INFLUENCE OF INTEREST RATES ON CONSTRUCTION INDUSTRY OUPUT IN KENYA

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Abstract

The focus of this paper is on the influence of interest rates on construction output. Construction output is a key indicator of the health of an economy yet lack of empirical evidence on the influence of monetary instruments, such as base lending rates has limited the governments' ability to manage construction output. Empirical evidence is needed to verify claims by industry players, in particular in the housing sector, that higher interest rates have not dampened construction output in Kenya. Further past empirical work is not conclusive on the direction that interest rate changes influence construction output, with studies suggesting both a positive and inverse relationship. This research aims to fill this gap in our knowledge on the influence that interest rates have on construction activity in Kenya. The aim of the research is to answer whether or not wholesale interest rates, such as the CBK base lending rate, can be used as an effective policy instrument to influence construction output in Kenya. Questionnaires were administered for primary data. The study identified two time series, CBK base lending rates and annual construction output (KNBS data) and a number of regressions were run using first differences to observe whether a change in the base lending rates alone had a significant influence on construction output lagged by 1, 2, 3, or 4 years. Findings suggest no significant relationship between changes in rates and the annual change in construction output, regardless of the number of years lagged. These findings are a departure from conventional wisdom that stimulating construction demand via monetary policies is the sure way for enhancing economic growth. This is a valuable finding that supports the view that government policy needs to focus on stimulating construction demand, using real projects rather than monetary policies, such as interest rate manipulation.

Key words: Central Bank Rate, construction output, contractors, developers and construction industry, consultants

1.0   Introduction

The focus of this paper is on the influence of interest rates on construction output. Construction output is a key indicator of the health of an economy yet lack of empirical evidence on the influence of monetary instruments, such as base lending rates has limited the governments' ability to manage construction output. Empirical evidence is needed to verify claims by industry players, in particular in the housing sector, that higher interest rates have not dampened construction output in Kenya. Further past empirical work is not conclusive on the direction that interest rate changes influence construction output, with studies suggesting both a positive and inverse relationship. This research aims to fill this gap in our knowledge on the influence that interest rates have on construction activity in Kenya. The aim of the research is to answer whether or not wholesale interest rates, such as the Central Bank of Kenya (CBK) base lending rate, can be used as an effective policy instrument to influence construction output in Kenya (CBK, 2013).

Key areas of research study in Kenya over the last two and a half decades have been procurement methods, project performance; cost overruns, time overruns and labour output and construction business performance; indigenous contractors, marketing and labour practices (Mbiti, 2008; Mitullah and Wachira, 2003).

2.0   Materials and Methods
2.1   Secondary Data

Secondary data was gathered from established databases of Central Bank of Kenya (CBK) and Kenya National Bureau of Statistics (KNBS). The CBK is the key government institution that develops and executes monetary policy directed to ensuring stability across all levels of prices (World Bank, 2013). The intention of this is to stabilize prices (lower inflation) as well as safeguard the value of the Kenyan currency (CBK, 2013). Thus, keeps check on the money in the economy to determine the cost of interest rate as an open market operation to ensure the desired levels. The Statistics Act 2006 mandates the Kenya National Bureau of Statistics (KNBS) to

be the principal repository of national socio-economic database (such as gross domestic product) for all sectors of the economy including construction (KNBS, 2011). The data obtained from both, CBK and KNBS covered the period between 2006 and 2012.

To establish whether CBK base lending rate can be used as an effective policy instrument to influence construction output in Kenya secondary data was obtained from Kenya National Bureau of Statistics. The time series data consisted of annual construction output and the CBK base lending rates for the period 2006 – 2012. The data was transformed to facilitate regression of the time series by using the method of first differences and lags. In the initial stage analysis consisted of establishing the trend in growth of construction output and in the CBK base lending rates. Subsequently, a number of regressions were run using first differences to observe whether a change in the base lending rates alone had a significant influence on construction output lagged by 1, 2, 3, or 4 quarters.

2.2   Primary Data

The data collection survey was conducted in Nairobi, Kiambu and Thika. A questionnaire with open and closed ended questions was administered to developers, consultants (architects, engineers, quantity surveyors) and contractors. The survey was done for three months between the months of January to March, 2013. The data collected pertained to individual specialization within the industry, length of practice, the number of projects of projects handled in the recent, trend in the number and total development cost per project, key sources of finance, sources of information on interest rates and the stage when interest rates is an issue. The data was analysed to provide descriptive statistics and was presented in the form of frequency distribution tables and charts.

3.0   Results

In the survey, contractors and developers had the highest number of respondents. However, the diversity of specialization of respondents was high, Figure 1.
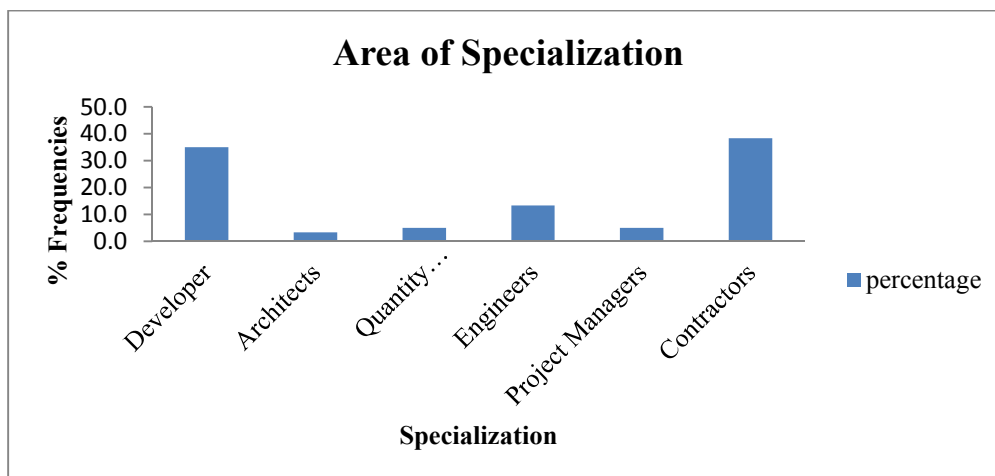

Figure 1: Area of specialization within construction Industry

Most respondents (34.5%) had practiced for a period between 1 to 3 years while the least (5.5%) had practiced for over 10 years. Close to a quarter (23.6%) had been in practice for less than a year, Figure 2.
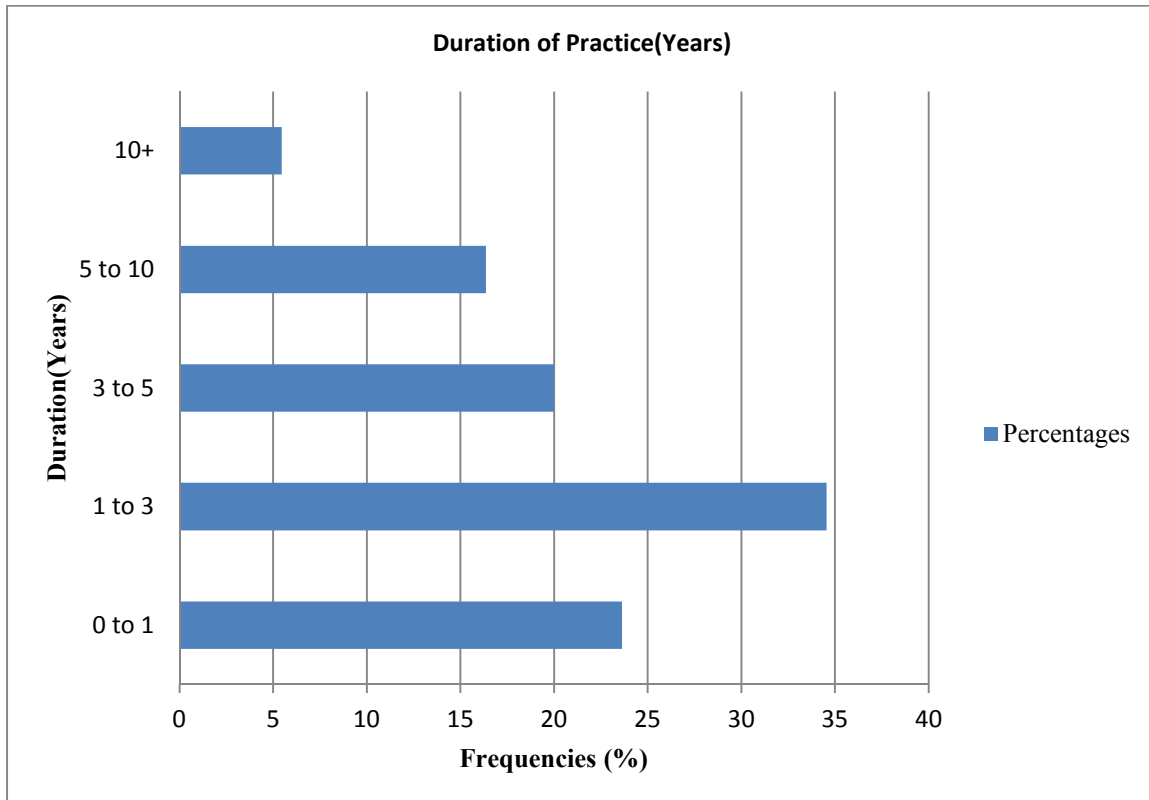
Figure 2: Duration of practice in years

The respondents indicating that they had handled zero projects were 7.1%, however those who handled over 15 projects in the last five years were 16.1%.

Table 1: Number of development projects done in the last 5 years

No. of Projects	Frequencies	Percentages
0	4	7.1
1 to 3	13	23.2
4 to7	16	28.6
7 t0 14	14	25.0
15+	9	16.1

Most respondents linked their reasons for declining number of projects to International business outsourcing and economic uncertainties, e.g., Interest rates, Figure 3.
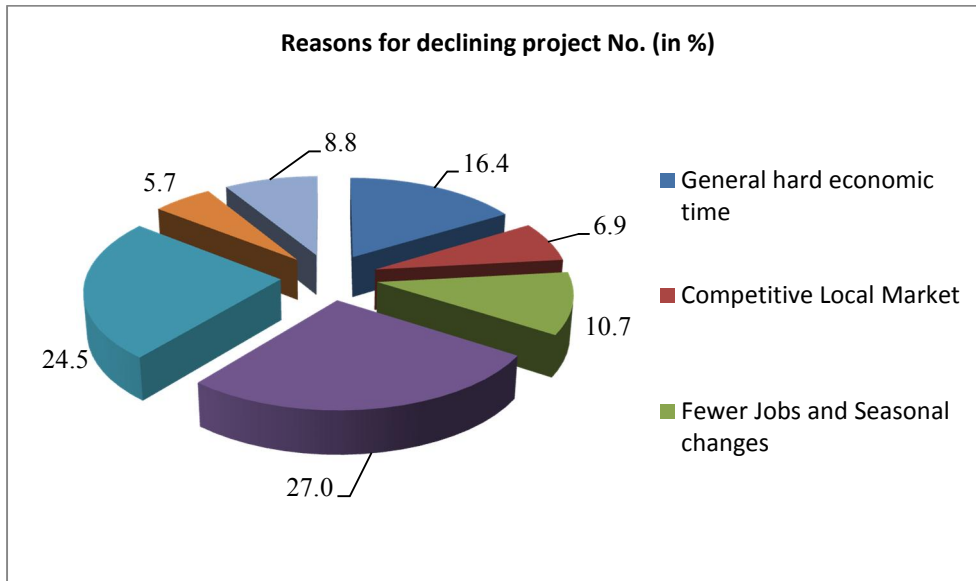

Figure 3: Reasons for declining number of projects

Most respondents hinged their reasons for increasing total cost of development on international business outsourcing and stiff regulations and government approvals. Less than 10% did not provide reasons for increasing total cost of development, Figure 4.
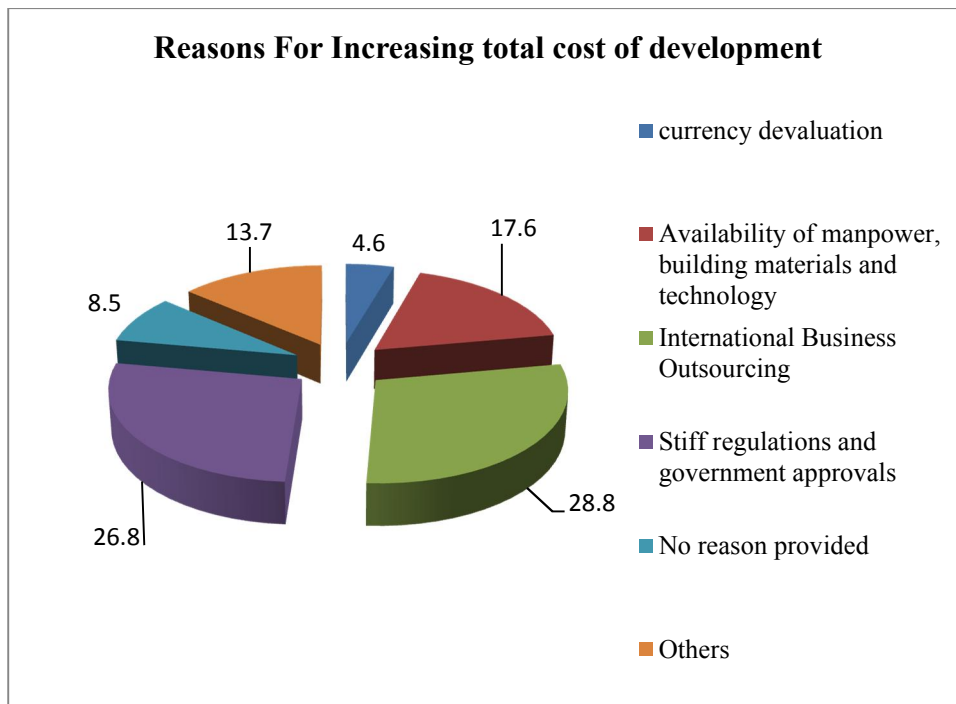

Figure 4: Reasons for increasing total cost of development

The highly preferred key sources of financing were Self and Associate (30.2%) and HFC (33.3%).

Table 2: Key sources of financing

Key sources of financing	Frequencies	percentages
Self and Associate	19	30.2
Banks	13	20.6
Housing finance Corporation(HFC)	21	33.3
International sources eg. World Bank	6	9.5
No Answer	4	6.3

A third (33.3%) of the respondents indicated that the stage in decision making for construction when interest rate is an issue is at the planning stage. A significant 17.5% indicated on the loan repayment stage.

Table 3: The stage in decision making for construction when interest rate is an issue

Stage in Decision Making	Frequencies	Percentages
Planning	21	33.3
Procurement	17	27.0
Construction	9	14.3
Loan Repayment	11	17.5
No answer	5	7.9

The banking institutions (27.3%), professional training (25.6%) and media (21.5%) were the key sources of Information on interest Rates

Table 4: Key sources of information on interest rates

Key Sources of Information on interest Rates	Frequencies	Percentages
Banking institutions	33	27.3
Financial consultants	17	14.0
Media	26	21.5
Peers and Kins	11	9.1
Professional training	31	25.6
No source Provided	3	2.5

The result of trend analysis in Figure 1 reveals a slow decline in the output of the construction sector over the time period under investigation. The output in 2012 grew at a rate higher than in 2006. Hoever fluctuations in output are quite evident with two peaks occuring in 2009, Figure 5.
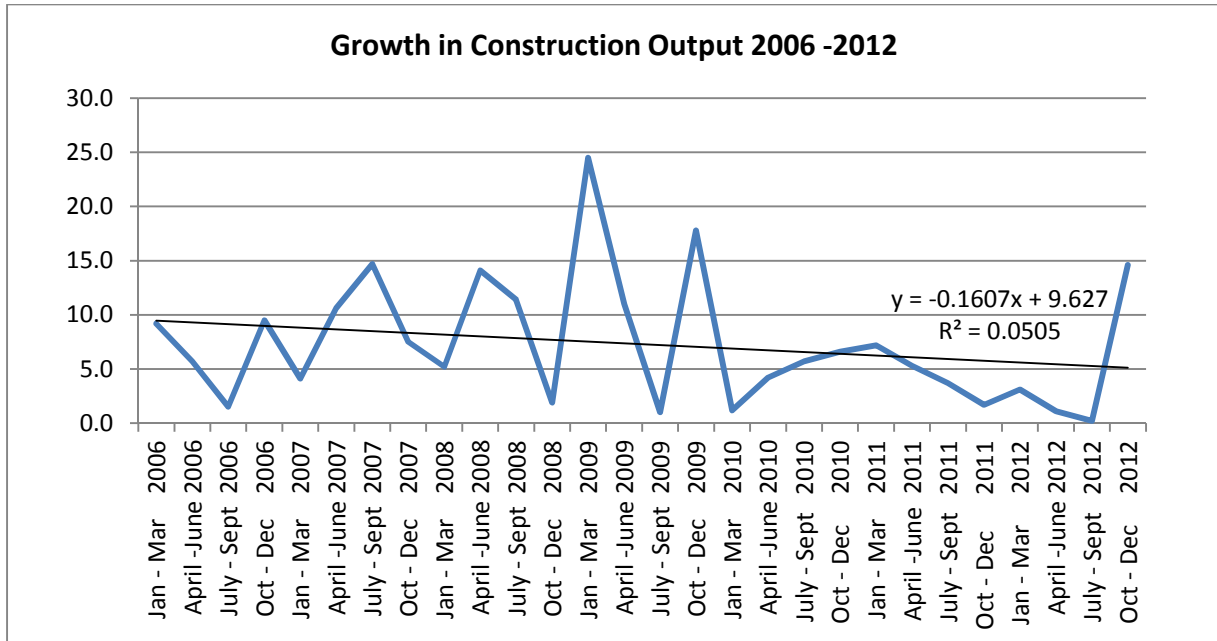

Figure 5: Growth in construction output (2006 – 2012)

While the trend in construction output shows a decline in the rate of output, there appears to be a rise in the CBK base lending rate as evident in Fig. 2. The results seem to suggest an inverse relationship between interest rates and output of the industry. To establish the nature of the relationship time series regression analysis was used, Figures 6 and 7.
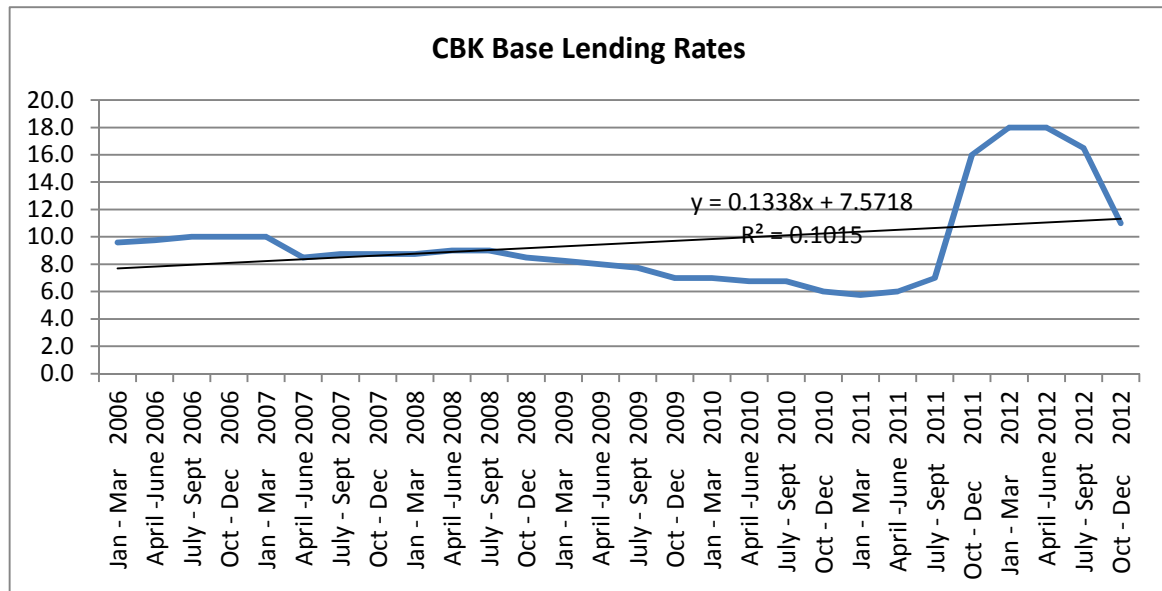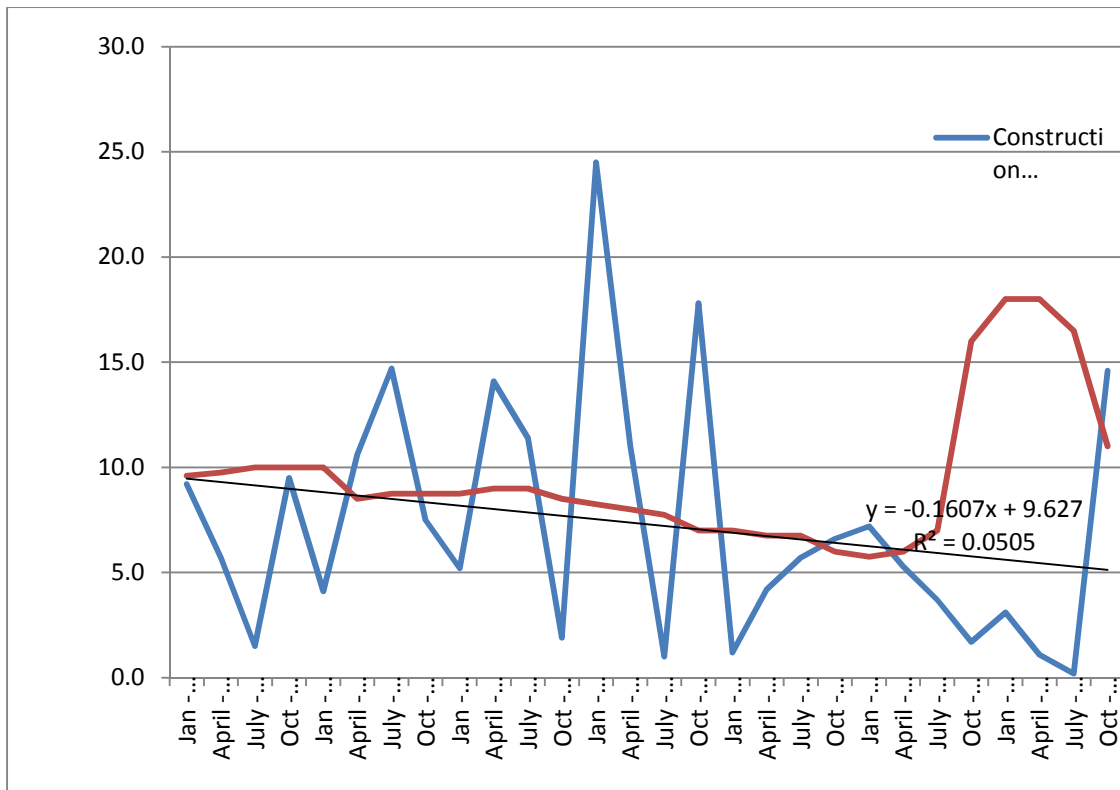

Figure 6: CBK Base Lending Rates (2006 – 2012)

Figure 7: CBK base lending rates and GDP construction (2006 – 2012)

4.0 Discussion and Conclusions

Findings suggest no significant relationship between changes in rates and the annual change in construction output, regardless of the number of years lagged. These findings are a departure from conventional wisdom that stimulating construction demand via monetary policies is the sure way for enhancing economic growth. This is a valuable finding that supports the view that government policy needs to focus on stimulating construction demand, using real projects rather than monetary policies, such as interest rate manipulation.

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References

Central BanK Kenya (2013). Monetary Policy. Available on website:

http://www.centralbank.go.ke/index.php/monetary-policy.

Kenya National Bureau of Statistics (2011). Mission & Vision. Available on website:
http://www.knbs.or.ke/aboutus.phprld

Mbiti, T K. (2008). A System Dynamics Model of Construction Output in Kenya; PhD Thesis, RMIT University unpublished.

Mitullah, W. and Wachira, I. (2003). Informal labour in the construction industry in Kenya: A Case Study of Nairobi. International Labour Office, Geneva.

World Bank (2013). Time to shift gears: Accelerating growth and poverty reduction in new Kenya. Kenya Economic Update, Unpublished.