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Comparative analysis of government spending, external debt, domestic credit to private sector, exchange rate and net investment to non-financial companies

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Comparative analysis of real interest rate, domestic credit to private sector, exchange rate and net investment to non-financial companies (1970-2017)

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ABSTRACT

This study examines the comparative analysis of Real Interest Rate (RINR), Domestic Credit to Private Sector (DCPS), Exchange Rate (ExcR) and Net Investment to Non-financial companies (NIFC) from 1970 to 2017. The data was sourced from World development indicators. The result reveal that the behavior of RINR and NIFC were more stochastic while DCPS was the least volatile. There is positive association between all the variables.

INTRODUCTION

The development, advancement and progress of a nation are attributed to many variables. These variables serve as yardstick in determining the level of the nation's wellbeing. In this paper, we intend to carry out a comparative analysis of real interest rate, domestic credit to private sector, exchange rate and net investment to non-financial companies with the sole goal to examine which is higher and well spread in comparative with each other. It is needful that we have basic definitions of some of these terms. Can we actually affirm that an increase in any of the variable will result to increase in another variable? Which of the variables over the years had better mean result?

DATA ANALYSIS

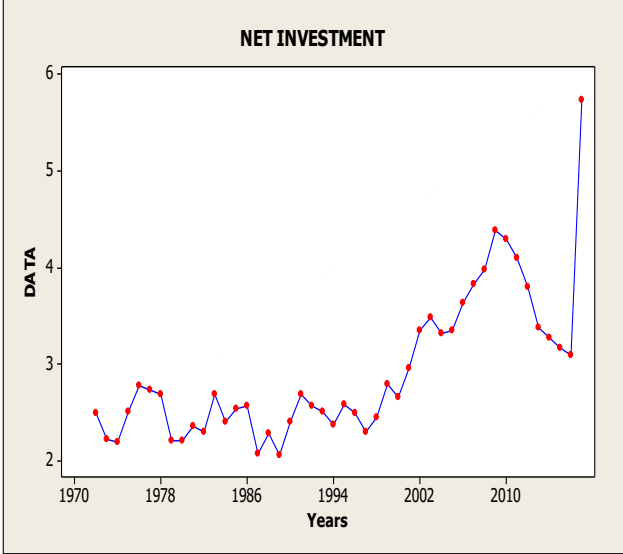
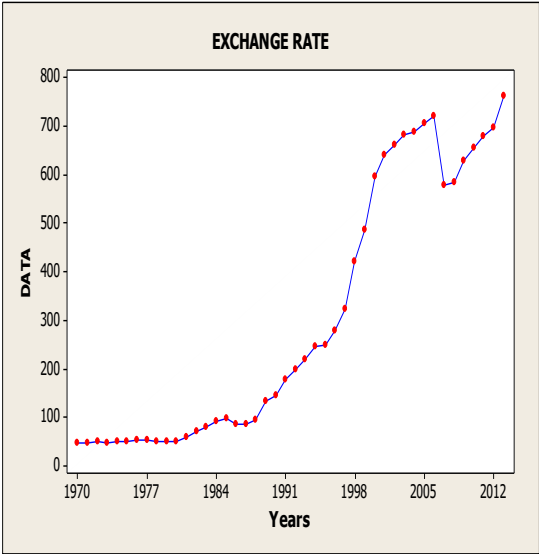
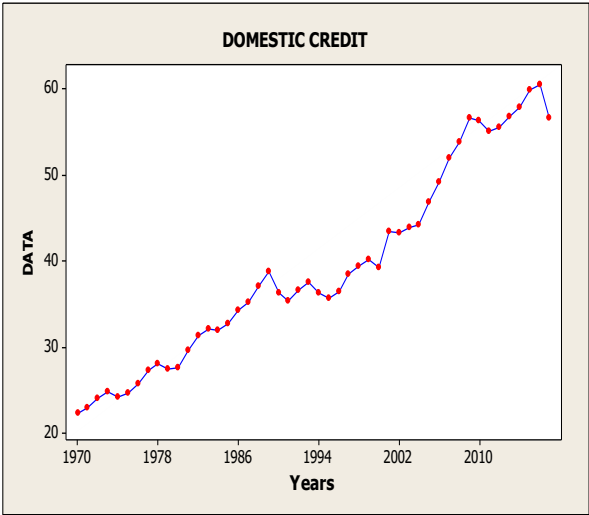
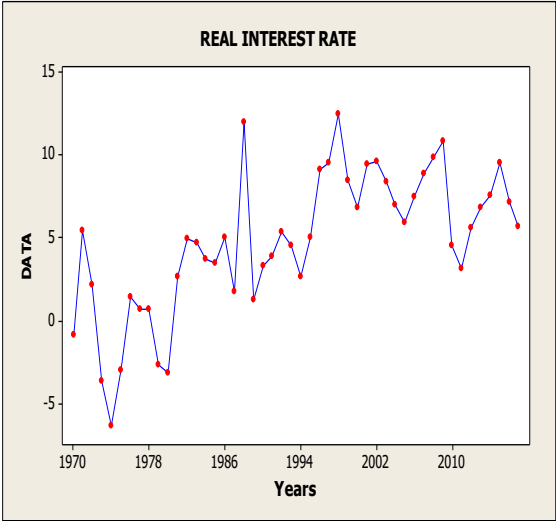
TABLE 1.1

Variables	Mean	Median	Std Deviation	Minimum	Maximum	Count
RINR	4.809954	5.065832	4.272071	-6.32565	12.50922	48
DCPS	39.28389	36.82291	11.40017	22.38458	60.52972	48
ExcR	303.6821	188.7152	267.1844	48.36905	761.2889	44
NIFC	2.918147	2.668141	0.750434	2.054492	5.735044	46

Notes: The above table gives a descriptive view of the variables from 1970-2017. RINR stands for Real Interest Rate, DCPS stands for Domestic Credit to Private Sector, ExcR stands for Exchange Rate, NIFC stands for Net Investment to Non-Financial Companies.

Under the period of investigation, ExcR has the highest mean value which might imply a surge in the exchange rate at the world level. NIFC is the most least (using the value of its standard deviation- which is the lowest), when compared to others.

GRAPH 1.1-1.4



From the graphs above, we can deduce the following:

- I. The movement of data over the years for real interest rate is stochastic in nature, with 1974 and 1998 recording the lowest and highest values of -6.32 and 12.5 respectively
- II. The movement of data Domestic credit to private sector tends to be on a steady increment. Although its values of 22.3 and 60.5 are the lowest and highest occurring at 1970 and 2016 respectively.
- III. The movement of data for Exchange rate was relatively the same from 1970-1980 but jump a little in 1981. From the early 80s, there are been an increment. A sharp drop was noticed in 2007 and 2008 before it pick up again. Year 1971 and 2013 recorded the lowest and highest values peg at 48.36 and 761.29 respectively.
- IV. From the movement of the graph, we saw that the pattern of the data random in nature with not specified format. From 1972 to 2000, the average value was 2.5 but at the inception of the 21st century, there was sharp increment and from there, the increase continued. We noticed that 2.05 and 5.73 at year 1989 and 2017 recorded the lowest and highest values respectively.

	<u>Correlation</u>			
	<i>RINR</i>	<i>DCPS</i>	<i>ExcR</i>	<i>NIFC</i>
<i>RINR</i>	1			
<i>DCPS</i>	0.631554526	1		
<i>ExcR</i>	0.618557919	0.896934105	1	
<u><i>NIFC</i></u>	<u>0.392800429</u>	<u>0.768343219</u>	<u>0.817510383</u>	<u>1</u>

Notes: This table gives the correlation values for the variables.

From the above table, we can deduced the following

- I. The association between RINR and DCPS is positively above average, which implies that as RINR increases, DCPS also increases with a magnitude of 63.16%
- II. The association between RINR and ExcR is positively above average, which implies that as RINR increases, ExcR also increases with a magnitude of 61.86%

- III. The association between RINR and NIFC is positive but poor, which implies there is low connection between both variables and an increase in RINR will also result in increment of NIFC with a magnitude of 39.28%.
- IV. The association between DCPS and ExcR highly positive, which implies that there is a strong connection between both variables. An increase in DCPS will result to an increment in ExcR with a magnitude of 89.69%.
- V. The association between DCPS and NIFC is positively high, which connotes a good connection and an increment in DCPS will result to further increase in NIFC with a strong value of 76.83%
- VI. The association between NIFC and ExcR is highly positive, which connotes a strong connectivity between both variables. An increment in NIFC will result to an increment in ExcR will a magnitude of 81.5%

CONCLUSION

Conclusively, we deduced that NIFC is the most volatile (spread) variable among the variables followed by RINR while the least scattered is ExcR. All the variables were increasing over time (with exception to RINR). NIFC has a sharp surge more than others. There is a positive association between all the variables whereas RINR and NIFC had poor positive connectivity, DCPS and and ExcR had a very high positive connection existing between them than others.

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