University of Wollongong
Research Online

University of Wollongong Thesis Collection

University of Wollongong Thesis Collections

2004

Competitive industry policy for economic development in Sri Lanka: lessons from East Asia

Tikiri Bandara Agalewatte
University of Wollongong

Recommended Citation

Agalewatte, Tikiri B, Competitive industry policy for economic development in Sri Lanka: lessons from East Asia, Phd thesis, School of Economics and Information Systems, University of Wollongong, 2004. http://ro.uow.edu.au/theses/210

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: research-pubs@uow.edu.au

NOTE

This online version of the thesis may have different page formatting and pagination from the paper copy held in the University of Wollongong Library.

UNIVERSITY OF WOLLONGONG

COPYRIGHT WARNING

You may print or download ONE copy of this document for the purpose of your own research or study. The University does not authorise you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site. You are reminded of the following:

Copyright owners are entitled to take legal action against persons who infringe their copyright. A reproduction of material that is protected by copyright may be a copyright infringement. A court may impose penalties and award damages in relation to offences and infringements relating to copyright material. Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

COMPETITIVE INDUSTRY POLICY FOR ECONOMIC DEVELOPMENT IN SRI LANKA: LESSONS FROM EAST ASIA

A thesis submitted in fulfillment of the requirement

for the award of the degree

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

by

Tikiri Bandara Agalewatte
B.Sc.Public Administration (Hons) Sri Lanka
Master of Commerce (Economics) (Hons) Australia

School of Economics and Information Systems

2004

CERTIFICATION

I, Tikiri Bandara Agalewatte, declare that this thesis, submitted in fulfillment of the requirements for the award of Doctor of Philosophy, in the School of Economics and Information Systems, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Tikiri B. Agalewatte
August 15, 2004

Table of Contents

Title Page i
Thesis Certification ii
Table of Contents iii
List of Tables vi
List of Figures viii
Abstract ix
Acknowledgments xi
List of Abbreviations xii

Chapter 1. Introduction

1.1 Background to the Study 1
1.2 Statement of the Problem 6
1.3 Objectives 7
1.4 Methodology and Data 7
1.5 Significance of the Study 9
1.6 Organization of the Study 9

Chapter 2. Development Strategies and Economic Growth: A Survey of Literature

2.1 Introduction 12
2.2 Economic Growth: Sources and Processes 12
2.3 Development Strategies/Approaches: Theoretical Debate 14
2.3.1 Free Trade Theory 15
2.3.2 Import Substitution 20
2.3.3 Strategic Trade Policy 26
2.3.4 Infant Industry Argument 32
2.3.5 Foreign Direct Investment and Economic Development 36
2.3.6 Competitive Industry Policy 41
2.4 Macroeconomic Policy and NIC Status 47
2.5 Development Strategies and Growth: Some Evidence 49
2.6 Concluding Remarks 53

Chapter 3. The Sri Lankan Economy: An Overview

3.1 Introduction 55
3.2 General Information 55
3.3 Current Socio-economic Condition 56
3.4 Historical Background 58
3.5 Evolution of Development Policy: The Pre-1977 Period 59
3.5.1 Export-led Growth: 1948-56 60
3.5.2 Period of Transition: 1956-60 60
3.5.3 First Phase of Import Substitution: 1960-65 62
3.5.4 Partial Liberalization: 1965-70 65
3.5.5 Second Phase of IS Strategy: 1970-77 67

3.6 Outward-Oriented Development Policy: Since 1977 70
3.6.1 Major Initial Reforms 71
3.6.2 Post-1977 Policy Development 75
3.6.3 Macroeconomic Performance Since 1977 77
3.7 The Impact of Reforms 81
3.8 Summary and Concluding Remarks 85

Chapter 4. Competitive Industry Policy and Economic Development: Lessons from South Korea and Taiwan

4.1 Introduction 88
4.2 South Korea 89
4.2.1 Socio-economic Information 89
4.2.2 Historical Background 92
4.2.3 Policy Evolution in the Pre-NIC Period. 93
4.2.4 Policy Experience in the Post-NIC Period 101
4.2.5 South Korea's Industrialization: A Review of Empirical Evidence 104
4.3 Taiwan 108
4.3.1 Socio-economic Information 108
4.3.2 Historical Background 109
4.3.3 Policy Evolution in the Pre-NIC Period 109
4.3.4 Policy Experience in the Post-NIC Period 117
4.3.5 Taiwan's Industrialization: A Review of Empirical Evidence 121
4.4 East Asian Experience: Lessons for Sri Lanka 123
4.4.1 Pre-NIC Experience 124
4.4.2. Post-NIC Experience 128
4.5 Concluding Remarks 130

Chapter 5. The Conceptual Framework

5.1 Introduction 131
5.2 Competitive Industry Policy and Growth: A Theoretical Perspective 133
5.3 Role of Trade Policy 138
5.4 Role of Industry Policy 143
5.5 Other Considerations 149
5.6 Research Propositions 153
5.7 Summary and Concluding Remarks 155

Chapter 6. The Post-1977 Economic Performance in Sri Lanka: A Quantitative Analysis

6.1 Introduction 156
6.2 Methodology 156
6.3 Growth and Stability: A Preliminary Analysis 163
6.3.1. The Pattern of Growth: 1960-2000 163
6.3.2 Structural Change 165

6.4 Sources of Growth: Model Specification and Variable Selection 167
6.4.1 The Model 167
6.4.2 Trade Policy Variables 168
6.4.3 Industry Policy Variables 171
6.4.4 Summary 174
6.5 Sources of Growth: The Results 175
6.5.1 Trade Policy and Growth 175
6.5.2 Industry Policy and Growth 177
6.5.3 Combined Model and Growth 178
6.5.4 Evaluation 179
6.6 Summary and Concluding Remarks 180

Chapter 7. Sri Lanka and the NIC Status: An Analytical Review of Policy

7.1 Introduction 182
7.2 Sri Lanka's Position in terms of NIC Status 183
7.3 Necessary Conditions Revisited 184
7.3.1 Developmental State 184
7.3.2 Macroeconomic Policy 188
7.4 Review of Savings-Investment Performance 196
7.5 Review of Industry Policy 200
7.6 Review of Trade Policy 224
7.7 Evaluation 237
7.8 Concluding Remarks 240

Chapter 8. Conclusions and Policy Recommendations

8.1 Conclusions 241
8.2 Road Map for NIC Status 246
8.2.1 Necessary Condition 246
8.2.2 CIP Recommendations 251
8.3 Prospects for Future Studies 263
8.4 Concluding Remarks 263

Appendices: 265
Appendix A- Data Tables for Sri Lanka 266
Appendix B- Data Tables for South Korea and Taiwan 294
Appendix C- Statistical Analysis: Results 305
Appendix D- Estimation of GNP per capita for NIC status by year 2020 315
Bibliography 316

List of Tables

Chapter Tables

2.1 Conditions for MNEs to undertake FDI ---------- 40
3.1 Development Indicators of Sri Lanka and Some Asian Countries ---------- 56
3.2 Sectoral Contribution to GNP: Selected Years ---------- 57
3.3 Sectoral Distribution of Gainfully Employed Persons: Selected Years ---------- 57
3.4 Value and Composition of Industrial Production in Sri Lanka: Selected Years---------- 58
3.5 Government Expenditure in Sri Lanka: Selected Years (as a % of GDP) ---------- 59
3.6 Foreign Assets of Sri Lanka: 1950-60 ---------- 62
3.7 Government Finance of Sri Lanka: 1954-2000---------- 63
3.8 Composition of Imports 1959-64 ---------- 64
3.9 Growth of Manufacturing and GNP in Sri Lanka: 1960-70 ---------- 65
3.10 Debt Service Payments: 1965-77---------- 66
3.11 Government's Capital Transfers to Public Corporations 1969-77---------- 69
3.12 Growth of Manufacturing and GNP: 1970-77 ---------- 69
3.13 GDP, Investment and Exports of Sri Lanka: 1960-99 ---------- 78
3.14 Annual CPI Growth Rates of Sri Lanka---------- 79
3.15 Debt Service Payments: 1978-96 ---------- 80
4.1 GDP /GDP per Capita of South Korea: 1953-1999---------- 90
4.2 Overall Budget Deficit/Surplus of Asian Countries: 1973-92---------- 90
4.3 Composition of South Korean GDP (*at current prices*) 1953-2000 ---------- 91
4.4 Saving and Investment in South Korea: 1962-1997 ---------- 96
4.5 Key Indicators of the South Korean Economy: 1953-99---------- 98
4.6 Taiwan's Selected Macroeconomic Indicators: 1961-94---------- 109
4.7 Tax Rebates in Taiwan 1955-94---------- 113
4.8 Tariff Changes in Taiwan: 1955-99---------- 119
6.1 Average Growth Rates of GDP: 1961-2000 ---------- 164
6.2 Exports & Growth in Sri Lanka: 1960-2000 Regression Results ---------- 166
6.3 Variables and their Expected Signs: Summary---------- 175
6.4 Trade Policy Variables & Growth: Regression Results ---------- 176
6.5 Industry Policy Variables & Growth: Regression Results ---------- 177
6.6 Combined Model: Regression Results---------- 179
7.1 Government Commitment to Education & Social Equity: Sri Lanka and Korea---------- 187
7.2 Fiscal Balance of Sri Lanka, South Korea & Taiwan---------- 188
7.3 Annual Growth of Money Supply& Inflation: Sri Lanka, South Korea & Taiwan---------- 191
7.4 Growth of Labour Market Indicators in Sri Lanka and selected Asian Countries:1980-93 -- 194
7.5 Manufacturing Wages in Sri Lanka and Some Selected Countries ---------- 194
7.6 Savings, Investment, and Incremental Capital Output Ratios (ICORS) in South Korea, Taiwan and Sri Lanka: Selected Years ---------- 197
7.7 Average Real Interest Rates: Sri Lanka, South Korea & Taiwan---------- 198
7.8 Infrastructure Profile in Sri Lanka and South Korea: Selected Years---------- 199
7.9 Composition of Sri Lanka's Industrial Production in Selected Years ---------- 202
7.10 Purpose-wise Loans Approved by Long-term Credit Institutions in Sri Lanka---------- 209
7.11 Composition of Loans and Advances of Sri Lanka's Commercial Banks: 1977-99 -------- 210
7.12 Lending Rates of Sri Lanka's Commercial Banks: 1984---------- 211
7.13 Infrastructure Profile of Sri Lanka ---------- 212
7.14 EPZs Industry Linkages with Domestic Economy: Sri Lanka and South Korea---------- 215
7.15 Education Expenditure in Sri Lanka, Taiwan and South Korea- Selected Years ---------- 217
7.16 Educational Attainments of Sri Lanka, Taiwan and Korea ---------- 218
7.17 R&D Expenditure of Sri Lanka, South Korea and Taiwan 1970-89 (as a % of GNP) ------- 219

7.18 R&D Expenditure of Sri Lanka: 1960-83 ---------- 220
7.19 Annual University Science Postgraduates in Sri Lanka 1992-94 ---------- 222
7.20 Average Tariff Rates of Sri Lanka & South Korea ---------- 225
7.21 Estimates of Sri Lanka's Nominal and Effective Rates of Protection: 1981 and 1994------- 226
7.22 Sri Lanka's Real Exchange Rate Indices for Exports, Imports, and Terms of Trade--------- 230
7.23 Foreign Direct Investment in Sri Lanka: 1978-1995---------- 232
7.24 Foreign Firms' Contribution to Manufactured Export Expansion ---------- 233
7.25 FDI in Sri Lanka's Manufacturing Industries: 1978-92 ---------- 234
7.26 FDI Inflows in Sri Lanka, Taiwan and South Korea---------- 235

Appendix Tables

A-1 Sri Lanka's GDP and its Growth Rates: 1960-2000 ---------- 266
A-2 Composition of GDP in Sri Lanka 1970-2000---------- 267
A-3 Gross Domestic Capital Formation of Sri Lanka 1960-2000 ---------- 268
A-4 Sri Lanka's Balance of Payments: 1955-1995 ---------- 269
A-5 Sri Lanka's Terms of Trade: 1960-1978---------- 270
A-6 Population Trends of Sri Lanka: 1945-2000 ---------- 271
A-7 Consumer Price Index of Sri Lanka: 1952-2000 ---------- 272
A-8 Income Distribution of Sri Lanka: 1953-1997 ---------- 273
A-9 Unemployment in Sri Lanka: 1948-1998---------- 274
A-10 Capacity Utilization of Industries in Sri Lanka: 1974-2000 ---------- 275
A-11 Changes in Sri Lanka's Export Composition: 1978-2000---------- 276
A-12 Value of Industrial Production: 1977-2000 ---------- 277
A-12a Value-added in Industries in Sri Lanka: 1977-2000---------- 278
A-13 Value-added & Employment in Sri Lanka's Private Sector Manufacturing---------- 279
A-14 Government Expenditure of Sri Lanka: 1978-2000 (as a % of GDP) ---------- 280
A-15 Sri Lanka's Savings Ratios: 1978-2000 (as a % of GDP)---------- 281
A-16 Private and Public Investment of Sri Lanka: 1977-2000 (as a % of GDP) ---------- 282
A-17 Composition and Trend of Sri Lanka's Recurrent Expenditure: 1970-2000:---------- 283
A-18 Sri Lanka's Import Duty Rates and Share of Dutiable Imports: 1978-1995---------- 284
A-19 Financial Institutions in Sri Lanka---------- 285
A-20 Loans and Advances of Commercial Banks in Sri Lanka: 1977-2000 ---------- 286
A-21 Foreign Savings of Sri Lanka: 1990-2000---------- 287
A-22 Sectoral Distribution of Export-oriented Foreign Manufacturing Firms: 1982 and 1995--- 288
A-23 Sri Lanka's Defense Expenditure: 1980-2000 ---------- 289
A-24 Sri Lanka's Real and Nominal Wage Indices: 1978-2000 ---------- 290
A-25 Government Fiscal Operations; 1977-2000 ---------- 291
A-26 Trends in Money Supply, GDP, Prices, and Interest Rate in Sri Lanka: 1978-2000 -------- 292
A-27 Average Tariff Rates of Sri Lanka: 1977-2000---------- 293
B-1 South Korea's Interest Rates on Exports and Commercial Loans: 1962-80 ---------- 294
B-2 South Korea's Top Ten Exports in Selected Years---------- 295
B-3 South Korea's Public Sector Share of Gross Domestic Investment: 1963-79 ---------- 296
B-4 Contribution of Exports and Domestic Market to Korea's GNP: 1961-83---------- 297
B-5 Debt, Equity-Assets Ratios of Manufacturing Corporations: 1985-96 ---------- 398
B-6 Taiwan's Main Economic Indicators: 1952-99 ---------- 399
B-7 Structural Changes in Sectors of Taiwan's Economy: 1952-99 ---------- 300
B-8 R&D Expenditure in Taiwan: 1978-96 ---------- 301
B-9 R&D Expenditure in South Korea: 1975-96 ---------- 302
B-10 South Korea's Manufacturing Performance: 1963-88 ---------- 303
B-11 Import Liberalization of South Korea: 1980-90 ---------- 304

List of Figures

1.1 Organization of the Study ---------- 11
2.1 South Korea's Neomercantilist Model ---------- 14
5.1 Competitive Industry Policy and Economic Development: Conceptual Framework ---------- 135
5.2 Trade Policy and Economic Growth ---------- 139
6.1 Sri Lanka's Annual GDP Growth Rates 1961-2000 (%) ---------- 165
6.2 Trend in Sri Lanka's Real GDP 1960-2000 (1996 prices) ---------- 165
7.1 Annual Saving Ratios of Sri Lanka: 1977-2000 (% of GDP) ---------- 196
7.2 Private and Public Investment in Sri Lanka 1978-2000 (% of GDP) ---------- 198
8.1 CIP-based Road Map to NIC Status for Sri Lanka ---------- 247

Abstract

This study evaluates the current position of Sri Lanka in terms of Newly Industrialized Country (NIC) status, and explores the lessons which it can learn from the successful East Asian economies. Accordingly, it develops a policy strategy to enable Sri Lanka to converge into a more dynamic growth path leading towards the NIC status in the foreseeable future. This exercise was deemed useful because Sri Lanka had a superior position over many less developed countries (LDCs) including the East Asian NICs four decades ago, but having attempted various economic policy regimes over this period, it still remains a LDC.

The study undertook a lengthy literature review of various economic policy regimes which can be used to achieve economic development. East Asian NICs are distinguished by their use of competitive industry policy (CIP)- a mixture of trade policy and industry policy. To examine the relation between CIP and economic development, two case studies were carried out on Taiwan and South Korea. While different processes and policy timing occurred in these countries, both emphasized the importance of outward orientation in their economic activities. Their experience is distinguished by the flexibility, coherence, and consistence of policy making with the state undertaking a role of a 'developmental state.' The study considered the importance of identifying the key elements of their policy approach and the institutional context in which those elements have interacted when learning from their experience.

Based on the literature review and the two country studies, the study developed an analytical framework highlighting a growth path to the NIC status. Under the framework, two types of economic policies were identified as useful for rapid growth: trade policy, and industry policy. It also emphasized two necessary conditions for its success: macroeconomic stability; and a developmental state. A statistical test was used to examine how the two types of policies have worked in Sri Lanka after the 1977 reforms. It was found that Sri Lanka has not used appropriate competitive industry policy measures as did by the East Asian NICs in the past. This was followed by a detailed analysis of Sri Lanka's policy during the period after 1977.

The study compared Sri Lanka's post-1977 policy performance with those of South Korea and Taiwan in detail. The main thrust of the rapid industrialization and growth in these countries was identified as originating from the CIP strategy they used. Their superiority over other LDCs including Sri Lanka was attributed to the way they used policies such as sector targeting, directed credit, foreign investment, export processing zones, infrastructure development, human resource development, and R&D along with trade reforms. It was noted that Sri Lanka has shown some progress in implementing more or less similar policies, yet there is still an unfinished agenda for it to reach their level of achievement.

The study identified the areas where Sri Lanka needs improvements to achieve the NIC status. First, it discussed a course of actions in order to create a developmental state and a stable macroeconomic environment. Secondly, it identified a few key industries to be targeted by using CIP measures such as credit allocation, FDI, R&D, and EPZs for rapid industrialization and growth. Other CIP measures such as human resource development, infrastructure development, trade and exchange rate policies can also be used to improve resource allocation in all sectors in the economy including the specific industries selected. It is assumed that the targeted industries would generate competitive advantage within a short period of time and, thereby, enhance economic growth though increased exports.

While previous studies have examined the applicability of the East Asian model for other LDCs, few have attempted to assess its relevance to Sri Lanka. Besides filling a gap in the trade and industry policy literature, this study provides a comprehensive analysis of the development approach whereby Sri Lanka can become a NIC. It believes that given Sri Lanka's superior position in terms of human development indicators compared to other LDCs, Sri Lanka is in a better position to become a NIC than many other LDCs in the foreseeable future.

Acknowledgements

The completion of this thesis would not have been possible without the support of many individuals. First of all, I am most grateful to my supervisor, Associate Professor Ann Hodgkinson, for guiding me in both theoretical and empirical analyses, providing me with detailed comments on the drafts, and overseeing my progress in the research work. Her broad knowledge of the subject area and experience in economic research were of immense use for me to make this extraneous exercise a reality.

I am also grateful to Dr. Kankesu Jayanthakumaran, my co-supervisor, for his kind assistance and encouragement given to me to make this thesis a success. He was a great advisor and an inspirator to me with his expertise in the subject area and his country-specific knowledge.

I wish to extend my warmest appreciation to Professor Robert Castle, former Head of the Economics Department, and presently Pro Vice Chancellor (Academic), University of Wollongong, for encouraging me to undertake this theses, supervising my work during the initial period, and providing me with invaluable advice and comments on my final drafts. I am also indebted to Professor D.P. Chaudhri, Department of Economics, for his invaluable guidance and encouragements at the time the research proposal was developed.

I also extend my warmest appreciation to all those who assisted me in many ways with particular reference to the following individuals: Mr.Wolfgang Brodesser, Professional Officer, Department of Economics, and Mr. Laszlo Abel, Desktop Support Officer, Faculty of Commerce, for their assistance with software and hardware; Dr. Hema de Silva, Principal Research Officer, Commonwealth Grant Commission, Canberra, for his constant encouragement throughout the entire period of study, and constructive feed back on my draft thesis; Mr. Sarath Perera and Mrs Lalitha Batuwita, PhD candidates, Department of Education, University of Wollongong, for their invaluable assistance in data collection; and Dr Atishwar Pandaram for his assistance in statistical analysis.

Last, but not least, I am grateful to my loving wife, Nirupa, for her patience and moral support throughout the duration of this ardours exercise.

Abbreviations

ADB	Asian Development Bank
AIP	Autarkic Industry Policy
BOI	Board of Investment (of Sri Lanka)
BOO-BOOT	Build Operate and Own - Build Operate Own and Transfer
CCU	Commission of Commercial Undertakings
CIP	Competitive Industry Policy
CPI	Consumer Price Index
EDB	Export Development Board
EPZ	Export Promotion Zone
ERP	Effective Rate of Protection
FDI	Foreign Direct Investment
FEECS	Foreign Exchange Entitlement Certificate Scheme
FIAC	Foreign Investment Advisory Committee
FTZ	Free Trade Zones
GATT	General Agreement on Tariff and Trade
GCEC	Greater Colombo Economic Commission
GDP	Gross Domestic Product
GNP	Gross National Product
GST	Goods and Services Tax
HCI	Heavy and Chemical Industry
HDI	Human Development Index
IBRD	International Bank for Reconstruction and Development
ICOR	Incremental Capital Output Ratio
IMF	International Monetary Fund
IS	Import Substitution
KM	Kilometer
LDCs	Less Developed Countries
LIAC	Local Investment Advisory Committee
MFA	Multi Fiber Arrangement
MNC	Multinational Company
MNE	Multinational Enterprise
MPC	Monetary Policy Committee
MW	Megawatt
NIC	Newly Industrialized Country
NIE	Newly Industrialized Economy
NPC	National Planning Council
NPI	Nominal Protection for Inputs
NRP	Nominal Rate of Protection
OECD	Organization for Economic Corporation and Development
OGL	Open General Licence
PA	People's Alliance
PCTT	Presidential Commission on Tariffs & Trade
PERC	Public Enterprises Reform Commission
PTC	Presidential Tariff Commission

QIO	Quasi Internal Organization
QRs	Quantitative Restrictions
R&D	Research and Development
Rs	Rupees (Sri Lankan Currency)
SELCIC	Sri Lanka Export Credit Insurance Corporation
SLFP	Sri Lanka Freedom Party
SMEs	Small and Medium-sized Enterprises
SOEs	State Owned Enterprises
TFP	Total Factor Productivity
UNP	United National Party
USA	United States of America