IMPACT OF FOREIGN DIRECT INVESTMENT (FDI) ON ECONOMIC GROWTH IN SRI LANKA: 1978-2003

By

Jayasundara Mudiyanselage Podimenike Pathirage



Thesis Submitted to the University of Sri Jayawardenepura for the Award of the Degree of Doctor of Philosophy in Economics 2007 "The work described in this thesis was carried out by me under the supervisors Prof. P. Wilson and Prof. Jagath Wickramasinghe and a report on this has not been submitted in whole or in part to any University or any other Institute for another Degree/Diploma".

P. Pathingo J. M. P. Pathirage



We certify that the above statement made by the candidate is true and that this thesis is suitable for submission to the University for the purpose of evaluation".

Prof. P. Wilson

25

Prof. Jagath Wickramasinghe



TABLE OF CONTENT

| | Page |
|------------------|------|
| TABLE OF CONTENT | Ι |
| LIST OF TABLES | VII |
| LIST OF FIGURES | х |
| ACKNOWLEDGEMENTS | XI |
| ABSTRACT | XIII |

CHAPTER 1: INTRODUCTION

| 1.1 | Background of the Study | 1 |
|-----|---|----|
| 1.2 | Definition of Foreign Direct Investment | 4 |
| | 1.2.1 FDI and Its Link to Economic Growth and Development | 8 |
| 1.3 | Research Problem and Issues | 11 |
| | 1.3.1 Research Questions | 15 |
| 1.4 | The Objectives of the Study | 16 |
| 1.5 | Organization of the Study | 17 |
| | Notes on Chapter 1 | 18 |

CHAPTER 2: REVIEW OF LITERATURE ON FOREIGN DIRECT INVESTMENT

| 2.1 | Introduction | 22 |
|-----|--|----|
| 2.2 | Theories of Foreign Direct Investment | 23 |
| | 2.2.1 Micro Theories: Determinants of FDI | 23 |
| | 2.2.2 Macro Theories: Impact of FDI on Economic Growth | 27 |
| | 2.2.2.1 Proponents of Foreign Direct Investment | 28 |
| 90 | 2.2.2.2 The Dependencia School | 30 |
| | 2.2.2.3 The Bargaining Approach | 31 |
| | 2.2.2.4 The Structuralist Approach | 32 |

| | 2.2.2.5 The Benign Model of FDI | 34 |
|-----|---|----|
| | 2.2.2.6 The Malign Model of FDI | 35 |
| 2.3 | Review of Literature on Specific Studies | 36 |
| | 2.3.1 Increasing the Domestic Investment and Growth | 36 |
| | 2.3.2 Income Distribution | 40 |
| | 2.3.3 Technology Transfer | 41 |
| | 2.3.4 Improving the Local Productivity | 43 |
| | 2.3.5 Employment Generation | 44 |
| | 2.3.6 Industrial Development | 45 |
| | 2.3.7 Impact on Export Sector Development | 46 |
| | 2.3.8 Impact on Balance of Payments | 49 |
| 2.4 | Empirical Studies: Short-run and Long-run Relationship of | |
| | FDI and Economic Growth | 53 |
| 2.5 | Studies on FDI in Sri Lanka | 59 |
| 2.6 | Conclusion | 63 |
| | Notes on Chapter 2 | 63 |
| | | |

CHAPTER 3: METHODOLOGY TO THE STUDY

| 3.1 | Introduction | 67 |
|-----|---------------------------------|----|
| 3.2 | Hypotheses of the Study | 68 |
| 3.3 | Analytical Methods of the Study | 69 |
| | 3.3.1 Qualitative Analyses | 69 |
| | 3.3.2 Quantitative Analysis | 70 |
| 3.4 | Sources of Information and Data | 76 |
| 3.5 | Limitations of the Study | 77 |
| 3.6 | Conclusion | 79 |
| | Notes on Chapter 3 | 80 |

CHAPTER 4: EXTERNAL CAPITAL REQUIREMENTS IN THE PROCESS OF CAPITAL FORMATION

| 4.1 | Introduction | 82 |
|-----|---|-----|
| 4.2 | The Two Gap Approach: As an Early Economic Rational for | |
| | Foreign Capital | 84 |
| 4.3 | Importance of FDI as a Source of Capital Formation | 89 |
| 4.4 | Foreign Direct Investment in Developing Countries | 93 |
| 4.5 | The Case of Sri Lanka | 100 |
| 4.6 | Conclusion | 113 |
| | Notes on Chapter 4 | 115 |

CHAPTER 5: POLICY ENVIRONMENT FOR ATTRACTING FDI IN SRI LANKA

| 5.1 | Introduction | |
|-----|--|-----|
| 5.1 | Introduction | 118 |
| 5.2 | The Economic Attractiveness of a Country for FDI | 119 |
| 5.3 | Policy Environment in Sri Lanka for FDI Attraction | 120 |
| | 5.3.1 Trade Policy and Tariff Reforms | 121 |
| | 5.3.2 Export Development Strategy | 129 |
| | 5.3.3 Investment Climate with FDI Policy | 130 |
| | 5.3.3.1 The Board of Investment (BOI) | 133 |
| | 5.3.4 Investment Climate with other Macro Economics | |
| | Policies | 134 |
| 5.4 | Infrastructure Facilities for Attracting FDI | 135 |
| 5.5 | Trends and Patterns of FDI in Sri Lanka | 137 |
| 5.6 | Distribution of FDI by Sector, Origin and Geographical | |
| | Location | 143 |
| | 5.6.1 Distribution of FDI By Sector | 143 |
| | 5.6.2 Origin of FDI | 146 |
| 5.7 | Conclusion | 154 |
| | Notes on Chapter 5 | 155 |
| | | |

CHAPTER 6: IMPACT OF FDI ON MANUFACTURING EXPORT DEVELOPMENT AND EMPLOYMENT GENERATION

6.1 Introduction

158

PART 1: IMPACT OF FDI ON MANUFACTURING EXPORT DEVELOPMENT IN SRI LANKA

| 6.2. | GDP Composition and Structural Changes in Sri Lanka | | 159 |
|------|---|---|-----|
| | 6.2.1 Manufacturing Performance in Sri Lanka | | 163 |
| | 6.2.2 Changing Pattern of Manufacturing Sector | | 166 |
| 6.3 | FDI and Manufacturing Export Expansion in Sri Lanka | | 172 |
| | 6.3.1 Significance of the Export Sector | | 173 |
| | 6.3.2 Manufacturing Exports in Sri Lanka | | 173 |
| | 6.3.3 FDI and Manufacturing Exports in Sri Lanka | | 177 |
| | 6.3.4 Role of FDI in Manufacturing Exports in Sri Lanka | | 188 |
| | 6.3.5 Contribution of BOI Projects to Domestic Value Added | | 201 |
| | 6.3.6 Impact of FDI on Balance of Payments (BOP) in Sri Lanka | | 204 |
| | 6.3.6.1 Direct Effects on BOP | | 205 |
| | 6.3.6.2 Indirect Effects on BOP | ų | 207 |
| | | | |

PART 11: IMPACT OF FDI ON EMPLOYMENT GENERATION IN SRI LANKA

| 6.4 | Significance of Employment Generation in a Country | 209 |
|-----|---|-----|
| 6.5 | FDI and Its Link to Employment Generation | 209 |
| | 6.5.1 Direct Employment Effects of FDI | 211 |
| | 6.5.1.1 Labour Productivity in the Manufacturing Sector | 223 |
| | 6.5.1.2 Employment in Export Processing Zones (EPZs) | 225 |
| | 6.5.2 Indirect Employment Effects of FDI | 228 |
| | 6.5.3 Technology and Skill Transfer | 230 |
| 6.6 | Conclusion | 232 |
| | Notes on Chapter 6 | 233 |

CHAPTER 7: IMPACT OF FDI ON ECONOMIC GROWTH IN SRI LANKA

(AN EMPIRICAL MODEL)

| 7.1 | Introduction | 236 |
|-----|--|-----|
| 7.2 | Analytical Framework | 237 |
| | 7.2.1 The Model and the Variables | 237 |
| 7.3 | Methodology Adopted for Estimation | 239 |
| | 7.3.1 Unit Root Tests | 240 |
| | 7.3.2 Augmented Dickey Fuller (ADF) Test | 241 |
| | 7.3.3 Cointegration Tests | 242 |
| | 7.3.4 Vector Error Correction Model (VECM) | 244 |
| 7.4 | Econometric Results | 246 |
| 7.5 | Causal Relationship between the Variables (GDP, FDI, DIN and | |
| | EX) | 257 |
| | 7.5.1 The Granger Causality Test | 257 |
| 7.6 | Conclusion | 264 |
| | Notes on Chapter 7 | 265 |
| | | |

CHAPTER 8: SUMMARY AND CONCLUSIONS

| 8.1 | Introduction | 268 |
|-----|--|-----|
| 8.2 | Summary of the Chapters | 269 |
| 8.3 | Policy Implications of the Study | 274 |
| | 8.3.1 Attracting more FDI into the Country with Appropriate Policy | |
| | Changes | 274 |
| | 8.3.2 Sustainability in the Garment and Apparel Sector | 276 |
| | 8.3.3 Improving the Value Addition in the Apparel Sector | 276 |
| | 8.3.4 Product Diversification | 277 |
| | 8.3.5 Improving the Dignity and the Image of the Factory Workers | 277 |
| | 8.3.6 Facing the Emerging Global Market Competition | 278 |
| | 8.3.7 Maintaining the Economic and Political Stability | 279 |
| | 8.3.8 Expansion of the Manufacturing Sector to Remote Areas | 280 |
| 8.4 | Areas for Further Research | 280 |

| BIBLIOGRAPHY | 282 |
|---|-----|
| APPENDICES | 322 |
| Appendix 1: Variables and Real Data used for Time Series Data | |
| Analysis: 1978-2005 | 322 |
| Appendix 2: Real Quarterly Data: 1978-2005 | 323 |
| Appendix 3: Descriptive Statistics for 1978-2005 | 326 |
| Appendix 4: Unit-root tests for 1980 to 2005 | 328 |
| Appendix 5: Cointegration Analysis | 335 |
| Appendix 6: Error Correction Model | 336 |
| Appendix 7: Granger Causality Tests | 338 |

LIST OF TABLES

| Table 1.1 | Net Private Capital Flows to Developing Countries:1996-2003 | 3 |
|------------|--|-----|
| Table 1.2 | Incremental Capital Output Ratio (ICOR) in Sri Lanka: 1961-2004 | 14 |
| Table 4.1 | External Debt, Debt Service Payments and Official Flows to | |
| | Developing Countries:1991-2003 | 91 |
| Table 4.2 | Inflows of FDI to Developing Countries by Region: 1992-2003 | 94 |
| Table 4.3 | Inflows of FDI to East and South-East Asia: 1992-2003 | 97 |
| Table 4.4 | Inflows of FDI to South Asia: 1992-2003 | 99 |
| Table 4.5 | Real GDP Growth Rates of South Asian Countries: 1998-2002 | 101 |
| Table 4.6 | Investment-Savings (Domestic savings) Gap in Sri Lanka : 1978- | |
| | 2003 | 103 |
| Table 4.7 | Government Revenue, Expenditure and Budget Deficit/Surplus in | |
| | Sri Lanka: 1978-2003 | 104 |
| Table 4.8 | Exports, Imports and Exports-Imports Gap in Sri Lanka: 1978-2003 | 106 |
| Table 4.9 | Investment-Savings (National Savings) Gap in Sri Lanka: 1978- | |
| | 2003 | 107 |
| Table 4.10 | External Resource Gap and Source of Financing: 1981-2003 | 108 |
| Table 4.11 | External Debt and Debt Service Payments: 1978-2003 | 111 |
| Table 4.12 | FDI Inflows as a Percentage of Investment-Savings Gap: 1978-2003 | 112 |
| Table 5.1 | Import Duty and the Share of Dutiable Imports: 1978-2003 | 125 |
| Table 5.2 | Contribution of Export Duties to Government Revenue: 1978-1993 | 127 |
| Table 5.3 | Major Tariff Reforms in Sri Lanka: 1977-2002 | 128 |
| Table 5.4 | Profile of Privatizations with Major Foreign Investment: 1989-2003 | 138 |
| Table 5.5 | Inflows of FDI to Sri Lanka: 1978- 2003 | 140 |
| Table 5.6 | Comparative FDI Performance of Sri Lanka: 1981-2002 | 143 |
| Table 5.7 | Sectoral Distribution of Cumulative FDI Flows: 1979-2004 | 144 |
| Table 5.8 | Cumulative FDI Flows among the Sectors and Sub Sectors in | |
| | Manufacturing, as at end 2004 | 145 |
| Table 5.9 | Home Country Distribution of FDI in Sri Lanka, Cumulative, 1979- | |
| | 2003 | 147 |
| | | |
| Table 5.10 | Cumulative Investment by projects as at end 2002 | 149 |

| Table 5.11 | Distribution of FDI in Operation by Districts, Cumulative as at end | |
|------------|---|-----|
| | 2002 | 150 |
| Table 5.12 | No. of Projects and Estimated Investment by Location-2004 | 151 |
| Table 6.1 | Percentage Distribution of GDP by Sectors: 1978-2003 | 160 |
| Table 6.2 | Percentage of Capacity Utilization and Contribution of the | |
| | Manufacturing Sector to GDP: 1978-2003 | 164 |
| Table 6.3 | Percentage Distribution of Manufacturing Sector (by Sub-sectors) in | |
| | Sri Lanka: 1978-2003 | 167 |
| Table 6.4 | Percentage Distribution of Value Added in the Manufacturing Sector | |
| | (by Sub-sectors) in Developing Countries: 1990 and 2001 | 170 |
| Table 6.5 | Manufacturing Exports in Selected South, East and South-East | |
| | Asian Countries in 1990 and 2000 | 171 |
| Table 6.6 | Inflow of FDI in the Manufacturing Sector (by Sub Sectors) 1979, | |
| | 1985, 1991, 1997 and 2004 | 176 |
| Table 6.7 | Manufacturing Exports as a Percentage of Manufacturing | |
| | Output :1978-2003 | 178 |
| Table 6.8 | Manufacturing Exports as a Percentage of Total Merchandise | |
| | Exports:1978-2003 | 182 |
| Table 6.9 | Manufacturing Exports in Selected Developing | |
| | Economies: 1980-2000 | 185 |
| Table 6.10 | Percentage Distribution of Exports in Sri Lanka by Sectors: 1977, | |
| | 1993 and 2003 | 186 |
| Table 6.11 | Exports Performance of BOI Projects in Sri Lanka:1979-2003 | 189 |
| Table 6.12 | Exports of Foreign Firms as a Percentage of Total Merchandise | |
| | Exports:1979-2003 | 193 |
| Table 6.13 | Percentage Distribution of Industrial Exports in Sri Lanka by Sub | |
| | Sectors (For Some Selected Years) | 195 |
| Table 6.14 | Export Earnings of BOI Projects by Sectors as at end 2004 | 198 |
| Table 6.15 | Manufacturing Exports by Foreign Firms by Sectors (100% Foreign | |
| | Owned and Joint Ventures) for Some Selected Years: 1979, 1985, | |
| | 1991, 1997, 2002 and 2004 | 200 |
| Table 6.16 | Domestic Value Added of BOI Projects:1979-2003 | 203 |

| Table 6.17 | Direct Effects of FDI on the Balance of Payments of | |
|-------------|--|-----|
| | Sri Lanka: 1979-2003 | 206 |
| Table 6.18 | Unemployment Rates in Sri Lanka: 1978-2003 | 212 |
| Table 6.19 | Share of Employment in Industrial and Manufacturing Sectors in | |
| | Sri Lanka: 1978-2003 | 215 |
| Table 6.20 | Share of Manufacturing Employment by Region: 1990 and 2000 | 218 |
| Table 6.21 | Employment in the Manufacturing Sector of BOI Projects in | |
| | Sri Lanka:1978-2003 | 220 |
| Table 6.22 | Total (Cumulative) Employment in BOI Projects by Sectors: 1979, | |
| | 1985, 1991, 1997, 2002 and 2004. | 222 |
| Table 6. 23 | Labour Productivity in the Manufacturing Sector in Sri Lanka: | |
| | 1978/79-2000 | 225 |
| Table 6.24 | Employment of Export Processing Zones in Sri Lanka | |
| | (As at end Dec. 2004) | 227 |
| Table 7.1 | Summary of Descriptive Statistics of the data used for Cointegration | |
| | Analysis: 1978-2005 | 249 |
| Table 7.2 | (a) Unit Root Tests for 1980 to 2005 - Level | |
| | (b) Unit Root Tests for 1981 to 2005 - First difference | 251 |
| Table 7.3 | Test of Cointegration among the Variables | 252 |
| Table 7.4 | Error Correction Model Representation | 255 |
| Table 7.5 | Granger Causality Test | 260 |

LIST OF CHARTS AND MAPS

| Chart 3.1 | Overall Methodology of the Research | 75 |
|-----------|--|-----|
| Map I | Location of Free Trade Zones and Industrial Parks in Sri Lanka | 153 |

LIST OF FIGURES

| Figure 4.1 | Economic Growth Under the Foreign Exchange Constraint | 88 |
|-------------|--|-----|
| Figure 4.2 | Source of Financing the External Resources Gap: 1981-2003 | 110 |
| Figure 4.3 | FDI Inflows as a Percentage of Investment-Savings Gap: | |
| | 1978-2003 | 113 |
| Figure 5.1 | Trends in Foreign Direct Investment: 1978-2003 | 141 |
| Figure 5.2 | FDI as a Percentage of Gross Domestic Capital Formation: 1978- | |
| | 2003 | 142 |
| Figure 6.1 | Sectoral Composition of GDP in Sri Lanka: 1978 and 2003 | 161 |
| Figure 6.2 | Manufacturing Exports as a Percentage of Manufacturing | |
| | Output:1978-2003 | 179 |
| Figure 6.3 | Manufacturing Exports as a Percentage of Total Merchandise | |
| | Exports:1978-2003 | 184 |
| Figure 6. 4 | Percentage Distribution of Exports in Sri Lanka by Sectors: 1977, | |
| | 1993 and 2003 | 187 |
| Figure 6. 5 | Exports Performance of BOI Projects in Sri Lanka:1979-2003 | 191 |
| Figure 6.6 | Exports of Foreign Firms as a Percentage of Total Merchandise | |
| | Exports:1979-2003 | 194 |
| Figure6.7 | Percentage Distribution of Industrial Exports by Sub Sectors: 1978 | |
| | and 2003 | 196 |
| Figure 6.8 | Domestic Value Added of BOI Projects in Sri Lanka:1978-2003 | 204 |
| Figure 6.9 | Direct Effects of FDI on the BOP of Sri Lanka:1979-2003 | 207 |
| Figure 6.10 | Unemployment Rates in Sri Lanka:1978-2003 | 214 |
| Figure 6.11 | Share of Employment in the Industrial and Manufacturing Sectors | |
| | in Sri Lanka: 1978-2003 | 216 |
| Figure 6.12 | Employment in the Manufacturing Sector of BOI | |
| | Projects:1978-2003 | 221 |
| Figure 7.1 | Trend of the Variables(a, b, c, d) | 247 |

ACKNOWLEDGEMENTS

It is my pleasure to express my great gratitude and appreciation to my supervisors Professor P. Wilson and Professor Jagath Wikramasinghe, University of Sri Jayawardenepura, Sri Lanka for their continued encouragement, valuable guidance and patience given to me during the preparation of this thesis. I have greatly benefited from the opportunity to learn under their supervision. My special thanks also go to late Professor W. A. Jayatissa, University of Sri Jayawardenepura, Sri Lanka for his valuable comments and suggestions. I also appreciate the kind assistance given to me by Senior Lecture, Mr Wasantha Athukorala, (PhD student of Queensland University of Technology, Australia), University of Peradeniya, Sri Lanka especially with regard to econometric work.

I wish to express my sincere thanks to Head of the Department, Senior Lecturer Mr Chandra Kumara and other members of the Department of Economics and Faculty of Postgraduate Studies, the University of Sri Jayewardenepura, Sri Lanka for giving me an opportunity and providing facilities to undertake this study.

My thanks are due especially to late Professor Kamal Karunanayake for his valuable comments and supports. I am also grateful to late Professor Sirisena Tilakaratne, Mrs Mangalika Thanthirigama and Professor K. Dharmasena. My appreciation is also should go to my colleagues: Professor Herath Madana Bandara, Senior Lecturer, Dr Mrs K.U.A. Tennakoon, Senior Lecturer, Dr Mrs Ranitha Ratnayake, and Lecturer, Mrs Lakdini Seneviratna, University of Kelaniya, Sri lanka and also Mr Nalaka Gamage, Mrs Manjula Tennakoon, Mr R. B. Tennakoon Mr A. Samitha for their continued encouragement and valuable cooperation during the period of this study.

My thanks are also due to external examiners Professor, D. Atapattu, University of Ruhuna, Sri Lanka and Professor, S. M. P. Senanayake, University of Colombo, Sri Lanka for their valuable comments on the original draft of the thesis. Finally, I should also pay my affectionate gratitude to my husband Pathi, two sons Chandana, Supun and daughter Dilini for the continuous encouragement and support they extended to me with dedication and helping me to devote time for the research work without interruption.

IMPACT OF FOREIGN DIRECT INVESTMENT (FDI) ON ECONOMIC GROWTH IN SRI LANKA: 1978-2003

Jayasundara Mudiyanselage Podimenike Pathirage

ABSTRACT

Foreign Direct Investment (FDI) has been recognized as a major source of promoting economic growth and development with its package of tangible and intangible assets such as capital, technology, knowledge, managerial skills and market access to developing countries. The deficiency of capital due to the saving-investment and import-export gaps has been considered as a major constraint to economic growth in Sri Lanka. FDI has been an important source of foreign financing to fill these two gaps and overcome the problem of capital formation since 1977. The study is based on time series data mainly from Central Bank of Sri Lanka and Board of Investment (BOI) covering the period of 1978-2003. The prime objective of this study is to analyze the impact of FDI on export-led manufacturing development and its contribution to employment generation in the economy. Both qualitative and quantitative approaches have been used to analyze these impacts of FDI. The production function approach has been utilized as the theoretical framework for undertaking empirical work to test the relationship between FDI and economic growth along with other two variables domestic investment and exports. In this empirical investigation unit root test, cointegration analysis, error correction modeling approaches and causality test have been utilized. The overall results indicated that there was no short-run impact of FDI on GDP growth in Sri Lanka, but the long-run relationship could be recognized. The econometric results further show that FDI alone does not exert an independent influence on economic growth but with the combined effects of domestic investment and exports have made a significant contribution to economic growth.

According to the causality test, the direction of causation is not towards from FDI to GDP growth but the direction goes from GDP growth to FDI. Among measures proposed in this connection is sound investment and financial polices to promote diversified FDI that needs to be well coordinated within the macro-economic policy framework, and the need for consistency, and firm commitment to such policies.