Kenya Financial Sector Stability Report

September 2021

Published by the Financial Sector Regulators, September 2021, Issue No. 12

ABOUT THE FINANCIAL STABILITY REPORT

The Kenya Financial Stability Reports contain the financial sector stability assessments 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, which enables Kenya meet her 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 interests. 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.

The information contained in this annual publication may be reproduced without restrictions provided due acknowledgement is made of the source. Any enquiries concerning the Kenya Financial Stability Reports should be addressed to: –

www.cma.or.ke

The Director,
Regulatory Policy Strategy,
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

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

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

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

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

TABLE OF CONTENTS

EXECUTIVE SUMMARY..3

1. ECONOMIC AND FINANCIAL CONDITIONS..5

1.1 Global Conditions and Risks...5

1.2. Domestic Economic Conditions and Risks...9

2. FINANCIAL SECTOR DEVELOPMENTS AND RISKS..17

2.1 Banking Sector 17

2.1.1 Commercial Banks and Mortgage Finance Companies..................................18

2.1.2 Microfinance Banks 21

2.1.3 Banking Sector Safety Net and Resolution 23

2.2 Insurance Sector 27

2.3 Capital Markets..31

2.4 Pensions Sector...34

2.5 Sacco Sector...35

3. THE NATIONAL PAYMENTS SYSTEM DEVELOPMENTS AND RISKS..........................38

3.1 Payments Developments 38

3.2 Risks Assessment and Outlook 41

4. FINANCIAL STABILITY ASSESSMENT AND OUTLOOK...43

REFERENCES 46

ANNEXES.. 47

EXECUTIVE SUMMARY

This report captures the developments and risks in the economy and financial sector in 2020 as a result of the Coronavirus Disease (COVID–19) pandemic, and assessment of the resilience of the financial sector to this shock. It also presents measures implemented by the Government, financial sector regulators and key stakeholders to contain the spread of the disease, ameliorate the burden to households and firms, and foster financial sector stability.

According to the International Monetary Fund (IMF), the global economy contracted by 3.2 percent in 2020, from positive growth of 2.8 percent in 2019 on the backdrop of COVID–19 pandemic. This health shock that evolved into an economic crisis ravaged all sectors of the global economy, disrupting global supply chains and heightening risks in the financial sector. While economic recovery is projected in 2021, vaccination has emerged as the principal fault line along which global recovery splits into two blocs: advanced economies expecting further normalization of activity later this year and those that still face resurgent COVID-19 infections. Countries with narrow fiscal space and facing resurgence of variants of COVID-19 pandemic infections amid low vaccination programmes, are expected to experience slow economic recovery.

Kenya's economy is estimated to have performed below its potential, but was generally resilient to COVID-19 pandemic compared to her peers. The National Treasury and Planning (TNT) in the Budget Statement estimated that real GDP growth for 2020, was 0.6 percent compared to 5.4 percent and 6.3 percent in 2019 and 2018, respectively. This is a better outcome compared with –1.8 percent for Sub Saharan Africa, –7.0 percent for South Africa and –1.8 percent for Nigeria. It is anticipated that the easing of containment measures by the Government, allowing reopening of businesses, enhanced vaccinations, policy interventions and recovery in exports, will put the economy back on strong recovery path and contribute to financial sector stability.

Kenya's financial sector was relatively resilient to the impact of COVID–19 pandemic in 2020. Prior to the COVID-19 outbreak, the banking sector was stable with strong growth, underpinned by market–based consolidation, repeal of the interest rates capping law and gains following reforms undertaken since 2015. Even with the pandemic still evolving, the credit risk stress test results indicate that banks are well capitalized to withstand adverse scenario under the COVID-19 shock. Microfinance banks on the other hand, were vulnerable to COVID–19 pandemic, which disrupted Small and Medium Size enterprises (SMEs) and households, their niche markets. Capital markets recorded significant decline in key indicators on account of foreign investors sale of assets at the height of the pandemic, while local investors divested to the safe bonds market. Market volatility was high at the onset of the lockdown with liquidity of the equities market declining to the lowest level. However, the markets have recovered strongly due to easing of restrictions and reopening of the economy. The insurance sector experienced declining investment returns and gross premiums paid, while pension sector experienced reduced returns on investment and pensions contributions, and rising risk score. The developments in the Sacco sector mirrored the banking sector performance, and is yet to recover from the pandemic.

To mitigate the adverse socio-economic and financial impact of COVID–19 pandemic, the Government and financial sector regulators instituted fiscal, monetary and financial policy measures, which have positively impacted economic recovery and safeguarded stability. These include the reduction of the income tax and value added tax rates, lowering of the turnover tax rate, reduction of the Central Bank rate and asking banks to renegotiate loan terms and restructure loans for borrowers facing difficulties. Other measures have also contributed to economic and financial inclusivity, especially those that targeted vulnerable groups. These measures have played a central role in fostering financial sector resilience and stability, while mitigating the impact of the pandemic on households' livelihoods and firms' incomes.

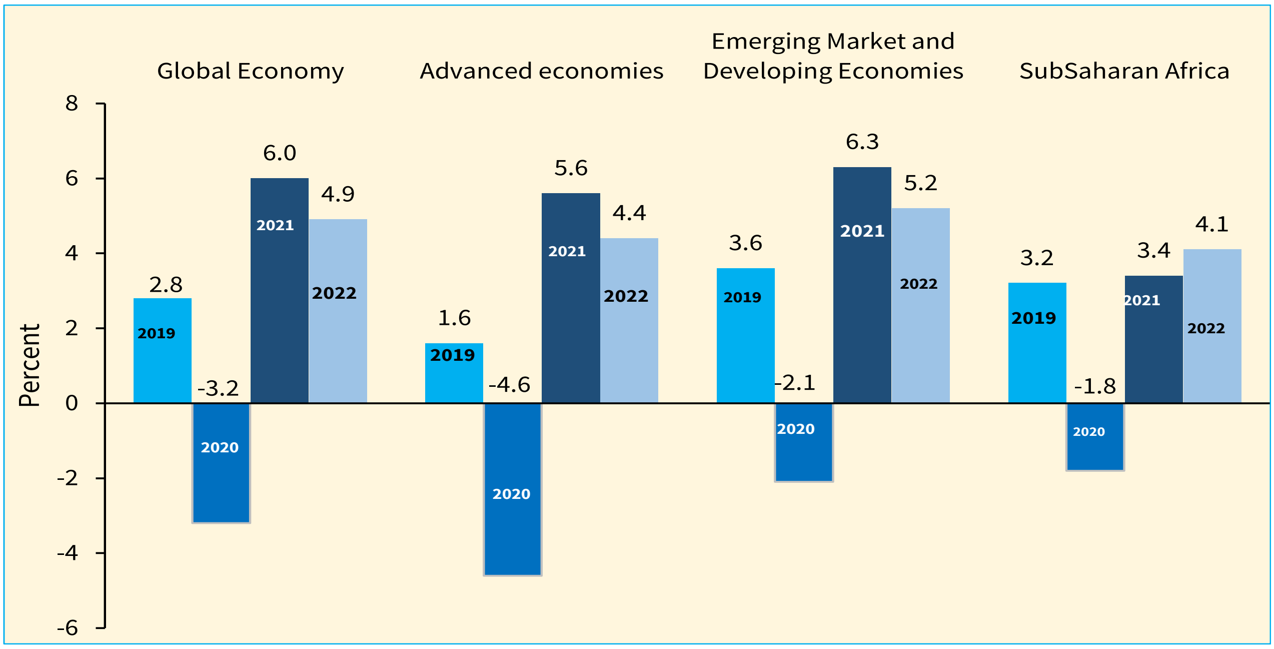
Going forward, Kenya’s financial sector is expected to remain stable and resilient in 2021, underpinned by adequate capital and liquidity buffers, coordinated policy reforms and improved regulatory oversight. However, sentiments of economic slowdown due to COVID–19 pandemic, rising public debt, elevated credit risks, subdued earnings, weak balance sheets for listed corporates and State-Owned Enterprises (SOEs), technology-related risks (cyberattacks and frauds) as well as corporate governance weakness and the electoral cycle noises remain areas of vigilance given their implications on the economy and financial sector stability. Hence remain the areas of focus in 2021, and beyond.

1. ECONOMIC AND FINANCIAL CONDITIONS

1.1 Global Conditions and Risks

The first case of COVID–19 that was reported in December 2019 , evolved into a socio-economic shock, affecting global economic growth, outlook and financial stability. The IMF's World Economic Outlook (WEO) July 2021, the global economy is estimated to have contracted by 3.2 percent in 2020, from 2.8 percent growth in 2019. The largest contraction was recorded in Advanced Economies, while Sub–Saharan Africa (SSA) was least affected **(Figure 1).** The sharp decline of the global economy in the first half of 2020, reflects stringent containment measures including lockdowns and travel restrictions to limit the spread of COVID–19 pandemic, which resulted in supply and demand side shocks. Whereas monetary, fiscal and financial policy measures and accelerated COVID-19 vaccination jumpstarted growth in the second half of 2020, the recovery remain uneven and uncertain. Access to vaccine and subsequent easing of restrictions has, therefore, emerged as the principal fault line along which the global recovery splits into two blocs - those expecting further normalization of activity later this year (advanced economies with greater access to vaccine) and those that will still struggle with resurgence of COVID-19 infections due to difficulties in access to vaccines.

Figure 1: WEO Projections



Source: IMF WEO Update, July 2021

The IMF projects global growth at 6 percent in 2021, before moderating to 4.9 percent in 2022, on account of rebound in Emerging Markets and Developing Economies (EM&DEs) and advanced economies. Growth in SSA remains modest, pulled down by South Africa. Prospects of EM&DEs have been revised downward for 2021, especially for Emerging Asia but upward for advanced economies, reflecting pandemic developments and changes in policy support. The 0.5 percentage-point upgrade for 2022, is mainly accounted for by the United States (US), reflecting the anticipated legislation of additional fiscal support in the second half of 2021, and improved health metrics across advanced economies.

Risks to the global growth are balanced in the near term, with tendency to the upside (IMF WEO, July 2021). The upside risk factors expected to lift growth prospects include: ***Expedited vaccine production, distribution and uptake*** leading to reduced hospitalization rates; unanticipated larger impact of fiscal support than currently projected, especially for advanced economies with more fiscal space; and coordinated monetary and fiscal policies during the early phases of the pandemic. In addition, enhanced cooperation on vaccinations could expedite the production and distribution of vaccines thus boosting recovery.

The downside risk factors to global economy include: ***slower-than-anticipated vaccine rollout*** allowing the virus to mutate further; COVID-19 crisis persists, substantially damaging supply chains due to weakened labour force, bankruptcies, and associated disruptions of production networks, and crippling productivity and rapidly tighten financial conditions; ***increased frequency and severity of natural disasters*** due to extreme weather related to climate change, causing major humanitarian crisis and loss of essential livelihoods; and ***geopolitical, trade, and technology risks*** as a result of tensions between the United States of America (US) and China on trade, intellectual property, and cybersecurity concerns. Emerging risks of protectionism surrounding technology could extend to medical supplies and COVID–19 related pharmaceutical advances, derailing the global supply of vaccines.

There are concerns regarding persistence of the pandemic, tighter external conditions and narrowing fiscal space, which has worsened socio-economic conditions in many EM&DEs and frontier market economies (Table 1). High debt–service costs; high fiscal deficits due to unanticipated COVID-19 response expenditures; and below-projected revenues have contributed to the limited fiscal space in developing economies.

Table 1: Fiscal Conditions and Projections (Percentage of GDP)

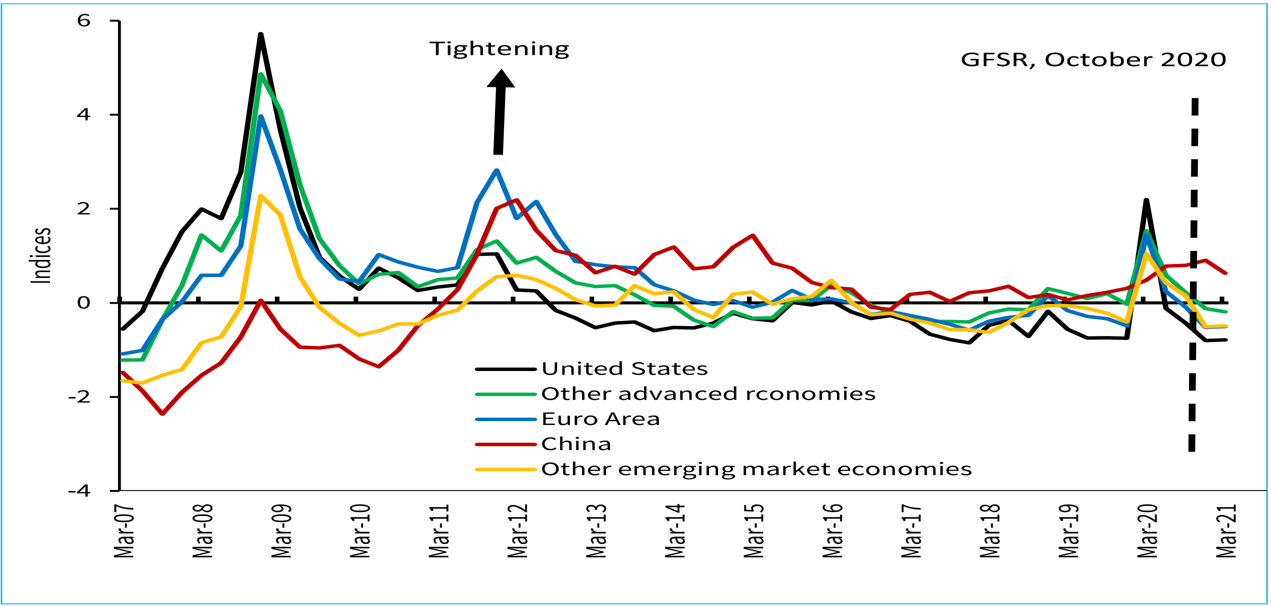
Region	2019	2020	2021 (*)	2022 (*)
Advanced economies				
Fiscal Balance	-2.9	-11.7	-10.4	-4.6
General government gross debt	103.8	120.1	122.5	121.7
Current account balance	0.7	0.4	0.2	0.4
External debt, total	-	-	-	-
External debt, total debt service	-	-	-	-
Emerging market and developing economies				
Fiscal Balance	-4.7	-9.5	-7.5	-6.5
General government gross debt	54.1	63.4	64.0	66.0
Current account balance	0.2	0.6	0.6	0.3
External debt, total	30.5	32.6	31.5	31.0
External debt, total debt service	11.0	11.4	11.0	10.8
Sub-Saharan Africa				
Fiscal Balance	-4.1	-6.9	-5.6	-4.7
General government gross debt	51.5	57.8	56.2	56.2
Current account balance	-3.7	-3.7	-3.7	-3.7
External debt, total	42.6	46.1	43.0	41.4
External debt, total debt service	6.8	6.8	8.6	7.0

**projections*
Source: IMF WEO, July 2021

The limited vaccinations and distributional inefficiencies especially in low–income and developing economies adds to the uncertainty of the near-term outlook. Government financing needs have surged, with the resultant increase in public debt amid declining revenues, becoming a challenge for policymakers. Government debt in Emerging Markets (excluding China) is expected to reach 61 percent of GDP in 2021, while gross financing needs are anticipated to remain elevated at 13 percent of GDP in 2021, higher than levels in 2020. This calls for equitable access to vaccines worldwide and financially constrained economies accorded access to international liquidity.

Globally, the extraordinary policy measures by authorities eased financial conditions and supported the economy, helping to stem financial stability risks (IMF GFSR, April 2021). The financial and fiscal policies complemented by accommodative monetary policy supported the global financial system to sustain the flow of credit to households and firms, thus facilitating recovery, and mitigating financial risks. The financial conditions underpinned by low interest rates and high corporate valuations, are accommodative and supportive of growth **(Figure 2).** These measures may, however, generate unintended consequences as reflected by excessive risk taking in markets, leading to stretched valuations. Equity markets rallied strongly since the third quarter of 2020, on expectations of rapid economic recovery and continued policy support. This has raised concerns of elevated financial vulnerabilities, drawing attention of policymakers. The July 2021 WEO raises concerns on whether the recovery will be inlcusive across all economies or may be uneven with many struggling with the health crisis and delayed recovery.

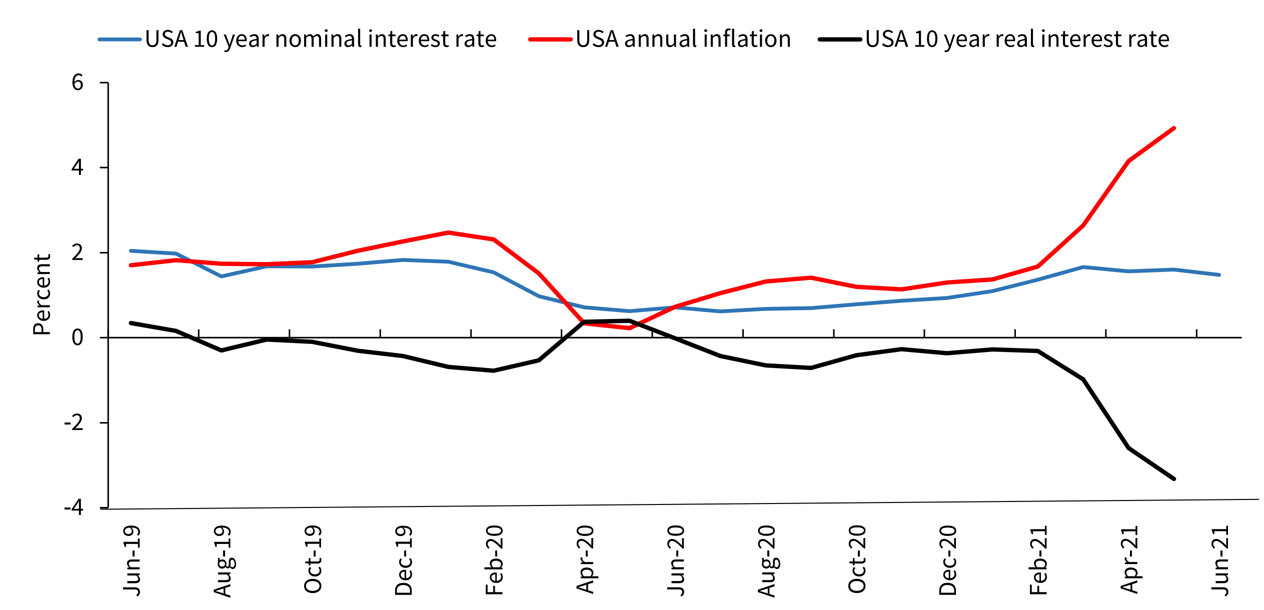
Figure 2: Financial Conditions Indices *(Standard Deviations from the Mean)*



Sources: IMF GFSR, April 2021

Concerns are also emerging about rising interest rates and episodes of elevated market volatility. Given the divergent economic recovery from the pandemic, there is a risk that financial conditions in emerging and frontier market economies may tighten sharply. This is more likely if policymakers in advanced economies quickly revert to policy normalisation, leading to rapid increase in interest rates. For instance, long-term interest rates in the US have risen by about 125 basis points since July 2020, pointing to improved investor confidence in the economic outlook and expectations of increased supply of Treasury securities to finance the fiscal expansion **(Figure 3)**. The persistent increase in the US long-term interest rates may accentuate portfolio outflow from emerging markets and frontier economies. A persistent increase in the US long-term interest rates if followed by faster policy normalization may tighten financial conditions in emerging market economies when many of these economies face unfavourable fiscal position and large financing needs in 2021, and beyond. The recent market volatility and rise in medium– and long–term yields in advanced economies may increase instability in EM&DEs bond markets and currencies, thus causing portfolio outflows, similar to the fallout from 2013 taper tantrum.

Figure 3: US 10-Year Nominal and Real Interest Rates



Sources: Thomson Reuters

Vulnerabilities in emerging markets and frontier economies are increasing, characterised by; high debt, high financing needs, and volatile economic and external conditions. In addition, non-financial corporations are emerging from the pandemic over-indebted, and in some cases with weak balance sheets positions, poor earning prospects and dependent on fiscal support. The banking systems, on the other hand, though resilient so far, may become less supportive of economic growth when policy support is eventually withdrawn, especially in countries where the recovery may be slower, and firms' profitability and solvency challenges predate the shock. The rising vulnerabilities in the corporate and non-bank sectors could put medium-term financial stability at risk. Borrowing costs for corporate and sovereign issuers have been rising steadily, especially in EM&DEs, at a time when financing needs remain high. The volatility in financial markets and portfolio flows presents significant risks, given the constrained fiscal and monetary policy space on the back of rising inflation.

Large firms with market access have taken advantage of favourable conditions to issue debt and cope with emerging liquidity pressures. However, increase in corporate leverage resulting from easy financial conditions pose a dilemma for policymakers, as the short-term boost to economic activity must be weighed against an increase in vulnerabilities and downside risks to growth. The IMF noted that liquidity stress is high at small firms' level in most sectors and across countries, while solvency stress is high among small firms, notable at mid-sized and even large firms in most affected sectors (IMF GFSR, April 2021).

Globally, the banking sector remained resilient supported by enhanced supervisory standards and measures implemented after the 2007–2008 Global Financial Crisis (GFC). However, given less incentives for lending, it is not clear how long banks will continue to provide credit during recovery. While growth of loans, particularly to businesses' and households', has slowed in some countries, loan demand is expected to increase once economic recovery gains momentum, especially where it has been weakest. Surveys in many countries, indicate that credit officers do not anticipate tightening of lending standards, which may constrain credit expansion, and in turn complicate monetary policy stance. The banking system profitability is also expected to reduce significantly across many countries, hence becoming a disincentive against the use of capital and liquidity buffers to support economic recovery. Lastly, but increasingly becoming more important is the sharp increase in the sovereign–bank nexus in emerging markets. About sixty percent of sovereign debt issued after January 2020, ended up on domestic banks' balance sheets. Greater exposure of domestic banks to government debt strengthens the sovereign–bank nexus, and may crowd–out private sector credit growth, especially in countries with shallow financial markets.

Abrupt withdrawal of policy support could significantly impact some banks, thus limiting their lending capabilities. Moreover, for most banks, uncertainties about credit losses and weak prospects for profitability are likely to discourage relaxation of capital buffers to support recovery. Such constraints should worry firms and low–income households with limited financing options that are more dependent on bank credit.

Commercial real estate bore the brunt of the pandemic, with commercial property transactions and prices slumping in 2020. Besides travel restrictions, the structural shift in many activities from physical to virtual or relocations outside large cities negatively affected the retail, office, and hotel segments although it has also created a number of opportunities in the digital space. However, social distancing and increased use of virtual platforms has increased digitisation of activities, which has created opportunities in the information and telecommunications sector. Other companies have leveraged on alternative working arrangement to increase profitability.

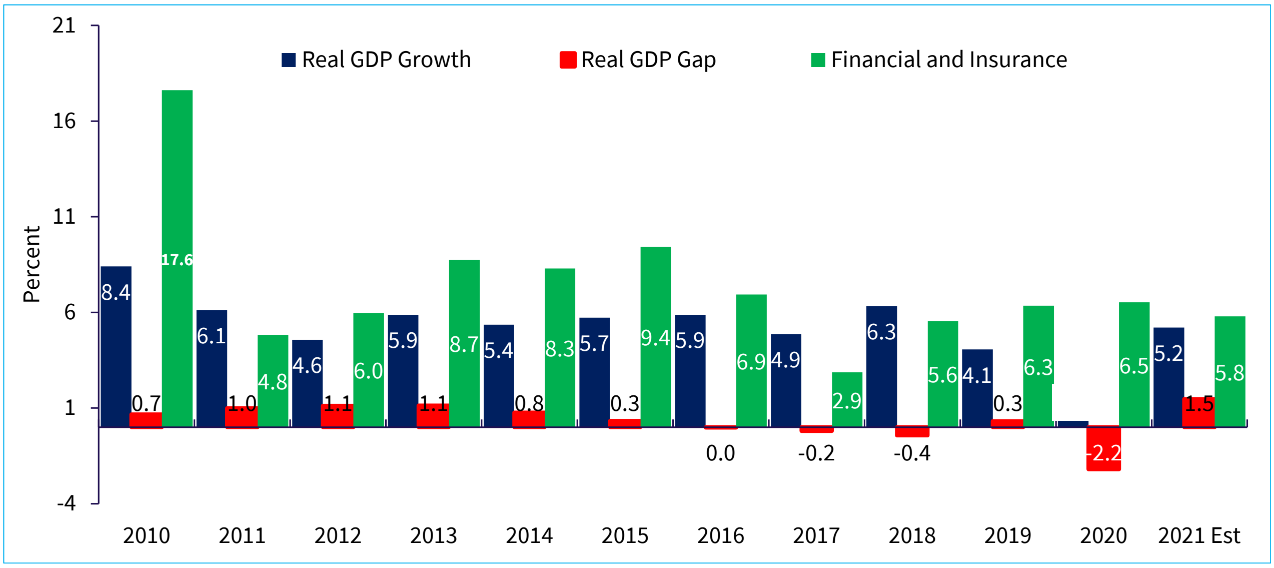
In the East African Community (EAC) Region, the banking sector was characterised by rising Non–Performing Loans (NPLs), flight to safe government securities and rising credit concentration, mainly in household, manufacturing, trade and real estate sectors. However, capital and liquidity buffers were strong enough to absorb existing and emerging risks. In the outlook, the sector's stability depends on the evolution of the COVID–19 pandemic, efficacy of fiscal, monetary and financial policies and economic recovery. The EAC Partner States' National Treasuries and Central Banks should be ready to deploy financial and monetary policy measures to mitigate risks in the medium term if COVID–19 persists amid slow vaccinations and economic recovery.

1.2 Domestic Economic Conditions and Risks

According to the National Treasury and Planning (TNT), the economy is projected to rebound strongly in 2021, from an estimated growth of 0.6 percent in 2020. Whereas the estimated 0.6 percent growth in 2020, falls below the 5.4 percent in 2019 and 6.3 percent growth in 2018, it was a relatively better outcome compared to Kenya's peers. According to IMF, South Africa and Nigerian economies contracted by 7.0 percent and 1.8 percent, respectively, while SSA contracted by 1.9 percent in 2020.

The discovery of the first COVID–19 case on March 13, 2020, triggered Government measures to contain the spread of the virus and mitigate the impact on households, firms and the economy. In turn, all sectors were negatively affected, except the Information and Communications sector, which became the rail guards for financial transactions, information dissemination and virtual workstreams. Supply chains disruptions, furloughs, business closures and restriction of movements suppressed aggregate demand leading to economic slowdown. The situation was compounded by competition from cheap imports and difficult business environment, especially for the manufacturing and service sectors. This increased the recessionary output gap as a ratio of potential output to 2.2 percent **(Figure 4).**

Figure 4: Kenya's Economy was Resilient to the Pandemic in 2020



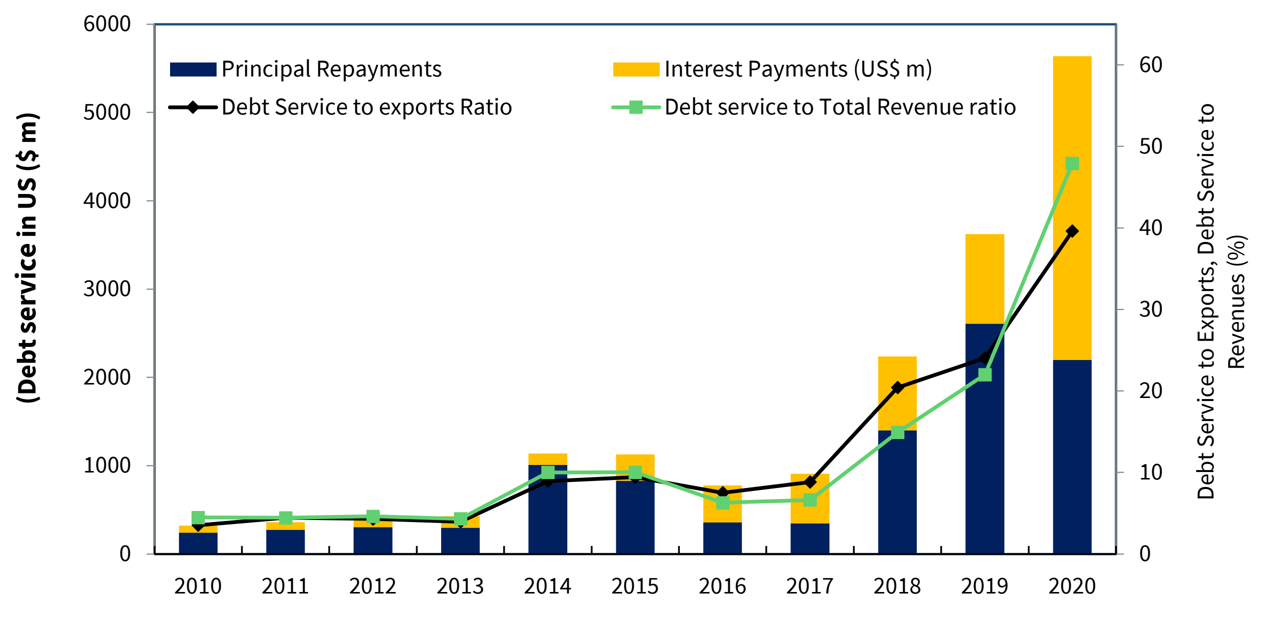
Source: CBK Staff Computation

Despite the negative economic impact of the COVID-19 pandemic in 2020, the Government mitigation measures and policies including increased vaccination and the continued re-opening of the economy has contributed to improve in households' livelihoods, firms' incomes and economic recovery in the first half of 2021.

The Government increased spending on infrastructure and COVID–19 related expenditures leading to rising fiscal deficit. However, spending outpaced revenue growth, with fiscal deficit as a share of GDP rising from 3.9 percent in the FY 2013/2014, to 7.8 percent in the FY 2019/2020 and 8.4 percent in the FY 2020/2021. As a result, gross public debt increased from 50.2 percent of GDP at the end of 2015, to 69.1 percent of GDP at end of June 2021. The increase in fiscal deficit in FY 2020/2021, is mainly due increase in spending to mitigate the spread and impact of COVID–19 pandemic on households and firms in 2020, and slow growth in revenues in relation to public spending. This undermined the fiscal consolidation initiative to reduce fiscal deficit from 9.2 percent to less than 3.5 percent by FY 2021/2022. Consequently, overall public and publicly guaranteed debt has increased but remained within sustainable thresholds.

Debt service also increased, reflecting high debt levels with revenues and export earnings growing slowly. The ratio of debt service to exports and to total revenue increased to 47.9 percent and 39.9 percent in FY 2019/2020, from 25.1 percent and 35.5 percent in the FY 2018/2019, respectively. This indicates that the capacity of exports earnings and tax revenues to adequately service debt is waning, indicating rising concerns about Kenya's debt sustainability **(Figure 5).**

Figure 5: Public Debt Service

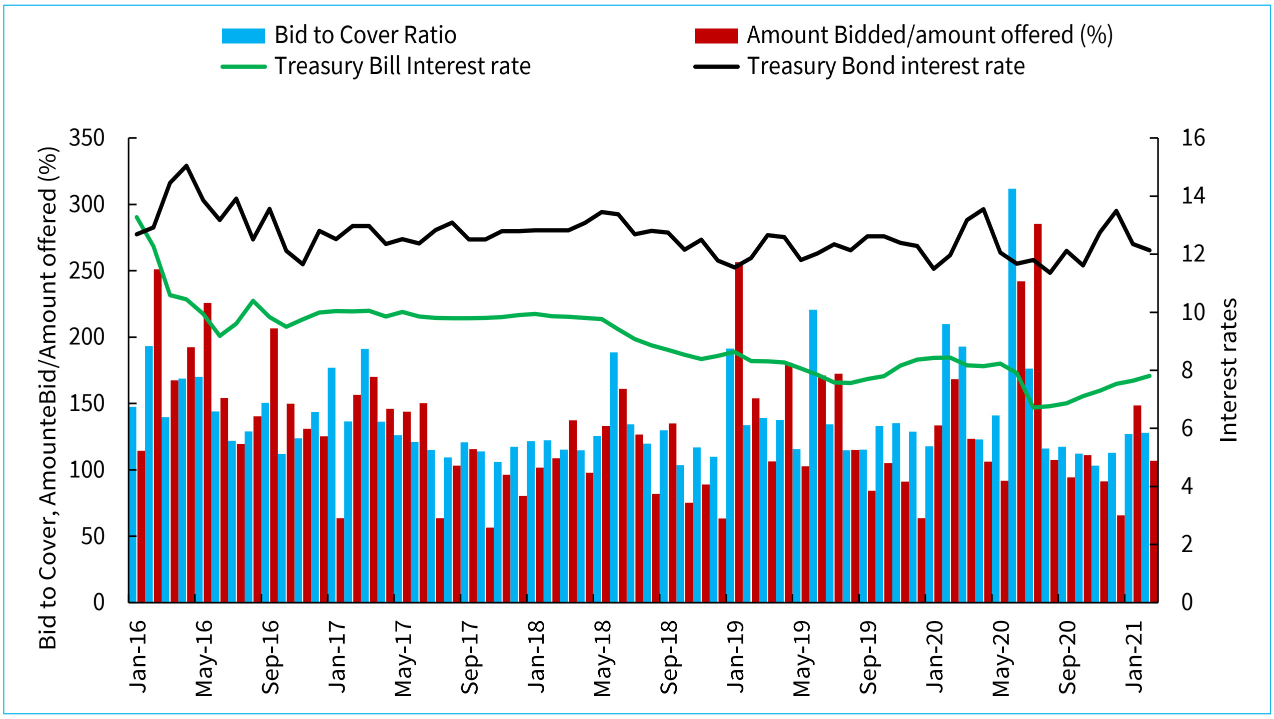


Source: The National Treasury and Planning

The joint World Bank–IMF Debt Sustainability Analysis (DSA) Report (May 2020) classified Kenya's public debt as sustainable but having a high risk of debt distress, hence downgraded from moderate risk classification in February 2020. In May 2020, solvency indicators for the Present Value (PV) of external debt–to–GDP ratio and PV of total public debt–to–GDP ratio were below the benchmark thresholds under the baseline scenario. However, there were breaches of one solvency indicator, PV of external debt–to–exports ratio and one liquidity indicator (external debt service–to–exports ratio) under the baseline scenario. The DSA results shows that Kenya is susceptible to export and market financing shocks. More prolonged and protracted shocks to the economy would present downside risks to the debt outlook. However, Kenya's debt indicators are expected to improve as exports rebound, while improved access to international capital markets makes it possible to rollover existing Eurobonds. Nevertheless, fiscal consolidation remains a priority for sustainable public debt levels.

Interest rates have remained low despite rising public debt, hence lower borrowing cost. This is explained by relatively easy financial conditions supported by accommodative monetary policy and reduced lending to the private sector. Consequently, the Government successfully issued domestic debt at low interest rates, with auctions of Government securities on the primary markets averaging 135 percent subscription in 2020. The bid to cover ratio also confirms strong investor appetite for Government securities in 2020 **(Figure 6).**

Figure 6: Performance of Government Securities Market

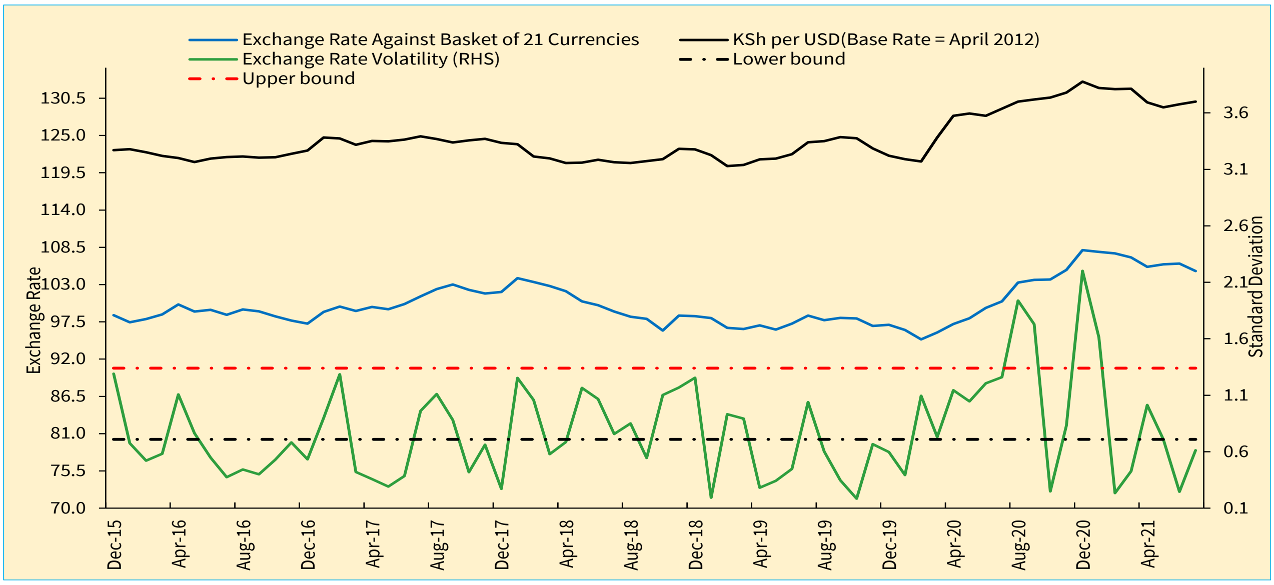


Source: CBK

The Government took advantage of ample liquidity to extend time to maturity of domestic debt by issuing long term bonds, which significantly reduced the refinancing risks. Average time to maturity was 5.7 years in 2020 with Treasury bills to bonds ratio at 25:75 in December 2020. Kenya also benefited from the debt relief programme by the G20 countries under the Debt Service Suspension Initiative (DSSI), which freed resources to be spent on mitigating the socio–economic impact of COVID–19 pandemic. In additon, the IMF provided low cost financing of USD 2.4 billion while other donors provided concessional loans which buttressed Kenya's spending to mitigate the impact of COVID-19 pandemic on the economy.

The Kenya Shilling exchange rate regained stability after coming under pressure in the second half of 2020, as the pandemic permeated the economy. Imposition of international travel restrictions across countries, cessation of air travel and decline in demand for exports, had a knock–on effect on the stability of the Kenya Shilling against major international currencies. Against a basket of twenty–one (21) international and regional currencies, the Shilling exhibited increased volatility since March 2020. However, recovery in exports, increased diaspora remittances, prudent monetary policy and stable import bill brought stability with lower volatility in the period March-June 2021 **(Figure 7).**

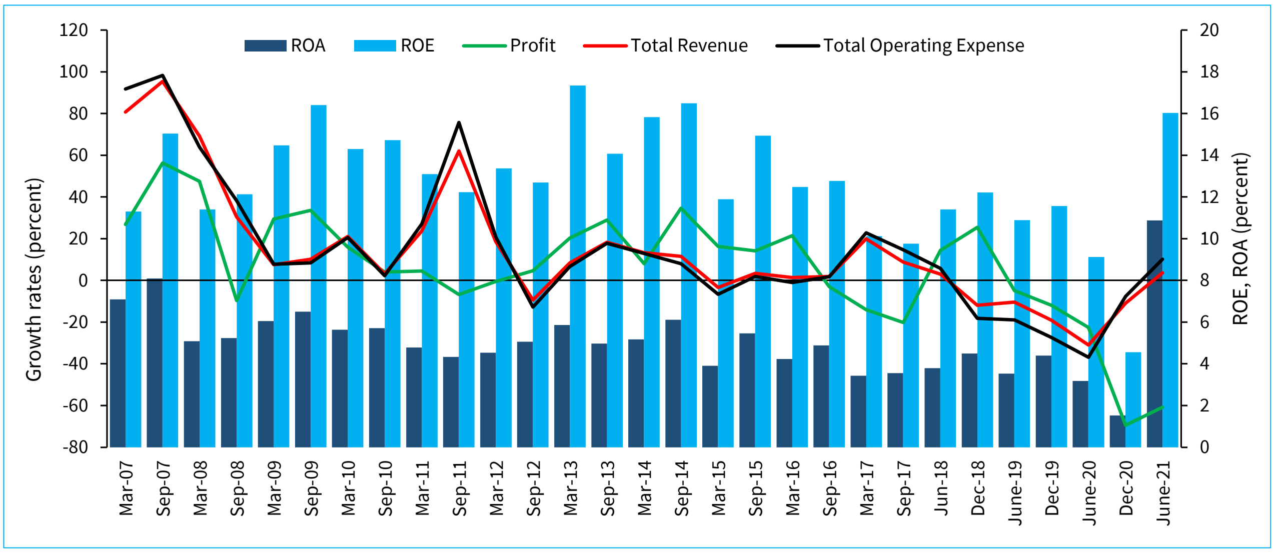
Figure 7: The Kenya Shilling Volatility



Source: CBK

The Non-Financial Corporates (NFC) listed on the Nairobi Securities Exchange (NSE) were negatively affected by COVID–19 pandemic in 2020. The balance sheet of many corporates contracted in 2020, due to subdued aggregate demand following COVID–19 containment measures. The short– and long– term corporate debt accumulation declined by 2.1 percent and 3.2 percent in 2020, respectively, implying low solvency risks. In addition, decline in long– and short– term debt indicates that listed firms were more cautious in accumulating debt in the wake of slow growth and loss of livelihoods due to COVID–19 pandemic. However, the ratio of current assets to current liabilities declined from 4.7 percent in 2018, to 3.2 percent in both 2019 and 2020, signifying reduced capacity from these firms to meet short–term obligations, and in turn increased liquidity risk **(Figure 8).** The NFC performance has nevertheless improved in the first half of 2021 mainly due to the partial re-opening of the economy.

Figure 8: Profitability of NSE Listed Non-Financial Companies (Percentages)

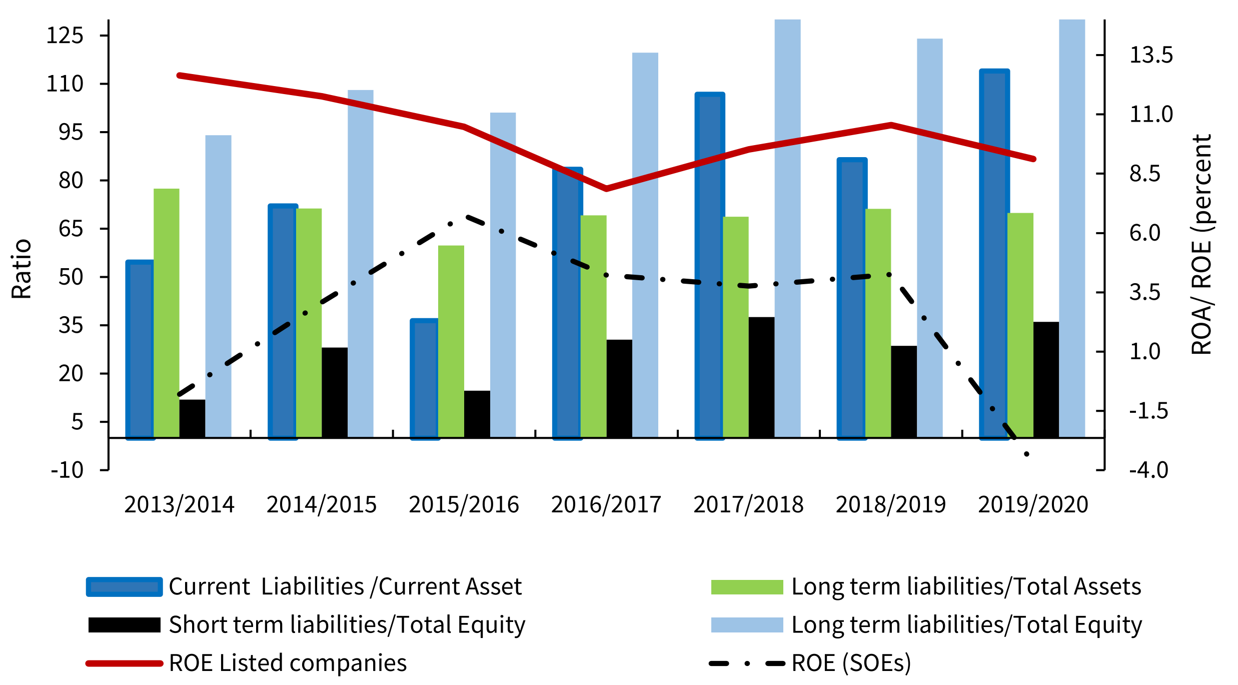


Source: CBK Staff Computation

The decline in firms' revenues, liquidity and profitability in 2020, saw a number of these firms resort to either lay–offs or furlough of employees and closures. In 2020, 14 NSE listed firms issued profit warnings compared to 11 and 17 in 2016 and 2019. Falling revenues and profitability, and furloughs of employees increases probability of defaulting on outrstanding loans and reduces ability to borrow.

The State-Owned Enterprises (SOEs) are key players in the financial sector, and their soundness and stability play a critical role in fostering financial sector stability. SOEs are among the top ten (10) largest borrowers and depositors in the banking sector, and account for the largest payers of insurance premiums, and largest source of Sacco societies membership. Financial viability of SOEs affects financial institutions, households and non–financial businesses through their interconnectedness and value chain. SOEs borrowing and spending decisions affect the overall economy, hence financial stability. The ROA and ROE for SOEs declined from 2.4 percent and 4.3 percent in 2019, to negative 1.9 percent and 3.7 percent in 2020 **(Figure 9)**. This is attributed to slowdown in economic activity, competition from cheaper imports and weak corporate governance, posing a risk to their viability. The SOEs long–term debt to assets and long–term debt to equity ratios declined by 1.3 percentage point and 10.1 percentage points, to 69.9 percent and 134.2 percent in 2020, respectively. This may indicate that SOEs used long–term debt to meet operational expenses rather than investing in assets, thus limiting productivity, expansion capacity and profitability. The decline in profitability and cashflow problems exacerbates indebtedness, increases reliance on fiscal support, and financial sector vulnerabilities. This raises both fiscal risk and financial stability concerns.

Figure 9: Profitability of State-Owned Enterprises



Source: CBK Staff Computation

The COVID–19 pandemic hit the real estate sector (comprising of office, residential, retail, and hospitality) most. The Knight Frank Market Update Report released on February 10, 2021, indicates that residential property performed worse in 2020, due to decline in rents by 10.3 percent compared to 2.8 percent decline in 2019. This reflects reduced disposable income for many tenants, many opting out of upmarket residences to satellite towns or from urban to rural areas. Where tenants remained, they negotiated rents downwards, leaving landlords with less rental income. The overall implication was many unoccupied houses, reduced rents and lower house prices.

The commercial office market demand for Grade A and B office space declined by 50 percent in 2020. Overall absorption in 2020, declined by 47 percent as many firms resorted to working remotely and/or closing physical offices on low business volumes and reduced staff numbers. In addition, firms froze expansion as the pandemic evolved, leading to a drop–in office space demand. Consequently, occupancy rates averaged 72 percent in 2020, and rents of prime commercial offices in Nairobi decreased from US$1.30 per square foot per month to US$1.12 per square foot per month in the second half of 2020. Commercial office properties may consider leasing out their office space as serviced offices to attract SMEs in the face of reduced occupancies in traditional (brick and mortar) offices. Working remotely led to projection of a further decline in demand in 2021.

For retail space, many malls were vacant as most shops including anchor tenants closed due to the pandemic,decline in economic activities, competition and weak governance. Retailers such as Shoprite, Choppies, Naivas, and Tuskys shut down some of their branches as the pandemic spread. In addition, adoption of E-commerce (for example Jumia and Glovo) as most households stayed at home to comply with the Government's social distancing and lockdown rules, resulted in reduced demand. More retailers may opt for a hybrid approach, by combining digital platforms and online delivery channels with minimal traditional bricks and mortar stores, thus impacting retail space demand. However, a few supermarkets scaled–down operations mainly due to liquidity problems, but the spaces they occupied as anchor tenants were taken up by competitors.

The hospitality segment of the real estate was perhaps the most affected by COVID–19 pandemic mainly due to prohibition of catering services and travel restrictions, closure of hotels and restaurants that heavily rely on tourism and the MICE (Meetings, Incentives, Exhibitions and Conferencing), curfews and social distancing measures and reduced disposable income. Travel restrictions, which have completely stopped international tourist arrivals and aviation business, led to the closure of various major hotels, while those which remained open, had to lay–off staff to stay afloat.

Construction activities were affected by supply chain disruptions. This extended development periods owing to longer lead time in obtaining materials, and hence delayed completion of projects. Project financing also diminished as lenders paused financing, owing to the uncertainty in the economy as well as delays in transfer of properties. Data from the Ministry of Lands and Physical Planning shows that land transfers decreased to 3,988 in 2020, compared to 6,162 in 2019. The pandemic also directly impacted construction sector through reduced labour force as construction sites adhered to guidelines issued by the National Construction Authority (NCA) that put a cap on the number of workers to comply with Ministry of Health protocols.

Overall, socio-economic risks were elevated in 2020 as a result of the evolving COVID–19 pandemic. However, there is potential recovery in 2021 and beyond, as the authorities ease COVID–19 containment measures and expedite vaccinations. The fiscal, financial and monetary policy measures implemented in 2020, coupled with administrative measures played a critical role in restoring the economy back to positive growth trajectory in 2021, and beyond **(Box I).** Following implementation of these measures, the economy is projected to rebound to 6.6 in 2021. Quick recovery is key to improving households' livelihoods and firms' earnings, and in turn safeguard financial sector stability. This, however, is dependent on receding COVID–19 infections, faster rollout of vaccinations and easing of restrictions as infections remain contained.

Box I: Fiscal and Monetary Policy Response Measures to COVID-19

1. Tax Measures in 2020
    - Reduction of the income tax rate (Pay-As-You-Earn) from 30 percent to 25 percent and full tax relief for persons earning a gross monthly income of up to KSh 24,000.
    - Value Added Tax rate lowered from 16 percent to 14 percent;
    - Corporation Tax lowered from 30 percent to 25 percent while Non-Resident Tax on Dividends was adjusted from 10 percent to 15 percent; and,
    - Turnover tax rate lowered from 3 percent to 1 percent.
2. An increase in depreciation allowance for hotel and restuarants, and manufacturing buildings.
3. Immediate payment of suppliers and tax refunds, increase in tax relief, and increase in financial transfers to vulnerable groups. These measures availed KSh 240 billion to households and firms, which supported aggregate demand and alleviated suffering among vulnerable groups. However, this pushed fiscal deficit to 8.4 percent of GDP. The Government has revised the income tax rate and VAT rate back to 30 percent and 16 percent, respectively effective January 2021.
4. Monetary policy measures by CBK;
    - Reduction in the Central Bank Policy rate by 100 basis points to 7.0 percent,
    - Lowering the Cash Reserves Requirements (CRR) by 100 basis points to 4.25 percent. This injected KSh 35 billion to the banking sector, providing the much-needed liquidity to sustain lending to the private sector. Credit to private sector grew by 8.4 percent in 2020, up from historical lows of 2.4 percent in December 2018. Trade, Households, Manufacturing, Transport & Communications, and Real Estate sectors were key drivers to this growth **(Annex I);** and,
    - Extending the maximum tenor of Repurchase Agreements (REPOs) from 28 days to 91 days to enable banks better manage their liquidity needs.

These measures played a central role in fostering resilience and stability of the financial sector, while mitigating the impact of the pandemic on household livelihood and firms' incomes, thus mitigating the impact on the economy.

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 to mitigate the negative impact of COVID–19 pandemic as well as measures implemented by the sector players to cushion themselves, their employees and consumers have continued to support the sector's resilience and stability to the evolving COVID-19 shock.

2.1 Banking Sector

The banking sector remained resilient to COVID–19 pandemic in 2020, supported by strong capital and liquidity buffers; reforms undertaken since 2015[1] ; leveraging on modern innovative financial technologies and business models; repeal of the interest rates capping law; and COVID–19 policy measures. CBK instituted financial policy measures to cushion the sector against the impact of COVID–19 pandemic **(Box II).**

Box II: CBK Financial and Policy Measures to Mitigate COVID–19 Pandemic effects

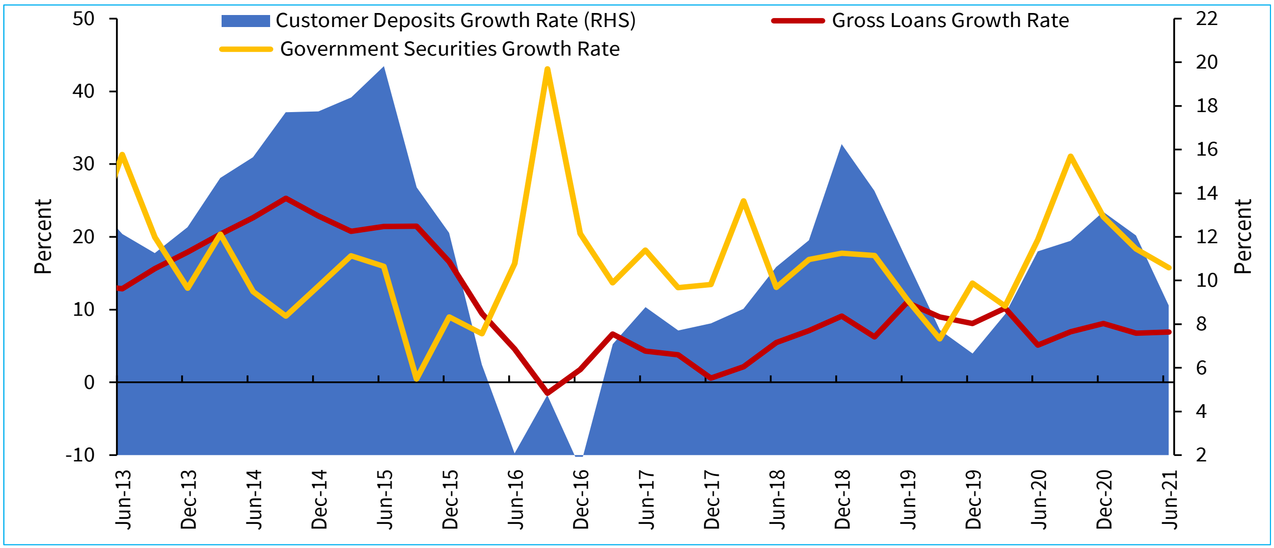
1. Allowing banks flexibility on loans classification and provisioning for loans that were performing on March 2, 2020, and whose repayment period was extended or restructured due to COVID-19. This gave reprieve to borrowers to adjust their finances and go through the difficult period.
2. Asked banks to renegotiate terms and restructure loans for borrowers who face difficulties in servicing their loans as a result of the pandemic. As a result, KSh 1.7 trillion loans (54 percent of the total gross loans) were restructured in 1-year to March 2021. The programme was however extended by 6 months, enabling borrowers reorganize themselves. About 94 percent of the restructured loans were repaid, with NPLs ratio for restructured loans at 2.5 percent in December 2020. Lenders also re-adjusted and build their capital and liquidity buffers, contributing to stability of the banking sector **(Annex II).**
3. Suspended the listing of defaulting borrowers with Credit Reference Bureaus (CRBs) due to the pandemic, raised threshold of amount for listing to KSh 1,000; and "delisting" of borrowers earlier listed for amounts below KSh 1, 000 to ensure borrowers stayed afloat and able to borrow to navigate the pandemic period. CBK also rescinded approvals granted to unregulated digital credit Apps (lenders providing credit through mobile-phone based platforms) and credit-only lenders as third-party credit information providers to CRBs. However, CBK has removed these measures and allowed listing of borrowers at CRBs.

[1] Kenya Banking Sector Charter (February 2019); Stawi loan solution for MSMEs (November 2019); market-driven banking consolidations; dealing with cybersecurity threats; and reforms under the New normal.

2.1.1 Commercial Banks and Mortgage Finance Companies

The banks' net assets grew by 12.4 percent and 5.1 percent to KSh 5,405.8 billion and 5,676.9 billion in December 2020, and June 2021, respectively (Figure 10). Loans and advances and investments in Government securities accounted for 50 percent and 30 percent of net assets in December 2020, compared to 54.8 percent and 31 percent in June 2021. Since the fourth quarter of 2015, growth rate of government securities have outpaced growth in loans and advances, highlighting the risk aversion of banks during the period. The period was characterised by the restrictive interest rates capping law and the 2015/2016 banking crisis. A splinter of correction towards the end of 2019, following repeal of the interest rates capping law was eroded by COVID–19 pandemic. Banks intensified use of technology and increased investment in Government securities, accumulated foreign denominated assets and increased lending to large firms, which signify flight to safety during the pandemic as credit risk increased. Growth in Customer deposits increased by 8.7 percent to KSh 4,021.9 billion in December 2020, and 5.7 percent to 4,249.4 billion in June 2021, partly reflecting customers' intent to preserve liquidity and banks efforts to enhance deposit mobilization mainly through the use of digital channels. Deposits accounted for 74.8 percent of total banking sector liabilities and shareholder's funds in June 2021.

Figure 10: Growth in Loans, Government Securities and Customer Deposits

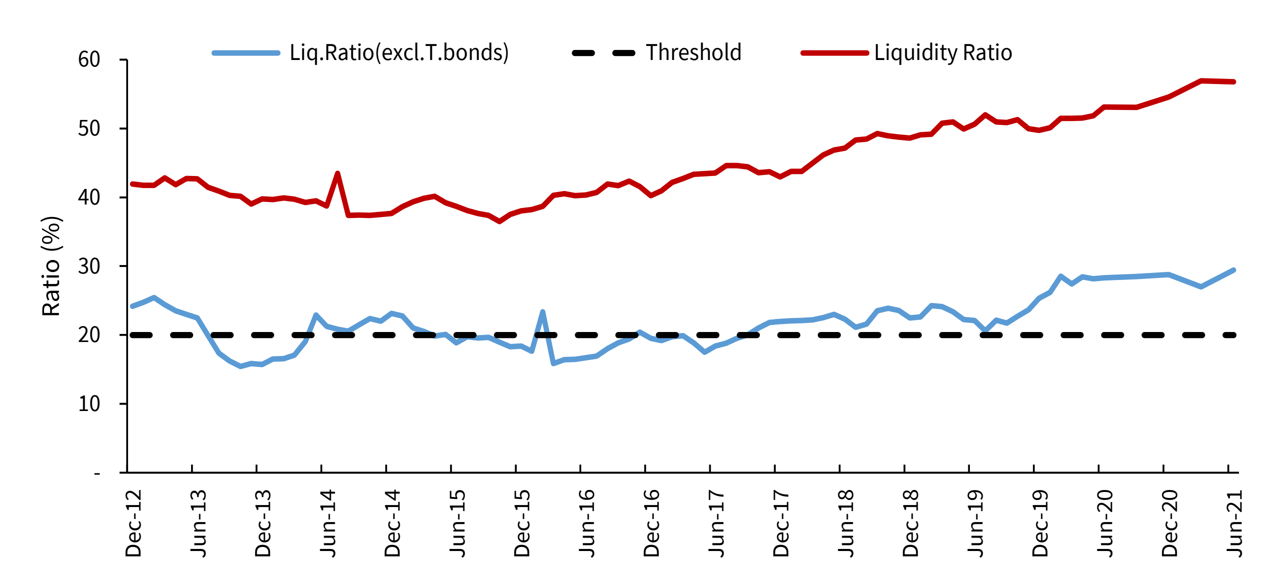


Source: CBK

The sector remained stable and resilient due to strong capital and liquidity buffers despite the impact of COVID–19 pandemic. The Core Capital and Total Capital to Total Risk Weighted Assets (TRWA) ratios averaged 16.5 percent and 18.9 percent in the year to June 2021, compared to an average of 16.4 percent and 18.4 percent, respectively, since December 2016, against the minimum statutory core and total capital requirement of 10.5 percent and 14.5 percent, respectively.

Banks' liquidity remains high, averaging above 20 percent minimum regulatory requirement, hence no immediate liquidity risk. Liquid assets increased from KSh 1,746 billion in December 2019, to KSh 2,131 billion in December 2020, and KSh 2,326 billion in June 2021, with liquidity ratio averaging 56.8 percent in June 2021 **(Figure 11).**

Figure 11: Liquidity Ratios remain strong



Source: CBK

Holding of tradable treasury bonds and bills by banks accounted for 76 percent of liquid assets in December 2020 (Table 2) and 71.1 percent in June 2021. Banks increased holding of government securities by 37.2 percent in 2020, compared to 2019. Of interest is the 106.1 percent increase in balances held with foreign financial institutions in 2020, compared to 2019. This may partly explain depreciation of the local currency as customers sought to hold more liquid assets in more stable foreign currencies as the pandemic evolved, an indication of flight to safety and quality. In addition, the 35.5 percent increase in holding of Treasury bonds in 2020, supports the argument of flight to quality and safety as banks and their clients sought safe assets to preserve value, and at the same time earn a positive return during the crisis period. The need for liquid assets to meet firms' and households' needs and emergencies led to 0.7 percent and 18.5 percent decline in Notes and Coins and Balances held at CBK, respectively, implying COVID–19 shock exacerbated flight to safety tendencies.

Table 2: Banking Sector Total Liquid Assets

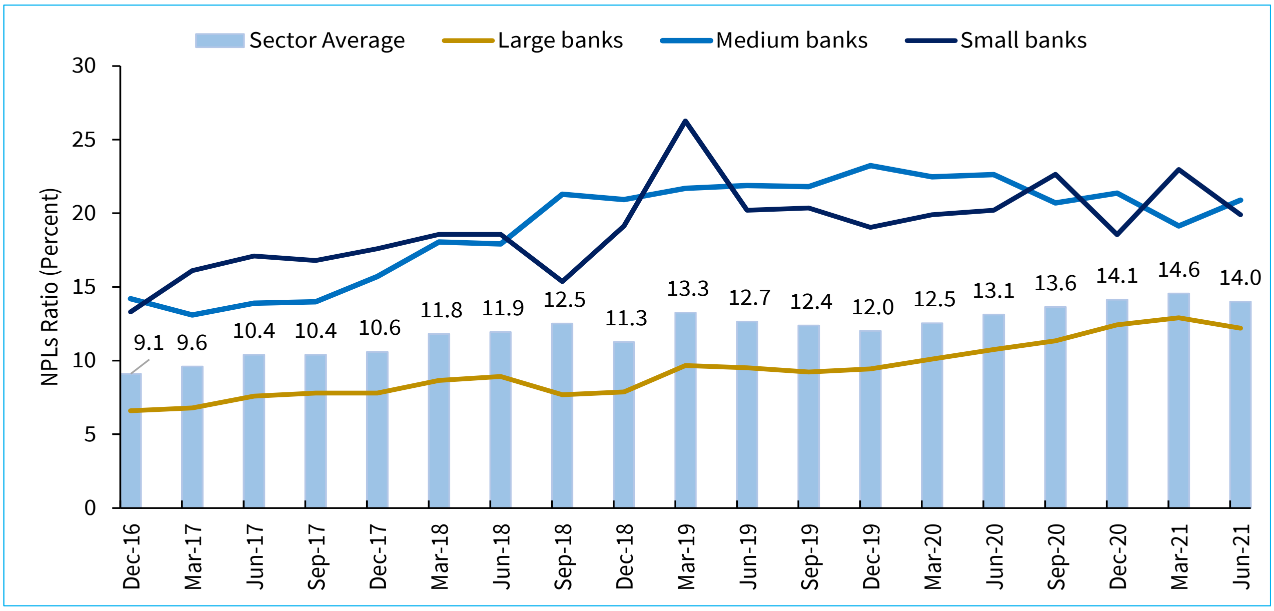
Type of Asset	End December 2019		End December 2020		Change in Share (percentage points)	Annual Change (%)
	KSh '000s	Share (%)	KSh '000s	Share (%)		
Notes & coins	72,758,014	4.17	72,235,637	3.4	-0.8	-0.7
Balances at Central Bank	240,570,014	13.78	196,020,872	9.2	-4.6	-18.5
Domestic financial institutions balances	-5,369,911	-0.31	-5,416,066	-0.3	0.1	0.9
Foreign financial institutions balances	120,260,790	6.89	247,850,864	11.6	4.7	106.1
Treasury Bills	486,498,715	27.87	494,581,006	23.2	-4.7	1.7
Treasury bonds	830,965,826	47.60	1,126,192,284	52.8	5.2	35.5
Total Liquid Assets	**1,745,683,448**	**100.00**	**2,131,464,597**	**100.0**	**0.0**	**22.1**

Source: CBK

Banks' asset quality measured by Gross Non–Performing Loans (NPLs) to Gross Loans ratio deteriorated in 2020, as COVID–19 pandemic disrupted households' livelihoods

and firms' incomes, leading to closures, lay–offs and socio–economic hardships (Figure 12). Increasing NPLs amid declining uptake of new loans, saw the NPLs ratio increase to 14.1 percent in December 2020, rising to 14.6 percent in March 2021 before easing to 14.0 percent in June 2021. The goss NPLs increased by 27.4 percent, to KSh 424.1 billion in December 2020, and KSh 442.6 billion in March 2021, but declined by 2.6 percent to KSh 435.3 billion in June 2021, signifying eased credit risk. Gross loans, however, grew slowly by 6.1 percent due to COVID–19 pandemic. This made it difficult for those with loans to continue servicing them or take new loans. Banks in the large peer group were most affected by COVID–19 shock, recording the highest increase in NPLs ratio of 3 percentage points between 2019 and 2020. Banks in the medium and small peer groups have had lower assets quality compared to those in large peer group, with their NPLs ratios remaining above the sector average since December 2016.

Figure 12: Quarterly Gross NPLs ratio vary by bank size



Source: CBK

Profitability measured by Profits Before Tax (PBT) declined by 29.5 percent to KSh 112.1 billion in December 2020 (Table 3). However, in the 6 months to June 2021, profits increased to KSh. 96.4 billion. Total expenses increased by 32.1 percent, to KSh 318.2 billion in December 2020, on account of higher bad debt charge, which reduced banks profit in 2020.

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

CATEGORY	2019			2020			Percentage Change		
	PBT (Ksh.Bn)	ROA (%)	ROE (%)	PBT (Ksh.Bn)	ROA (%)	ROE (%)	PBT	ROA	ROE
All Banks (39)	159,071.6	2.5	21.2	112,145.4	2.1	13.9	-29.5	-0.5	-7.3
Large Banks(9)	142,854.6	4.0	26.5	97,495.0	2.4	16.3	-31.8	-1.5	-10.3
Medium Banks (9)	18,298.7	2.3	14.1	17,152.0	1.9	12.2	-6.3	-0.4	-1.9
Small Banks (21)	-2,080.6	-0.5	-3.4	-2,501.0	-0.5	-3.7	20.2	0.0	-0.3

**pp refers to percentage points*
Source: CBK

The nine (9) banks in large peer group accounted for 86.9 percent of the total industry PBT in 2020, with the remainder thirty (30) banks in the medium and small peer groups accounted for just 13.1 percent of PBT. Banks in the small peer group were most affected, with their ROA and ROE all negative in 2020. At industry level, ROA and ROE declined to 2.1 percent and 13.9 percent in December 2020, respectively. However, the ROA and ROE improved to 2.7 percent and 22.6 percent in June 2021, respectively.

2.1.2 Microfinance Banks

The microfinance banks (MFBs) performance remains weak, with COVID–19 shock worsening an already vulnerable situation as it ravaged their niche market. Total net assets declined by 1.5 percent to KSh 75.1 billion in December 2020, mainly due to decline in loans and advances. Slowdown in business activities reduced uptake of new loans as microfinance banks tightened their lending standards in the face of mounting risks. However, the total net assets increased by 1.2 percent to KSh 76.0 billion in June 2021. They also faced stiff competition from commercial banks, Saccos, other microfinance institutions and Digital Credit providers **(Table 4).**

Table 4: COVID–19 pandemic worsened MFBs Losses

INDICATOR	2014	2015	2016	2017	2018	2019	2020	Annual Change(%)
Total Assets (KSh Mn)	56,972	69,465	72,510	67,597	70,754	76,353	74,879	-1.9
Net Advances/Loans (KSh Mn)	39,184	45,749	47,047	42,847	44,179	46,651	44,179	-5.3
Gross NPLs (KSh mn)	2,348	4,264	7,288	9,300	9,891	9,817	12,980	32.2
Total Deposits (KSh Mn)	35,862	40,589	40,198	38,916	40,961	43,941	49,356	12.3
Borrowings (KSh Mn)	6,994	13,220	16,435	13,413	14,607	14,934	11,340	-24.1
Capital & Shareholders Funds (KSh Mn)	10,600	11,633	11,622	11,301	10,443	11,177	8,113	-27.4
Profits Before Tax (KSh Mn)	1002	592	-377	-622	-1437	-339	-2240	-560.8
ROAs (percent)	2.0	1.0	-0.5	-0.9	-5.5	-0.4	-3.8	-3.4*
ROEs (percent)	10.0	5.0	-3.2	-5.5	-13.8	-3.0	-36.3	-33.3*

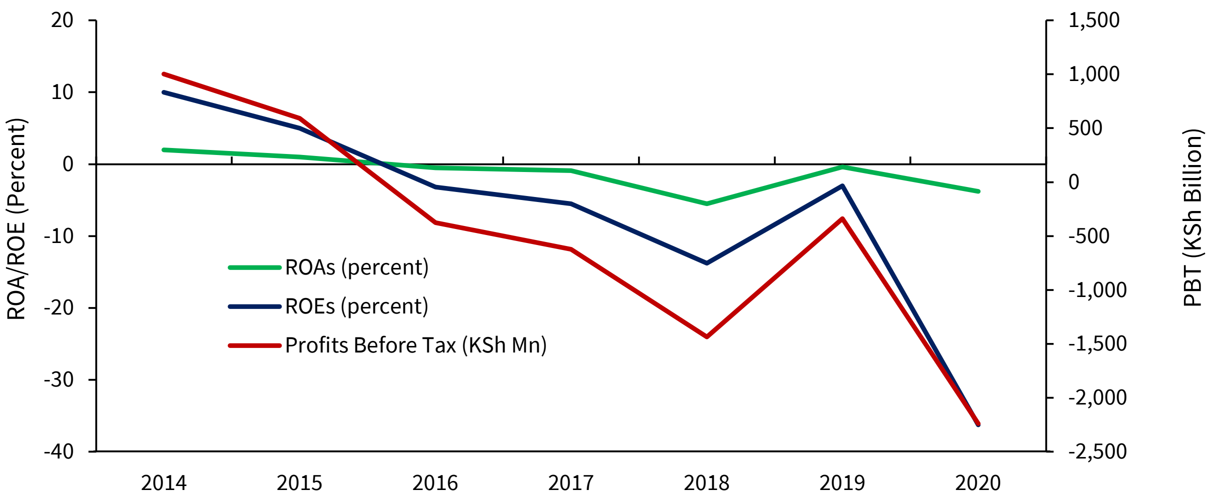
**percentage points*

Source: CBK

Deposits, the main source of funding of MFBs' assets, grew by 12.3 percent in December 2020, and 4.2 percent in June 2021, partly explained by aggressive use of digital platforms. However, MFBs external borrowing contracted by 24.1 percent in 2020, compared to 2.4 percent growth in 2019, highlighting funding challenges as risks persist. This may further subdue loans and advances by MFBs, especially to SMEs and households. MFBs also recorded increased losses, undermining building of capital buffers and limiting capacity to expand lending **(Figure 13).**

The asset quality of MFBs deteriorated, which affected their financial soundness. Overall, the NPLs ratio slightly improved to 24.9 percent in June 2021, from 27.1 percent in December 2020, from 20.0 percent in December 2019, as businesses and households defaulted on their loans. The gross NPLs accelerated by 32.2 percent in 2020, compared to 0.7 percent decline in 2019, much higher than the 5.9 percent contraction in loan portfolio in 2020, reinforcing the negative impact of COVDI-19. The 560.8 percent increase in losses coupled with constrained capital sources, saw the core capital and total capital of MFBs decline by 54.5 percent and 41.7 percent to KSh 5.5 billion and KSh 7.2 billion in December 2020, respectively. Consequently, core capital and total capital to total risk-weighted assets ratios decreased from 15.0 percent and 18.0 percent in December 2019, to 10.0 percent and 13.0 percent in December 2020, but improved to 11.1 percent and 15.1 percent in June 2021, against the minimum thresholds of 10.0 percent and 12.0 percent, respectively. The decline in capital ratios indicate that MFBs face challenges in building adequate capital buffers to withstand shocks. The liquidity ratio was 25.5 percent in December 2020, and 29.5 percent in June 2021, well, above the minimum 20 percent statutory requirements in the two years.

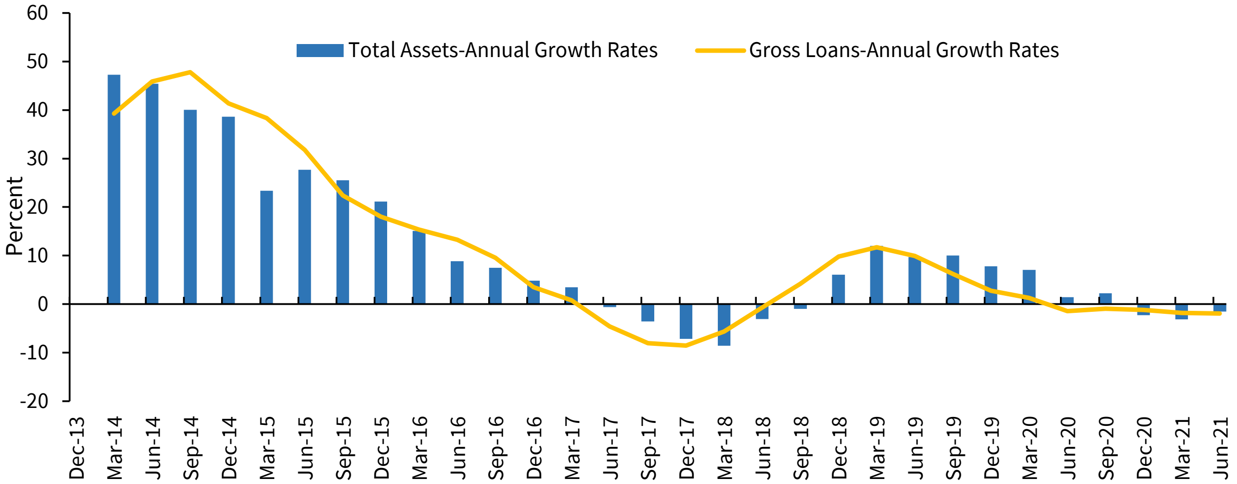
Figure 13: Persistent Losses among MFBs



Source: CBK

Overall, MFBs face elevated credit risk since 2014, with gross NPLs rising by 465.2 percent to KSh 13.0 billion in 2020, and KSh 12.3 billion in six months toJune 2021. The annual growth in gross loans ranged between negative 10 percent and positive 10 percent during the period. The COVID–19 shock eroded recovery gains recorded in 2019 **(Figure 14).**

Figure 14: MFBs Loan Portfolio Remain Depressed since 2016



Source: CBK

2.1.3 Banking Sector Safety Net and Resolution

Kenya has continued to strengthen the banking sector safety nets, crisis management and resolution frameworks since mid–1980's banking crisis that saw the establishment of the Deposit Protection Fund (DPF) as an independent organ of CBK. The DPF was elevated to an independent State Agency, vide the Kenya Deposit Insurance Corporation (KDIC) Act in 2012, with expanded mandates and power to provide deposit insurance for deposit taking institutions and as the resolution authority for banks. The KDIC as a 'risk minimizer' in the sector, provides safety to depositors' money and fostering public confidence and trust. It operates the Deposit Insurance Fund (DIF) used to pay out protected deposits up to the set insured coverage limit of KSh 500, 000 per account in case of a bank failure.

The DIF grew by 9.5 percent to KSh 126 billion in December 2020. The Fund insured KSh 694 billion or 16.7 percent of the total banking sector deposits amounting to KSh. 4.2 trillion as at December 2020. The effective cover of the deposit, i.e. the extent of the Fund balance to cover the insured deposits, declined by 22.2 percent in 2020, to 18.2 percent due to increased coverage limit from KSh 100,000 to KSh 500,000. The limit is still below the recommended minimum of 33.3 percent by International Association of Deposit Insurance (IADI) as the best practice. The 72.7 million bank accounts in December 2020, were fully covered **(Table 5).**

Table 5: Key Fund Indicators

Year	2014	2015	2016	2017	2018	2019	2020	Annual Change between 2019 & 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	15.2
Total Insured (KSh Billion)	224.9	244.7	255.5	272.1	269.7	285.1	694.0	143.4
Protection Level (Row2/Row1) (%)	9.43	9.15	9.18	8.85	7.97	7.91	16.72	8.8
Fund Balance (KSh Million)	52.2	61.7	73.3	86.1	100.2	115.1	126.0	9.5
Effective Cover (Row4/Row2) (%)	23.2	25.2	28.66	31.64	37.13	40.35	18.15	-22.2
Total no. of accounts (KSh 000)	30.7	37.4	43.3	49.9	57.3	64.7	72.7	12.3
Accounts fully covered (KSh Million)	29.6	36.1	41.8	48.4	55.9	63.1	72.0	14.1
Protected accounts (Row7/Row6) (%)	96.25	96.65	96.72	96.86	97.44	97.56	99.13	157.0
Exposure Level (100% - Row 5) (%)	76.8	74.8	71.34	68.36	62.87	59.65	81.85	22.2

Source: KDIC

The risk exposure level to the Fund increased from 59.7 percent in December 2019, to 81.9 percent in December 2020. Consequently, KDIC implemented risk–based premium from July 1, 2021, to reward members proactively investing in and implementing effective risk management frameworks. It also continues to implement appropriate resolution frameworks in collaboration with CBK to ensure that in case of a failure of an institution, the process of resolution is orderly.

Risks Assessment and Outlook

The banking sector remained stable and resilient in 2020, with positive growth outlook in 2021, due to prospects of strong economic recovery supported by Government measures to contain and mitigate the impact of COVID–19 pandemic and rollout of vacines. The risks facing the banking sector in the outlook include but not limited to:

- **Credit risk, which remains elevated due to COVID–19 shock,** if the pandemic intensity and duration persist especially with emergence of new variants and weaknesses in the roll out of vaccines uniformly across the country. The NPLs ratio increased from 5.2 percent in December 2013, to 14.1 percent December 2020, and devastating impact of COVID–19 pandemic may sustain NPLs upward.
- **Operational and governance risks expected to remain high as banks become more interconnected with sectoral and cross–border operations coupled with rapid adoption of technology.** This risk is compounded by increased use of financial technology and innovations to deliver financial products and services to meet the consumer needs. There are more incidences of frauds, data privacy concerns, cyber-attacks and cybersecurity threats. Hence the need for more prudent and stringent remedial technology controls and risk management measures to address these risks.
- **Emerging flight to safety concerns as banks and customers seek safe assets with positive return and preservation of value.** At the height of COVID–19 pandemic, banks invested heavily in long–term Treasury bonds, for safety and quality. 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 sentiments around the 2022 General Elections could impact the economy and in turn pose concerns on banks stability.**

Overall, the sector is expected to be stable and resilient in 2021 underpinned by strong capital and liquidity buffers coupled with economic recovery as COVID–19 pandemic wanes on increased vaccinations and Government policy measures. The Banking Sector Credit Risk Stress Test results conducted in April 2021, indicated that under Adverse Scenario for COVID–19 pandemic, NPLs ratio is expected to worsen to about 18.9 percent in December 2021. The stress test results are summarized in Box III.

Box III: Banking Sector Credit Risk Stress Test

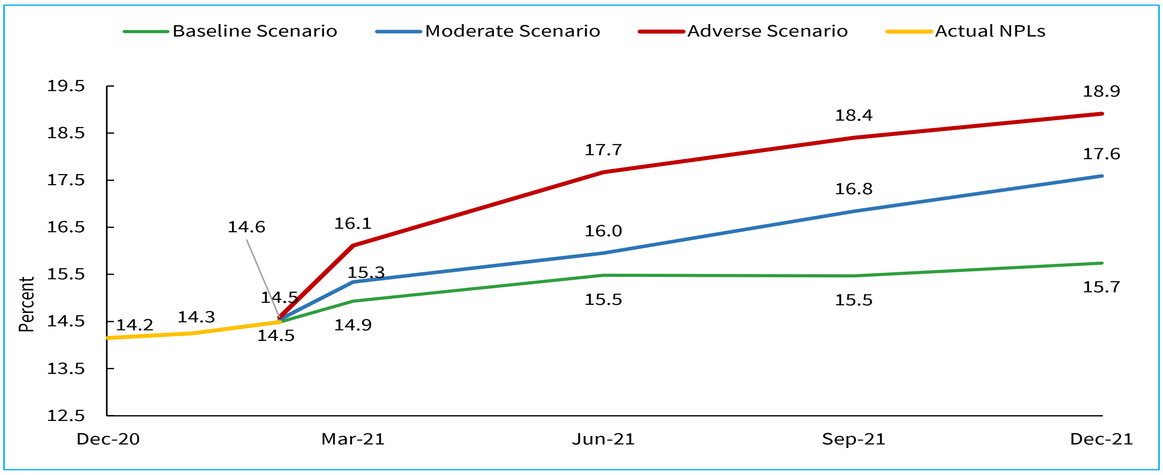
The CBK conducted banking sector credit risk stress test in April 2021 using the balance sheet approach based on December 2020 banks data to assess the resilience of banks to plausible but realistic COVID–19 scenarios. The stress test focused on credit risk given that the pandemic had impaired borrowers' ability to repay loans due to disruptions to firms' and households' livelihoods. This stress test results are the first to be published by the CBK in the financial stability report.

Banks' resilience to the COVID–19 shock was assessed under moderate and adverse scenarios relative to the baseline scenario for a period of twelve (12) months to December 2021 as summarized below:

1. Baseline Scenario assumed that the current COVID–19 conditions, including the existing restrictions and containment measures continue up to March 2021; and thereafter lifted as the spread recedes. This leads to a rapid economic recovery, improved firms' earnings and households' livelihoods, and gradual easing of the banks' credit risk.
2. Moderate Scenario assumed that COVID–19 pandemic persists and even increases beyond March 31, 2021, for an additional three (3) months to June 2021, leading to extension or even enhanced restrictions and containment measures. This leads to delayed economic recovery, reduced firms' earnings, worsening households' livelihoods, and increased banks' credit risk.
3. Adverse Scenario assumed that COVID–19 pandemic duration and intensity increases for an additional six (6) months from the baseline to September 2021, underpinned by trigger events (super spreaders) and emergence of new variants, pushing the positivity rate above 15 percent. Consequently, the Government imposes stricter restrictions and containment measures, thus, slowing down economic recovery leading to worsening of firms' earnings and households' livelihoods, thus higher credit risk.

The scenarios capture the assumed evolution of COVID-19 pandemic intensity and duration **(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 15.5 percent in the baseline scenario and 17.7 percent in the severe scenario in June 2021, and 15.7 percent in the baseline to 18.9 percent under severe scenario by December 2021, compared to the actual NPLs ratio of 14.1 percent in December 2020. Overall, the banks' credit risk is expected to remain elevated in 2021, indicated by the projected NPLs.

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



Source: CBK Staff Computations

The COVID–19 shock is assumed to be transmitted to the banks' balance sheet through three channels: shock increase in overall NPLs; shock increase in sectoral NPLs; and default by up to three (3) large borrowers (shock sizes in Annex III). The resilience of banks to credit risk as a result of COVID–19 pandemic was assessed and the likely impact on the minimum statutory core capital adequacy ratio (CAR) requirements of 10.5 percent by quantifying the expected shortfall in core capital adequacy levels as well as the required capital injections for full compliance with prudential thresholds. The results are presented in the form of additional capital injection required in post–shock period to ensure compliance with the minimum core CAR of 10.5 percent; and the number of banks failing to meet the regulatory core capital requirement.

Figure ii: Results of the Stress Tests

NPLs Transmission Channel	Impact on Minimum Core CAR due to COVID-19 Shock on NPLs	Baseline Scenario	Moderate Scenario	Adverse Scenario
1. Shock Increase in Aggregate NPLs	**Shock Applied (%)**	**6.4**	**32.71**	**47.56**
	Pre-shock Core Capital Ratio (%)	15.1	15.1	15.1
	Post-shock Core Capital Ratio (%)	**14.9**	**14.0**	**13.4**
	Number of Banks falling below minimum Core CAR	7	8	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
2.Shock Increase in Sectoral NPLs **(Annex IIIb:Sectoral Shock)**	*Pre-shock Core Capital Ratio (%)*	15.1	15.1	15.1
	Post-shock Core Capital Ratio (%)	**14.9**	**14.5**	**13.8**
	Number of Banks falling below minimum Core CAR	7	7	8
	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
	Number of large borrowers that default	One (1)	Two (2)	Three (3)
3. Default by Large borrowers per bank	*Pre-shock Core Capital Ratio (%)*	15.1	15.1	15.1
	Post-shock Core Capital Ratio (%)	**13.0**	**11.3**	**9.8**
	Number of Banks falling below minimum Core CAR	10	14	18
	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

Source: CBK Staff Computations

Interpretation of the results:

1. If a shock increase in aggregate NPLs materializes under the baseline, moderate and adverse scenarios, seven (7), eight (8) and ten (10) banks would require to inject additional capital of about KSh 10.5 billion, KSh 17.5 billion and KSh 21.9 billion, respectively, in order to meet the minimum statutory core CAR of 10.5 percent by December 2021.
2. Despite the low probability of a default by the top three (3) large borrowers per bank under the adverse scenario, if it materializes, it would lead to eighteen (18) banks not meeting the required minimum core CAR of 10.5 percent by December 2021. As a result, these banks would require an additional capital injection of about KSh 45.9 billion to comply with the minimum core CAR of 10.5 percent.
3. Despite the pandemic affecting individual banks differently, banks' in general has sufficient capital buffers to withstand the shock so far as indicated by the aggregate core CAR remaining well above the minimum statutory core CAR of 10.5 percent in all the scenarios.

From a policy perspective, the results may require CBK to consider:

1. Putting emphasis on capital preservation to ensure adequate buffers in the event that the shock worsens;
2. Encouraging banks to strengthen their business models, market driven mergers and acquisitions, and implementation of the revised Internal Capital Adequacy Assessment Programs (ICAAP) incorporating COVID–19 pandemic; and,
3. Enhancing surveillance, with closer look at resilience of individuals banks, and designing bank specific interventions to ameliorate impact of the COVID–19 shock on their viability and stability.

2.2 Insurance Sector

The insurance sector, categorised into; general insurance and long–term insurance business lines, has general insurance business, accounting for 56 percent of total premium income (Table 6). The sector weathered COVID–19 pandemic, with assets and gross premium income growing by 7.4 percent and 1.5 percent in 2020, respectively. Investments and profitability were, however, impacted negatively with Profit After Tax declining by 42.5 percent and investment income declining by 24.3 percent in 2020. The ROA and ROE declined by 1.3 percentage points and 4.7 percentage points, respectively, in 2020, as a result of increased expenses and volatility in the capital markets, a key source of investment income, due to COVID–19 pandemic.

Table 6: Insurers Performance Indicators

Indicator	Insurers Performance Indicators						
	2015	2016	2017	2018	2019	2020*	Annual Change (%)
	KSh '000'	KSh ‘000’	KSh ‘000’	KSh ‘000’	KSh ‘000’	KSh ‘000’	
Gross Premium Income	174,064,645	196,635,836	209,001,289	216,261,729	229,499,718	232,952,896	1.5
Net Premium Written	140,003,552	158,362,431	165,852,034	172,322,202	182,658,282	186,957,615	2.4
Claims Incurred (Gen. Business)	49,051,411	54,857,495	56,151,961	56,928,003	58,961,581	57,362,200	-2.7
Commissions	10,895,759	12,578,735	12,495,181	11,487,628	10,957,562	11,595,932	5.8
Management Expenses	36,272,444	39,982,771	41,197,262	44,072,857	45,702,207	42,594,269	-6.8
Investment Income	34,576,984	37,135,382	51,675,571	44,514,367	66,982,398	50,697,696	-24.3
Profit/Loss After Taxation	13,635,098	12,832,644	13,642,971	7,269,263	15,119,928	8,690,956	-42.5
Investments	390,225,346	425,304,138	483,799,656	524,237,249	594,028,115	652,732,760	9.9
Assets	478,752,453	528,748,193	590,953,337	635,035,110	709,045,429	761,340,580	7.4
Shareholders' Funds	125,830,029	134,455,222	147,255,007	149,134,602	161,635,278	169,154,341	4.7
Key Performance Ratios for Insurers (Percent)							
ROA	3.8	3.6	3.2	1.8	3.0	1.7	-1.3
ROE	11.4	9.9	9.7	4.9	9.9	5.2	-4.7
Combined ratio Gen Business)	102.7	102.4	101.1	102.8	103.4	101.3	-2.1
Insurance Penetration Ratio	2.7	2.7	2.7	2.4	2.3	2.3	

**Unaudited data*

Source: IRA

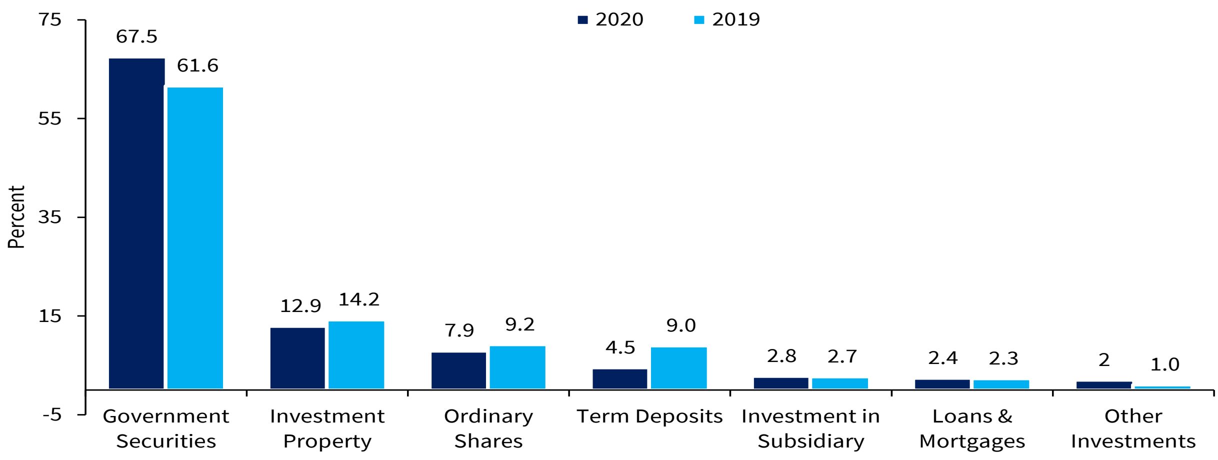
Insurance penetration rate, measured by the ratio of insurance premium to GDP, has remained low at 2.3 percent in 2020, and 2.3 percent in 2019, which is below 7.4 percent global average. Consequently, IRA and stakeholders have taken the need to increase penetration rate as a strategic policy target. The IRA also undertook strategic policy measures complementing those by the Government to mitigate the impact of the pandemic to its licensees and policyholders as summarized in **Box IV.**

Box IV: Measures to Mitigate the Impact of COVID-19 Pandemic to Insurers and Policyholders

1. Insurers to avail a 3-month grace period to policyholders to avoid insurance lapses.
2. Expeditiously process and settle all claims and payments related to COVID-19.
3. Seek approval prior to suspending or withdrawing from offering some products before implementation.
4. Communicate to existing policyholders which policies likely to be impacted by coronavirus.
5. Pay commissions to agents and brokers immediately the business is concluded but within the law.
6. Submit a temporary succession plan of the Board Chairman, Principal Officer and Key Control functions.
7. Extend supervisory reporting deadlines, suspend physical on-site inspections and adopt electronic channels.
8. Submit a stress and scenario testing, updating of capital adequacy calculations and liquidity strains.

To preserve quality of assets, the sector invested more in government securities, raising the share from 61.6 percent of total assets in 2019, to 67.5 percent in 2020 (Figure 15). There was also an increase in investment in subsidiaries by 13.2 percent. Investment in property, however, declined by 1.3 percent, reflecting COVID–19 pandemic impact on the real estate and construction sectors. The value of ordinary shares held by insurers declined by 31.2 percent in 2020, reflecting the fall in share prices as investors exited the market. Heavy investment in Government securities provides security to the insurance sector but introduces sovereign risks concerns given high exposure to government.

Figure 15: Insurance Investment Allocations



Source: IRA

Risks Assessment and Outlook

The sector is faced with both/or either increasing risks in magnitude and/or new ones are emerging. In particular:

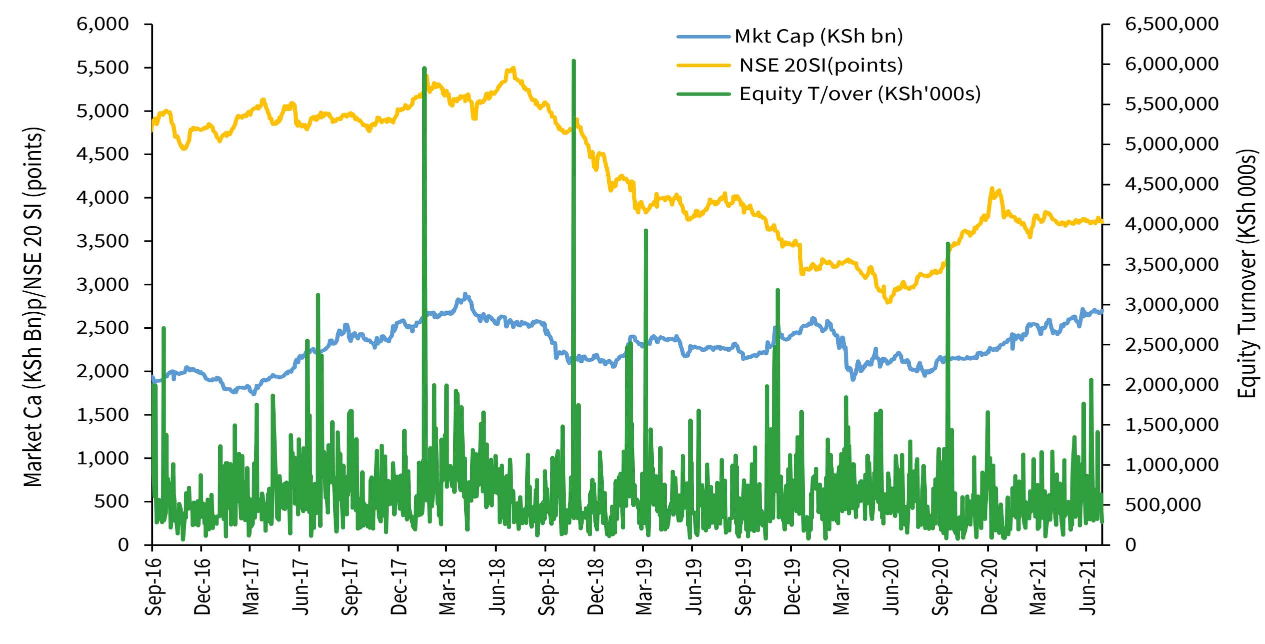
- ***Uncertainty regarding COVID–19 pandemic intensity and duration*** continues to weigh negatively on the sector's returns on investments in equities, reduction in premiums growth due to low business activities and deteriorating household livelihoods, and increased insurance claims. Travel restrictions impacted the aviation, marine and travel insurance businesses; causing redundancies and reduction in salaries, all in turn affecting the general and life businesses. To address this risk, IRA instituted mitigation measures summarized in **Box IV.**
- ***The insurance risk –*** actual claims and benefits exceeds the carrying amount of insurance liabilities is emerging in the sector. This is partly explained by poor insurance product design, pricing, underwriting and reinsurance arrangements as well as governance weaknesses. The sector's combined ratio was 101.3 percent as at December 2020, well above 100 percent, indicating increased insurance risk for general insurance business.
- ***Market risk occasioned by adverse fluctuations in interest rates, asset prices, exchange rates, and stock prices.*** The value of quoted equities held declined by 31.2 percent on account of high volatility and steep price fall at the NSE at the height of the COVID–19 pandemic in 2020.
- ***Credit risk is also evident where a counterparty is unable to pay amounts when due including amounts due from reinsurers in respect of claims already paid, and amounts due from insurance intermediaries, among others.*** The credit risk exposure from outstanding premiums and reinsurance recoveries increased by 6.7 percent to KSh 38.1 billion in 2020.
- ***Cybersecurity threats and insurance frauds have increased.*** Adoption of technology and digital platforms in insurance business is transformative in-service delivery, enhanced efficiency, expanding outreach and general welfare improvement, but has come with risks. Working remotely has exposed insurers to cyber-attacks due to limited security in homebased set-ups. In addition, frauds have increased as fraudsters seek to swindle unsuspecting policyholders or even insurers. Some episodes are perpetrated by insider dealings. The IRA is continuing to work with Insurers and other sector players to tighten controls and operating systems to mitigate this risk.

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. Further, IRA operationalized regulatory sandbox framework and issued a regulatory sandbox policy and guidance note in 2020, enabling innovators to test their products and business models with customers under a controlled environment. As the economy recovers, insurers see opportunities to produce innovative and value-based products meeting consumer needs.

2.3 Capital Markets

The COVID-19 pandemic heightened volatility in the stock prices, with the NASI and NSE 20 share price indices and market capitalisation declining to the lowest levels since 2008. All equity market indicators declined to historical lows in the first–half of 2020, as COVID-19 cases soared **(Figure 16).**

Figure 16: Select Equities Market Performance Indicators

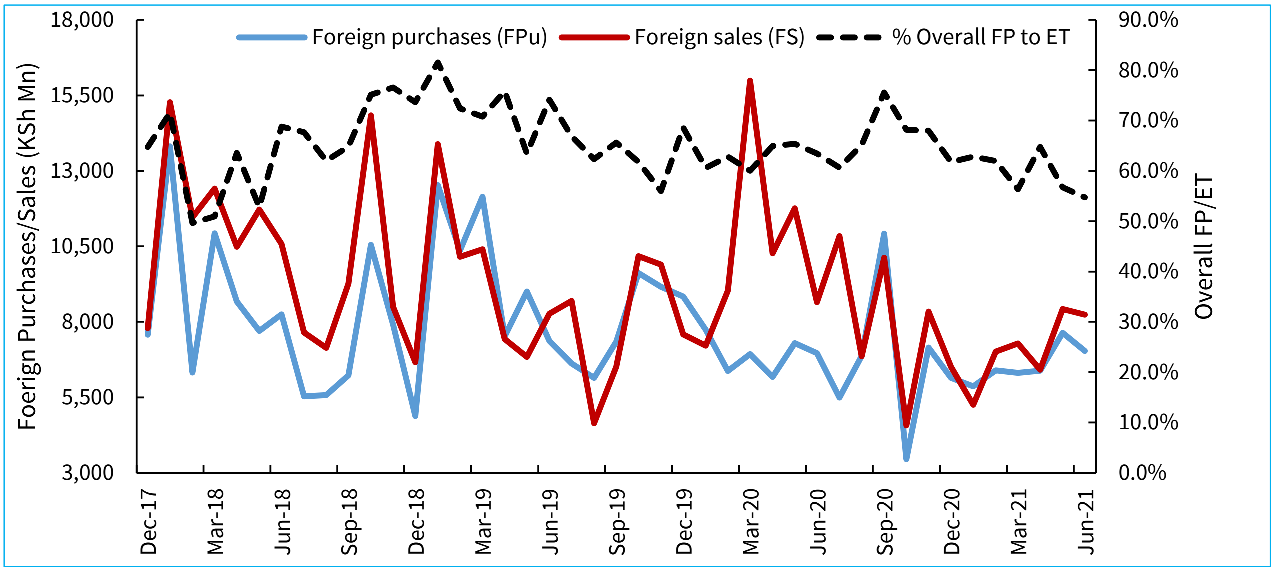


Source: CMA

Most price falls occurred for stocks in the banking and financials, transport, agriculture, energy and manufacturing sectors. However, technology and communications (Safaricom) shares recorded price gains. In addition, there was no new listing of shares through Initial Public Offering (IPO), Rights Issues or even share splits. However, the market has recovered in the first half of 2021.

Panic sales in equities by local and foreign investors caused excessive volatility and losses to investors (Figure 17). As the pandemic spread and travel restrictions tightened, foreign investors feared for the worst and exited the NSE in droves. In 2020, total shares valued at KSh 110.1 billion were sold off (outflow) compared to shares valued KSh 81.5 billion bought (inflow) by foreign investors, hence a net outflow. In 2019, however, foreign investors purchased shares worth KSh 106.7 billion at NSE compared with KSh 104.5 billion worth of shares sold, hence net inflow. The average (sum of buy and sale sides 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 68.3 percent in 2019, to 64.7 percent in twelve months to December 2020. The market has however recovered, with the first four months of 2021 recording a balanced flow between foreign purchases and sales, at about KSh 25 billion.

Figure 17: Foreign Investors Participation in local Equities Market

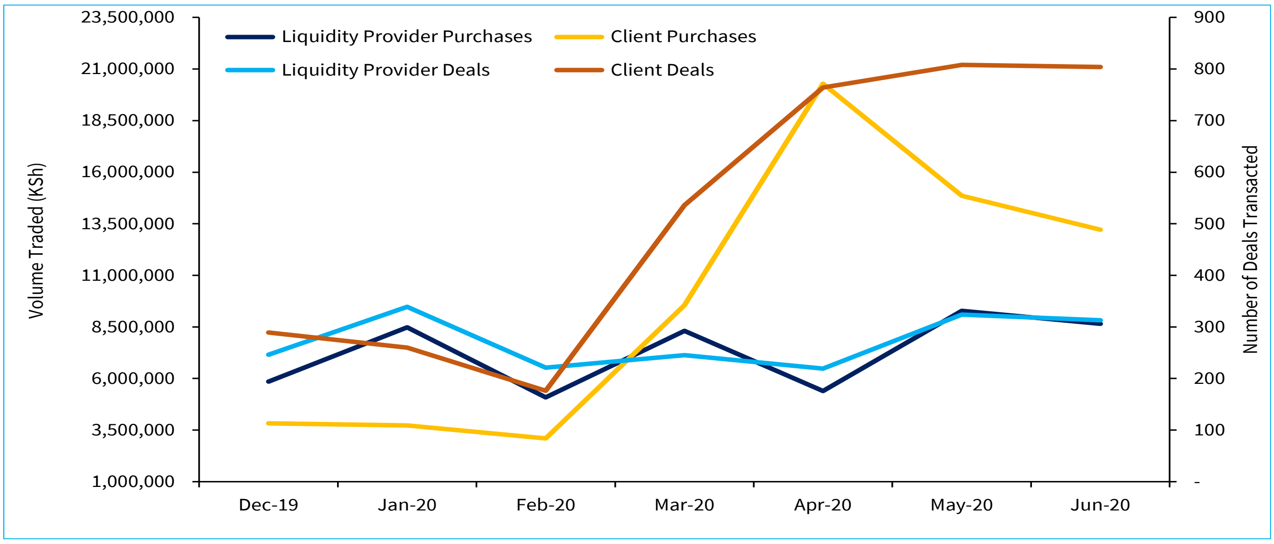


Source: CMA and NSE

In the fixed income market segment, Government bonds attracted strong appetite. Exit from the equities market saw significant upsurge in demand for Treasury bonds considered to be safe and offer good return. Consequently, bonds traded in the secondary market increased by 5.6 percent to KSh 692 billion in 2020, the highest turnover recorded over the last ten (10) years **(Annex IV).** A similar strong investor appetite for Government bonds was recorded in the primary market, where most bonds offered were oversubscribed **(Annex V).** The strong demand pushed the Government Securities Yield Curve to the lowest level in September 2020, reflecting low–cost of domestic borrowing **(Annex VI).**

The corporate bonds market remained subdued, highlighting the difficulties in regaining investor confidence since the collapse of IBL in 2015 after it had issued a corporate bond. There was only one issue of medium term senior secured Note by Centum Real Estate Limited in December 2020. To the converse, some companies bought back their outstanding corporate bonds, contributing to illiquid secondary market of corporate bonds. The retail bonds market brought hope, with a debut digital-offered bonds, namely the M-Akiba, receiving strong uptake in the primary and later, secondary markets. Of interest to note is, however, the link between change in disposable income for low income earners and uptake of this bond, which policymakers need to revisit. Immediately the Government announced tax relief that took effect in April 2020, to cushion salaried employees, there was a strong appetite by retail investors for the mobile-traded retail M-Akiba bonds. The average client purchase was KSh 18,000 (USD 170) compared to KSh 100,000 (USD 935) minimum entry in the primary issue of Treasury bills and KSh 50,000 (USD 467) for Treasury bonds **(Figure 18).**

Figure 18: Increased Demand for Retail Bond (M-Akiba Bond)



Source: NSE

Since M-Akiba bonds offer tax-free fixed coupon of 10 percent per annum, upsurge in the secondary market by retail investors may reflect flight to quality and safety following improved disposable income by low income earners.

The Capital Markets Authority (CMA) in collaboration with stakeholders deployed a number of policy measures to mitigate the impact of the pandemic on the capital markets as summarized in **Box V.**

Box V: Capital Markets Authority (CMA) COVID-19 Pandemic Mitigation Policy Measures

1. Listed Companies allowed to Convene Virtual General Meetings to limit spread of the virus.
2. CMA used social media platforms to conduct investor education programs and share information with the public through press releases and social media platforms.
3. NSE Digital Application used to expand investor outreach without physical interactions.
4. Flexible reporting requirements whereby the listed companies can publish their financial statements through their websites and not in the newspaper as previously required.
5. CMA and other stakeholders donated KSh30 million to the Covid-19 Emergency Response Fund.
6. Embedded safety nets in its supervisory framework.

Risks Assessment and Outlook

- **Operational risks** remain a key risk among listed firms due to loss of business to COVID-19 pandemic.
- **Technology related risks** have increased due to adoption of digital platforms, innovative products and automation of processes. The CMA introduced Regulatory sandbox to allow testing of these new innovations at limited scale prior to their roll–out at commercial scale.

- **Liquidity risk** as measured by equities turnover ratio remains high, with just 6.4 percent in 2020, way below the peak of 10.2 percent liquidity ratio recorded in 2015.

Overall, the sector has shown signs of recovery but continues to face elevated risk and volatility in 2021, as COVID–19 wanes and economic recovery picks momentum.

2.4 Pensions Sector

The pensions sector recorded sluggish growth in assets in 2020, reflecting valuation losses in capital markets, their investment niche (Table 7). Total assets grew by 7.8 percent to KSh 1,399.0 billion in 2020, highlighting the impact of COVID–19 pandemic on the equities markets. This performance was compounded by empty and/or renegotiated rentals for office and residential properties held by pension schemes. In some cases, there were rent defaults and delayed sale of properties, leading to losses. To manage these risks, pension schemes increased their investment in government securities, guaranteed funds and offshore, and reduced their assets allocations to quoted equities, immovable property funds and fixed deposits, a further indication of flight to quality and safety in preservation of contributors' savings.

Expansion of pension services to a wider population remains a key strategic goal for RBA, with priority given to informal sector. Kenya's population demographics and welfare matrices are changing rapidly with increasing poverty levels among the youth and the old. This calls for concerted effort to ensure that the aged have a pension scheme to reduce the fiscal burden in future.

Table 7: Pension Sector Assets (KSh Billion)

Assets Category	2016		2017		2018		2019		2020	
	Amount	Share(%)	Amount	Share(%)	Amount	Share(%)	Amount	Share(%)	Amount	Share(%)
Government Securities	349.2	38.3	394.2	36.5	459.7	39.4	545.3	42.0	625.7	44.7
Quoted Equities	159.1	17.4	210.2	19.5	201.5	17.3	228.1	17.6	218.1	15.6
Immovable Property	178.4	19.5	226.7	21.0	229.9	19.7	239.7	18.5	251.3	18.0
Guaranteed Funds	129.6	14.2	143.0	13.2	167.5	14.4	201.5	15.5	230.6	16.5
Listed Corporate Bonds	47.0	5.1	42.0	3.9	40.3	3.5	17.8	1.4	5.3	0.4
Fixed Deposits	24.6	2.7	32.9	3.0	36.4	3.1	39.4	3.0	39.0	2.8
Offshore	7.0	0.8	12.8	1.2	13.1	1.1	6.3	0.5	11.4	0.8
Cash	12.9	1.4	13.0	1.2	12.7	1.1	15.0	1.2	12.2	0.9
Unquoted Equities	4.0	0.4	4.1	0.4	3.8	0.3	3.6	0.3	3.4	0.2
Private Equity	0.2	0.0	0.3	0.0	0.9	0.1	1.0	0.1	1.7	0.1
REITs	0.8	0.1	1.0	0.1	0.7	0.1	0.5	0.0	0.3	0.0
Commercial paper and non-listed bonds	-	-	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0
TOTAL	**912.64**	**100.00**	**1,080.15**	**100.00**	**1,166.49**	**100.00**	**1,298.29**	**100.00**	**1,398.96**	**100.00**
Overall Risk Score		0.524		0.509		3.07		3.095		3.1509

Source: RBA

Risks Assessment and Outlook

Low level of pensions penetration and very low pension sector adequacy coverage. Only about 22 percent of working population was covered by pension scheme in 2020. In addition, a majority of the Kenyans are unable to retire and/or even those retired, heavily rely on dependants to meet their basic needs. This scenario is attributed to non-memberships to schemes, low contributions, short contribution period and leakages due to early withdrawals. In addition, there is an increasing pressure on the exchequer to provide for the elderly above 70 years, hence a priority issue of concern for RBA.

The impact of COVID-19 pandemic to the sector has been significant given the unprecedented human, economic and social costs. It worsened an already distressed sector as reflected by the overall risk score rising from 0.5 percent in 2016, to 3.2 percent in 2020. Under the International Organizations of Pension Schemes (IOPS) standards, overall risk score ranges between 0 and 7 percent as the upper limit, while for Kenya, this score ranges between 0 and 5 with a threshold of 3. A risk score of 3.2 percent in 2020, implies that the threshold was breached. Pensions contributions remain suppressed due to job losses, forced unpaid leave, suspension of contributions by sponsors/ employers and investment losses arising from instabilities in the financial and property markets.

Longevity risk attributed to increasing life expectancy after retirement. Many retirees are outliving their pension savings, which exposes them to poverty and suffering as the savings are quickly wiped out. **Mitigation measures to address COVID–19 shock, include:** Waiver of penalties on late filing of accounts; pension schemes to pay levy on previous year's audited accounts; and suspended contributions for some sponsors upon application or varied the contribution rates. The RBA also closed some schemes or initiated winding–up where it found schemes to be unviable and cannot continue as going concern firms. Other measures include postponement of the Trustee Development Training Program (TDPK) requirement, deferment of requirement to train Trustees within 6 months, deferment of compliance to Good Governance Guidelines (GGS), trustees encouraged to use technology to hold meetings and allowed contributors partial access to accumulated benefits to purchase residential houses. Overall, the sector is expected to remain subdued with elevated risks in 2021.

2.5 Sacco Sector

The Savings and Credit Cooperatives (Sacco) Societies remained resilient to COVID–19 pandemic, growing by 13.5 percent in total assets to KSh 630.9 billion in 2020 (Table 8). Gross loans grew by 12.9 percent to KSh 474.7 billion in 2020, mainly funded by 13.1 percent increase in members' deposits. The sector had adequate capital buffers above the statutory requirements, indicating stability amid the pandemic. Liquidity ratio averaged 70.8 percent in 2020 with increased members' savings. External borrowings to total assets ratio declined to 3.7 percent in 2020, from 5.0 percent in 2016, signifying low external funding and lower interest rate risks to Saccos. There is, however, some gradual increase in leveraging as shown by the ratio of total loans to total deposits is rising above 100 percent.

Table 8: Financial Soundness Indicators (FSIs)

CAPITAL ADEQUACY	Prescribed Minimum	2016	2017	2018	2019	2020	Change 2019/2020
Core Capital (KSh Billion)	KSh 10 Mn	54,943	64,254	74,375	79,204	100,381	26.7
Core Capital/Total Assets (percent)	10	14.0	14.5	15.0	14.2	15.9	1.7
Core Capital/Total Deposits (percent)	8	20.2	21.1	21.8	20.8	23.3	2.5
Institutional Capital/Total Assets (percent)	8	7.7	8.2	8.5	10.6	9.5	-1.2
ASSET QUALITY							
Gross NPLs/Gross Loans (percent)	<5.0	5.23	6.14	6.3	6.15	6.93	0.8
NPL (Net of Provisions)/Core Capital (percent)		7.6	9.9	9.3	8.5	9.0	0.5
Earning Assets/Total Assets (percent)		80.71	78.5	77.68	76.9	81.95	5.1
EARNINGS							
Return on Assets (ROA)	percent	2.5	2.7	2.4	2.6	3.4	0.8
Non-Interest Expenses/Gross Income	percent	41.4	44.0	62.1	57.7	57.9	0.2
Operating Expense/Total Assets Ratio	percent	5.4	5.3	4.6	4.8	4.5	-0.2
LIQUIDITY RATIO							
Liquid Assets/ (Savings Deposits+ Short Term liabilities) in percent	>=15.0	50.0	54.1	52.7	50.9	70.8	19.9
Liquid Assets/Total Deposits (percent)		18.1	17.2	17.1	17.0	19.9	2.9
External Borrowings/Total Assets	<=25	5.0	4.8	4.1	3.9	3.7	-0.2
Liquid Assets/Total Assets (percent)		12.5	11.9	11.8	11.6	13.6	2.0
Total Loans/Total Deposits (percent)		108.4	108.5	109.5	110.3	110.1	-0.2

Source: SASRA

To strengthen the sector, **SASRA in consultation with the Cabinet Secretary for Agriculture, Livestock, Fisheries & Co–operatives, published the Saccos (Non–Deposit Taking) Business Regulations, 2020.** These provide a supervisory and regulatory framework for non-deposit taking Sacco Societies, commonly known as Back Office Service Activity (BOSA). The Regulations became effective on January 1, 2021, with a six (6) months compliance period. The Regulations defines, a non-deposit taking Sacco business to include Saccos:

- Whose total non-withdrawable deposits from members is equal to/or exceeds KSh 100 Million;
- That mobilises membership and subscription to its share capital through digital/electronic platforms (virtual Saccos);
- That mobilises membership and subscription to its share capital from persons who are resident outside the country (diaspora Saccos).

In addition, SASRA issued Guidelines on Selection and Nomination of Trustees to the Deposit Guarantee Fund (DGF) Board of Trustees for Sacco societies providing a criterion that ensures gender balance and inclusivity in terms of regional balance. Operationalization of the DGF also aims at providing additional safety net for members' deposits, and thus a critical infrastructural pillar expected to boost the savings mobilization following improved confidence levels from the public.

SASRA operationalized Sacco Societies Fraud Investigations Unit (SSFIU) with support from Directorate of Criminal Investigations, effective March 2020, to detect, prevent and apprehend fraudsters. SSFIU also investigates, collects, analyses and disseminates relevant criminal intelligence and recommends for prosecution of fraud cases in order to improve confidence among Sacco members.

Risks Assessment and Outlook

While the credit risk facing the Sacco sector is moderate, Saccos in the Agriculture sector recorded 16.6 percent increase in NPLs ratio, highlighting the impact of COVID–19 pandemic on households' livelihoods. To mitigate the negative impact of COVID–19 to the deposits taking (DT) Saccos, SASRA allowed them to restructure/renegotiate loans for its members to ease loan repayments burden. In addition,

Operational risk, arising from cyber-attacks through their software vendors also remains high as the use of technology increases. The sector lost KSh 106 million in 17 months to March 2021, with attackers targeting weak controls of the systems given minimal verification of members' identity. All Saccos must now review and enhance their IT security including their service level agreements to ensure that affected Saccos are compensated by the vendor in the event of an attack where the vendor is culpable. Saccos are also encouraged to undertake indemnity covers to safeguard against attacks.

Outlook for the Overall Financial Sector

Kenya's financial sector is expected to remain resilient to evolving COVID–19 pandemic in 2021, and beyond. Banks remain sound and stable supported by strong capital and liquidity buffers despite elevated credit and operational risks. However, MFBs remain vulnerable to the pandemic, amid stiff competition from other credit providers and negative impact on its niche market. Capital markets face flight to safety by investors, creating excess volatility as well as reduced liquidity. However, the sector has shown signs of recovery in the first half of 2021. 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 recover from the COVID-19 pandemic.

3. THE NATIONAL PAYMENTS SYSTEM DEVELOPMENTS AND RISKS

3.1 Payments Developments

The National Payment System (NPS) Act, 2011, brought policy clarity on the legal, regulatory and supervisory framework for national payment systems and Payment Service Providers (PSPs). It enhanced CBK's powers to promote the development of an effective and efficient payment, clearing and settlement systems, and to foster financial system stability.

The Payments infrastructure was not spared by COVID–19 pandemic. The lockdown and other restrictions implemented by the Government and other stakeholders affected operations in the payments ecosystem. The disruptions had both positive and negative impacts on PSPs. In addition, the CBK in consultation with PSPs took policy measures to facilitate increased use of mobile money and mobile banking services to minimise use of physical cash that potentially could become super spreaders of the virus as it changed hands. These measures were successful in meeting the intended objectives as summarized in **Box VI.**

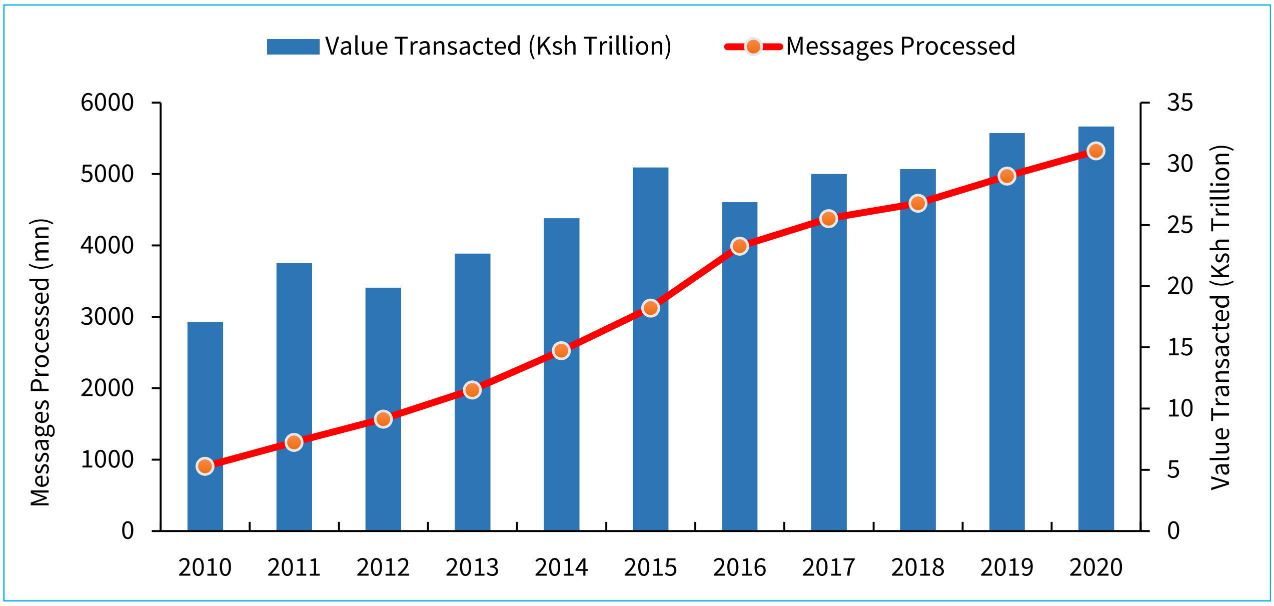
Box VI: CBK Measures on Use of Mobile Money and Mobile Banking

1. Effective March 16, 2020, CBK took measures to reduce the risk of transmission of COVID-19 by handling banknotes and coins. These included:
   - Waiver of charges for mobile money transactions up to KSh 1,000. This waiver lasped and charges were reinstated effective January 2021.
   - Waiver of charges for transfers between mobile money wallets and bank accounts.
   - Transaction limit for mobile money was increased from KSh 70,000 to KSh 150,000.
   - Daily limit for mobile money transactions increased from KSh 140,000 to KSh 300,000.
   - Monthly total limit for mobile money transactions removed.
2. Mobile money transactions tariff that applied for up to KSh 70,000 limits extended to transactions up to KSh 150,000. PSPs and banks were required to adhere to the prevailing anti-money laundering and countering the financing of terrorism (AML/CFT) frameworks.
3. Even as the pandemic persists, measures by CBK were effective in supporting the economy and financial sector. Between February and December 2020, the volume and value of transactions below KSh. 1000 increased by 147 percent and 248 percent, respectively, to 268 million in volumes and 102 billion in value in December 2020. Overall volume of P2P transfers increased by 114 percent, to 310 million. There were 3.6 million new 30-day active customers using mobile money with similar increase in business transactions.

Despite the pandemic, significant milestones in the National Payments System space were recorded in 2020, aimed at fostering the financial system stability as well as promote use of mobile money and mobile banking to combat the spread of COVID–19. First, the CBK upgraded its Kenya Electronic Payment and Settlement System (KEPSS) to a New Generation KEPSS platform to enhance stability, efficiency and safety of high-value payment system. To mitigate risks of the spread of COVID–19 through use of cash, Kenya encouraged use of digital and electronic means of payments. These included measures to support customers, businesses, Government and the entire economy to continue making crucial payments, be it for routine daily needs, or cash and social transfers or for business transactions, by deploying digital and mobile ‘payments rails’ during the COVID–19 pandemic period.

KEPSS is one of Kenya’s Real Time Gross Settlement (RTGS) system used for settlement of all local, regional and international payments (Figure 19). In 2020, it recorded 5.3 million transaction messages worth KSh 33.1 trillion up from 5 million transaction messages worth KSh 32.5 trillion in 2019, perhaps reflecting improved public confidence and trust in its speed, security and reliability. The average value per transaction message was KSh 6.2 million in 2020, down from KSh 6.6 million in 2019, indicating lower value payments are now channelled through KEPSS.

Figure 19: Volume and Value Transacted Through KEPSS



Source: CBK

Regional Cross Border Payment Systems comprising of the 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 declined by 344 and USD 4 million to 28,411 and USD 456.1 million in 2020, respectively, reflecting the impact of COVID-19 pandemic, on regional trade and cross border travel restrictions. There was however an increase in REPSS activity during the year **(Table 9).**

Table 9: REPSS Transactions

Year	USD (Million)		Euros	
	Value	Messages	Value	Messages
2019	55.73	659	4,538	1
2020	76.04	910	401,562	4
TOTAL	**131.78**	**1,569**	**406,100**	**5**

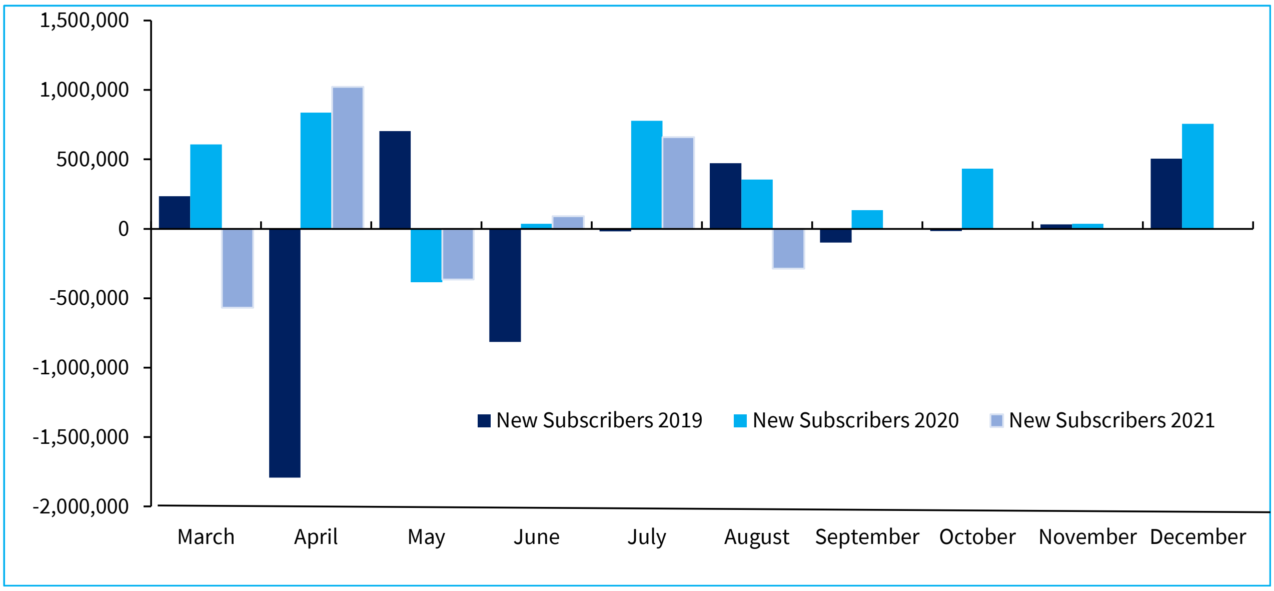
Source: CBK

Amendment of the EAPS Participation Agreement and the Currency Convertibility Memorandum of Understanding (MOU) by EAC Partner States to address the AML/CFT concerns and illicit financial flows in the region through the Central Banks RTGS Systems was a positive development.

Globally, the 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. Consequently, emphasis is now on a payments' "language" that is understood by all to achieve efficiency and effectiveness. In 2020, SWIFT National Member Group (NMG), chaired by CBK, agreed to adopt an earlier migration of 2021, covering local, regional and international payments.

The retail payment system, comprising of mobile money, Pesalink, cards, cheques and electronic funds transfers (EFTs) 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. The mobile money services continue to attract interest, with CBK receiving more requests for new products and providers especially by Telecommunications Companies in partnership with other parties. The mobile money service providers were critical in facilitating transactions during COVID–19 pandemic containment measures in 2020. This led to significant increase in uptake of Person to Person (P2P), Person to Business (P2B), Business to Person (B2P), Person to Government (P2G), Business to Business (B2B) and Government to Person (G2P) money transfers and transactions. There was also increased mobile banking and utilization of "Pay bill" and "Buy Goods" functionalities across mobile money providers. Trends in the new active customer accounts in 2020, compared to 2019, **(Figure 20),** while detailed statistics on mobile money services are in **Annex VII.**

Figure 20: Number of New Active Mobile Money Customers



Source: CBK

In terms of Payment Cards and Automated Clearing House (ACH), the number of cards and Point of Sale (POS) terminals were constant but the Automated Teller Machines (ATMs) declined marginally. Cards increased by 1.7 percent to 11.7 million, while POS terminals rose by 12.1 percent to 48,012 terminals in December 2020. The number of ATMs declined by 47, to 2,412 ATMs in December 2020, as use of cash declined. 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.

3.2 Risks Assessment and Outlook

Cybersecurity threats. Globally, attacks on information and communication technology systems (cyberattacks) are increasing, targeting mostly the financial sector. 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).

Rapid adoption of digital financial services introduced episodes of cyberattacks and frauds (Table 10). Consequently, PSPs have enhanced surveillance in order to detect, deter and resolve these threats. CBK has also enhanced surveillance, and engaged PSPs to ensure their alertness and defences especially around festive seasons is enhanced. This has prompted the enactment of the Data Protection Act (2019) to ensure cybersecurity regulation and supervision in strengthening resilience of the cyberspace against cyber risks and enhancing data protection measures.

Table 10: National Cyber Threats Report

	Cyber Attack Vector	20016/17	2017/18	2018/19	2019/20	2020/21
1.	Malware attacks	4,146,435	16,306,547	40,893,141	101,651,143	54,914,771
2.	Web application attacks	2, 656,675	3,743,638	6,109,184	7,662,793	16,231,676
3.	Botnet/DDOS	952327	3,756,334	4,852,022	1,475,537	17,680,353
4.	System vulnerabilities/ misconfiguration	-	6,158	47,913	108,596	1,987,822
	Total Cyber threats	**7, 755, 498**	**23,815,972**	**51,903,286**	**110,898,069**	**90,814,623**

Source: Communications Authority of Kenya

Payments Systems Platform Stability and Service Availability. To ensure safety of the platforms and uninterrupted services during COVID–19 pandemic, CBK enhanced its payments systems oversight to ensure platform stability and service availability on 24/7 basis. Scheduled downtimes were only allowed in times when they would least disrupt services to customers, hence overall improvement in platform stability and service availability, averaging 99.9 percent in 2020.

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. Each PSP is required to demonstrate that their AML/CFT policy is aligned to international standards and best practices on data privacy and governance.

Emergence of Fraudulent and Unlicensed Firms/ Schemes. In 2020, CBK noted a rapid proliferation of unlicensed and unregulated entities offering fraudulent digital financial services, exposing Kenyans to risk of fraud and loss of money. The CBK in collaboration with other regulators took the appropriate measures, including warning the public against using such entities. They also mandated increased due diligence among PSPs to deter frauds, customer abuse and loss of funds. PSPs were also required to discontinue relationships with any such firms/ schemes.

For efficient, safe and stable, retail payment systems, the CBK in consultation with PSPs, developed and issued Principles on the Pricing of Mobile Money Services in 2020 to provide a framework for pricing their products to ensure; increased access, usage and equity in provision of digital payments services; improved transparency and disclosure; fostering a business culture underpinned by customer interest; and promoting competitiveness and sustainable growth of digital payment services. The principles are expected to anchor review of mobile money tariffs and charges.

Draft *Kenya National Payments System Vision and Strategy, 2021–2025,* published for public participation provides the CBK with a robust framework for establishing people-focused payment systems. The framework will be anchored on five core principles of trust, usefulness, choice, innovation and security, which is an important dimension of stability and resilience.

4. FINANCIAL STABILITY ASSESSMENT AND OUTLOOK

Outbreak of the COVID–19 pandemic in December 2019 shook the global economy, due to stringent containment measures by authorities to limit the spread of the disease. While the unprecedented policy measures (monetary, fiscal and financial) as well as accelerated rollout of vaccinations have ignited economic rebound in 2021, this growth remains uneven and uncertain, especially for vulnerable countries.

Downside risks to the recovery, include: pandemic resurgence in the event of vaccine-resistant strains, and vaccine production and distribution delays; persistence and uncertainty of COVID–19 pandemic damaging the supply chains; heightened social unrest particularly in countries with underlying social and political concerns; and the increasing frequency and severity of natural disasters and extreme weather related to climate change. Geopolitical, trade, and technology risks also exist, impacting global trade, intellectual property, and cybersecurity concerns. There are also concerns about widening gaps in living standards between developing countries and others due to divergent recovery paths on one hand, and increasing in-country income inequalities as young workers and those less skilled finding it difficult to get jobs, on the other. The mounting public debt amid narrowing fiscal space in many emerging markets and frontier market economies is an area of concern.

Many EM&DEs and frontier markets face high debt, high financing needs, and volatile economic and external conditions. In addition, non–financial corporates are emerging from the pandemic over–indebted and over–leveraged, with weak balance sheets, poor earnings prospects and dependence on fiscal support. The rising vulnerabilities among corporates and non–bank sectors could put medium–term financial stability at risk. The volatility in financial markets and portfolio flows presents significant risks, especially given the constrained monetary policy space on the back of rising inflation and normalization in developed economies.

The extraordinary policy measures by authorities eased global financial conditions and muted financial stability risks. But concerns are emerging that these measures may have unintended consequences as reflected by excessive risk–taking in markets. The rising interest rates and episodes of elevated market volatility are likely to impact EM&DEs and frontier markets economies negatively. Although the global banking system was resilient to COVID–19 pandemic, there are concerns that maintaining stringent lending standards and declining profitability in the face of economic recovery may constrain credit expansion, complicating monetary policy stance and economic recovery. There is also a concern regarding a sharp increase in the sovereign-bank nexus in emerging markets, with about 60 percent of sovereign debt issued in 2020, ending on domestic banks' balance sheets. Quick withdrawal of support policies could significantly impact some banks, thus limiting their lending capabilities.

To address the above concerns, authorities should focus on ensuring equitable distribution of vaccines to cover a majority of the global population. Countries with limited fiscal space must urgently address rising public debt. Measures to mitigate any sudden price adjustments and reversal of capital flows as well as allowing private sector to focus on repairing corporate sector balance sheets for sustainable and inclusive recovery be prioritized. Banks need to maintain restrictions on capital distributions or relax them only progressively in countries emerging from the pandemic. Lastly, fiscal policies should support green, digital, and inclusive transformation of the economy, while long–standing weaknesses in public finances should be differed until the recovery is complete.

Domestically, COVID–19 pandemic impacted economy negatively in 2020. Prospects of a full recovery in 2021 is based on strong policy measures, accelerated vaccinations and affective administrative initiatives to allow economy to reopen. A combination of monetary and financial policies by CBK supported steady flow of credit to key sectors of the economy. There are, however, downside risks to the domestic economy: rising public debt, COVID–19 pandemic uncertainties and 2022 General Elections noises.

Overall, Kenya's financial sector was resilient to COVID–19 pandemic on account of strong capital and liquidity buffers build overtime following myriad of reforms undertaken and businesses innovativeness. However, rapid adoption of financial technology, re-engineering business models and innovations has given rise to complex and new emerging risks including increased frauds, cyber–attacks and cybersecurity threats, and data privacy concerns (personal information theft). These calls for strong corporate governance practices especially those dealing with technology and innovations.

Banks face elevated credit risk reflected in rising NPLs, and bank–sovereign nexus that signify perceived tendency of flight to quality and safety. Other risks include; declining profitability, and operational and governance risks as financial institutions become more interconnected with increased adoption of technology. Insurance sector face falling returns on investments, reduced premiums and increased insurance claims. There is also rising insurance risk with actual claims and benefits exceeding the carrying amount of insurance liabilities; and concerns of cybersecurity threats and frauds. Technology-related risks, low liquidity and concentration risk in the equities market and moribund corporate bonds bedevil capital markets. Pensions sector face low investment returns and subdued employee contributions as COVID–19 pandemic persists. Longevity risk and low pension penetration are also areas of concern.
For Saccos, elevated credit risk coupled with weak governance remains significant as use of technology and innovations gain traction.

Financial sector regulators in collaboration with stakeholders have instituted various policy reforms to address these challenges as well as those specific to mitigating impact of COVID–19 pandemic. Issuance of the Kenya Banking Sector Charter (KBSC) to broaden and hasten the transformation of banks; launch of Stawi, a digital product to provide credit solutions tailored to the needs of MSMEs; support market-driven consolidation; issuance of Cyber Security Guidance Note to address cybersecurity threats; and reforms under the New normal anchoring transparency and sound corporate governance have contributed to banks' stability. Reforms by IRA target promoting rapid adoption of technology and raising risk awareness to address existing challenges. In capital market, CMA introduced Regulatory sandbox to allow testing of new innovations prior to commercialisation. RBA is working on reforms to increase pensions coverage among the excluded population. While SASRA regulatory perimeter now covers non–deposit taking Sacco societies to enhance supervisory oversight and protect members; directed all Saccos to review and enhance their Information Technology (IT) security and stability, and encouraged Saccos to take indemnity covers to safeguard against attacks. In the payments' ecosystem, launch of strategic plan is meant to address downside risks, in particular; rising cybersecurity threats and frauds, safeguard consumer protection in terms of pricing of digital products and data protection, especially from non–regulated players.

Overall, the financial sector remains stable and resilient to COVID–19 shock, on the backdrop of strong performance, robust regulatory and supervisory oversight and well-coordinated policy measures. Echoes of economic slowdown as COVID–19 pandemic persist, rising public debt, elevated credit risks amid weak earning capacity, weak balance sheets for listed corporates and SOEs, technology-related risks, corporate governance challenges, and election cycle fevers remain areas for monitoring in 2021, and beyond.

REFERENCES

Capital Markets Authority (2020): Industry Annual Report, 2020

Central Bank of Kenya (2020): Bank Supervision Annual Report, 2020

Communications Authority of Kenya (2021): Quarterly Statistics

International Monetary Fund (2020): World Economic Outlook, October 2020

International Monetary Fund (2021): World Economic Outlook, April 2021

International Monetary Fund (2021): World Economic Outlook Update, July 2021

International Monetary Fund (2020): Global Financial Stability Report, October 2020

International Monetary Fund (2020): Global Financial Stability Report, April 2021

International Monetary Fund and World Bank (2020): Debt Sustainability Analysis Report for Kenya, May 2020

International Monetary Fund (2021): Fiscal Monitor, April 2021

Insurance Regulatory Authority (2020): Industry Annual Report, 2020

Knight Frank Wealth Report (2021): Property Survey, February 2021

Retirements Benefits Authority (2020): Industry Annual Report, 2020

SACCOs Societies Regulatory Authority (2020): Industry Annual Report, 2020

ANNEXES

Annex I: Private Sector Credit Growth

Economic Sector	12 - Months Growth in Private Sector Credit (Percent)											
	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Jan-21	Feb-21	Mar-21
Agriculture	20.6	1.2	-7.5	-2.0	-2.4	1.4	2.2	1.7	15.3	15.6	13.4	12.3
Manufacturing	19.7	-2.2	12.9	6.5	9.2	15.3	11.1	12.6	12.0	12.6	15.8	10.7
Trade	7.6	16.0	9.0	2.9	8.9	9.4	9.4	6.6	3.8	5.5	3.9	2.1
Building & Construction	35.9	-2.4	5.0	1.8	1.6	9.5	4.6	4.1	3.4	2.5	5.2	2.9
Transport & Communication	36.4	15.1	-6.9	-9.4	8.1	7.1	14.9	20.6	13.6	14.4	19.0	17.4
Finance and insurance	45.6	16.8	-4.2	17.5	0.4	6.6	3.2	-3.3	7.1	14.0	9.0	7.5
Real Estate	16.8	11.2	8.7	-0.5	1.5	2.2	4.9	6.6	8.7	8.8	8.8	7.7
Mining & quarrying	-9.5	-18.2	-5.0	-10.7	-5.8	3.9	10.0	8.2	-12.9	-6.1	21.6	-3.6
Private households	3.0	19.7	-1.5	6.8	5.6	3.4	3.6	3.5	4.3	5.2	4.6	3.4
Consumer durables	40.1	11.3	0.6	11.0	26.0	24.1	15.2	15.6	18.1	18.7	20.3	17.6
Business services	35.4	-33.8	-8.4	8.0	2.4	3.3	5.3	4.1	4.0	6.5	5.0	5.7
Other activities	-13.6	-23.8	-5.6	-34.8	16.0	36.8	-3.7	-5.8	14.0	5.8	3.8	5.2
Total Private Sector Credit	17.3	4.4	2.5	2.4	7.1	8.9	7.7	7.6	8.4	9.3	9.7	7.7

Source: CBK

Annex II: COVID-19 Related Loans Restructuring by Commercial Banks

Sectors	Total Number of Restructured Loan Accounts for the Quarter					Amounts Restructured for the Quarter (Ksh.Million)					Outstanding as at December 2020	
	Mar-20	Jun-20	Sep-20	Dec-20	Total (Mar- Dec. 2020)	Mar-20	Jun-20	Sep-20	Dec-20	Total (Mar - Dec 2020)	Loans by Sector (KSh Million)	Rest. Loans to Sectoral Loans (%)
Agriculture	151	10,612	3,727	2,364	16,854	4,581	36,727	35,256	39,294	115,858	106,236	109
Manufacturing	250	2,858	4,816	4,183	12,107	6,728	61,961	80,405	71,161	220,254	406,438	54
Building & Construction	74	1,541	2,174	2,040	5,829	13,853	22,044	10,352	8,216	54,466	121,279	45
Mining & Quarrying	1	233	278	55	567	47	14,308	4,850	159	19,364	20,556	94
Energy and water	61	380	648	834	1,923	889	14,438	14,799	20,043	50,168	111,169	45
Trade	801	92,913	22,674	7,696	124,084	10,101	131,966	86,588	62,181	290,835	508,872	57
Tourism,Restaurant & Hotels	165	1,330	1,826	1,789	5,110	25,291	42,229	19,853	16,123	103,497	101,049	102
Transport & Communication	139	7,785	7,036	6,054	21,014	6,056	68,551	39,975	34,498	149,080	221,859	67
Real Estate	180	5,606	2,577	1,470	9,833	14,029	109,742	53,399	48,510	225,681	440,352	51
Financial Services	19	622	645	518	1,804	110	20,751	22,407	20,749	64,016	127,886	50
Subtotal - Other Sectors	1,841	123,880	46,401	27,003	199,125	81,684	522,716	367,885	320,934	1,293,219	2,165,697	60
Personal/Household	6,430	128,525	40,530	26,888	202,373	9,852	230,170	47,054	45,894	332,970	833,777	40
Grand Total	8,271	252,405	86,931	53,891	401,498	91,537	752,886	414,939	366,827	1,626,189	2,999,473	54
Total loans						2,793,792	2,827,684	2,821,490	2,908,702	2,999,473		
Share of Total Loans (%)						3.28	26.63	14.71	12.61	54.2		

Source: CBK Staff Computations

Annex III: Banking Sector Credit Risk Stress Test – Scenarios and Shock Sizes

Annex III(a): Stress Test Scenario Design

Economic Sectors	Actual Npls		Baseline Scenario				Moderate Scenario				Adverse Scenario			
	Dec-20	Jan-21	Mar-21	Jun-21	Sep-21	Dec-21	Mar-21	Jun-21	Sep-21	Dec-21	Mar-21	Jun-21	Sep-21	Dec-21
Agriculture	23.28	24.06	27.03	28.90	30.77	32.64	24.44	25.66	27.10	28.32	27.44	28.41	32.43	34.17
Manufacturing	66.45	67.69	71.65	74.25	76.85	79.44	67.82	69.09	70.89	72.58	87.67	89.87	92.16	94.33
Building and Construction	28.58	28.94	32.24	32.89	30.01	33.53	29.63	30.58	30.89	31.53	29.83	40.43	33.05	38.88
Mining and Quarrying	1.33	1.33	1.72	1.64	1.33	1.60	1.19	1.16	1.08	1.11	1.38	1.47	1.42	1.68
Energy and Water	12.87	13.25	16.70	18.15	19.73	21.44	13.55	14.36	15.27	16.38	15.80	26.17	27.31	25.69
Trade	100.53	99.29	108.28	110.87	113.46	116.04	123.83	143.74	166.15	186.25	110.19	122.42	141.36	124.39
Tourism, Restaurant and Hotels	15.19	15.18	20.26	20.81	22.34	27.84	30.46	31.32	32.44	34.08	23.40	30.62	37.08	65.95
Transport and Communication	38.11	38.96	35.50	41.60	47.42	39.56	39.99	42.54	45.20	45.39	44.52	55.03	59.46	43.02
Real Estate	61.38	67.25	65.92	70.98	66.66	70.41	63.12	65.41	66.61	67.78	66.37	77.45	75.46	90.66
Financial Services	6.98	6.72	6.81	7.53	5.86	6.81	6.47	6.42	6.35	6.32	6.80	7.69	5.86	6.86
Personal/ Household	69.39	69.05	73.78	75.24	76.70	78.17	70.75	71.45	71.87	73.01	81.35	72.12	75.57	78.08
TOTAL	424.09	431.72	459.89	482.86	491.13	507.48	471.23	501.72	533.85	562.76	494.74	551.68	581.15	603.72
NPLs ratio (%)	14.15	14.25	14.93	15.48	15.47	15.74	15.34	15.95	16.84	17.59	16.11	17.67	18.40	18.91

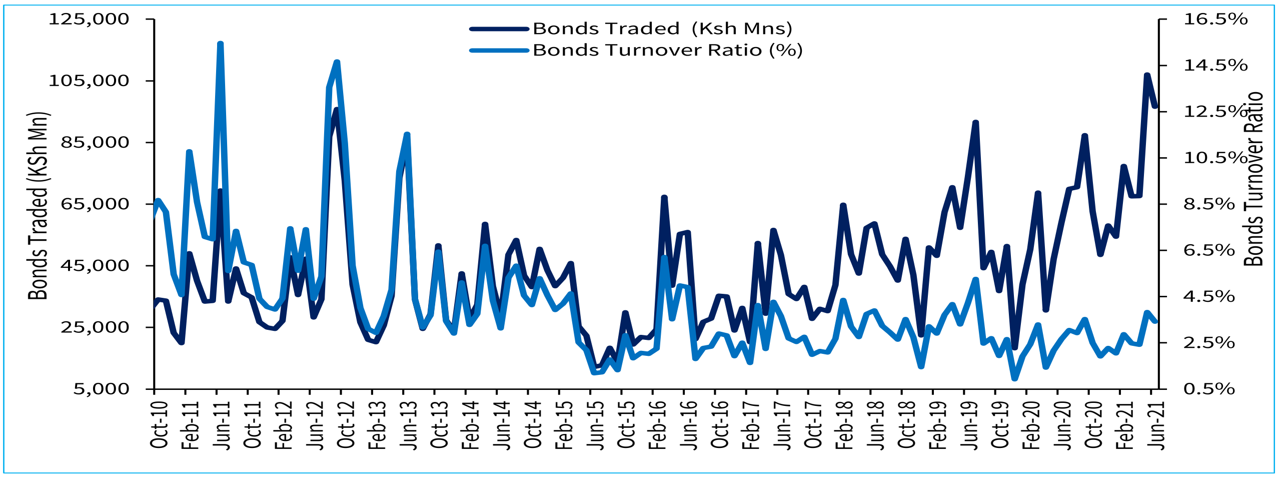
Source: CBK Staff Computations

Annex III (b): Sectoral Shock Calibration

Transmission Channel	Estimated NPLs Shock Increase Under Scenarios		
	Baseline	Moderate	Adverse
Aggegate NPLs	6.40	32.71	47.56
Sectoral Shock			
Agriculture	5.37	32.01	33.36
Manufacturing	8.75	28.04	75.93
Building and construction	9.98	15.29	55.39
Mining and Quarrying	23.70	8.11	306.12
Energy and water	16.63	59.53	152.42
Trade	6.92	21.16	35.65
Tourism,restaurant and Hotels	7.31	97.92	69.97
Transport and Communication	8.73	31.71	86.80
Real Estate	7.68	19.48	62.60
Financial Services	8.53	11.04	188.96
Personal/Household	4.22	10.94	31.95

Source: CBK Staff Computations

Annex IV: Bonds Trading at the Nairobi Securities Exchange



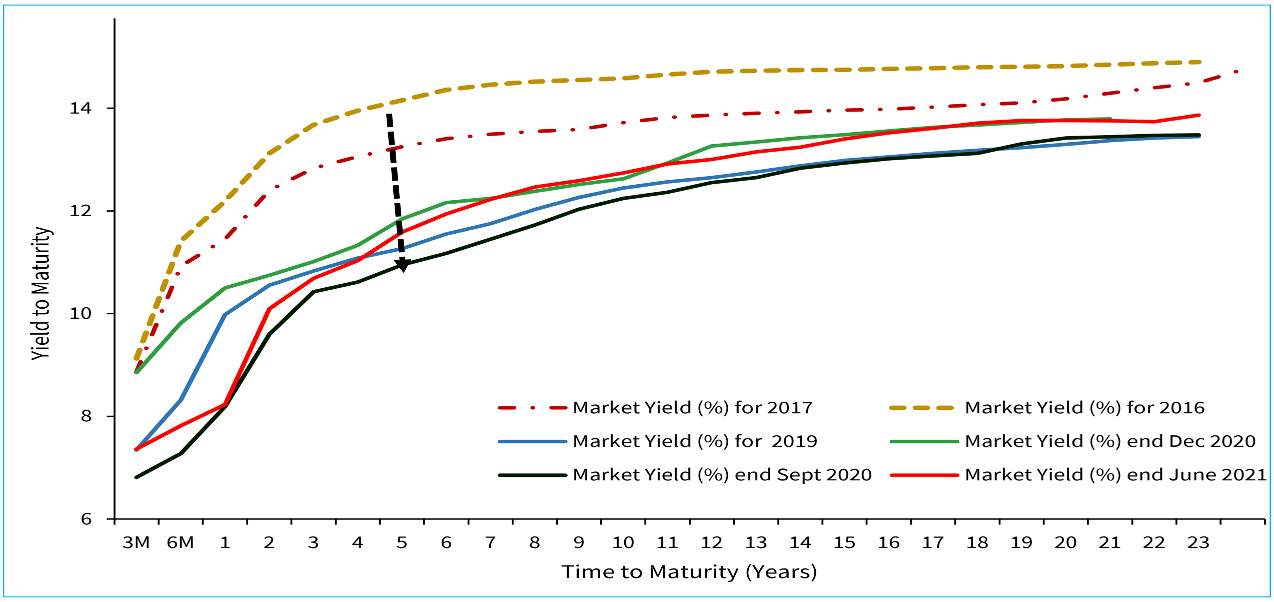
Source: NSE

Annex V: Government Bonds in Primary Market Performance

	Offered Amount (KSh Mn)	Bids Received (KSh Mn)	Amount Alloted (KSh Mn)	Subscription Rate (%)	Bid-to- Cover Ratio
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

Source: CBK

Annex VI: Government of Kenya Securities Yield Curve



Source: NSE and CBK

Annex VII: Mobile Money Services Statistics

Year	Number of Agents	Number of Customers (Millions)	Number of Transactions (Millions)	Value of Transactions (KSh Billions)	Average 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	58.0	1,839	4,346.00	2,363
2020	282,929	65.7	1,863	5,213.54	2,798

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
Bima Bora kwa Taifa
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