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AN ANALYSIS ON MONETARY AGGREGATE THAT REFLECTS MACROECONOMIC FRAMEWORK OF SRI LANKA

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Dissertation submitted in partial fulfillment of the requirements for the degree Master of Science in Financial Mathematics

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Declaration of the candidate

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any University or other institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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To My

Parents And All The Teachers Who Have

Supported Me All The Way Since The

Beginning Of My Studies

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ABSTRACT

This thesis investigates the monetary aggregate that reflects the macroeconomic condition of Sri Lanka, the long run money demand relationship, and the determinants of money demand in Sri Lanka since 1978. The estimation of money demand functions for narrow money (M1) and broad money (M2) using quarterly data for 1978 Quarter 1 to 2009 Quarter 4 forms the basis of this investigation. Econometric techniques such as unit root tests, Vector autoregression (VAR) models, Cointegration relationships and some economic fundamentals like elasticities were used to achieve the objectives of this study.

Set of VAR models are formed and they suggest that M2 growth is best explained by the macro economic variables; Gross Domestic Product (GDP) growth, Colombo Consumer Price Index (CCPI) growth, Real Exchange rate index (REX) growth, and growths of savings and fixed deposit rates of National Savings Bank (NSB). This finding is further strengthened by the results of cointegration analysis as only M2 is cointegrated with its determinants. M2 growth is forecasted, to assist policy makers to have a control of monetary expansion.

Only M2 had meaningful cointegrating relationships with its determinants of GDP, CCPI, REX, and One year Fixed deposit rates of National Savings Bank and Commercial Banks. This indicates that M2 demand is stable while M1 demand is not. Therefore, in formulating monetary policy in Sri Lanka, M2 is the aggregate that need to be considered as it better reflects the macroeconomic condition. Results also suggest that, there exist high Income and Price elasticities where as low elasticities for interest rates.

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LIST OF ABBREVIATIONS

ACF	AutoCorrelation Function
ADF	Augmented Dickey-Fuller
AIC	Akaike Information Criterion
AR	AutoRegression
CBSL	Central Bank of Sri Lanka
CCPI	Colombo Consumer Price Index
DF	Dickey-Fuller
GDP	Gross Domestic Product
GNP	Gross National Product
HQ	Hannan-Quinn Information Criterion
IMF	International Monetary Fund
JB	Jarque-Bera
KPSS	Kwiatkowski, Phillips, Schmidt, and Shin
LM	Lagrange Multiplier
M1	Narrow Money
M2	Broad Money
MA	Moving Average
NSB	National Savings Bank
OLS	Ordinary Least Squares
PACF	Partial AutoCorrelation Function
PP	Phillips-Perron
REX	Real EXchange rate index
SC	Schwartz Information Criterion
VAR	Vector AutoRegression