# Kenya Financial Sector Stability Report

July 2022

## ABOUT THE FINANCIAL STABILITY REPORT

The Kenya Financial Stability Reports provide an assessment of the financial sector stability by the Financial Sector Regulators in compliance with the Central Bank of Kenya Act, Section 4(2) and the Financial Sector Regulators Memorandum of Understanding (MOU) of 2009 (Revised in 2013). Maintaining and safeguarding financial sector stability is vital in fostering the development of a vibrant, sound, and stable inclusive financial sector, critical to Kenya's national development aspirations in a sustainable manner.

The Financial Sector Regulators Forum (FSRF) established vide the MOU provides a mechanism for collaboration and cooperation in information sharing, prudential supervision, financial stability and financial inclusion issues, among other areas of mutual interest. The Forum's members are the Capital Markets Authority (CMA), Central Bank of Kenya (CBK), Insurance Regulatory Authority (IRA), Retirement Benefits Authority (RBA) and Sacco Societies Regulatory Authority (SASRA). The National Treasury and Planning, Department of Cooperative Development, Kenya Deposit Insurance Corporation (KDIC) and Insurance Policyholders Compensation Fund (IPHCF) have associate membership status in the Forum.

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CAPITAL MARKETS AUTHORITY
Promoting the Integrity and Growth of the Capital Markets

www.cma.or.ke

The Director,
Policy and Market Development,
Capital Markets Authority
Embankment Plaza, Longonot Road, off Kilimanjaro Avenue, Upper hill
P.O Box 74800 - 00200
NAIROBI, KENYA

Tel: +254 20 2264000/ 2264900 / 2221869
Cell: +254 722 207767

E-mail: corporate@cma.or.ke

BANKI KUU YA KENYA

www.centralbank.go.ke

The Director,
Research Department,
Central Bank of Kenya
Haile Selassie Avenue
P.O Box 60000 – 00200
NAIROBI, KENYA

Tel: +254 20 286 1000, +254 20 286 3000, +254 709 081 000, +254 709 083 000

E-mail: researchstat@centralbank.go.ke

Insurance Regulatory Authority
Bima Bora Kwa Taifa

www.ira.go.ke

Chief Manager,
Policy Research & Development,
Insurance Regulatory Authority
Zep-Re Place, Longonot Road
P.O. Box 43505-0100
NAIROBI, KENYA

Tel: +254 20-4996000/
Toll Free No: 0800724499

E-mail: commins@ira.go.ke

RBA
Retirement Benefits Authority
Safeguarding your retirement benefits.

www.rba.go.ke

Chief Manager,
Research and Strategy Department,
Retirement Benefits Authority
Rahimtulla Tower, Upper Hill Road
P.O. Box 57733 - 00200
NAIROBI, KENYA

Tel: +254 20 2809000
Toll Free No: 0800720300

E-mail: info@rba.go.ke

THE SACCO SOCIETIES REGULATORY AUTHORITY
SASRA
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www.sasra.go.ke

Chief Manager,
Research & Policy Department,
Sacco Societies Regulatory Authority
UAP Old Mutual Tower,
Upper Hill Road,
Upper Hill.
P.O. Box 25089-00100,
NAIROBI, KENYA

Tel: +254 20 2935101

E-mail: info@sasra.go.ke

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# EXECUTIVE SUMMARY

The 2021 Financial Stability Report discusses developments and risks in Kenya's economy and financial sector in the post Coronavirus Disease (COVID–19) pandemic recovery phase, and details how the financial sector has remained resilient. It discusses new developments and risks to the economy and financial sector stability posed by the war in Ukraine and the unfavourable external conditions following global monetary policy tightening to stem rising inflation. The report highlights domestic issues such as potential impact of general elections, drought on Agriculture, and financial inclusion-financial stability nexus through financial health. It outlines some of policy and legal developments as well as innovations in 2021 that are expected to enhance financial sector stability.

The global economy rebounded and grew by 6.1 percent in 2021 from a negative growth of 3.2 percent in 2020 on the backdrop of waning COVID–19 pandemic and accommodative monetary and fiscal policies that supported strong demand. However, global growth is expected to decline to 3.6 percent in 2022. The downside risk to global growth include persistently high inflation in advanced economies on account of the pandemic-induced supply chain disruptions, triggering a faster pace of monetary policy normalization. There are also liquidity and debt concerns especially in  Emerging Market and Developing Economies (EMDEs) and Sub-Saharan African economies that had limited fiscal space, and climate related risks. The war in Ukraine has further disrupted economic recovery and raised stability concerns for global financial sector. There are also direct and indirect exposures of banks, nonbank financial intermediaries, and firms to Ukraine war; commodity market disruptions and increased counterparty risk; risks arising from holding of crypto assets in emerging markets; and cyber-related events. These are potential sources of financial sector vulnerabilities.

Sub Saharan Africa bonds remain under pressure as the external financial conditions tighten, accentuating intense volatility in financial markets and depreciation of local currencies. The Emerging Market Bond Index Global (EMBIG) indicate that financial conditions for African countries had eased, with sovereign bond yields trading on average, below 550 basis points from a high of 900 basis points at the height of COVD-19 pandemic. The yields have since risen, with spreads reaching 1471 basis points in March 2022. The EM&DEs and Sub Saharan African countries may experience significant capital outflows and higher borrowing costs as global interest rates rise further.

Kenya's economy rebounded from a contraction of 0.3 percent in 2020 to grow by 6.8 percent in 2021 on easing of COVID-19 containment measures, successful deployment of monetary, fiscal, and financial policies.  The recovery remains on course, and  is projected to grow by 5.7 percent in 2022. The downside risks to this growth include, the narrow fiscal space that limits the use of fiscal policy to support growth and the vulnerable, rising debt, tightening financial conditions because of monetary policy actions in advanced economies to stem rising inflation, drought and slowdown related to the August 9, 2022, general elections.

Domestic vulnerabilities to growth and uncertainties related to electioneering period may delay investment decisions. In addition, bank-sovereign nexus, elevated credit risks, weak balance sheets for listed corporates and State-Owned Enterprises (SOEs), technology-related risks (cyberattacks and frauds) and corporate governance challenges, remain areas of focus given their potential impact on the economy and financial sector stability. Further deterioration in financial health despite high level of financial inclusion at household level is also an area of focus for policy makers and innovators to minimize any destabilizing effect on financial sector stability.

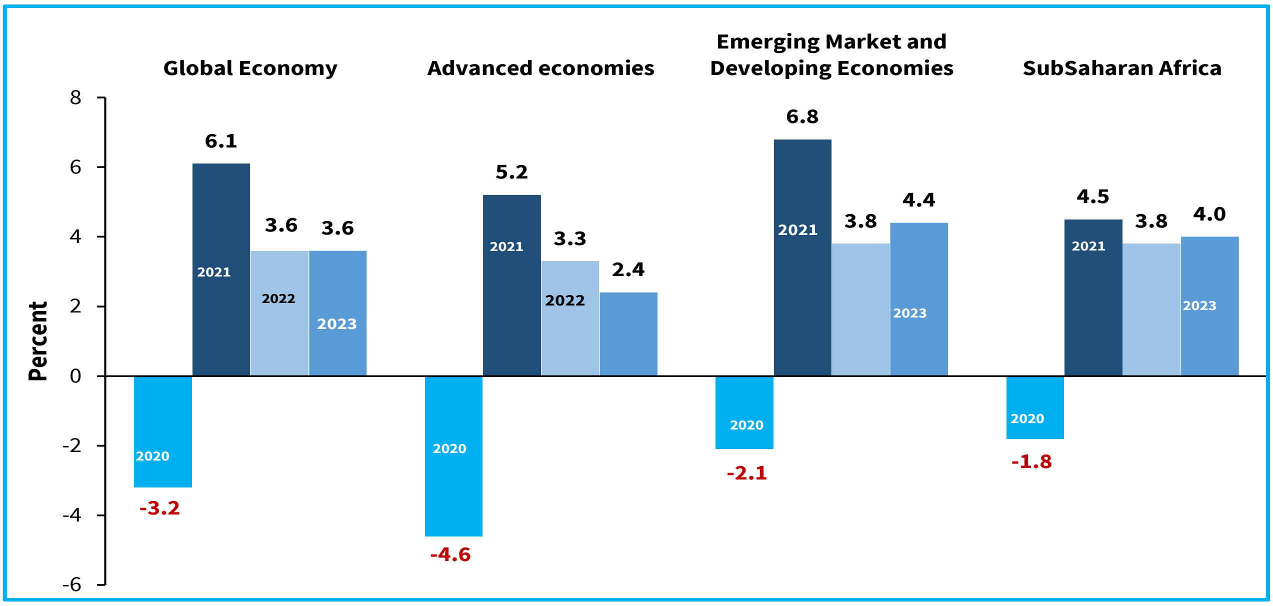
Kenya's financial sector is expected to remain sound and stable in 2022, due to sufficient capital and liquidity buffers, well-coordinated policy reforms and measures, and a robust regulatory oversight. The Central Bank of Kenya (Amendment) Act No 10 of 2021 that brought previously unregulated digital lenders under CBK's regulatory ambit; launch of the National Payments Strategy 2022-2025; enactment of Data Protection Act (2019) to deal with cybersecurity threats and enhance data protection measures; full operationalization of the Credit Guarantee Scheme; enhanced collaboration on cyber security threats; operationalisation of non-withdrawable deposit taking SACCO regulations 2020, in 2021, among other surveillance measures are expected to enhance stability and resilience. These are complemented by monetary and financial policy measures.

# 1. ECONOMIC AND FINANCIAL CONDITIONS

## 1.1 Global Conditions and Risks

**The global economy recovered in 2021, to grow by 6.1 percent following easing of COVID-19 restrictions (WEO, April 2022).** This followed accelerated rollout and uptake of vaccines that reduced infections and severity of symptoms. This was complemented by fiscal, monetary, and financial policies deployed to mitigate the impact of COVID-19 pandemic. Global growth was driven by 5.2 percent expansion in advanced economies, 6.8 percent growth for Emerging Market and Developing Economies (EMDEs) and 4.5 percent growth for Sub-Saharan Africa **(Figure 1).**

**Figure 1: Global Growth Projections**

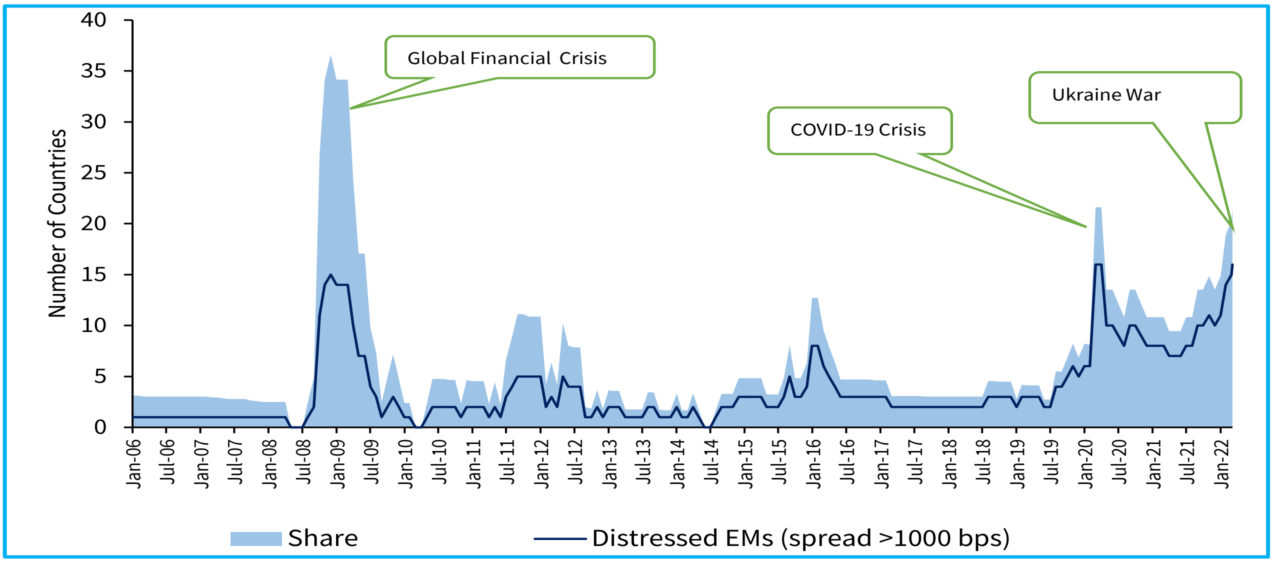



*Source:IMF WEO, April 2022*

**The downside risks to the global growth in 2022** include the sturbbonly high inflation on account of pandemic-induced supply-demand mismatches, triggering a faster pace of monetary policy normalization in advanced economies; slow pace of global vaccine access; liquidity and debt concerns especially in EMDEs and Sub-Saharan African countries with limited fiscal space; food and energy crises, and climate related risks. The war in Ukraine has disrupted economic recovery and raises stability concerns in the global financial markets following sanctions imposed by the West.

Direct and indirect exposures of banks, nonbank financial intermediaries (insurance companies), and firms to Ukraine war; commodity market disruptions and increased counterparty risk; cryptoization in emerging markets; and cyber-related events, present a perfect storm for financial vulnerabilities. These, together with monetary policy tightening, have left emerging and frontier markets faced with tighter financial conditions and a higher probability of portfolio outflows (April 2022 GFSR). Continued stress in the property sector and COVID-19 resurgence in China, further accentuated vulnerabilities in the global financial system. Indeed, emerging market (EM) hard currency yields rose sharply to the levels seen early 2020, with the number of countries trading at distressed levels surging to about 25 percent of issuers, exceeding pandemic-peak levels – above 1,000 bps **(Figure 2)**.

**Figure 2:Distressed Sovereign Hard Currency Issuers (countries with spreads > 1,000 bps; share of total)**

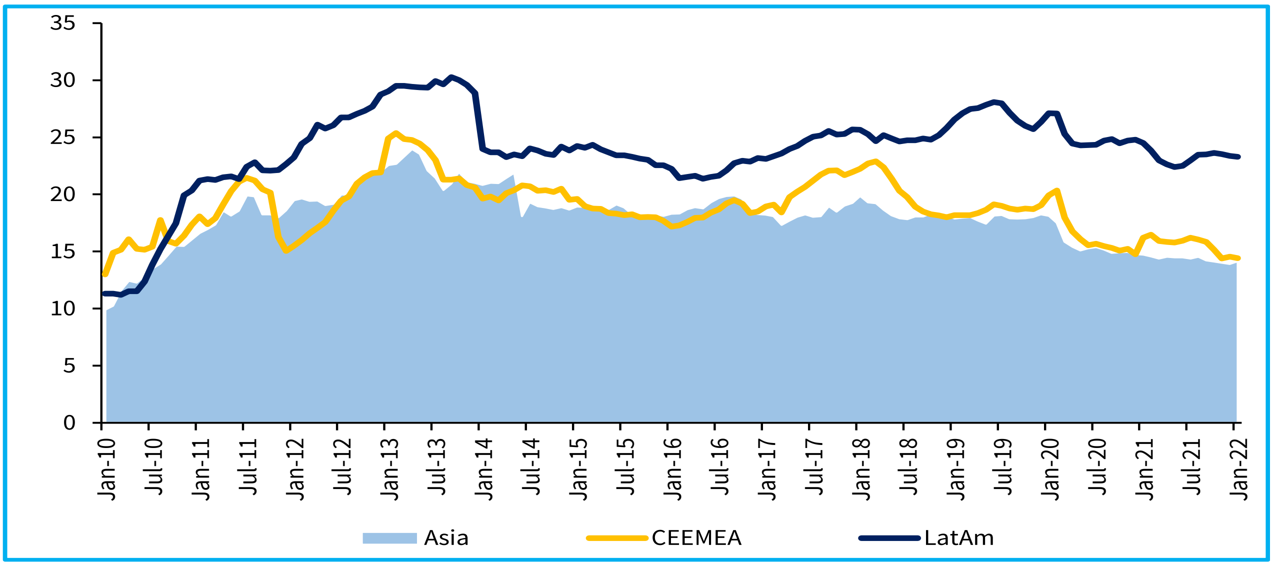



*Source: IMF GFSR April 2022*

***EMs*** *– Emerging Markets* ***bps*** *– basis points*

Tight external financial conditions in response to faster pace of monetary policy normalization in advanced economies and geopolitical uncertainty continue to impact global spreads and the US yields. This has put upward pressure on financing costs above the pre-pandemic levels for many borrowers, especially for the EMDEs. It has further raised the downside risks of portfolio flows, especially for local currency bonds and equities. Portfolio flows recovered in early 2022 but came under renewed pressure, with foreign holdings of local currency debt closing in at multiyear lows for several regions **(Figure 3).**

**Figure 3: Foreign Share of Local Currency Bonds (Percent)**



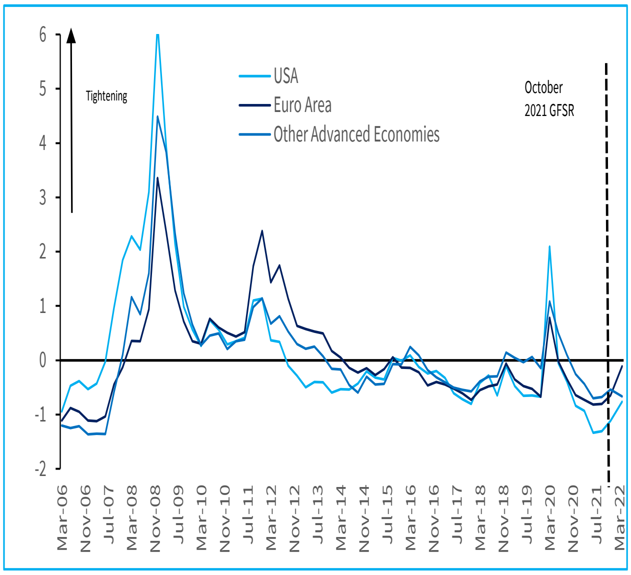

*Source:IMF GFSR, April 2022*

***Notes****: LatAm = Latin America; CEEMEA = Central and Eastern Europe, Middle East and Africa*

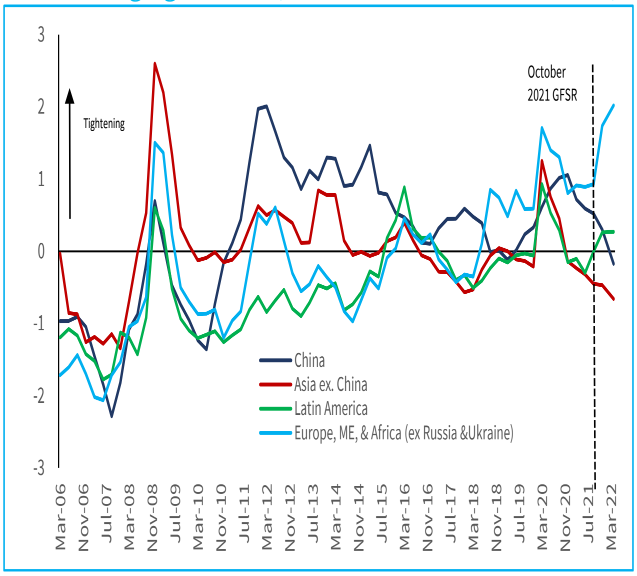
Overall, global financial conditions which have been accommodative since the historical highs during the 2008 Global Financial Crisis**,** have since changed following the monetary policy tightening in advanced countries. Thus has led to tight global financial conditions, with EM&DEs most affected **(Figure 4.a).** As a result, external borrowing costs and local currency rates increased significantly, especially for Eastern Europe and the Middle East countries with close ties to Russia **(Figure 4.b).** Other EMDEs also face higher interest rates, lower equity valuations, and higher external borrowing costs. China's conditions have however eased following additional policy support to offset economic slowdown, partly due to strains faced by property developers and COVID-19 resurgence. The EMDEs and Sub-Saharan regions are most affected by the tightening financial conditions **(Figure 4)**.

**Figure 4: Trends in Financial Conditions**

4.a: Advanced Economies (Std deviations from the mean)



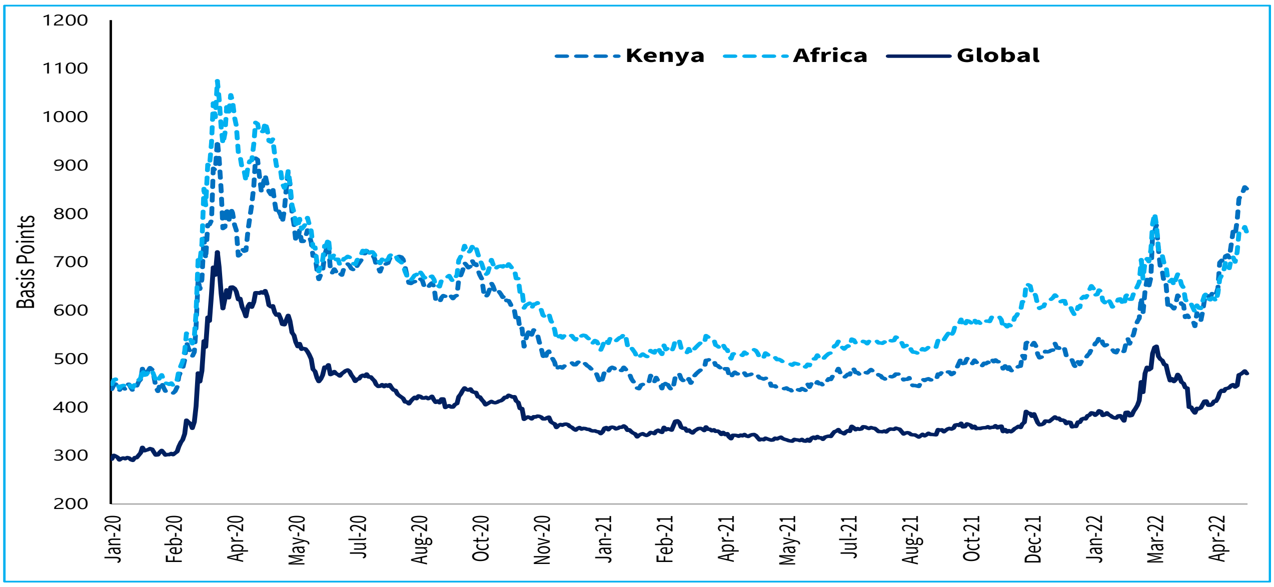

4.b: Emerging Markets (Std deviations from the mean)




*Source: IMF GFSR, April 2022*

**Sub Saharan African bond markets remain under pressure as the external financial conditions tighten (Figure 5).**

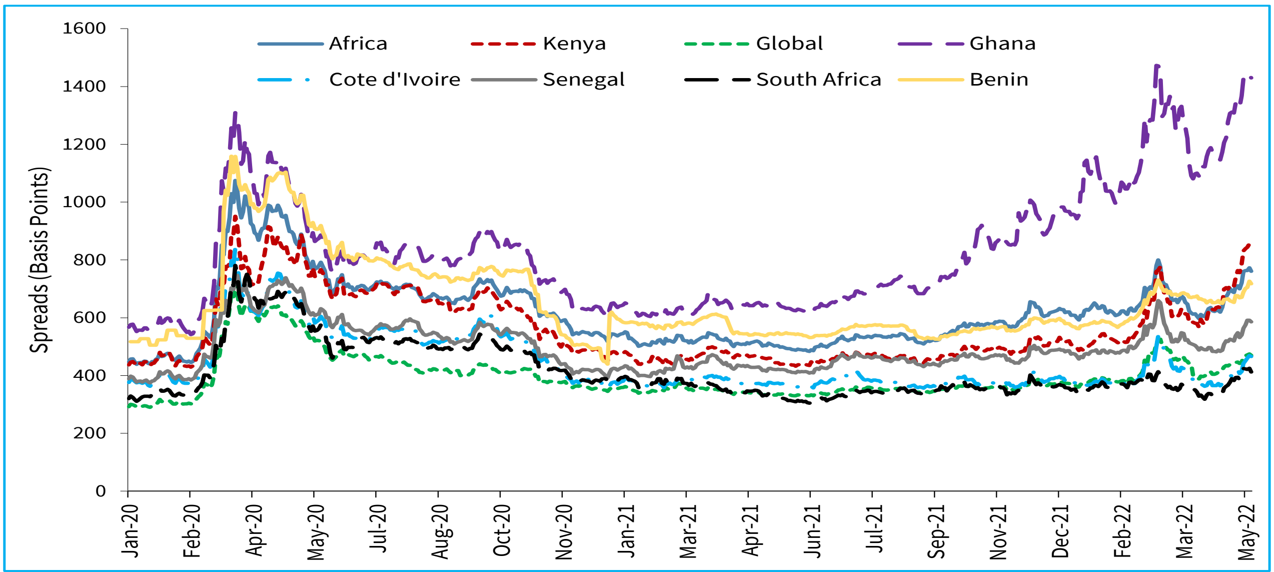
**Figure 5: EMBIG: Kenya Vs Africa and Global Spreads**




*Source: Bloomberg and CBK Staff Computations*

The J.P. Morgan Emerging Market Bond Index Global (EMBIG) indicates that financial conditions for African countries averaged below 550 bps from a high of 900 bps at the height of COVD-19. The trend reversed in the first half of 2022 due to emerging risks **(Figure 6)**. The continent's sovereign spreads have averaged way above the global index, reflecting the elevated risks to its sovereigns because of global developments and country-specific vulnerabilities. Ghana's sovereign yield spread remains the most volatile since the third quarter of 2021. The J.P. Morgan EMBIG Ghana Sovereign Spread maintained a weekly average increase of above 700 basis points since August 2021.It reached a peak of 1471 basis points on March 7, 2022, way above a high of 1295 basis points on March 24, 2020, at the onset of COVID-19 crisis. Kenya's Emerging Market Bond Index Global (EMBIG) diversified spread overshot the African continent's level in the second quarter of 2022. South Africa and Cote d'Ivoire are the only African countries in EMBIG, whose yield spread averaged below 500 bps since third quarter of 2020, reflecting low pressure on their yields.

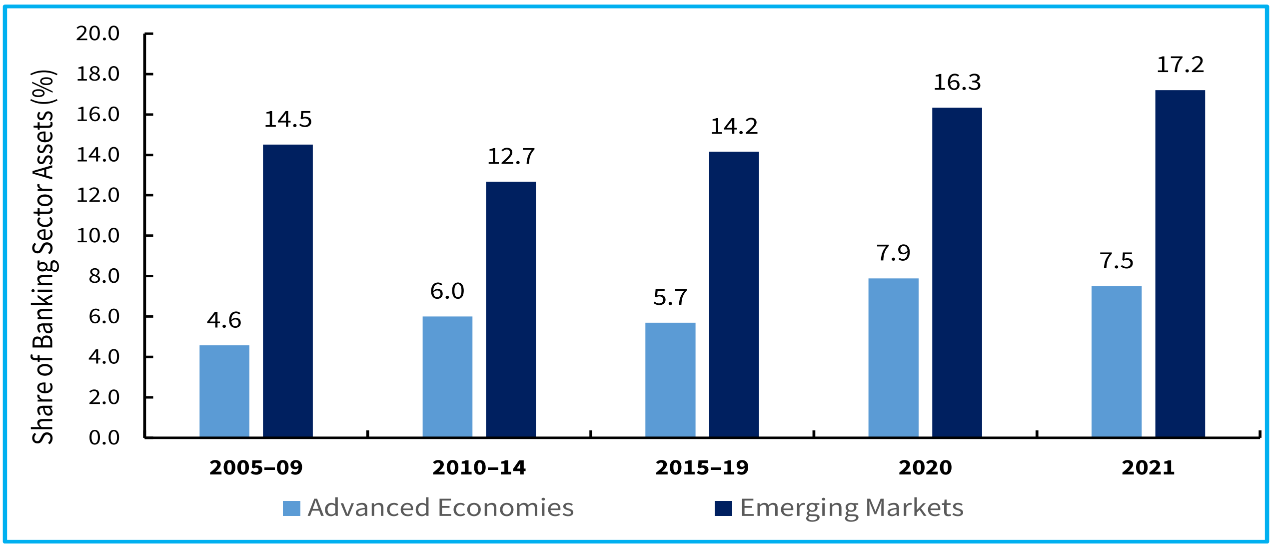
**Figure 6: EMBIG Spreads for Select African Countries**




*Source: Staff Computation from Bloomberg data.*

**At country level, local banks have accumulated government securities faster, indicating the role played in financing public spending to cushion households and firms during the impact of COVID-19 pandemic (Figure 7).** Increased purchase of government securities for EMs in 2021 may also be attributed to flight to safety as lending to private sector became riskier. However, this increases the exposure of domestic banks to sovereigns (government). For instance banks incur valuation losses if the issuer (sovreign) is in debt distress. This has potential to reduce bank soundness in terms of profitability, increased provisioning, and reduced lending to the economy.

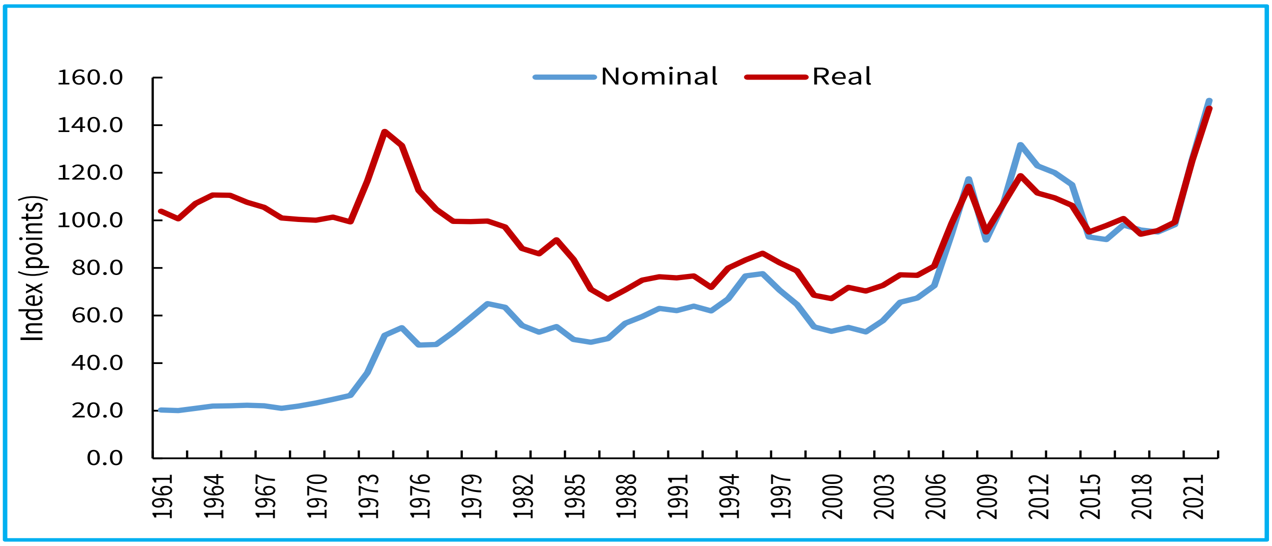
### Figure 7: Bank-Sovereign Debt Exposure, 2005–2021 (Percent)




*Source: IMF GFSR, April 2022*

Global supply chain disruptions, sanctions, and limited access to cross-border payment systems following Ukraine war, negatively impacted trade flows, driving energy and food prices up. **Prices of agricultural commodities, especially wheat and corn rose significantly, exacerbating the soaring prices of staple foods (Figure 8).**

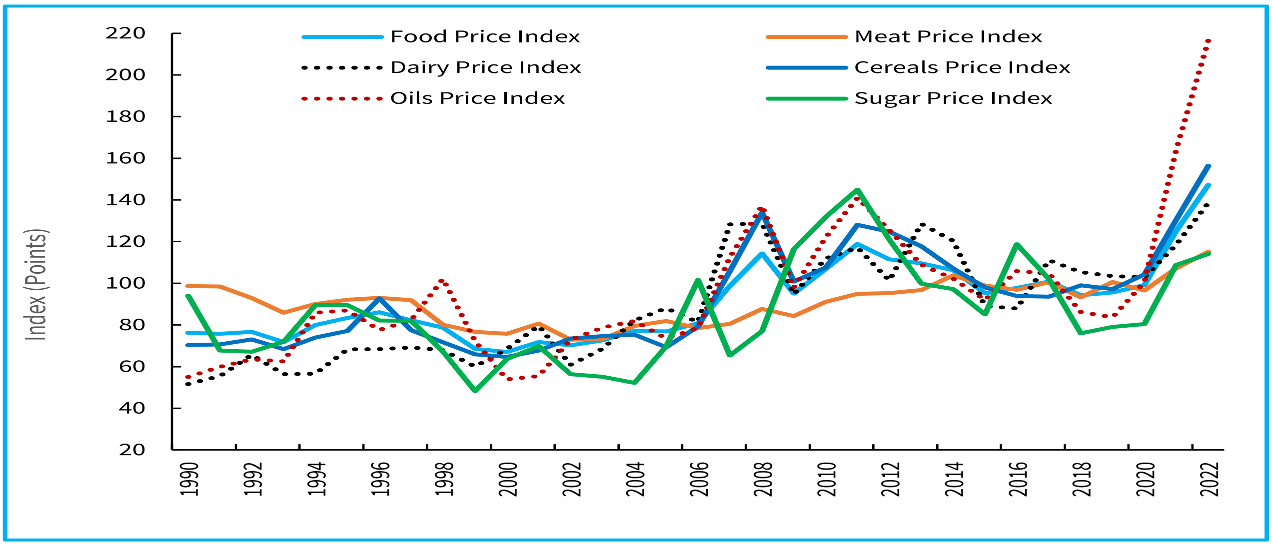
### Figure 8: FAO Food Price Index (2014-2016 = 100)




*Source: FAO*

Disruptions of fertilizer exports from the region (Belarus, Ukraine, and Russia) have elevated fertilizer prices in Africa affecting agricultural production, exacerbating food price increases globally and food insecurity. According to Food and Agriculture Organization (FAO), the reduced supplies and market uncertainty, especially for wheat, maize, and barley, and rising energy and input prices, is expected to contribute to elevated cereal prices, through the first half of the 2022/23 season. The sugar and dairy price indices are also on the rise, as cereals form a major component of dairy feeds production. Demand rationing and removal of Indonesia's export ban on palm oil exerted downward pressure on prices in the second quarter of 2022. However, a surge in global prices of oils and cereals are driving the rising global food index **(Figure 9).**

**Figure 9: Annual Real FAO Food Price Indices (2014-2016 = 100)**




*Source: https://www.fao.org/worldfoodsituation/foodpricesindex/en/*

Shortages of metal exports from Russia, such as palladium and nickel, contributed to increased cost of catalytic converters, batteries as well as base metal. Base metal such as iron and copper are key to construction sector. In addition, the war has contributed to shortages in the supply of clinker, a critical ingredient for cement manufacturing. These have not only contributed to delays in completing ongoing projects but have also led to delays in starting new projects, due to sharp increase in cost of materials. The impact of elevated commodity and energy prices is affecting banking sector assets quality, insurance and pension sector returns on assets, labour markets as well as other sectors of the economy through interconnectedness.

**Overall, risks to the global economy and financial sector are tilted to the downside.** The Ukraine war, high inflation in advanced economies, resurgence in COVID-19 in China in first quarter of 2022 and impact of external conditions tightening on EMDEs have significantly altered the global economic recovery trajectory and pose new round of uncertainties to the financial sector. Supply chain disruptions arising from the war in Ukraine and sanctions imposed by the West, have escalated global food, energy and commodity prices, heightening inflationary pressures. Strong response to stem these pressures by monetary policy authorities have negative consequences on vulnerable countries, especially for EMDEs and Sub-Saharan African countries. These countries face huge borrowing costs, worsening debt problem and may find it difficult to access international capital markets at affordable rates. Increased capital outflows in these regions as global interest rates rise, are expected to increase volatility in financial markets and pressure on exchange rates.

**Globally, the banking sector weathered the COVID-19 pandemic, supported by strong policies, enhanced supervisory standards and economic recovery in 2021, but face new risks.** Demand for bank credit has recovered in tandem with economic recovery, albeit sluggish growth in loans in some countries. The sector remains profitable and holds sufficient liquidity and capital buffers. Increased holding of government securities by banks, especially in EMDEs raises concerns about risks of sovereign–bank nexus. This may crowd–out private sector credit growth, especially in countries with shallow financial markets.

Geopolitical tensions that are likely to fuel cybecrime concerns require incorporation of cyber risk into financial stability analysis to help regulators and supervisors assess the risk exposure appropriately for appropriate responses including adequate recovery capacity to restore operations quickly if an attack occurs. Enhancing information-sharing and incident reporting frameworks and helping emerging market economies build cybersecurity capacity are key to ensuring infrastructure resilience.

**The Sub-Saharan countries exposed to international capital markets face elevated market risks.** The rapid increase in interest rates globally following the tightening of monetary policy rates in succession by advanced economies has introduced market risks concerns. Yields on Eurobonds issued by most of the African countries have increased by more than 500 basis points in the recent past, driving borrowing costs high and limiting access international capital markets. Local currency exchange rates have also depreciated sharply for several countries and continue to experience intense volatility as foreign exchange reserves dwindle. Capital markets have also recorded significant outflows in equities and bond sales, with foreign investors concentrating on the sale side to cut losses. There are also concerns with imported inflation as energy prices, commodity prices and prices of imports continue to soar.

**In the East African Community (EAC) region, the pace of economic recovery from the COVID-19 pandemic continue to face threats from high food and energy prices.** These have caused inflation concerns and introduced volatility in the foreign exchange markets across the regional economies. High food and energy prices have also impacted many households negatively. With the limited fiscal scope facing the EAC countries, it is a challenge to mitigate the impact of high prices of essential commodities affecting the most vulnerable groups.

Inflationary pressures have triggered central banks to tighten monetary policies in the region. This presents a policy dilemma between pursuing accommodative monetary policies to support and sustain economic recovery or tighten to stem inflation. Partner States that are unwinding the measures and tightening monetary policy may not only slowdown the recovery, but also weaken the financial sector through increased credit risk.

**The banking sector in the EAC remains stable and resilient, albeit emerging regional and global risks.** It maintained steady credit flow to the private sector and held sufficient capital in 2021. The sector had adequate liquidity, with ratios way above the regulatory minimum. Most banks in the region also recorded strong earnings in 2021 compared with 2020. This strong performance follows successful monetary and financial measures implemented by authorities to stem the negative impact of COVID-19 pandemic.

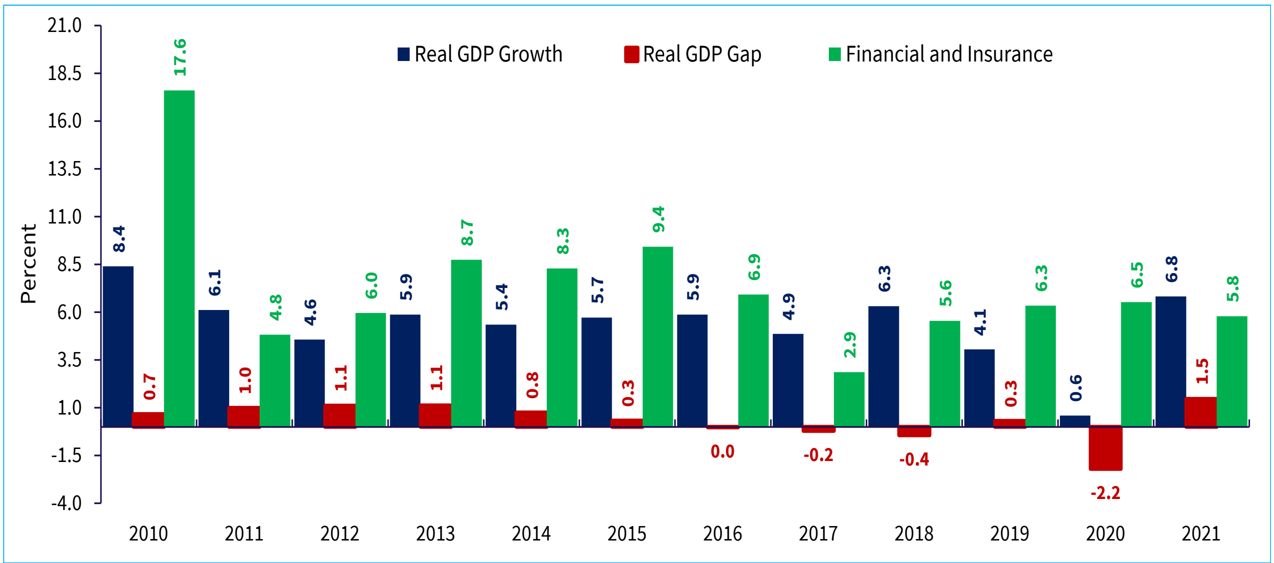
The sector however faces elevated credit risks. The first half of 2022 recorded increased NPLs ratios for banks in Rwanda, Uganda, Kenya, Burundi, and South Sudan, while NPLs ratio for banks in Tanzania declined. Raising policy rates to stem inflation is expected to push up interest rates higher, leading to high borrowing costs and in turn, higher NPLs. Banks in the region also increased investment in government securities and tightened lending standards to minimise credit risk. This, together, with increased lending to state owned enterprises, may escalate sovereign exposures, with consequent liquidity and credit risks. Participation by all EAC countries in the Debt Services Suspension Initiative (DSSI) by the G20 countries eased fiscal pressures to governments, creating room for fiscal policy to support growth and deal with financial strains affecting SOEs that would otherwise impact banking sector stability. There is also concern about rising concentration risk as a result of banks holding most of their assets in government securities and lending to a few sectors of the economy. Enhanced supervisory standards and appropriate policy measures are necessary to mitigate these risks and maintain financial sector stability.

**Overall, a careful policy balancing between stemming inflation through tightening policy rates and maintaining accommodative monetary policy is needed for sustained economic recovery and financial stability.** Emerging markets remain vulnerable to a disorderly tightening of global financial conditions. Many central banks have already tightened their policy rates. However, further rate increases, should continue but consider country-specific inflation and economic outlook. In addition, fiscal prudence is required, especially in economies with high inflation, high debt level and tightening financial condition. However, fiscal support is needed for segments of the population and firms affected severely by the higher commodity prices and in the sectors where recovery was already weaker. Therefore, striking a balance between containing vulnerabilities and avoiding procyclicality is important given the uncertainties on economic prospects.

## 1.2 Domestic Economic Conditions and Risks

The Kenyan economy recovered from COVID-19 pandemic in 2021, following easing of restrictions that enabled full reopening of economic activities. The economy rebounded from a contraction of 0.3 percent in 2020 to grow by 6.8 percent in 2021. Besides the easing of COVID-19 containment measures, successful deployment of monetary, fiscal, and financial policies, not only played a stabilising role, but they also provided a conducive environment for economic recovery. The recovery remains on course, having weathered the Omicron variant in the fourth quarter of 2021, successful vaccination, and enhanced adherence to the COVID-19 protocols. The economy is projected to grow by 5.7 percent in 2022 **(Figure 10).**

**Figure 10: Kenya's Economic Performance**

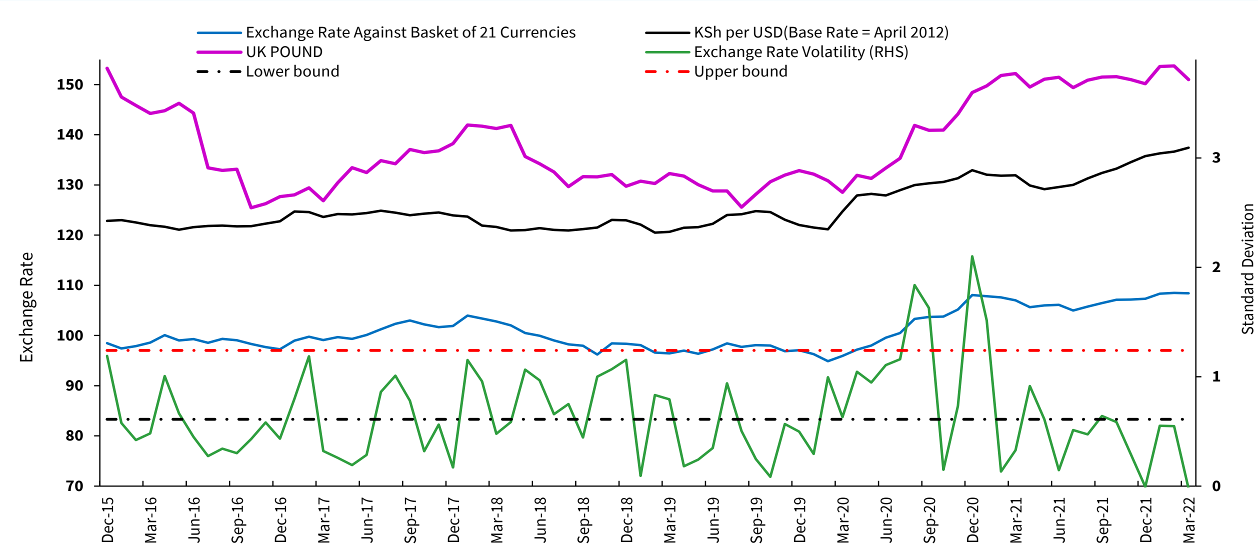



*Source: CBK*

**There are, however, both local and global downside risks to the 2022 and 2023 growth projection.** For instance, a possible resurgence and/or emergence of COVID-19 virus mutation could trigger re-introduction of new measures/restrictions to curb the spread; slow credit uptake during electioneering period, and/or banks tightening lending standards; tight cashflow and loan default by corporates; drought shock to Agriculture, are the main sources of domestic risks to growth. Global sources of fragilities include the Ukraine war that has impacted energy and commodity prices, and elevated global inflation prompting faster than anticipated monetary policy tightening that has driven interest rates up, with implications on the debt services, exchange rate and capital outflow from domestic economy. The Ukraine war has constrained supply of fertilizers, making it difficult for farmers to access the inputs at the right time in large quantities for planting season. In addition, fertiliser prices have more than doubled in the first quarter of 2022, making inputs beyond the farmers' reach. This is expected to reduce agricultural output in 2022. Other commodities such as oils, clinker, base metals, among others, are in short supply, pushing prices of finished goods way up. Construction sector has been affected significantly, with price of cement, steel, and iron sheets, rising significantly.

**The Kenya Shilling came under pressure from second quarter of 2020, but volatility declined by first quarter of 2021 as COVID-19 restrictions eased, paving way for economic recovery.** However, the local currency has depreciated gradually overtime against major international and regional currencies, into the first half of 2022, on account of domestic and global developments **(Figure 11).**

## Figure 11: Kenya Shilling Exchange Rate




*Source: Staff computations*

The recovery of exports in tandem with growth in Kenya's export destinations, resolution of Ukraine war, diaspora remittances, prudent monetary policy and stable import bill are expected to enhance stability of local currency.

**Credit to the private sector recorded double digit growth for the first time in the first quarter of 2022 in close to five years.** This reflects change in law that reversed interest rates controls in November 2019, economic recovery following easing of COVID-19 restrictions, and conducive policy environment. The economic sectors most attractive to lenders included manufacturing, Trade, Households, Transport & Communications, and Real Estate **(Table 1).**

## Table 1: Credit to Private Sector Annual Growth Rate

| | Shares in credit June-22 | 12-month growth in Private Sector Credit (%) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Sectors** | | **Dec-20** | **Mar-21** | **Jun-21** | **Sep-21** | **Dec-21** | **Mar-22** | **Jun-22** |
| Agriculture | **3.2** | 15.3 | 12.3 | 3.7 | 3.3 | 0.5 | 7.7 | 12.5 |
| Manufacturing | **15.2** | 12.0 | 10.7 | 8.1 | 9.8 | 13.1 | 9.9 | 15.2 |
| Trade | **17.1** | 3.8 | 2.1 | 1.9 | 4.7 | 8.5 | 10.4 | 11.6 |
| o/w domestic trade | **15.5** | 5.6 | 4.2 | 1.5 | 4.4 | 8.4 | 9.6 | 12.8 |
| Building & construction | **4.1** | 3.4 | 2.9 | 2.0 | 0.5 | 1.9 | 6.4 | 13.9 |
| Transport & communication | **8.4** | 13.6 | 17.4 | 11.8 | 10.9 | 14.3 | 25.0 | 22.2 |
| Finance and insurance | **3.5** | 7.1 | 7.5 | 11.5 | 11.7 | 5.8 | 3.6 | 6.5 |
| Real estate | **12.7** | 8.7 | 7.7 | 4.0 | 2.9 | 0.6 | 0.5 | 0.5 |
| Mining & quarrying | **0.5** | -12.90 | -3.6 | -13.0 | -8.4 | 42.9 | -4.9 | 28.5 |
| Private households | **14.9** | 3.9 | 2.9 | 3.2 | 2.6 | 3.7 | 7.5 | 6.1 |
| Consumer durables | **11.0** | 18.1 | 17.6 | 23.4 | 17.6 | 15.0 | 15.6 | 14.7 |
| Business services | **5.7** | 4.0 | 5.7 | 5.2 | 7.6 | 9.5 | 14.7 | 15.2 |
| Other activities | **3.7** | 14.0 | 5.2 | 65.2 | 59.5 | 38.9 | 60.5 | 57.2 |
| **Total Private Sector Credit** | **100.0** | **8.4** | **7.7** | **7.7** | **7.7** | **8.6** | **10.9** | **12.3** |

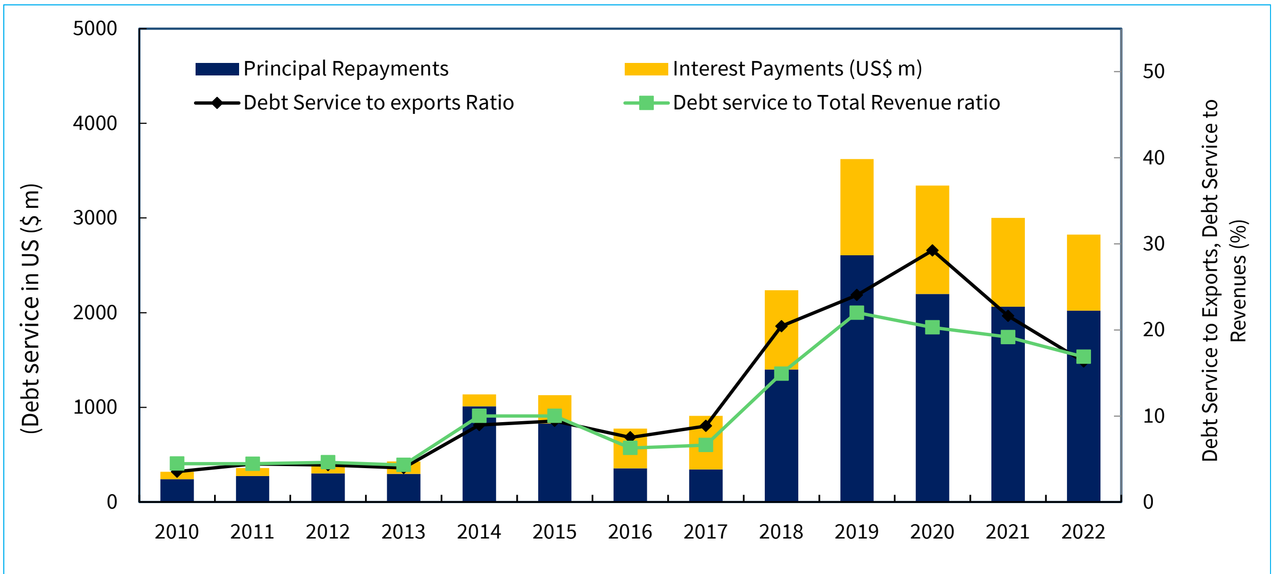
*Source: CBK*

**Public debt remains on upward trajectory, with fiscal deficit as ratio of GDP increasing to 8.8 percent in the FY 2021/2022 from 7.8 percent in FY 2020/2021.** This is due to increase in public spending to mitigate impact of COVID-19, amid slow revenue growth as the pandemic impacted businesses. The increase in fiscal deficit undermines the fiscal consolidation efforts that targeted to reduce fiscal deficit to less than 3.5 percent by FY 2021/2022. The Present Value of Public debt stock was 64. 2 percent of GDP as of September 2021, breaching the threshold of 55 percent. In nominal terms, total public debt stock rose by 12.7 percent, from KSh 7.3 trillion in December 2020 to KSh 8.2 trillion in December 2021.

With government revenues and export earnings growing slower than debt service, the ratio of debt service to exports and debt service to total revenue increased to 47.9 percent and 39.9 percent in FY 2021/2022 from 25.1 percent and 35.5 percent in the FY 2020/2021 **(Figure 12)**.

Kenya also benefited from the debt relief programme by the G20 countries under the Debt Service Suspension Initiative (DSSI). The representatives of the Paris Club creditors provided the Republic of Kenya a time-bound suspension of debt service due from 1st January to 30th June 2021, enabling the country to devote resources freed to increase spending in mitigating health, economic and social impact of the COVID19 pandemic. It also incentivised Kenya to improve transparency in debt management.

**Figure 12: Public Debt Service**

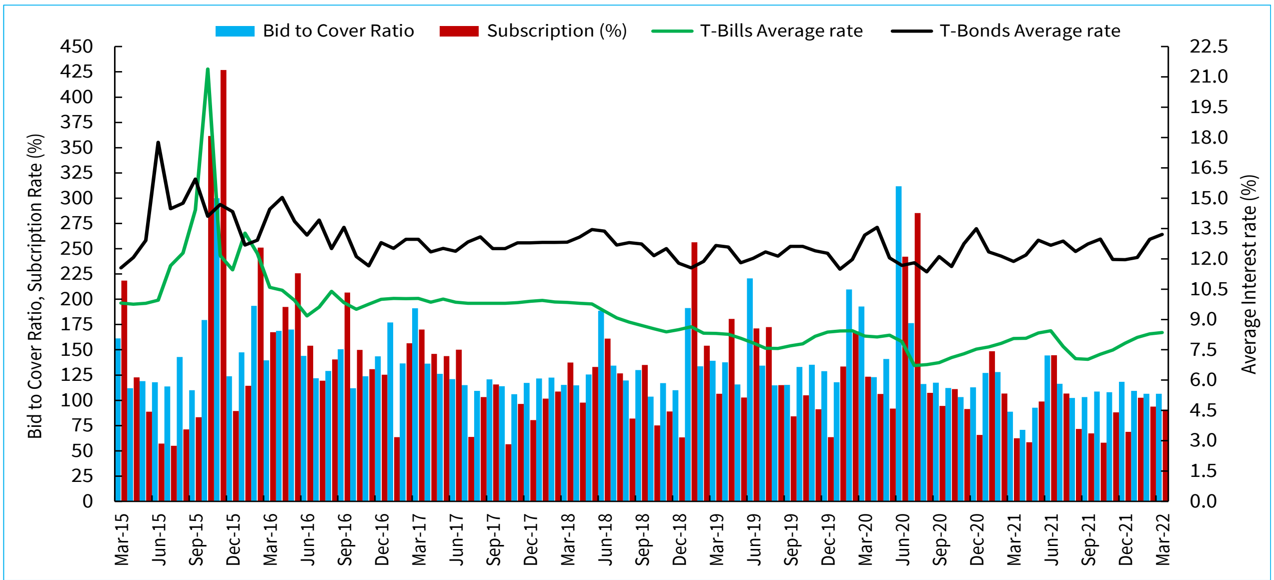



*Source: CBK, Budget Outturn*

**The 2021 IMF Article IV Consultation Report released in December 2021 notes that Kenya's public debt is sustainable but remains at a high risk of debt distress (DSA).** Under the baseline, public debt was expected to reach 71 percent of GDP in FY21/22–FY22/23 (or 62 percent of GDP in Present Value (PV) terms. The downgrade from the moderate risk classification in the May 2021 DSA reflects economic slowdown following the COVID-19 pandemic that exacerbated existing vulnerabilities. Consequently, several debt indicators have worsened. While solvency indicators for the PV of external debt-to-GDP ratio and PV of total public debt-to-GDP ratios were below the thresholds under the baseline scenario, there were breaches of PV of external debt-to-exports ratio and one liquidity indicator - external debt service-to-exports ratios that were above the thresholds under the baseline scenario. Kenya's ability to services debt is expected to improve as growth and exports recover.

**Overall, interest rates on government domestic securities remained stable, albeit marginal increases in 2021, extended into the first half of 2022 (Figure 13).** Low and stable interest rates have supported growth in private sector credit through increased bank lending, and enabled government to issue domestic debt at low rates. For instance, Treasury bill rates for all the maturities, averaged 7.7 percent in 2021 compared with an average of 7.6 percent in 2020. Combining both T-bonds and bills primary auctions,weighted average interest rate was 10.1 percent in 2021 compared with an average of 9.9 percent in 2020. Government securities primary market auctions recorded an average subscription rate of 134.6 percent in 2021 compared with 155.6 percent in 2020 while bids-to-cover ratio (accepted bids to offer amount) was 1.4 in 2021 from 1.5 in 2020. This implies, ample liquidity in the primary market supported stability in interest rates in 2021. The first half of 2022 was marked by auction undersubscriptions due to tight market liquidity exacerbated by late timing of external debt inflows. The yield curve remained stable steadily shifting upwards to reflect the prevailing global risk sentiment **(Annexes II & III).**

**Figure 13: Performance of Government Securities Primary Market**



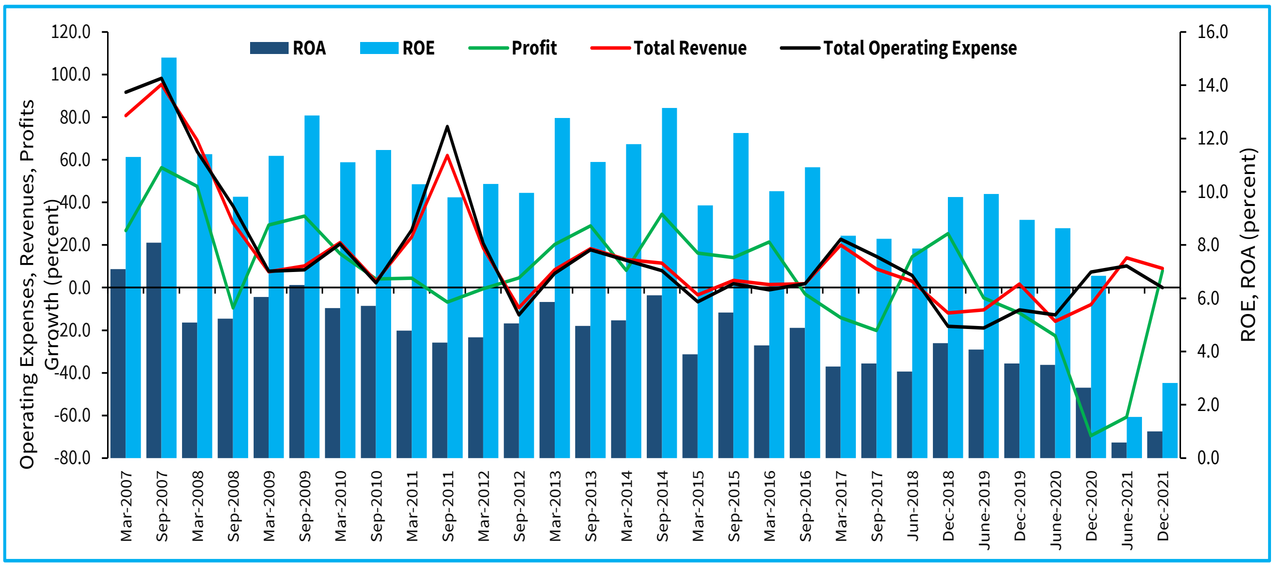

*Source: CBK*

**Issuance of more long-term bonds to take advantage liquidity in the market, has enabled the Government extend its domestic debt maturity profile in 2021, thus reducing refinancing risk.** The average time to maturity increased to 8.9 years in December 2021 from 8.2 years in 2020 while the ratio of Treasury bills to bonds was 25: 75 in December 2021 compared with 31:69 in December 2020. Thia has reduced refinancing risks significantly. Care should however be taken on the cost side as long term debt increases.

**State Owned Enterprises (SOEs) reported improvement in 2021 as economy continued to recover.** The ROA and ROE of SOEs is estimated to have improved to 1.9 percent and 3.8 percent in 2021 from a contraction of -1.9 percent and growth of 3.7 percent in 2020. However, aftershocks of the COVID-19 pandemic on the economy, legacy problems, competition from cheaper imports and weak governance seem to weigh down recovery and viability of SOEs. Most SOEs remain highly indebted, compounded by persistent losses and/or modest profitability and liquidity/cashflow challenges. The ratio of long-term debt to assets for SOEs declined marginally, from 69.9 percent in 2020 to 68.5 percent in 2021, while long-term debt accumulation relative to equity increased from 134.2 percent in 2020 to 135.3 percent in 2021. The SOEs therefore used long term debt to finance operational expenses rather than for investments to generate revenues to service future debt. This limits productivity, capacity, and profitability of SOEs, and in turn their viability. Reliance on fiscal support by SOEs is no longer viable due to declining fiscal space. Hence the need to increase efficiency and profitability, to attract bank lending.

**Reopening of economic activities following the easing of COVID-19 pandemic restrictions contributed to improved profitability for listed non-financial corporates in 2021 (Figure 14).** Profitability of the non-financial corporates listed on the NSE increased by 8 percent in 2021 compared with a contraction of 69.5 percent in 2020. Revenues of these firms grew faster than the operating expenses in 2021.

**Figure 14: Profitability of NSE Listed Non-Financial Companies**




*Source: CBK Staff Computation*

Improved profitability is also reflected in the fewer number of listed firms on the NSE that issued profits warnings in 2021. A total of 7 listed firms issued profit warnings in 2021 compared with 15 in 2020 at the height of COVID-19 pandemic and 10 companies in 2019. The year with highest number of listed companies issuing profit warnings was 2015, where a total of 18 companies reported their annual profits falling by at least 25 percent from the previous year. Declining revenues, liquidity and profitability of firms precedes either lay–offs or furlough of employees and closures. In extreme cases, such firms find it difficult to service existing loans or access loans at affordable cost from banks or even issuing debt on the capital markets.

**Residential, office, retail, and hospitality real estate performed better in 2021 in terms of sales, purchases, rental, and occupancy rates.** Residential and office property for hotel & restaurants and meetings, recorded improved prices due to easing of restrictions on inhouse catering, lifting of curfews, social distancing, and improved income. The Knight Frank Market Update Report for the second half of 2021 indicate that residential and office segment attracted more buyers due to 5.0 percent and 10.9 percent decline in prices, respectively. Softening in rental prices made property more affordable, attracting more tenants, and raising occupancy rate for both commercial and office space. Vacant retail space remained high in 2021 due to closure of domestic chain stores such as Tuskys, Uchumi and Muleys. Footfall has also declined due to shoppers shifting to online shops, which has made the chain stores to adopt e-commerce to increase sales. This further reduces demand for retail space, which may affect the bank-financed projects as borrowers are unable to service their loans.

**Building and construction sector recovered from pandemic-induced supply chain disruptions to grow by 6.0 percent in 2021 but dipped in the first quarter of 2022.** The cost of construction reflected by the construction price index increased by 6.6 percent in the year to March 2022, underpinned by high cost of materials. This has delayed projects completion and some approved projects have been suspended. The decline in construction in third quarter of 2021 has moderated demand, aligning it with supply of property. There was also decline in project financing as lenders slowed the pace of financing construction projects to mitigate underlying risks.

**Overall, there is positive economic growth outlook for 2022 despite downside global and domestic risks.** The narrow fiscal space, high debt levels, tightening financial conditions, drought shock on Agriculture and electioneering period uncertainties, may slowdown growth in the second half of 2022. Additionally, tightening of lending standards by banks slowdown lending, thus impacting financial sector stability.

# 2. FINANCIAL SECTOR DEVELOPMENTS AND RISKS

This Chapter analyses the financial sector developments and risks across banking, capital markets, insurance, pensions and Savings and Credit Cooperatives (Sacco) sectors, which are regulated and supervised by the CBK, CMA, IRA, RBA and SASRA, respectively. The policy measures taken by Government and regulators remain supportive to the sector resilience and financial stability.

## 2.1 Banking Sector

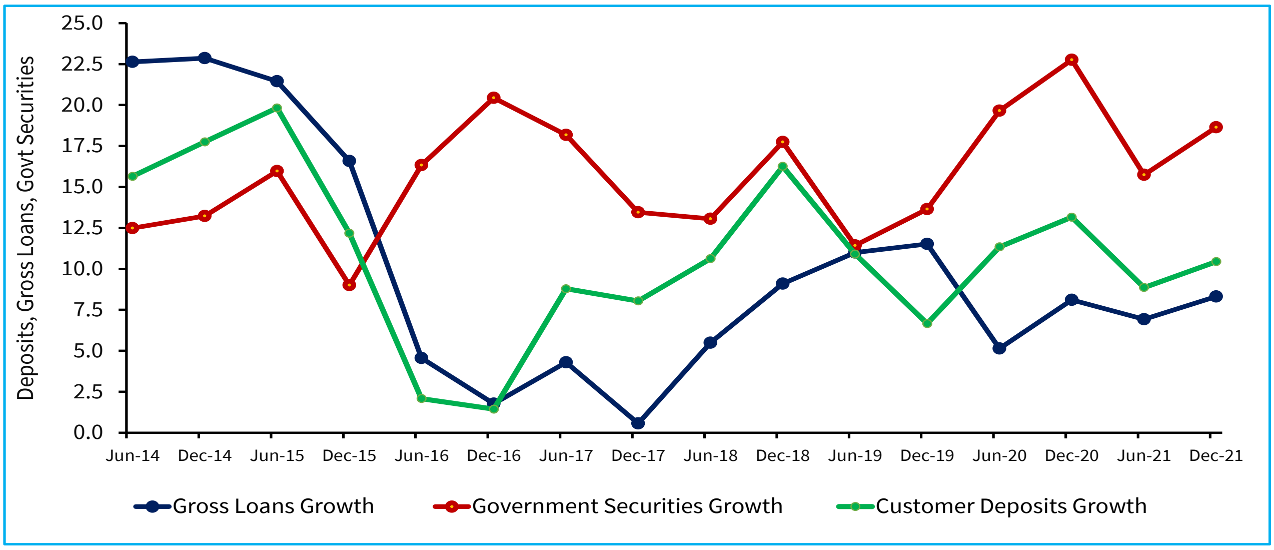
**The banking sector assets grew by double-digits in 2021 on account of increased purchase of government securities.** While loans and advances (net) as a share of net assets declined to 48.5 percent in 2021 from 49.2 percent in 2020, Government securities holding increased to 30.5 percent in December 2021 from 29.6 percent in December 2020. Investment in government securities grew at a faster pace compared to growth in loans and advances between 2021 and 2020. Bank assets were mainly funded by customer deposits, which grew by 11.0 percent in 2021. The microfinance banks recorded improved performance in 2021 compared with 2020 but are still weak and vulnerable to shocks.

### 2.1.1 Commercial Banks and Mortgage Finance Companies

**The banks net assets grew by 11.4 percent in 2021, on account of faster growth in purchase of government securities (Figure 15).** Total assets increased to KSh 6,022.1 billion in December 2021 from KSh 5,405.7 billion in December 2020. Since the fourth quarter of 2015, the growth in government securities has outpaced the loans and advances, indicating that banks may be derisking by slowing down lending to the private sector. The period was characterised by the 2015/2016 banking crisis and the restrictive interest rates capping law. A correction towards the end of 2019 following repeal of the interest rates capping law was eroded by COVID–19 pandemic. Banks' flight to quality and safety tendencies during the pandemic was reflected in increased holding of Government securities, more foreign currency-denominated assets, and increased lending to large firms as credit risk increased. Customer deposits grew by 11.0 percent, to KSh 4,451.7 billion in December 2021 from KSh 4,011.3 billion in December 2020, partly reflecting customers' intent to preserve liquidity and enhanced efforts towards deposit mobilization mainly through digital channels.

**The sector remained stable and resilient to the COVID-19 shock on account of strong capital and liquidity buffers, supported by monetary and financial policies in 2020.** Overall, the sector's core and total capital increased to KSh.750.5 billion and KSh.883.4 billion in December 2021, from KSh.686.7 billion and KSh.786.2 billion, respectively, in December 2020. The strong growth in capital is mainly on account of 16.0 percent growth in retained earnings following strong profitability. Consequently, Core Capital and Total Capital to Total Risk Weighted Assets (TRWA) ratios stood at 16.6 percent and 19.5 percent in December 2021, from 16.6 percent and 19.0 percent in December 2020. These were above the minimum statutory core and total capital requirements of 10.5 percent and 14.5 percent, respectively. However, growth in capital was mainly by banks in large peer group, while capital for small and medium sized banks decreased, reflecting low profitability.

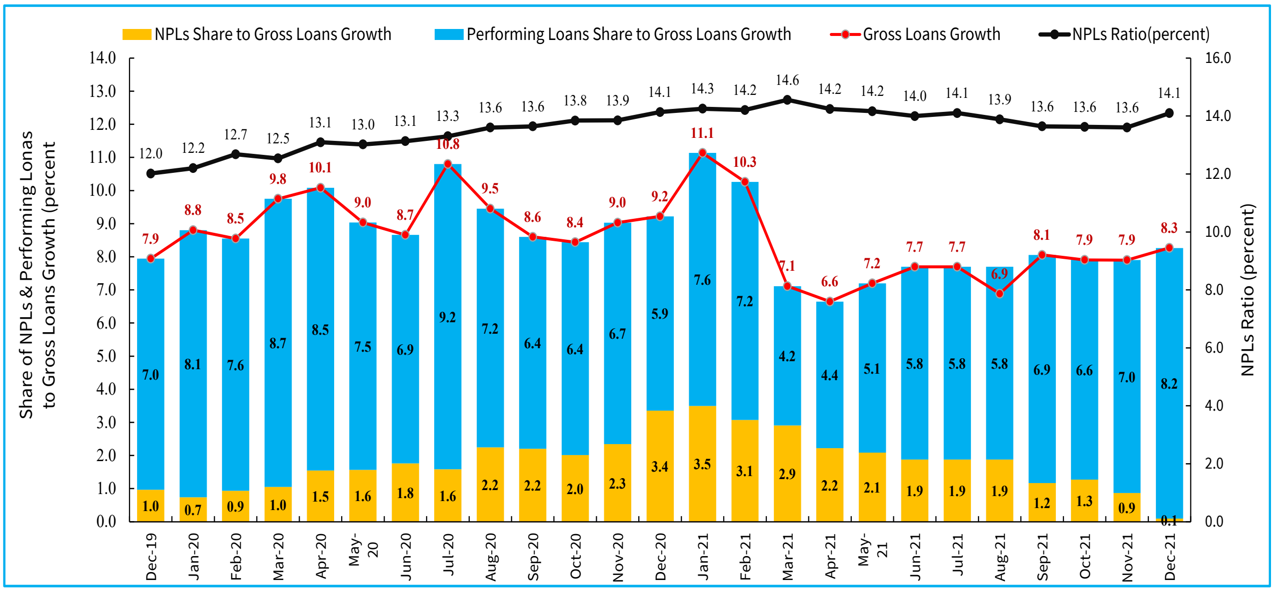
**Figure 15: Growth in Deposits, Loans and Government Securities (percent)**




*Source: CBK*

**Credit risk remained elevated in 2021 as it was in 2020 (Figure 16).** The ratio of non-performing loans to gross loans (NPLs) was 14.1 percent in December 2021 same as the level of December 2020.

**Figure 16: Bank Assets Quality**



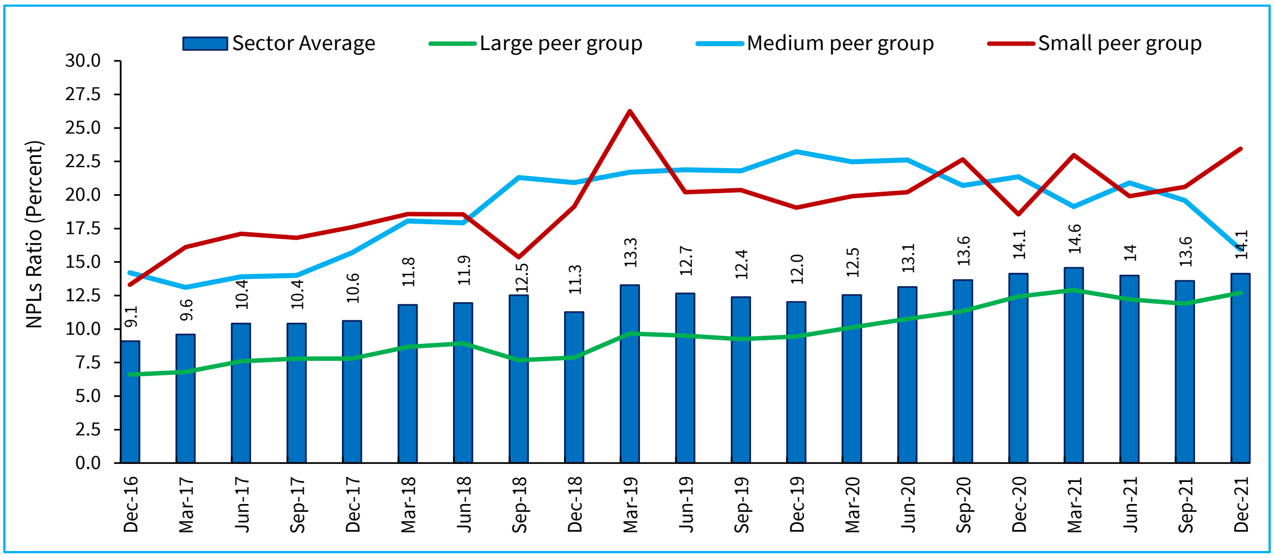

*Source: CBK 2021 Banking Sector Credit Risk Stress Test*

The actual NPLs recorded an annual increase of 5.5 percent, to Ksh.460.0 billion in December 2021, from KSh. 436.1 billion in December 2020. However, the contribution of performing loans relative to the NPLs grew faster by 8.2 percent. As a result, the NPLs ratio remained at 14.1 percent as at December 2021 and in December 2020. Performing loans relative to NPLs, grew faster by, 8.2 percent, leaving the NPLs ratio at 14.1 percent in December 2021, the same level in December 2020. Financial policy measures implemented to mitigate the impact of

COVID-19 pandemic on banks and borrowers proved key to achieving and maintaining banking sector stability. Measures such as loan restructuring, extension of loan repayment periods, and flexibility in loan classification explain the high performing loan component in 2020 as compared to 2021. When these policies were unwound, NPLs ratio rose to 14.7 percent in June 2022, signifying elevated credit risk outlook in 2022.

**The assets quality was uneven across the entire banking sector**, whereby banks in the large peer group had the lowest NPLs ratio. There were nine (9) banks in large peer group, eight (8) banks in medium peer group and twenty-two (22) banks in small peer group as measured by market share as of December 2021.

**Figure 17: NPLs ratio by bank peer groups**



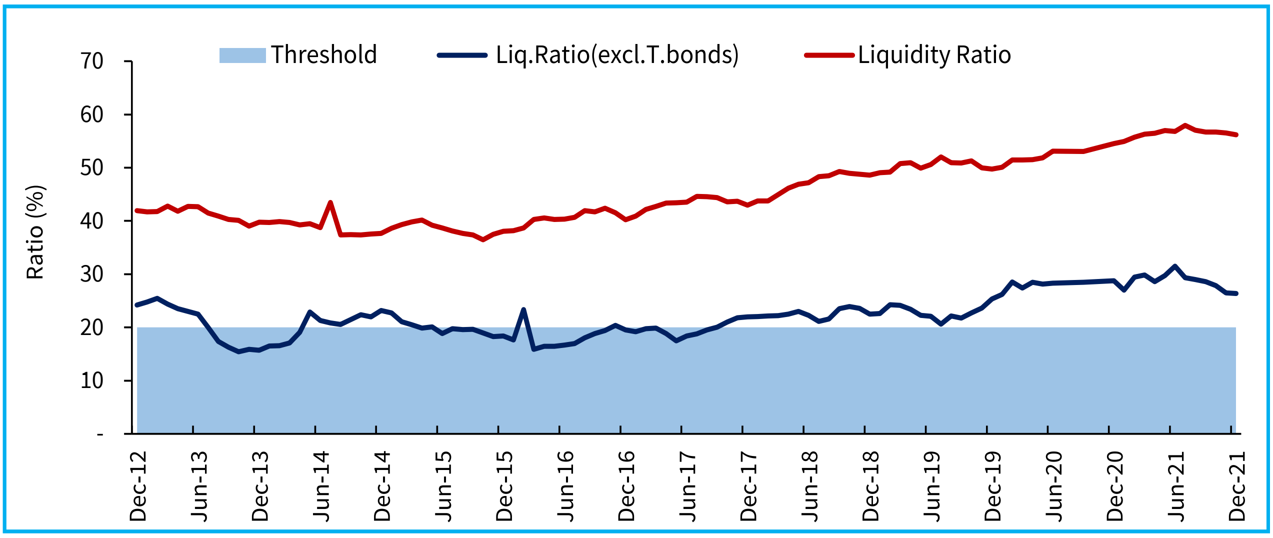

*Source: CBK staff computation*

Banks in the small peer group had their NPLs ratio increasing to 23.5 percent in December 2021 from 18.5 percent in December 2020 which is way above the sector average, while NPLs ratio for medium peer group banks declined from 21.4 percent in December 2020 to 15.9 percent in December 2021. The NPLs for banks in large peer group rose marginally to 12.7 percent in December 2021 from 12.4 percent in December 2020. The ratio of specific provisioning to NPLs (coverage ratio) for banks in large peer group averaged 51.8 percent in December 2021, from 47.4 percent in December 2020, signifying enhanced capacity to absorb losses.

Banks in the large peer group accounted for 74.8 percent of total net assets and 86.8 percent of total profits before tax as of December 2021. Strong growth in profitability is crucial in building strong capital buffers and meeting provisioning requirements. The coverage ratio for banks in medium and small peer groups, declined to 30.5 percent and 27.6 percent in December 2021 from 36.8 percent and 31.2 percent, respectively in December 2020. This indicates that while NPLs increased faster, banks in these groups recorded a higher deterioration in assest quality. Banks in the medium peer group accounted for 16.1 percent of total net assets and 12.2 percent of profits before tax as of December 2021 while small peer group banks accounted for 9.1 percent of total net assets and 1.0 percent of profits before tax in December 2021.

Another key metric for assessing banking sector stability is liquidity ratio against the 20 percent minimum regulatory requirement. **Overall, liquidity ratio for the entire sector averaged 56.2 percent in December 2021 (Figure 18).** Liquid assets increased from Ksh.2,131.0 billion in December 2020 to Ksh.2,384.7 billion in December 2021, mainly on account of 31.4 percent increase in Treasury Bonds. Even by excluding treasury bonds from liquid assets, liquidity ratio is still above the 20 percent minimum threshold, indicating that there is no short to medium term liquidity risk.

## Figure 18: Liquidity Ratios




*Source: CBK*

**Tradable treasury bonds and bills by banks accounted for 81.0 percent of liquid assets in December 2021, up from 76.0 percent in 2020 (Table 2).** This was driven by faster increase in holding treasury bonds, which grew by 27.2 percent in 2021. The modest increase of 0.8 percent in the amount of treasury bills held may indicate flight to quality as bonds offer higher return.

## Table 2: Banking Sector Total Liquid Assets

| Asset Type | End December 2020 | | End December 2021 | | Change in Share (percentage points) | Annual Change (percent) |
|---|---|---|---|---|---|---|
| | KSh '000s | Share (%) | KSh '000s | Share (%) | | |
| Notes & coins | 72,235,637 | 3.39 | 72,839,185 | 3.1 | -0.3 | 0.8 |
| Balances at Central Bank | 196,020,872 | 9.20 | 201,363,789 | 8.4 | -0.8 | 2.7 |
| Domestic financial institutions balances | -5,416,066 | -0.25 | -9,754,865 | -0.4 | -0.2 | 80.1 |
| Foreign financial institutions balances | 247,850,864 | 11.63 | 188,699,910 | 7.9 | -3.7 | -23.9 |
| Treasury Bills | 494,581,006 | 23.20 | 498,610,514 | 20.9 | -2.3 | 0.8 |
| Treasury bonds | 1,126,192,284 | 52.84 | 1,432,988,202 | 60.1 | 7.3 | 27.2 |
| **Total Liquid Assets** | **2,131,464,597** | **100.00** | **2,384,746,735** | **100.0** | **0.0** | **11.9** |

*Source: CBK*

Balances held by local banks with foreign financial institutions contracted by 23.9 percent in 2021 compared with an increase of 106.1 percent in 2020. This may partly explain depreciation of local currency whereby customers held more liquid assets in foreign currencies as the pandemic evolved. In addition, the 27.2 percent increase in Treasury bonds in 2021, supports the flight to quality and safety hypothesis as banks and their clients sought safe assets to preserve value and earn positive return.

The sector reported strong Profits Before Tax (PBT) in 2021 compared with 2020 (Table 3). The annual PBT grew by 75.7 percent in 2021 to KSh 197.0 billion, from KSh. 112.1 billion in December 2020. Return on Assets (ROA) and Return on Equity (ROE) increased from 1.7 percent and 13.9 percent, in December 2020, to 3.3 percent and 22.0 percent, respectively, in December 2021.

## Table 3: Heterogeneity of COVID-19 Impact on Banks' Profitability

| CATEGORY | 2020 | | | 2021 | | | Change | | |
|---|---|---|---|---|---|---|---|---|---|
| | PBT (Ksh.Bn) | ROA (%) | ROE (%) | PBT (Ksh.Bn) | ROA (%) | ROE (%) | PBT(%) | ROA(pp) | ROE(pp) |
| **All Banks (39)** | **112,145.4** | **1.7** | **13.9** | **197,036.0** | **3.3** | **22.0** | 75.7 | 1.6 | 7.7 |
| Large Banks(9) | 97,495.0 | 2.4 | 16.3 | 171,127.0 | 3.5 | 23.8 | 75.5 | 1.1 | 7.5 |
| Medium Banks (8) | 17,152.0 | 1.9 | 12.2 | 24,311.0 | 2.4 | 15.0 | 41.7 | 0.6 | 2.8 |
| Small Banks (22) | (2,501.00) | -0.54 | -3.70 | 1,598.00 | -1.3 | -15.49 | -163.9 | -0.7 | -11.8 |

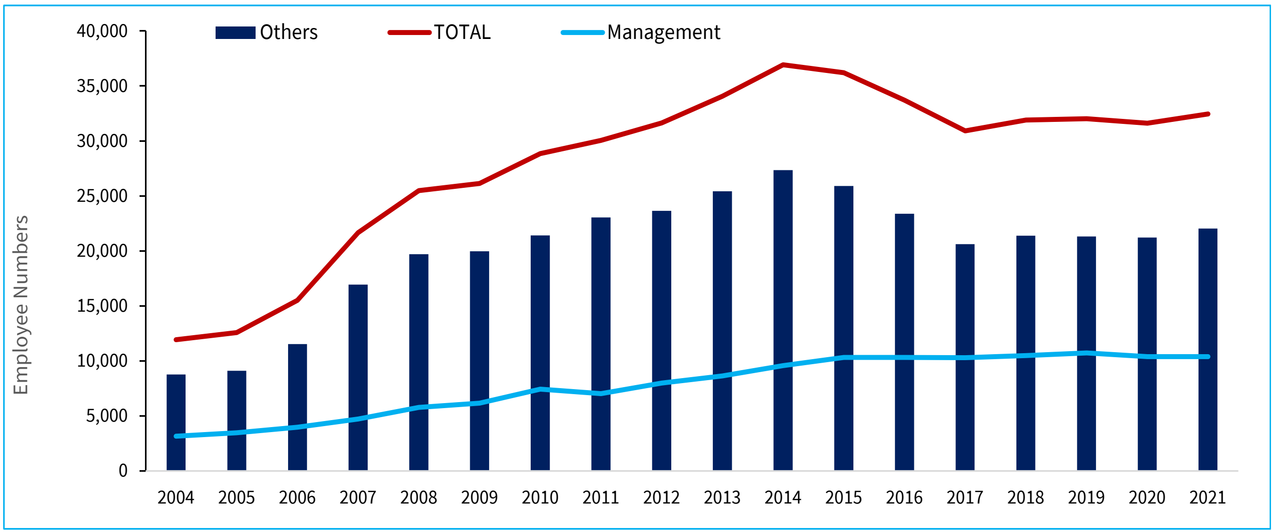
**pp refers to percentage points*

*Source: CBK*

Interest on loans and advances, and on government securities accounted for 47.5 percent and 27.7 percent of total income, respectively. Interest expenses, other expenses and salaries and wages, accounted for 35.7 percent, 26.7 percent, and 24.0 percent of total expenses, respectively. Expenses grew slowly, driven by decline of 46.5 percent on bad debts charge. The nine (9) banks in large peer group accounted for 86.9 percent of the total industry PBT in both 2021 and 2020. The remainder thirty (30) banks in the medium and small peer groups accounted for just 13.1 percent of PBT in both periods. Banks in the small peer group had negative in ROA and ROE in both 2021 and 2020. Overall, ROA and ROE for the sector improved in 2021 compared with 2020, signifying strong earnings on assets.

Rapid adoption of technology in the banking sector through digital finance and mobile money has impacted employment trends. Employees in supervisory, clerical and support levels declined from 2014 but has risen gradually at management level, reflecting increasing need for talent and enhanced efficiency **(Figure 19)**.

**Figure 19: Employment Trends**




*Source: CBK*

### 2.1.2 Microfinance Banks

**The microfinance banks (MFBs) recorded improvement for some indicators in 2021 compared to 2020 but remain weak and vulnerable to shocks (Table 4).** Total assets declined by 1.2 percent, from Ksh.74.9 billion in December 2020, to Ksh.74.0 billion in December 2021, mainly on account of 9.2 percent decline in net loans and advances. Investment in Government Securities, however rose to KSh.5.7 billion in December 2021 from KSh 4.3 billion in 2020.

Total deposits grew by 2.1 percent to Ksh.50.4 billion in December 2021, from Ksh.49.4 billion in December 2020 following reopening of the economy on easing of COVID-19 restrictions. Growth in deposits is attributed to enhanced mobilization through existing branch networks and alternative business delivery channels. Customer deposits and borrowings were the main sources of funding, accounting for 68 percent and 12 percent of the MFBs total funding sources. While MFBs still face competition from commercial banks, Saccos, other microfinance institutions and Digital Credit Apps, they seem to be benefiting from technology to mobilise deposits, identify new clients and rollout new products that are attractive to clients.

## Table 4: Key statistics for MFBs overtime

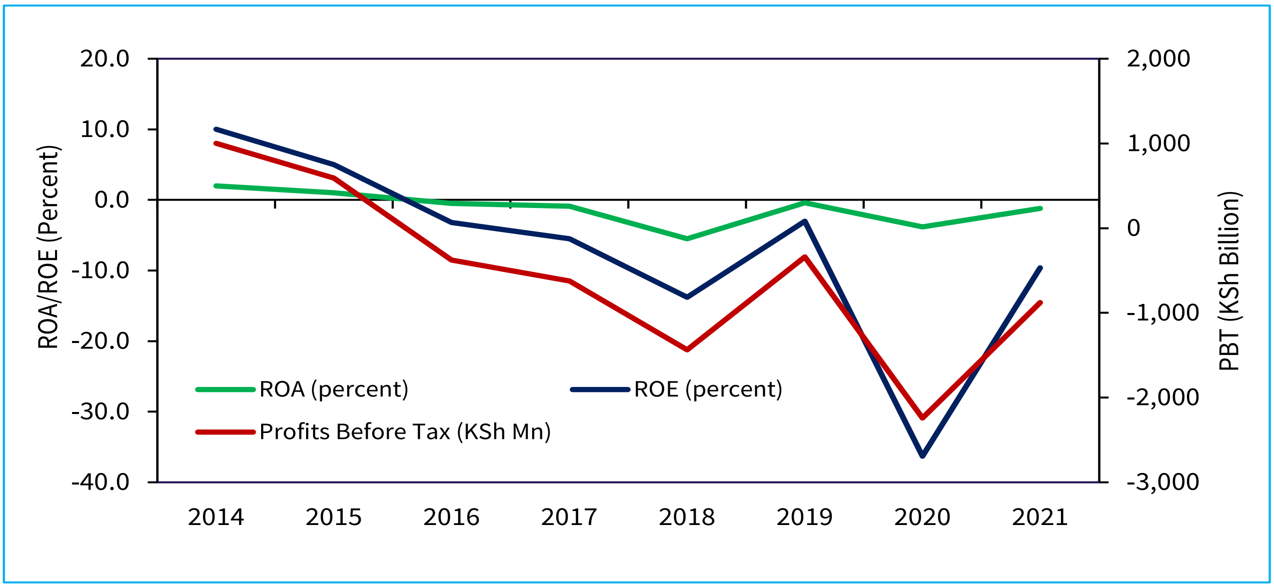
| INDICATOR | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Annual Change(%) |
|---|---|---|---|---|---|---|---|---|---|
| Total Assets (KSh Mn) | 56,972 | 69,465 | 72,510 | 67,597 | 70,754 | 76,353 | 74,879 | 73,963 | -1.2 |
| Net Advances/Loans (KSh Mn) | 39,184 | 45,749 | 47,047 | 42,847 | 44,179 | 46,651 | 44,179 | 40,115 | -9.2 |
| Gross NPLs (KSh mn) | 2,348 | 4,264 | 7,288 | 9,300 | 9,891 | 9,817 | 12,980 | 13,798 | 6.3 |
| Total Deposits (KSh Mn) | 35,862 | 40,589 | 40,198 | 38,916 | 40,961 | 43,941 | 49,356 | 50,413 | 2.1 |
| Borrowings (KSh Mn) | 6,994 | 13,220 | 16,435 | 13,413 | 14,607 | 14,934 | 11,340 | 9,082 | -19.9 |
| Capital & Shareholders Funds (KSh Mn) | 10,600 | 11,633 | 11,622 | 11,301 | 10,443 | 11,177 | 8,113 | 9,102 | 12.2 |
| Profits Before Tax (KSh Mn) | 1002 | 592 | -377 | -622 | -1437 | -339 | -2240 | -877 | 60.8 |
| ROA (percent) | 2.0 | 1.0 | -0.5 | -0.9 | -5.5 | -0.4 | -3.8 | -1.2 | 2.6* |
| ROE (percent) | 10.0 | 5.0 | -3.2 | -5.5 | -13.8 | -3.0 | -36.3 | -9.6 | 26.7* |

**percentage points*

*Source: CBK*

**Economic recovery supported improved lending by MFBs as reflected by PBT, ROA and ROE in 2021 (Figure 20).** Total Loss Before Tax for all MFBs improved to KSh.877 million in December 2021from KSh.2.2 billion in December 2020. Only four (4) of the fourteen (14) MFBs reported profits, whereby two (2) MFBs recorded profits of KSh 17 million each, one (1) MFB reported KSh 36 million in profits and one (1) MFB recorded KSh 131 million growth in profits. The remainder of ten (10) MFBs recorded losses ranging from KSh 8 million to KSh 522 million. The Return on Assets and Return on Equity also improved, though they remain in negative territory. Despite decline in losses, the viability of MFBs declined due to slow growth in loans and profitability. The sector faces competition from other credit providers, especially digital credit providers as well as funding challenges that limit their capacity to lend.

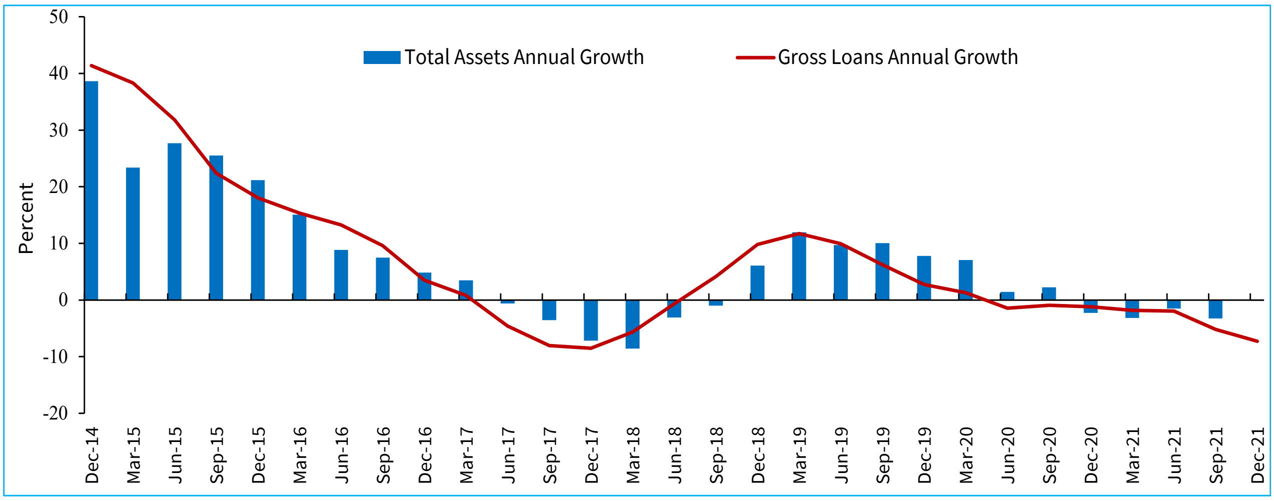
## Figure 20: Trends of Profitability/Losses for MFBs




*Source: CBK*

**Credit risk remain elevated for MFBs, with gross NPLs rising by 3.0 percent, to KSh 13.8 billion in December 2021 from KSh 13.4 billion, in December 2020.** Annual growth in gross loans contracted further by 7.3 percent in December 2021 from negative growth of 1.2 percent in December 2020, indicating low uptake of loans/disbursements **(Figure 21).**

**Figure 21: MFBs Loan Portfolio**

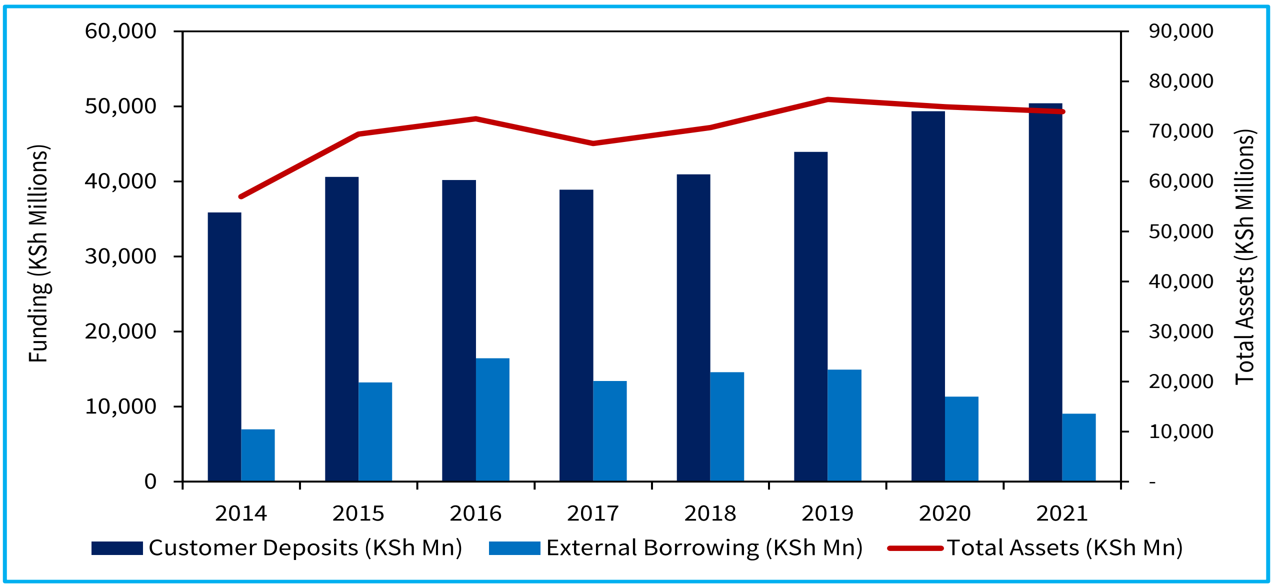



*Source: CBK*

**Capital and liquidity levels for MFBs rose in 2021 compared to 2020. However, five of the fourteen MFBs did not meet capital requirements.** The increased level of overall capital followed capital injection by share¬holders of Faulu, Rafiki and Uwezo to the tune of KSh.1.1 billion, Ksh.500 million and Ksh.300 million, respectively. Consequently, core capital to total risk weighted assets increased to 13.0 percent in 2021 from 10.0 percent in 2020 while total capital to total risk weighted assets ratio increased to 16.3 percent from 13.0 percent, during the period. These were above minimum regulatory ratios of 10.0 percent and 12.0 percent respectively. Despite this improvement in capital ratios, five (5) out of the fourteen licensed MFBs failed to meet the regulatory capital requirements as of December 2021, highlighting vulnerabilities in this subsector. The industry's liquidity ratio averaged 78 percent as of December 31, 2021, way above the regulatory requirement. However, one (1) MFB failed to meet the statutory minimum liquidity ratio of 20 percent, as it faced liquidity challenges.

**MFBs face limited funding scope of their loans and advances with declining external borrowing amid stagnating growth in customer deposits (Figure 22)**. Customer deposits recovered in 2018 but stagnated between 2020 and 2021. Borrowing from other sources has been on the decline since 2018, reaching below KSh 10 billion in 2021. This may explain the slow growth in the loans and advances.

### Figure 22: MFBs Funding Sources




*Source: CBK*

## 2.1.4 Banking Sector Safety Net and Resolution

The Kenya Deposit Insurance Corporation (KDIC), an independent State Agency, implemented its mandate of providing deposit insurance scheme for customers of member institutions, incentives for sound risk management and prompt resolution of failed institutions. The KDIC as a 'risk minimizer' provides a safety net to deposits and fostering public confidence and trust. The Deposit Insurance Fund (DIF) or 'Fund', managed by KDIC increased by 22.2 percent, to KSh 154 billion in December 2021, covering up to KSh 500,000 per depositor in case of a bank failure. This is as a result of the Corporation implementing prudent management strategies.

Banks held KSh 4.5 trillion in deposits as of December 2021, with the Fund insuring KSh 715 billion or 16 percent coverage. The effective cover (extent to which the Fund covers insured deposits) increased to 21.5 percent in 2021, above the recommended minimum of 20 percent as the best practice by International Association of Deposit Insurance (IADI). The increased transaction activities and low bank balances in accounts explains the increased insured deposits relative to total deposits. The adequacy of the insurance cover also improved as indicated by the increase in target fund from 3.0 percent in 2020 to 3.4 percent 2021. The 68.9 million bank accounts, equivalent to 99.0 percent of the total number of accounts in the banking system were fully covered as of December 2021. **(Table 5).**

## Table 5: Key Fund Indicators

| Year Ending December | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Change in percent (2021 - 2020) |
|---|---|---|---|---|---|---|---|---|---|
| Total Deposits (KSh Billion) | 2,384.7 | 2,674.0 | 2,783.7 | 3,075.8 | 3,385.2 | 3,605.5 | 4,151.8 | 4,472.0 | 7.7 |
| Total Insured (KSh Billion) | 224.9 | 244.7 | 255.5 | 272.1 | 269.7 | 285.1 | 694.0 | 715.0 | 3.0 |
| Protection Level (Row2/Row1) (%) | 9.4 | 9.1 | 9.2 | 8.8 | 8.0 | 7.9 | 16.7 | 16.0 | -0.7* |
| Fund Balance (KSh Million) | 52.2 | 61.7 | 73.3 | 86.1 | 100.2 | 115.1 | 126.0 | 154.0 | 22.2 |
| Effective Cover (Row4/Row2) (%) | 23.2 | 25.2 | 28.7 | 31.6 | 37.1 | 40.4 | 18.2 | 21.5 | 3.4* |
| Total Number of Accounts (Million) | 30.7 | 37.4 | 43.3 | 49.9 | 57.3 | 64.7 | 72.7 | 68.9 | -5.2 |
| Accounts fully covered (Million) | 29.6 | 36.1 | 41.8 | 48.4 | 55.9 | 63.1 | 72.0 | 68.2 | -5.3 |
| Protected accounts (Row7/Row6) (%) | 96.3 | 96.7 | 96.7 | 96.9 | 97.4 | 97.6 | 99.1 | 99.0 | -0.1* |
| Exposure Level (100 - Row 5) (%) | 76.8 | 74.8 | 71.3 | 68.4 | 62.9 | 59.6 | 81.8 | 78.5 | -3.4* |
| Fund Target (%) | 2.2 | 2.3 | 2.6 | 2.8 | 3.0 | 3.2 | 3.0 | 3.4 | 0.4* |

*Source: KDIC*

*refers to percentage points

The risk exposure level to the Fund decreased from 81 percent in December 2020, to 78 percent in December 2021 with implementation of the risk based premium model. The model rewards member banks for proactively investing in and implementing effective risk management frameworks. KDIC continues to implement appropriate resolution frameworks to ensure that in case of a failure of an institution, the process of resolution is timely in collaboration with CBK.

## Risks Assessment and Outlook

**The banking sector remained stable and resilient in 2021, on the backdrop of strong economic recovery and effective monetary and financial policies taken to contain and mitigate the impact of COVID–19 pandemic.** While the sector is projected to remain stable in 2022, there are downside risks, arising from local and global developments. These include but not limited to:

- **Credit risk, which remains elevated due to:** COVID–19 pandemic whose virus mutations trajectory remains uncertain; drought shock on agriculture leading to direct and indirect impact on bank credit; tightening lending standards during electioneering period and regime change; global monetary policy tightening, with implication on domestic interest rates, exchange rate and capital flows; and impact of Russia-Ukraine war on trade and other transactions.
- **Operational and governance risks expected to rise as banks become more interconnected with sectoral and cross–border operations coupled with rapid technological innovations.** This risk is accentuated by increased use of financial technology and innovations to deliver financial products and services. There are more incidences of frauds, data privacy concerns, cyber-attacks, and cybersecurity threats. The authorities are alive to these risks and are therefore taking more prudent and stringent remedial controls and risk management measures to address them. Among the major policy developments to address this risk to financial stability was the publications of the Digital Credit Providers regulations following amendments to the Central Bank of Kenya (Amendment) Act No 10 of 2021, and that became effective on December 23, 2021, thus mandating the CBK to bring the previously unregulated digital lenders under its regulatory armpit **(Box I)**.

### Box I: Impact of Digital Credit Providers Regulation on Financial Stability

The Central Bank of Kenya issued the Digital Credit Providers Regulations pursuant to Sections 57(1), 57(3) and 57(4) of the Central Bank of Kenya Act (the CBK Act) and became operational from March 18, 2022. The Regulations provide for the licensing, governance, and credit operations of DCPs. They also provide for consumer protection, credit information sharing, and expound on the Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) obligations of DCPs.

They address consumer protection concerns such as predatory practices, such as; high cost of loans, unethical debt collection practices, inadequate disclosure and transparency, breach of data privacy, the abuse of personal information and irresponsible lending leading to borrower over-indebtedness, by the unregulated DCPs. They also seek to provide a level playing field in the credit market by ensuring that DCPs adhere to prudent market conduct. DCPs will also be allowed list borrowers with CRBs and obtain report on their loan performance. DCPs are expected to improve credit risk pricing and deter delinquent borrowers, leading to better assets quality and profitability of the DCPs.

**Impact of the DCPs Regulation on Financial Stability**

The regulation of DCPs brings discipline and prudence to both lenders and borrowers in the digital credit market. The CBK is mandated to license, regulate, and supervise credit that was being offered by the unregulated digital providers, thus fostering integrity of the financial sector. In addition, the DCPs regulations are expected to address household indebtedness, especially from irresponsible borrowers, thus promoting financial stability. The regulations will also enhance ethical lending practices among the digital credit providers to protect consumers, especially the MSMEs and youths, who are often underserved and excluded from the mainstream credit providers.

- **Flight to safety concerns is also emerging as banks and customers seek safe assets with positive return and preservation of value.** While COVID–19 pandemic saw banks invest heavily in long–term Treasury bonds, for safety and quality in 2020-2021, the Ukraine war and tightening external financial conditions because of advanced economies raising policy rates to curb inflation, has introduced new rounds of flight to safety in 2022. If the situation normalizes, banks may quickly sell bonds to fund increased credit demand. The resultant increase in interest rates would lead to the decline in bond prices held under the available–for–sale, which are subject to mark–to–market valuations. Valuation losses would reduce profitability, and in turn capital levels.

- **Political risks associated with the 2022 General Elections could impact the economy and in turn banks asset quality.** Regime changes at both national and county levels could delay payments of pending bills for supplies or works delivered, leading to increase in NPLs for those with outstanding loans. It could also affect other sectors like real estate and building and construction sectors due to low uptake.

Overall, the banking sector outlook for 2022 is stable and resilient underpinned by sufficient capital and liquidity buffers. This is confirmed in the latest cycle of Banking Sector Credit Risk Stress Test results conducted in May 2022. The results are summarized in **Box II**.

### Box II: 2022 Banking Sector Credit Risk Stress Test

The CBK conducted the 2022 Banking sector credit risk stress test in May 2022 using balance sheet approach based on December 2021 unaudited aggregate bank data to assess the resilience of banks under plausible but realistic shock scenarios. The stress test assessed evolution of banking sector credit risk under the baseline, moderate and severe scenarios calibrated from domestic and global shocks that pose downside risks to the recovery, and ultimately, banking sector credit risk.

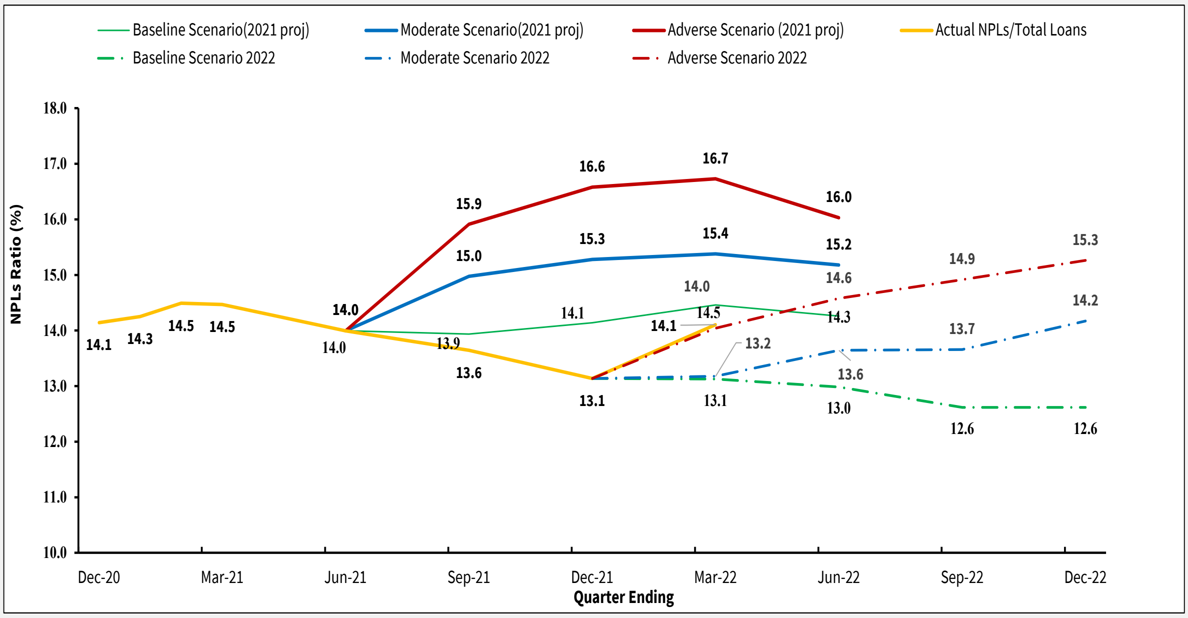
The 2022 stress test cycle also assessed the impact of drought on Agriculture, by estimating the direct and indirect negative impact on the bank credit quality. The results of both the macrofinancial -based stress and drought shock stress tests (collectively known as “event-based stress tests”) are assessed against Annual Baseline stress test, whose shock sizes were estimated at 5.0 percent, 7.5 percent and 15.0 percent increase in NPLs under the baseline, moderate and severe scenarios. The size of shocks reflects developments in lending standards, sectoral loans exposures, impact of elections on economic activities, historical trends in NPLs, and global developments.

Banks resilience shock was assessed under moderate and severely adverse scenarios relative to the baseline scenario for a period of twelve (12) months to December 2022 as summarized below:

- ***Baseline Scenario*** assumed that the COVID–19 virus mutations are less severe hence economy remain open; general elections are concluded smoothly with quick transition, hence no delays in payments; there is no drought, hence economy grows by 5.9 percent in 2022; and global and domestic conditions ease. This allows economic activity to continue and bank assets quality credit
- ***Moderate Scenario*** assumed that COVID–19 pandemic mutates in variants that resist vaccines and current measures put it under control; elections are concluded smoothly, transition takes slightly longer but orderly; mild drought reduces agricultural output; economy grows by 5.0 percent in 2022; monetary policy in advanced economies tightens further but inflation is resolved quickly; and disruptions following Russia-Ukraine war lingers for a while but remain at current level.
- ***Severe Scenario*** assumed that COVID–19 pandemic mutates into severe virus that triggers more stringent measures. The regime switch after August 9 elections takes longer, delaying businesses and leading to banks tightening their lending standards. A combination of tight lending standards, severe drought event that impacts Agriculture, stringent COVID-19 measures, further tightening of global policy rates; and further disruptions following escalation the Russia-Ukraine war with associated sanctions, leads economic growth of 4.5 percent in 2022. This makes it challenging for borrowers to service their existing loans and/or take up new loans, thus leading to elevated credit risk.

The scenarios capture potential COVID-19 pandemic virus mutations, drought event, tightening lending standards due to electioneering period, impact of Ukraine war, and global monetary policy tightening to stem rising inflation (Annex III). The projected gross loans (performing and non-performing) were estimated for the three scenarios. Based on the projected gross loans, the computed NPLs ratio is expected to range between 12.6 percent in the baseline scenario and 15.3 percent under severe scenario in December 2022. The actual NPL ratio was 13.1 percent in December 2021 and 14.1 percent in April 2022. Overall, the banks' credit risk is expected to remain elevated in 2021, indicated by the projected NPLs tending upwards **(Figure i)**.

### Figure i: Loan Projections under Baseline, Moderate and Adverse Scenarios




*Source: CBK Staff Computations*

***Note:*** *Projections based on unaudited aggregate bank data*

***Credit Risk Stress Test Results***

The stress test results provide an assessment of banks capital erosion following assets quality impairment under the *baseline, moderate* and *severe* scenarios if the following events materialize by December 2022.

Preliminary analysis prior to the stress test established that five (5) out of twenty-two (22) banks in the small peer group, had their core capital to total risk weighted assets ratio (core CAR) below the minimum statutory requirement of 10.5 percent. These banks were therefore not included in the stress test to avoid double shock since they are already stressed. Of the remainder thirty-four (34) banks, nine (9) banks had their core CAR below 10.5 percent after adjusting for full provisioning requirements as per the Prudential Guidelines (CBK/PG/04). They are however included in the stress test to quantify the amount of capital required to meet the minimum requirement.

- *Annual Baseline Stress Test:* NPLs are assumed to grow at the same rate of 5.0 percent year-on-year, +2.5% standard deviation from the baseline (7.5 percent) under the moderate scenario and three (3) times the baseline growth under a severe scenario (15.0 percent). The shock size of 5 percent under the baseline scenario was calibrated from historical NPLs trends reflecting economic conditions, and lending standards. The same magnitude of shocks was applied on the 2020 and 2021 aggregate banking sector data to assess the resilience of the sector to severe shock scenario. The results indicate that, overall, banks have sufficient capital to withstand a severe shock by December 2022. This is because, the amount of capital injection required is more in the 2021 stress test than in the 2022 stress test. Similarly, the post-shock capital ratios are lower in 2021 than in 2022. However, capital is not uniform across the sector, with banks in large peer group holding more capital than those in the medium and small peer.

**Figure ii: Results of the Annual Baseline Stress Test**

| Shock | Impact on Minimum Core CAR due to Increase in NPLs | Stress Test Based on December 2020 Data* | | | Stress Test Based on December 2021 Data* | | |
|---|---|---|---|---|---|---|---|
| | | Baseline Scenario | Moderate Scenario | Severe Scenario | Baseline Scenario | Moderate Scenario | Severe Scenario |
| | *Size of the Shock* | 5.0 | 7.5 | 15.0 | 5.0 | 7.5 | 15.0 |
| 1. Increase in Overall NPLs | Pre-shock Core Capital Ratio (%) | 15.1 | 15.1 | 15.1 | 15.6 | 15.6 | 15.6 |
| | Post-shock Core Capital Ratio (%) | **14.9** | **14.8** | **14.6** | **15.5** | **15.4** | **15.2** |
| | Number of Banks below minimum Core CAR | 7 | 7 | 7 | 9 | 9 | 10 |
| | Required Capital Injection (KSh Mn) by banks below the Minimum Core CAR to achieve the 10.5% level | 8,242.6 | 12,363.9 | 24,727.9 | 8,674.9 | 9,222.3 | 10,864.5 |
| 2. Increase in Sectoral NPLs | Pre-shock Core Capital Ratio (%) | 15.1 | 15.1 | 15.1 | 15.6 | 15.6 | 15.6 |
| | Post-shock Core Capital Ratio (%) | **15.0** | **14.9** | **14.7** | **15.6** | **15.5** | **15.4** |
| | Number of Banks below minimum Core CAR | 5 | 7 | 7 | 8 | 9 | 10 |
| | Required Capital Injection (KSh Mn) by banks below the Minimum Core CAR to achieve the 10.5% level | 6,509.2 | 8,456.7 | 19,516.2 | 8,585.9 | 9,012.6 | 10,363.5 |

**Explanation of the results:** A shock increase in aggregate NPLs under the baseline, moderate and severe scenarios, would lead to more banks failing the stress test in 2022 compared with the number of banks in 2021. However, the core CAR declines more, and amount of capital injection required to meet the minimum regulatory capital of 10.5 percent is higher in 2021 than in 2022. Only few banks (mostly in large peer group) held more capital, implying capital is not uniformly distributed.

- ***Stress Event 1*: Unfavourable economic and financial developments lead to a shock increase in NPLs.** Three shocks are used to assess this risk: increase in overall NPLs; increase in sectoral NPLs; and a default by largest borrowers per bank (**1**, **2** and **3** top borrowers per bank default under the baseline, moderate and severe scenarios, respectively). Capital shortfall and required capital injection to meet the minimum statutory requirement of 10.5 percent as well as number of banks failing the stress test are calculated to establish the full impact of the shock on credit risk.

  Using a simple model incorporating macrofinancial conditions, we estimated that NPLs would increase by 2.5 percent, 12.8 percent, and 17.5 percent under the baseline, moderate and severe case scenarios by December 2022. These were then used as shock sizes in the stress test framework for overall increase in the NPLs. For sectoral shocks, we applied the highest projected increase NPLs per sector while the default risk considered 1, 2 and 3 top borrowers failing to pay the loans when due under the baseline, moderate and severe scenarios.

**The stress test results in Figure iii, indicate that:**

a. On aggregate, banks held more capital to withstand a severe shock scenario in 2022 than was the case in the 2021 stress test. The post-shock core CARs are way above the minimum core CAR of 10.5 percent, and much higher in 2022 than their levels in 2021 in all the scenarios.
b. A shock increase of 17.5 percent in overall NPLs under severe case scenario would lead to ten (10) banks failing the stress test by December 2022, with same number of banks reported in 2021. However, amount of additional capital required to meet the minimum regulatory requirement is KSh 11.4 billion 2022 down from KSh 21.9 billion in 2021. This implies banks held more capital in the 2022 stress test, but this is not uniform across the sector.
c. Sectoral shocks results show higher credit concentration to a few economic sectors as the number of banks failing the stress test under the three scenarios is higher than those in the 2021 stress test.
d. A *default by top borrowers* for each bank is higher in the 2022 compared with 2021 stress test, implying higher concentration risk. Under the severe scenario, twenty-one (21) banks in 2022 would fail the stress test up from eighteen (18) banks in the 2021, following a default by top (3) borrowers. In addition, KSh 63.0 billion in capital would be needed in December 2022 up from KSh 45.9 billion in December 2021 to comply with the minimum core CAR. This may be because large banks increased lending to large borrowers, hence higher risk in case of a default.

**Figure iii: Shock Increase in NPLs due to Unfavourable Macro financial Conditions**

| Shock | Impact on Minimum Core CAR due to Increase in NPLs | Stress Test Based on December 2020 Data | | | Stress Test Based on December 2021 Data** | | |
|---|---|---|---|---|---|---|---|
| | | Baseline Scenario | Moderate Scenario | Severe Scenario | Baseline Scenario | Moderate Scenario | Severe Scenario |
| **Size of the Shock Appiled Under Each Scenario** | | **6.40** | **32.71** | **47.56** | **2.49** | **12.81** | **17.55** |
| 1. A Shock Increase in Overall NPLs | Pre-shock Core Capital Ratio (%) | 15.10 | 15.10 | 15.10 | 15.64 | 15.64 | 15.64 |
| | Post-shock Core Capital Ratio (%) | **14.90** | **14.00** | **13.40** | **15.56** | **15.23** | **15.07** |
| | Number of Banks below minimum Core CAR | 7 | 8 | 10 | 9 | 9 | 10 |
| | Required Capital Injection (KSh Mn) by banks falling below the Minimum Core CAR to achieve the 10.5% level | 10,465.68 | 17,523.06 | 21,907.93 | 8,125.64 | 10,384.35 | 11,430.43 |
| 2. A Shock Increase in Sectoral NPLs | Pre-shock Core Capital Ratio (%) | 15.10 | 15.10 | 15.10 | 15.64 | 15.64 | 15.64 |
| | Post-shock Core Capital Ratio (%) | **14.90** | **14.50** | **13.80** | **15.62** | **15.47** | **15.36** |
| | Number of Banks below minimum Core CAR | 7 | 7 | 8 | 9 | 10 | 10 |
| | Required Capital Injection (KSh Mn) by banks falling below the Minimum Core CAR to achieve the 10.5% level | 9,610.87 | 11,050.44 | 14,614.61 | 7,629.28 | 8,610.34 | 9,992.13 |
| 3. A Shock Default by Large borrowers per bank | **Number of large borrowers that default** | **One (1)** | **Two (2)** | **Three (3)** | **One (1)** | **Two (2)** | **Three (3)** |
| | Pre-shock Core Capital Ratio (%) | 15.10 | 15.10 | 15.10 | 15.64 | 15.64 | 15.64 |
| | Post-shock Core Capital Ratio (%) | **13.20** | **11.30** | **9.80** | **13.41** | **10.05** | **10.05** |
| | Number of Banks below minimum Core CAR | 10 | 14 | 18 | 14 | 17 | 21 |
| | Required Capital Injection (KSh Mn) by banks falling below the Minimum Core CAR to achieve the 10.5% level | 14,631.97 | 23,739.69 | 45,914.43 | 17,407.90 | 39,932.21 | 63,002.74 |

*** shocks based on macroeconomic and financial conditions*

b. A shock increase of 17.5 percent in overall NPLs under severe case scenario would lead to ten (10) banks failing the stress test by December 2022, with same number of banks reported in 2021. However, amount of additional capital required to meet the minimum regulatory requirement is KSh 11.4 billion 2022 down from KSh 21.9 billion in 2021. This implies banks held more capital in the 2022 stress test, but this is not uniform across the sector.

c. Sectoral shocks results show higher credit concentration to a few economic sectors as the number of banks failing the stress test under the three scenarios is higher than those in the 2021 stress test.

d. A *default by top borrowers* for each bank is higher in the 2022 compared with 2021 stress test, implying higher concentration risk. Under the severe scenario, twenty-one (21) banks in 2022 would fail the stress test up from eighteen (18) banks in the 2021, following a default by top (3) borrowers. In addition, KSh 63.0 billion in capital would be needed in December 2022 up from KSh 45.9 billion in December 2021 to comply with the minimum core CAR. This may be because large banks increased lending to large borrowers, hence higher risk in case of a default.

***Overall,*** banks have adequate capital to minimize credit risk and continue lending. The most significant shock is a default by up to top three (3) largest borrowers per bank. If it materializes, the amount is much higher and affects the highest number of banks that fail the stress test.

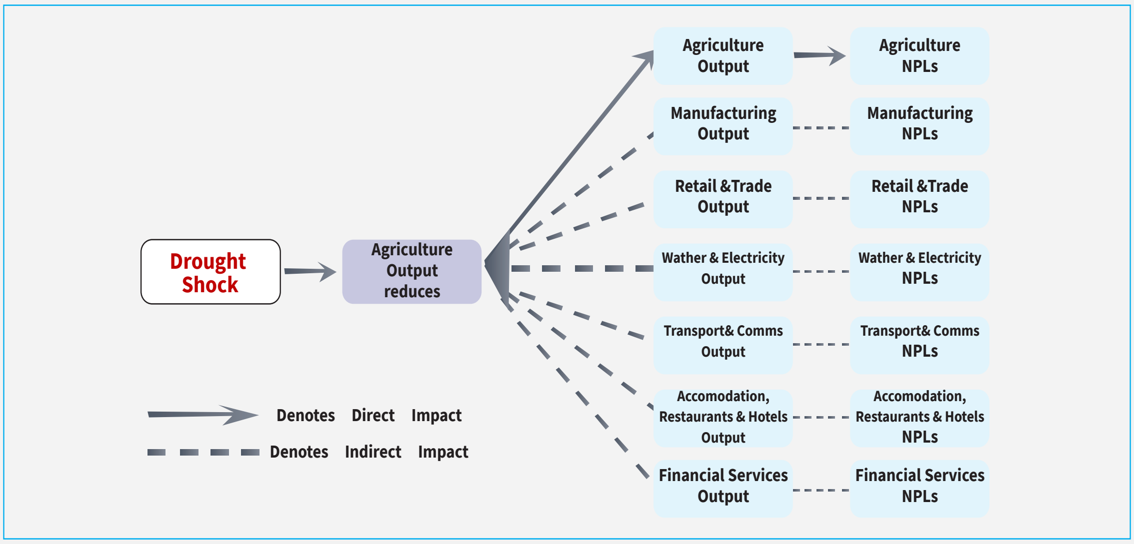
- ***Stress Event 2*****: How a drought shock on Agriculture impacts credit risk for banking sector.** By December 31, 2021, Agriculture accounted only for 3.2 percent of total gross loans and 4.5 percent of total NPLs. However, its interconnectedness with other economic sectors means that a significant reduction in output spillover to the connected sectors and in turn credit risk. A drought shock was calibrated from its impact on agricultural output. It employed Climatological data for the period 2008-2021 from the Kenya Meteorological Department and the IGAD Climate Prediction and Application Centre (ICPAC) to identify drought events. These were mapped onto the agricultural output data for the period 2008Q1-2021Q4 to identify drought and non-drought events and used them to calibrate shock sizes under Moderate and Severe scenarios **(Figure iv).**

**Figure iv: Drought Shock Under the Scenarios**

| DROUGHT SCENARIO | EXPLANATION |
|---|---|
| Baseline Scenario | The scenario assumes there is no drought in twelve months to December 2022. As a result, Agricultural output is projected to grow by 5.6 percent to support the projected GDP growth of 5.9 percent in 2022. Under this scenario, the NPLs are projected to contract by -3.5 percent by December 2022 as borrowers can repay their loans. |
| Moderate Drought Scenario | Moderate assumes a mild drought event. It is estimated from an average of agricultural output gap between actual and counterfactual agricultural output during episodes of mild drought for the period 2008-2021. Under this scenario, agricultural output gap ranged between -4.5 percent and -2.0 percent, yielding an average of -3.3 percent. This was applied as a drought shock on elasticities of sectoral NPLs, leading to a shock increase in the NPLs by 2.8 percent. |
| Extreme Drought Scenario | Extreme drought shock was calibrated from an average of agricultural output gap between actual and counterfactual agricultural output during extreme drought episodes for the period, 2008-2021. Under this scenario, agricultural output gap ranged between -13.3 percent and -5.0 percent, yielding an average of -7.9 percent. Applying this agricultural output shock on elasticities of sectoral NPLs, we estimated the shock to NPLs as 5.6 percent. |

*Risk transmission from agriculture to banking sector credit risk***.** The transmission channel of a drought shock on agriculture to the banking sector is estimated through sectoral elasticities to capture the responsiveness of different economic sectors to contraction in agricultural output following a drought episode under Moderate and Severe Scenarios **(Figure v).**

### Figure v: Credit Risk Transmission Channels of Drought Shock on Agriculture




Responsiveness of sectoral NPLs to sectoral output was used to estimate the changes in sectoral and aggregate NPLs from the baseline to assess severity of the drought event and how it leads to elevated credit risk. A *moderate* and *severe* deviation of NPLs from the baseline are represented by *moderate* and *severe* contraction of agricultural output of **-3.3** percent and **-7.9** percent, respectively (**Figure vi).**

### Figure vi: Direct and Indirect Impact of Drought Shock on NPLs

| Agriculture and Related Sectors | Agric. Output Growth Elasticities | Sectoral NPLs Elasticities | Baseline Agric.growth: 5.6 percent | | | Mild drought (2022)Agric.Growth: -3.32 percent | | | Severe drought(2022) Agric. Growth:-7.92 percent | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Sectoral NPLs (KSh Bn) | Output Growth for Agric & related Sectors | Impact on NPLs | Output Growth for Agric & related Sectors | Agric & related Sectors NPLs (KSh Bn) | Impact on NPLs | Output Growth for Agric & related sectors | NPLs for Agric & related sectors (KSh Bn) | Impact on NPLs |
| Agriculture | - | -0.253 | 21.703 | 5.63 | -1.26 | -3.51 | 21.68 | 0.84 | -8.37 | 22.14 | 2.00 |
| Manufacturing | 0.307 | -0.395 | 65.489 | 1.73 | -0.60 | -1.06 | 65.75 | 0.40 | -2.53 | 66.12 | 0.96 |
| Electricity & Water Supply | 0.121 | -0.061 | 17.757 | 0.68 | -0.04 | -0.43 | 17.76 | 0.02 | -1.02 | 17.77 | 0.06 |
| Wholesale & Retail Trade | 0.200 | -0.327 | 103.005 | 1.13 | -0.33 | -0.71 | 103.23 | 0.22 | -1.69 | 103.54 | 0.52 |
| Accomodation & Restaurant | 0.078 | -0.002 | 21.146 | 0.44 | 0.00 | -0.54 | 21.15 | 0.00 | -1.29 | 21.15 | 0.00 |
| Transport & Storage | 0.228 | -0.295 | 25.868 | 1.28 | -0.34 | -0.81 | 25.93 | 0.22 | -1.94 | 26.01 | 0.53 |
| Financial & Insurance | 0.224 | -0.396 | 6.305 | 1.26 | -0.44 | -0.83 | 6.39 | 0.29 | -1.97 | 6.35 | 0.70 |
| Other Sectors | 1.955 | -0.052 | 176.3 | 11.00 | -0.508 | 0.00 | 177.05 | 0.83 | 0.00 | 177.61 | 0.81 |
| TOTAL | | | 437.59 | | -3.51 | -0.94 | 438.94 | 2.84 | -2.24 | 440.68 | 5.58 |

**Stress Test Results Explanation:**

- The BSCR stress test following a drought shock on Agriculture are assessed against the Annual Baseline Stress test results. The results indicate that drought shock on agriculture has less impact on credit risk of banks as compared to the shocks under the Annual baseline stress test **(Figure vii).**
- The post-shock core CARs are well above the minimum regulatory core CAR of 10.5 percent and amount of additional capital needed to meet the minimum capital requirement is less across the three scenarios under a drought shock. This is the case whether the shock is assessed through the overall increase in NPLs or through sectoral exposures. Under the moderate and severe drought scenarios, if NPLs increase by 2.84 percent and 5.58 percent, banks capital would reduce by 0.14 percentage points and 0.25 percentage points, respectively, from the baseline by December 2022. However, banks hold sufficient capital to absorb a severe drought shock on agriculture, while maintaining lending to the economy, hence the sector is therefore resilient to the drought shock. There are however ten (10) banks failing the stress test following a drought shock on Agriculture, implying capital build up is not uniform across the sector.

## Figure vii: Stress test Results following Drought Shock on Agriculture

| Shock | Impact on Minimum Core CAR due to Increase in NPLs | Stress Test Based on December 2021 Data | | | Stress Test Based on December 2021 Data** | | |
|---|---|---|---|---|---|---|---|
| | | Baseline Scenario | Moderate Scenario | Severe Scenario | Baseline Scenario | Moderate Scenario | Severe Scenario |
| **Size of output growth due to Drought shock on Agriculture and related sectors** | | **4.9** | **4.9** | **4.9** | **5.63** | **-3.32** | **-7.92** |
| **Size of Shocks** | | **5.0** | **7.5** | **15.0** | **-3.51** | **2.84** | **5.58** |
| 1. Increase in Aggregate NPLs | Pre-shock Core Capital Ratio (%) | 15.6 | 15.6 | 15.6 | 15.64 | 15.64 | 15.64 |
| | Post-shock Core Capital Ratio (%) | **15.5** | **15.4** | **15.2** | **15.75** | **15.50** | **15.39** |
| | Number of Banks falling below minimum Core CAR | 9 | 9 | 10 | 8 | 9 | 10 |
| | Required Capital Injection (KSh Mn) by banks below the Minimum Core CAR to achieve the 10.5% level | 8,674.86 | 9,222.27 | 10,864.49 | 7,458.43 | 8,201.24 | 8,802.26 |
| 2. Increase in Sectoral NPLs | *Pre-shock Core Capital Ratio (%)* | 15.6 | 15.6 | 15.6 | 15.64 | 15.64 | 15.64 |
| | *Post-shock Core Capital Ratio (%)* | **15.6** | **15.5** | **15.4** | **15.63** | **15.60** | **15.60** |
| | Number of Banks falling below minimum Core CAR | **8** | **9** | **10** | **8** | **9** | **9** |
| | Required Capital Injection (KSh Mn) by banks falling below the Minimum Core CAR to achieve the 10.5% level | 8,585.95 | 9,012.61 | 10,363.46 | 7,789.66 | 7,822.89 | 7,869.66 |

## SUMMARY OF STRESS TEST RESULTS AND RECOMMENDATIONS

Credit risk remains elevated, with NPLs ratio projected at 15.3 percent under severe scenario by December 2022. However, banks hold sufficient capital to absorb the shocks and continue lending, though not evenly distributed. Banks in the small peer group are likely to be affected most given the two trigger events as assessed against the annual baseline stress test. Up to nine (9) of the total twenty-two (22) banks in this group fail the stress test in case either of the shocks materialise by December 2022. This indicates that most banks in this peer group have borderline capital base, hence need to rebuild capital for bad times.

### Figure viii: Number of Banks Affected by Peer Group

| Event and Non-Event Driven | Banks by Peer Group | Baseline Scenario | Moderate Scenario | Adverse Scenario |
|---|---|---|---|---|
| Annual Baseline Stress Test (“Set Piece Stress Test”) | Small | 8 | 9 | 10 |
| | Medium | 1 | 1 | 1 |
| | Large | - | - | 1 |
| Macro-financial conditions, local and global developments | Small | 8 | 8 | 9 |
| | Medium | 1 | 1 | 1 |
| | Large | - | - | - |
| Drought Shock on Agriculture | Small | 8 | 8 | 9 |
| | Medium | 1 | 1 | 1 |
| | Large | - | - | |

- More focus should be on capital build-up and preservation efforts by December 2022, especially for the ten (10) banks by instituting specific measures. Closer attention on credit concentration to a few borrowers and/or sectors is critical to minimize concentration risk.

## 2.2 Insurance Sector

The insurance sector is classified into two broad categories - general insurance business and long-term insurance business. As of December 2021, there were 56 insurance companies, 5 reinsurance companies, 220 insurance brokers and 11, 828 insurance agents (including 27 bancassurance agents). The general insurance business accounted for 55.2 percent of total insurance premiums in 2021 and overall insurance sector grew by 18.5 percent in premiums, to reach KSh 276.1 billion. Penetration of insurance services in the economy as measured by the ratio of insurance premium to GDP remained at 2.2 percent in 2021same as in 2020. The ratio is still way below the global average of 7.2 percent. The performance of the insurance industry in the period 2015 – 2021 **(Table 6).**

The insurance industry asset base grew by 10.4 percent to KSh 845.8 billion as at December 2021 from KSh 765.9 billion in December 2020. Long-term and general businesses invested KSh 524.4 billion (78.5 percent) and KSh 143.9 billion (21.5 per cent) in earning assets, respectively. Top three investement assets classes were government securities (71.7 percent), investment property (10.7 percent) and bank deposits (6.9 percent). Investment income increased by 34.4 percent to KSh 68.2 billion in 2021 compared to KSh 50.6 billion in 2020, which may be attributed to the recovery of the capital markets. Exposure to government securities introduces market risk in the event of steep rise in interest rates.

The growth in gross premium and assets increased return on assets and return on equity by 0.3 per cent and 1.2 per cent respectively. The increase in profitability of the insurance sector may be due to the recovery of the economy in 2021 from the impact of COVID-19 and adoption of digital methods in the payment of premiums and verification insurance covers.

## Table 6: Key Performance Indicators for Insurers

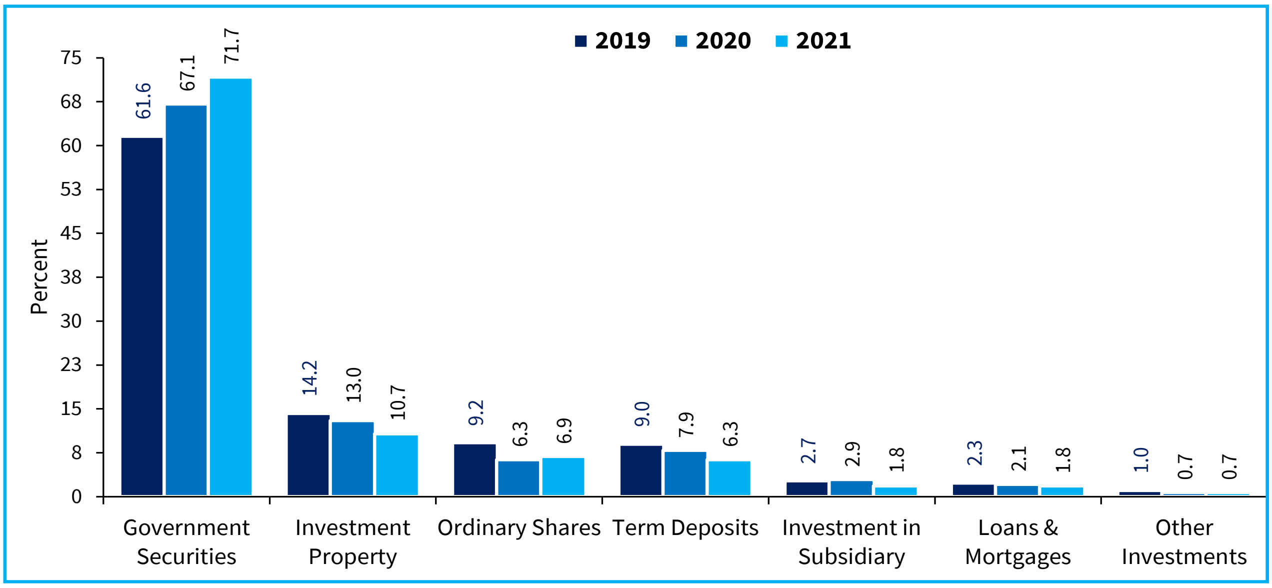
| Measurement Indicator | 2015 KSh '000' | 2016 KSh '000' | 2017 KSh '000' | 2018 KSh '000' | 2019 KSh '000' | 2020 KSh '000' | 2021 KSh '000' | Annual Change (%) |
|---|---|---|---|---|---|---|---|---|
| **Insurers Performance Indicators** | | | | | | | | |
| Gross Premium Income | 174,064,645 | 196,635,836 | 209,001,289 | 216,261,729 | 229,499,718 | 234,775,753 | 276,064,126 | 17.6 |
| Net Premium Written | 140,003,552 | 158,362,431 | 165,852,034 | 172,322,202 | 182,658,282 | 187,853,004 | 221,470,562 | 17.9 |
| Claims Incurred (Gen. Business) | 49,051,411 | 54,857,495 | 56,151,961 | 56,928,003 | 58,961,581 | 58,311,459 | 70,139,114 | 20.3 |
| Commissions | 10,895,759 | 12,578,735 | 12,495,181 | 11,487,628 | 10,957,562 | 11,157,093 | 13,502,337 | 21.0 |
| Management Expenses | 36,272,444 | 39,982,771 | 41,197,262 | 44,072,857 | 45,702,207 | 44,173,611 | 46,786,664 | 5.9 |
| Investment Income | 34,576,984 | 37,135,382 | 51,675,571 | 44,514,367 | 66,982,398 | 50,608,392 | 68,151,650 | 34.7 |
| Profit/Loss After Taxation | 13,635,098 | 12,832,644 | 13,642,971 | 7,269,263 | 15,119,928 | 6,388,955 | 5,726,359 | -10.4 |
| Investments | 390,225,346 | 425,304,138 | 483,799,656 | 524,237,249 | 594,028,115 | 656,460,833 | 731,490,222 | 11.4 |
| Assets | 478,752,453 | 528,748,193 | 590,953,337 | 635,035,110 | 709,045,429 | 765,932,477 | 845,834,750 | 10.4 |
| Shareholders' Funds | 125,830,029 | 134,455,222 | 147,255,007 | 149,134,602 | 161,635,278 | 166,069,303 | 173,102,044 | 4.2 |
| **Key Performance Ratios for Insurers (Per cent)** | | | | | | | | |
| ROA | 3.8 | 3.6 | 3.2 | 1.8 | 3.0 | 1.3 | 1.6 | 0.3 |
| ROE | 11.4 | 9.9 | 9.7 | 4.9 | 9.9 | 3.9 | 5.1 | 1.2 |
| Combined ratio Gen Business) | 102.7 | 102.4 | 101.1 | 102.8 | 103.4 | 102.0 | 106.2 | 4.2 |
| Insurance Penetration Ratio | 2.7 | 2.7 | 2.7 | 2.4 | 2.3 | 2.2 | 2.2 | 0.0 |

**Unaudited data*
*Source: IRA*

The growth in gross premium and assets increased return on assets and return on equity by 0.3 per cent and 1.2 per cent respectively. The increase in profitability of the insurance sector may be due to the recovery of the economy in 2021 from the impact of COVID-19 and adoption of digital methods to in the payment of premiums and verification insurance covers.

**Increased share of government securities to 71.7 percent in 2021 from 67.1 percent of income generating assets in 2020 may indicate flight to quality and safety by insurers but raises sovereign exposure risk (Figure 23).** There was also a decrease in investment in subsidiaries by 34.9 percent. The 2.3 percent decline in the share of investment property, may reflect COVID–19 pandemic aftershocks on the real estate and construction sectors. The value of ordinary shares held grew by 10.3 percent in 2021, reflecting elevated market risk exposure at NSE.

**Figure 23: Investment Channels by Insuarance Sector**




*Source: IRA*

## Risks Assessment and Outlook

The sector is faced with both/or either increasing risks in magnitude and/or new ones are emerging: These include, but not limited to:

- ***The insurance risk*** **–** The very nature of insurance contracts is to offer protection against loss. The main factors affecting insurance risk include insurance product design, pricing, underwriting, reinsurance arrangements, reserving, and claims management. The insurance risk affects combined ratio which is a combination of claims ratio, commission ratio, and management expense ratio. The industry combined ratio was 106.2 percent as at December 2021 compared to 101.3 percent as at December 2020, indicating increased insurance risk for general insurance business.
- ***Market risk*** This is the risk of adverse fluctuations in market interest rates or asset prices resulting in overstating of assets /or understating of liabilities. Insurance companies are exposed to the risk of price movements for equities as they invested in the securities market. The sector held securities valued KSh 35.9 billion on the NSE as of December 2021, a 15.3 percent increase from 2020. The growth in the value of equities was mainly attributed to the increase in equity prices as economic prospects improved on diminishing COVID-19 pandemic effects.
- ***Credit risk*** Arises from the fact that a counterparty is unable to repay loans when due, including; amounts due from reinsurers in respect of claims already paid, amounts due from insurance intermediaries, amounts due from corporate bond issuers, cash, and deposits held in banks, reinsurer's share of insurance liabilities and reserves, retrocession assets for reinsurers and loans and mortgages advanced to varies counterparties. The credit exposure from outstanding premiums and reinsurance recoveries increased by 5.2 percent to KSh 40.1 billion in 2021. Insurers and reinsurers are required to constantly monitor risk profile of their creditors and make sufficient provisions and write-offs to ensure adequate valuation of debtors.

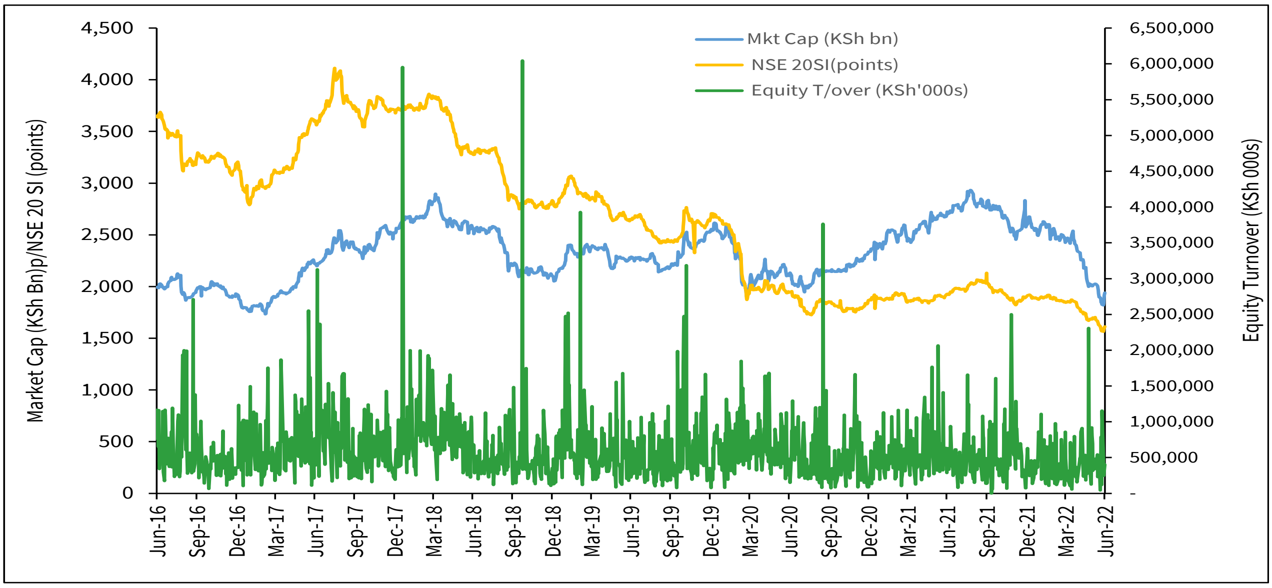
- ***Cybersecurity threats and insurance frauds have increased***. Cyber threats are evolving rapidly due to the growing digital transformation of society and the widespread use of internet-enabled devices, systems, and processes. Working away from office (a mitigation measure against the spread of COVID-19) raised exposure to cyber risk due to limited security in home set-ups
- ***Ukraine War.*** The recent Russia-Ukrainian conflict is set to have an impact as seen from the already substantial change in the energy market, for example, the increase in fuel prices. As a result, the conflict is a risk to the insurance market given increase in commodity prices which will in turn impact the cost of insurance across the board. The conflict is also expected to have an adverse impact on the marine cargo class of business and on companies that have an exposure to Russian or Ukrainian companies.
- ***Political Risk.*** This being an election year, political risk is an emerging risk to the insurance industry due to the possibility of riots and/or civil unrest which could cause a disruption in business. Companies could choose to scale down operations as a mitigation to the risk. Investment returns for the industry are also expected to be subdued during the electioneering period.
- ***Climate Change Risk.*** Climate change such as severe drought or floods will likely lead to higher claim pay-outs from insurers participating in underwriting those risks and will in turn reduce underwriting performance. As a mitigation affected insurers should reprice their portfolios to factor long-term exposure to climate changes.

The sector outlook remains positive in terms of growth, stability, and resilience. The IRA has enhanced surveillance and taken measures to address existing challenges to improve the sector's performance. This is complimented by rapid adoption of technology and digital platforms, and innovative distribution channels as well as raising risk awareness. As the economy recovers, insurers see opportunities to innovate and come up with value-based products meeting consumer needs.

## 2.3 Capital Markets

**The Nairobi Securities Exchange performance was resilient to COVID-19 pandemic as investors deployed hedging strategies to mitigate market risk in 2021 (Figure 24).** The NASI, NSE 20 and market capitalisation increased by 9.4 percent, 1.8 percent, and 11.0 percent, respectively. Equity turnover and total shares traded, declined by 8.1 percent and 21.4 percent, respectively in 2021. The liquidity of the equities declined in 2021 from 6.9 percent in 2020 to 5.9 percent in 2021, despite adoption of securities lending reforms enabling market participants to buy and sell securities, thereby enhancing liquidity.

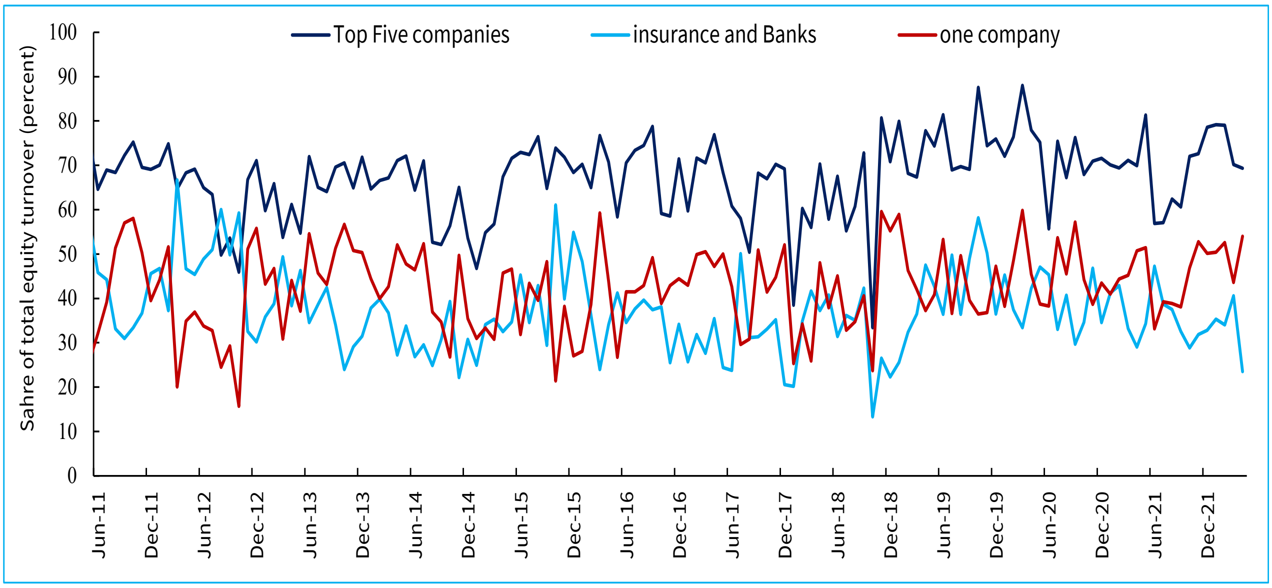
## Figure 24: Select Equities Market Performance Indicators




*Source: NSE*

Market concentration risk remains high, with top five listed firms accounting for 78.6 percent of total equity turnover in 2021 compared to 71.6 percent in 2020 **(Figure 25)**. The financials (insurance &banks) accounted for 23.5 percent while Telecommunications (Safaricom only) accounted for 54.0 percent of total equity turnover in 2021. There was no new listing of shares through Initial Public Offering (IPO), Rights Issues or share splits.

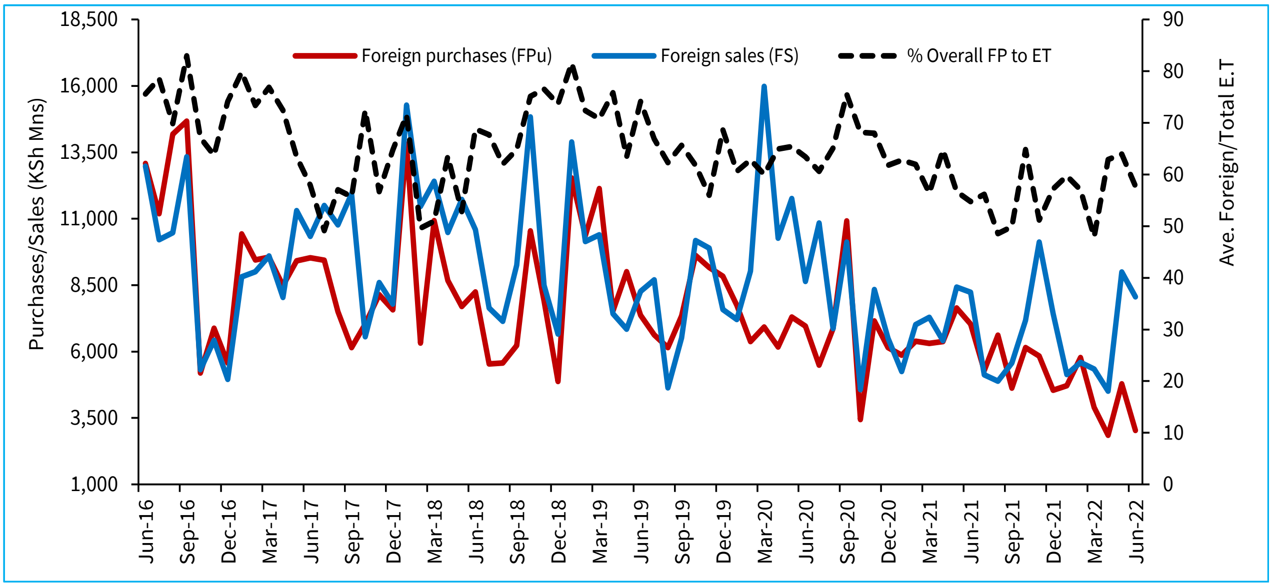
## Figure 25: Market Concentration Risk remains




*Source: NSE*

**Foreign investors remained on the sale side in 2021, albeit gradual recovery. However, rising global interest rates following monetary policy tightening in advanced countries to stem inflation, have reversed the gains on the purchase side (Figure 26).** Despite economic recovery following the easing of COVID-19 restrictions, foreign investors are yet to record net inflow (where purchases exceed sales). In 2020, foreign investors sold (outflow) shares valued at KSh 110.1 billion against KSh 81.5 billion purchases (inflow) yielding a net outflow of KSh 28.6 billion.

**Figure 26: Foreign Investors Participation in local Equities Market**

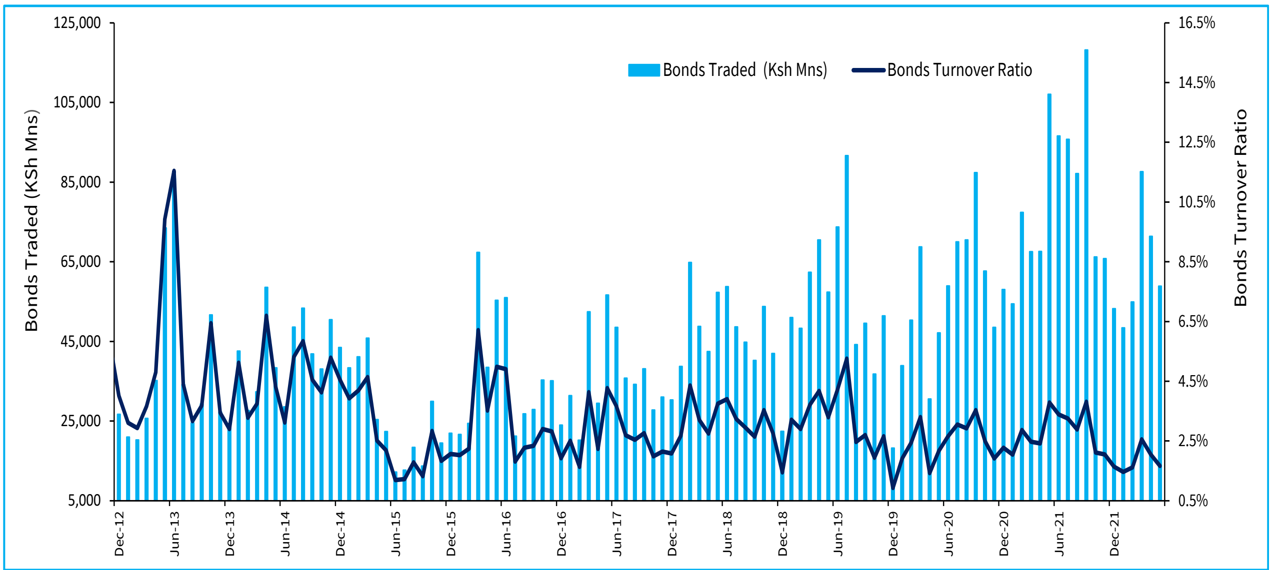



*Source: NSE*

In 2021, foreign investors bought shares worth KSh 72.7 billion against KSh 82.9 billion sales, hence net outflow of KSh 10. 2 billion. The average (sum of purchases and sales divide by 2) foreign investor participation to total equity turnover (sum of buy and sale sides divide by 2) declined from a twelve months' average of 64.7 percent in 2020, to 57.0 percent in twelve months to December 2021. In five months to May 2022, NSE recorded KSh 22.0 billion worth of shares bought by foreign investors against KSh 29.6 billion sales by foreigners, yielding a net outflow of KSh 7.5 billion. The net selloffs could be explained by monetary policy tightening in the advanced economies to stem the rising inflation, causing increase in interest rates in advanced countries and capital outflows from emerging markets and developing economies. The CMA has intensified domestic investor education to increase the share of domestic investors at the NSE.

**The capital market recorded positive developments in the corporate bond market segment in 2021.** The CMA approved the issuance of a secured KSh.3.9 billion Medium Term Note program for Urban Housing Renewal Development Limited; a senior unsecured medium-term program of up to KSh.10.5 billion by the Kenya Mortgage Refinance Company (KMRC) to support Kenya's affordable housing agenda; 5-year fixed rate medium term note by East African Breweries Plc to raise KShs.11 billion with the latter attracting applications for nearly KShs.38 billion; 5.5-year KSh.4 billion bond issuance by Family bank attracting applications for KSh.4.42 billion. This provides long term funding opportunities for companies. The risk aversion in equities market saw significant demand for Treasury bonds considered to be safe and offer good return. Consequently, bonds traded in the domestic secondary market increased by 38.3 percent to KSh 957 billion in 2021 from KSh 692 billion in 2020, the highest turnover over ten (10) years. Most investors held bonds to maturity as indicated low bonds turnover ratio (value of bonds traded against outstanding tradable bonds) overtime **(Figure 27).**

## Figure 27: Local Currency Bonds Secondary Market Activity




*Source: NSE*

A similar strong investor appetite for Government bonds was recorded in the primary market, where most bonds offered were oversubscribed in 2021. However, the Government Securities Yield Curve shifted outward, reflecting rising domestic borrowing cost **(Annex III).**

## Risks Assessment and Outlook

- **Technology related risks** have have increased due to adoption of digital platforms, innovations, and automation of processes. The CMA continues to admit eligible applicants into the Regulatory sandbox to allow testing of these new innovations at limited scale prior to their roll–out at commercial scale.
- **Liquidity risk a**s measured by equities turnover ratio remains high, with just 5.9 percent in 2021 against 6.4 percent in 2020, and way below the peak of 10.2 percent liquidity ratio recorded in 2015.

Overall, the sector continues to face elevated risk and volatility in 2022 on account of Russia-Ukraine war and its related risks, rising global interest rates following monetary policy tightening in advanced economies to stem inflation, domestic macroeconomic risks and the August 2022, general elections.

## 2.4 Pensions Sector

**The economic recovery and improved performance of equities market positively impacted pensions sector. Total assets grew by 10.6 percent, to KSh. 1,547.43 billion in December 2021, from KSh. 1,398.96 billion in December 2020 (Table 7).** Fund managers and approved issuers held over 93 percent of the pension assets worth KSh. 1,441.6 billion. Asset concentration remains in just four asset classes - government securities (45.7 percent); immovable property (16.4 percent); guaranteed funds (16.8 percent) and quoted equities (16.5 percent). In addition, Sanlam Investments East Africa Company and GenAfrica asset managers held assets under management of KSh. 288.8 billion or 20 percent, and KSh 270.4 billion or 18.8 percent of total assets in 2021, raising concerns about concentration risks.

**Table 7: Pension Sector Assets (KSh Billion)**

| Assets Category | 2017 | | 2018 | | 2019 | | 2020 | | 2021 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Amount | Share (%) | Amount | Share (%) | Amount | Share (%) | Amount | Share (%) | Amount | Share (%) |
| Government Securities | 394.2 | 36.5 | 459.7 | 39.4 | 545.3 | 42.0 | 625.7 | 44.7 | 707.0 | 45.7 |
| Quoted Equities | 210.2 | 19.5 | 201.5 | 17.3 | 228.1 | 17.6 | 218.1 | 15.6 | 254.6 | 16.5 |
| Immovable Property | 226.7 | 21.0 | 229.9 | 19.7 | 239.7 | 18.5 | 251.3 | 18.0 | 254.5 | 16.4 |
| Guaranteed Funds | 143.0 | 13.2 | 167.5 | 14.4 | 201.5 | 15.5 | 230.6 | 16.5 | 259.8 | 16.8 |
| Listed Corporate Bonds | 42.0 | 3.9 | 40.3 | 3.5 | 17.8 | 1.4 | 5.3 | 0.4 | 6.8 | 0.4 |
| Fixed Deposits | 32.9 | 3.0 | 36.4 | 3.1 | 39.4 | 3.0 | 39.0 | 2.8 | 27.8 | 1.8 |
| Offshore | 12.8 | 1.2 | 13.1 | 1.1 | 6.3 | 0.5 | 11.4 | 0.8 | 19.4 | 1.3 |
| Cash | 13.0 | 1.2 | 12.7 | 1.1 | 15.0 | 1.2 | 12.2 | 0.9 | 9.5 | 0.6 |
| Unquoted Equities | 4.1 | 0.4 | 3.8 | 0.3 | 3.6 | 0.3 | 3.4 | 0.2 | 3.5 | 0.2 |
| Private Equity | 0.3 | 0.0 | 0.9 | 0.1 | 1.0 | 0.1 | 1.7 | 0.1 | 3.0 | 0.2 |
| REITs | 1.0 | 0.1 | 0.7 | 0.1 | 0.5 | 0.0 | 0.3 | 0.0 | 0.4 | 0.0 |
| Commercial paper, non-listed bonds & Others | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 1.1 | 0.1 |
| **TOTAL** | **1,080.15** | **100.00** | **1,166.49** | **100.00** | **1,298.29** | **100.00** | **1,398.96** | **100.00** | **1,547.43** | **100.00** |
| **Overall Risk Score** | | 0.51 | | 3.07 | | 3.10 | | 3.15 | | 2.98 |

*Source: RBA*

**Despite the overall growth in pension assets, the penetration of pension among the working population is still low at about 21 percent.** To bring more people into the pension sector, RBA encouraged and supported the launch of several digital products targeting the informal sector workers. These include *Haba na Haba* by NSSF, Gift a pension by Zamara, *Mobikeza* by Octagon, among others. The Zamara Group also launched Africa's first pension savings plan on WhatsApp, thus allowing customers to open, access and transact with Zamara's Fahari Retirement Plan account via WhatsApp. This will accelerate and enable digital and financial inclusion in Kenya by providing easy access to financial solutions.

The pension sector is not able to provide adequate cover to as millions of Kenyans in retirement, to enable them afford a decent lifestyle. As a result, most Kenyans above the age of 60 are dependants.. Some of the reasons for the inadequacy of benefits include low contributions, short contribution period and leakages due to early withdrawals. Longevity risk remains a challenge because of rising life expectancy after retirement that exposes retirees to the danger of outliving their retirement savings.

### Risks Assessment and Outlook

The Regulator continues to implement a risk-based supervision framework with enforcement measures for schemes that have a high-risk profile. In addition, RBA continues to strengthen the regulatory framework to forestall any risks that may affect the sector. In particular, amended Retirement Benefits Act and regulations in 2021 provide for:

- **Benefits preservation to guarantee income adequacy in retirement:** by only allowing a member to access not more than 50 percent of total accrued benefits and the investment income when such a member leaves employment before attaining retirement age.
- **Recovery of unremitted contributions:** by granting approval to trustees upon applications or to directly appoint KRA as an agent to collect unremitted contributions, interests, and penalties owed to the scheme.
- **Post-Retirement Medical Funds established outside Retirement Benefit Schemes:** by allowing RBA to formulate regulations for registration and regulation of stand-alone and umbrella post-retirement medical funds.
- **Registration of Corporate Trustees:** by requiring Corporate Trustees to register with RBA.
- **Powers of the Authority:** that allow RBA to extend the timeline for submission of audited accounts for a period not exceeding ninety (90) days on the application of a trustee.
- **Access to accrued benefits to purchase a residential house:** Section 38 of the Retirement Benefits Act was amended to allow members partial access (40 percent) to their accumulated benefits to purchase a residential house.

## 2.5 Sacco Sector

**Savings and Credit Cooperatives (Sacco) Societies recovered in 2021 following the reopening of the economy. Total assets recorded 4 percent annual growth, to KSh 700.3 billion in 2021, mainly driven by gross loans (Table 8)**. The 5.4 percent decline in actual NPLs, 31.7 percent increase in net income and 2 percent growth in total deposits further indicates a recovery of the sector.

**Table 8: Trends in Saccos Sector Key Indicators (KSh Million)**

| INDICATOR | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Annual Change (%) |
|---|---|---|---|---|---|---|---|
| Total Assets | 393,499 | 440,248 | 495,246 | 556,715 | 673,306 | 700,258 | 4.0 |
| Gross Loans | 297,604 | 331,212 | 374,286 | 419,547 | 508,862 | 523,018 | 2.8 |
| Total Deposits | 272,579 | 305,305 | 341,910 | 380,440 | 464,217 | 473,302 | 2.0 |
| Core Capital | 54,943 | 64,254 | 74,375 | 79,204 | 113,786 | 119,557 | 5.1 |
| Institutional Capital | 30,120 | 35,920 | 41,905 | 58,983 | 69,294 | 120,303 | 73.6 |
| External Borrowings | 20,136 | 21,384 | 20,363 | 21,600 | 25,817 | 24,765 | -4.1 |
| Earning Assets | 320,016 | 357,885 | 409,342 | 465,834 | 553,742 | 567,413 | 2.5 |
| Liquid Assets | 61,261 | 72,327 | 83,757 | 97,553 | 96,503 | 105,927 | 9.8 |
| Non-Performing Loans | 15,565 | 20,336 | 23,580 | 25,802 | 37,651 | 35,607 | -5.4 |
| Loan loss Provisions | 2,208 | 2,329 | 3,642 | 4,654 | 2,642 | 2,945 | 11.5 |
| Gross Income | 55,258 | 63,045 | 63,601 | 79,879 | 70,316 | 96,905 | 37.8 |
| Operating Expenses | 20,266 | 23,206 | 22,900 | 26,431 | 22,808 | 31,502 | 38.1 |
| Net Interest Margin | 24,060 | 28,780 | 31,032 | 36,847 | 42,286 | 43,296 | 2.4 |
| Short term Liabilities | 85,050 | 96,874 | 110,635 | 127,040 | 125,196 | 138,561 | 10.7 |
| Net Financial Income | 30,936 | 35,968 | 38,311 | 45,716 | 45,063 | 59,355 | 31.7 |

*Source: SASRA*

**The sector had mixed performance of Financial Soundness Indicators (FSIs) as of December 2021 (Table 9).** The NPLs ratio shed 0.12 percentage points to 6.81 percent in December 2021, an indication of easing credit risk, but still above the statutory minimum of 5.0 percent. In addition, all capital ratios increased in 2021, signifying the enhanced ability to absorb credit risk and thus continued stability and resilience. Liquidity ratio declined by 28.8 percentage points but remained well above the statutory threshold of 15.0 percent. External borrowings to total assets ratio further declined to 3.5 percent in 2021, from 5.0 percent in 2016, signifying low external funding risks to Saccos. Leveraging moderated to 110.5 percent in 2021 from 110.1 percent in 2020.

## Table 9: Financial Soundness Indicators (FSIs)

| CAPITAL ADEQUACY | Prescribed Minimum | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | Change 2020/21 |
|---|---|---|---|---|---|---|---|---|
| Core Capital (KSh Billion) | KSh 10 Mn | 54.94 | 64.25 | 74.37 | 79.20 | 100.38 | 119.56 | 19.1% |
| Core Capital/Total Assets (percent) | 10 | 13.96 | 14.53 | 15.02 | 14.23 | 15.91 | 17.07 | 1.16 |
| Core Capital/Total Deposits (percent) | 8 | 20.16 | 21.05 | 21.75 | 20.82 | 23.29 | 25.26 | 1.97 |
| Total Capital/Total Assets (percent) | 8 | 7.71 | 8.18 | 8.50 | 10.63 | 9.48 | 19.01 | 9.53 |
| CAPITAL ADEQUACY | | | | | | | | |
| Gross NPLs/Gross Loans (percent) | <5.0 | 5.23 | 6.14 | 6.30 | 6.15 | 6.93 | 6.81 | -0.12 |
| NPL (Net of Provisions)/Core Capital (percent) | | 7.63 | 9.90 | 9.27 | 8.50 | 9.01 | 6.88 | -2.13 |
| Earning Assets/Total Assets (percent) | | 80.71 | 78.50 | 77.68 | 76.90 | 81.95 | 81.03 | -0.92 |
| EARNINGS | | | | | | | | |
| Return on Assets (ROA) | percent | 2.45 | 2.69 | 2.40 | 2.60 | 3.39 | 3.57 | 0.18 |
| Non-Interest Expenses/Gross Income | percent | 41.35 | 43.99 | 43.32 | 42.70 | 57.87 | 38.39 | -19.48 |
| Operating Expense/Total Assets Ratio | percent | 5.44 | 5.29 | 4.62 | 4.75 | 4.53 | 4.55 | 0.02 |
| LIQUIDITY RATIO | | | | | | | | |
| Liquid Assets/ (Savings Deposits+ Short Term liabilities) in percent | >=15.0 | 49.95 | 54.10 | 52.68 | 50.92 | 70.83 | 42.08 | -28.75 |
| Liquid Assets/Total Deposits (percent) | | 18.05 | 17.17 | 17.05 | 17.00 | 19.91 | 22.38 | 2.47 |
| External Borrowings/Total Assets (percent) | <=25 | 5.04 | 4.83 | 4.11 | 3.88 | 3.72 | 3.54 | -0.18 |
| Liquid Assets/Total Assets (percent) | | 12.49 | 11.85 | 11.77 | 11.62 | 13.60 | 15.13 | 1.53 |
| Total Loans/Total Deposits (percent) | | 108.39 | 108.49 | 109.47 | 110.28 | 110.11 | 110.50 | 0.39 |

*Source: SASRA*

To strengthen and grow the sector, SASRA operationalised the non-withdrawable deposit taking SACCO regulations 2020, in 2021, with a transition period of six (6) months. This brought on board three categories of SACCOs. The first category consists of SACCOs whose accumulated non-withdrawable deposits exceeded KShs.100million. Second category involves those Saccos that mobilize savings and credit services through virtual platforms and the last group is that of Saccos that mobilize membership, savings and provide credit to Kenyans living abroad - Diaspora Saccos. As of 2021, SASRA had processed all the applications and authorized a total of 185 SACCOs to conduct specified deposit taking Sacco business. SASRA Now supervises a total of 360 SACCOs comprising of 175 Deposit-taking and 185 non-withdrawable deposit taking SACCOs, with more SACCOs expected under SASRA's regulatory perimeter as they grow deposits, especially through digital platforms.

## Risks, Mitigations and Outlook

- **Rapid adoption of digital financial solutions** such as mobile and internet banking for efficient service delivery and offer more friendly financial products has contributed to growth in revenue streams. However, this has introduced cyber security risks and fraud leading to lose of funds in some SACCOs. SASRA in collaboration with service providers, has developed guidelines for enlisting mobile money technology service providers to ensure system integrators have integrity and secure their systems to reduce attacks. SASRA also issues regular alerts on cyber threats for SACCOs to maintain vigilance over their ICT systems for early detection of cyber threats and prevention of fraud incidences. It also holds joint technical forums with ICT Systems providers and Key Staff in SACCOs to share experiences and respond appropriately to emerging threats. SACCO's are also expected to report incidences of attacks for immediate investigations to inform appropriate corrective action.
- SASRA signed a memorandum of understanding with Directorate of Criminal Investigations to establish Fraud Investigation Unit to combat financial crime in SACCOs. The unit is fully operational.
- **SACCOs are increasingly being exposed to environmental risks such as climate change.** The Agro-based SACCOs are prone to unconducive climatic conditions, with loans to household spent on health care and education. In addition, the SACCOs business model affects social and a poverty outcome in the society. As a result, there is need to incorporate environmental, social and governance (ESG) best practices in the SACOOs business to reduce exposure to ESG risks. Therefore, sustainable SACCOs business model should incorporate environmental and social impact of mobilising deposit and lending to the society.
- SASRA did not renew licenses of four (4) deposit taking SACCO's due to failure to meet the minimum regulatory ratios and loss of business.
- SACCOs face compliance risks emanating from current and new legislations which directly affect their business operations. These include tax laws, unclaimed financial assets, data protection, anti-money laundering among others, that negatively affect their operations.

## Risks, Mitigations and Outlook

Kenya's financial sector is projected to remain stable and resilient to COVID–19 pandemic and other emerging risks in 2022. Banks remain sound and stable supported by strong capital and liquidity buffers despite elevated credit and operational risks. MFBs are however vulnerable to shocks, amid stiff competition from other credit providers. Capital markets face flight to safety by investors, creating excess volatility as well as reduced liquidity. Insurance sector face declining returns on investment and gross premiums as well as technology–related risks. Pension sector face low returns on investment and falling member contributions, while Sacco societies are yet to fully recover from the COVID-19 pandemic. However, the Russia-Ukraine war, rising global interest rates following monetary policy tightening to stem inflation in advanced countries, capital outflows from emerging and developing economies, domestic vulnerabilities to macroeconomic conditions, and spillovers from the August 9, 2022, general elections, are likely to work against quick recovery of the financial sector. This is evidenced from the 2022 Banking Sector Credit Risk Stress Tests.

# 3. FINANCIAL SECTOR DEVELOPMENTS AND RISKS

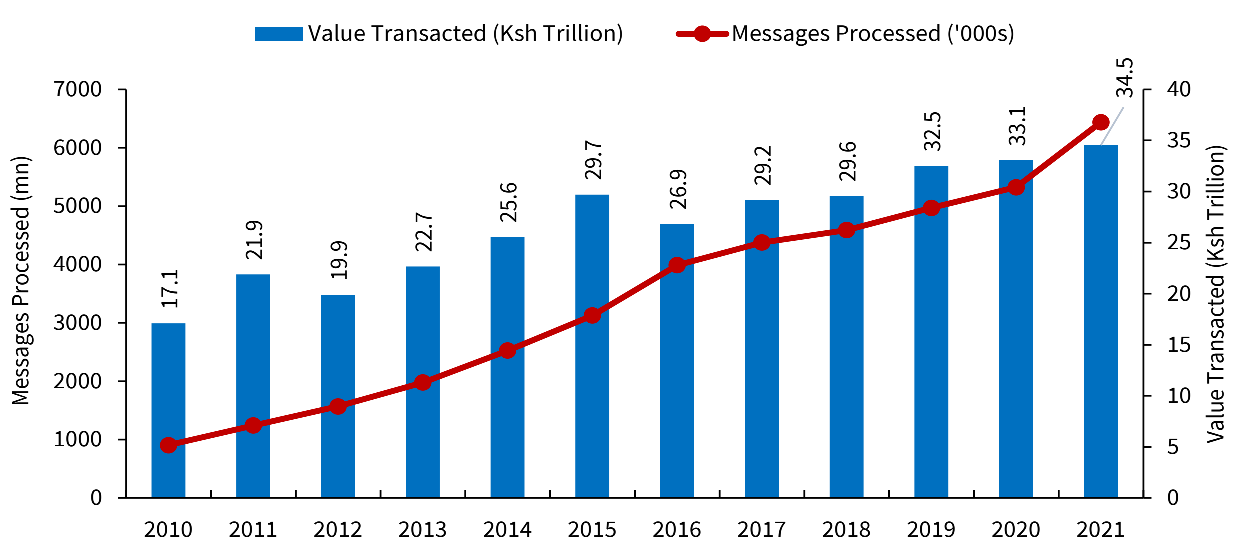
## 3.1 Payments Developments

The Central Bank of Kenya is mandated by law to formulate and implement such policies as best to promote the establishment, regulation, and supervision of efficient and effective payment, clearing and settlement systems under a National Payment System. Kenya's National Payment System comprises of; large-value payment system or the Real Time Gross Settlement (RTGS) system called KEPSS (Kenya Electronic Payment and Settlement System); low-value (retail) payment system (mobile money, cards, electronic funds transfers (EFT) and cheques); and regional payments system, which clears and settles through the links that EAC and COMESA central bank have established with KEPSS.

Kenya's payment systems remained stable and fostering trust among users in 2021. More innovations in digital payments space were realised to integrate many sectors of the economy such as in health, agriculture, education, transport, among others.

**Kenya's Real Time Gross Settlement (RTGS) system used for settlement of all local, regional, and international payments** processed 6.4 million transaction messages worth KSh. 34.6 trillion in 2021, compared with 5.3 million transaction messages worth KSh. 33.1 trillion processed in 2020. This translates to 20.7 percent and 4.5 percent increase in volume and value, respectively **(Figure 28)**. Use of KEPSS guarantees speed, security, and reliability, thus promoting public confidence.

**Figure 28: Volume and Value Transacted Through KEPSS**




*Source: CBK*

**Regional Cross Border Payment Systems - East African Community (EAC) Payment System (EAPS) and Common Market for Eastern and Southern Africa (COMESA) Regional Electronic Payment and Settlement System (REPSS) have grown steadily in messages and value processed.** The messages and value through the EAPS increased in 2021 compared with transactions processed in 2020. A similar trend was recorded in REPPS during the year. The steady growth signifies recovering businesses and regional trade as COVID-19 pandemic wanes, following easing of cross border travel restrictions **(Table 9)**.

### Table 9: Transactions via Regional Payments Systems

| | VOLUME (Messages) | | | VALUE (US$ Millions) | | |
|---|---|---|---|---|---|---|
| YEAR | Inward | Outward | Total | Inward | Outward | Total |
| 2020 | 9867 | 18544 | 28,411 | 221.95 | 234.12 | 456.07 |
| 2021 | 10763 | 23179 | 33,942 | 300.09 | 298.76 | 598.85 |
| **Transactions Through REPSS** | | | | | | |
| | Value in US$ (Million) | | VOLUME | Value in Euros | | VOLUME |
| 2020 | 76.04 | | 910 | 401,562 | | 4 |
| 2021 | 90.70 | | 1,206 | 480,500.29 | | 23 |

*Source: CBK*

Further expansion of regional payments systems saw the introduction of Pan-African Payment and Settlement System (PAPSS) by the African Export and Import Bank (Afreximbank) in 2021 to complement the COMESA Business Council's (CBC) cross border retail payment scheme targeting MSMEs operating within the COMESA region that was introduced in 2020. The PAPSS is designed as a continental payment system that aim to connect all banks, non-banks, switches, and regional systems in Africa to enhance the cross-border payment efficiency across Africa.

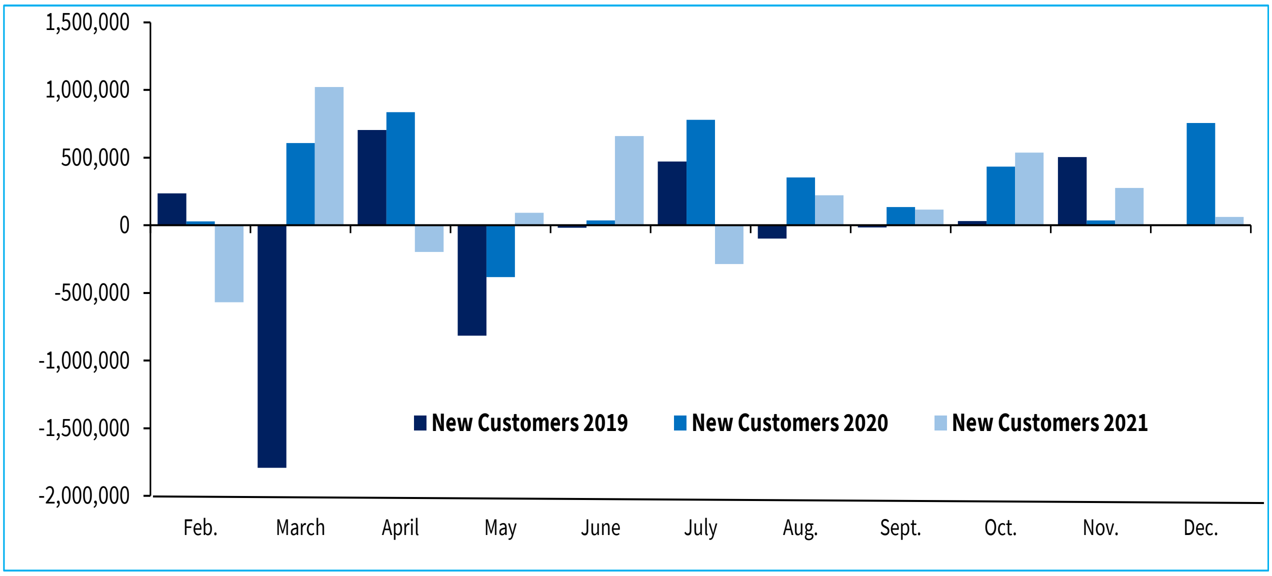
**Globally, Society for Worldwide Interbank Financial Telecommunication (SWIFT) system is modernising for increased interoperability, versatility, diversity of payments instruments and demand for richer and structured data.** Following a successful awareness phase in 2021 and in quarter one of 2022, the ISO 20022 Kenyan Financial community readiness programme focus shifted to implementation and testing. As per the latest data from SWIFT, more than 90 percent of institutions are currently aware of the 2022 migration activities. Financial Institutions are upgrading interfaces, accelerating testing, and preparing for live deployment to enable ISO 20022 adoption for Cross Border Payments by November 2022. Kenya also achieved 88 percent compliance with the SWIFT Customer Security Program (CSP) in 2021. This programme enables financial institutions to put in place defences against cyber-attacks, making the country amongst the top in Africa.

**Retail payment system**, comprised of twelve Payment Service Providers (PSPs) who offer payments services in terms of; mobile money, Pesalink, cards, cheques and electronic funds transfers (EFTs) to serve the end-to-end business and households' transactions. Retail Payment Service Providers (PSPs) offer the widest outreach in terms of number of customers and traffic flows. Mobile money services continue to grow, with CBK receiving more applications for new products and providers in 2021.

U***ptake of Mobile money accounts by new customers softened towards the end of 2021.*** Continued to innovation in digital solutions in payments across the Person to Person (P2P), Business to Customer (B2C), Customer to Business (C2B) money transfers; mobile banking and utilization of "Paybill" and "Buy Goods" functionalities may explain the trends. As of December

2021, mobile money providers had 27.1 million active customers, up from 25.7 million in December 2020 or 5.3 percent annual growth in new customers **(Figure 29)**. In total, there were 1.9 million new mobile money customers registered in twelve months to December 2021, down from 3.6 million new customers registered in twelve months to December 2020. Detailed mobile money statistics are in **Annex IV.**

**Figure 29: Monthly New Mobile Money Active Customers (millions)**




*Source: CBK*

**Payment Cards and Automated Clearing House (ACH) had mixed performance in 2021.** The number of cards and Point of Sale (POS) terminals largely unchanged, but the number of Automated Teller Machines (ATMs) declined. Cards increased by 138,794 to 11.9 million, while the POS terminals rose by 956 to 48,968 terminals in December 2021. The ATMs declined to 2,366 in December 2021, reflecting reduced cash usage.

The ACH, which facilitates the exchange of cheques and electronic funds transfers (EFTs) between banks and their customers was upgraded to International Organization for Standardization (ISO) 20022 to enhance efficiency through Straight-Through-Processing (STP) as well as inclusion of more information in payment transactions. ACH transactions volume rose by 32 percent between January and December 2021, to 2.8 million. The transactions value rose to 297.3 billion during the same period. This reflects a marked improvement in ACH activity from the negative effects of the Covid 19 pandemic, during which transactions volume and value declined to 1.95 million and 205.1 billion in April 2020 or 51 percent and 48 percent, respectively, of the December 2021 level.

## 3.2 Risks Assessment and Outlook

***Cybersecurity threats.*** Globally, attacks on information and communication technology systems (cyberattacks) are increasing, targeting mostly the financial sector. This has become even more urgent following the Russia – Ukraine war and rapid adoption of digital currencies. Cybersecurity threats undermine, disrupt, and disable information and communication technology systems, threatening financial stability through loss of confidence, trust and lack of substitutability and interconnectedness (IMF 2020). Although no major threats were reported to the CBK, PSPs through their cyber security audit reports, addressed the concerns raised in the previous years, by way of investing in tools and resources to monitor emerging threats.

**Rapid adoption of digital financial services has come with cyberattacks threats (Table 10)**. The Authority monitors cyber threats on a 24/7 basis. To enhance its monitoring capabilities, the Authority improved its incident management systems, incident handling procedures and cyber incident reporting mechanisms. The National KE-CIRT/CC detected 158.4 million cyber threats as at June 30, June 2021, compared to 110.9 million in the previous year. This surge in cyber threats directed at local targets was attributed to increased Internet penetration, uptake of E-commerce services and cloud-based services to support remote working as well as a rise in the use of social media.

Implementation of virtual working environments as response measures to the COVID-19 pandemic, the increased digitization of government services and functions through E-Government towards the realization of the Digital Economy Blueprint, increase in online banking, increased uptake of Internet of Things (IoT) devices, and the increased reliance of mobile devices also contributed to the increase in the cyber threats **(Table 10)**. PSPs have also enhanced surveillance to detect, deter and resolve these threats, with CBK enhancing surveillance and engaging PSPs to ensure their alertness and defences especially around festive seasons. Enactment of Data Protection Act (2019) ensures cybersecurity regulation and supervision to strengthen resilience of the cyberspace and enhancing data protection measures.

## Table 10: National Cyber Threats Detection

| Cyber Attack Vector | 20016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 |
|---|---|---|---|---|---|
| Malware attacks | 4,146,435 | 16,306,547 | 40,893,141 | 101,651,143 | 122,524,531 |
| Distributed Denial of Service | 952,327 | 3,756,334 | 4,852,022 | 1,475,537 | 17,668,736 |
| Web application attacks | 2,656,675 | 3,743,638 | 6,109,184 | 7,662,793 | 16,236,587 |
| System Vulnerabilities | - | 6,158 | 47,913 | 108,596 | 1,974,698 |
| **Total** | **7,755,437** | **23,812,677** | **51,902,260** | **110,898,069** | **158,404,552** |

*Source: Communications Authority of Kenya*

**Note:** Changes in Malware data follows revision to include ransomware and Digital investigation cases separated.

***Platform stability and service availability.*** Increased uptake of digital products led to upsurge in payments traffic. To ensure uninterrupted service, CBK enhanced its payments oversight from mid-March 2020 onwards to ensure enhanced platform stability and service availability. Scheduled downtimes were only allowed in times when they would least disrupt to service to customers, hence overall improvement in platform stability and service availability. In 2021, service availability average about 99.9 percent to enhanced oversight and close engagement between CBK and PSPs.

***Anti–Money Laundering and Combating the Financing of Terrorism (AML/CFT) Threats*** remain elevated due to increased use of digital and electronic payments. The CBK in collaboration with other agencies, have enhanced surveillance to address this risk. PSPs submitted the annual compliance report, indicating enhanced compliance to AML/CFT regulations. Additionally, more PSPs registered with the reporting institution as required by law. A proactive approach in notifying the CBK was also noted, of any malpractices involving monitoring and reporting of suspicious transactions. The CBK also organised capacity building for supervision teams on AML/CFT.

***Emergence of fraudulent and unlicensed schemes.*** In 2021, CBK through its surveillance programmes, issued reminders and warnings to PSPs on the risk of offering services to unlicensed and fraudulent entities. Additionally, some PSPs were mandated to run customer awareness programmes, to educate them on the need for vigilance. The aim was to deter frauds, customer abuse and loss of funds.

***Kenya National Payments System Vision and Strategy, 2021–2025.*** CBK launched the ***National Payments Strategy 2022-2025*** in February 2022 following successful public participation that envisages a secure, fast, efficient, and collaborative payments system that supports financial inclusion and innovations. It is anchored on five key principles: Trust, Security, Usefulness, Choice, and Innovation.

***Enhanced oversight and policy measures.*** CBK now to share quarterly compliance reports with PSPs, covering; financial prudence, AML/CFT, consumer protection, among others. A risk assessment framework also developed to assess the level of risk periodically by on-site and off-site surveillance teams. There is also continuous enforcement of *Principles on the Pricing of Mobile* Money to;

- facilitate increased access, usage and equity in digital payments services,
- improve transparency and disclosure in digital payments services'
- foster a business culture underpinned by the primacy of customer's interest, and
- promote competitiveness and sustainable growth of digital payment services.

Payment services are expected to register steady growth in 2022 as players recover from the initial impact of COVID-19 pandemic. This is supported by the newly authorised PSPs, increased product uptake, and implementation of National Payments Strategy 2022-2025. CBK to collaborate with both local and international sector players for orderly growth, mitigate risks and foster customer-centred innovations in products and services.

# 4. FINANCIAL STABILITY ASSESSMENT AND OUTLOOK

Successful vaccination for COVID–19 and stringent measures taken to contain the spread of COVID-19 and unprecedented policy measures (monetary, fiscal and financial), contributed to economic rebound in 2021, especially in advanced countries. However, emerging markets and developing countries lagged behind. The global financial sector did not experience any major systemic risk in 2021 and therefore remained stable and resilient.

While the 2022 outlook remains optimistic, the war in Ukraine, stubbornly high inflation, resurgence in COVID-19 in China in the first quarter of 2022 and impact of tightening external conditions on EM&DEs, have significantly altered the global economic recovery trajectory and pose new uncertainties to the financial sector.

Supply disruptions following Ukraine war and subsequent sanctions imposed on Russia by the West have put pressure on global food, energy, and commodity prices. Vulnerable economies have experienced significant depreciation of the local currencies, further compounding inflation. Countries with limited fiscal space and high debt burdens, have little room to provide subsidies to households and firms to alleviate the impact of increase in food and energy prices.

The EM&DEs face most threats with tightening external financial conditions as advanced economies are expected to raise policy rates further. Consequently, these countries face high borrowing costs, worsening the debt levels and limiting access to international capital markets. There are also concerns of high capital outflows from EM&DEs as global interest rates rise, leading to flight to quality and safety. Yields on Eurobonds for most African countries for instance, have risen by more than 500 basis points in the recent past, making it expensive to borrow from international capital markets. A careful policy balancing act between stemming inflation (by raising policy rates) and maintaining accommodative monetary policy conditions is needed to ensure economic recovery is sustained and financial stability is maintained, especially for EM&DEs.

Global banking sector remained resilient supported by strong policies, enhanced supervisory standards and economic recovery in 2021. Lending to private sector, was sluggish in some countries, directing most of the credit to government securities. This has raised concerns regarding sovereign–bank nexus in emerging markets as about 60 percent of sovereign debt issued in 2021 ended up on domestic banks’ balance sheets. This may crowd–out private sector credit growth, especially in countries with shallow financial markets and even introduce valuation losses if interest rates rise faster.

Geopolitical tensions have escalated cyber security concerns to the financial stability. Cyber regulation and supervision should be commensurate to risk exposure and to enhance remedial response and recovery capacity so that operations can quickly resume if an attack occurs. Enhancing information-sharing and incident reporting frameworks and helping emerging market economies build cybersecurity capacity are key to ensuring that all nodes of the network are resilient.

Domestically, risks to the economy remain elevated in 2022 despite strong recovery in 2021 on account of emerging local and global risks. The government may find it constraining to deploy fiscal and monetary policy measures to sustain strong growth. High debt levels, pressure on exchange rate due to tightening external conditions, drought and 2022 electioneering period, may slowdown growth in the second half of 2022. Tightening of lending standards by banks may increase non-performing loans and reduce credit uptake by firms and households, further undermining recovery and financial sector stability.

Kenya's financial sector remains stable and resilient into 2022, supported by sufficient capital and liquidity buffers. There is however elevated credit and operational risks. In addition, MFBs remain vulnerable, characterised by large NPLs and loss making. Capital markets face flight to safety by investors, creating excess volatility as well as reduced liquidity. Insuarance sector has a position outlook in 2022 but facerisk related to climate change, cybersecurity, insurance risk, market risk and political risk. Pension sector face low returns on equities and declining member contributions, while Sacco societies are yet to fully recover from the COVID-19 pandemic. The Ukraine war, rising global interest rates, capital outflows from emerging and developing economies, domestic vulnerabilities and spillovers from the 2022, general elections, are likely to impact the financial sector as indicated in the 2022 Banking Sector Credit Risk Stress Test Results. In addition, the deteriorating financial health despite expanding financial inclusion raises concerns about the quality of financial services and products being introduced. The payment systems infrastructure remains stable and innovating as more players enter the space. Conducive environment has been created by the launch and subsequent implementation of National Payments Strategy 2022-2025 in February 2022. However, cyber security threats remain an area of concern for the policy makers and regulators.

Overall, policy makers, regulators, authorities, and other players have put in place policy measures and stand ready to do more to mitigate potential vulnerabilities to ensure macroeconomic and financial stability in 2022 and beyond.

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# ANNEXES

## Annex I: 2021 FINACCESS HOUSEHOLD SURVEY LESSONS: FINANCIAL HEALTH AND FINANCIAL STABILITY

Accessibility and availability of formal financial services provides immense benefits to users in terms of promoting financial stability, reducing poverty and inequality, increase investments and savings, creating employment and entrepreneurship and achieve sustainable growth. Kenya has been conducting series of Financial Inclusion measurement surveys dubbed '*FinAccess Households Surveys*' to enhance financial inclusion measurement; provide better understanding of the financial inclusion landscape indicators to track financial inclusion dynamics over time; and data to various stakeholders for monitoring developments and progress achieved in the financial sector. The 2021 FinAccess Household Survey marked the sixth survey since the 2006 baseline survey. The 2021 survey was jointly conducted by the Central Bank of Kenya (CBK), Kenya National Bureau of Statistics (KNBS) and Financial Sector Deepening Kenya (FSD Kenya) with the report launched in December 2021. The financial inclusion measurement cuts across the four dimensions of: *Access, Usage, Quality* and *Impact/ Welfare.*

***Expanding Access dimension.*** The 2021 FinAccess Survey results show tremendous progress in access to formal financial services and products since the 2006 by adult population. Gender gap has also narrowed to 4.2 percent in 2021, from 8.5 percent in 2016 **(Figure 1)**.

**Figure 1a. Access Trends – 2006:2021**

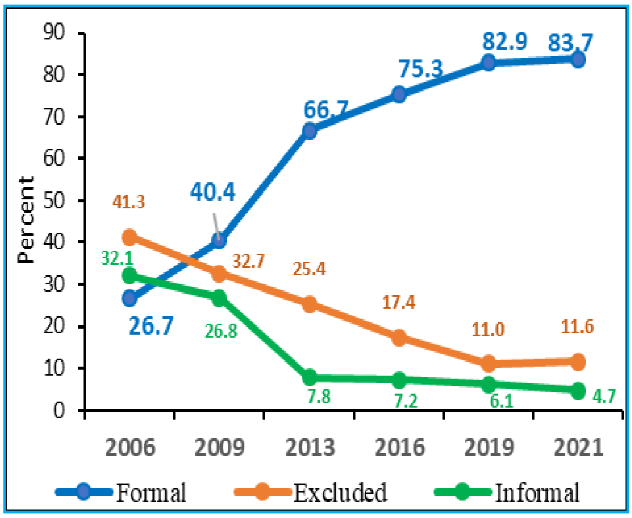
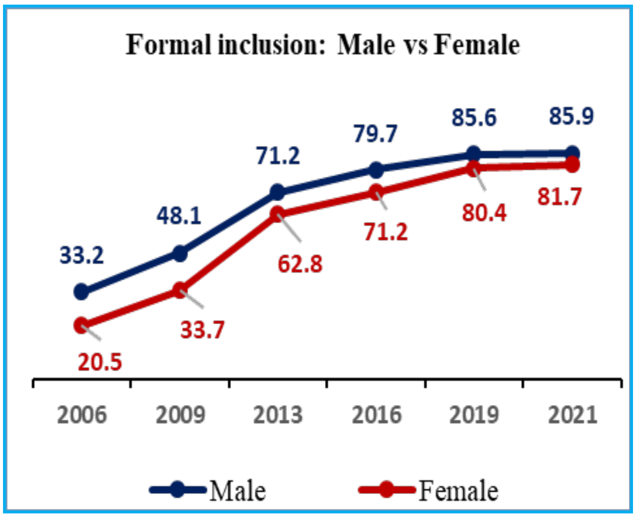



**Figure 1b. Access Gap – Across Gender**

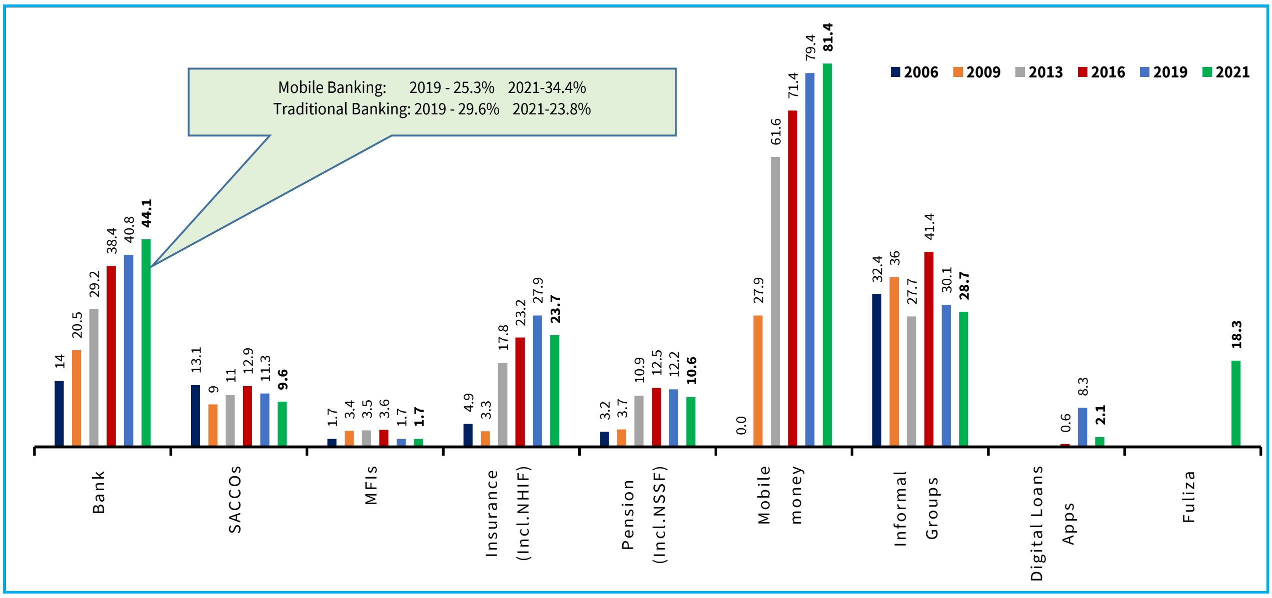



*Source: 2021 FinAccess Household Survey*

Financial services providers like banks may find it rewarding to take more risk by leveraging on technology to access wider untapped markets. Innovative digital credit products such as "*Fuliza*" (an digital overdraft facility offered by select banks through mobile money operator, Safaricom) have become popular at household level for liquidity management (Figure 2).

***Deepening Financial Services Usage.*** The usage of financial services and products continue to deepen, buoyed by technological innovations, consumer preferences; government policies; and private sector strategies. The survey results indicate that mobile money and bank services providers recorded the highest proportion of usage at 81.4 percent and 44.1percent, respectively. The convenience, seamless transactions and faster transactions associated with rise in mobile money, continues to drive decline in usage of traditional banking (brick and mortar) since 2016 as more people embrace Mobile banking

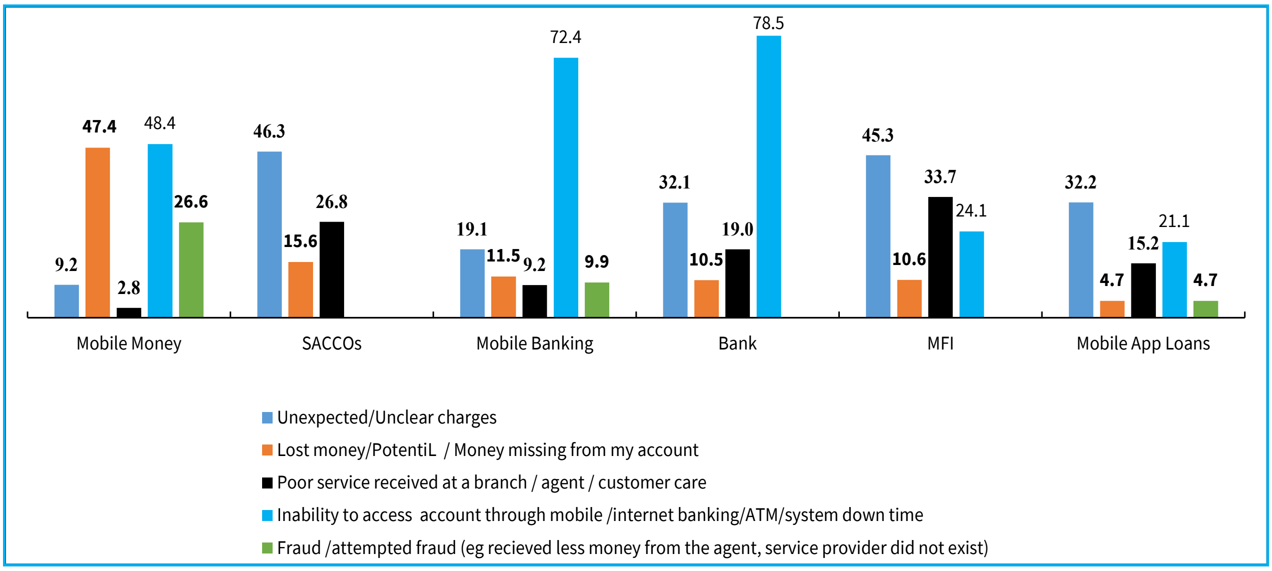
## Figure 2: Usage of Financial Services from Different Providers




*Source: 2021 FinAccess Household Survey*

***Technological Risks and Fraud.*** Rapid adoption of mobile money has been categorized as disruptive in the financial services provision. It has however come with new risks and raised consumer protections issues, with implications on financial stability risks as summarised in **Figure 3a.**

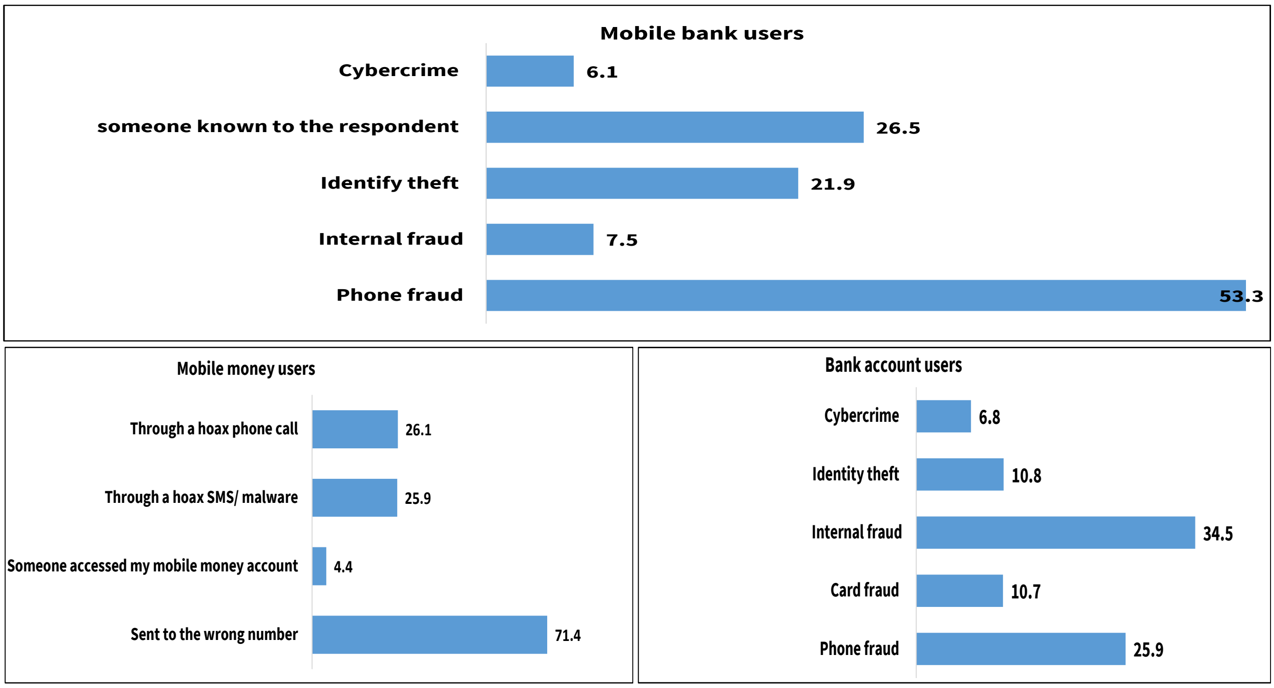
## Figure 3a: Challenges Cited by Consumers in 2021 by Provider (%)




*Source: 2021 FinAccess Household Survey*

Loss of money due to cybersecurity attacks ranked highly in 2021, with users reporting to have lost money through cybercrime, accounting for 6.1 percent for mobile bank users, 25.9 percent for mobile money users and 6.8 percent for bank account users. Money lost through fraud was reported at 7.5 percent and 53.3 percent of mobile bank users attributed the loss to internal (from the provider) fraud and phone related fraud respectively. On other hand 34.5 percent and 25.9 percent of bank account users attributed the loss to internal (from the provider) fraud and phone related fraud respectively **(Figure 3b)**. These have implications on consumer confidence and overall financial stability.

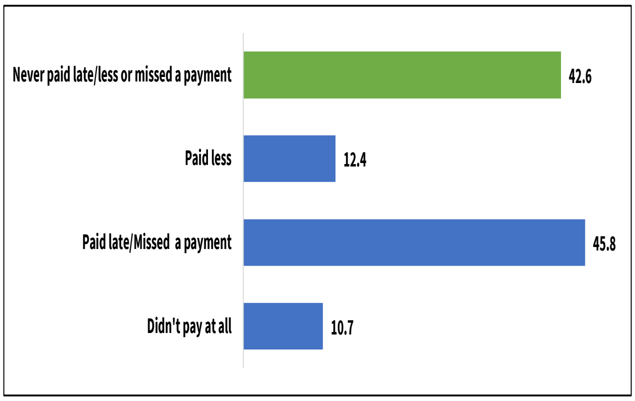
### Figure 3b: Loss of Money and Incidences of Fraud



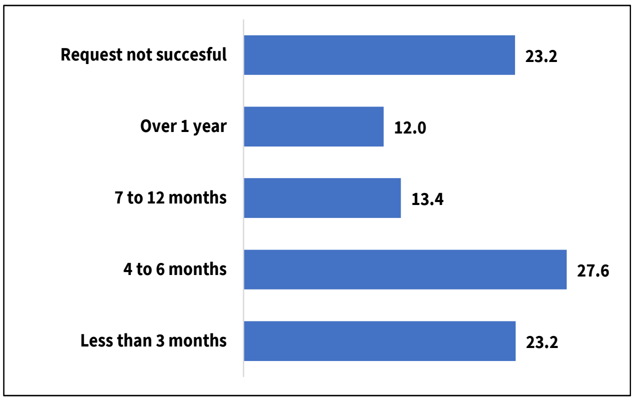

*Source: 2021 FinAccess Household Survey*

***Household Debt Distress.*** The 2021 survey results indicated that households' ability to settle maturing obligation has declined, leading to high debt distress. Only 42.6 percent of borrowers were able to settle their maturing obligation in time, with 10.7 percent of borrowers completely defaulted on their loans **(Figure 4a)**. In fact, 14.4 percent of respondents with existing loans in 2020/2021applied for loan restructuring as they could not settle on time **(Figure 4b)**.

### Figure 4a: Loan Default by Type



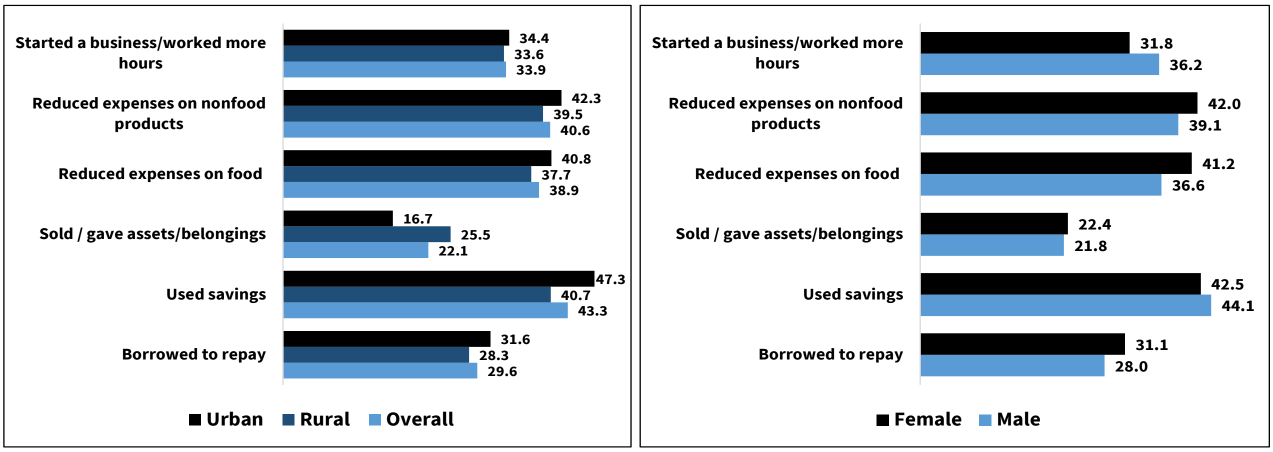

### Figure 4b: Loan Restructuring




*Source: 2021 FinAccess Household Survey*

This has implications on rising NPLs and in turn financial stability risks concerns. To mitigate this, households resorted to; cutting down on other expenses, savings depletion, and looking additional work/business and took another loan to repay. About 29.6 percent took another loan to repay, further worsening household indebtedness.

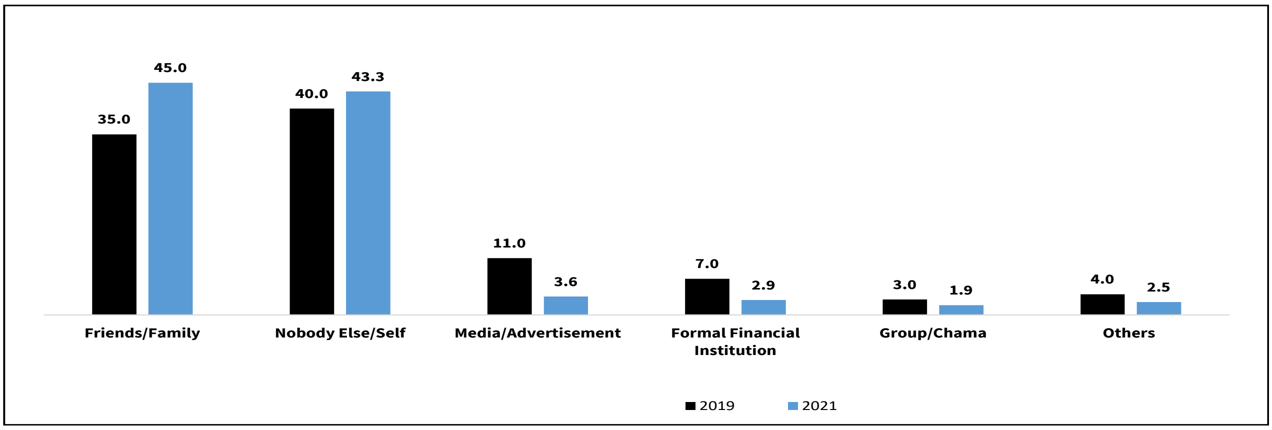
### Figure 4c: Strategies Employed by Household to Repay Debt



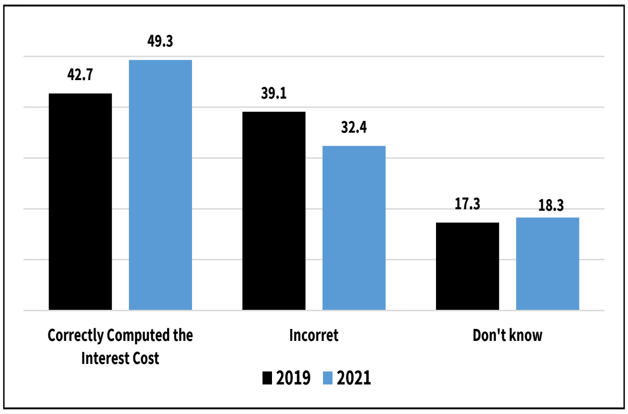

*Source: 2021 FinAccess Household Survey*

**Financial Capability Issues**. Household knowledge of basic financial terms, ability to identify transaction costs related to a financial service are important for in consumer protection and personal finance. Financial capability enables consumers to make informed choices, hence promoting trust and confidence in the financial system. The 2021 survey findings indicate majority of Kenyans seek financial advice from informal sources – family and friends and personal knowledge/experience, with 45.0 percent of adults rely on friends and family for financial advice **(Figure 5)**. The low number of respondents relying on formal financial institutions raises questions on the quality of financial advice given to consumers and is an indication of the level of financial literacy, where only 49.3 percent of adult respondents reported to have knowledge of cost of borrowing.

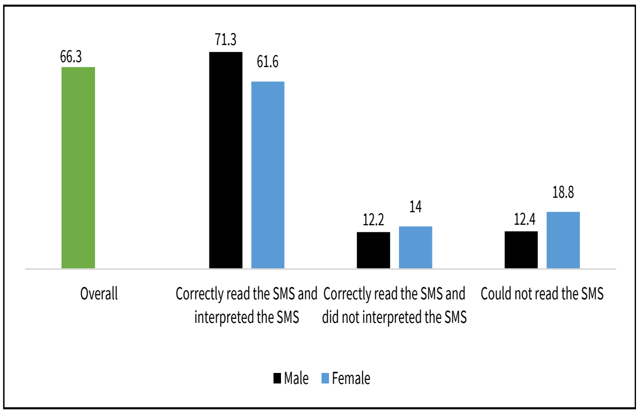
## Figure 5a: Sources of financial advice (%)




## Figure 5b: Knowledge about Cost of Borrowing



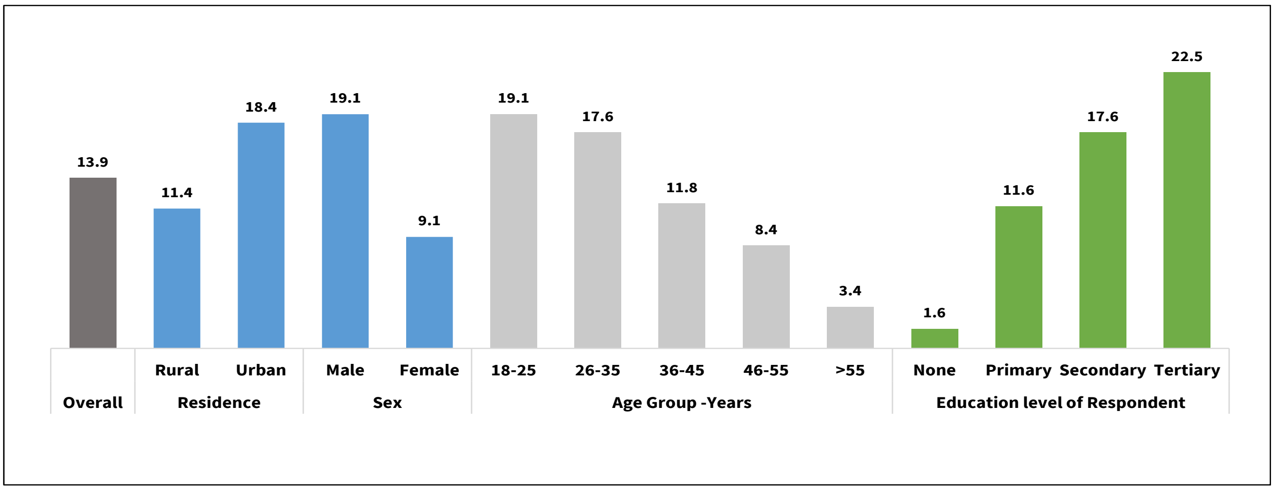

## Figure 5b: Knowledge about Transaction Cost




*Source: 2021 FinAccess Household Survey*

**Overreliance on Household Betting/ Gambling.** Irresponsible betting and gambling at household's level poses significant threat to financial stability at household level. It may lead to excessive borrowing, and inability to meet day to day or future household needs for households. In the Survey, 13.9 percent of respondents reported to be actively engaged in betting **(Figure 6)**.

## Figure 6: Proportion of Individuals Engaged in Betting (%)




*Source: 2021 FinAccess Household Survey*

***Financial Health.*** The expanding financial inclusion landscape was expected to help consumers deal with financial shocks and managing day to day needs. Financial[1] health metrics attempt to provide information on households' resilience. Expanding access to financial services has potential to catalyse economic development hence improving financial health for the population. The 2021 Survey indicate that despite significant growth in financial inclusion, financial health metrics has worsened since 2016. This result questions the finance-growth nexus model assumption that financial inclusion leads to improvement in financial wellbeing.

The Financial Health index is constructed using a composite of indicators derived from ability to achieve three core finance outcomes namely[2] , Household's ability to manage day-to-day needs; household's ability to cope with shocks/risks; and household's ability to invest in future goals. On overall, these three components indicate, the financial health of Kenyans has eroded rapidly since mid-2015. The results indicate that only 17 percent of adults had ability to secure basic daily needs, cope with the costs of unexpected shocks and invest in their livelihoods and future, down from 39.4 percent in 2016 **(Figure 7b)**. This shows increased financial vulnerabilities at household level.

**Ability to manage day to day needs.** Household ability to manage day to day needs either through formal or informal financial services, indicates the resilience. This subcomponent tracks the ability to manage basic households needs such as food, adequate financial planning, and efficient allocation of household resources. The vulnerability has increased, with only 45 percent of adult population in 2021 indicated they have ability manage day to day needs, down from 63 percent in 2016 **(Figure 8a).**

**Ability to cope with risk.** The sub-component tracks household's ability to address financial shocks in terms of medication, death, childbirth, and other emergencies. Survey findings indicate households' vulnerabilities increased, with only 23 percent of adult population in 2021 indicating to have the ability to cope with households' risks, down from 52 percent reported in 2016.

**Ability to invest in the Future.** This sub-component tracks household's ability to invest in future goals and future livelihood. Households' ability to invest in future rose to 40 percent in 2021, from 22 percent in 2019, driven by improved saving for future goals and old age, and investment in productive activities/devices **(Figure 8c)**.

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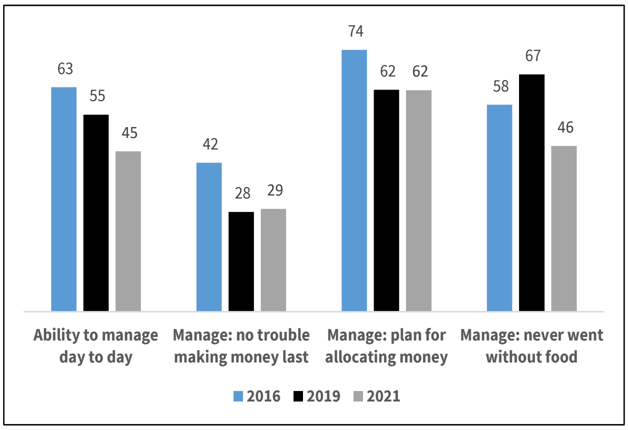
[1] The MFHI is an experimental statistic developed by FSD Kenya, Kenya National Bureau of Statistics and the Central Bank of Kenya. The component indicators used to measure financial health using the multi-dimensional financial health index (MFHI) were first collected in the 2016 round of FinAccess. This index is still undergoing improvement (construction) in subsequent surveys to improve its effectiveness in measuring financial health situation in Kenya

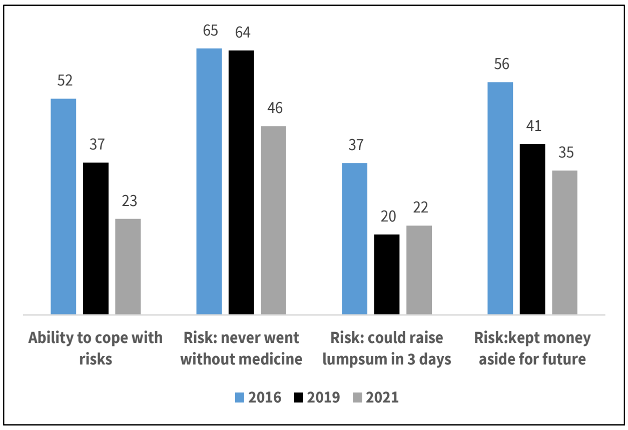
[2] Computation details is available in 2021 Household Survey FinAccess Report

## Figure 8. Financial Health Index – Sub-Components (%)

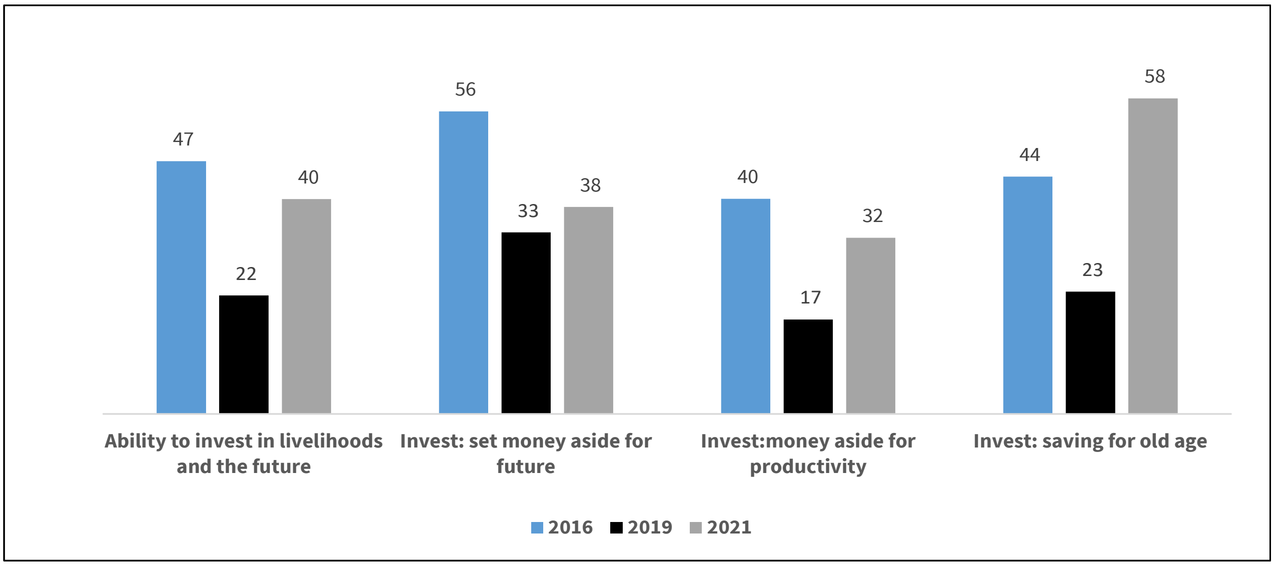
### 8a. Ability to Manage day to day need




### 8.b. Ability to cope with Risks




### 8c. Ability to Invest in livelihoods and the future




*Source: 2021 FinAccess Household Survey*

Overall, expanding financial inclusion space is expected to catalyse inclusive growth, improved welfare, and stable financial system. Significant gains have been made in deepening financial inclusion with increased access and usage of variety financial services and product. However, significant vulnerabilities exist, and others are emerging including technological related risks which may pose financial stability risks if left unaddressed. Additionally, financial life has become increasingly straining on Kenyan adults, users facing increased pressure on multiple fronts. Key players must remain at the forefront in addressing these concerns to achieve and maintain a stable market-based inclusive financial system that supports inclusive growth.

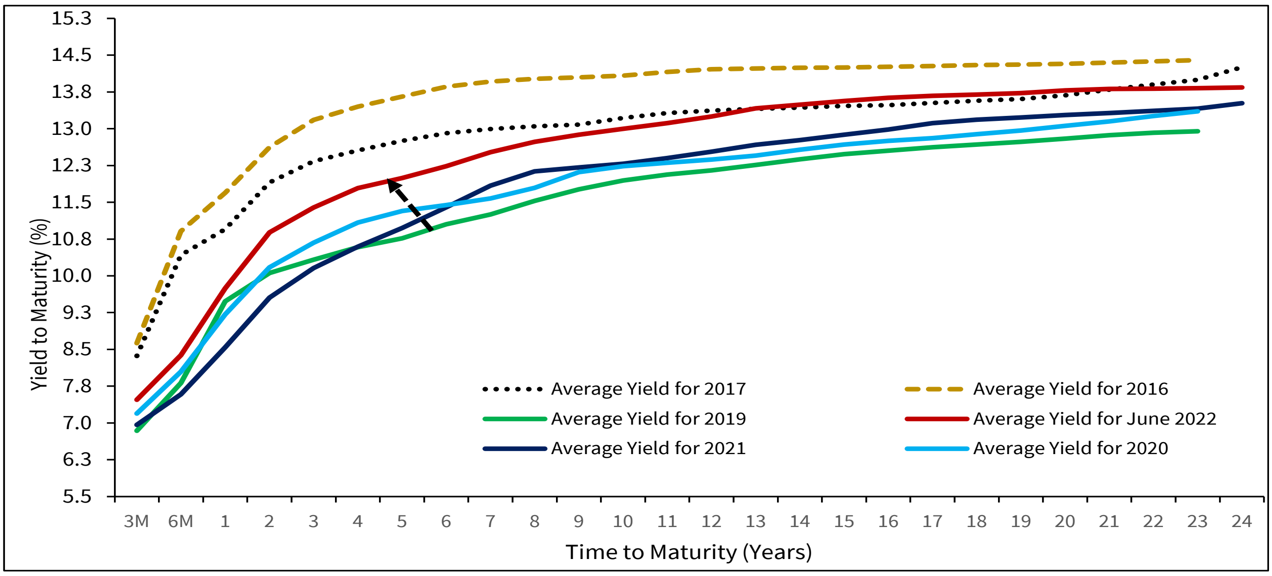
## Annex II: Government Bonds Primary Market Performance

| | Offered Amount (KSh Mn) | Bids Received (KSh Mn) | Amount Alloted (KSh Mn) | Subscription Rate (%) | Bid-to- Cover Ratio |
|---|---|---|---|---|---|
| Jun-18 | 40,000 | 10,131 | 5,172 | 25.33 | 1.96 |
| Jul-18 | 40,000 | 13,860 | 10,512 | 34.65 | 1.32 |
| Aug-18 | 40,000 | 29,825 | 19,362 | 74.56 | 1.54 |
| Sep-18 | 40,000 | 32,467 | 26,583 | 81.17 | 1.22 |
| Oct-18 | 40,000 | 27,045 | 7,854 | 67.61 | 3.44 |
| Nov-18 | 82,000 | 65,769 | 48,850 | 80.21 | 1.35 |
| Dec-18 | 40,000 | 44,329 | 41,509 | 110.82 | 1.07 |
| Jan-19 | 40,000 | 101,973 | 38,494 | 254.93 | 2.65 |
| Feb-19 | 110,000 | 144,862 | 76,833 | 131.69 | 1.89 |
| Mar-19 | 50,000 | 29,376 | 16,303 | 58.75 | 1.80 |
| Apr-19 | 50,000 | 85,616 | 60,349 | 171.23 | 1.42 |
| May-19 | 50,000 | 70,841 | 58,527 | 141.68 | 1.21 |
| Jun-19 | 40,000 | 85,616 | 38,939 | 214.04 | 2.20 |
| Jul-19 | 40,000 | 86,675 | 50,578 | 216.69 | 1.71 |
| Aug-19 | 50,000 | 67,441 | 59,687 | 134.88 | 1.13 |
| Sep-19 | 50,000 | 41,985 | 41,985 | 83.97 | 1.00 |
| Oct-19 | 60,000 | 86,947 | 68,466 | 144.91 | 1.27 |
| Nov-19 | 50,000 | 46,485 | 36,468 | 92.97 | 1.27 |
| Dec-19 | 25,000 | 38,399 | 28,491 | 153.60 | 1.35 |
| Jan-20 | 50,000 | 69,942 | 63,748 | 139.88 | 1.10 |
| Feb-20 | 50,000 | 42,495 | 27,873 | 84.99 | 1.52 |
| Mar-20 | 50,000 | 35,156 | 22,913 | 70.31 | 1.53 |
| Apr-20 | 81,000 | 106,255 | 74,397 | 131.18 | 1.43 |
| May-20 | 80,000 | 55,113 | 29,725 | 68.89 | 1.85 |
| Jun-20 | 65,000 | 126,300 | 68,599 | 194.31 | 1.84 |
| Jul-20 | 60,000 | 181,773 | 80,854 | 302.96 | 2.25 |
| Aug-20 | 110,000 | 141,734 | 119,646 | 128.85 | 1.18 |
| Sep-20 | 50,000 | 81,677 | 64,176 | 163.35 | 1.27 |
| Oct-20 | 50,000 | 69,137 | 60,026 | 138.27 | 1.15 |
| Nov-20 | 60,000 | 63,940 | 61,622 | 106.57 | 1.04 |
| Dec-20 | 40,000 | 34,350 | 28,176 | 85.88 | 1.22 |
| Jan-21 | 75,000 | 186,623 | 136,913 | 248.83 | 1.36 |
| Feb-21 | 68,000 | 53,098 | 43,033 | 78.09 | 1.23 |
| Mar-21 | 50,000 | 48,707 | 48,307 | 97.41 | 1.01 |
| Apr-21 | 60,000 | 88,578 | 81,942 | 147.63 | 1.08 |
| May-21 | 50,000 | 63,519 | 40,982 | 127.04 | 1.55 |
| Jun-21 | 30,000 | 69,925 | 19,695 | 233.08 | 3.55 |
| Jul-21 | 60,000 | 116,925 | 79,935 | 194.87 | 1.46 |
| Aug-21 | 60,000 | 104,637 | 80,291 | 174.40 | 1.30 |
| Sep-21 | 75,000 | 151,256 | 106,753 | 201.67 | 1.42 |
| Oct-21 | 60,000 | 55,475 | 52,049 | 92.46 | 1.07 |
| Nov-21 | 50,000 | 84,171 | 69,507 | 168.34 | 1.21 |

| | Offered Amount (KSh Mn) | Bids Received (KSh Mn) | Amount Alloted (KSh Mn) | Subscription Rate (%) | Bid-to- Cover Ratio |
|---|---|---|---|---|---|
| Dec-21 | 40,000 | 41,176 | 37,828 | 102.94 | 1.09 |
| Jan-22 | 60,000 | 66,806 | 62,328 | 111.34 | 1.07 |
| Feb-22 | 75,000 | 132,258 | 98,637 | 176.34 | 1.34 |
| Mar-22 | 81,500 | 65,842 | 42,313 | 80.79 | 1.56 |
| Apr-22 | 70,000 | 66,591 | 60,775 | 95.13 | 1.10 |
| May-22 | 70,000 | 60,131 | 48,710 | 85.90 | 1.23 |
| Jun-22 | 100,000 | 95,976 | 93,368 | 95.98 | 1.03 |

*Source: CBK*

## Annex III: Government of Kenya Securities Yield Curve




*Source: CBK*

## Annex IV: Mobile Money Services Statistics

| Year | Number of Agents | Number of Reistered MM A/Cs (Million) | Number of Transactions (Million) | Transactions in Value (KSh. Billion) | Value Per Transaction (KSh) |
|---|---|---|---|---|---|
| 2007 | 1,582 | 1.3 | 5.5 | 16.3 | 2,983 |
| 2008 | 6,104 | 3.1 | 62.7 | 166.6 | 2,655 |
| 2009 | 23,012 | 8.9 | 193.5 | 473.4 | 2,447 |
| 2010 | 39,449 | 16.4 | 311 | 732.2 | 2,354 |
| 2011 | 50,471 | 19.2 | 433 | 1,169.20 | 2,700 |
| 2012 | 76,912 | 21.1 | 575 | 1,537.50 | 2,672 |
| 2013 | 113,130 | 25.3 | 733 | 1,901.60 | 2,594 |
| 2014 | 123,703 | 25.2 | 911 | 2,371.80 | 2,604 |
| 2015 | 143,946 | 31.6 | 1,114 | 2,816.10 | 2,528 |
| 2016 | 165,908 | 34.9 | 1,331 | 3,355.10 | 2,199 |
| 2017 | 182,472 | 37.4 | 1,543 | 3,638.50 | 2,357 |
| 2018 | 223,931 | 47.7 | 1,740 | 3,984.40 | 2,290 |
| 2019 | 224,108 | 58.4 | 1,839 | 4,346.00 | 2,363 |
| 2020 | 282,929 | 66.0 | 1,863 | 5,213.54 | 2,798 |
| 2021 | 298,272 | 68.0 | 2,166 | 6,868.77 | 3,172 |

*Source: CBK and CA*

Capital Markets Authority

**www.cma.or.ke**

Embankment Plaza, Longonot Road, off Kilimanjaro Avenue, Upper hill
P.O Box 74800 - 00200
NAIROBI, KENYA

Tel: +254 20 2264000/ 2264900 / 2221869
Cell: +254 722 207767

E-mail: corporate@cma.or.ke

Central Bank of Kenya

**www.centralbank.go.ke**

Haile Selassie Avenue
P.O Box 60000 – 00200
NAIROBI, KENYA

Tel: +254 20 286 1000, +254 20 286 3000, +254 709 081 000, +254 709 083 000

E-mail: researchstat@centralbank.go.ke

Insurance Regulatory Authority
IRA

**www.ira.go.ke**

Insurance Regulatory Authority
Zep-Re Place, Longonot Road
P.O. Box 43505-0100,
NAIROBI, KENYA

Tel: 020-4996000/
Toll Free No: 0800724499

E-mail: commins@ira.go.ke

RBA
Retirement Benefits Authority

**www.rba.go.ke**

Retirement Benefits Authority
Rahimtulla Tower, Upper Hill Road
P.O. Box 57733 - 00200
NAIROBI, KENYA

Tel: +254 (20) 2809000
Toll Free No: 0800720300

E-mail: info@rba.go.ke

**www.sasra.go.ke**

Sacco Societies Regulatory Authority
UAP Old Mutual Tower, Upper Hill Road, Upper Hill.
P.O. Box 25089-00100,
NAIROBI, KENYA

Tel: +254 (20) 2935101

E-mail: info@sasra.go.ke