STERLING CAPITAL LIMITED

Wednesday, 27 November 2019

Issue No.8

Topical Note

November 2019

Kenya Banks investment in Government Securities

"The Risk of Risk free"

Analysts:

Renaldo D'Souza
+254 (20) 2222651
Renaldo.DSouza@sterlingib.com

Susan Makena
+254 (20) 2222651
Susan.Makena@sterlingib.com

Elizabeth Njenga
+254 (20) 2222651
Elizabeth.Njenga@sterlingib.com

Justina Vuku
+254 (20) 2222651
Justina.Vuku@sterlingib.com

For queries call: +254 (20) 315414; 2244077 or
Email: research@sterlingib.com
Website www.sterlingib.com
Bloomberg Code: SCLK <GO>

For important disclosures refer to the disclosures section located at the end of this report.

Table of Contents

Executive Summary

- "**The Risk of risk free**" is the title of the 8th topical note issue and focuses on Government securities, a key investment option for banks more so since the introduction of interest rate caps in September 2016.
- The CBK in its Financial Sector Stability Report 2018 shows its **concern over the increased exposure by banks to Government debt.**
- Our report shows the **impact of the introduction of interest rate caps in 2016** with the main ones being **an increase in holdings of government securities and commercial bank liquidity** while the **proportion of loans and advances has declined**.
- **Risks exposed by Kenyan banks as a result of their significant holdings of Government securities** in the face of rising interest rates is discussed in the report.
- We define the different types of Government debt held by banks and **how an increase in interest rates will affect the performance of banks**.
- In conclusion, we also try to predict the likely actions to be taken by banks to counter the impact of rising interest rates on bond valuations and overall profitability as well as give an indication of what investors should expect in terms of the financial performance of the banks they have invested in.

CBK concerned over Kenya banks' exposure to Government debt

- The Central Bank of Kenya (CBK) in its 2018 Financial Sector Stability Report shows its concern over high commercial banks' exposure to Government bonds.

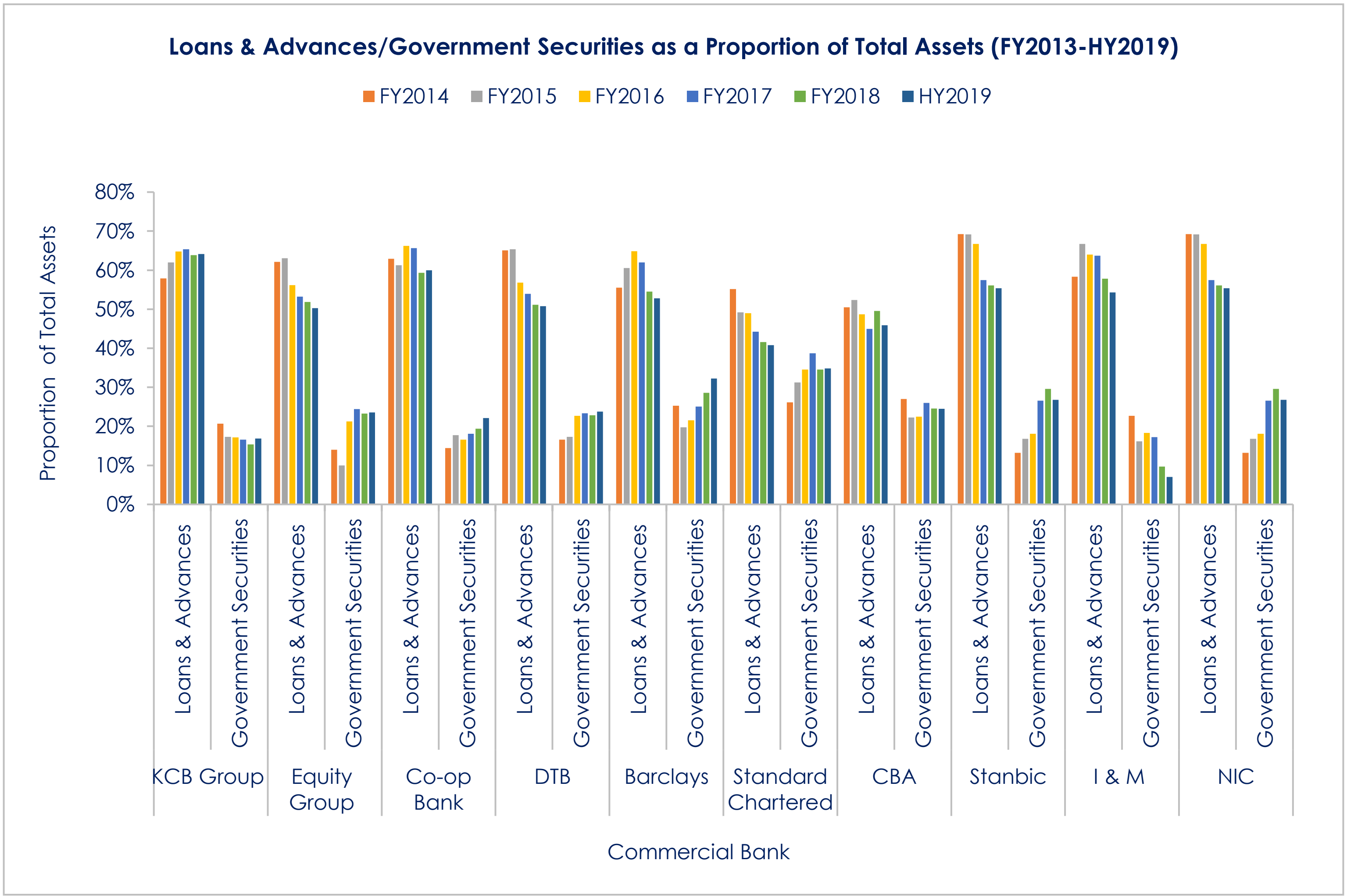
  "High exposure to government bonds by banks poses both sovereign and liquidity risks. As at December 2018, government bonds accounted for 20.1% of total liquidity of the banking industry, 24.4% of total assets held by banks and 16% of total income. Any shock to interest rates or rapid implementation of fiscal consolidation would negatively affect banks," the CBK cautions in the latest financial sector stability report." - The Kenya Financial Sector Stability Report 2018.

Is the exposure of banks to Government debt too high?

Kenya Banks increased proportional holdings of Government securities after the introduction of interest rate caps in September 2016.

- So is the CBK's concern valid and are Kenyan banks over exposed to the risks associated with holding what are often called "risk free" securities?
- No ideal Government security holdings as a proportion of total assets data or benchmarks exist as industry dynamics and economic structures differ around the world.
- However, excessive bank exposure to Government securities to the extent that it results in a "crowding out" of the private sector and threatens industry sector liquidity presents a risk.
- In the Kenya banking sector context, the risk is expected to decline following the repeal of the interest rate capping law.
- However, this is based on the premise that the repeal will result in a reduction in bank appetite for Government debt in favour of private sector lending.
- This we expect to happen in the medium term as the current situation of poor asset quality and an upturn in domestic debt interest rates could still mean slow growth in private sector credit.
- A historical analysis of commercial banks holdings of Government securities as a proportion of total assets FY2014 and HY2019 shows a marked increase since the introduction of interest rate caps in 2016 (Fig.1) (interest rate cap laws on bank deposits and loans were repealed in October 2018 and November 2019 respectively).
- This was at the expense of loans and advances which declined as a proportion of total assets over the same period.
- Equity Bank, Barclays Bank and Stanbic for instance increased their proportional holdings of Government securities from 10%, 19.7%and 16% FY2015 respectively to 23.2%, 28.6% and 29.6% FY2018 respectively.
- Over the same period, the three banks reduced the proportional investments in loans and advances from between 60% to 70% to between 50% and 55%.
- This shift is also illustrated in credit data which shows a significant decline in credit to the private sector in favour of credit to Government during the period in review.

Fig.1: Proportional holdings of Government debt increased after the introduction of interest rate caps in 2016



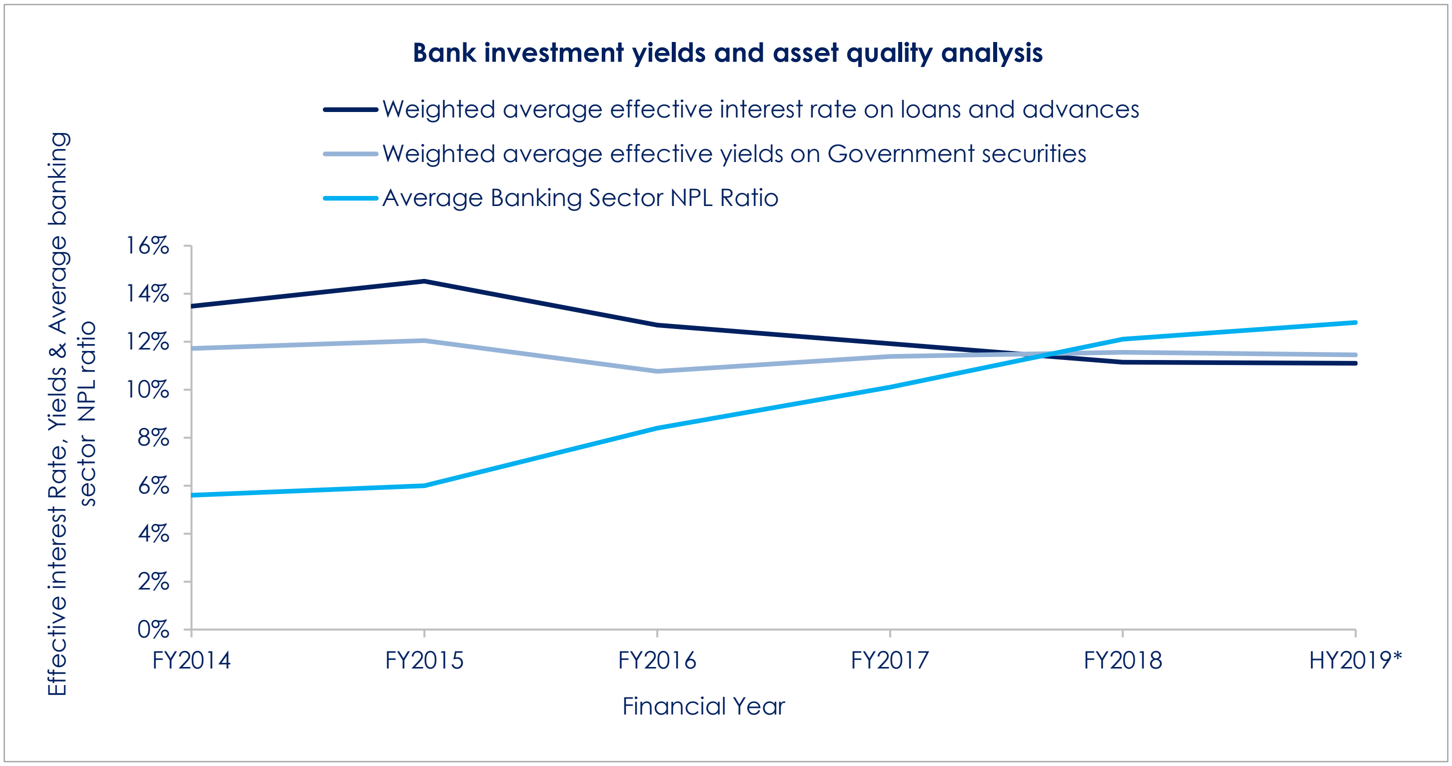
Source: Central Bank of Kenya

Average yields on Government securities higher than average interest on loans & advances

- We compared average effective interest rates on loans and advances against average effective yields on Government securities for ten Banks listed on the Nairobi Securities Exchange (NSE) FY2014 - FY2018 (Fig.2).
- Also included in this analysis was the average annual Non-Performing Loan (NPL) rate for the banking sector.
- Average interest rates on loans and advances steadily declined while those on Government securities rose following the introduction of rate caps in 2016.
- At the same time, asset quality deteriorated significantly with NPLs HY2019 at 12.8% compared to 8.4% and 10.1% FY2015 and FY2016 respectively.
- This clearly explains low private sector credit and a shift towards the Government securities which in this case presented lower risk and comparatively higher returns.

- Yields on Government securities are on an upward trend following the rate capping law repeal and unless there is a significant improvement in asset quality or banks are able to price risk appropriately, credit growth will remain subdued in the short term.

Fig.2: Yields on Government securities higher than those on loans and advances in interest rate capping regime



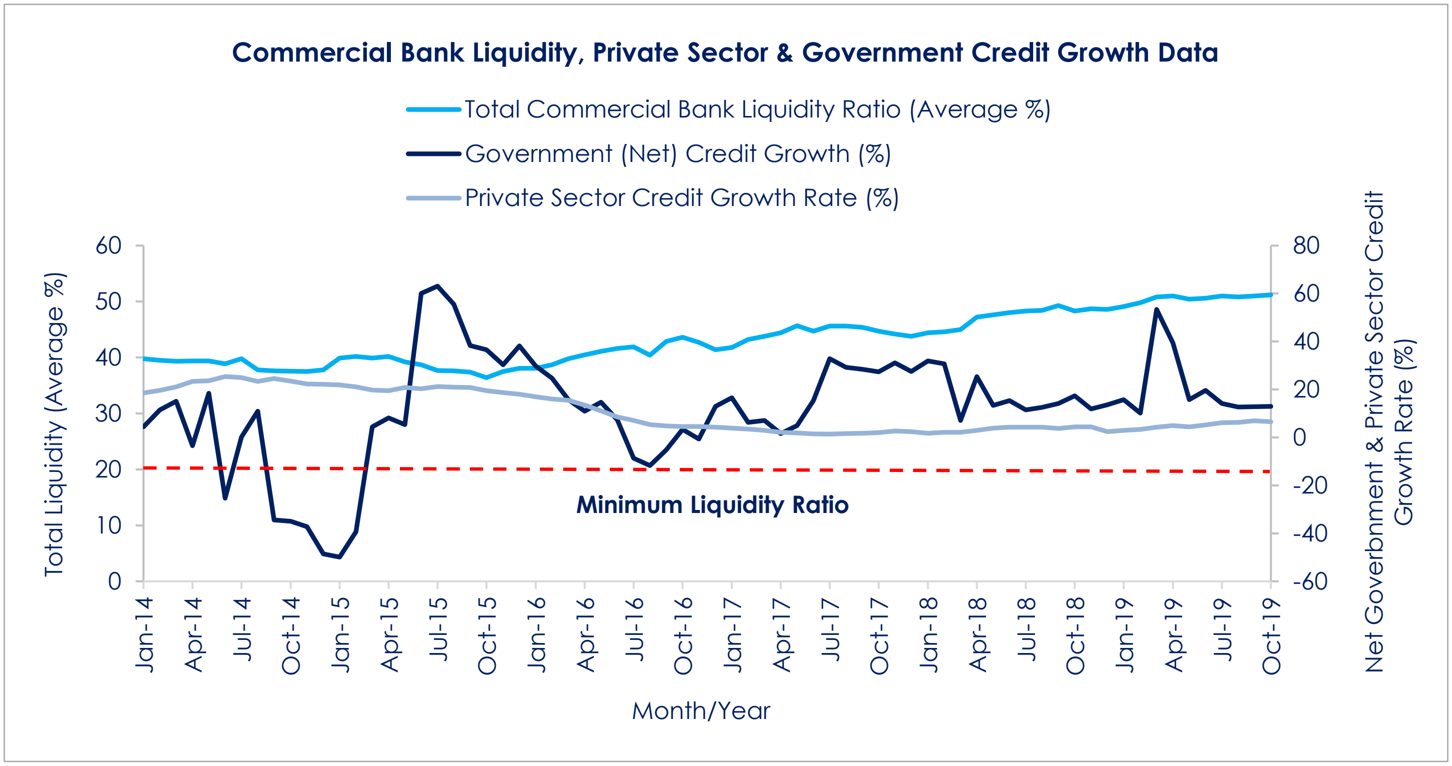
Source: Central Bank of Kenya & Respective bank annual financial reports

* Weighted average effective interest rate on loans and advances & weighted average effective yield on Government securities HY2019 data is estimated while NPL ratio data is actual

Commercial Bank liquidity has risen since the introduction of interest rate caps

- Commercial bank liquidity increased following the introduction of interest rate caps in 2016 (Fig.3).
- Low private sector credit explains why commercial bank liquidity is at historic highs (50.8% against a minimum statutory ratio of 20% as at August 2019).
- Commercial bank liquidity declines significantly once government bonds are excluded.
- According to the financial sector stability report mentioned at the beginning of this report, liquidity would have declined to 28.5% from 48.6% if bonds were excluded this being fairly close to the 20% minimum.
- Private sector credit growth has exhibited an improvement in the second half of 2019 and we expect this trend to continue following the removal of caps on ending rates.
- Poor asset quality and rising interest rates on domestic debt might peg this growth at around 5% - 7% levels in the near to medium term.

Fig.3: High commercial bank liquidity a result of low private sector credit



Source: Central Bank of Kenya

> We expect interest rates on domestic debt to rise gradually.
>
> Interest rates on commercial bank loans and advances expected to rise in the medium term.

Our outlook on interest rates following the repeal of the interest rate capping law

- It is now evident that there is a high probability of both interest rates on commercial bank loans and domestic debt rising following the repeal of the interest rate capping law in November 2019.
- We see the following as the most likely impact of this development:

1) **Interest rates on Government securities** - Expected to rise gradually as investors bid aggressively in domestic debt auctions.

   In the short term, we expect high subscriptions for short term debt (T-Bills) and more so the 91 Day T-bill as investors are unwilling to lock-in capital for longer tenor debt.

2) **Interest rates on commercial bank loans and advances** - We expect lending rates in the near term to remain relatively unchanged as banks adopt a wait and see approach.

   However, the rates are likely to rise in the medium term as a combination of rising credit demand and the ability of banks to price credit risk increases.

Are rising interest rates exposing banks to risks?

- We see two main risks to the banking sector on account of recent developments on lending interest rates:

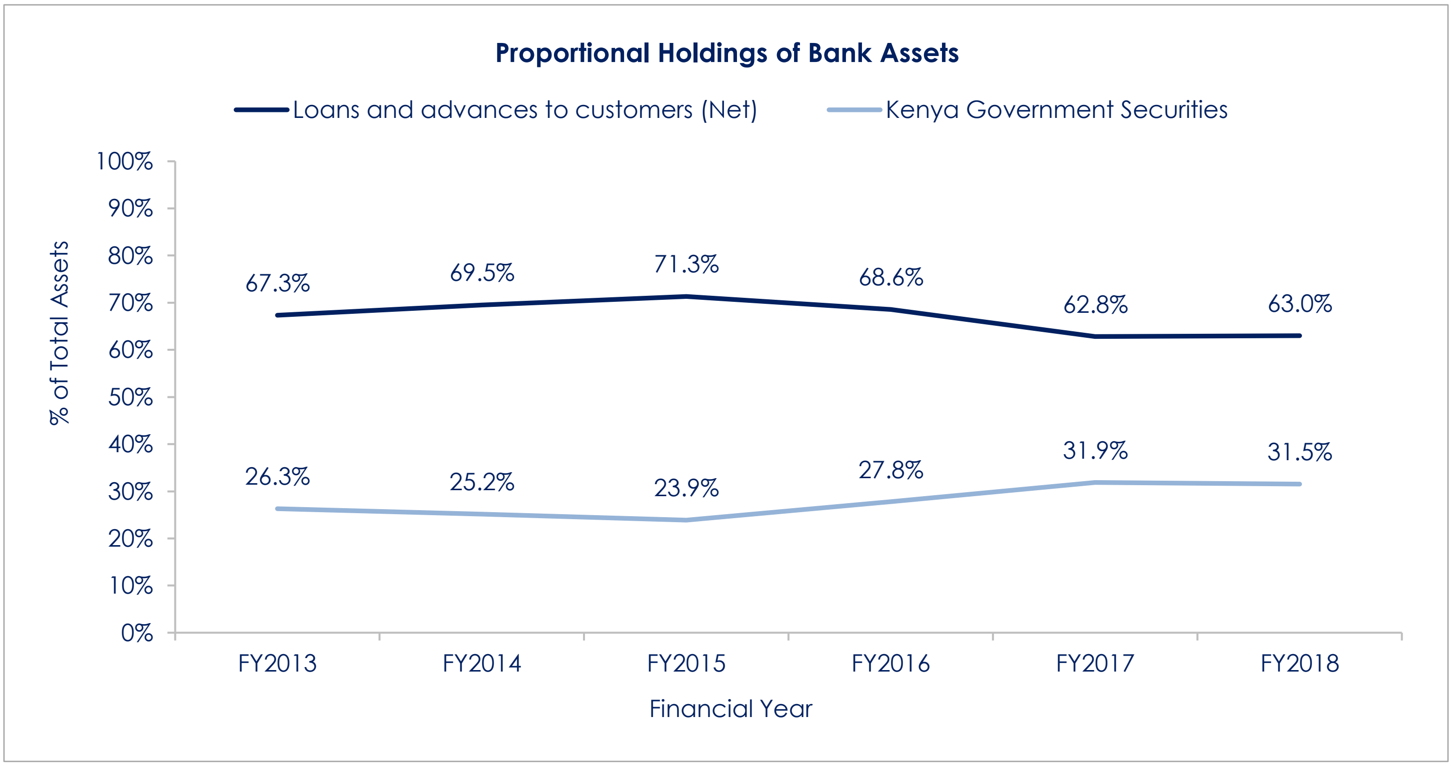
  1) **Asset concentration risk** - Banks exposure to Government debt has risen significantly since the introduction of interest rate controls and presents a concentration risk (Fig.4).

     The large holdings of government securities by banks are broadly the results of "supply" and "demand" effects.

     Supply effects include the need to finance of the budget deficit and the associated domestic borrowing by the government.

     Demand effects include a falling interest rate environment and the associated expected treasury trading opportunities have provided banks strong incentives to invest in government securities which are also perceived to be risk free.

Fig.4: Kenya banks increased exposure to Government debt and cut exposure to private sector credit



Source: Central Bank of Kenya – Bank Supervision Annual Reports 2013 - 2018

2) **Interest rate risk** - Increase in yields on Government securities poses a significant challenge with potential negative effects on banking sector profitability.

New government debt securities will be issued with higher yields than existing debt in the market resulting in lower demand for the latter and a decline in bond prices.

Banks faced with the interest rate risk as interest rates on domestic debt rise.

Bank holdings of Government securities Available for Sale (AFS) and Held for Trading (HFT) (Table.1) are marked to market (valued at current market prices) and the resulting drop in the market value will have a negative impact on portfolio return.

Note that Government securities Held to Maturity (HTM) are not marked to market but are reported at amortized cost (original cost of the debt security plus any discount, or minus any premium that has been amortized to date).

Table. 1: Banks hold different types of bonds

Held to maturity (Amortized Cost)	Available for Sale (Fair Value through Other Comprehensive Income - OCI)	Held for Trading (Fair Value Through Profit and Loss - FVPL)
• Debt security purchased with the intention of holding until maturity. • Reported in the balance sheet at the original purchase cost. • Bond value not affected by interest rate movements. • Interest payments from the holdings will be reported in the income statement.	• Debt security purchased with the intention of selling before maturity. • Unrealized gains and losses are excluded from earnings and reported in a separate component of shareholders' equity named accumulated Other Comprehensive Income (OCI). • Interest payments from the holdings will be reported in the income statement.	• Debt and equity securities held principally for selling them in the near term. • Unrealized gains and losses reported at fair value and included in profit and loss statement. • Interest payments from the holdings will be reported in the income statement.

Source: Investopedia

Kenya Banks holdings of Government securities

- Equity, KCB, Barclays, Standard Chartered and NIC banks' holdings mainly comprise of Government securities AFS while Co-op and DTB holdings are mainly HTM Table 1.
- Stanbic Bank's portfolio is skewed to Held for Trading (HFT).

Table. 2: Commercial Banks holdings of Government securities

Bank	Kenya Government Security (KES.Bn)	FY2014	FY2015	FY2016	FY2017	FY2018	HY2019
KCB	HFT	6	1				
	HTM	59	58	41	38	31	57
	AFS	36	38	62	69	79	69
	Total	**101**	**97**	**102**	**107**	**110**	**126**
Equity	HFT						
	HTM	33	21	20	21	19	20
	AFS	15	22	80	107	142	130
	Total	**48**	**43**	**101**	**128**	**161**	**151**
Co-op	HFT	1			1		
	HTM	25	36	37	44	50	64
	AFS	16	24	21	25	31	31
	Total	**41**	**60**	**58**	**70**	**80**	**95**
DTB	HFT						
	HTM	35	47	74	85	86	89
	AFS					1	1
	Total	**35**	**47**	**75**	**85**	**86**	**89**
I&M	HFT				2		
	HTM	19	22	24	27	18	22
	AFS	16	17	22	21	10	11
	Total	**35**	**39**	**45**	**50**	**28**	**33**
Barclays	HFT	6	2	7	10	30	30
	HTM						
	AFS	51	45	49	58	63	81
	Total	**57**	**48**	**56**	**68**	**93**	**114**
Standard Chartered	HFT	3	6	5	7	4	5
	HTM						
	AFS	55	67	82	103	95	98
	Total	**58**	**73**	**86**	**111**	**99**	**103**

Source: Respective bank annual financial reports

Bank	Kenya Government Security	FY2014	FY2015	FY2016	FY2017	FY2018	HY2019
Stanbic	HFT	24	16	16	30	31	N/A
	HTM	0	0	0	5	23	N/A
	AFS	22	29	34	41	18	N/A
	Total	**46**	**45**	**50**	**76**	**72**	**N/A**
CBA	HFT						
	HTM	29	27	30	42	46	51
	AFS	25	21	21	22	15	13
	Total	**54**	**48**	**51**	**64**	**61**	**64**
NIC	HFT	0					
	HTM	6	7	6	23	25	20
	AFS	14	20	25	31	37	37
	Total	**19**	**28**	**31**	**55**	**62**	**57**

Source: Respective bank annual financial reports

How will interest rate movements impact the financial performance of Kenya Banks?

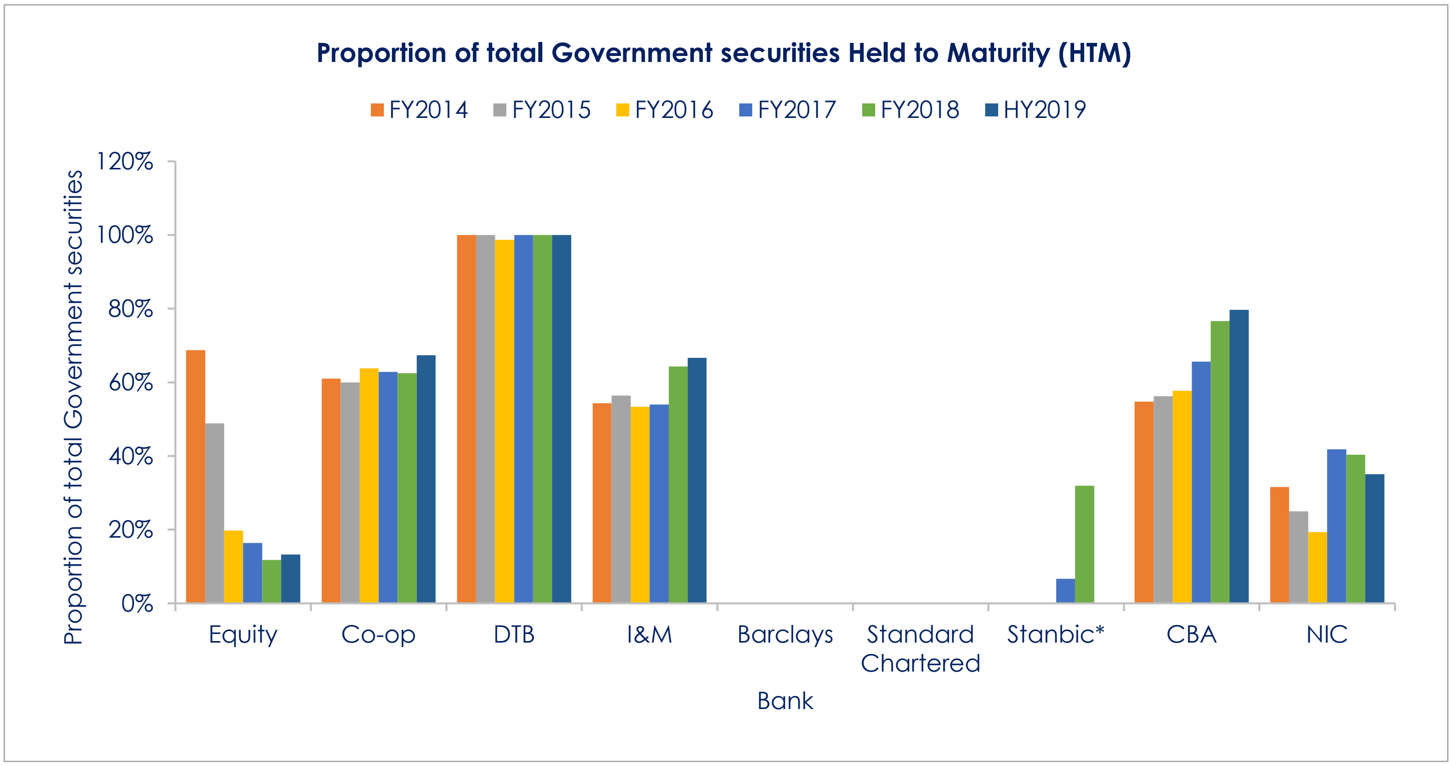
- KCB, Equity, Barclays and Standard Chartered have majority of their Government securities portfolio classified as either AFS or HFT and will book revaluation losses in a scenario of rising interest rates as is expected following the interest rate cap repeal.
- Co-op, DTB and I&M will suffer from the opportunity cost of loss interest income rather than revaluation losses as most of their holdings are classified as HTM.

Held to Maturity (HTM)

- DTB has virtually its entire holdings of Government securities HTM while in contrast Barclays Bank and Standard Chartered do not have any Government securities HTM (Fig.4).
- Equity Bank and KCB reduced their bond portfolio holdings HTM from 69% and 58% prior to rate caps (FY2014) to 12% and 28% respectively in FY2018.
- We believe that this was on the assumption that interest rate caps would be in force for the foreseeable future and therefore interest rates on Government securities would remain relatively flat and predictable.
- Over the same period, Co-op and NIC increased their holdings HTM from 61% and 32% to 67% and 40% respectively.
- Stanbic which had no holdings HTM FY2014 increased its holdings to 32% of its total portfolio of Government securities this largely replacing its holdings of AFS securities.
- Stanbic's investment strategy is likely to pay off as it reduces the overall impact of a rise in interest rates on bond revaluation.

DTB's entire portfolio of Government securities HTM.
Barclays and Standard Chartered do not hold Government bonds HTM

Fig.4: DTB, Co-op & NIC have the highest proportion of Government securities HTM



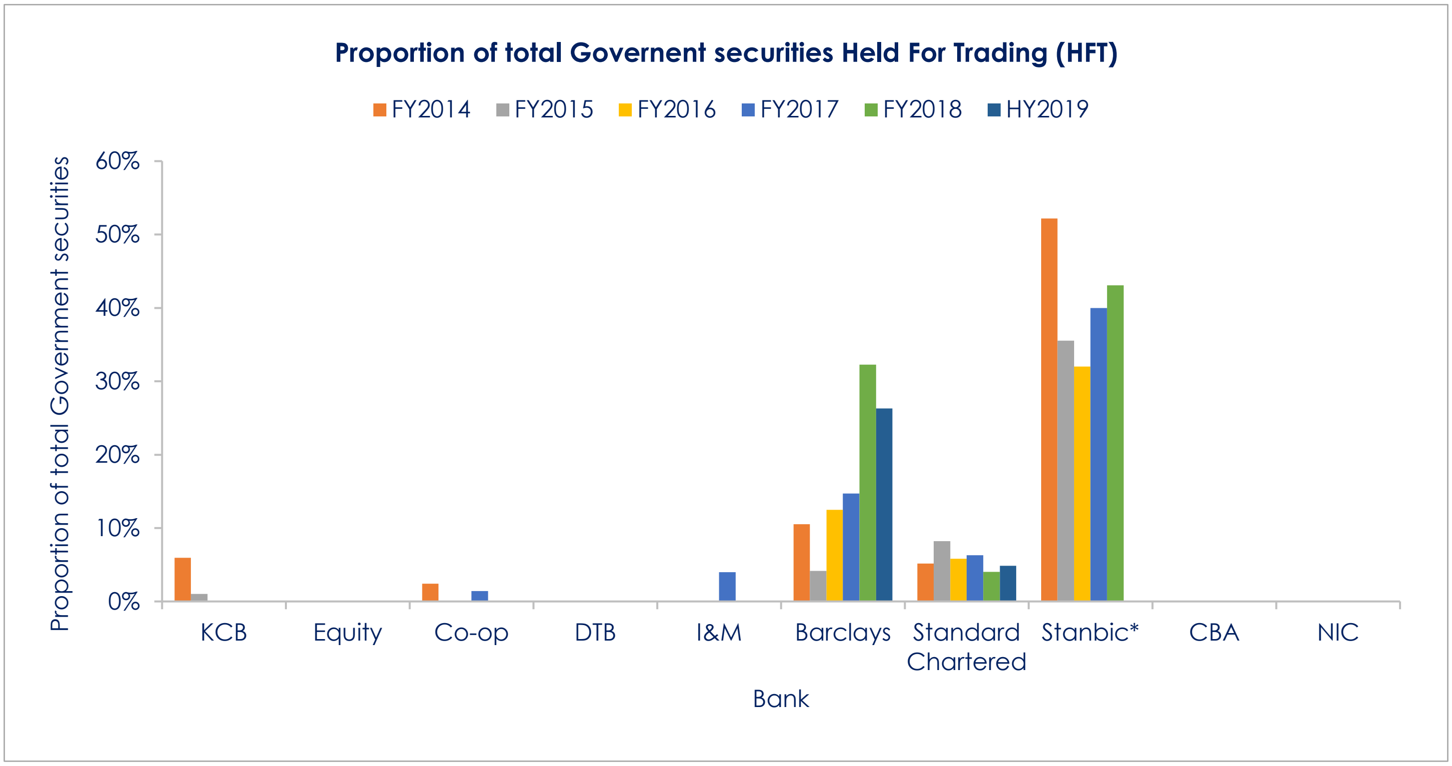
Source: Respective bank annual financial reports

*HY2019 data unavailable

HFT

- Stanbic (43%) and Barclays (32%) had the highest proportion of total Government securities HFT amongst our comparable banks FY2018 (Fig.5).
- We observe a significant increase in HFT holdings for Barclays in particular from 11% FY2014.
- As at HY2019, Barclays had reduced its proportional holdings HFT to 26%.

Fig.5: Stanbic and Barclays banks the biggest holders of Government securities HFT



Source: Respective bank annual financial reports

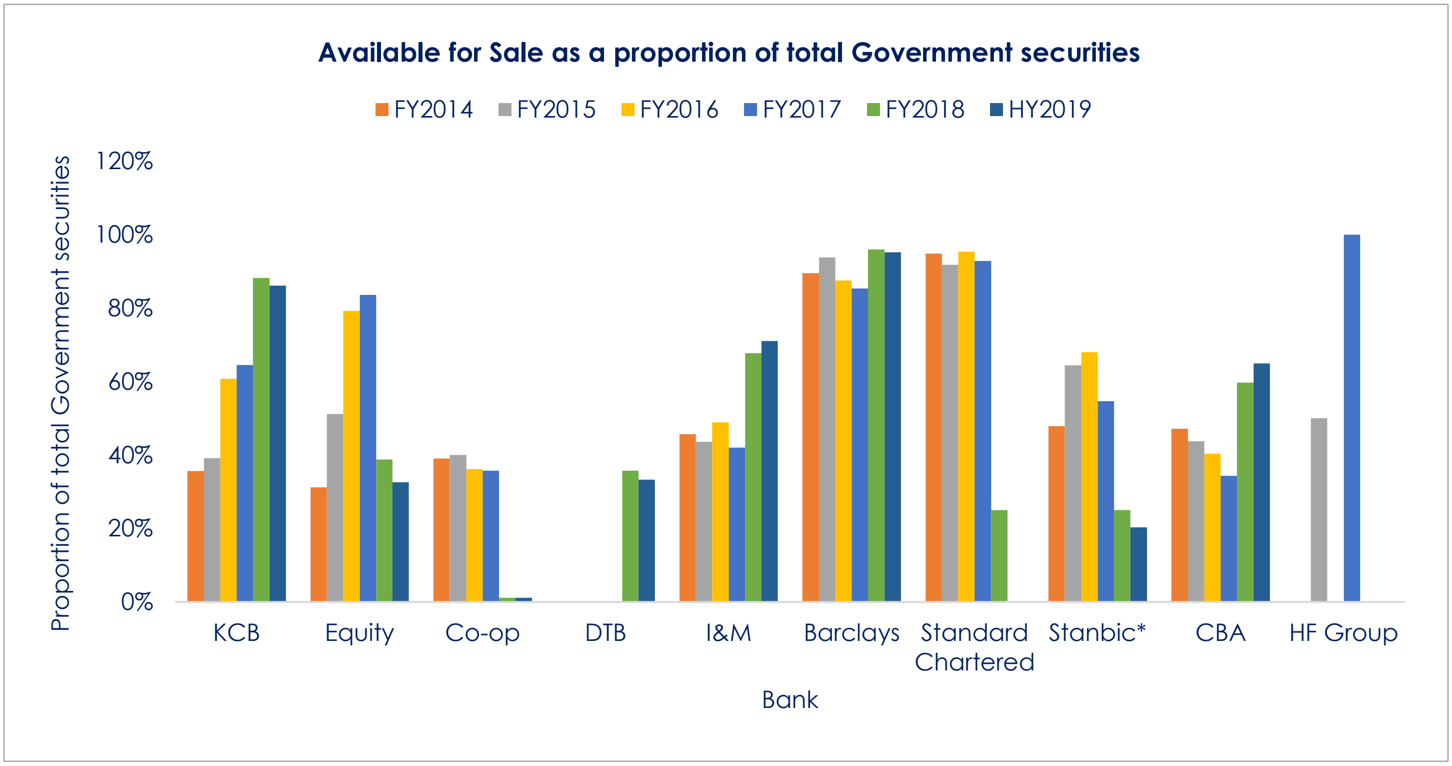
*HY2019 data unavailable

Available for Sale (AFS)

Standard Chartered, Equity Bank, KCB, Barclays and NIC have significant AFS holdings.

- Standard Chartered, Equity, KCB, Barclays and NIC had the highest proportion of AFS holdings at 96%, 88%, 72%, 69% and 61% as a proportion of their total portfolio of Government securities FY2018 respectively (Fig.6).
- While Standard Chartered has been consistent in this investment approach, the strategy taken by Equity and KCB was most likely a response to expectations of low yields on Government securities in an environment of interest rate controls.
- Equity and KCB held 51% and 39% of the entire portfolio AFS FY2015.
- KCB made a significant reduction in its holdings AFS to 55% HY2019 of its entire portfolio and we would expect a further reduction FY2019.

Fig.6: Standard Chartered, Equity, KCB, Barclays and NIC exposed to revaluation losses from AFS holdings



Source: Respective annual reports

*HY2019 data unavailable

How could banks manage the risk of rising interest rates to overall financial performance?

- We see portfolio rebalancing as the most probable bond investment strategy that banks will employ depending on their long-term outlook on the direction of interest rates.
- Portfolio rebalancing ideally means periodically buying or selling government securities in a portfolio to maintain the desired level of asset allocation or risk.

Banks likely to rebalance their bond portfolios and align them to their long-term interest rate levels outlook.

1) **Reduce the maturity period of bond holdings -** Banks could keep maturities short. Long duration government securities are relatively more price sensitive than short duration ones to interest rate changes and may see price a steeper price correction in an increasing interest rate scenario.

   This can be done by either increasing proportional holdings of shorter term bonds by purchasing bonds with new capital or selling longer dated bonds.

Banks likely to increase loan book portfolio, maintain focus on NFI and manage operations costs to maintain overall profit margins.

2) **Growth in loans and advances portfolio** - This will reduce the proportion of total assets invested in government securities. This will also be dependent on the ability of the respective banks to impose lending rates commensurate with the risk of default.

   Here we expect banks to remain cautious in the near term and focus on secured and comparatively low risk lending as asset quality remains poor across the industry.

3) **Maintain focus on driving Non-Interest Income/Non Funded Income (NFI)** - NFI is not susceptible to interest rate risks. Banks effectively drove NFI following the imposition of interest rate caps reducing their dependence on interest income.

4) **Cost management and operational efficiency** - This will remain a key focus as banks look to maintain profitability margins in the face of revaluation losses and fluctuations in interest rates.

Investors should expect bond holding revaluation losses

Investors in banks holdings bonds AFS & AFT will sufferer the biggest revaluation losses. Impact should be marginal FY2019.

- In conclusion investors holding banks with a significant proportion of holdings of Government securities HFT and AFS to report revaluation losses.
- Barclays, Standard Chartered, Equity Bank, KCB and Stanbic likely to face the biggest revaluation losses.
- With a significant proportion of Barclays and Stanbic Government security holdings HFT we are likely to see the banks record revaluation losses in their income statement.
- Investors in DTB appear fairly well cushioned against the rise in interest rates as their holdings are almost entirely HTM.
- Overall, the impact of an upward movement in interest rates will not be significant FY2019 with the full impact more evident in the financial results FY2020.
- This however will depend largely on the degree of the upward swing on interest rates.
- The adverse impact of bond revaluation losses on overall profitability will be minimized by growth income lines such as interest income and NFI with banks such as KCB, Equity and Co-op best placed to maintain their positive profit growth trend.

Disclosures:

Ownership and material conflicts of interest:

The authors or a member of their household, of this report do not hold a financial interest in the securities of this company. The authors or a member of their household, of this report do not know of the existence of any conflicts of interest that might bias the content or publication of this report.

Position as an officer or director: The authors or a member of their household, do not serve as an officer, director or advisory board member of the subject company.

Research analyst certification:

The research analyst(s) primarily responsible for the preparation and content of all or any identified portion of this research report hereby certifies that all of the views expressed herein accurately reflect their personal views. Each research analyst(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the view(s) expressed by that research analyst in this research report.

Additional Disclosures:

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither SCL nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research reports preparation or publication, or any losses or damages which may arise from the use of this research report.

Disclaimer:

This research report was prepared under the supervision of the Research Department of Sterling Capital Limited (SCL), a company authorized to engage in securities activities in Kenya, and with partnerships in Uganda, Rwanda, Zimbabwe, and Tanzania. Data used in this report was gathered from reliable sources, but the analyst(s) and the publishers of this report do not hold themselves responsible for the accuracy or completeness of data used. The report provides the opinions, analyses and conclusions of the Research division only and is provided without any warranties of any kind.

This report does not constitute an offer, or the solicitation of an offer, for the sale or purchase of any security. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Whilst every care has been taken in preparing this report, no representation, warranty or undertaking (express or implied) is given and no responsibility or liability is accepted by SCL or any employee of SCL as to the accuracy, timeliness, completeness merchantability or fitness for any particular purpose of any such recommendation or information contained and opinions expressed herein. SCL do not accept any liability for any direct or remote loss or damage arising out of the use of all or any part of the information contained in this report.

This report is published for information purposes only and is not an offer to solicit, buy or sell any security of any kind. This report does not provide customized investment advice. It has been prepared without regard to the individual financial circumstances and risk and return objectives of individuals who receive it. The appropriateness of a particular investment will depend on an investor's individual circumstances, risk tolerance and return objectives. The investments securities referred to in this document may not be suitable for all or certain categories of investors. The Research Division and SCL have implemented Chinese walls procedures to prevent any conflict of interest. Other additional information may be available at SCL.

Further disclosure regarding SCL policy on potential conflicts of interest in the context of investment research and SCL policy on disclosure and conflicts in general are available on request. The opinions presented in this note may be changed without prior notice or cannot be depended upon if used in the place of the investor's independent judgment. The historical performance of a security is not representative of the security's future returns. Investment in securities can be highly risky as security prices may go down in value as well as up and you may not get back the full amount invested. Where an investment is denominated in a currency other than the local currency of the recipient of the research report, changes in the exchange rates may adversely affect the value, price or income of that investment. In case of illiquid investments for which there is no organized market it may be difficult for investors to exit investment positions or to obtain reliable information about its value or the extent of the risk to which it is exposed. The information contained in this report is confidential and is solely for use to those persons to whom it is addressed and may not be reproduced, further distributed to any other person or published, in whole or in part, for any purpose.