

Declaration

I, Fackson Simambwe, declare that this dissertation:

- a) Represents my own work;
- b) Has not previously been submitted for a degree at this or any other University; and
- c) Does not incorporate any published work or material from another dissertation except those whose sources have been acknowledged.

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Date:

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APPROVAL

This dissertation of **Fackson Simambwe** is approved as fulfilling the partial requirements for the award of the Master of Art Degree in Economics by the University of Zambia.

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Abstract

The purpose of this study is to determine the “informational efficiency of LuSE with respect to monetary policy and money supply. Capital market is said to be informationally efficient if the stock prices at any time “fully reflect” all available information regarding fundamental economic variables that include money supply. The main role of LuSE like any other capital market is to allocate scarce resources from savers to productive sectors of the economy. However, this role can best be performed if LuSE is informationally efficient. If LuSE is inefficient with respect to relevant information such as money supply, then this has important implications at both the micro and macro level. At micro level this implies an ability by certain individuals with the privileged information to earn consistently higher than normal rates of return, at the expense of those without “this privileged information”. At the macro level, it raises serious doubts about the ability of the capital market to perform its classical role of channelling funds to the most productive sectors of the economy. LuSE which opened for business on 21st February 1994 is a relatively new developing capital market which may not be informationally efficient. Therefore, there is need to determine the informational efficiency of LuSE empirically.

The definitional statement that, “in an efficient capital market stock prices fully reflect available information” is so general that it has no empirically testable implications. To make the model testable, the informational efficiency of the LuSE is specified with respect to monetary policy. The money supply – stock market prices relationship has been widely tested. It is believed that money supply changes have important direct effects through portfolio changes and indirect effects through their effect on real economic variables such as GDP, consumption, investment, general price levels, earnings and so on, which are in turn postulated to be fundamental determinants of stock prices.

This study tested information efficiency of the LuSE with respect to money supply by running a regression using the causality test model developed by Granger (1969) for the period January 1999 to December 2009. The analysis involved desk research using secondary data of M1, M2 and M3 of money supply from BOZ and composite stock prices index from LuSE on monthly and quarterly basis respectively using EVIEWS econometric package. The quantitative regression analysis using the OLS method was complemented by qualitative method through interviews.

The dissertation addresses one research question: how efficiently do stock market participants at LuSE incorporate the information contained in money supply changes into stock prices? From the empirical findings, the null hypothesis that money supply does not cause stock prices at LuSE and the null hypothesis that stock prices do not cause money supply is accepted. This suggests that money supply and stock prices are determined independently. Since stock prices at LuSE do not “fully reflect” available information contained in money supply and probably in other fundamental economic variables, this suggests that LuSE is not informationally efficient. Since money supply does not Granger cause stock prices at LuSE, then past values of money supply does not contain information that helps to predict stock prices at LuSE above and beyond the information contained in past values of stock prices alone and vice-versa. Hence, stock market participants at LuSE do not incorporate the information contained in money supply changes into stock prices.

Dedication

To my father Mr. Salati Simambwe, my mother Eletina Longwani, my wife
Kumoyo Lyambai Simambwe and my children: Simambwe Simambwe, Yuyi
Simambwe, Mwachunga Simambwe, Jimmy Simambwe Phiri, Tabo Simambwe,
Cholwe Simambwe and Makambe Simambwe for their support and encouragement
For me to undertake and successfully complete this life dream qualification of
M.A. Degree in Economics.

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List of abbreviations and acronyms

BOZ	- Bank of Zambia
EMH	- Efficient Market Hypothesis
GDP	- Gross Domestic Product
IFC	- International Finance Corporation
IPO	- Initial Public Offering
LuSE	- Lusaka Stock Exchange
MMD	- Movement for Multiparty Democracy
MP	- Monetary Portfolio
N.Y.S.E	- New York Stock Exchange
NIPA	- National Institute of Public Administration
OLS	- Ordinary Least Squares
SEC	- Securities Exchange Commission
SP	- Stock Price Index
SSA	- Sub – Sahara Africa
UK	- United Kingdom
UNDP	- United Nations Development Programme
UNIP	- United National Independence Party
USA	- United States of America

DEFINITION OF TECHNICAL TERMS

- **A Primary Market:** A primary market is one where offering of shares/securities occur when shares/securities are offered for sale to the public for the first time and whose proceeds go to the issuer as fresh capital.
- **A Secondary Market:** Secondary market trading of securities occurs when shares that have been bought through a primary market offering are traded on the LuSE.
- **A stock broker:** A stockbroker is a LuSE member firm and is licensed by the SEC Zambia to buy and sell securities on the LuSE on behalf of investors.
- **Asymmetric Information:** A situation in which one party in a transaction has more or superior information compared to another. This often happens in transaction where the seller knows more than the buyer, although the reverse can happen as well. Potentially, this could be harmful situation because one party can take advantage of the other party's lack of knowledge.
- **Central share Depository (CSD):** This is a computerized central point in which all the shares of listed and quoted companies and all listed debt securities are held at LuSE. An account is opened for every holder of a given instrument.
- **Equity Market:** This is a place where companies' shares are traded publicly.
- **Granger Causality:** this is a statistical concept of causality that is based on prediction. According to Granger causality, if a signal X "Granger causes a signal Y", then Past value of X should contain information that helps predict Y above and beyond the information contained in past values of Y alone. Its mathematical formation is based on linear regression modelling of stochastic processes (Granger 1969).
- **Initial Public Offering (IPO):** An initial public offering occurs when a company decides to be "Going public" the process through which a company converts itself from a private limited company to a public listed company (Plc) and subsequently sells its first shares to the general public over a licensed stock exchange.
- **M1:** currency with Non – banks, Kwacha demand deposits and Bills payable
- **M2:** M1, Time and saving deposits and Forex demand deposits.
- **M3:** M2 and other forex deposits

- **Market capitalization:** This is the sum total of the values of all companies that are listed or quoted on the stock exchange as reflected by their share price.
- **Securities:** Securities are instruments for raising finance by the issuers of shares and other investors. They come in two types – equity securities and debt securities. Equity securities, which are also known as shares, give one part ownership of a company and with the right to a share of a company's dividends. Debt securities reflect a debt by an organization. They can be issued variously by companies and governments both local and central. They do not give their owners ownership of the organization.
- **Stochastic Processes:** A random or stochastic processes is a collection of random variables ordered in time. We call a stochastic process purely random if it has zero mean, constant variance b^{-2} , and is serially uncorrelated.
- **Tobin's Q ratio:** - a ratio devised by James Tobin (Tobin 1969). He hypothesized that the combined market value of all the companies on the stock market should be about equal to their replacement costs. The Q ratio is calculated as the market value of a company divided by the replacement value of the firm assets. If Tobin's Q ratio is greater than 1.0, then the market value is greater than the value of the company's recorded assets. This suggests that the market value reflects some unmeasured or unrecorded assets of the company. If the Tobin's Q ratio is less than 1 the market value is less than the recorded value then the market may be undervaluing the company. Tobin's discoveries show us that the movements in stock prices will be reflected in changes in consumption and investment.