

Interest Rate Spread in Kenya: Results of a Survey of Commercial Banks

Dulacha Barako

Curtin University of Technology

Abdinasir Ali

Central Bank of Kenya

Abstract

This paper examines interest rate spread in Kenya and seeks to address Eastern African region concerns on this subject by drawing on one country's experience. This is a qualitative study that examines determinants of interest rate spread based on opinion surveys of staff from commercial banks in Kenya. Results of the data analysis indicate that the two most significant predictors of interest rate spread are provision for bad debts and administrative costs. Banks suggest various remedies for reducing interest rate spread, particularly an overhaul of the judicial review process to address cases relating to bad debts and the establishment of Credit Reference Bureaus. A number of policy recommendations are discussed.

Introduction and Motivation

The primary objective of this paper is to examine the nature and impact of interest rate spread in Kenya. Interest rate spread refers to the difference between interest charged on loans and interest paid for deposits by financial institutions. Financial institutions, as intermediaries between depositors (investors) and borrowers, play a pivotal role in the economic development of any country. The financial sector's intermediation role in allocation of resources is greatly influenced by deposit-lending rate spread (Crowley, 2007). This paper examines the causes of interest rate spread, which is of particular importance in any economy as it impacts negatively on economic growth (Bernanke, 1990; Wagacha, 2000) through its potential to increase the cost of borrowing within an economy and, as discussed later, is linked to the limiting of available lending capacity of banks.

Ngugi (2001) has documented historical perspectives of interest rate spread in Kenya in four phases. Phase I refers to the period prior to 1974 when interest remained unchanged through set interest rate limits for savings and deposits. Phase II (1974-1979) refers to the period when interest rates were revised upwards in response

to the inflationary pressures created by the 1973 oil crisis. Phase III (1980-1990) was a period associated with several interest rates reviews and Phase IV (1991-1999) was a period during which interest rates were liberalised by being linked to market demand. According to Ngugi (2001), the post-liberalisation era (after 1991) is associated with financial reforms where interest rate determination was based largely on market forces.

While the interest rate spread during the pre-liberalisation eras was controlled, the post-liberalisation era can be described as characterised by a wide interest rate spread regime; a perception supported by the evidence from this research. However, in spite of concerns over high lending rates and low interest paid on deposits (Wagacha, 2000), there is a dearth of empirical studies on interest rate spread in Kenya. It is against this background that the paper seeks to explain interest rate spread determination based on views of Kenyan commercial bankers.

Prior research studies have typically concentrated on the causes of interest rate spread in western developed economies. In the African context, research on interest rate spread can be described as very limited (Crowley, 2007). This study, therefore, attempts to begin to fill this gap by seeking views of Kenyan commercial banks on causes of and remedies for the prevailing wide interest rate spread. In addition, given its qualitative approach, this study makes an important contribution as an extension of the prior quantitative (secondary data) interest rate spread empirical studies. Thus, from an African perspective, the results of this study will add to the handful of research initiatives that have investigated interest rate spread by specifically focusing on one developing African country: Kenya.

The remainder of the paper is organised as follows. The next section presents a literature review of interest rate spread. Section three provides research design and methodology. Section four presents results of the study. The final section presents a summary and conclusions as well as policy recommendations.

Literature Review

As discussed earlier, there has been a limited amount of research into interest rate spread, especially in the developing economies. This section documents prior research studies and findings on interest rate spread.

Ngugi (2001) documents one of the pioneer Kenyan studies that empirically examined interest rate spread and associated factors. Data covering an eight year period (July 1991 - December 1999) was collected for the study from the Central Bank of Kenya. Variables on which data was obtained were: treasury bill rates, commercial bank loans and deposits, lending rates, deposit rates, inter-bank rates, provisions for bad loans, liquidity and cash ratios. Ngugi (2001) concluded, from this research, that wide interest rate spread in Kenya is associated with inefficiency in the intermediation role by commercial banks and can be particularly attributed to a huge non-performing investment portfolio and a weak legal system.

Wagacha (2000) produced a policy discussion paper on interest rate spread in Kenya. This paper details policy implications of the proposed legislative amendments to the Central Bank of Kenya (CAP 491). The amendment was intended to empower the Central Bank of Kenya to regulate lending and deposit rates. Wagacha (2000: 8) suggested that legislation of interest rates would 'substitute past distortions with new ones whose effects are indeterminate'. Some of the policy priorities recommended in the paper include lowering government borrowing, enhancing banking sector efficiency, resolving non-performing loan (NPL) problems in the banking sector, and promoting higher rates of economic growth. However, the proposed legislative amendments to the Central Bank of Kenya Act (Cap 491) did not eventuate and interest rates therefore remain liberalised.

Beyond Kenya, Gbenedio *et al.* (1999) examined the relationship between money supply variability and interest rate spread in Nigeria. The data for their study comprised: quarterly money supply growth rate (M_2), the discount rate, and first class advances rate for the period covering 1985 to 1992. The discount rate is the rate charged by the Central Bank of Nigeria as the lender of last resort, whereas first class advances rate refers to the rate of interest charged on highest quality loans. The data for the study was obtained from the International Financial Statistics Database. The interest rate spread was defined as the difference between first class advances rate and the discount rate. They applied co-integration techniques and the results indicated that there is no long-run equilibrium relationship between money supply variability and interest rate spread.

Similarly, in a developing country context, Jayaraman and Sharma (2003) examined interest rate spread in Fiji. They investigated a number of factors drawn from past studies as potential predictors of interest rate spread. Results indicate that interest rate spread in the Fijian financial sector is influenced by a number of factors, namely after tax profit margin, administrative costs and loan loss provisioning expenses. The study showed that after tax profit margin, as an item, contributes in a major way to the size of the industry interest spread. Its share of the size of the spread increased from 49 percent in 1999 to around 76 percent in 2002. While administrative cost and loan loss provisioning expenses are also important causes of interest rate spread, the size of their contribution over the period under review has been relatively stable. The study also found that industry income from non-interest sources was an important consideration, but it was not a significant factor for the period 1999 to 2002.

In a more recent study, Crowley (2007) examined interest rate spread in a number of English-speaking African countries. The analysis was based on time series data from 1997-2004, applying an unbalanced regression model due to missing data for some variables. Several factors were considered: time, competition, size of the economy, size of banking sector, operating costs, loan quality, capitalization, inflation, changes in inflation, broad money supply, interest rates, exchange rate and external sectors, public sector involvement, foreign involvement, governance and required reserves.

Wide interest rate spread was found to be associated with poor governance criteria, weak regulatory framework, NPLs and high required reserves. In relation to governance, the authors employed indicators such as the quality of the legal framework, the quality of the regulatory framework, and an index of corruption. All of these variables, unsurprisingly, had negative coefficients (that is, better governance practices were associated with lower interest rate spread). NPLs (that is, loans on which repayments were delayed or non-existent) were found to have a positive coefficient, as would be expected, but they were not found to be significant in multiple variable regressions. Higher required reserve ratios result in higher interest rate spread, particularly if the required reserves are unremunerated as banks would have to cover the increased costs of holding reserves which could not earn income through being invested. Citing Ethiopia, Crowley (2007) recently argued that the high interest rate spread might not necessarily be a major problem as it appeared to enhance financial deepening by catering for banking risks in countries with similar economic foundations.

Similarly, from a regional perspective, Randall (1999) examined interest rate spread in the Eastern Caribbean. Data for the study was collected from the Eastern Caribbean Central Bank from 1991 to 1996. Results of the two stage least squares (2-SLS) analysis suggest that wide interest rate spread in the Eastern Caribbean region is associated with high operating costs of financial institutions. Randall (1999) also utilised an alternative approach, which sought to test the relevance of some policy variables, expecting *a priori* to have an effect on the spread. For this he employed a single equation model with average spread as the dependent variable. Results showed that all five independent variables (provision for doubtful debts, growth rate in gross domestic product [GDP], savings deposits as a percentage of total deposits, share of commercial bank public sector loans and operating expenses as a percentage of average total assets) explained the variation in the spread to the extent of 65 percent. The shares of each factor were then estimated on the basis of the estimated equation. While the share of increase in loan loss provisioning was negative (-0.94%), the share of savings deposits and share of government loans were positive (12.03% and 0.45% respectively). The contribution of operating costs to interest rate spread was the highest (23.61%). The GDP growth rate's share was a negative one (-1.21%).

Barajas, Steiner and Salazar (1999) investigated interest rate spread in the Columbian banking sector. The study examined spread for two sets of data, namely pre-liberalisation (1974-1988) and post-liberalisation (1991-1996). Their results showed that during the period 1974–1996 the average interest rate spread among the state-owned banks was 24.6 percent. The wide interest rate spread was explained, according to Barajas *et al.* (1999), by the three variables: financial taxation (28.07%), operating costs (36.69%) and loan quality (35.24%).

A further study was conducted by Chirwa and Mlachila (2004) on financial sector reforms and interest rate spread in the commercial banking system in Malawi. As in the case of many other sub-Saharan African countries, financial liberalization started in

Malawi in the mid-1980s, generally within the context of structural adjustment programs. The financial reform program in Malawi commenced in 1989 when both the Reserve Bank Act and the Banking Act were revised with the easing of entry requirements into the banking system, and indirect monetary policy instruments were subsequently introduced in 1990 (Chirwa & Mlachila, 2004). The adoption of a floating exchange rate in 1994 marked the end of major policy reforms in the Malawian financial sector. The researchers observed that wide interest rate spread is associated with reserve requirements and loan loss provisions. Analysis shows that interest rate spread increased significantly following liberalisation, and regression results suggest that the observed high spread can be attributed to high monopoly power, high reserve requirements, high central bank discount rates and high inflation. Similarly, Brock and Rojas-Suarez (2000) noted that interest rate spread is a function of high operating costs and high NPLs.

It is against this background that the current research was developed. The principal research source was the commercial banking sector of Kenya, whose participation and cooperation is greatly appreciated.

Research Design and Methodology

This study primarily employs a survey research method. The main survey instrument was the interest rate spread questionnaire sent to commercial banks (Appendix A). In designing the questionnaire, various questions were generated to uncover such elements as lending interest rates and deposit interest rates to enable the authors to determine institutional interest rate spread. In addition, various factors (detailed in the literature review) applied in previous studies are listed for bank credit officers to rank each factor on a scale of 1 (not significant) to 5 (most significant). These factors include: loan loss provisions (Randall, 1999; Jayaraman & Sharma, 2003; Chirwa & Mlachila, 2004); statutory reserve requirements (Crowley, 2007); operating costs (Barajas *et al.*, 1999; Jayaraman & Sharma, 2003); Treasury bill rates (Ngugi, 2001); and deposit rates (Wagacha, 2000; Ngugi, 2001). Credit officers from each bank were requested to complete the questionnaire as they are closely involved with interest rate determination. Ranking of factors was based on the bank officers' views as to what factors most significantly influence interest rate spread. Questions were included to capture bank officers' views on other factors relevant to their institutions that influence interest rate spread as well as possible remedial measure to reduce what is perceived to be a wide interest rate spread.

In addition, a follow-up workshop for commercial banks was conducted by the Central Bank of Kenya with officers drawn from Research and Banking Supervision Departments. This was an open forum where bank officers were able to share their experiences as well as discuss causes of and remedies for wide interest rate spread. All financial institutions in Kenya constituted the sample population of the survey.

Data from the questionnaire was analysed using descriptive statistics, such as means and percentages. The comparative simplicity of the reporting on the data analysis was essential to enable the results to be used widely, especially for the workshop. Participants were drawn from a variety of backgrounds to facilitate broad discussion on causes of wide interest rate spread and identification of potential remedies.

Results

This section of the paper discusses results of the study based on responses to the questionnaire as well as issues arising from the interest rate spread workshop with bank officers.

Table 1: Interest Rate Spread in Kenya

	Lending (%)	Deposit (%)	Spread (%)
Highest	18	9.78	13
Lowest	10	1.92	6
Average	13.95	5.44	8.5

Source: Original table.

Table 1 shows interest rate spread based on banks' responses. The highest lending rate is 18 percent and the lowest is ten percent, whereas the highest and lowest deposit rates are around 9.8 percent and two percent respectively. Interest rate spread is relatively high, averaging 8.5 percent, with highest spread reported as 13 percent and lowest as six percent.

Table 2: Perception of Interest Rate Spread in Kenya Among Commercial Bankers

<i>Banks</i>	<i>Frequency</i>	<i>Percentage</i>
High	22	78
Low	3	11
Moderate	3	11
Total	28	100

Source: Original table.

Table 2 summarises views of officers from Kenyan commercial banks regarding their perception of the interest rate spread in Kenya as high or low. An overwhelming 78 percent of the respondents indicated that the interest rate spread in Kenya is high and 11 percent perceived it as either moderate or low. It is also important to note that 62 percent (28 banks) of the population completed the questionnaire and returned it in the time specified. Given such a high response rate, findings of this study reflect a significant body of opinion relating to the interest rate spread within the Kenyan banking sector.

Table 3: Views of Commercial Bank Officers on Interest Rate Spread

<i>High</i>
Bank administration costs and other hidden costs drive the spread high
The spread is relatively high compared to international market
A spread of say 3% would be more feasible and would spur economic growth
Overall spreads are high
Could be reduced by reducing CRR
Due to high cost of business and large portfolio of NPLs
Spread is high, but when you consider risks and costs, it is acceptable
High if you look at interest charged on loans and interest paid on deposit
<i>Moderate</i>
Given the high default risk, and cost of doing business in Kenya, the spread is moderate
We believe interest rate is a fair reflection of conducting business in Kenya
Given the high costs of deposits, the lending rate is reasonable
<i>Low</i>
The spread does not reflect the credit risk and re-pricing risk premium and does not reflect lower earnings on statutory liquid assets
Low in relation to costs of lending, volume of business and return on assets/investments
Spread is low compared to previous years

Source: Original table.

Table 3 summarise diverse views of various categories of respondents. Although expressed differently, it is evident that the cost of doing business, large NPLs and cash ratio requirements feature as key determinants of interest rate spread.

Table 4 presents ranking of factors by respondents from the commercial banks. Rank is based on mean weight of each factor. This is derived by adding all banks' weight for each factor divided by the total number of responding banks. Factors are ranked starting with those identified as most significant by bank officers. Five significant determinants of interest rate spread are provisions for bad debts, administrative costs, Treasury bill rates, profit margin and excess liquidity.

Conclusion and Policy Recommendations

The primary purpose of this study is to examine determinants of interest rate spread from a Kenyan perspective based on views of commercial banks. It is designed to address regional concerns on this subject by drawing on a specific country's experiences. The qualitative nature of this study is an extension of interest rate spread research, which is often treated as a secondary issue in the literature rather than being the focus of a practical research study. The workshop between the regulator (the Central Bank of Kenya) and commercial banks enriched the scope and findings in this particular study.

Table 4: Ranking of Determinants

<i>Rank</i>	<i>Determinant</i>	<i>Mean Score</i>
1	Provision for bad debts	4.0
1	Administrative costs	4.0
2	Treasury bill rates	3.9
3	Profit margins	3.6
4	Excess liquidity	3.4
5	Inflation rate	3.3
5	Deposits levels	3.3
5	Ratio of non-interest bearing deposit to total operational asset	3.3
6	Inter-bank rate	3.2
6	Cash ratio requirements	3.2
7	Leverage	3.0
8	Real interest rate	2.9
9	Wage rate	2.8
9	Deposit inelasticity	2.8
9	Ratio of service revenues to total operational revenues	2.8
10	Required reserves	2.7
11	Other reserve requirements	2.6
12	Lack of competition	2.5
13	Tax payments	2.4
13	Real output	2.4

Source: Original table.

Results of the study indicate that key predictors of interest rate spread in the Kenyan context are: a relatively high NPL portfolio (at the time of the study, this stood at Kenya shillings 58.3 billion [Central Bank of Kenya, 2008]); and high administrative costs. This holds for both questionnaire responses as well as open forum discussions with commercial bank officers. Overall (78%), banks suggest that interest rate spread is high, with an average interest rate spread at 8.5 percent based on questionnaire responses.

In order to address the prevailing wide interest rate spread, a number of policy options are worth pursuing. Most particularly are the judicial review and the establishment of Credit Reference Bureaus (CRBs). The Central Bank of Kenya, in collaboration with relevant government agencies such as the Attorney General Chambers and the Chief Justice, should champion a case for the establishment of special courts to expedite all cases of NPLs. It appears, the sector's burden of huge NPLs is passed on to borrowers in the form of high lending rates.

Establishment of CRBs featured strongly as an essential remedial measure both in the questionnaire and during the follow-up workshop with bank officers. Lack of information sharing by banks is considered one of the key contributors to the high

incidence of NPLs in the banking sector. Creation of CRBs will enhance banks' credit risk evaluation of potential borrowers. The information asymmetry prevalent in the Kenyan banking system contributes to high financial intermediation costs that manifest as high risk premium. Thus, the Central Bank of Kenya should take the lead in facilitating the creation of enabling legal and regulatory frameworks for the establishment of CRBs.

This research study is not without limitations. One of the main ones, inherent in descriptive statistics, is the basis of data analysis. However, the qualitative aspect of this study is a significant divergence and important contribution to interest rate spread empirical research. Given that this is a country-specific study, future research on this subject should consider cross-countries and regional studies. Such a research initiative is consistent with the continued efforts to harmonise financial institutions and interest rate management in Eastern Africa.

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Appendix 1: Questionnaire

Dear Respondent,

SURVEY ON THE DETERMINANTS OF INTEREST RATE SPREADS IN KENYA

The main purpose of this survey is to examine determinants of interest rate spread from the perspective of commercial banks. For the purpose of this survey, interest rate spread is defined as the difference between interest rate charged on loans (i.e. commercial loan excluding penalty rates, staff loans and other preferential loan facilities) and interest rate paid on deposit. Findings of the survey will be useful in determining policy options to be explored with respect to interest rate spread.

Kindly complete the attached questionnaire. Should you require clarification on any aspect of the questionnaire please do not hesitate to contact **Dr. Barako on ext—**.

Results of the survey will be aggregated without any regard to institutional/individual identity. All information is treated with utmost confidentiality.

Your time and effort in completing this questionnaire is highly appreciated.

- 1) What is your institution's average interest rate charged on loans.....
- 2) What is your institution's average interest rate paid on deposit
- 3) What do you think of the interest spread in Kenya? High..... or Low.....
- 4) Briefly explain your response to (3) above
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5) The following factors are often cited as determinants of interest rate spread. Please rank on scale of **1 (not significant)** to **5 (most significant)** with respect to your institution. Please **tick only one box per factor**.

(a) Required reserves	[1]	[2]	[3]	[4]	[5]
(b) Other reserve requirements	[1]	[2]	[3]	[4]	[5]
(c) Profit margins	[1]	[2]	[3]	[4]	[5]
(d) Administrative costs	[1]	[2]	[3]	[4]	[5]
(e) Provisions for bad debts	[1]	[2]	[3]	[4]	[5]
(f) Tax payments	[1]	[2]	[3]	[4]	[5]
(g) Treasury bills rate	[1]	[2]	[3]	[4]	[5]
(h) Inter-bank rate	[1]	[2]	[3]	[4]	[5]
(i) Excess liquidity	[1]	[2]	[3]	[4]	[5]
(j) Cash ratio	[1]	[2]	[3]	[4]	[5]
(k) Deposits levels	[1]	[2]	[3]	[4]	[5]
(l) Real output	[1]	[2]	[3]	[4]	[5]
(m) Inflation rate	[1]	[2]	[3]	[4]	[5]
(n) Real interest rate	[1]	[2]	[3]	[4]	[5]
(o) Deposit inelasticity	[1]	[2]	[3]	[4]	[5]
(p) Wage rate	[1]	[2]	[3]	[4]	[5]
(q) Leverage	[1]	[2]	[3]	[4]	[5]
(r) Ratio of non-interest bearing deposit to total operational asset	[1]	[2]	[3]	[4]	[5]
(s) Ratio of service revenues to total operational revenues	[1]	[2]	[3]	[4]	[5]
(t) Lack of competition	[1]	[2]	[3]	[4]	[5]

6) State other factors not listed above but relevant to your institution

.....

7) Based on your experience, briefly state, what in your view is the best mechanism for reducing the interest rate spreads in Kenya

.....

8) The following table relates to the respondent's demographic attributes, please tick appropriately.

		Tick
Gender:	Male	
	Female	
Age:	Under 25	
	26-35	
	36-45	
	46-55	
	Over 55	
Banking experience:	<5 years	
	5-10 years	
	>10 years	
Education level attained:	Secondary	
	High School	
	Degree	
	Postgraduate	
Managerial level:	Lower	
	Middle	
	Upper	

9) Any other comments

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