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Interest Rate Floors

“Too little, but is it too late?”

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Executive Summary

- Our 6th topical note titled "Too little but is it too late?" is our analysis of what we believe was a poorly thought out and misinformed move by the Kenyan parliament to remove interest rate limits "floors" on commercial bank deposits as a means of driving private sector credit.
- In our 1st topical note Kenya Interest Rate Caps "End of an error?" we analyzed the impact of interest rate caps on the banking sector, public debt and the overall performance of the economy.
- In a move aimed at reducing the cost of private sector credit, the Kenyan Parliament passed the Banking Amendment Act in September 2016 that effectively capped interest rates charged on loans by commercial banks at 4% points above the benchmark Central Bank Rate (CBR) and a corresponding floor on the deposit rates at 70% of the policy rate.
- Interest rate caps were perceived to be more effective than the Kenya Banker's Reference Rate (KBRR) that offered a base rate as a benchmark above which banks would price a risk premium.
- The KBRR was largely ineffective as in controlling the cost of credit as banks continued maintained "exorbitant" rates which led the strong push for interest rate controls.
- It is evident that interest rate caps have had the opposite impact with private sector credit shrinking as commercial banks showed a preference for government debt.
- And this was the reason behind the removal of interest rate floors in October 2018, a move whose impact on bank performance and credit to the private sector is analysed in this report.
- Our analysis shows that the move has a positive impact on the profitability of the sector but is largely insignificant in increasing private sector credit.
- We conclude the report with an analysis of proposals to increase private sector credit, the probability of implementation and possible drawbacks of implementation of these proposals.

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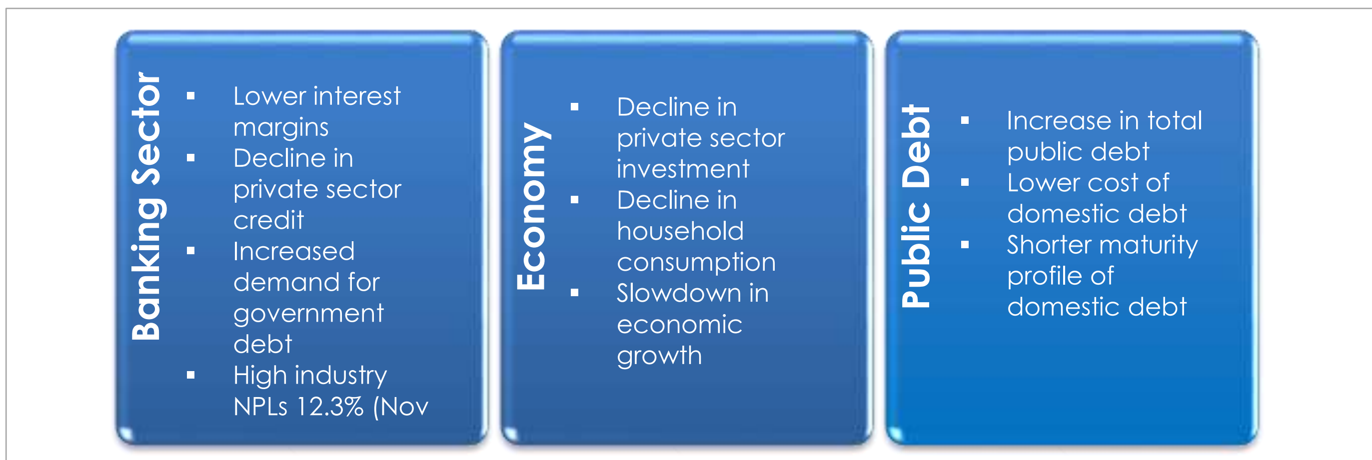
Interest rate caps' far reaching impact on the financial sector

- In our 1st topical note Kenya Interest Rate Caps "End of an error?" we analysed the impact of interest rate caps on three critical areas of the country's financial system; the banking sector, public debt and the overall performance of the economy (Fig.1).

Fig.1: Impact of interest rate caps on banking, public debt and the overall performance of the economy



Source: Sterling Capital Research

Removal of interest rate floors on deposits will increase interest margins almost immediately

- **Interest margin will increase** - Banks responded to the removal of floors on deposit rates by revising their deposit rates downwards and this will have an almost immediate positive impact on interest margins (Fig.2).
- **Historical Analysis** - It is clear that interest margins declined significantly after the introduction of interest rate caps in September 2016 a direct result of an increase in deposit rates.
- Our analysis indicates average industry interest margins of 9.9%, 9.2% and 9.5% for the years 2014, 2015 and 2016 respectively, compared to 6.1% and 5.2% for 2017 and 2018 respectively.
- This suggests that **deposit rates and interest rate margin are inversely correlated and for this reason we conclude that interest rate margins will increase following the removal of interest rate floors on deposits.**

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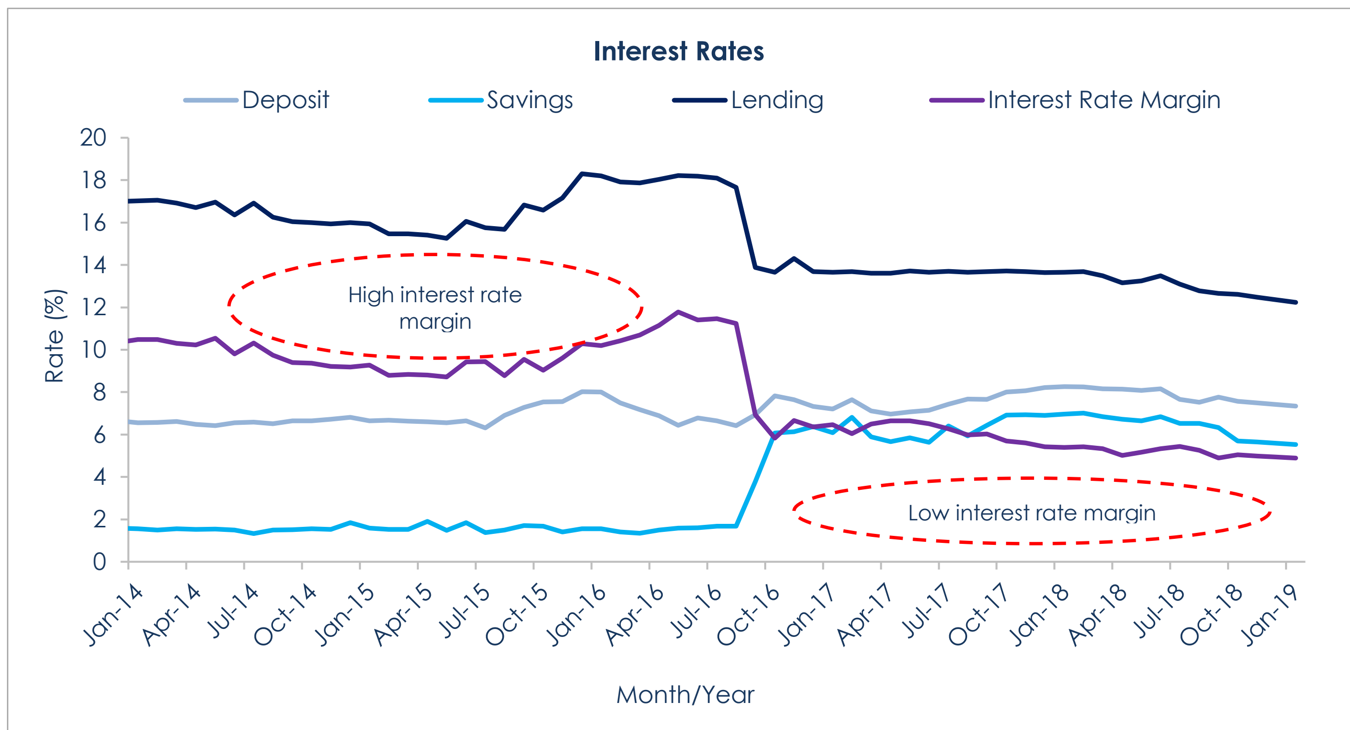
Fig.2: Interest margin declined significantly after the introduction of interest rate caps in September 2016



Source: CBK & Sterling Capital Research

Banks profitability will head north on improved margins, but concerns remain on asset quality

> Removal of interest rate caps will have a significantly lower impact on banking sector profitability compared to the removal of caps on lending rates.

- We further attempt to determine the impact of the removal of interest rate floors on overall bank profitability using a statistical theoretical framework known as the **Pearson's Correlation Coefficient (PCC).**
- The PCC measures the extent to which two variables are related, in this case lending and deposit rates, lending and interest rate margin, deposit and interest rate margin, interest margin and profitability, deposit rate and profitability as well as lending rate and profitability.
- PCC has a value between +1 (positive relationship) and −1 (Negative relationship).
- From our PCC (Table.1), we notice that **deposit and lending rates have a weak positive correlation/relationship (0.38)** meaning that in most instances they move in the same direction.
- This is true as banks look to maintain a certain margin to remain profitable.
- **Lending rate and interest rate margin have a strong positive correlation (0.74) whereas deposit rate and interest margin have a weak negative correlation (-0.34).**
- This suggests that the lending rate has a bigger impact on the interest margin than the deposit rate.
- In table B, we see that **interest rate margin and profitability have an extremely weak positive relationship (0.04).**

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- **We therefore expect the removal of interest rate floors on deposits to have a smaller impact on banking sector profitability than the removal of interest rate caps on lending (even if deposit floors were not removed in the first place).**
- We however note that the marginal impact of removal of interest floors on overall banking sector profitability is also attributable to slower rate of loan book growth with banks increasing their investment in government securities.

Table.1: Pearson's Correlation Coefficient suggests that higher lending rates are key to banking sector profitability

Table A	Deposit	Lending	Interest Rate Margin
Deposit	1		
Lending	0.38	1	
Interest Rate Margin	-0.34	0.74	1

Table B	Interest Rate Margin	Profit Before Tax
Interest Rate Margin	1	
PBT	0.04	1

Source: Sterling Capital Research

Removal of floors on customer deposits won't change the "new banking business"

Digitization drive, focus on NFI and high appetite for government debt will continue in the near and medium term

- We also look to answer the question on whether the removal of floors on deposit rates will alter what we have become accustomed to as the new banking business; **increased focus on Non-Funded Income (NFI), cost management, drive towards technology based service provision and investment in government securities.**
- **The answer is no we do not see a shift in focus from the current banking business model in the near term until further changes are made to the lending rate capping law.**
- In addition, poor asset quality, high private sector credit risk, high domestic debt demand means that banks will continue investing in domestic debt securities.

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Tier 1 banks benefitting most from the removal of interest rate floors on customer deposits

Tier 1 banks the biggest beneficiary of the removal of interest rate floors because of their ability to mobilize customer deposits.

Lending rate capping law prevents Tier 2 and Tier 3 banks from increasing their lending rates to compensate for higher credit risk.

- **Tier 1 banks will benefit most from removal of floors as they are in a better position to mobilize cheaper customer deposits than Tier 2 or Tier 3 banks.**
- Bank-specific factors play a significant role in the determination of interest rate spreads.
- These include bank size, credit risk as measured by non-performing loans to total loans ratio, return on average assets and operating costs, all of which positively influence interest rate spreads.
- On the other hand, higher bank liquidity ratio has a negative effect on the spreads. On average, big banks have higher spreads compared to small banks.
- The impact of macroeconomic factors such as real economic growth is insignificant.
- **Risk Aversion**: A bank with higher risk aversion should set a higher interest margin to remain profitable. The degree of bank risk aversion follows the approach used by McShane and Sharpe (1985) and is approximated by the following ratio: **Risk Aversion = Equity/ Total Assets**
- We observe that Tier 2 and 3 banks should ideally have the highest lending rates and lowest deposit rates to maintain a high interest margin and therefore remain profitable (Table.2).
- However, this is not the case as the existing interest rate capping law restricts them from this behavior while they need to offer a premium deposit rate to attract customer deposits in the face of perceived solvency risk (This is especially the case following capital flight to the Tier 1 banks after the collapse of Imperial, Chase and Dubai Banks).
- Nonetheless, small banks have to maintain their overall level of profits and they can do this through the 'search for yield' and increase their risk appetite hence lowering the provisioning, which in turn may endanger financial stability.
- They also “soften” their credit assessment standards thus lowering their overall loan portfolio quality, which in the medium term leads to higher credit losses.
- A survey conducted by KBA in late 2016, shows that 39% of MSMEs loans were provided by the small banks. (Source: CBK, Summary of the study on Interest rate caps)

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Table.2: Tier 2 and Tier 3 banks have higher risk aversion rates and would ideally lend at higher rates

Bank Size	Equity - Capital & Reserves (KES. Mn)	Total Net Assets (KES. Mn)	Risk Aversion
Tier I (Large)	414,894	2,640,684	15.7%
Tier 2 (Medium)	171,527	1,052,969	16.3%
Tier 3 (Small)	57,768	309,088	18.7%
Total	**644,188**	**4,002,741**	16.1%

Source: CBK Annual report 2017 & Sterling Capital

- This increase in the cost of funding and a declining interest margin will have a negative impact on overall profitability with the smaller banks holding a smaller share of the returns from investment in the banking sectors (Table.3).

Table.3: Tier 2 and Tier 3 banks have higher risk aversion rates and would ideally lend at higher rates

Peer Group	Weighted Market Share	No. of Institutions	Total Net Assets (KES. Mn)	Total Deposits (KES. Mn)	Deposits Market Share	Capital and Reserves (KES. Mn)
Large	66.0%	8	2,640,684	2,019,840	66.7%	414,894
Medium	26.1%	11	1,052,969	787,147	26.0%	171,527
Small	7.9%	21	309,088	219,438	7.3%	57,768
Total *	100%	40	4,002,741	3,026,425	100%	644,188

* Charterhouse Bank under Statutory Management and Imperial Bank & Chase Bank under Receivership have been excluded

Source: CBK Financial Sector Stability Report 2017terling

Removal of floors unlikely to increase private sector credit

- We do not expect the removal of the removal of the floor on interest rates on deposits to have a significant impact on private sector credit for the following reasons:

Poor asset quality makes the removal of interest rate floors irrelevant as private sector credit will still remain low.

- **Credit risk still remains high** - Data provided by the CBK shows a deterioration of asset quality since the introduction of interest rate caps thus explaining the low banks' appetite for private sector lending (Fig.3).

  Declining asset quality also attributable a prolonged electioneering period and adverse weather conditions.

  During the same period we see a general increase in credit to the government.

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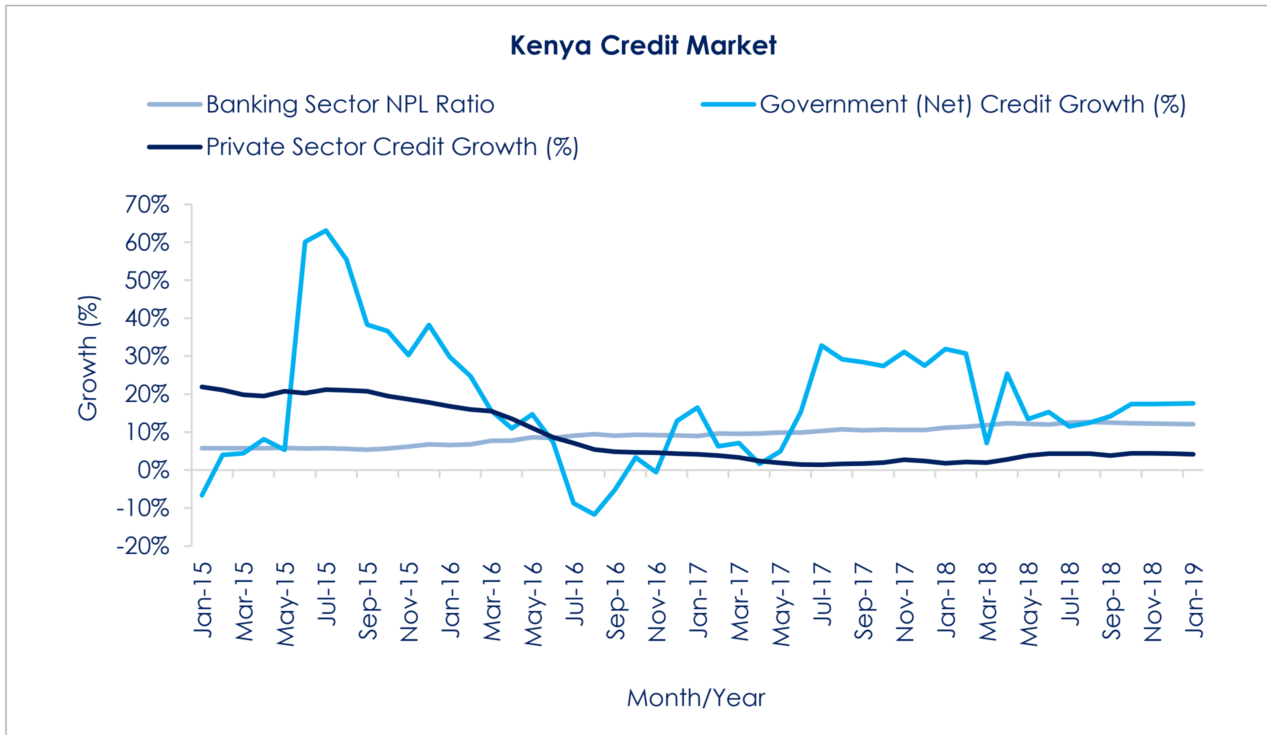
Fig.3: Private sector credit has shrunk and Asset quality has deteriorated since the introduction of interest rate caps in 2016



Source: CBK

Government capital needs remain high and will continue to fuel domestic debt market growth.

- **Government appetite for debt remains high** - The cost of domestic debt declined significantly following the introduction of interest rate caps (Fig.3). The government has been a big beneficiary with of the low cost of capital and has tapped into the domestic debt market to fund its fiscal deficit.

  In line with increased domestic borrowing, banks have opted to purchase government securities with yields they perceive more attractive on account of the comparatively lower credit risk than private sector lending.

  Data provided by the CBK shows that credit risk has remained high since the introduction of interest rate caps thus reducing banks' appetite for private sector lending.

- **Banks had already taken steps to reduce their interest expense** - Banks took steps to reduce their credit expense once interest rate floors were introduced.

  Amongst these steps were a reclassification of interest earning accounts that did not new minimum into non-interest bearing transactional accounts.

  In addition banks especially top tier banks took the deliberate action of looking for current as opposed to savings and fixed deposit accounts with some rejecting expensive interest earning accounts altogether.

  This means that the removal interest rate floors is largely insignificant as banks are already benefiting from counter actions taken earlier.

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- **Protectionism and government intervention counterproductive and leads to economic inefficiencies as observed in the case of the Kenya financial sector.** Market forces of demand and supply should be the basis of the basis of private sector credit.

  The share of banking sector assets to GDP was 58.3% as of end of 2017 and the poor performance of this sector will have an adverse effect on the overall performance of the economy.

Bill to amend the interest rate cap law introduced to parliament

Legislator's proposal if implemented would increase private sector credit and increase the cost of domestic debt.

- In January 2019, a member of parliament affiliated to the ruling party proposed to introduce an amendment to the existing law that regulates lending rates.
- The move he said was to "…discourage government borrowing from the domestic market, drive private sector credit growth and spur fresh economic activity and growth."
- His proposals include:
  1) Maintaining the lending cap at 4% above the CBR for low risk clients.
  2) Introduction of a risk negotiation window of up to 6% above the lending rate for SMEs and unsecured individual customers to negotiate pricing based on their risk profile and on a willing buyer, willing seller basis.
- We believe that the implementation of the proposal would increase private sector lending for the following reasons:
  1) A lending rate of 19% is well above the average lending rates prior to the introduction of the interest rate caps in September 2016 (Table.4).
  2) It is also significantly higher (9.2%) than the current risk free rate for a one year (364 day) government security (Table.4).

Table.4: Implementation of proposed Bill will increase lending margin and private sector credit

Average Rate	2014	2015	Jan - Aug 2016	2017	2018	2019*	?
Lending	16.5%	16.2%	18%	13.7%	13.1%	12.3%**	19%
364 day T-Bill	10.4%	12.7%	12.1%	10.9%	10.4%	9.8%	10%
Risk-free premium	6.1%	3.5%	5.9%	2.8%	2.7%	2.5%	9%

Source: CBK & Sterling Capital Research

* Year to date
** Estimate

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Proposals unlikely to be implemented on account of lack of goodwill from government and legislators both of whom have concerns over the high borrowing costs.

- Implementation of this proposal would require a majority vote by members of parliament in order to amend the Banking Act.
- We are not convinced that there is goodwill from both parliament and the government to support the proposal and give it a low to medium probability of implementation.
- For the government, implementation of the proposal will mean an increase in the cost of domestic debt at a time that it is looking to meet a growing fiscal deficit.
- It will also mean higher cost of private sector credit, a problem legislators were trying to solve in the first place through the introduction of interest rate caps.
- We also foresee implementation challenges specifically how banks will determine the risk level of different customers.
- Another challenge will also be how to ensure that interest rates remain "reasonable" or commensurate to the credit risk level of the customer.
- Amendment of existing laws often takes a period of about 3-4 months from the date of the 1st reading to commencement of the Act as law.
- If the bill is passed we would expect the Act to come into effect in the second half of 2019.

What options exist for the regulator and what is the probability of implementation?

- We look at probable courses of action for the regulator in its bid to increase private sector credit and the probability of implementation (Table.4).

Fig.3: Asset quality has deteriorated significantly in recent years, credit risk remains high

	Proposal	Description	Probability of implementation
1.	Use of Data Analytics	▪ Banks to use data analytics to group borrowers by risk level in order to determine credit pricing. ▪ Implement policy to ensure that SMEs and retail customers share correct information on a shared platform before they can apply for any loans from commercial banks. ▪ **Drawbacks** - Integrity of credit pricing data and concerns over data security.	
2.	Risk Based Loan-Pricing	▪ Banks to implement a loan pricing model that takes into consideration all historical data and risk associated with a borrower in determining credit risk and loan pricing. ▪ Increased transparency within the lending environment and efficiency in credit access. ▪ Loan pricing model would need to be standardized in order to ensure accurate loan pricing and minimum differences between banks.	

Source: Sterling Capital Research

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	Possible Scenarios	Description	Probability
3.	Do Nothing	▪ Maintain the interest rate caps on lending with floors on deposit rates removed. ▪ **Drawbacks** - Negative impact on asset quality although gradual improvement is expected. ▪ Private sector "crowding out" with low private sector growth expected to persist.	
4.	Reduction of mandatory reserves	▪ CBK to reduce minimum Cash Reserve Requirements from 5.25% to increase the amount of money available for lending to SMEs and retail customers. ▪ **Drawbacks** - Negative impact on asset quality although gradual improvement is expected ▪ Unlikely to translate to significant credit growth as banks likely to lend to low credit risk and possibly direct additional capital to government debt. ▪ Possibility of inflationary risk.	
5.	Maintenance of minimum loan portfolio	▪ Banks to lend a set percentage of their loan portfolio to SMEs in order to improve private sector credit access. ▪ **Drawbacks** - Could compromise asset quality as banks attempt to meet regulatory limits. ▪ Legality of proposal could be challenged. ▪ Operationalization of this model would be a challenge and possibly counter active as banks will still focus on SMEs they consider credit worthy or could introduce collateral based lending thus locking out other SMEs. ▪ Banks have different operating and business models with some steering away from SME businesses.	
6.	Treasury Guarantee	▪ National Treasury sets up a Credit Guarantee Scheme to cover commercial bank loans to small and medium size enterprises (SMEs). ▪ A similar scheme was introduced in Sri Lanka in 2016 (funded by Treasury Bond Issue), which guarantees 75% of the principal amount given that an SME defaults. ▪ Aggregate banking sector gross loans as at September 2018 stood at KES.2.6Tn. 75% of this amount would total to KES.2.0Tn, approximately 39% and for this reason it would be unaffordable.	
7.	Removal of Interest rate caps.	▪ Complete repeal of the law capping interest rates. ▪ **Drawbacks** - Concerns on the negative impact on cost of credit. ▪ CBK intervention is necessary to ensure that lending rates remain reasonable.	

Source: Sterling Capital Research

Probability	Indicator
Very Likely	
Moderate	
Unlikely	

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