BUSINESS RISKS AND INTEREST RATE SPREAD AMONG KENYAN COMMERCIAL BANKS

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ABSTRACT

This study aimed at establishing the relationship between business risks and interest rate spread of commercial banks in Kenya. It was anchored on a study "determinant of interest rate spread of commercial banks in Kenya". Though several variables were studied, this paper specifically concentrated on the effects of business risks on interest rate spread of commercial banks in Kenya. Correlation research approach was undertaken. Questionnaires were used to collect data which was analyzed using SPSS Version 19. After running different tests: reliability tests, factor analysis, descriptive tests, Pearson correlation, model of fitness and regression, the findings revealed that business risks have an influence on the interest rate spread of commercial banks in Kenya. The study recommended participation of all the stakeholders on review of existing policies on stability and soundness of the banking industry. Banks should also explore internally and industry driven strategies that mitigate against some of the bank-specific factors associated with higher spreads. Based on the research findings, it was concluded that business risks played significant role in explaining interest rate spread. It was therefore recommended to the government and policy makers to implement sustainable political and macroeconomic environment to boost investors' confidence. Commercial banks in Kenya should participate in the interbank market or use the repurchase agreement for government securities to reduce their liquidity risk as it was mentioned to be the greatest source of fear and hence uncertainty in setting high interest rate spread.

Key Words: *Interest rate spread, business risks, interest rate*

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The Strategic Journal of Business & Change Management. **ISSN** 2312-9492 (Online) 2414-8970 (Print). www.strategicjournals.com

INTRODUCTION

Business risk refers to the possibility of a commercial business making inadequate profits (or even losses) due to uncertainties. Business risk implies uncertainty in profits or danger of loss and the events that could pose a risk due to some unforeseen events in future, which causes business to fail.

Siddiqui (2012) estimated the interest rate spread in Pakistan based on individual bank specific factors and found out that credit risk, liquidity risk and bank equity are important, determinants of interest margins, but such spreads are not sensitive to economic growth.

Mannasoo (2012) investigates the role of the recent global financial crisis on interest spreads in Estonia. The approach follows works of Ho and Saunders (1981) in which the spread is decomposed into a pure spread and the remaining component that is explained by market structure, regulation and idiosyncratic bank factors. Credit risk was found to play a minimal role while higher bank liquidity was associated with lower interest margin.

Gambacorta (2004) studied factors explaining cross-sectional differences in bank interest rates of Italian. Results showed that interest rates on short term lending of liquid and well capitalized banks react less to monetary policy shocks because of their exposure to risks.

Ahokpossi (2013) using a sample of 456 banks in 41 SSA countries concluded that bank-specific factors such as credit risk, liquidity risk and bank equity are important, determinants of interest margins, but such spreads are not sensitive to economic growth. The results were consistent with those found by other studies (Ngugi, 2001; Beck, Cull, Fuchs, Getenga, Gatere, Randa & Trandafir, 2010) based on Kenya. Chirwa and Mlachila (2004) and Sidiqqui (2012) also found a positive impact of nonperforming loans ratio on interest spreads of commercial banks for Malawi and Pakistan, respectively due to their exposure to illiquidity risks.

Mwega (2012) in his study on regulatory reforms and their impact on the competiveness and efficiency of the banking sector of Kenya provided an evidence of profit persistence in Kenya's banking sector. However, the positive relationship can be countered along similar arguments given for bank size if one argues that as an efficiency measure of banks, a higher return on average assets should be associated with lower spreads.

Siddiqui (2012) find a positive effect of return on assets on interest spreads. On the other hand, liquidity availability at the bank level is negatively related with interest rate spreads. Banks that are highly liquid are associated with lower spreads as they do not have to incur extra costs of sourcing funds when faced with increased demand for credit.

Aboagye et al (2008) studied the response of net interest margin of banks to changes in factors that are bank-specific, banking industry specific and Ghanaian economy macroeconomic factors. They found that an increase in the following factors increases the net interest margin of banks: bank market power (or concentration), bank size, staff costs, administrative costs, extent to which a bank is risk averse and inflation.

Maudos and Guevara (2004) built on the work of Angbazo (1997) to explicitly incorporate operating costs in their theoretical model. Further, in their study on European banks, they used the Lerner Index, a more direct measure of market power than the concentration ratios used in previous studies. They found that the interest margin depends on competitive conditions, interest rate risk, credit risk, average operating costs, risk aversion of banks, as well as other variables not explicitly incorporated in the theoretical model e.g. opportunity cost of reserves, payment of implicit interest and the quality of management.

Study Objective

The objective of this paper was to determine whether business risks have any effect on the interest rate spread of commercial banks in Kenya.

METHODOLOGY

This study used a correlational research design to identify the relationship between business risks and the interest rate spread of commercial banks in Kenya. Lavrakas (2008) and Kothari (20004) describes a correlational research as a type of descriptive non-experimental research because it describes and assesses the magnitude and degree of an existing relationship between two or more continuous quantitative variables with interval or ratio types of measurements or discrete variables with ordinal or nominal type of measurements. This study used stratified random sampling and simple random sampling. The strata used were those of senior management, middle management and officers. A questionnaire was used to obtain qualitative data for analysis.

RESULTS AND DISCUSSION

Descriptive of Business Risks and Interest Rate Spread

The study sought the respondents' view on the effect of business risks on interest rate spread and the results were as illustrated below, the market segment to which a bank lends to determine the interest rate spread. Majority of the respondents 84% agreed with this statement with 11% strongly agreeing with it. 77% agreed with the statement that the global financial crisis influences the direction of interest rate spread and that fluctuations of exchange rates of major currencies affect interest rate spread while 15% in each case strongly agreed with the statements.

Election cycles in Kenya affect the interest rate spread and credit reference was used to assess the risk weight load on loan interest scored 72% and 70% respectively of respondents who agreed and 19% and 20% of the respondents who strongly agreed respectively. On the question whether the euro debt crisis had influenced interest rate spread in Kenya, 76% of the respondents strongly disagreed and 18% disagreed. The mean of the statements seeking the relationship between risks and interest rate spread showed that majority agreed at 63%, 14% strongly agreed, 4% were neutral, 6% disagreed while 13% strongly disagreed. This showed that interest rate spread can be explained by risks.

Siddiqui (2012) found a positive effect of return on assets on interest spreads. Ahokpossi (2013) using a sample of 456 banks in 41 SSA countries also stated how bank-specific factors such as credit risk, liquidity risk and bank equity are important determinants of interest margins. The results were consistent with those found by other studies such as Ngugi (1999) and Beck… et al (2010) based on Kenya. Chirwa and Mlachila (2004) and Sidiqqui (2012) also found a positive impact of nonperforming loans ratio on interest spreads among commercial banks for Malawi and Pakistan respectively due to their exposure to illiquidity risks.

Aboagye et al (2008) studied the response of net interest margin of banks to changes in factors that are bank-specific, banking industry specific and Ghanaian economy macroeconomic factors. They found that an increase in business risks increase interest rate spread. Maudos and Guevara (2004) built on the work of Angbazo (1997). They found that the interest margin depend on interest rate risk, credit risk, and risk aversion of banks.

Table 1: Descriptive Analysis of Business Risks and Interest Rate Spread

Key: 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree

Statements	1	2	3	4	5	Mean
The market segment to which a bank lends to determines the interest rate spread	0%	5%	0%	84%	11%	4.02
Global financial crisis influences the direction of interest rate spread	0%	5%	4%	77%	15%	4.02
Credit reference is used to assess the risk weight load on loan interest	0%	2%	8%	70%	20%	4.09
Fluctuations of exchange rates of major currencies affect interest rate spread	0%	4%	4%	77%	15%	4.03
Election cycles in Kenya affect the interest rate spread	3%	4%	3%	72%	19%	4.01
Average	**1%**	**4%**	**4%**	**76%**	**16%**	**4.03**

Secondary Data on Business risks

The study used secondary data sources to gather information relevant in reaching at the research objectives. Thesecondary data was collected from the CBK offices on their annual reports on the macro-economic indicators and Kenya National Bureau of Statistics (KNBS) offices. The study's data collection source was justified by the fact that data on non-performing Loans inall commercial banks were available in CBK's bank supervision report while the same worked hand in hand with Kenya National Bureau of Standards in making such statistics and estimation. The non-performing loans were also an indicator of business risks in banking industry. Table 2 and figure 1 below indicated that increase in business risks led to increase in interest rate spread. These results were in agreement with results of Nampewo (2013) who studied the determinants of the interest rate spread of the banking sector in Uganda using time series data for the period 1995 – 2010. Results showed that non-performing loans positively affected interest rate spread.

Table 2: Commercial Banks loan Advances and Non- Performing Loans

Year	Loans and Advances (in billions Kshs)	Non- performing Loans(in billion Kshs)
2003	315321	73.9
2004	382290	70.8
2005	338399	68.6
2006	396149	65.4
2007	518917	56.1
2008	555062	58.3
2009	668580	68.8
2010	786591	61.5
2011	1152011	58.3
2012	1296452	61.9
Average	640977.20	64.36

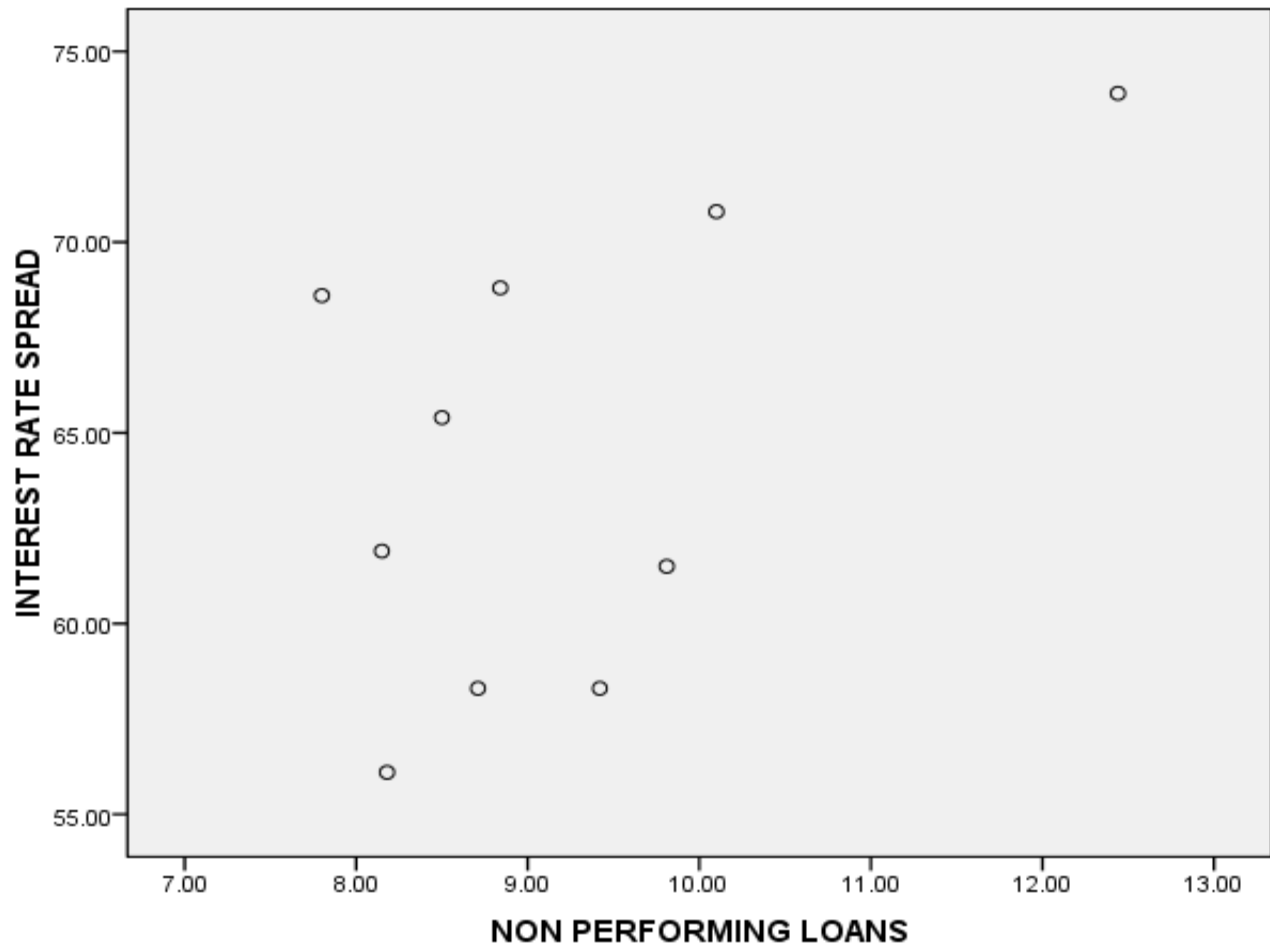Source CBK annual reports and annual supervision reports

Figure 1: Commercial Banks Non- Performing Loans and interest rate spread

Pearson Correlation for Business Risks on Interest Rate Spread

Correlation coefficient indicated the extent of inter-dependence between the two variables- business risks and IRS. Figure 2 showed that there is a strong positive linear correlation between interest rate spread and business risks. Table 3 showed the Pearson correlation coefficients between the independent variable business risks and the dependent variable interest rate spread. There is a significant positive correlation of 0.625. Corroborators of this view were Maudos and Guevara (2004) who built on the work of Angbazo (1997) and found that the interest margin depends on interest rate risk, credit risk, average operating costs and risk aversion of banks.
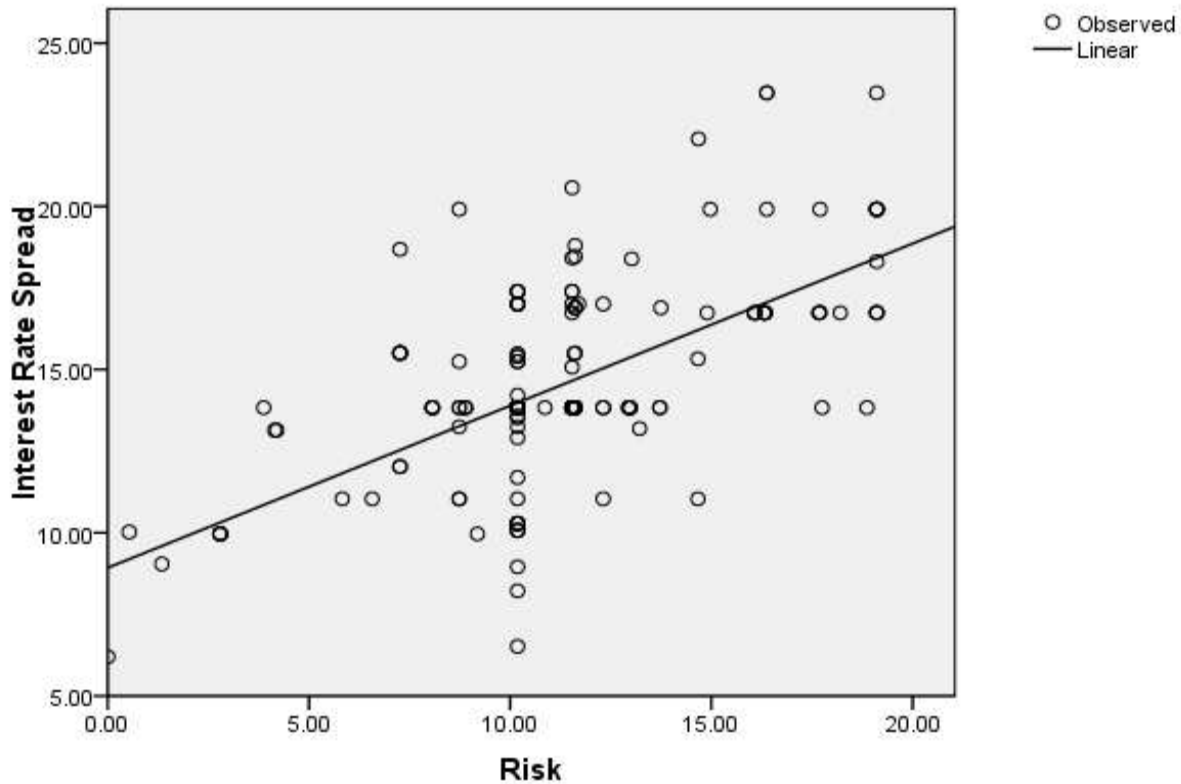
Figure 2: Business Risks and Interest Rate Spread-Scatter Diagram

Table 3: Pearson Correlation Coefficient on Business Risks

Variable	Coefficient Type	Interest Rate Spread	Risk
Interest Rate Spread	Pearson Correlation	1.000	0.625
	Sig. (2-tailed)	0.000	0.000
Business Risks	Pearson Correlation	0.625	1.000
	Sig. (2-tailed)	0.000	0.000

Regression Analysis on Business Risks and Interest Rate Spread

Regression analysis was carried out in order to determine whether independent variable business risks can be relied on in explaining the dependent variable IRS. The coefficients indicated that the correlation coefficient (R) between the independent variable and IRS was 0.625 which was a positive relationship. Table 4 showed coefficient of determination (R Square) of 0.391. This indicated that business risks could explain 39.1% of the variations or changes in the dependent variable - IRS. Table 5 showed a positive Beta coefficient of 0.497. This

meant that a unit change inbusiness risks brings about 0.497changes in interest rate spread among commercial banks in Kenya. Table 5 also showed a significant effect business risks on IRS since p- value was less than 0.05.

These results were consistent with (Ahokpossi 2013) who concluded that banks with high risk tend to borrow emergency funds at high costs and thus charge liquidity premium leading to higher spreads. There is a positive relationship between credit risk associated with non-performing loans ratio and interest rate spreads and uncertainties'. Banks are compelled to shift the risk premium associated with

non-performing loans to the borrowers. The results were consistent with those found by other studies such as (Ngugi, 1999; Beck et al 2010) based on Kenya. Chirwa and Mlachila (2004) and Sidiqqui (2012) who also found a positive impact of non-performing loans ratio on interest spreads among commercial banks for Malawi and Pakistan, respectively. These findings implied that business risks can be relied on in explaining IRS.

Table 4: Model Fitness- Business Risks and IRS

Variable	R	R Square	Std. Error of the Estimate
Coefficient	0.625	0.391	2.025

Table 5: Regression Analysis-Business Risks and IRS

Variable	B	Std. Error	T	Sig.
Constant	8.928	0.467	19.133	0.000
Business Risks	0.497	0.040	12.284	0.000

SUMMARY

The study sought to establish whether business risks can be used to explain changes in interest rate spread among commercial banks in Kenya. Majority of the respondents strongly agreed with the statements that business risks had influence on interest rate spread. Statistical findings revealed that business risks lead to changes in interest rate spread since the correlation coefficient was high and positive. Business risks could be depended on in explaining changes in interest rate spread among commercial banks in Kenya.

The findings implied that business risks play significant role in changing interest rate spread among commercial banks in Kenya.

RECOMMENDATION

Commercial banks in Kenya should participate in the interbank market or use the repurchase agreement for government securities to reduce their liquidity risk as it was mentioned to be the greatest source of fear and hence uncertainty in setting high interest rate spread.

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