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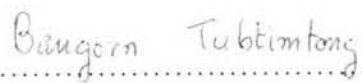
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การศึกษาได้ทำการสร้างแบบจำลองทางเศรษฐกิจมหภาคขนาดกลางสำหรับระบบเศรษฐกิจ
ของประเทศบังกลาเทศ โดยใช้ข้อมูลรายปีระหว่างปี 1980 ถึงปี 2000 ทั้งนี้ เพื่อทำการศึกษาถึงความ
เชื่อมกันระหว่างตัวแปรทางเศรษฐกิจมหภาคต่างๆ และเพื่อประเมินประสิทธิภาพของการใช้นโยบาย
ทางการคลัง การเงิน และอัตราแลกเปลี่ยน ผ่านการกระตุ้นเศรษฐกิจด้วยตัวแปรทางนโยบายภายนอก
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ไฮม์ลเทเนียดโดยมีการเชื่อมโยงสมการเป็นแบบเชิงโครงสร้างเพื่อหลีกเลี่ยงปัญหาทางเศรษฐมิติ สมการ
แต่ละสมการจะถูกประมาณการด้วยวิธีกำลังสองน้อยที่สุดสองขั้น (Two Stage Least Squares) และถูก
ทำการทดสอบความมีเสถียรด้วยวิธี Augmented-Dickey Fuller นอกจากนี้ ตัวแปรภายนอกของ
แบบจำลองทุกตัวจะถูกประมาณการด้วยแบบจำลอง ARIMA

จากการศึกษาผลการกระตุ้นเศรษฐกิจด้วยตัวแปรเชิงนโยบายพบว่า เมื่อมีการเพิ่มการใช้จ่าย
ภาครัฐในอัตราร้อยละ 18.97 จะส่งผลให้รัฐมีการขาดดุลเพิ่มขึ้น นอกจากนั้นแรงกดดันทางด้านการ
เพิ่มขึ้นของราคาจะส่งผลให้กิจกรรมทางการผลิตลดลงในทุกภาคการผลิต ลักษณะดังกล่าวเกิดขึ้น
เช่นกันแต่รุนแรงน้อยกว่าเมื่อมีการใช้นโยบายทางการเงินแบบขยายตัว อย่างไรก็ตาม การศึกษาได้พบว่า
การแทรกแซงอัตราแลกเปลี่ยนอาจส่งผลดีต่อระบบเศรษฐกิจของประเทศบังกลาเทศได้ โดยผ่านทาง
การเพิ่มขึ้นของการส่งออก และดุลการค้าที่ดีขึ้นจะส่งผลให้มีการใช้จ่ายภายในประเทศ เช่น การบริโภคและ
การลงทุนมากขึ้น ดังนั้น ข้อเสนอสำคัญที่ได้จากแบบจำลองเศรษฐกิจมหภาคคือ การใช้นโยบายแบบ
ผสมระหว่างนโยบายทางการเงินและการแทรกแซงอัตราแลกเปลี่ยนอาจมีความเหมาะสมที่สุดสำหรับ
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สาขาวิชาเศรษฐศาสตร์และการเงินระหว่างประเทศ

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KEYWORD: MACROECONOMETRIC MODELING/SIMULTANEOUS EQUATION MODEL/TIME SERIES FORECASTING/POLICY SIMULATION


MD. HABIBUR RAHMAN: RECONSTRUCTION OF A MACROECONOMETRIC MODEL FOR BANGLADESH: A DYNAMIC BEHAVIOR OF POLICY SIMULATION. THESIS ADVISOR: SOMPRAWIN MANPRASERT, PH.D.
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The study describes a medium-sized macroeconomic model of Bangladesh economy over the period 1981 to 2000 aiming to account for a number of macro linkages that facilitates forecasting with some major policy shocks on various exogenous variables including total government expenditures (TGE), interest rate, and exchange rate to measure the effectiveness of monetary, fiscal and exchange rate policy respectively. For the sake of better specification, the model in this research has developed based on 6 building blocks, which covers aggregate production, consumption, international trade, money supply, price, and government revenue and expenditure that can be used to examine the effects of both domestic and external shocks to the economy.


Based on simultaneous equation approach, the model used in this thesis has attempted to utilize Super-structural Macroeconomic technique by avoiding cross-equation-correlation of the residuals in the system. That is, all behavioral equations have been estimated individually by selecting Two Stage Least Squares (TSLS) method with the inclusion of all exogenous and lag variables of the model as instrument lists. After that, to check stationarity, the methodology employed in this study uses unit root tests by considering Augmented-Dickey Fuller (ADF) tests under Akaike Info Criterion followed by ARIMA/ARMA (as appropriate) model for forecasting exogenous variables.

As Bangladesh economy is becoming increasingly market-driven, most of the equations used in the model are formulated from the viewpoint of demand-side analyses. After giving the expansionary fiscal shock by 18.97% to TGE, all production sectors including primary, secondary, and tertiary sectors are worse off. It worsens the government budget deficit, but expands government revenue. Likewise, having an expansionary monetary policy shock, both real GDP and Gross Domestic Expenditures (GDE) have dampened slightly. However, an exchange rate policy shock has given a positive push to total volume of exports. It is because the domestic goods and services for the foreigners became cheaper due to depreciation of Taka against USD. Precisely, total volume of exports expansion leads to fall foreign trade deficit that ultimately directs to increase real GDP. The effect has made a synergy by increasing total investment in future that supported the government to expend more for consumption purposes. Consequently, by running policy mix simulations, it reveals that the hypothesis formulated in this dissertation- "*monetary policy along with exchange rate policy is more effective than fiscal policy for economic development of Bangladesh*"- is testified as a valid result empirically. Thence, based on the macroeconomic model restructured in this thesis, a blending of monetary and exchange rate policy is one of the best alternative options to uplift the aggregate economy of Bangladesh.

Field of Study: International Economics and Finance

Student's Signature.....

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TABLE OF CONTENTS

	Page
Abstract (Thai)	iv
Abstract (English)	v
Acknowledgements.....	vi
Table of Contents	vii
List of Figures.....	ix
List of Tables	xi
List of Diagrams	xii
List of Boxes	xiii
List of Abbreviations.....	xiv

Part A: Problem Identification: An Analytical Perspective

Chapter I Introduction	1
1.1 Theoretical Background of the Research	1
1.2 Classical Versus Keynesian Dichotomy	4
1.3 Rationale of the Research	6
1.4 Objectives of the Research.....	8
1.5 Scope of the Research	9
1.6 Outline of the Dissertation	10

Part B: Conceptual Framework and Methodology

Chapter II Literature Review.....	12
2.1 Overview of Bangladesh Economy	12
2.2 Inter-temporal Macroeconomic Trends of Bangladesh.....	20
2.3 Review of Bangladesh Macroeconomic Models	22
Chapter III Conceptualization of the Research	30
3.1 Conceptual Framework	30
3.2 Research Methodology: A Scientific Approach	36
3.3 Research Methods: Selection of structural macroeconomic model	40
3.4 Data and Measurement	45

Part C: Reconstruction of Macroeconometric Model

Chapter IV Selection of Macroeconometric Model	47
4.1 The Role of Economic Theory in Macroeconometrics	47
4.2 Selection of the Model	48
4.3 Modification in the Selected Model	49

	Page
Chapter V Model Specification	53
5.1 Specification of Variables	53
5.2 Imposition of Assumptions	53
5.3 Formulation of Hypothesis	54
5.4 Prediction towards functional relationship: A logical postulation.....	54
Chapter VI Building Blocks of the Model	60
6.1 Production block	60
6.2 Expenditure block	65
6.3 Balance of payments block	67
6.4 Government block	71
6.5 Monetary block	73
6.6 Price block.....	75

Part D: Empirical Results and Discussions

Chapter VII Estimation and interpretation of Macroeconometric Model..	77
7.1 Descriptive Statistics of the Model	77
7.2 Estimation of Behavioral Equations	80
Chapter VIII Forecasting of the Exogenous Variables	98
8.1 Forecasting Approach	98
8.2 Forecasting the Future	100
Chapter IX Formation of Dynamic Policy Simulations and its domino effects	105
9.1 Simulation Experiments	105

Part E: Conclusion and Recommendations

Chapter X Conclusion and Recommendations	130
10.1 The Conclusion	130
10.2 Policy Recommendations	141
10.3 Limitations of the Study and Recommendations for Further Study	146
References	148
Appendices	155
Biography	171

List of Figures

	Page
Figure 1.1: Unemployment rate of Bangladesh economy	5
Figure 2.1: Development Diamond, in percent	13
Figure 2.2: Gross National Product at Constant Prices	21
Figure 2.3: Rate of Unemployment (%)	21
Figure 2.4: Inflation, Consumer Prices (annual %)	21
Figure 2.5: Interest Rate Spread of Bangladesh Economy	21
Figure 2.6: Government Budget Deficit or Surplus[-] of Bangladesh.....	21
Figure 2.7 : Foreign Trade Deficit of Bangladesh.....	21
Figure 6.1: Patterns of Sector-wise Interest Rates Comparing with Bank Rate	64
Figure 6.2: Patterns of Consumer Credit Rate in Comparison to Bank Rate	66
Figure 6.3: Major Export Trading Partners of Bangladesh	68
Figure 7.1: Inter-temporal trends of selected macroeconomic indicators under production block.....	82
Figure 7.2: Inter-temporal trends of selected macroeconomic indicators under expenditure block	86
Figure 7.3: Inter-temporal trends of selected macroeconomic indicators under balance of payments block	88
Figure 7.4: Inter-temporal trends of selected macroeconomic indicators under government block.....	93
Figure 7.5: Inter-temporal trends of selected macroeconomic indicators under monetary block.....	95
Figure 7.6: Inter-temporal trends of selected macroeconomic indicators under price block.....	97
Figure 8.1: Exogenous variables forecasting based on ARMA model, 2001-2010	101
Figure 8.2: Exogenous variables forecasting based on ARIMA model, 2001-2010	102
Figure 9.1: Effects of Fiscal Shock on Production Sectors of the Economy.....	107
Figure 9.2: Effects of Fiscal Shock on Gross Domestic Expenditures.....	108
Figure 9.3: Effects of Fiscal Shock on Government Revenues and Budget Deficits.....	109
Figure 9.4: Effects of Fiscal Shock on Money Supply and Imports.....	109
Figure 9.5: Effects of Monetary Shock on Production Sectors of the Economy....	110
Figure 9.6: Effects of Monetary Shock on Gross Domestic Expenditures.....	111
Figure 9.7: Effects of Monetary Shock on Money Supply and Government Budget Deficit	112
Figure 9.8: Effects of Exchange Rate Shock on Exports and Trade Balance.....	113
Figure 9.9: Effects of Exchange Rate Shock on Production Sectors.....	114
Figure 9.10: Effects of Exchange Rate Shock on Investments and Government Consumption Expenditures	114
Figure 9.11: Effects of Exchange Rate Shock on Government Budget Deficit and Money Supply.....	115

Figure 9.12: Effects of Fiscal and Monetary Policy Mix on Production Sectors	116
Figure 9.13: Effects of Fiscal and Monetary Policy Mix on Gross Domestic Expenditures.....	116
Figure 9.14: Effects of Fiscal and Monetary Policy Mix on Government Revenues and Budget Deficits	117
Figure 9.15: Effects of Fiscal and Monetary Policy Mix on Money Supply and Imports.....	118
Figure 9.16: Effects of Fiscal and Monetary Policy Mix on Government Budget Deficit.....	118
Figure 9.17: Effects of Fiscal and Exchange Rate Shock on Production Sectors	120
Figure 9.18: Effects of Fiscal and Exchange Rate Shock on Money Supply and Budget Deficits	120
Figure 9.19: Effects of Fiscal and Exchange Rate Shock on Gross Domestic Expenditures and Value of Imports.....	121
Figure 9.20: Effects of Fiscal and Exchange Rate Shock on Exports and Trade Balance	122
Figure 9.21: Effects of Fiscal and Exchange Rate Shock on Investments and Real GDP	122
Figure 9.22: Effects of Monetary and Exchange Rate Shock on Production Sectors of the Economy	124
Figure 9.23: Effects of Monetary and Exchange Rate Shock on Exports and Imports	125
Figure 9.24: Effects of Monetary and Exchange Rate Shock on Investments and Government Consumption Expenditures	125
Figure 9.25: Effects of Monetary and Exchange Rate Shock on Money Supply and Government Budget Deficit.....	126
Figure 9.26: Effects of Irrigated Land Shock on Agriculture and Real GDP.....	127
Figure 9.27: Effects of Irrigated Land Shock on Manufacture and Services	128
Figure 9.28: Effects of Irrigated Land Shock on Some Selected Indicators	128
Figure 9.29: Effects of Irrigated Land Shock on Some Selected Indicators	129
Figure 10.1: Impact of Exchange rate policy on growth rate of real GDP	142
Figure 10.2: Impact of Exchange rate policy on growth rate of total investment	143
Figure 10.3: Impact of Exchange rate policy on growth rate of exports	143
Figure 10.4: Impact of Exchange rate policy on growth rate of imports.....	144
Figure 10.5: Impact of Exchange rate policy on growth rate of total government revenue	144
Figure 10.6: Impact of Exchange rate policy on growth rate of Government Consumption Expenditures	145
Figure 10.7: Impact of Monetary & Exchange rate policy on growth rate of real GDP	145

List of Tables

	Page
Table 2.1: Poverty Head Count Ratio by DCI Method 1981- 82 to 2000.....	14
Table 2.2: Proportion of Income in the Lowest and Highest Quintile	15
Table 2.3: Primary School Net Enrolment Rate.....	16
Table 2.4: Employed Persons 15 Years and Over by Broad Economic Sector and Sex, 2002-2003	16
Table 2.5: Infant Mortality Rate 1991 and 2001	17
Table 2.6: Maternal Mortality Rate per 1000 Live Births, 2000-2003	18
Table 3.1: Conventional Wisdom about Monetary and Fiscal Policy.....	34
Table 7.1: Descriptive statistics of Endogenous Variables Based on Individual Samples	78
Table 7.2: Descriptive Statistics of Exogenous Variables Based on Individual Samples	79
Table A.1: Data Sources.....	155
Table A.2: List of Variables: Endogenous Variables.....	156
Table A.3: List of Variables: Exogenous Variables.....	158
Table A.4: Baseline for Policy Variables with Total Production of Bangladesh...	160
Table A.5: Baseline for Total Production of Bangladesh under Expenditures Approach	161
Table A.6: Baseline for Some Selected Macroeconomic Indicators of Bangladesh	162
Table A.7: Effects of Expansionary Fiscal Policy Shock on Aggregate Economy of Bangladesh.....	163
Table A.8: Effects of Expansionary Monetary Policy Shock on Aggregate Economy of Bangladesh.....	165
Table A.9: Effects of Exchange Policy Shock on Aggregate Economy of Bangladesh	166
Table A.10: Effects of Fiscal and Monetary Policy Mix on Aggregate Economy of Bangladesh.....	167
Table A.11: Effects of Fiscal and Exchange Policy Mix on Aggregate Economy of Bangladesh.....	169
Table A.12: Effects of Monetary and Exchange Policy Mix on Aggregate Economy of Bangladesh.....	169

List of Diagrams

	Page
Diagram 3.1: Money Supply and Rate of Interest	32
Diagram 3.2: Components of Economic Policies	33
Diagram 3.3: Macroeconomic Policy Mix.....	35
Diagram 3.4: Linkage between Monetary and Exchange Rate Policy	36
Diagram 5.1: Macroeconometric model of Bangladesh: A causal relationship	59

List of Boxes

	Page
Box 6.1: Relationship of Different Interest Rates and Bank Rate	65
Box 6.2: Relationship of Consumer Credit Rate and Bank Rate	67
Box 7.1: Production function sub-block	84
Box 7.2: Private investment in Production block	85
Box 7.3: Real credit in Production block.....	85
Box 7.4: Expenditure block: A consumption function	87
Box 7.5: Export Supply Functions: Balance of payments block	91
Box 7.6: Import Demand Functions: Balance of payments block	92
Box 7.7: Government Revenue Sector: Government block.....	94
Box 7.8: Government Expenditure Sector: Government block	94
Box 7.9: Money Supply Function: Monetary block	96
Box 7.10: Price Index: Price block	97
Box 8.1: Consumer Credit Rate	100
Box 8.2: ARIMA Model with AR (1).....	100

List of Abbreviations

AD:	Aggregate Demand
ADF:	Augmented-Dickey Fuller
AIC:	Akaike Information Criterion
AIDS:	Acquired Immune Deficiency Syndrome
AR:	Autoregressive Model
ARIMA:	Auto Regressive Integrated Moving Average
ARMA:	Auto Regressive Moving Average
BBS:	Bangladesh Bureau of Statistics
BIDS:	Bangladesh Institute of Development Studies
BLUE:	Best Linear Unbiased Estimate
BOP:	Balance of Payment
COB:	Currency Outside Bank
CPI:	Consumer Price Index
Eviews:	Econometric Views
FAO:	Food and Agricultural Organization
FP:	Fair-Parke
FY:	Fiscal Year
GDE:	Gross Domestic Expenditures
GDP:	Gross Domestic products
GNP:	Gross National Product
GOB:	Government of Bangladesh
HIV:	Human Immune Deficiency Virus
ICD:	International Classification of Diseases
IFS:	International Financial Statistics (International Monetary Fund)
ILO:	International Labor Organization
IMR:	Infant Mortality Rate
LFS:	Labor Force Survey
MA:	Moving Average
MDGs:	Millennium Development Goals
MIMAP:	Micro Impacts of Macroeconomic and Adjustment Policies
OLS:	Ordinary Least Square
PAM:	Partial Adjustment Method
QMS:	Quantitative Micro Software
SEM:	Simultaneous Equation Model
SMCC:	Cowles Commission approach
SPM:	Suspended Particulate Matter
SSE:	Secondary School Enrollment
SVAR:	Structural vector-autoregressive
TGE:	Total Government Expenditures
TSLs:	Two Stage Least Squares
UNDP:	United Nations Development Program
UNFPA:	United Nations Population Fund (formerly United Nations Fund for Population Activities)

UNHCR:	United Nations High Commissioner for Refugees
UNICEF:	United Nations International Children's Emergency Fund
USD:	U.S. Dollar
VAR:	Vector auto regression
WDI:	World Development Indicators
WFP:	World Food Programme

PART I PROBLEM IDENTIFICATION: AN ANALYTICAL PERSPECTIVE