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An Analysis of Non-Performing Loans in Kenya

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Abstract
Kenya has historically recorded elevated levels of non-performing loans (NPLs) in the banking sector. The average NPLs ratio per year exceeded nine percent since 2010. The ratio has been particularly elevated in the last five years, averaging 13.23 percent per annum. Except for Ghana, Kenya's NPLs as a percent of gross loans has been way above those of its peers in the last three years. The NPLs problem in the country cuts across all sectors of the economy and commercial banks irrespective of size or ownership. The concentration of NPLs was persistently high in Trade, Real Estate, Manufacturing, and Personal and Household sectors during the whole period under review, 2010-2021. The sectors with concentration of NPLs were the same sectors with concentration of sectoral distribution of loans by value and number of loan accounts. This calls for close monitoring of these four sectors by the regulatory authority to ensure that banks make adequate provisions for the loans in these sectors and abide by supervisory and regulatory requirements to mitigate risk of default. Delayed payments from private and public sectors was found to be one of the main contributors to the high NPL percentages. In 2012, the high interest rate regime impacted the quality of loans and advances negatively, thus contributing to high default rates. The high NPLs levels in the Real Estate and Trade sectors have been attributed to slow uptake of housing units and challenges in the business environment, respectively. Apart from the Central Bank's Prudential Guidelines, there are no common strategies that commercial banks are required to apply to help manage stocks and flows of NPLs. While different commercial banks manage the NPLs problem internally, the commercial banks in the country do not have dedicated in-house NPLs units. To reduce the NPLs problem in the country, commercial banks should employ new innovative ways of managing NPLs stock and flows like setting up separate dedicated in-house NPLs units; the Central Bank should pay particular attention to the provisions that are often violated (in particular, capital adequacy requirement, single obligor limit and prohibited business) and come up with specific actions to effectively enforce compliance; and the public sector should make a concerted effort to reduce pending payments to the business community.
Keywords: Non-performing loans, gross loans, supervisory and regulatory compliance, credit risk
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1. Introduction

1.1 Definition

When giving loans to their customers, banks always expose themselves to credit risk – the possibility that the borrower may not repay the loan. When this happens, the loan is said to become non-performing. By convention, a loan becomes non-performing when the bank considers that the borrower is unlikely to repay, or when the borrower has not made repayments of principal and/or interest for at least 90 days. When a bank is unable to recover non-performing loans, it can repossess and sell assets pledged as collateral or sell off the loans to collection agencies.[1]

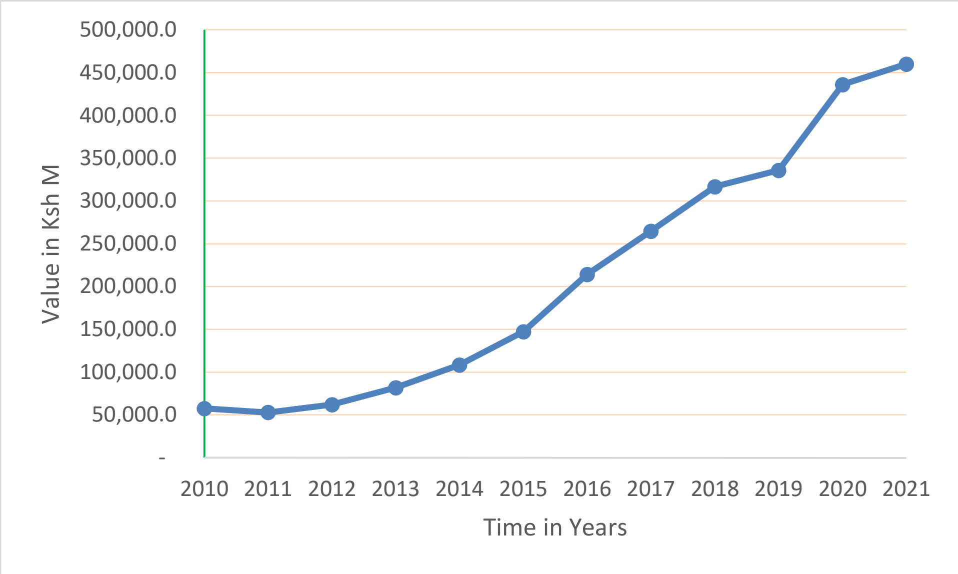
Banks are required to make provisions for non-performing loans (NPLs). Making a provision means that the bank recognises a loss on the loan ahead of time. Banks apply their capital to absorb such losses. By making a provision, the bank takes a loss and hence reduces its capital by the amount of money that it will not be able to collect from the client. However, banks do not have to make provisions for the full value of an NPL because they might still receive some repayments from the client. They might also be able to recover part of the loan amount by selling the assets or property the client has given as collateral. Only the net loss is expected to be covered. The portion of the NPLs covered by provisions is called the bank's NPL coverage. It shows the extent to which the bank has already recognized losses it expects from NPLs.

A well-functioning banking system is vital to a country's economy. NPLs reduce banks' earnings and cause losses, which weighs on their soundness. Banks with elevated levels of NPLs are unable to lend to households and businesses. This is detrimental to the economy. When a bank has too many NPLs in its balance sheet, it poses cash flow problems for the bank since it is no longer earning income from its lending business. NPLs reduce interest income, lower profitability, and deplete banks' capital bases. The immediate consequence of unmanaged NPLs is bank failure which may lead to runs that can destabilize the country's financial system.

[1] https://corporatefinanceinstitute.com/resources/commercial-lending/non-performing-loan-npl/

1.2 Non-performing Loans in Kenya

Figure 1 gives a visual impression of the evolution in the value of NPLs in Kenya between 2010 and 2021. Total NPLs grew from Ksh. 57.6 billion in 2010 to Ksh. 335.9 billion and 2021, representing almost a six-fold increase.



Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

Figure 1: Gross Non-performing Loans

There are some cases when banks write off NPLs that are unrecoverable[1]. Table 1 gives an overview of the magnitude of the value of loan write-offs by Kenya's commercial banks during the period 2010 to 2021. The trend in the period under review shows a generally moderate increase in the total losses incurred yearly with an exponential increase in the last four years. Whereas the value of written off NPLs fell from Ksh. 11.14 billion in 2010 to Ksh. 9.58 billion in 2011, it increased gradually to Ksh. 41.44 billion in 2017 before hitting Ksh. 102.62 billion mark in 2021. The amount written off in 2021 represented 3.20 percent of gross loans.

Table 1: Losses/Written off Non-Performing Loans

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
In Ksh Billion	11.14	9.58	14.58	18.95	25.70	24.98	34.21	41.44	61.20	65.09	91.66	102.62
% Gross Loans	1.20	0.80	1.10	1.20	1.30	1.15	1.50	1.92	2.46	2.42	3.00	3.20

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

The NPLs as a percentage of Gross Loans up to 2011 were on a declining trend. The trend has been upward since 2011. The pre-2011 declining trend in NPLs was largely attributed to loan write offs, recoveries, improved credit appraisal monitoring standards and robust economic growth. Specifically, in 2007, the decline was due to write offs in two major banks, National Bank and Kenya Commercial Bank and the effects of a shift in loans risk classification in 2006[2].

A comparative analysis of Kenya's NPLs vis-à-vis those of selected countries is summarized in Figure 2. As of December 31, 2021, Kenya's NPLs as a percent of all bank loans was 14.13[3] compared to the world average of 6.49 percent in 2021 based on 108 countries.[4] The average value for Kenya for the period under review was 9.04 percent with a minimum of 4.45 percent in 2011 and a maximum of 14.51 percent in 2020. Kenya's comparators NPLs as a percentage of gross loans in 2021 were as follows: Tanzania (7.63 percent), Uganda (5.19 percent), Ethiopia (5.4 percent), South Africa (4.45 percent), Nigeria (4.9 percent), Ghana (15.12 percent), and Argentina (4.9 percent)[5]. Except for Ghana, Kenya's NPLs as a percent of gross loans has been way above those of its comparators as shown in Figure 2.

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[1] A loan write-off is an accounting term for the formal recognition in the financial statements that a borrower's asset no longer has value. Usually, loans are written off when they are 100 percent provisioned and there are no realistic prospects of recovery. Such loans are transferred to the off-balance sheet records.

[2] CBK Bank Supervision Annual Reports (2006-2011)

[3] Central Bank of Kenya (2021). Bank Supervision Annual Report

[4] The GlobalEconomy.com and World Bank

[5] The GlobalEconomy.com and World Bank

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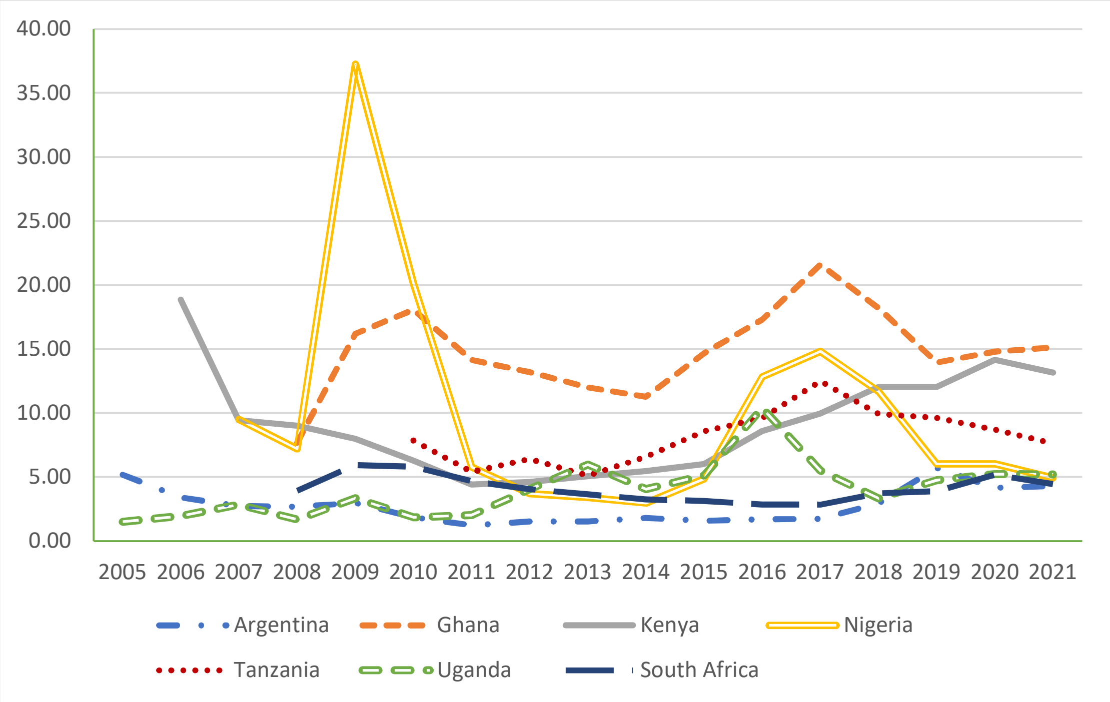
Figure 2 gives a visual comparison of Kenya's NPLs and those of some selected countries.



Source: Computed from World Bank Data. *Non-Performing Loans per Country*
Figure 2: NPLs to Gross Loans Country Comparison

1.3 Literature Review

The need to undertake this study emerged from some observations. NPLs problem is a live debate in the banking sector as well as among policy makers. Researchers have conducted studies on international as well as in the Kenyan context, focusing on the causes and effects of NPLs.

Some of the studies have found NPLs to be affected by macro variables such as GDP growth, unemployment and inflation, and bank-related variables such as bad management and market structure (Beck et al., 2015; Anastasiou et al., 2019). The results of a World Bank study by Fofack (2005) highlighted a strong causality between NPLs and economic growth, real exchange rate appreciation, the real interest rate, net interest margins, and interbank loans consistent with the causality and econometric analysis, which revealed the significance of macroeconomic and microeconomic factors. The dramatic increase in NPLs in Sub-Saharan Africa was found to be largely driven by macroeconomic volatility and reflected the vulnerability of undiversified African economies, which remain heavily exposed to external shocks.

Akinlo and Emmanuel (2014) also found that there was a positive causative relationship between exchange rate and credit to the private sector and non-performing loans. Moreover, lending rates were found to have an increasing effect on NPLs. This implies that government policies that reduce the cost of borrowing could mitigate NPLs. Government efforts to increase economic growth, mop up excess liquidity in the economy, reduce the unemployment rate and boost stock market development were also found to reduce aggregate non-performing loans in Nigeria.

High stock of non-performing loans may have detrimental effects on banks, as they typically generate low profits, require high provisions and need large resources to be managed (Aiyar et al., 2015). Also, NPLs may absorb managerial attention, becoming the main focus of bank's management, leading to negative consequences in terms of efficiency and hindering new activities (Cucinelli 2015).

Surprisingly, according to Khairi et al. (2021), there are no variables that affect or are affected by NPLs that associate with policy, either at national or global level. This suggests that there are no interventions that the government can put in place to control the NPLs and that it is a function of the banking industry lending choices.

A similar study by Barako and Tower (2007) showed that, ownership structure influences bank performance. The results of their OLS regression assert that Return on Assets or ratio of non-performing loans presents a compelling and strong evidence of negative relationship between state ownership and bank performance.

A recent study by Kirimi et al, (2022) corroborates these findings asserting that there is a significant and negative relationship between state ownership and net interest margins and an insignificant effect on earnings per share, return on assets and return on equity. The recommendation is an ownership structure reorganization for example through partial privatization in those commercial banks with high level of government presence as a tool for improving bank financial performance.

A study in Kenya found that the key causes of non-performing loans in the banking industry are three pronged. These are factors specific to internal organization, factors relating to the macroeconomic policies, which ultimately determine how the economy works, and finally those factors relating to the actual management of business (Mucheke 2001). According to Ngungu and Abdul (2020), GDP growth rate, high rate of unemployment, high rate of real interest rate, and loan losses reserve ratio significantly led to occurrence of NPLs.

While banks make provisions for NPLs, when the level of such loans is very high, the provisions may not give adequate protection. According to the findings of Waweru and Kalali (2009), many financial institutions that collapsed in Kenya between 1986 and 2008 failed due to non-performing loans. Similarly, Kithinji and Waweru (2007) attributed some of banking problems experienced in the country from 1986 to around 2000 that culminated in major bank failures (37 failed banks as at 1998) to high levels of NPLs. A more recent study of the Kenyan banking industry by Kigamwa and Mutwiri (2023) found that the relationship between real interest rate and NPLs was positive; the relationship between inflation and NPLs was negative; and the relationship between exchange rate and NPLs was both a positive and negative relationship.

High and rising NPL ratios can severely limit the ability of the banking sector to provide new credit and support the economy. Using both country- and bank-level data, a recent study (IMF 2021) has provided new evidence that NPLs in Sub-Saharan Africa hamper credit and growth. The negative effect of NPLs on credit to the private sector is observed at both banking system and individual institution levels, with banks that hold large NPL portfolios providing on average fewer loans.

1.4 Objectives of the Study

A gap exists in the area of aggregative analysis of NPLs in Kenya focusing on size and ownership of banks and concentration of gross loans, loan accounts, and NPLs by sector. This study set out to contribute towards filling that knowledge gap. Thus, the study set out to achieve two main objectives:

(i) Compare trends and levels in NPLs in Kenya by sector, bank ownership, bank size category, and trends in overall and sectoral economic performance.

(ii) Investigate if the commercial banks and the Central Bank of Kenya (CBK) have put in place special measures to deal with the NPLs problem.

2. Data and Methodology

The study utilized descriptive statistics obtained from in-depth desk review approach of aggregated secondary data from the Central Bank of Kenya's Bank Supervision Annual Reports covering the period 2010 to 2021. The study was limited to commercial banks whose number varied between 39 and 44 during the period. The data from CBK was supplemented with data from other sources such as Kenya National Bureau of Statistics, the World Bank, and the Global Economy website.

Factors such as sector of borrower (Agriculture, Manufacturing, Trade, Real Estate, etc.), bank tier group (large, medium, small), bank ownership (local public, local private, or foreign), overall and sectoral economic performance, and compliance with supervisory and regulatory requirements may contribute to the NPLs problem in the country. In order to achieve the objectives of the study, we carried out a comparative analysis of trends in NPLs by the potential key determinants. In this regard, the study attempted to answer the following questions:

- Does the sector (agriculture, manufacturing, trade, etc.) of the borrower impact NPLs?
- Does bank size (large, medium or small) affect the level of NPLs?
- Does ownership of banks (public, private, local or foreign) influence the occurrence NPLs?
- Does general economic performance such as GDP growth or sectoral economic growth affect NPLs?
- Does non-compliance with supervisory and regulatory requirements contribute to the NPLs problem?
- What measures are Kenyan commercial banks putting in place to deal with NPLs?

The data was analyzed to answer the above questions. The way we assessed how the sector of the borrower may impact the NPLs illustrates how the analytical process was conducted. We tabulated annual value of gross loans and NPLs and number of loan accounts by sector to determine if these variables were concentrated in some particular sectors. If the answer was positive, then we would delve in looking for the causes of loan default in those sectors.

3. Results and Discussion

3.1 Banking Sector Gross Loans and Non-performing Loans

Trends in the evolution of gross loans and non-performing loans in Kenya between 2010 and 2021 are summarized in Table 2. Gross loans increased steadily from Ksh 914.9 billion in 2010 to 3.255 trillion in 2021, representing a 355.82 percent increase over the 12-year period. This can be attributed to increased demand for credit for working capital and individual borrowers[1], and increased advances in financial services and energy[2] coupled with general improvement in economic performance. NPLs also have been on an upward trend during the entire period, increasing from Ksh 57.6 billion in 2010 to Ksh. 460 billion in 2021 which represented a 798.63 percent increase. Thus, whereas gross loans increased about 3.5 times, NPLs increased almost 8 times during the period.

The table also shows that while NPLs as a percentage of gross loans declined from 6.30 percent in 2010 to 4.45 percent the following year, the trend was reversed in 2013 and, by 2017, the percentage was now in double digits. The percentage increased from 5.18 in 2013 to 14.51 in 2020 before declining slightly to 14.13 in 2021. An NPL ratio (NPLs:Gross loans) is used to measure the level of a bank's credit risk and quality of outstanding loans. A high ratio means the bank bears a greater risk of loss if it fails to recover the owed amounts, while a low ratio means that the outstanding loans pose a low risk to the bank.

Table 2: NPLs as percentage of Gross Loans

	NPLs (Ksh M)	Gross Loans (Ksh M)	NPLS: Gross Loans
2010	57,600.0	914,900	6.30
2011	52,958.0	1,190,985	4.45
2012	61,917.0	1,330,365	4.65
2013	81,857.0	1,578,768	5.18
2014	108,300.0	1,940,781	5.58
2015	147,331.0	2,165,329	6.80
2016	214,374.0	2,293,190	9.35
2017	264,617.0	2,158,530	12.26
2018	316,712.0	2,483,518	12.75
2019	335,929.0	2,690,910	12.48
2020	436,067.0	3,006,104	14.51
2021	460,008.5	3,255,429	14.13

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

3.2 Sectoral Distribution of Gross Loans

Table 3 shows that the largest proportion (over 70 percent) of the banking industry group gross loans and advances were channeled to four sectors (Personal and Household, Trade, Manufacturing, and Real Estate) in every year. Their combined share of gross loans varied between 71.0 percent and 74.5 percent over the period. Within the four leading sectors, Personal and Household sector has consistently remained the largest borrower, accounting for between 24.6 percent and 28.8 percent of gross loans and was followed by the trade sector in second place throughout the period. Real Estate and Manufacturing exchanged the third and fourth positions during the period.

Table 3: Sectors with the largest share of gross loans (percentage)

SECTORS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Personal/Household	28.8	26.8	24.6	25.9	26.6	25.4	25.5	25.1	26.6	27.7	28.1	27.7
Trade	18.5	19.5	19.8	20.1	19.3	19.6	19.1	19.3	19.1	19.0	17.2	17.6
Manufacturing	13.7	13.2	13.5	12.9	12.2	12.3	11.6	12.6	13.0	13.1	13.9	14.3
Real Estate	11.7	12.3	13.3	14.1	14.6	13.6	15.6	16.0	15.1	14.7	14.8	14.1
Sub-Total	72.6	71.8	71.2	73.0	72.7	70.9	71.9	73.1	74.0	74.5	73.9	73.8
Others	27.4	28.2	28.8	27.0	27.3	29.1	28.1	26.9	26.0	25.5	26.1	26.2
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

Table 4 shows the distribution of loan accounts by sector. Four sectors (Personal and Household, Trade, Agriculture, and Transport and Communication) accounted for the highest number of loan accounts between 2010 and 2021. Together, their share of loan accounts grew from 95.4 percent in 2010 to 99.3 percent in 2021. Thus, the concentration of loan accounts in the four sectors has persisted throughout the period under review. Personal and Household sector dominated all the sectors regarding number of accounts. Its share of loan accounts increased from 71.6 percent in 2010 to 95.7 percent in 2021. Trade's share of accounts declined from 15.9 percent in 2010 to 2.3 percent in 2021. Agriculture's and Transport and Communications' shares were also on a declining trend. This can be explained by a larger than proportionate increase in the number of personal and household accounts

[1] Credit Officer Survey, September 2022. CBK
[2] Credit Officer Survey, March 2021. CBK

in the period under review, with one person having more than two personal loans, compared to the slow increase in loan uptakes in the other sectors of the economy.

Table 4: Sectors with the largest share of loan accounts (percentage)

SECTORS	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Personal/Household	71.6	72.9	72.8	79.1	83.6	91.9	92.1	93.8	93.6	93.8	95.3	95.7
Trade	15.9	15.8	15.6	11.5	9.8	4.6	4.8	3.4	3.6	3.3	2.5	2.3
Agriculture	6.5	5.5	5.7	4.2	2.9	2.1	1.4	1.3	1.3	1.4	1.0	0.9
Transport and Communication	1.3	1.4	1.6	1.2	1.0	0.5	0.6	0.5	0.4	0.5	0.4	0.3
Sub-Total	95.4	95.7	95.6	96.0	97.4	99.1	98.8	99.0	98.9	98.9	99.2	99.3
Others	4.6	4.3	4.4	4.0	2.6	0.9	1.2	1.0	1.1	1.1	0.8	0.7
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

3.3 Sectoral Distribution of Non-performing Loans

Table 5 shows that four sectors, namely, Trade, Real Estate, Manufacturing, and Personal and Household, posed the highest incidence of NPLs. The NPLs were more elevated in these sectors. They accounted for the highest value of NPLs between 2010 and 2021. These sectors' combined share of NPLs ranged between 76.73 percent in 2010 and 68.63 percent in 2021. Trade sector accounted for the highest value of NPLs in each of the years, increasing from 21.70 percent in 2010 to 30.06 percent in 2015 and then declining gradually to 21.76 percent by 2021. Personal and Household sector accounted for the highest share of NPLs between 2010 and 2013 before falling into second place and remaining there up to 2018. Manufacturing and Real Estate came next in terms of shares of NPLs. The concentration of NPLs was persistently in Trade, Real Estate, Manufacturing, and Personal and Household sectors during the whole period under review. This calls for close monitoring of these four sectors by the regulatory authority to ensure that banks make adequate provisions for the loans in these sectors and abide by supervisory and regulatory requirements to mitigate risk of default.

Table 5: Sectoral Share of Non-Performing Loans (Percentage)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Agriculture	7.99	7.97	7.16	6.83	4.31	5.69	4.22	3.39	9.62	5.01	5.34	4.18
Manufacturing	12.15	10.03	6.49	6.82	9.43	11.38	11.80	14.94	16.35	16.04	15.28	16.23
Building and Construction	2.43	3.30	4.12	7.56	8.98	11.02	11.14	7.27	7.48	7.26	6.53	7.33
Mining and Quarrying	0.17	0.18	0.50	0.59	1.03	1.68	0.51	0.92	0.78	0.59	0.69	0.54
Energy and Water	0.35	0.38	1.62	1.37	0.99	2.49	2.39	2.27	2.17	3.28	2.95	3.58
Trade	21.70	18.24	22.37	24.72	25.44	30.06	29.03	29.60	25.77	26.33	23.36	21.76
Tourism, Restaurant and Hotels	3.65	3.76	2.98	3.19	2.38	1.74	2.15	2.77	2.02	2.47	3.69	5.30
Transport and Communication	6.08	6.12	7.67	7.86	8.78	8.24	7.27	6.58	4.63	5.73	8.76	9.24
Real Estate	11.28	11.66	11.60	13.44	11.69	8.43	12.87	14.28	14.85	14.31	15.70	16.29
Financial Services	2.95	2.42	2.32	1.66	1.59	1.54	1.27	1.68	1.91	2.03	1.61	1.21
Personal/Household	31.60	35.94	33.17	25.98	25.37	17.71	29.03	16.29	14.42	16.95	16.10	14.35
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

Delayed payments from private and public sectors were found to be the main contributor to the high NPL percentages in the period under review. In 2012, the high interest regime impacted the quality of loans and advances negatively thus, contributing to high default rates.[1] The high NPLs levels in the Real Estate and Trade sectors have been attributed to slow uptake of housing units and challenges in the business environment, respectively.

A comparison of Tables 3, 4 and 5 indicates that the sectors with concentration of NPLs (Trade, Real Estate, Manufacturing and Personal and Household) are the same sectors with concentration of sectoral distribution of loans by value and number of loan accounts. The four sectors, in total, accounted for 73.8 percent of the value of gross loans, 99.3 percent of loan accounts and 69 percent of NPLs in 2021. This is representative of the sectoral share of NPLs as shown in Table 5. Trade had the highest share (21.76 percent), followed by Real Estate (16.29 percent), Manufacturing (16.23 percent), and Personal and Household (14.35 percent).

[1] Central Bank of Kenya. Bank Supervision Annual Reports, 2010 to 2022.

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3.4 Commercial Banks Market Share and Non-performing Loans

As of December 31, 2021, there were a total of 39 operating commercial banks distributed as follows: 2 local public commercial banks, 21 local private commercial banks and 16 foreign commercial banks[1]. Of these, 9 were large tier banks, 8 medium tier banks, and 22 small tier banks. The respective NPLs and market shares of these bank groups are given in Table 6.

The table shows that large tier banks held the highest share of NPLs, growing from 56.39 percent in 2018 to 70.26 percent in 2021 while the share of medium tier banks declined from 20.34 percent to 13.75 percent during the same period. The small tier banks share decreased from 23.27 percent to 15.99 percent. This was higher than the medium tier banks despite having a lesser market share. The small tier banks' share of NPLs remained disproportionately high relative to their market share throughout the period. Their share of the NPLs varied from two to three times the size of their market share. For example, in 2021, their NPLs share was almost double their market share at 15.99 percent and 8.82 percent, respectively. For the large tier banks, the share of NPLs was lower than their market share in all the years under review except in 2014 and 2015. For medium tier banks, the share of NPL was below their market share except in 2016 and 2019.

All this shows that there is no consistent relationship between size of bank and NPLs. The large share of NPLs in large banks could be attributed to their large market share meaning that they issue a proportionate number of loans. A larger than proportional NPLs share, especially in the small tier banks, can be explained by internal management and the policies thereof.

Table 6: Distribution of NPLs by bank size and banks' market share(percentage)

	BANKS	2014	2015	2016	2017	2018	2019	2020	2021
NPLs	Large Banks	59.96	58.34	53.97	57.93	56.39	61.58	69.21	70.26
	Medium Banks	17.58	22.39	30.11	25.09	20.34	17.29	14.26	13.75
	Small Banks	22.46	19.27	15.92	16.98	23.27	21.13	16.53	15.99
	TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Market Share	Large Banks	49.90	58.21	65.32	65.98	70.28	74.68	74.55	74.76
	Medium Banks	41.70	32.42	25.90	26.10	21.22	17.10	17.21	16.41
	Small Banks	8.40	9.24	8.77	7.92	8.50	8.22	8.24	8.82
	TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

3.5 Bank Ownership and Non-performing Loans

As of December 31, 2021, there were 39 commercial banks of which 2 were public[2] and 37 were private. Of the 37 private commercial banks, 21 were locally owned and 16 were foreign owned (over 50 percent foreign ownership). Table 6 shows the distribution of NPLs by type of bank ownership. Privately owned local banks and foreign owned banks have the largest share of NPLs compared to publicly (full or partial) owned banks in most of the years. While the local public commercial banks appear to be doing better than local private and foreign banks, it should be noted that, for example in 2021, there were only 6 local public banks compared to 17 local private banks and 16 foreign owned banks.

This suggests that there is a positive relationship between government ownership and the level of NPLs. This can be attributed to the level of bureaucracy in government enterprises and the politics that more often than not surround major decision making. Such are not prevalent in private and foreign owned banks since their main aim is profit making.

Table 7: Distribution of NPLs by Ownership of Commercial Banks (percentage)

	2014	2015	2016	2017	2018	2019	2020	2021
Local Public	29.84	28.09	36.77	31.25	28.04	24.47	25.94	29.85
Local Private	38.46	33.78	27.06	28.02	34.32	41.01	42.25	38.37
Foreign	31.70	38.13	36.17	40.74	37.65	34.52	31.80	31.78
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

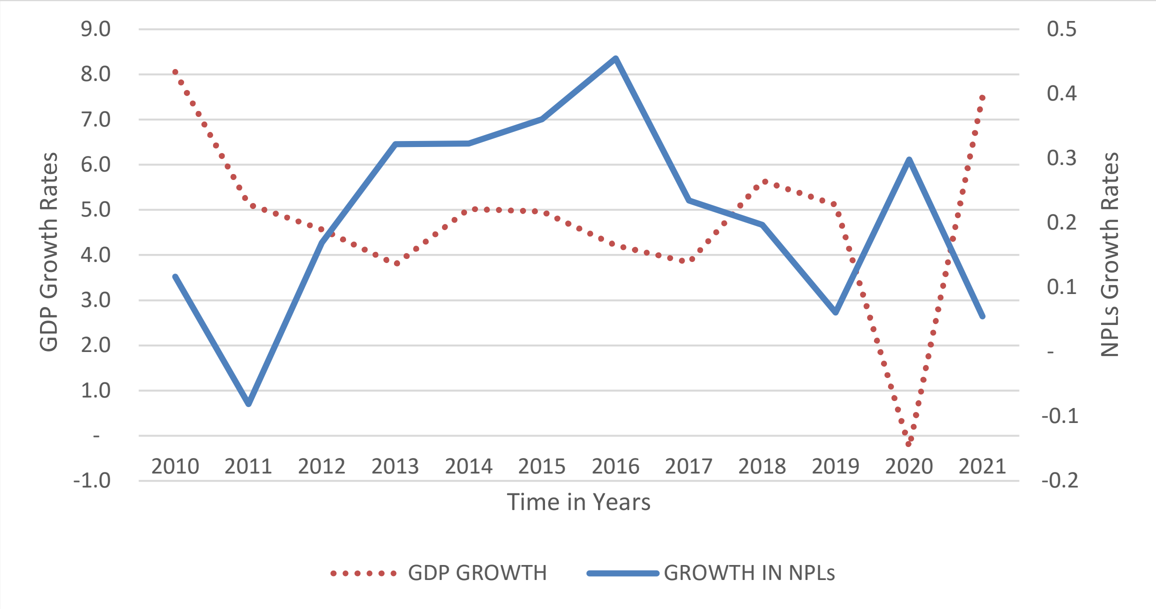
Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

3.6 Country and Sectoral Economic Performance and Non-performing Loans

Different macroeconomic conditions create a different environment that, among other things, may contribute to

[1] Central Bank of Kenya (2021). Bank Supervision Annual Report, p 4.
[2] Public here means that the government is the majority shareholder.

large variations in the level of non-performing loans in the country. Figure 3compares Kenya's real GDP and NPLs growth rates between 2010 and 2021. The spikes in NPLs were caused by a myriad of factors including political and natural calamities which affect the level of economic production in the country. The 2012 increase in NPLs corresponds to the 2011 drought which adversely affected agricultural production[1] causing a high rate of defaulting. The year 2016 was the height of the banking crisis in Kenya when banks such as Chase Bank and Imperial Bank internal problems were brought to light[2]. This caused financial panic and was a factor in the rapid increase of NPLs levels. The year 2019 marked a period of relative calm in the macro-economic conditions and the country level of production was relatively stable leading a slower growth rate in the NPL levels. The 2020 outlier was attributed to the adverse effects of COVID -19 on business operations which directly affected the rate of loan servicing[3].



Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.
Figure 3: Real GDP and NPLs Growth Rates (Percentage)

Our data did not show any discernible link between sectoral growth rate and sectoral share of NPLs. For example, in 2012 the manufacturing sector growth decreased by 0.60 percent compared to a positive growth of 3.30 percent the previous year (Table 8). Thus, one would have expected default rate to be higher in 2012 than in 2011. To the contrary, the sector's share of NPLs declined from 10.03 percent in 2011 to 6.49 percent in 2012 (Table 5). In value, the sector's gross NPLs fell from Ksh. 7,000 million in 2011 to Ksh. 4,016 million in 2012 despite the sector's negative economic growth.

Table 8: GDP Growth Rates by Sector (Percentage)

	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Agriculture	6.40	1.50	2.80	5.40	4.30	5.50	4.00	-1.30	5.70	2.70	4.60	-0.20
Manufacturing	4.50	3.30	-0.60	5.60	2.50	3.60	3.50	0.70	3.60	2.60	-0.40	6.90
Construction	4.50	4.30	11.30	6.10	13.10	13.90	9.20	6.30	6.10	7.20	10.10	6.60
Mining and Quarrying	9.70	7.10	19.00	-4.20	14.90	12.40	9.50	3.20	-4.70	4.30	5.50	18.00
Energy and Water	9.70	-2.60	16.70	10.70	11.20	14.20	11.70	3.00	3.60	2.60	-0.40	6.90
Trade	8.00	7.30	7.00	8.40	6.90	5.90	3.80	4.30	5.90	5.30	-0.50	7.90
Tourism, Restaurant and Hotels	4.20	5.00	3.10	-4.60	-16.70	-1.30	13.30	9.40	15.60	14.30	-47.70	52.50
Transport	6.90	4.60	2.60	1.30	5.50	8.80	8.40	3.50	6.00	6.30	-7.80	7.20
Communication	4.50	4.30	2.60	12.50	14.50	7.40	9.70	8.10	7.90	7.00	6.30	8.80
Real Estate	3.20	3.60	4.00	4.10	5.60	7.20	8.80	6.70	6.50	6.70	4.10	6.70
Financial Services	9.00	7.80	6.00	8.20	8.30	9.40	6.90	4.10	2.70	8.10	6.00	12.50
GDP	**8.1**	**5.1**	**4.6**	**3.8**	**5.0**	**5.0**	**4.2**	**3.8**	**5.6**	**5.1**	**-0.3**	**7.5**

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

[1] KNBS Economic Survey 2012
[2] Central Bank of Kenya. Annual Bank Supervision Report 2016
[3] Central Bank of Kenya. Annual Bank Supervision Report 2020

3.7 Commercial Banks Compliance with Supervisory and Regulatory Requirements

The Banking Act and Central Bank of Kenya Prudential Guidelines contains a set of supervisory and regulatory requirements intended to mitigate risk within the commercial banking sector by requiring banks to maintain certain leverage ratios and keep specific levels of reserve capital. Some of those requirements are summarized below.

i. *Single obligor limit*: A bank must not lend more than 20 percent of its core capital to a single insider borrower and must not exceed the total insider borrowing limit of 100 percent of core capital.
ii. *Prohibited business*: Restricts investment in land and buildings to 20 percent of core capital and aggregate large exposures to not more than five times the core capital.
iii. *Capital adequacy requirements*: Banks to maintain a minimum core capital of Ksh.1Billion and the minimum statutory required ratio for total capital to total risk weighted assets, core capital to total risk weighted assets and core capital to deposit ratio of 14.5 percent, 10.5 percent, of 8 percent, respectively.
iv. *Insider lending*: Banks not to exceed the single insider borrower limit of 20 percent of core capital and the total insider borrowing limit of 100 percent of core capital.
v. *Foreign exchange exposer*: Banks are required to maintain foreign exchange exposure at not more than 10 percent of core capital.
vi. *Liquidity management*: Banks are required to maintain the minimum statutory liquidity ratio of 20 percent.
vii. *In Duplum rule*: This rule restricts the amount of interest recoverable on NPLs and advances to the principal owing when the loan becomes non-performing.
viii. *Corporate governance principles*: Chief Finance Officer of a commercial bank should be a member of the Institute of Certified Public Accounts of Kenya (ICPAK) or an equivalent institute; no Chief Executive Officer, Executive Director or Member of Management owns more than 5 percent of the institution's shareholding.
ix. *Financial statement reporting*: Commercial banks are required to, among others, submit audited balance sheet, profit and loss account and auditor's report to the Central Bank of Kenya within three months of the end of the fiscal year.

Overall, compliance with the above regulations and requirements deteriorated between 2010 and 2021. Table 9 summarizes the extent to which they were violated by the banks during the period. The number of banks violating the regulations was small in the earlier years, varying between four and six or 9.10 and 13.60 percent of the banks. This changed significantly in 2016 when 12 banks (30.80 percent) were in violation compared to 4 banks (9.30 percent) in the previous year. The increase was mainly with respect to non-compliance with liquidity ratio after Chase Bank Ltd was placed into receivership due to deposit movement mostly affecting small and medium banks. However, the situation normalized later in the year.[1] The number of banks violating the requirements remained elevated since 2016, varying between 27.50 percent and 37.50 percent.

Table 9: Banks in violation of Regulatory Requirements

YEAR	Number of Banks	Number of Violators	Violators :Total Banks (percentage)
2021	39	9	23.10
2020	39	13	33.30
2019	39	12	30.80
2018	40	11	27.50
2017	40	15	37.50
2016	39	12	30.80
2015	43	4	9.30
2014	43	5	11.60
2013	44	4	9.10
2012	44	6	13.60
2011	44	5	11.40
2010	44	4	9.10

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

Non-compliance with supervisory and regulatory requirements and the Central Bank's Prudential Guidelines also contributes to the NPLs problem. According to CBK Annual Report 2021, Asset Quality deteriorated with the ratio of NPLs to gross loans increasing. This was attributed to banks compliance violations as shown in Table 10. From the trend observed, the notoriety in violations has been steadily increasing from four total violations in 2010 to 51 in 2020. In 2021 alone, 37 violations were recorded with the capital adequacy requirement having the

[1] Central Bank of Kenya Annual supervision Reports 2016 p 32

most violations, fourteen. This Prudential guideline has been the most violated guideline for the period under review (77 violations) followed by the single obligor limit prudential guideline with 51 violations and Prohibited business with 48 violations. The table also shows that this non-compliance has been recurring yearly, despite the crucial role these regulations play in NPLs management and the general understanding that adherence to them would substantially reduce their exposure to risk.

Table 10: Violation of Compliance to Supervisory and Regulatory Requirements by Commercial Banks in Kenya

Violation	*Banking Act*	*Number of violations by year*												
		2021	*2020*	*2019*	*2018*	*2017*	*2016*	*2015*	*2014*	*2013*	*2012*	*2011*	*2010*	*TOTAL*
Single obligor limit	Section 10(1)	8	9	9	6	8	3	0	2	2	2	2	0	**51**
Prohibited Business	Section 12(c) CBK/PG/07	7	10	7	8	5	2	1	2	1	2	1	2	**48**
Capital Adequacy requirement	Section 7 (1), Section 18, CBK/PG/03	14	19	8	15	9	3	1	2	0	5	0	1	**77**
Insider lending	Section 11(1)	5	3	13	4	0	2	0	0	1	2	1	1	**32**
Foreign exchange exposure	CBK/PG/06	1	2	4	2	2	0	0	0	0	1	0	0	**12**
Liquidity Management	Section 19(1) CBK/PG/05	1	2	4	8	7	7	2	0	0	0	0	0	**31**
In Duplum rule	Section 44A (1)	1	1	0	0	0	0	0	0	0	0	0	0	**2**
Corporate Governance Principles	Section 11(1) CBK/PG/02	0	4	0	0	1	2	1	1	2	0	1	0	**12**
Financial Statement Reporting	Section 22	0	1	0	0	0	0	0	0	0	0	0	0	**1**
YEARLY TOTAL		**37**	**51**	**45**	**43**	**32**	**19**	**5**	**7**	**6**	**12**	**5**	**4**	

Source: Computed from Central Bank of Kenya (various years). *Bank Supervision Annual Report*. Central Bank of Kenya Publications.

3.8 Special Measures Put in Place to Deal with NPLs

Banks in some countries have put significant resources and effort into action in the last few years to deal with their NPLs problem. For example, in Sub-Saharan Africa countries like Cameroon, Gabon, Ghana, Mali, São Tomé and Príncipe, and Tanzania have developed or are in the process of developing broader NPL management strategies.[1] Typically, these NPL resolution strategies are multipronged, specifying a range of measures to reduce existing NPLs and prevent new NPLs from arising. Ghana's strategy, for example, has three pillars: strengthening and enforcing the supervisory framework, strengthening the credit infrastructure, and facilitating loan and collateral recovery (IMF 2021). Our investigation revealed that Kenya does not have elaborated comprehensive NPLs resolution and prevention strategies, apart from the Central Bank's Prudential Guidelines, that commercial banks are required to apply to help manage stocks and flows of NPLs. Similarly, while different commercial banks handle the NPLs problem in their own ways, we did not find any bank with a dedicated in-house NPLs unit.

4. Limitation of the Study

The study did not capture the cause of the increasing violations of the supervisory and regulatory requirements. Is it due to laxity on the part of commercial banks or better supervision from the regulator that has unearthed the violations that hitherto had remained undetected? There is a need for further research on NPLs in the country that may answer such questions.

5. Conclusions and Recommendations

Kenya has historically recorded elevated levels of NPLs in the banking sector. The average NPL ratio exceeded nine percent since 2010. The ratio has been particularly high in the last five years, averaging 13.23 percent per annum. Except for Ghana, Kenya's NPLs as a percent of gross loans has been way above those of its peers in the last three years.

The NPLs problem in the country cuts across all sectors of the economy and commercial banks irrespective of size or ownership. As of December 31, 2021, Kenya's NPLs as a percent of all bank loans was 14.13 compared

[1] International Monetary Fund (2021) Resolving Nonperforming Loans in Sub-Saharan Africa in the Aftermath of the COVID-19 Crisis, page 32.

to the world average of 6.49 percent in the same year based on 108 countries.

The concentration of NPLs was persistently high in Trade, Real Estate, Manufacturing, and Personal and Household sectors during the whole period. These four sectors' combined share of NPLs ranged between 76.73 percent in 2010 and 68.63 percent in 2021. The same sectors accounted for the highest concentration of loans by value and number of loan accounts. This calls for close monitoring of these four sectors by the regulatory authority to ensure that banks make adequate provisions for the loans in these sectors and abide by supervisory and regulatory requirements to mitigate risk of default.

The large tier banks accounted for the highest share of NPLs, growing from 56.39 percent in 2018 to 70.26 percent in 2021 while the share of medium and small tier banks declined from 20.34 percent to 13.75 percent and 23.27 percent to 15.99 percent, respectively, during the same period. The big share of NPLs in large banks could be attributed to their large market share meaning that they issue a proportionate number of loans. The small tier banks' share of NPLs remained disproportionately high relative to their market share throughout the period. This can be explained by internal management and the policies thereof and is indicative of a need for concerted efforts to regulate the NPLs levels.

Changes in macroeconomic conditions were found to create different environment that, among other things, contributed to large variations in the level of non-performing loans in the country. Spikes in NPLs seemed to follow occurrence of incidents such as political disturbances, natural calamities such as drought, banking crises, and widespread tragedies like COVID-19 which affect the level of production in the country. However, our data did not show any discernible link between sectoral growth rate and sectoral share of NPLs.

Violations of the Central Bank's prudential guideline to commercial banks has been steadily increasing. The most frequently violated guideline was capital adequacy requirement, followed by single obligor limit and prohibited business, in that order. It was not possible to ascertain factors responsible for the increase in violations.

Delayed payments from private and public sectors were found to be one of the main contributors to the high NPL percentages in the period under review. In 2012, the high interest regime impacted the quality of loans and advances negatively thus, contributing to high default rates.

The conclusions of the study suggest a three-pronged approach involving the commercial banks, the Central Bank of Kenya, and the public sector to reduce the NPLs problem in the country.

The commercial banks should employ new innovative ways including:

- Management of NPLs stock,
- Management of NPLs flows, and
- Setting up separate dedicated in-house NPLs units.

In addition to appropriate remedial actions being taken by the Central Bank of Kenya on the commercial banks guilty of violating supervisory and regulatory requirements, the Bank should:

- Pay particular attention to the provisions that are often violated (in particular, capital adequacy requirement, single obligor limit and prohibited business) and devise specific actions to effectively enforce compliance.
- Closely monitor the four sectors (Trade, Real Estate, Manufacturing, and Personal and Household) with the concentration gross loans and NPLs to ensure that the commercial banks make adequate provisions for the loans in these sectors and abide by supervisory and regulatory requirements to mitigate risk of default.

Since delayed payments was found as one of the contributing factors to borrowers' inability to service loans, the Government should make:

- A concerted effort to reduce pending payments to the business community.
- Adopt a culture of making timely payments for goods and services provided by the business community.

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