1079. Tokyo: Asian Development Bank Institute. Available: https://www.adb.org/publications/blockchain-tokenized-securitiespotential-green-finance

TABLE 8-1: SWOT ANALYSIS FOR THE ASSETS TOKENIZATION TECHNOLOGY

| Strengths | Weaknesses |
|---|---|
| • Transparency, traceability, and immutability.<br>• Efficiency through smart contracts and reduced transaction cost. | • Decentralization and disintermediation.<br>• Weak regulatory and legal environment.<br>• Users experience in assets tokenization is limited.<br>• Nascent technology, understanding, and awareness |
| **Opportunities** | **Threats** |
| • Increasing investment flow and investment opportunities through new and small investors.<br>• Integration of other emerging technologies.<br>• Providing liquidity and support fractional ownership.<br>• An alternative financial infrastructure.<br>• Greater flexibility for SMEs to raise funds. | • Stalling progress on addressing the weaknesses.<br>• Regulatory uncertainty and potential prohibition. |

## 8-6 TOKENIZATION OF ASSETS IN DIFFERENT SECTORS

Tokenization of assets is gaining an increasing importance as a revolutionary means to create investment alternatives applicable to different sectors to raise funds and provide the required liquidity. The next section elaborates on the impact of tokenization on certain sectors:

### 8-6-1 FIRST: THE FINANCIAL MARKETS SECTOR

The financial markets sector is significantly expected to be affected by tokenization of assets, as tokenization in financial markets is conducted through representing financial securities (shares and bonds) with tokens that made them tradable with disintermediation (decentralized). The tokenization enhances the transparency and security of transactions by storing and keeping immutable data (the tokens ownership, conducting contracts, clearing, and settlements procedures) through the DLT.

The OECD highlighted in its 2020 report[10] that tokenization plays a vital role in financial markets, as it facilitates and accelerates the clearing and settlements transactions as well as enhancing the efficiency of capital. However, it is necessary to put in place the regulatory and legal frameworks in tokenization markets to enhance the efficiency and integrity of markets, which will support the financial stability. The OECD also indicated that the international trading of tokens requires a wide-range of international coordination to facilitate tokens trading among markets.

Tokenization provides financial markets with several additional features as it upgrades the financial markets infrastructure, and treats the drawbacks of traditional systems such as enhancing the operational efficiency, reducing the time and effort for trading transactions, and reducing information asymmetry. This improves the pricing process, which encourages investors to invest more, provides additional liquidity, and enhances the competitiveness in markets.

One of the prominent practices of tokenization in financial markets is the World Bank's experience in 2018. The World Bank legally issued and traded blockchain tokenized debt bonds through the DLT. Within two years, the investments in these bonds reached US$ 110 million. The World Bank authorized the CBA Australian bank to develop and create a licensed electronic platform to issue tokens for bonds and manage the payment and settlements transactions. Societe Generale also issued US$ 100 million covered bonds tokens listed in the blockchain platform, which was rated AAA according to Fitch and Moody's agencies. In Switzerland, SIX exchange, in 2019, put in place an integrated and

[10] OECD (2020), The Tokenisation of Assets and Potential Implications for Financial Markets, www.oecd.org/finance/The-Tokenisation-of-Assets-and-PotentialImplications-for-Financial-Markets.

developed infrastructure to trade tokenized assets and tokenized securities, as well as transforming currencies traded in markets into tradable tokens in SIX.

### 8-6-2 SECOND: THE REAL ESTATE SECTOR

The tokenization of assets technology is particularly beneficial for the real estate sector, through the fractional ownership of a real estate. The blockchain technology tokenizes the real estates by converting the ownership into different shares; each token represents a determined share in the real estate, which creates investment opportunities for investors especially for small ones. It facilitates the access of small investors to real estate investments via digital tokens tradable in different exchanges. Tokenization enhances the liquidity of real estate while reducing the cost of administrative transactions.[11]

Examples of real estate tokenization are the US$ 30 million real estate tokenization by Fluidity and Propeller companies in 2018. In addition, CRE Red Swan in Texas succeeded in tokenizing around US$ 2.2 billion in the real estate sector in cooperation with the Polymath digital tokens company; it involved the commitment of 30 thousand investors in its investment. The company is intended to tokenize additional US$ 4 billion in the real estate sector.[12] In Russia, new amendments in the Civil Law in 2019 permit the tokenization of real estate ownership and the issuance of preferred equity-based tokens and conducting the transactions legally. Meanwhile, in France, the first real estate tokenization took place in June 2019, as the real estate AnnA Villa was tokenized and owned by 17 investors through an investment platform called Equisafe. The real estate was tokenized into 100 shares or tokens through the blockchain in accordance with the legal requirements for securities.

### 8-6-3 THIRD: COMMODITIES MARKETS/ OIL AND METALS[13]

Tokenization of assets is applied on commodities in different ways. Gold tokenization is conducted through creating special electronic marks or tokens that cannot be manipulated to track the sales and purchase transactions. Due to the repercussions of COVID-19 crisis, several companies embarked on the diversification of their businesses such as distributing alternative digital gold currencies as Aurus Technological Ltd in the UK did. It launched the marketing for a new digital product AurusGOLD (AWG) that facilitates the fractional ownership in Gold for investors. In addition, in Russia, PJSC-Nornickle Company obtained the Central bank of Russia's approval for tokenizing major metals. In 2020, the Global Palladium Fund, which was established by the company issued the first preferred tokens that represent high-quality major metals (such as gold, platinum, copper, and nickel). This is through the Atomyze international tokenization platform, supported by a group of large international investors in digital tokens.

### 8-6-4 FOURTH: THE GOVERNEMENT SECTOR

The government sector is amongst the sectors that is expected to benefit from tokenization of assets. The Central Banks Digital Currencies (CBDC) are gaining the attention of several central banks worldwide. The CBDCs are used as means of payment and settlement for local and international transactions, which will enhance and improve the efficiency of digital government

[11] KPMG, Real Estate Tokenization, Hong Kong , Colliers International file:///C:/Users/english4/Downloads/real-estate-tokenization.pdf

[12] How Tokenization of Real-World Assets Will Revolutionize Markets, 2020, https://www.elev8con.com/how-tokenization-of-real-world-assets-will-revolutionize-markets/

[13] Tokenization and Digital Asset, November (2020), A Transformative Approach towards Investments, Dubai Future Foundation. Fourth Industrial Revolution Centre Survey – United Arab Emirates.

financial services provided to the public. With the development of tokenization of assets, governments can issue tokens that represent new sovereign debts, or through restructuring outstanding debts by tokenization or replacing them with digital tokens.

The CBDCs or Stablecoins tokenization is essential in the blockchain-based payment and settlement systems. In Singapore, the Ubin project was initiated to issue preferred tokens as a group of banks with the support of the Monetary Authority of Singapore (MAS) developed and adopted a blockchain-based payment system, which enables investors to trade currencies and represent the Singapore Dollar in tokens. This contributed in facilitating the interbank debt settlements.

## 8-7 THE REGULATORY AND SUPERVISORY FRAMEWORK

The tokenization of assets technology is still lacking the proper regulatory and supervisory environment, yet some international entities and organizations started to react accordingly. For example, in June 2021, Basel Committee issued a consultation paper that includes the standards and conditions for dealing with tokenized assets and the risks associated thereof. It stressed out that these assets shall be subject to the same capital and liquidity requirements for other assets. It is also essential to consider among these requirements the additional risks that may arise from the crypto assets and tokenized assets especially the cyber risks.[14]

Further, the European Union provided suggestions for putting in place a regulatory framework for crypto assets and tokenization. Weak regulatory and legal environment is considered a major obstacle that dampen their development, their continuity, and the protection for investors dealing with such assets. It is also necessary to contain the potential risks that may affect the financial stability.[15] With respect to the CBJ, it prohibited dealing with cryptocurrencies through the circulars issued to banks and financial institutions under its supervision. The CBJ is keen on keeping abreast with the latest technologies; however, potential systemic risks may arise from dealing with crypto assets and cryptocurrencies though the blockchain technology, and could jeopardize the financial sector and the financial stability in general. The CBJ did not issue any regulations or requirements regarding the tokenization of assets technology yet, as they are not existing yet in Jordan.

## 8-8 COUNTRIES EXPERIENCES IN TOKENIZATION

1- **Japan:** the Lead Real Estate tokenized capital raising fund to establish residential houses and hotels in public areas in Japan. Several securities were tokenized, after regulating tokenized securities by amending the “Financial Instruments and Exchange Act” in Japan in 2019, which came into force on May 1, 2020.

2- **Estonia:** initiated a new platform for tokenized securities offerings (TokenizEU). The platform currently conducts projects and assists in setting the prices offered for tokenized securities in Estonia, Switzerland, Malta, Liechtenstein, Luxemburg, and Netherlands.

3- **Malta:** in 2018, the Malta exchange (LXDX) which is an exchange for trading cryptocurrencies, announced a plan for tokenized securities offerings. Security measures were taken to ensure the soundness and efficiency of new tokens.

4- **Switzerland:** Mt Pelerin Group SA1 was one of the first companies in the financial services sector that issued all of its shares in tokens.

5- **Brazil:** the largest investment bank in South

[14] Basel Committee on Banking Supervision, BIS, “Prudential treatments of crypto assets exposures”, June 2021, issued for comment by 10 Sep. 2021, ISBN 978-92-9259-480-0 (online).

[15] Unrug W., (2020), “The future of assets tokenization is in regulators’ hands”, Securities services. http://securities.cib.bnpparibas/the-future-of-assets-tokenization-is-in-regulatos-hands/

America BTG Pactual launched ReitBZ the first tokenized real estate investment fund in 2019. It aims to enhance the access to Brazilian real estate in Urban areas in Rio De Janeiro and Sao Paulo. This fund is a promising investment opportunity that was unattainable previously for small investors, in particular those living outside Latin American markets.

6- **France:** Banque de France conducted a successful pilot using a cryptocurrency issued by Banque de France to settle the issuance of tokenized government bonds. The blockchain technology was used to issue bonds and track the secondary market transactions. The cryptocurrency of the Banque de France was used in conducting cash settlements. Banque de France monitored the trading of the tokens of the currency to ensure its transfer in tandem with the transferring bonds tokens to the investor's portfolio.

7- **UAE:** the real estate Chain in UAE, which is the main operator of the real estate crowdfunding organized by Dubai Authority for financial services in Dubai international financial center, will soon launch the first local blockchain platform for tokenized real estates. This platform has a specified security criteria, and is consistent with the Islamic Sharia. The crowdfunding tokenization platform adds the democratization of investment through the engagement of small investors in real estate investments in a secure, regulated, and effective manner.

## 8-9 SUMMARY

The tokenization of assets technology is still new and not implemented in Jordan, yet the CBJ opted to discuss this issue because it started to capture great attention as a tool to enhance the infrastructure of different assets markets. However, this technology is applicable to all real estate, commercial, and financial services. It achieves several objectives, including supporting the capital required for investments, providing additional liquidity, and increasing the investors' base; in particular small investors. Accordingly, there is a tendency to use the digital Fintech now such as assets tokenization, especially after the spread of COVID-19 and respective lockdowns. To implement assets tokenization optimally, and to avoid its drawbacks and risks, several aspects need to be considered; mainly the regulatory legislations, which will regulate the tokens-based markets and mitigate the risks thereof, and thus will maintain the stability of the financial system. This is in addition to enhancing the infrastructure required to implement this technology, raising the public awareness regarding using and dealing with this technology, as well as the risks thereto, and enhancing the protection for investors and their funds.