

# **The Impact of Trade Liberalisation on Economic Structure and Performance: Case of the OECS**

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*This study is dedicated to the goal of a sustainable global trade environment with due regard to economic diversity among nations.*

## TABLE OF CONTENTS

|   |    |
|---|----|
| The Impact of Trade Liberalisation on Economic Structure and Performance: Case of the OECS .....      | 1  |
| SECTION I .....   | 13 |
| Chapter One: Introduction .....   | 14 |
| 1.1 Overview .....  | 14 |
| 1.2 Research Objectives.....  | 15 |
| 1.2.1 Research Questions.....   | 15 |
| 1.3 Methodology and Analytical Framework.....   | 17 |
| 1.3.1 Methodology.....  | 17 |
| 1.3.1.1 Discussion on Choice of Methodology and Approach.....   | 17 |
| 1.3.2 Analytical Framework and Theoretical Perspective.....   | 20 |
| 1.3.2.1 A Neo-Structuralist View .....  | 20 |
| 1.3.2.2 External Factors .....  | 21 |
| 1.3.2.3 Summary of the Analytical Perspective .....   | 22 |
| 1.4 Justification for Research .....  | 23 |
| 1.5 Expected Contribution of Study .....  | 24 |
| 1.6 Organisation of the Thesis .....  | 26 |
| Chapter Two (2).....  | 27 |
| Literature Review: The Promises and Perils of Trade Liberalisation.....                               | 27 |
| 2.1 Introduction .....  | 27 |
| 2.1.1 Overview .....  | 27 |
| 2.1.2 The Evolution of the neo-liberal trade policy.....  | 29 |
| 2.2 Impact of Trade Liberalisation on Economic Performance: Terms of the Debate—For and Against ..... | 33 |
| 2.2.1 The View of Advocates .....   | 33 |
| 2.2.2 Some Detracting Voices and Criticisms .....   | 35 |
| 2.3 The Debate on Economic Performance: A brief look at some empirical studies                        |    |
| 51  |    |
| 2.3.1 Gains from Trade Liberalisation.....  | 51 |
| 2.3.2 Trade Liberalisation and Export-led Growth.....   | 52 |
| 2.3.3 Liberalisation and Regional Trade Agreements (RTAs) .....                                       | 55 |
| 2.3.4 Some Other Issues in the Empirical Debate .....   | 56 |
| 2.3.5 Summary of the Debate of Trade Liberalisation on Economic Performance                           |    |
| 57  |    |
| The Debate around the Structural Impacts of Trade Reform .....  | 58 |
| 2.3.4 Introduction .....  | 58 |
| 2.3.5 The Fiscal Impact of Trade Reforms and the Role of the State.....                               | 60 |
| 2.3.5.1 On the Fiscal Impact of Trade Reforms .....   | 60 |
| 2.3.5.2 Implications for the Role of Government.....  | 61 |
| 2.3.5.3 Issues of National Sovereignty .....  | 63 |
| 2.5 On the generalisations and applicability of neo-liberal trade model to SIDS ..                    | 65 |
| 2.5.1 Peculiarities of SIDS: Size and Structural Issues .....   | 66 |
| 2.6 Additional Issues Arising from the Debate .....   | 71 |
| 2.6.1 Regionalism, Economic Integration and Trade liberalisation .....                                | 71 |
| 2.7 On the Implementation of Trade Liberalisation .....   | 75 |
| 2.7.1 Sequencing and Timing .....   | 75 |
| 2.7.2 Trade Liberalisation: Exchange Rate Regimes and Macroeconomic Stability                         |    |
| 77  |    |

|   |     |
|---|-----|
| 2.8 Literature Review: Some Concluding Remarks .....  | 79  |
| Chapter Three (3).....  | 81  |
| Trade Policy in the OECS: Past, Present and Future .....  | 81  |
| 3.1 Introduction .....  | 81  |
| 3.2 Historical Antecedents and the Changing Trade Environment .....   | 82  |
| 3.2.1 Non-reciprocal Bilateral and Multilateral Trade Arrangements.....   | 82  |
| 3.2.2 External Liberalisation: The Rise of Multilateralism .....  | 83  |
| 3.3 The Rationale and Motivation for OECS Trade and Economic Reforms .....  | 87  |
| 3.3.1 Declining External Competitiveness .....  | 88  |
| 3.3.2 Multilateral Commitments under the Uruguay Agreement .....  | 89  |
| 3.3.3 Changes in the Geography of Trade: The Re-emergence of Regionalism  | 90  |
| 3.3.4 Objectives of Structural Adjustment and Trade reforms .....   | 91  |
| 3.4 Economic Structure, Performance and Characteristics .....   | 92  |
| 3.4.1 Economic Structure and Characteristics: An overview .....   | 92  |
| 3.4.2 Structural Openness, External Dependence and the Balance of Payments  | 95  |
| 3.4.3 Vulnerability .....   | 97  |
| 3.4.4 Private Sector.....   | 98  |
| 3.5 Institutional Factors and their Implications for Trade Policy .....   | 100 |
| 3.5.1 The Government Sector and the requirements of economic reforms: An<br>Institutional Perspective .....       | 100 |
| 3.5.2 Trade Tax Dependence and the Role of Government .....   | 102 |
| 3.5.3 Exchange Rate Re-Alignment .....  | 104 |
| 3.6 OECS Trade Liberalisations Efforts and Agenda.....  | 107 |
| 3.6.1 An Overview of the OECS Trade Regime: The Structure of Tariffs and<br>Taxes on Production in the OECS ..... | 107 |
| 3.6.1.1 Export Subsidies and Discretionary Fiscal Incentives.....   | 109 |
| 3.6.1.2 Production Taxes .....  | 110 |
| 3.6.1.3 Direct Import Controls.....   | 111 |
| 3.6.1.4 Other Taxes and Charges on Trade and Transactions .....   | 112 |
| 3.6.2 Tariff Liberalisation and the New Structure of Tariffs.....   | 112 |
| 3.7 Trade Liberalisation: Complementary Policies and Reforms.....   | 115 |
| 3.7.1 Improving the Enabling Environment .....  | 115 |
| 3.7.1.1 Institutional Strengthening .....   | 116 |
| 3.7.1.2 Export and Investment Promotion .....   | 116 |
| 3.7.1.3 Private Sector Capacity Enhancement.....  | 117 |
| 3.7.1.4 Privatisation and Corporatisation .....   | 118 |
| 3.7.1.5 Standardisation .....   | 118 |
| 3.7.1.6 Greater Economic Integration of the OECS: The OECS Economic<br>Union                                      | 119 |
| 3.7.1.7 Technical Assistance and Capacity Building Initiatives .....  | 119 |
| 3.7.1.8 Legislative Reforms.....  | 120 |
| 3.7.1.9 Tax Reforms .....   | 120 |
| 3.7.2 Productive Sector Reforms .....   | 121 |
| 3.7.2.1 Impact of trade liberalisation on key agriculture exports—Bananas..                                       | 121 |
| 3.7.2.2 Impact of trade liberalisation on the region’s manufacturing sector-early<br>indications.....             | 123 |
| 3.7.3 Services Liberalisation and the Rise of the Service Economy .....   | 125 |
| 3.8 The Nature of OECS Reforms: Implementation Issues.....  | 131 |
| 3.9 Concluding Remarks .....  | 133 |

|  |     |
|--|-----|
| SECTION II.....  | 135 |
| EMPIRICAL ANALYSIS .....   | 135 |
| Chapter Four (4) .....   | 136 |
| Impact on Export Structure.....  | 136 |
| 4.1     Introduction .....   | 136 |
| 4.1.1     Chapter Organisation and Analytical Perspective .....                                | 138 |
| 4.2     An Overview of Economic Performance and Structural Change (1989-03) ...                | 139 |
| 4.2.1     Economic Performance.....  | 139 |
| 4.2.2     The Macroeconomic Picture.....   | 140 |
| 4.2.3     The Macro-picture: A Summary across the reform period.....                           | 146 |
| 4.3     Trade Behaviours Resource-Gaps, and Trade Liberalisation .....                         | 147 |
| 4.3.1     Trade Liberalisation and the Foreign Trade Multiplier .....                          | 147 |
| 4.3.2     Trade Liberalisation and the Dual-Gaps.....  | 149 |
| 4.3.3     Intra-Regional Trade and OECS Trade Reforms.....                                     | 152 |
| 4.4     Structural Changes in OECS Export Trade .....  | 155 |
| 4.4.1     Introduction .....   | 155 |
| 4.4.1.1     An Overview of OECS Trade Performance: 1984-2003 .....                             | 157 |
| 4.4.2     Distribution of Export Sectors, Market Diversification and Export Concentration..... | 158 |
| 4.4.2.1     Distribution of Export Sectors: Product Diversification .....                      | 158 |
| 4.4.2.2     Export Market Diversification.....   | 160 |
| 4.4.2.3     Changes in Export Concentration.....   | 160 |
| 4.4.3     Economic Composition and Technology Intensity of Exports.....                        | 162 |
| 4.4.3.1     Changes in the Economic Composition of Exports .....                               | 162 |
| 4.4.3.2     Changes in the Technology Intensity of OECS Exports .....                          | 163 |
| 4.4.4     Changes in Traditional Importance of Key Export Sectors.....                         | 164 |
| 4.4.4.1     Cumulative Export Experience and Traditionality .....                              | 164 |
| 4.4.4.2     Changes in OECS Exports Structure: The UNCTAD Approach .....                       | 167 |
| 4.4.5     Cumulative Export Experience and Export-led Growth in the OECS ....                  | 170 |
| 4.5     Structural changes in OECS Exports: Stability and Patterns of Specialisation           | 171 |
| 4.5.1     Changes in Revealed Comparative Advantage.....                                       | 171 |
| 4.5.2     Changes in Export Structure and Pattern of Specialisation.....                       | 172 |
| 4.5.3     Stability of OECS Exports.....   | 173 |
| 4.6     Structural Change in OECS Exports: A parametric Approach.....                          | 174 |
| 4.6.1     Introduction .....   | 174 |
| 4.6.2     Results of Parametric Investigation.....   | 175 |
| 4.6.3     Testing the Hypothesis of Export Stability.....                                      | 176 |
| 4.7     Concluding remarks on Structural Change.....   | 178 |
| Chapter Five (5).....  | 181 |
| Empirical Analysis of the Growth related Impacts of Trade Liberalisation.....                  | 181 |
| 5.1     Introduction .....   | 181 |
| 5.1.1     Phased Implementation of the CET .....   | 182 |
| 5.2     The OECS Growth Experience (1984-2003).....  | 183 |
| 5.3     Channels in the Trade Policy-Growth Nexus .....  | 184 |
| 5.4     Data Issues .....  | 188 |
| 5.5     Methodology .....  | 188 |
| 5.6     Model and Framework.....   | 190 |
| 5.7     Trade Openness Measures and Growth .....   | 197 |
| 5.8     Correlation between Economic Growth and Trade Policy and Openness Measures .....       | 199 |
| 5.9     Model Estimation.....  | 201 |

|   |     |
|---|-----|
| 5.10 Trade Openness Measures and Economic Growth .....  | 205 |
| 5.10.1 Price-based Measures .....   | 205 |
| 5.10.2 Volume-based Measures.....   | 207 |
| 5.11 Modelling Trade Liberalisation in a Dynamic panel framework .....  | 208 |
| 5.12 Estimating the Trade Policy Growth nexus-A Simultaneous Model Approach<br>212                            |     |
| 5.12.1 Introduction .....   | 212 |
| 5.12.2 Simultaneous Model - The Setup .....   | 213 |
| 5.12.3 The Trade Policy Component of Openness .....   | 215 |
| 5.12.4 Correlation Analysis: Trade policy Indexes, Openness and Growth Channels<br>217                        |     |
| 5.12.4.1 Trade Policy Openness Indexes and Trade Policy Instruments.....                                      | 217 |
| 5.12.4.2 Trade Policy Openness Indexes and Growth Channels.....   | 217 |
| 5.12.5 Summary Indicators.....  | 218 |
| 5.12.5.1 Trade Policy Indexes and Growth Channels .....   | 218 |
| 5.13 Empirical Results-Simultaneous Model .....   | 220 |
| 5.13.1 Impact of Trade Policy openness-Pre Reform.....  | 220 |
| 5.13.2 Impact of Trade Policy openness-Post Reform .....  | 223 |
| 5.14 Sensitivity Analysis .....   | 227 |
| 5.15 Conclusions .....  | 229 |
| Chapter Six (6).....  | 231 |
| Other Impacts of Trade Liberalisation: Export Growth, Fiscal Performance and<br>Technology Transfer.....      | 231 |
| 6.1 Introduction .....  | 231 |
| 6.2 Impact of Trade Liberalisation on Export Performance .....  | 232 |
| 6.2.1 A Supply-Side Assessment using the Feder Framework.....   | 232 |
| 6.2.2 Trade Liberalisation, Export Growth and Demand-Side Factors .....                                       | 236 |
| 6.3 Technology Transmission and Trade Policy Reform .....   | 242 |
| 6.3.1 Theoretical Consensus .....   | 242 |
| 6.3.2 Technology Transmission and Trade Liberalisation: Empirical Results.                                    | 244 |
| 6.4 The Fiscal impact of Trade Liberalisation in the OECS.....  | 247 |
| 6.4.1 Background and Theoretical Issues.....  | 247 |
| 6.4.2 Shifts in Component Shares of Trade Taxes .....   | 248 |
| 6.4.3 Fiscal Dependence and the CET.....  | 249 |
| 6.4.4 Changes in Fiscal Dependence by OECS Member Country .....   | 251 |
| 6.4.5 Fiscal Impact of Trade Reforms: An Econometric Approach.....  | 252 |
| 6.4.6 The Revenue Effect of OECS Trade Reforms (1984-2003).....   | 255 |
| 6.4.7 Fiscal Impacts—Some Concluding Remarks .....  | 256 |
| 6.5 The Impact of Trade Reforms on the BOP .....  | 257 |
| 6.5.1 An Overview.....  | 257 |
| 6.5.2 The Balance of Payments Constraint Model .....  | 258 |
| 6.5.3 BOP-Constraint Growth—What Does the Evidence Say? .....   | 260 |
| 6.5.4 Trade Liberalisation and “Other Impacts”: Some Summary Remarks....                                      | 266 |
| SECTION III .....   | 269 |
| Chapter Seven (7) .....   | 270 |
| Synthesis of Results and Issues: Understanding the Trade Liberalisation Experience of the<br>OECS- SIDS ..... | 270 |
| 7.1 Introduction .....  | 270 |
| 7.2 Discussion of Results: What Have We Found? .....  | 270 |
| 7.2.1 Findings in Relation to Research Questions.....   | 271 |
| 7.2.2 Summary of Findings .....   | 276 |

|   |     |
|---|-----|
| 7.3 Understanding the OECS Experience with Trade Liberalisation: Plausible Explanations .....                               | 278 |
| 7.4 Proposition 1: The J-curve Type Response .....  | 279 |
| 7.4.1 Implications of Institutional Factors and High Costs Structures for the Speed of Adjustment .....                     | 280 |
| 7.4.1.1 High Costs, Institutional Factors and the Speed of Internal Adjustment: Why Not Shift From Bananas to Spices? ..... | 281 |
| 7.4.2 Limitations of Price Signals.....   | 283 |
| 7.5 Proposition II: External Environment-Liberalisation and other factors .....   | 285 |
| 7.5.1 Changes to EU Market-Access Regime for OECS Traditional Exports .   | 285 |
| 7.5.2 Impact of New Global Trade Dispensation: WTO Rules and Principles   | 286 |
| 7.5.2.1 Implications of Timing and Sequencing of Trade Liberalisation Reforms   | 288 |
| 7.5.3 Other External Shocks: Upward Trend in Oil Prices.....  | 290 |
| 7.6 Recommendations: Re-emphasising Good Policies .....   | 291 |
| 7.6.1 Internal Policy: Scope for Improvement.....   | 291 |
| 7.6.1.1 Promotion of Linkage Effects.....   | 291 |
| 7.6.1.2 Balancing Trade Reforms and the Revenue Objectives .....  | 292 |
| 7.6.1.3 The Role of Institutional Factors .....   | 293 |
| 7.6.2 Reform of the External Policy Environment: Some Thoughts .....  | 294 |
| 7.6.2.1 The Role of Governments in the New Market Dominated.....  | 294 |
| 7.6.2.2 Reform of the WTO and its Rules of Trade Engagement .....   | 295 |
| 7.6.3 Towards an Alternative Approach to Trade Liberalisation .....   | 298 |
| 7.6.3.1 Introduction .....  | 298 |
| 7.6.3.2 Voices in Support of SODAT-like Approach to Tariff Liberalisation   | 301 |
| 7.6.3.3 Construction of the SODAT .....   | 303 |
| 7.6.3.4 Scope for Refinement and Other Possible Applications of a SODAT   | 306 |
| 7.6.3.5 Tariff Reduction and the SODAT .....  | 310 |
| 7.6.3.6 A Preliminary Summary On the need for a SODAT .....   | 312 |
| 7.6 Conclusions .....   | 314 |
| Chapter Eight (8) .....   | 316 |
| Summary and Conclusions .....   | 316 |
| 8.1 Introduction .....  | 316 |
| 8.2 Impact of Trade Liberalisation: A Summary .....   | 316 |
| 8.2.1 Economic Structure .....  | 316 |
| 8.2.2 Economic Growth.....  | 317 |
| 8.3 Synthesis .....   | 319 |
| 8.4 Future Challenges .....   | 320 |
| 8.5 Some Positives.....   | 322 |
| 8.6 Limitations of the Study .....  | 323 |
| 8.7 Future Research .....   | 323 |
| 8.8 Conclusions .....   | 324 |
| APPENDICES .....  | 327 |
| APPENDIX A.1—Map of OECS Region .....   | 327 |
| APPENDIX A.2—Schematic Outline of Study .....   | 328 |
| APPENDIX A.3—Abbreviations and Definitions .....  | 329 |
| APPENDIX A.4—List of SITC Revision Two (2) Commodities.....   | 331 |
| Appendix A.5-Net impact on exports by country.....  | 333 |
| REFERENCES .....  | 334 |

## List of Tables

|   |     |
|---|-----|
| Table 3.1 Chronology and Political Anatomy of Global Trade Reforms.....                         | 87  |
| Table 3.2 Selected Indicators of Vulnerability and External Dependence of OECS SIDS .....       | 97  |
| Table 3.3 Taxes on International trade and Transactions .....                                   | 108 |
| Table 3.4 OECS Tariff Reduction Schedule.....   | 113 |
| Table 3.5 Specific Restrictions by Mode of Service Delivery .....                               | 129 |
| Table 3.6 OECS Trade-Orientation .....  | 134 |
| Table 4.1 Five Average Growth rates-Before, During and After Reforms .....                      | 140 |
| Table 4.2 Summary of OECS Macroeconomic Indicators (1984-2003) .....                            | 141 |
| Table 4.3 Net Exports and Changes in Propensities to Import and Save .....                      | 148 |
| Table 4.4 Changes in OECS Intra-regional Trade with CARICOM .....                               | 153 |
| Table 4.5 Changes in Distribution of OECS Exports by member country.....                        | 159 |
| Table 4.6 Changes in Export Concentration Index of OECS over the reform period (1993-2002)..... | 161 |
| Table 4.7 Changes in OECS exports by Technology Intensity .....                                 | 163 |
| Table 4.8 Rank of Top ten (10) exports by Traditionality and Cumulative Export Value .....      | 165 |
| Table 4.9 Structural Change in top (10) Exports.....  | 169 |
| Table 4.10 Period average number of Specialised Export Sectors during and after reforms .....   | 172 |
| Table 4.11 Changes in the share of the Top ten (10) and Specialised Industries .....            | 172 |
| Table 4.12 Temporal Changes in the Distribution of Share of Specialised Export Sectors .....    | 173 |
| Table 4.13 Results from Test for Changes in OECS Exports Stability .....                        | 177 |
| Table 5.1 Variables and Definitions .....   | 196 |
| Table 5.2.A Correlation between economic growth and Price-related trade policy variables .....  | 200 |
| Table 5.2.B Correlation between Economic growth and trade volume-based Openness measures .....  | 200 |
| Table 5.3 Impact of Trade Policy and other growth determinants on Growth.....                   | 202 |
| Table 5.4 Channel Effects: Before and After Reforms.....  | 203 |
| Table 5.5 Returns to Scale .....  | 205 |
| Table 5.6 Price Based Measures and Growth.....  | 206 |
| Table 5.7 Volume based openness measures, Growth determinants and Growth.....                   | 208 |
| Table 5.8 Dynamic impact of Trade Policy on Growth.....   | 211 |
| Table 5.9 Estimation of Trade Shares due to Trade Policy .....                                  | 216 |
| Table 5.10 Correlation between Trade Policy Openness and Key components .....                   | 217 |
| Table 5.11 Correlation Matrix of Channels, Growth and Openness Variables .....                  | 218 |
| Table 5.12 Summary Statistics of Key Variables.....   | 219 |
| Table 5.13 Summary Statistics of Growth and Trade Policy Indices.....                           | 219 |
| Table 5.14 Structural System: Baseline Scenario-Before Trade Reforms (1984-93) ....             | 221 |
| Table 5.15 Summary of Channel Effects Using Trade Policy I .....                                | 222 |
| Table 5.16 Structural System: post-Reform Scenario (1994-2003) .....                            | 224 |
| Table 5.17 Summary of Channel Effects Using Trade Policy II .....                               | 225 |
| Table 6.1 Impact of Trade reforms on Export Performance-using a Feder-Type Formulation .....    | 234 |
| Table 6.2 Export Performance and Trade Reforms—Demand-side considerations.....                  | 239 |
| Table 6.3 Technology Transmission Effects .....   | 246 |

|  |     |
|--|-----|
| Table 6.4 Fiscal Dependence and Implementation of the CET .....                                | 250 |
| Table 6.5 Summary Fiscal Dependence Indicators .....   | 251 |
| Table 6.6 Estimation Results of Fiscal Impact of Trade Reforms.....                            | 253 |
| Table 6.7 Descriptive Statistics of Fiscal Indicators .....                                    | 256 |
| Table 6.8 Price and Income Elasticity of Demand for Imports .....                              | 261 |
| Table 6.9 Summary Statistics: A Comparison of Actual and Predicted Growth.....                 | 262 |
| Table 6.10 Test of the Balance of Payments Constraint Hypothesis.....                          | 263 |
| Table 7.1 Net-Impact: Win-Lose Distribution of Top 10 exports .....                            | 276 |
| Table 7.2 Illustrative example of the SODAT .....  | 306 |
| Table 7.3 Estimated SODAT rates using a Composite Index of Trade Performance Determinants..... | 309 |

## **List of Figures**

|   |     |
|---|-----|
| Figure 3.1 Economic Structure of the OECS.....                                      | 94  |
| Figure 3.2 Trends in External Sector.....   | 96  |
| Figure 3.3 Export Trend in Key OECS Export-Bananas.....                             | 122 |
| Figure 3.4 Trends in Export Services .....  | 126 |
| Figure 4.1 Trend in External Debt Ratio .....                                       | 144 |
| Figure 4.2 Key Macroeconomic Indicators .....                                       | 146 |
| Figure 4.3 Twin-Gaps.....   | 150 |
| Figure 4.4 Internal and External Balance .....                                      | 151 |
| Figure 4.5 Changes in Trade Shares with Key Partners .....                          | 154 |
| Figure 4.6 Export Level and Moving Average (1984-2003).....                         | 158 |
| Figure 4.7 Box Plot of Changes in OECS Export Categories .....                      | 159 |
| Figure 4.8 Changes in the number of export markets by OECS territory .....          | 160 |
| Figure 4.9 Changes in the Composition of OECS Exports .....                         | 162 |
| Figure 4.10 Cumulative Export Functions of Key (5) Exports .....                    | 167 |
| Figure 4.11 Declining Role of Exports vis-à-vis Real GDP.....                       | 170 |
| Figure 5.1 Phased Reductions of Tariffs under the CET .....                         | 183 |
| Figure 5.2 Time Path of Growth in Income.....                                       | 184 |
| Figure 5.3 Channels through which Trade Policy generates Economic Growth.....       | 187 |
| Figure 5.4 A Schematic representation of the trade policy-growth nexus .....        | 197 |
| Figure 5.5 Structural System-Equation Specifications and Interrelationship.....     | 214 |
| Figure 5.6 Time Path of Trade Intensity Ratio .....                                 | 220 |
| Figure 5.7 Graphical representation of impact of growth determinants on Growth..... | 226 |
| Figure 6.1 Trend Export Growth .....  | 240 |
| Figure 6.2 Cumulative Shares of Indicators of Technology Transmission .....         | 245 |
| Figure 6.3 Components of Trade Taxes .....  | 249 |
| Figure 6.4 Rolling Ten-Year Trend Income Elasticity of Demand for Imports .....     | 265 |
| Figure 7.1 J-curve Type Adjustment Path .....                                       | 279 |
| Figure 7.2 Lorenz Curve modelled as an Exponential function .....                   | 304 |
| Figure 7.3 Possible Adjustment paths .....  | 311 |
| Figure 8.1 Comparison of growth in Merchandise and Services exports.....            | 317 |

### **Attestation of Authorship**

*“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.”*

Thomas Samuel; March 2007

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*I have liken this arduous journey in the pursuit of excellence as a strenuous and solitary crossing of a wide desert landscape with no road map but only a known destination and general direction, with shifting sands and howling winds that change directions frequently. A journey punctuated with many false dawns and eureka moments from mirages of impending completion soon to be replaced by the scorching sun-like reality of the distance yet to travel. To be certain this experience attempted by few and even so only once, leaves a life long mark on those who dare to walk this path. Therefore having arrived at this point of reckoning I hope through this effort I have in some small way made myself worthy of this opportunity. I thank you all.*

## **ABSTRACT**

*In keeping with global liberalisation trends and impelled by external liberalisation in terms of eroding preferential treatment in their principal export markets, the Organisation of Eastern Caribbean States (OECS)<sup>1</sup> together with the wider Caribbean Common Market (CARICOM) region, has since 1993 embraced a policy of trade liberalisation as a strategy for growth and development. In large measure this was done through the phased implementation of a Common External Tariff (CET) involving a progressive lowering of tariff rates over the period, 1993-1998. The theoretical arguments in support of this policy change are based on the assumption of a positive link between trade liberalisation and economic growth. They contend that trade reforms that increase the outward-orientation/openness of trade regimes would result in structural change that reallocate resources in line with comparative advantage leading to export-led growth. This will then be followed by faster economic growth as countries benefit from efficiency gains, technology spillovers and other positive externalities.*

*The thesis empirically assesses these claims against the nature of the impact of trade liberalisation on: (i) the export structure of the OECS and (ii) its economic growth performance. Using a comparative analysis in a dichotomous framework of ten-years before and after the policy reforms we find that in general the predictions of the underlying neo-classical trade model are not supported by the empirical evidence. There were indications of structural changes in exports in terms of reduced specialisation and competitiveness of traditional sectors and a steady shift of the macro-economy away from commodity production both agriculture and manufacturing towards services. Meanwhile the evidence suggests a revenue-neutral fiscal impact and no indication of systematic increase in technology transfer over the post-reform period.*

*Using alternative estimation specifications in a single or simultaneous framework with and without fixed effects in a panel data setting, trade liberalisation was repeatedly found to be negatively associated with growth. In contrast openness was found to be positively correlated with both growth and export performance. At best a J-curve type impact of trade reforms on economic growth is deduced suggesting a long period of adjustment. However prospects for sustained growth seem remote on current indications suggesting the need for a reform of the international trade rules to cater to the special needs of LDCs and SIDS. In this pursuit a plausible alternative approach to the mode of implementation of trade liberalisation is presented.*

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<sup>1</sup> The Organisation of Eastern Caribbean States (OECS) is a group of nine (9) countries in the Eastern Caribbean which includes six (6) independent territories and 3 British Overseas Territories (Anguilla and the British Virgin Islands and Montserrat). This sub-grouping in the wider CARICOM region can be broken in two(2) further sub-groups called the Leeward Islands (which consist of Antigua & Barbuda, St.Kitts & Nevis Anguilla, Montserrat and the British Virgin islands) and the all independent Windward Islands (St.Lucia, St.Vincent & the Grenadines, Dominica and Grenada).

## **SECTION I**

### ***BACKGROUND AND RESEARCH CONTEXT***

## **Chapter One: Introduction**

### **1.1 Overview**

In keeping with global liberalisation trends and impelled by external liberalisation in terms of eroding preferential treatment in their principal export markets, the Organisation of Eastern Caribbean States (OECS)<sup>2</sup> together with the wider Caribbean Common Market (CARICOM) region, embraced (since 1993) a policy of trade liberalisation as a strategy for growth and development given the changing world economic environment.<sup>3</sup> The motivation for the programme of trade and other economic reforms was *inter-alia* to increase economic growth through improved export performance, stimulate greater intra-regional trade and honour commitments made under the World Trade Organisation (WTO) agreement. Additionally these sweeping reforms were also implemented as a precursor to meeting the requirements of the proposed CARICOM Single Market and Economy (CSME) and the soon to be established Free Trade Area of the Americas (FTAA).

This shift in strategy required the adoption of more outward-oriented policies and structural adjustment programmes promoting exports as the engine of economic growth and development and the abandonment of import protection measures intended to support domestic industries. As part of this process, a systematic programme of trade liberalization and other complementary reforms was pursued. A major component of this policy shift was the phased implementation of a Common External Tariff (CET) involving a progressive lowering of tariff rates over the period, 1993-1998.

Theoretical arguments in support of these measures are based on the assumption of a positive link between: (i) liberalisation (increased openness) and economic growth and (ii) between export performance and growth. Proponents argue that trade reforms that increase the outward-orientation of trade regimes would confer significant benefits. Structural change would ensue due to efficiency gains from the reallocation of resources as economic agents respond to less distorted prices and gravitate towards activities in

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<sup>2</sup> See Appendix A.1 for a map of the OECS region.

<sup>3</sup> The expression ‘trade liberalisation’ will from time to time during the text be referred to by other expressions with equivalent meaning. These are essentially various combinations of expressions such as ‘trade reform’ trade policy or trade regime change.

which countries possessed a comparative advantage. As specialization in these activities developed, the basis for more competitive export industries would emerge, thereby providing the impetus for sustained economic growth and development.

## **1.2 Research Objectives**

Given these claims on one hand and the objectives of the policy change on the other, this study seeks to philosophically and empirically investigate the validity of these assertions against the experience of the OECS in realising its trade motivated goals. The assessment is based on a comparative evaluation of structural change and economic performance of the region under alternative trade development strategies.

In so doing the study deals with the pressing economic policy question facing small vulnerable economies such as the OECS as they search for strategies to enhance their competitiveness and to sustain their economic growth and development.

More succinctly, the main research objective is to test the hypothesis that trade liberalisation has been systematically associated with improved economic performance. If so this will be interpreted as a welfare-enhancing impact. With this in mind we use an analytical framework that examines the overall impact of trade policy reforms on macroeconomic performance from two principal perspectives namely the impact on (i) economic growth and (ii) structural changes in exports. In either case both the internal and external dimensions of the policy change will be examined.

### **1.2.1 Research Questions**

The title of this thesis (which embodies the research objective) draws attention to two principal aspects of the overall impact under investigation in this study. They in turn represent the two main questions of the study which are:

- (i) The impact of the trade liberalisation on Structural Change in the OECS
- (ii) The impact of trade liberalisation on Economic Performance

From this frame of reference a number of specific sub-questions will be investigated. In any case the research questions are designed to test a number of hypotheses derived from the predictions of the standard neo-classical model of international trade underlying the policy of trade liberalisation. [See Appendix A.2 for a schematic outline of the study]

We begin with its impact on **Economic Structure** with the following levels of focus.

1. Macroeconomic Structure
  - a. Trade Patterns and Behaviours
    - i. Export Structure

Here we ask what has been the impact of trade liberalisation on macroeconomic structure of the OECS. More specifically the discussion and analysis will focus on trade patterns and behaviours with emphasis on export structure and composition given its prominence in the literature for economic growth. [See Balassa (1978), Feder (1983); Greenaway *et al* (1999); Ram (1987) among others]

This is followed by an examination of its impact on overall **Economic Performance** and its growth-enhancing effects on key growth determinants. In so doing we seek to answer the following questions. What has been its impact on:-

2. Overall Economic Growth
  - a. Other Impacts—On Key Indicators of successful trade liberalisation
    - i. Export Performance
    - ii. Technology Transfer
    - iii. Fiscal Dependence
    - iv. Balance of Payments

These ‘other impacts’ (i-iv) roughly provide an indication of the impact of the trade policy change on the private, public and external sectors of the OECS economy.

## **1.3 Methodology and Analytical Framework**

### **1.3.1 Methodology**

The methodology to be employed in the study is largely eclectic in nature and is nested largely within the quantitative paradigm of empirical analysis. It involves a mix of parametric and non-parametric statistical tests in a multidimensional investigation aimed at answering the principal research question captured in the title of the thesis—the impact of trade liberalisation on the economic structure and performance of the OECS over the sample period 1984-2003. The investigation is pitched largely at the macro-level with the OECS as a whole or its constituent members as the principal units of analysis.

Given that the analysis is largely comparative in nature throughout much of the discourse the sample period is broken down into a dichotomous framework of ten-years *before* and *after* the commencement of trade reforms in 1993. However in some cases due to data limitations this period will be sub-divided into five-year blocs. This approach was influenced by the unavailability of micro-level data such as firm-level data on the nature of technical relationships such as input-output coefficients in the individual economies.

#### *1.3.1.1 Discussion on Choice of Methodology and Approach*

A number of methodologies can and have been used to evaluate the effects of a policy of trade liberalisation on various aspects of an economy each with its particular drawbacks. Notwithstanding the debate in the empirical literature regarding the ideal or preferred approach, the choice of methodology will ultimately depend on the research objectives and the availability of data required in satisfying alternative approaches. Here we seek to measure the effect of the policy change on a select set of performance indicators/variables that are themselves proxies for growth and development and by implication welfare.

Some of the more widely used approaches include simulation approaches and econometric models. Simulation approaches are based on partial equilibrium (PE) or computable general equilibrium (CGE) models.

Econometric models involve: (i) the use of gravity models to predict trade flows between countries or (ii) other models designed to evaluate the impacts of changes in trade policy.

They involve the use of single or system of equations based on time-series, cross-section or panel data.

Each approach has its strengths and weaknesses. CGE models which are based on an underlying social accounting matrix (SAM) are well suited for assessments of the distributive social impact of trade models and capturing economy-wide linkages they are very demanding in data and parameters. However, CGE models though consistent are considered to be conceptually static and often built on a-theoretical assumptions such as more sectors than factors which leads to the problem of over specialisation. Econometric models on the other hand are typically less consistent but have the virtue of assigning parameter values through statistical estimation with a calculable level of precision.

Given the weaknesses of alternative approaches Westhoff *et al* (2004) suggests that the analysts should choose based on which approach is best suited to answer the research question/s. In either case there is usually a trade-off between theoretical rigour and the mode of estimation. In this regard Abler (2006) argues that econometric models are most suitable when ones interests is on the historical impacts of a trade agreement [policy change] already in place.

An ideal evaluation as suggested by Francois and Sheills (1994) should include a complete general equilibrium model based on microeconomic theory, wherein parameters are estimated simultaneously using internationally comparable data and the effects of trade liberalisation determined from the estimates of the model. However, such an ideal set up is not available in this study. Moreover, to the extent that models are merely tools constructed to test particular economic problems, there are no universal or best models.

For this reason and given data constraints the approach taken in this study (in investigating the impact of trade liberalisation policies on economic performance indicators) follows the tradition of the standard multivariate aggregate production function-based regression models. It is structurally similar to the approach used by others such as Greenaway (1998, 2002) and Santos-Paulino (2002) among others that use a core growth model along the lines of Levine and Renelt (1992). This involves growth equations augmented by various proxies for trade liberalisation and openness. In large measure a framework based on “new growth theory” is adopted as this is considered more

suitable to model the realities in SIDS such as the OECS. This is in part because it assumes that trade policy and a number of non-factor influences affect growth, at least in the short-run due to the transitional effects of adjustment. This is in contrast to the neo-classical growth models where growth is exogenous and independent of trade policy.

The study uses a chain of reasoning based on a blend of theory and empiricism in conveying its arguments. The intuition underlying the approach is based on the hypothesis that the effects of trade policy change should *a priori* be reflected in the principal economic performance and structural indicators in the economy. One justification for this approach (widely used in the empirical literature) is based on the fact that in practice it is difficult to disentangle the effects of trade liberalisation from other changes which may be taking place in the economy at any given point in time. [See Rodrik (1992c) and De Ferranti *et al* (2003)] Moreover, it is not uncommon for there to be elements of both an inward and outward oriented strategy impacting on the economy, simultaneously. However, the net effect of any set of trade and industrial policies will invariably be oriented towards either export promotion as in the case of a programme of trade liberalisation or import substitution in the case of a regime based on protection of the home market and domestic producers. [Greenaway and Nam (1988)] On this basis the approach presented in the study is essentially a *faute de mieux*, given data limitations and the inconclusive nature of the debate on methods. It represents the best compromise between theoretical rigour and practical relevance.

Nonetheless, the analysis of the impact of the policy change on **economic performance** involves assessing the degree of correlation or linear association, direction and level of statistical significance between proxies for trade liberalisation and openness and various key macroeconomic variables. Notably, although the discussion in the study examines a broad range of issues relating to the possible effects of trade liberalisation on the OECS, the empirical analysis focuses on the tariff-related aspects of liberalisation as the principal measure of regime change in its assessment of the performance related impact.

On the other hand the analysis of the impact of the trade liberalisation on **structural change** is largely non-parametric based on relative changes in various structural indicators. Here the analysis entails an examination of the relative changes in the patterns of trade, shares or composition of sectors in the economy in an inter-temporal framework.

In this regard measures of comparative advantage, external competitiveness, traditionality and trade intensity ratios among others, are assessed.

The approach outlined above takes a holistic view of the impact of the policy change and is considered to be appropriate to the objective of the research as it caters to the realism in evidence in the case countries. This is in contrast to a more *positivist social science* approach which tends to ignore the institutional and social context of the research and operates in an *apolitical* setting. On the basis of the findings of the empirical analysis obtained from this approach we use a process of inductive reasoning in arriving at our conclusions regarding the OECS trade policy experience over the sample period.

### **1.3.2 Analytical Framework and Theoretical Perspective**

#### *1.3.2.1 A Neo-Structuralist View*

The assessment of the implications of trade liberalisation will draw upon analytical tools and models developed in the theoretical literature, including the pure theory of international trade, small open economy macro and microeconomics, development finance as well as political economy, among others. Notwithstanding, the overarching theoretical perspective of this study is located in the *neostructuralist* paradigm of economic thought in contrast to the more orthodox *neo-liberal* paradigm. Here we argue that economic adjustments due to price incentives are inherently slow in less developed countries such as those of the OECS. Moreover the costs of adjustment and actual path of the reform process depend on a milieu of factors other than relative prices. In this approach, disequilibria and sub-optimal outcomes are possible due to capacity limitations in terms of structural and institutional factors, such as market failure or incomplete/missing markets. As a result countries may not be operating at the edge of their production possibilities frontiers. In such an environment market signals and thus supply-responses are affected by high cost structures and frictions such as information asymmetries which implies that price may not reflect marginal social-benefit and costs. In addition structural constraints and factors such as organisational dualism and scale thresholds may create bottlenecks and discontinuities. Accordingly the transmission of price impulses and the expected supply-responses may not be forthcoming as may otherwise be expected.

Meanwhile factors such as the composition of exports and their price and income elasticities are considered crucial to the realisation of the growth impetus espoused by proponents of outward-orientation and export-led growth. In particular, productivity and externality effects are likely to be more significant in the production and exports of manufactures than agricultural exports given the effects of diminishing returns to scale and the greater amenability of the manufacturing sector to benefit from technology transfer among other factors.

The study examines both static and dynamic aspects of adjustment to trade policy reform. Importantly it examines the virtues of the underlying export-led growth claims of trade liberalisation and argues that the results of policy changes vary according to the time of implementation and the prevailing organisational structure of the country.

In this regard and in keeping with the findings of many researchers the basic static gains in terms of improved resource allocation and benefits to consumers from a wider variety of products at lower prices are accepted. However, the study will argue that trade based only on comparative advantage (as the neo-classical theoretical underpinnings of trade liberalisation suggests) may be necessary but insufficient to ensure export-led growth. This is because in the real world a significant amount of trade is not explained by comparative costs differentials, which are themselves ever changing in the competitive market environment. As a result the likelihood of success of a liberalisation episode and hence the implications to Small Islands Developing States (SIDS) in particular will depend on more than just '*getting prices right*'.

For these and other reasons the resource shifts and structural re-organization predicted by the neoclassically based neo-liberal trade paradigm may not ensue. Instead, we argue that a set of internal and external structural and institutional factors, as well as the mode of policy implementation in terms of timing, sequencing and speed of adjustment will ultimately determine the outcome to liberalisation.

#### *1.3.2.2 External Factors*

Further, we argue that changes in the international trading environment are pivotal to the success of a development strategy centred on outward orientation. Beyond the WTO

principles of reciprocity, non-discrimination, fair trade and market access, issues such as competition policy and thus market structure, in particular imperfect competition (currently not covered by the WTO) may prove more deterministic in the outcome of trade policy reforms than trade barriers in LDCs. This includes the growing share of intra-industry trade between multinationals in world trade, artificial barriers and monopolies, pricing policies, strategic alliances, export dumping, export subsidisation and other forms of strategic behaviour typically in developed country markets all of which are likely to undermine the strategy of export-led growth. Together with the limitations of size these realistic factors serve to limit the marginal efficiency gains from trade liberalisation.

The study also locates the OECS trade liberalisation reforms and its associated impacts on economic performance and structural change against the broader backdrop of the advance of globalisation. This is because the trade liberalisation and economic reforms implemented within the region are under the direct or indirect aegis of the Bretton Woods multilateral institutions including the WTO and are inextricably interconnected with the process of globalisation. Therefore while the analysis will focus squarely on the direct impacts of trade liberalisation the underlying link between these allied phenomena is a common thread that runs throughout the study.

#### *1.3.2.3 Summary of the Analytical Perspective*

Thus in brief, the thesis is within the counterculture of research on the efficacy of trade liberalisation as a strategy for sustainable development in small island developing states (SIDS). It takes issue with the emerging consensus on the orthodox approach towards liberalisation by arguing that size, initial conditions and other structural characteristics matter. Implied is the view that the diseconomies of size in concert with other exogenous factors relating to the governance of international trade may render many SIDS below the *threshold* at which they can effectively compete in an international trade environment in which competitiveness is a moving target. [See Greenaway *et al* (1999) and Dore (1994)] More succinctly the study presents a critique of the orthodoxy of trade policy with its current multilateral settings. In particular the thesis challenges the tendency to generalise the applicability of unfettered liberalisation and outward-orientation as a solution to

growth in all countries without sufficient regard to their stage of development in terms of productive and institutional capacity and the pernicious role of external shocks in influencing their ability to participate equally in the neo-liberal global trading environment.

#### **1.4 Justification for Research**

Despite its implications, to date there have been only a small number of systematic attempts to evaluate the impact of trade liberalization policies on the CARICOM region. Most studies, moreover, have focussed on small states in general or on the CARICOM region as a whole, but have not specifically considered the OECS. Others use the even larger regional grouping of Latin America and the Caribbean used by the UN which further reduces the attention given to the OECS. As a result issues regarding the specificities of the OECS SIDS are drowned in the surf of region-wise discourse with the use of sweeping assumptions. Others have lacked depth and rigour, and have only superficially addressed some of the key issues raised in the literature. In general they have been non-empirical in their assessment and none of them deal with the structural impacts of trade liberalisation. [See Egoume-Bossogo and Mendis (2002); Stotsky *et al* (2000) Lewis (2003)]

However the case for such a multi-country study on the OECS is strong given that features that are common and likely to be significant in a larger sample may not be so when the lens of scrutiny is brought to bear on the specificities of countries in a smaller sample. Moreover there are significant differences in economic size and growth rates of countries in the region.

Notwithstanding, a number of minor studies/reports on the OECS do exist, but these consist mainly of brief sections in annual economic reviews or reports by regional institutions such as the Caribbean Regional Negotiating Machinery (CRNM), OECS and CARICOM Secretariats. [See OECS Secretariat (2000)] In general these reports/studies have not focussed directly on the impact of trade liberalisation but have treated it as one component of a set of challenges associated with globalisation and the new trading environment. Country-specific studies conducted by specialised committees or

government departments have tended to focus largely on the revenue implications of tax and tariff reforms. [See English (2002) and ECLAC (1999)]

This study's focus on the SIDS of the OECS with specific reference to the possible impacts of the policy change on structure and economic performance seeks to fill this gap, which therefore distinguishes it from previous work on the subject. Moreover, given the welfare implications of these policies for the current and future economic prospects of the OECS, there is strong justification for a more rigorous study into the consequences and impact of trade liberalisation. The findings of the study are likely to make a meaningful contribution to contemporary policy discussions by providing some empirical evidence and other insights, which may help domestic policy formulation as well as improve the negotiating strategy of the OECS, given the region's current and ongoing engagement in the above mentioned theatres of multilateral trade negotiations. Moreover, this study also offers a degree of comprehensiveness to the study of the subject in terms of its application of many of the more recent techniques to econometric investigation.

The study is also timely given the current ten-year review of the Programme of Action (POA) identified at the United Nation's Global Conference on Sustainable Development in SIDS (1994) which examined *inter-alia* the economic vulnerability of SIDS. In addition, its examination of the impact of trade liberalisation on structure and performance is especially relevant given the region's efforts to diversify and restructure their economies in light of the erosion of preferential market access for their primary commodities (sugar and bananas) and the contraction faced by region's manufacturing sector, in particular, the clothing and textiles industry in the wake of the formation of the North American Free Trade Agreement (NAFTA).

## **1.5 Expected Contribution of Study**

The literature relating to this topic is vast and extensive, spanning theoretical differences, methodological and analytical disputes, conflicting policy implications, as well as contrasting implementation scenarios. To date there are very few studies on the nature of the impact of policy prescriptions such as trade reform on the growth and development prospects for the Caribbean region in general and on the OECS in particular. So this work

will at the very least add to the small stock of existing studies. The focus on the SIDS of the OECS distinguishes this study from previous work on the subject in general and in the region in particular where most studies have tended to simply gloss over the OECS with occasional and generalised references *au passant*.

Given this gap in the literature this work may provide some useful case-specific insights on the experience of SIDS with neo-liberal trade policy reforms. More importantly it is hoped that this study will help to shed some light on the debate regarding effectiveness and general applicability or lack thereof of such a policy in the case of SIDS. Its findings and recommendations may point the way for further research and help in the development of a more nuanced approach to international trade policy that moves away from the *one-size-fits-all* approach to country and capacity-sensitive trade policies thereby leading to more sustainable global growth and development.

Apart from the above, the study may also be judged significant on the following grounds:

1. To the extent that similar SIDs around the world are similarly grappling with the issue of trade liberalisation, the insights to be derived through the study of the OECS may inform discussions in these other contexts and provide a basis for valuable comparison.
2. At a higher level, the study will help further illuminate issues relevant to an understanding of the wider process of economic development in SIDs.
3. Finally, on the basis of the experience of the OECS, the study will contribute to wider debates around the issue of trade liberalisation itself. These may include issues relating to, for example, the merits or otherwise of this process, the analysis of its impact (methodological and analytical issues), the formulation of appropriate policies, and the implementation of liberalisation programmes.

In sum, the study holds the potential for making a meaningful contribution to discussion around a highly topical and significant process affecting the OECS and other countries around the world.

## **1.6 Organisation of the Thesis**

This study consists of eight chapters grouped into three sections. Section one comprises of Chapters one through to three. These preliminary chapters provide the reader with the context to the study in terms of the background of the case countries (OECS) and their specificities, the underlying theoretical and empirical debates associated with the subject as well as an overview of the issues and challenges faced by the case countries with trade policy reforms. In so doing they locate the study against the vast landscape of literature on this topic.

Section two consists of the next 3 chapters, four through to six. This represents the heart of the study and presents empirical evidence and a basis for answering the research questions. The first of these core chapters, examines the impact of trade reforms based on various indicators of structural change in particular as it relates to measures of comparative advantage and competitiveness in international trade. The second, (chapter 5) focuses on growth performance aspects of the policy reforms at the level of export sectors and at the economy-wide level. Chapter six examines a few “other impacts” which are deemed central to the overall impact of trade reforms.

Finally section three seeks to synthesize the results of the empirical analysis conducted in the three preceding chapters. More specifically chapter seven summarises the findings of the study and attempts to explain its occurrence. It also offers some policy recommendations and the author’s views regarding a possible alternative approach to the implementation of trade liberalisation in SIDS such as the OECS. Chapter eight provides a summary of the objectives, findings and main contributions of the study. It will also draw attention to limitations of the study while suggesting some areas where further research may be usefully conducted to advance knowledge in this important aspect of international economics.

## **Chapter Two (2)**

### **Literature Review: The Promises and Perils of Trade Liberalisation**

#### **2.1 *Introduction***

In this chapter we review relevant parts of the voluminous literature on trade liberalisation and openness in an attempt to distil its various implications as a strategy for growth and development. In re-visiting the path of prior research on the subject we first examine the broad claims and promises as presented in the wider literature then focus on issues as they relate to the developing world in general and to SIDS in particular.

Here we attempt to integrate and summarise the main themes of the ongoing debate in regarding the general applicability of the policy prescriptions associated with trade liberalisation to all countries including SIDS such as those of the OECS. In so doing we endeavour to highlight areas of agreement as well as unresolved areas where lacunae and questions remain.

As will be apparent to the reader the approach taken in the ensuing discussion is eclectic and draws from views of theorists on either side of the intellectual divide on the subject. Accordingly, the underlying analytical and theoretical perspective of this study is located within the heterodox tradition of economic thought in particular the neo-structuralist paradigm and is in keeping with the intellectual thrust of the new trade theories.

#### **2.1.1 Overview**

This study is situated within a context defined by a wide-ranging debate between the advocates of trade liberalisation and their critics. Advocates of trade liberalisation argue that a shift towards a more open trading regime confers significant benefits. This assertion is based on the conviction among proponents that there is a strong correlative link between trade policy and long-run growth and thus between trade strategy and development strategy. [See Grossman and Helpman (1990); Krueger (1998)] They argue

that trade liberalisation will increase the long-run growth rate of an economy and thereby enhance its overall economic development.

According to the critics of trade liberalisation however, a far more cautious view should be adopted of the process. This guarded approach is echoed in a number of criticisms that have been directed at the policy of trade reform and its attendant claims, in spite of its strong intuitive appeal and theoretical underpinnings. [See various contributions by Rodrik, for example (Rodrik, 1992c, , 1996; Rodrik & Rodriguez, 1999)]

While the debate between advocates and critics encompasses a broad spectrum of issues many of which will be briefly discussed this study limits its scope and focuses primarily on two important strands within the literature. The first deals with the impact of trade liberalisation on economic performance while the second examines the impacts of such policies on the economic structure of the implementing countries. To a significant degree, the discussion on economic performance centres on the impact of trade liberalisation on overall economic growth in the first place and secondly the extent to which this growth was export-led growth (ELG). Here the debate centres on the types, nature and sources of the benefits predicted from trade liberalisation and their possible applicability to SIDS. Conversely, the discussion relating to economic structure focuses on the impact of trade liberalisation on the changes in the relative importance (increase or decline in growth or shares) of key productive sectors in the economy with emphasis on the export sector. It must be noted that whereas the performance and structure related aspects may be examined separately, they are inter-related and their effects are largely concomitant.

In what follows, the relevant theories and issues associated with these two main strands of analysis will be reviewed. As will be seen, both aspects of this impact have been widely debated in the theoretical and empirical literature. To begin with and to give context to the current preoccupation with the policy of trade liberalisation, the evolution of the policy, its institutional setting and rise to prominence in global trade will first be briefly traced.

## **2.1.2 The Evolution of the neo-liberal trade policy**

Undoubtedly, the notion of trade as an engine of growth is not a recent phenomenon with origins that date back to the classical writings of Adam Smith (1776) and David Ricardo (1817). More generally, the current rise in trade liberalisation which is a form of neo-liberalism<sup>4</sup> arguably has its genesis in the bitter memory of the great depression of the 1930s and the policy recommendations championed by the post-war Bretton Woods Institutions (BWI) of the World Bank, International Monetary Fund (IMF) and the GATT *cum* WTO. However, the more recent debate regarding the role/choice of trade policy as a strategy for growth and development can be traced to the work of researchers such as Little (1970), Balassa (1971), Corden (1966), Bhagwati (1978) and Krueger (1978) among others.

Since then controversy over the efficacy of trade liberalisation has raged for a considerable number of years within the economics literature, between the proponents of an export-oriented model of development and those advocating alternative approaches to economic development. [See Chenery (1975) and Stiglitz (1992) among others] Detractors on the one hand challenge its many curative claims while its proponents see it as a *sine qua non* for growth in developing countries and a logical and desirable policy to which the whole world should be committed, including SIDS. [See Dornbusch (1992) and Krueger (1998) among others] In effect neo-liberal reforms became the economists' creed and a unifying theme in many papers often with over-zealous advocacy since the 1980s.

In contrast, Ocampo and Taylor (1998) asserts that the current passion for trade liberalisation is due in part to a historical accident involving the early and leading role played by neoclassical trade economists when attention was turned to the problem of development in the late 1950s. Moreover, the coincidental development of new techniques in economic appraisal based on social cost-benefit analysis using methods such as the (Little & Mirlees, 1969; 1974) approach or the UNIDO approach by Dasgupta, Marglin and Sen (1972) which stressed the use of world/border parity prices as a true reflection of opportunity costs, was a significant plank in the rise of the neo-liberal order.

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<sup>4</sup> Neoliberalism is a political-economic philosophy that favours free market methods including free trade. It promotes privatisation and corporate efficiency while calling for minimalist government. It rejects government intervention in the domestic economy and measures success in terms of economic gain

Since then the analysis of trade regimes has focused on measuring the degree of home-market protection in terms of the variance between domestic and border prices. This sparked an ongoing debate and established a new trade lexicon, with phrases such as “anti-export bias”, “effective protection”, “domestic resource costs” and “outward-orientation”. Indeed the current advocacy of trade liberalisation is an offshoot of the categorisation of regimes using these approaches and modes of analysis. [World Bank (1987)]

Moreover, from the onset this neo-liberal doctrine had strong multilateral and geo-political foundations, buttressed by the BWI as well as the policies of the influential far-right Anglo-American leadership in the 1980s dubbed *Thatcherism* and *Reaganomics*. In particular these highly influential multilateral institutions and leaders, shaped opinions and ensured political and economic compliance, by administering economic recovery packages and development strategies that emphasize market-oriented reforms, with trade liberalisation as a major component of their policy prescriptions. [See Taylor and Ocampo, (1998); Edwards (1993)] As a result some commentators argue that the widespread coverage of trade reforms is due to a mix of the “*bandwagon effect*” and the inducement of the conditionalities of WB/IMF structural adjustment loans (SALs) in what amounts to mimetic and coercive isomorphism in trade and economic policy. [See Weinmann (2002)] Others such as Gore (2000) contend that the case for liberalisation is rooted in the rhetoric of the allied phenomenon of globalisation.

A number of empirical studies (some which were commissioned by the World Bank) also served to propagate the current view regarding the need for trade liberalisation as a core ingredient in the development strategy of LDCs.<sup>5</sup> The sweeping conclusions and findings of these studies coupled with enthusiasm with trade liberalisation gave theoretical and empirical support to a much broader neo-liberal philosophy of economic liberalisation dubbed the *Washington Consensus*.<sup>6</sup> [See for example Papageorgiou, Michaely and Chokski (1991) hereinafter referred to as the PMC (1991) study] In other cases the norms of the new paradigm were propagated on the basis that they were simply intrinsically and ethically superior to alternative approaches to development.

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<sup>5</sup> For the rest of this study all references to LDCs inherently refer to those LDCs that are also SIDS.

<sup>6</sup> A term coined by Williamson (1990) based on a set of 10 axiomatic generalisations which advocates a shift from state-led development policies to market-oriented policies.

This shift in the tide of intellectual opinion towards increased openness through trade liberalisation was also driven by the widely accepted view that countries which followed the inward-oriented (I-O) approach to industrialisation, based on import substitution recorded less impressive growth rates. These contrasting performances together with the debt-crisis<sup>7</sup> of the 1980s, contributed to the pendulum shift in trade policy. The emerging new thinking on trade policy emphasized increased openness, outward-orientation and export promotion as an approach to generating growth from trade. [Krueger (1980; 1998), Greenaway *et al* (1998)] Equally the case for export orientation was also driven by strong demand for imports in the developed world due to record growth rates during much of the 1950s and 1960s. [Meier (1995)]

Also, in large measure, the widespread promulgation of the policy of trade liberalisation and openness was heavily influenced by the historical experience of the high performing East Asian economies. Their sustained extraordinary growth performance called the “*East Asian Miracle*” was attributed largely to outward-oriented policies. In fact, the success story of these newly industrialised countries (NICs) is seen to exemplify the structural transformation of dualistic open economies, thus giving license to the advocacy of trade reform as a solution to the economic problems of developing countries. Hence the view conveyed implicitly and subliminally is that once a country follows a similar blueprint of prescribed policies it will inexorably arrive at a point of economic bliss or sustained growth and development. [See Dollar and Kraay (2002)] Put differently, trade liberalisation is seen as a preferred means to addressing most of the known problems such as low growth and poverty that beset the developing world including SIDS.

Then, the agenda of trade liberalisation which had made steady progress since 1947, found new momentum at the end of the Uruguay Round of the GATT trade negotiations in 1993, which marked the birth of the WTO. The process was also widened by the end of the Cold War and the transition of Eastern European countries to market economies, causing a push for greater trade liberalisation. As a result, the world’s attention shifted from political ideology towards economic issues with special focus on trade, invigorated

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<sup>7</sup> Due in part to the sharp rise in real interest rates following the second oil shock and reaction of the creditor (mainly G7) nations to press for market-oriented reform and government curtailment rather than accommodate the crisis. [See Evans and Greenaway (1991)]

by the establishment of the WTO with its new mandate, principles and powers of enforcement.

Importantly, the rise of the neo-liberal orthodoxy was also associated with the parallel rise in regional integration arrangements such as free-trade areas (FTAs), presumably as a precursor to global free trade and as a means of engendering the culture and philosophy of trade liberalisation. [See Schiff and Winters (1998)] Moreover, there are significant costs of an international political economy nature to the state from not liberalising or exiting existing agreements.

Therefore, given its global coverage and entrenched institutional setting, trade liberalisation is now widely seen as an irreversible and embedded process allied to the broader phenomena of globalisation given its facilitation of openness of countries to external flows. [See Khan (2000)] Importantly this process is largely indifferent to the capacities and peculiarities of nations. In this new trade environment, protection in any form is deemed baseless, such that even fledgling nations must at once face the harsh forces of international trade. Even the once favoured infant-industry argument has been discredited. [See Baldwin (1969)] Accordingly, many LDCs/SIDS have only cautiously embraced policies of trade liberalisation while seeking every means possible to guard against its dangers and maximise its potential benefits. These cautious voices in the face of a broader chorus in favour of liberalisation have also found expression in the academic and policy literature. In the next two sections we turn re-visit some of these issues as we turn attention to the contrasting arguments presented on either side of the ongoing debate.

## **2.2 Impact of Trade Liberalisation on Economic Performance: Terms of the Debate—For and Against**

### **2.2.1 The View of Advocates**

The proponents of trade liberalisation and outward-orientation take the neo-classical paradigm as their frame of reference in stressing the trade policy induced trade-growth nexus. They build their case on a number of salient though contentious points of argument. Indeed, since the findings of the early generation of liberalisation advocates such as Little *et al*, (1970), Krueger 1978, Bhagwati, 1978 and Belassa, 1982 among others) the number of concurring voices on the links between trade liberalisation, exports and growth has increased significantly. According to one of its archetypal proponents Krueger (1997), the basis for the renaissance of the outward-oriented strategy is due to growing evidence of a positive correlation between growth of exports and GDP growth. In another article by the same author Krueger (1992) she asserts that countries with more liberalised trade regimes i.e. a greater degree of openness appear to grow faster over time. Using a mixture of historical and statistical approaches she, like many others, concluded that more open economies performed better. In large measure this assertion is based on the much touted gains from increased openness which are supposedly enhanced by trade reform.

The gains from trade reform may be static or dynamic in nature. The principal static benefits advanced by proponents of trade liberalisation in terms of tariff reduction comes from lower prices to consumers which results in increased purchasing power and consumption. It is assumed that this would lead to an increase in the volume and variety of goods including intermediate goods which *ceteris paribus* would lower costs of production, remove bottlenecks and increase productivity. [See (Dornbusch, 1992)] It is further anticipated that the associated increase in imports would lead to an increase in the transfer of new ideas and technology.

The net static benefit from the reduction of tariffs would be the difference in the gain in consumer surplus minus the sum of the loss of producer surplus and government loss of tariff revenue. This benefit is considered to be welfare enhancing in so far as it reduces the deadweight loss or protection cost associated with tariffs. The gain to society is in

effect equal to the value of resources transferred from the production of less efficient importable goods to more efficient exportable goods. In this way tariff liberalisation is seen to reduce the proportion of income redistributed from consumers to domestic producers.

In addition to the static welfare benefits of trade liberalisation there are also possibilities for dynamic benefits. Theory posits that these are likely to arise from increased competition in domestic markets from other producers. Proponents argue that the elimination of tariff and other trade barriers among two or more trade partners would allow domestic producers to have access to larger potential markets thereby creating opportunities for the attainment of economies of scale. A larger market also allows for economies of scope in terms of the savings obtained from multi-product operations. Efficiency gains from larger production runs and scales of operations would result in reduced per unit costs that will again be reflected in lower commodity prices or profits. It is argued that this so-called *Schumpeterian shake-up* of domestic markets stimulates greater utilization of resources and the development of new technology. Following this line of reasoning, in the longer run the economy is expected to benefit from gains in allocative efficiency measured as the decline in the domestic resource cost (DRC) given as the ratio of value added in domestic prices in local currency to world prices in foreign currency. [See Meier (1995), p.474]

For these reasons proponents challenge the need for state administered protective barriers on grounds of its distributional effects on rents in an economy. They argue that such forms of government intervention distort markets and hurt exports and overall economic growth through over valued exchange rates, high effective rates of protection and other forms of allocative inefficiency. To lend further support for their arguments proponents of increased openness have elaborated a new political economy (NPE) which promotes the notion of a minimalist state as a preferred posture for governments. They argue that the lower tax burden due to lower tariffs would also reduce tax resistance, tariff avoidance, under invoicing and thus help to suppress the underground economy.

Further support for the trade liberalisation and growth nexus is given by new (endogenous) growth theory advanced by Romer (1986) and Lucas (1988) which unlike the neo-classical growth model establishes that a long-run equilibrium may exist between

economic growth and openness and hence trade policy. They likewise contend that under a more liberalised regime a larger number of inputs would be available at lower costs resulting in a higher equilibrium growth rate. [See section 5.4] Other proponents argue that trade liberalisation allows for the absorption of technology from advanced nations at a faster rate, which helps them grow faster than without it. [See Grossman and Helpman (1991)] Many other studies reported welfare improvements based on various forms of efficiency gains or an increased quantity of goods available to consumers. [See (Buffie, 1999; Ingco, 1997) among others]

More importantly (and of relevance to this study), advocates of trade liberalisation argue that the new trade paradigm was also equally applicable to small countries including SIDS. [World Bank (1993b)] This view is based in part on their structural openness and high external dependence. Researchers such as Lall *et al* (2000) argued that it would be advantageous to the Caribbean to implement policies that encourage openness such as trade liberalisation, as a strategy to improve productive efficiency and external competitiveness. Egoume-Bossogo and Mendis (2002) likewise argued that trade liberalisation is consistent with greater CARICOM trade integration. Likewise, W.A Lewis, though not regarded as a typical neo-liberalist provides implicit support to such a strategy through many of his insights regarding plausible solutions to the problems faced by developing countries (including his own native in the OECS-SIDS with their structural constraints of size and resource scarcity) which involved policies aimed at tapping into capitalist surplus elsewhere in the world to provide investable and other resources for catalytic stimulus to the development process. [See Lewis (1954; W.A Lewis, 1958)]

### **2.2.2 Some Detracting Voices and Criticisms**

*“Even when the strictly economic case for free trade fails, economists are generally quick to embrace it, for practical reasons...namely as the lesser evil among possible alternatives.”* [Fernandez and Rodrik (1991)]

Despite these recommendations and the fact that trade liberalisation had become synonymous with growth and development strategies around the world, from the outset many alluded to the policy myopia inherent in its advocacy as a number of ambiguities regarding its linkages with performance indicators remained. As a result the supportive findings of the pioneering studies of Krueger (1978), Bhagwati (1978) and Balassa (1982) among others were soon challenged by contrary opinions. A substantial literature

examining the effects of trade liberalisation on a range of macroeconomic aggregates and alternative microeconomic adjustment processes, soon emerged seeking to assess the validity of claims advanced by advocates. Many of those subsequent studies found results that questioned one or both of the related hypotheses: (i) that a more liberalised regime would result in higher growth rates of exports or (ii) that a higher degree of openness had a positive effect on aggregate growth, among other benefits. (This study takes a broadly similar approach and likewise poses both of these questions.)

Indeed much of the existing literature, for which Edwards (1993), Krueger (1997), Rodrik and Rodriguez (1999) and Greenaway *et al* (1998) are all excellent reviews, suggest that while on balance the weight of opinion favours liberalisation, the evidence remains mixed. Many studies may be criticised on grounds of choice of liberalisation indicators, model specification and methodology among other shortcomings. On the whole, this suggests that the literature is still inconclusive and that the outcomes of trade liberalisation episodes will be largely case-specific.

To begin with Singer (1988) takes issue with the definition of outward-orientation itself and the World Bank's unqualified support for such policy stances. He argues that economic performance associated with trade strategy inward or outward may be due largely to initial conditions and third factors which are disregarded in the triumphant assertion that outward-orientation works. Rodrik (1992a) states quite unequivocally that "there is as yet no convincing empirical evidence for developing countries to be conducive to industry rationalisation". On this basis the likelihood of success of the intended internal re-organisation due to changes in the relative price of exportables is tentative at best. Similar sentiments were expressed by Pack (1988) who argued that to date there is no clear confirmation of the hypothesis that outward-oriented countries benefit from growth in technical efficiency in the component sectors of manufacturing. Perhaps this suggests that efficiency gains from reforms are insufficient to offset the pre-reform comparative disadvantages.

In a wholly analogous manner Milanovic (2003) challenges the claims of the related issue of globalisation in particular over the 1980-2000 period as being selectively interpreted.

He argues that a more accurate and realistic reading would require policies different from those advanced by the globalisation cheerleaders.

The following draw closer attention to some of the criticisms that have been levelled against the positive evaluations of trade liberalisation in this ongoing debate.

(i) *Growth Effects of Increased Openness*

In a review of four papers Rodrik and Rodriguez (1999) found little evidence that open-trade policies in the sense of lower tariffs and the removal of non-tariff barriers are significantly associated with growth. They argued that many of the results were not as robust as was previously suggested. In contrast to the conventional wisdom on the growth effects of increased openness, Yanikkaya (2003) found trade barriers were positively and significantly associated with growth in many developing countries. Likewise, the “*new growth theories*” also provide a theoretical basis for the hypothesis that trade restrictions under specific conditions can promote growth.

(ii) *Size of Welfare Benefits*

One immediate area of doubt relates to the negligible size of the benefits attributable to trade liberalisation, which according to Deardoff and Stern (1986) was a mere 0.1 percent of GDP. Likewise a study by Chenery *et al* (1986) found only a small difference in GDP growth rates (a range of 0.8%) between import-substitution policies and those of export promotion. Some other studies used comparative static models and concluded that trade liberalisation increases welfare, based on a more than proportional increase in the size of the so-called *Harberger triangles* compared to the size of a given tariff cut [Rutherford and Tarr (2002)]. Using a similar technique Ocampo and Taylor (1998) argued that the so-called trade triangle-based welfare gains from liberalisation are negligible in size (a once and for all benefit of 1% to 2% of output at best). They further argue that the losses or deadweight costs associated with protection are likewise a small part of trade, exaggerated by mainstream liberalisation supporters.

(iii) *The Relevance of the East Asian Experience*

The World Bank Report (1993) concluded that outward-orientation was primarily the reason for the success of the East Asian countries. Some writers, however, have questioned the role of trade reform in improving the performance of outward-oriented economies. One such detractor was Sachs (1987) who questioned the premise that trade liberalisation was necessary for their success. He argued, like many others, that the success of the high performing Asian economies had more to do with an active role of government in promoting exports and engaging in selective and targeted liberalisation by restricting imports, mainly to investment and intermediate goods. [See Westphal (1990)]

Wade (1992) also weighs in on the debate and questions the empirical basis of the neo-liberal argument. He takes a revisionist view and also concluded that the experience of Japan and the Asian tigers show that countries do not have to adopt liberal trade policies in order to reap large benefits from trade. He noted that a significant part of their growth came from replacing imports of consumption goods with domestic production. Earlier Rodrik (1995), concluded that initial conditions, which have not been emphasized in the literature, such as early specialisation in manufacturing were equally important in determining their success. Meanwhile Krugman (1994) sought to demystify the so-called myth of Asia's miracle by making the observation that East Asia's unprecedented economic growth rates were matched by a corresponding rapid increase in input growth. On this basis there was no mystery such as a possible major diffusion of technology, a significant increase in the growth of efficiency among the East Asian Tigers or some other plausible explanation. More importantly it was not merely a function of industrial and trade policy as proponents of the neo-classical trade openness prescription construed.

Concerns over the true nature of this high growth performance led Cline (1982) to ask, “*Can the East Asian model of development be generalized?*” Also Ocampo and Taylor (1998) contend that the success of these NICs may have been associated with outward-oriented strategies but not necessarily liberal regimes. [See articles by (Amsden, 1994; Kwon, 1994; Young 1995) for other contrarian views]

(iv) *World Economic Slow down and Export Pessimism*

The spectre of global economic slowdown around the world in recent times (2001-03) exposes a gap between expectations and performance of the neo-liberal economic model

adopted across the OECS/CARICOM region since the early 1990s. This gap has raised questions over the applicability and economic and social sustainability of the current strategies to growth and development in the region based on trade liberalisation. Moreover, according to Devereaux (1997) there seem to be an inverse relation between growth and the momentum of trade liberalisation such that strong growth is associated with support for lower tariffs and vice-versa. This is in part because growth alters a country's comparative advantage and its incentive to levy tariffs. For this reason Bhagwati (1991) explains that the slow down in trade liberalisation and the rise of non-tariff barriers in post 1973 oil shock period was intimately connected to a slow down in growth rates.<sup>8</sup>

Therefore, while the World Bank and others remain optimistic, many in the developing world have been pessimistic about the effectiveness of trade as a source of growth in the current environment. These views are based on the trend of a global economic slow down in the last three decades and in particular the protectionist responses of developed countries to their own declining growth rates since the 1970s. They argue that the favourable world demand conditions between 1950-1980, which led to the unprecedented export growth of the NICs are not in existence in the post 1990s period. [See Yoffie (1983)] Moreover, as in the case of the NICs, the success of other developing countries with a similar strategy will depend in large measure on market access/exports to the developed world. More recently, even some of the Asian tigers themselves have showed signs of *export pessimism*, regarding their future prospects with trade in manufactures. On that score one of the foremost exponents of trade as the engine of growth expressed concern over the slow down of the global economy. [See Roarty (1993) on the *new protectionism* in developed countries as well as Lewis (1980) and Thurow (1996) among others for a discussion on global economic slow down.]

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<sup>8</sup> The scope for countries to have a change of heart on the removal of tariffs in the face of too much competition and hence unfavourable performance by domestic industries is permitted under various clauses of the GATT such as the safeguard (article XII) or antidumping clause (article VI).

(v) *Structural Factors and Demand Characteristics*

Insights from a neo-structuralist view are also important. These theorists point to structural factors such as disequilibrium phenomena that may militate against the touted predictions of trade openness. [See Chenery (1986)] They suggest that the pattern of negative to low levels of export growth and export revenues in developing countries, both in agriculture and manufactured goods, points to more than simply supply characteristics, such as price and the efficiency issues of production. They are the effects of structural forces relating to the production and demand characteristics of goods produced and traded. As argued by Myrdal (1957) in his centre-periphery model of circular and cumulative causation, the unequal gains from trade are due to the low price and income elasticity of exports—a view heavily emphasised by Raul Prebisch (1950; Prebisch (1959).

Also there has been a shift in the pattern of demand in developed countries towards products with less primary-good content—a trend which is assisted by technological development in synthetic substitutes. Accordingly there is a sort of *Engel effect* in terms of low-income elasticity of demand for such exports. In this regard the share of primary products in world trade fell from 43 percent in 1980 to less than 20 percent in 2000. This reduction has been accompanied by a fall in prices and a related fall in export earnings owing to deterioration in the net terms of trade. The point is the bulk of world trade takes place in industrial commodities in which most SIDS are largely excluded.

Implicit in this view is that, measures of openness say little about market conditions, trade barriers and arrangements faced by exporting countries or the properties of the products exported. Wade (2004) alludes to a structural divide and not just a lag in catch-up, in the international trading system that contributes to the widening income and prosperity gap between the North and the South. As a result he argues that sustained preferences for the South or LDCs may be necessary if the world is to realise a more narrowly dispersed distribution of income over the next century.

These perspectives underscore the tendency of neo-classical export-led growth models to de-emphasize the demand and structural considerations and instead attribute growth to mainly exogenous technical progress driven by labour productivity and efficiency gains.

For this reason Helleiner (1990) argues that most of these analyses that favour outward-orientation are overly simplistic and tend to ignore the role of market conditions on the outcomes of a strategy of trade openness.

(vi) *Export Instability: Terms of Trade Deterioration*

Related to the adverse effects of the demand for exports of commodity-dependent countries, is the Singer-Prebisch thesis which contends that there has been a long-run secular deterioration in the commodity terms of trade of largely primary exports of developing countries. This has been so in particular since the mid-70s, a view supported by Sapsford (1988). This relates to the perverse problem of instability of export earnings, compounded by the negligible secondary impact of commodity-based export growth, due to its few backward and forward linkages. [See Thirlwall (2003)] If so, mere export expansion may be insufficient to ensure desired growth results. Indeed, this possibility is of some concern to the OECS states. While the debate<sup>9</sup> still wages on at the empirical level regarding the supposed trend deterioration the broad indications of a secular drop in export prices and income from the commodity exports in the OECS region (bananas, sugar and nutmeg) especially post-1993 are very clear.

Accordingly concerns have also been expressed regarding the effects of agricultural trade liberalisation in the EU to the detriment of African Caribbean and Pacific (ACP) exporters under the Lomé/Cotonou Agreement. [See Agra Europe (1991)] The recent challenges to the EU banana regime and the abandonment or increased conditionalities associated with export stabilisation programmes such as the STABEX (stabilisation of export earnings) scheme which benefited the OECS and other ACP countries, are further sources of doubt associated with external liberalisation and its new trading rules. Indeed a study by Weeks (1999) on agricultural performance in Central America concludes that trade liberalisation has not been associated with improved performance. These concerns underscore the risks and limitations of an export-led strategy and aptly convey the simultaneous sense of hope and frustration that permeate the notion of trade liberalisation as a strategy for growth in LDCs/SIDS.

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<sup>9</sup> Spraos (1983), Sarkar and Singer (1991) among others; also IMF Survey , October 1994

(vii) *Balance of Payment Constraints*

Similar scepticism regarding the structure and patterns of international trade underlies the balance of payments (BOP) constraint model, advanced by Thirlwall and McCombie (1994). They developed a virtuous circle model of cumulative causation analogous to Myrdal's centre-periphery model and likewise emphasize the role of the differential between the price and income elasticities of exports and imports of developing countries. Their model argues that this differential creates a foreign exchange gap, which constrains growth and serves to perpetuate the underdevelopment of especially commodity-dependent countries. Therefore the faster export growth purported by advocates of liberalisation, though desirable is only half the story. More importantly, greater attention should be paid to the effect of export performance on relaxing a BOP constraint on growth. [See Thirlwall (2000)] As a result, their model of export-led growth emphasises the demand-side considerations and the role of non-price competitiveness in international trade.

(viii) *Restrictive Assumptions of the Underlying Neoclassical Model*

Another significant criticism levelled at trade liberalisation is the unrealistic assumptions of the underlying neo-classical Hecksher-Ohlin (H-O) model of comparative advantage. In terms of its microeconomic foundations Ocampo and Taylor (1998) contend that arguments for trade liberalisation are based on the Walrasian welfare assumption that a competitive equilibrium made possible from trade reform would allow for a Pareto-optimal allocation of resources given convexity of cost structures or decreasing returns to scale. These restrictive assumptions have been heavily challenged in light of the realities of the real world suggesting that the theory leaves a significant part of international trade unexplained. This gave rise to the so-called "New Trade Theories" advanced by Krugman (1979), Helpman (1981), Brander and Spencer (1985) and others, which recognise the existence of imperfect competition, market power and technological difference between nations.<sup>10</sup>

According to these researchers the traditional trade theories based on comparative advantage and factor endowments had become inadequate to explain trends in trade

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<sup>10</sup> This study draws from the thrust of the new trade theories in emphasising the role of imperfect competition and decreasing costs/increasing returns to scale and the implications for the outcome of trade reform.

patterns in the post-World II era. These largely indisputable trends included the fact that: (i) The ratio of trade to GDP had increased;<sup>11</sup> (ii) trade had become more concentrated in industrialised countries and (iii) trade among industrialised countries was largely intra-industry trade.<sup>12</sup>

Although empirical studies provide varying explanations for this emerging trend, changes in the shares of incomes of industrialised countries have been given as the principal reason for the observed expansion of trade relative to GDP. [See Helpman and Krugman (1985)] In keeping with Krugman's assertion real incomes did in fact rise sharply and steadily in the period between 1945 and 1960. This robust income growth during this period provided strong incentives for intra-industry specialisation based on differentiated products developed in part by private investment in R&D. [See Gowa and Mansfield (2004)]

Thus whereas most trade during the 19<sup>th</sup> century conformed to traditional trade theoretical models the basis for trade has since undergone a shift due to a combination of factors including advances in information and communication technology (ICT), reduction in transport costs as well as the removal of barriers to capital and resources flows. This has allowed firms to sub-divide and disperse production so as to maximise value along the production/value chain. As a result production is not necessarily country-specific as firms engage in production sharing (outsourcing) and trade intermediate goods across countries often at the intra-firm level. For example, in 1994, 40% of US trade was between affiliates of the same MNC as opposed to separate firms [See Chase (2003)].

Moreover, given that firms within the same industry can produce different products the factor contents of goods need not be a function of country of origin. It can vary within the same country according to the product being produced. Therefore trade may flourish between countries with fairly similar factor endowments profiles. More importantly trade can occur within rather than across industries. Hence countries may export the same good to each other albeit with different features or target markets in mind. For example country

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<sup>11</sup> The share of world trade to GDP climbed from 7.9% in 1950 to 15.4% in 1990 an increase of about 94.9%.

<sup>12</sup> The Grubel-Lloyd index for the 1990 confirmed that OECD intra-industry trade was very high at 68.4% compared to 38.1 % with the rest of the world. [See Bergoeing and Kehoe (1999) ]

‘A’ may export a generic/low-end variety of a good to country ‘B’ from which it imports a luxury high-end version.

Also contrary to traditional trade theories markets tend to be imperfectly competitive allowing for increasing returns due in part to fixed and other adjustments costs associated with market entry which is not frictionless. Then there is the time-inconsistency or co-ordination problem associated with international trade with imperfect competition. Also standard neo-classical trade models tend to ignore the dynamic (welfare) problems that imperfect markets can create especially with regards to exporting wherein knowledge of irreversible investments and sunk costs can lead to *ex post opportunism* with respect to the initial contractual terms.

Hence we see that the standard trade theory makes very different predictions regarding the composition and pattern of trade as compared to the new trade theory which gives a more tractable explanation of the complexities of modern trade. On the related issue Nobel Laureate Douglas (1994) was blunt in his assessment and concluded that “neoclassical theory was simply an inappropriate tool to analyse and prescribe policies that induce development”. This is partly because the mobility of factors is not instantaneous or costless to transact. In this regard he argues that institutions can determine incentive structures and therefore matter.

Certainly the fore going arguments based around market imperfection, scale economies and risks due to information asymmetries makes a case for intervention. However, although the analytical thrust of the new trade theory regarding the true nature of trade makes a case for such intervention to mitigate the impact of market imperfections such a policy conclusion is still resisted even by the exponents of new trade theories on political economy grounds relating to the view that governments lack the information or ability to make selective and appropriate interventions. [See Deraniyagala and Fine (2001)]

Therefore if new trade theory is a more accurate representation of reality, this raises questions regarding the consequences of trade reform in an environment of imperfect competition. The significant growth of north-north in intra-industry and the rising dominance of multinational corporations (MNC) in world trade, including export markets serviced by SIDS, can thus be a cause for concern. In this connection Barrios *et al* (2000)

found evidence supporting Krugman's "income-convergence hypothesis" which predicts that multinational firms will tend to displace national firms and trade as market size increases and firms converge in relative economic size, factor endowments and production costs. Clearly the imperfections and or non-convexities associated with these market structures characterised by oligopolistic firms engaged in Cournot-Nash type strategic behaviour, have serious welfare implications for trade reform in LDCs/SIDS.

Another, significant issue to be considered regarding the assumptions and theoretical underpinnings of neoliberal model of trade liberalisation is that they are largely supply-oriented in nature. These neoclassical models based on perfect competition and other naïve assumptions, downplay the dynamic, demand-side and institutional considerations on the outcomes of trade policy. Instead, they assume that mere conformity to trade based on comparative advantage, would ensure the acceleration of a country's development through faster export growth. Their underlying *Says Law* assumption presupposes that once resources are deployed to produce something, it will automatically find an export market. This ignores market arrangements based on contracts with locked-in prices among other systemic barriers.

Moreover, according to the theory of the *second best* advanced by Lipsey and Lancaster (1956), tariff reductions in a competitive equilibrium context may not necessarily be welfare-improving for all countries, despite the fact that free trade is Pareto-optimal or first best. Writers such as Ocampo and Taylor (1998) showed that there are cases where the imposition of tariffs or import substitution can be beneficial on grounds of growth. Rodrik (1992a) also points to possible ambiguity in the welfare effects of liberalisation in particular under conditions of imperfect competition. All of these contrasting theoretical arguments serve to question the theoretical underpinnings and thus likely outcome of a policy of trade liberalisation.

#### (ix) *Convergence Unobserved in Reality*

Yet another fundamental criticism of the underlying supply-side neoclassical model is the glaring evidence to the contrary with regards to the prediction of convergence in per capita and factor incomes across nations due to trade. This prediction is based on the concept of factor price equalisation (FPE) also called the *Heckscher-Ohlin-Samuelson* (HOS) theorem, which argues that international trade will tend to equalise the absolute

and relative incomes of homogenous factors. This view is in part based on the neo-classical notion of diminishing returns to capital and the assumption as in a ‘*Solow world*’ in which international linkages, factor mobility and technology transfer do not affect outcomes. In other words trade or government policy does not matter as growth is only a function of exogenous factors such as technical progress.

Researchers such as Ben-David and Kimhi (2000) argued that there was significant income convergence among liberalising countries, due to faster growth of poorer countries compared wealthier countries. However, this result was refuted by Slaughter (2001) who found no strong systematic link between trade liberalisation and convergence. To the contrary he further suggests that it is more likely to result in divergences incomes among liberalisers—a view which is supported by Puyana and Romero (2004) in the case of Mexico in NAFTA. Feenstra (1996) argued that the prediction of convergence as in an endogenous growth model implies and thus requires that trade is accompanied by diffusion of knowledge. Furthermore in cases where there was some convergence as in the case of the European Union trade was not a major determining factor.

In fact the so-called *catch-up* predictions of the model are largely unobserved in reality. Milanovic (2003) described the “income convergence” advert for globalisation and by implication trade liberalisation as a major tenet in the mythology of globalisation with its touted benefits for faster growth reaped by poor countries. Others see trade liberalisation as a specious trade policy designed to create mirages of growth. A number of studies lend support to this view. For example Dowrick (1991) found that in spite of modest gains in per capita incomes, there was a divergence of living standards across the world during the period 1984-88. In a study spanning the period 1870-1960, Pritchett (1996a) arrived at similar conclusions and argued that we should abandon the goal of convergence as it is very unlikely to occur in the current global policy environment. [See Quah (1996) and Rowthorn and Kozul-Wright (1998) among others for more on the subject]

It is worth noting that much of the incomes convergence hypothesis such as in O'Rourke and Williamson (1999) is based on a comparison of changes in the incomes of the populated countries of Western Europe and those of the then sparsely populated, land and resource-abundant new world of North America, Canada, parts of South America and

Oceania over the period 1870-1913. At a glance on the basis of size alone it is clear that the use of this model to predict outcomes in SIDS such as the OECS is tenuous at best.

(x) *Painful Adjustment and Rationalisation Effects*

Proponents concede that relative price changes due to trade liberalisation are associated with a number of hopefully *short-run* undesirable effects such as disabsorption and unemployment which have marred a number of liberalisation episodes. [See for example Sub-Saharan African (SSA) states such as Zambia (1985) and Kenya (1989)]. In these and other cases the associated pressures of a political economy nature from the lobbying efforts by losers or rent-seekers have caused policy slippage and even reversal in some countries.<sup>13</sup> In many cases loses accrue to those with sector-specific human and physical capital resulting with significant retraining and redundancy costs to firms, governments and individuals. The adjustment process has been particularly painful due to slow supply-responses and market failure in the sense that the anticipated influx of private capital to fill the vacuum left by the retreating state does not always ensue. [See Dorward *et al* (1998)]

This is in part because governments and the private sector are often apprehensive due to risks and uncertainty associated with picking winners, while losers are often clearly visible. In such cases the effects of the so-called *Schumpeterian* shake-up of ‘creative destruction’ is most apparent as uncertainty causes resistance to efficiency-enhancing reforms. According to Fernandez and Rodrik (1991) one of the reasons for this resistance and poor outcome is the unemployment losses associated with the rationalisation or scale effects of industrial re-structuring. Rodrik (1992, p.170) contends that “there is as yet no convincing empirical evidence for developing countries that shows liberalisation to be conducive to industry rationalisation”. Indeed, much of the literature on the scale effects of tariff reduction suggests that greater import-penetration due to increased liberalisation and openness reduces the number of domestic firms, while the effect on scale is ambiguous. [See Head and Ries (1999)] In a related study Tybout and Westbrook (1995) found that increased import competition due to openness was associated with reduced scale in Mexican industries. These and other adverse consequences associated with structural adjustment inherent in trade liberalisation have led detractors to conclude that

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<sup>13</sup> For this reason Meier (1995; p584) argues that in order to promote policy reform it is necessary to find ways to compensate the likely losers and to build support as well as institutional capacity.

such policies like globalisation lack a human face—a charge which Bhagwati tersely refutes in his book “*In Defence of Globalisation*”.<sup>14</sup>

With regards to labour, a study by the ILO (International Labour Organisation) (November, 2001) underscored the non-singular impact of trade liberalisation on employment and real wages. [See <http://www.ILO.org>]. It endorsed the view that contrary to the underlying assumptions of smooth resource reallocation based on full mobility of factors, towards activities in which a country has greater comparative advantage; trade liberalisation is likely to impose heavy adjustment costs in the form of contraction of output, increased unemployment and a widening trade deficit. Greenaway (1993) confirms that unemployment increased significantly during and after trade liberalisation. Meanwhile a study on the impact of trade liberalisation on the structure and level of employment in Brazil found support for the argument that it was associated with a negative short-term impact on employment. [See Moreira and Najberg (2000)] These concerns are also relevant in the experience of the OECS.

(xi) *The Infant Industry Question*

The debate regarding the use of trade liberalisation and a laissez-faire-type industrial policy as a strategy for growth and development in developing countries have grappled with the controversial issue of the infant-industry argument. The need for infant industry protection for countries/firms in the early stage of industrialisation/development was first proposed separately by Alexander Hamilton and Frederick List who argued that their respective countries namely the US and Germany needed some protection to be able to compete and catch-up to the more established industries in Britain. However although there is general agreement that it stands up to close economic scrutiny it is largely discredited as a legitimate instrument for industrial development. On the back of a number of political economy arguments the consensus has been that infant industry protection especially in the form of tariff protection is not good. This is so despite the fact that the cost concept has undergone some refinement since its early enunciation [See Johnson (1965)]

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<sup>14</sup> Nonetheless he argues that crony capitalism leads to forced opening of markets to US cultural exports and excessive intellectual property rights.

In response to the orthodox recommendation of no protection to infant industries Chang (2003) and others argue that historically all the developed countries that currently advocate free trade used protection extensively during the early stages of their development. He describes the current advocacy as a case of '*kicking away the ladder*' so that others cannot use it. This according to Wade (2002) maintains the core-periphery dynamic and frustrates catch-up by the periphery. The current pressures to discourage most forms of export subsidies which contributed significantly to the success of the South East Asian countries makes the task of export promotion and raising the relative price of exports more difficult for late-comer reformers in the developing world. In this way SIDS and other developing countries are denied the opportunity for dynamic learning effects needed to develop new areas of comparative advantage in a less competitive environment.<sup>15</sup>

In terms of supportive arguments for infant industry protection Taylor and Ocampo (1998) argued that there was room for policies aimed at promoting both import substitution and export growth under certain conditions. For example there are instances when exports for an import substituting firm may not be profitable. Moreover, protection together with investment in cost reducing technology may serve to increase productivity, which may in time make exporting profitable. Therefoe, although they may not be symmetric and mutually offsetting productivity enhancement can be achieved through such a mixed strategy. Both approaches were used by South Korea. The possibility for government to assist in overcoming the fixed costs of breaking into external markets is yet another basis for infant-export industry time-bound protection. On this basis the overall reduction of protection can also cut back on growth. [See Shafaeddin (2000b) for more on the role of infant industry argument as device for development and as it was initially intended.]

(xii) *Breakdown in WTO-led Trade Negotiations and Growing Anti-Globalisation protests*

Despite the glowing picture painted by the proponents of trade liberalisation and globalisation there is a growing disquiet and dissonance of opinion between countries in

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<sup>15</sup> However subsidisation remains a significant form of protection in developed countries. For example the Trade and Development Report (1999; p136) indicates that the average level of support for agriculture averaged \$350 billion in 1996-1998. This compares with \$170 billion in agricultural exports from developing countries.

particular on the notions of free trade versus *fair trade*. This growing cleavage in opinions on the subject resulted in the breakdown in the November 1999 trade negotiations in Seattle. As surmised by Shaffaeddin (2000) this was due to a number of fallacies and contradictions surrounding the concepts and practices of “universal trade liberalisation” and the [suppression] of infant industry protection by the “west”. Indeed a number of NGOs have lobbied against the stampede of globalisation the world over based on what they describe as the pernicious dimension of globalisation as being less than a benign force of growth and development but in its present dispensation as a source of deindustrialisation of the third or developing world. Then there is the infectious critique of the WTO’s policy as one which creates a borderless world that diminishes the importance of governments and renders policy makers more beholden to corporate interests. This view is ostensibly supported by the relentless incursion of global brands of MNCs into markets of LDCs. Others see trade liberalisation as merely facilitating the triumphal march of unbridled capitalism in the name of globalisation.<sup>16</sup>

#### *Arguments For and Against: A Preliminary Summation*

In sum, the aforementioned criticisms based on heterodox models present a less sanguine view of trade related liberal reforms. They call attention to the need to step outside the existing orthodox growth framework and revisit the underpinnings of the policy of trade liberalisation and the role of openness as a strategy for growth and development in SIDS and other developing countries.

For this reason, Rodrik (1992b) warns of the danger of over selling trade reform as a complete solution to development problems, lest there be unrealistic expectations of countries and disillusionment of policy-makers. He adds that at best trade policy can create an enabling environment but there can be no guarantee that the necessary supply-responses and resource flows will follow. In any case the effects of trade liberalisation depend on the aggregate consumer and producer reactions to the policy change as well as the institutional environment.

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<sup>16</sup> Other concerns surrounding trade liberalisation and globalisation include increased job insecurity, environment degradation and cultural homogeneity. These fears are also echoed in the OECS with its fragile economic base and ecosystem. See Schiff and Winters (2002)

Given these myriad of concerns, Greenaway (1998) contends that the widespread commitment to liberalisation especially among developing countries, is misleading as many of these commitments have been based on policy-conditioned lending by the World Bank and IMF and are thus of questionable credibility.

## **2.3    *The Debate on Economic Performance: A brief look at some empirical studies***

### **2.3.1 Gains from Trade Liberalisation**

The debate on the impact of trade liberalisation on economic performance has also been played out extensively on the empirical level. Here it focuses on the magnitude, direction and sources of growth as well as the mechanisms through which the benefits of liberalisation are transmitted. Indeed a positive correlation has been found to exist between trade liberalisation and most of the channels that determines growth. For example Edwards (1998) found a positive association between increased openness, productivity and growth. The often cited paper by Sachs and Warner (1995) also found support for a strong link between trade reform and output growth. Since then a number of subsequent studies have broadly presented similar conclusions. Some of these include Salvatore and Hatcher (1991), Leamer (1988) among others.

As a result the state of the debate is such that there is general consensus on the static gains which are due mainly to resource reallocations and specialisation in line with a country's comparative advantage. However, as discussed in section 2.2.2 detractors argue that these gains are typically small ranging between 1-3 per cent. Proponents counter saying that such estimates are based on comparative static models and would be much larger if the dynamic gains from trade liberalization were incorporated in these models. [See Grossman and Helpman (1991) and Rutherford and Tarr (1997)] Therefore it is the dynamic gains which have been the focus of the debate in the literature and policy circles, some argue because it is either poorly understood or difficult to measure. [Baldwin (1992) and Helpman and Krugman (1985)] Accordingly countries embarking on such a policy, including the OECS have a greater interest in its dynamic gains given that the development process demands not merely a once-and-for-all increase in income, but increases in income over time. [See also Krueger (1998)]

So what are these dynamic gains? In a nutshell they refer to the indirect/secondary effects from the impact of trade on an economy. They result in a continual outward shift of the production possibility frontier due to increased productivity from efficiency gains which eventually translate to falling costs, increasing returns and faster growth. This expansion of the productive and export base is due to the accumulation and increasing returns to human and physical capital. Proponents contend that their realisation is due to increased market access for exports and the inherent scope for economies of scale. [Krueger, *ibid*]

In effect foreign exposure obtained by the export sector in conjunction with the higher return, inspires entrepreneurship and raises productivity of factors above their steady-state, which then drives the process of growth further. Put differently, dynamic gains from outward-orientation, leads to positive externalities due to the transmission and diffusion of knowledge/new ideas and the adoption of more efficient production techniques and management systems. This generates dynamic efficiencies, which lowers the incremental-capital-output ratio (ICOR) and thereby improving economic performance. [For studies on the dynamic gains from trade liberalisation and openness see Brada and Mendez (1988a) and Wacziarg (2001) among others.]

However, despite the popular belief that a liberal trade regime will yield significant benefits to a country, systematic attempts at quantifying these benefits have generally failed to single out trade policy as a major factor in economic growth. [Rodriguez and Rodrik (1999) and Harrison and Hanson (1999) among others] Levine and Renelt (1992) also concluded that trade policy was a weak determinant of growth. Even with very recent findings empirical evidence regarding the impact of trade liberalization on growth remains very mixed. [See Wacziarg and Welch (2003)]

### **2.3.2 Trade Liberalisation and Export-led Growth**

As mentioned earlier one of the main tenets of the neo-liberal argument for trade liberalisation and increased openness is that this would lead to export-led growth. Accordingly attempts to investigate the correlative or causative links between exports, growth and trade policy inspired an extensive empirical literature as researchers sought confirmation or lack thereof from either side of the intellectual divide.

To begin with the link between export growth and economic growth is already generally accepted among practitioners. Some of the more influential early work in this regard includes Balassa (1978), Feder (1983) and Ram (1987) among others. These neoclassical supply-side growth models assumed that the export sector would confer a number of positive externalities on the economy. As a result attempts were made to extend the analysis of the underlying relationship between export and output growth in several directions. In one such case Esfahani (1991) re-estimated Feder's model and came up with findings that diluted the extent of the export related externality effect. He contended however, that export growth was essential to finance imports and to help alleviate the foreign exchange constraint of developing countries.

Accordingly, Feder's findings were challenged on grounds of its applicability to LDCs and by the extension to SIDS. A study by Sheehey (1990) undermined the special importance given to exports as the engine of growth. He concluded that the alleged strong empirical link between export growth and GDP growth is not unique to exports but is common to all major production categories or determinants of GDP growth. Hence, by the same token, the growth of public expenditure may be just as important in its contribution to growth. Like Heller and Porter (1978), Sheehey (*ibid*) contends that this strong link is biased by the built-in correlation between exports and GDP growth given that exports are a component of GDP.

Between these two poles are others such Kravis (1970) who views trade as a handmaiden of growth and Reidel (1994) who espouses a more organic inter-relationship between trade and growth. In essence these opposing views suggest that while strategies that promote exports growth may be beneficial to growth the nexus is overstated and that other sources of growth are just as likely to have a similar impact.

Notwithstanding these lingering doubts, the role of exports as a source of growth remained generally accepted and the growth nexus has been extended to incorporate trade policies that lead to increased openness. [See Greenaway and Sapsford (1994)] Since then a number of studies have given support to this link some with various caveats. McNab and Moore (1998) using an approach based on simultaneous equations in aggregate production function/national accounts framework to deal with the endogeneity problem

found that outward-oriented trade policies significantly impacted growth in developing countries through increase exports and through a feedback/multiplier effect. Some more recent studies have also found a positive association between trade reform and export growth. [(ECLAC, 1999; Pacheco-Lopez, 2005), Shaffaedin (1995); among others] Santos-Paulino (2002) found that trade liberalisation had a strong positive impact on export performance but the elasticity of exports to real exchange depreciation was small or insignificant. Importantly, she cited that growth in world income and export demand was a major contributing factor to the positive impact of trade liberalisation on export performance. Using a panel data approach and three complementary indicators of liberalisation, Greenaway *et al* (2001) concluded that trade liberalisation did impact favourably on growth of real per capita income but with a lagged effect that is marginal at best—a sort of *J-curve effect* where the economy gets worse before it gets better. Gylfason (1999) likewise describes the adjustment path following liberalisation as being *sickle shaped*.

However, some recent studies have challenged the empirical findings on the relation between openness and growth. Writers such as Lee *et al* (2004) argue that whereas openness is likely to have a positive impact on growth such findings are somewhat overdrawn. They cite the problem of endogeneity in the relation as the main reason for the exaggerated claims. Also in an earlier article “Liberalising foreign trade through rose-tinted glasses”, Greenaway (1993) argued that there was an absence of a consistent empirical framework for assessing what constitutes a liberalisation episode and its economic impact. He challenged that the conviction with which the summary results of some studies are stated have more to do with prior beliefs than with convincing evidence. Also many of these formative studies, are based on overly restrictive assumptions, simplification and preconceived bias, hence their claims of generality are extravagant. He concluded that it would be unfortunate if such results become the basis of “*off the shelf*” reform packages.

Thus in an attempt to quell lingering criticisms and lend further support to this now widely accepted view over the efficacy of trade reform as a source of growth, the World Bank commissioned a landmark study on the performance of countries with liberalisation episodes. This watershed PMC (1991) study (cited earlier) involved 19 countries and 36

liberalisation episodes over the period 1950-1982. In sum, it presented liberalisation as a solution to the problem of slow growth in LDCs. Among other results they found a strong correlation between trade liberalisation and rapid export promotion, with no sluggishness in the response of exports in the post reform period. In other words claims of undesirable short-run effects from trade liberalisations were considered to be unfounded. They attributed this growth stimulus to relaxation in import restrictions and a fall in the real exchange rate (RER).

### **2.3.3 Liberalisation and Regional Trade Agreements (RTAs)**

As discussed earlier the benefits of trade liberalisation are often analysed in terms of the trade effects associated with membership in a regional trade agreement. In this regard various non-parametric methods are used to determine whether an RTA is trade creating or trade diverting. [See Iapadre (2004)] Other studies utilise gravity models which are based on the volume of trade between trading partners as a function of their respective incomes, populations and distance between them among other factors. [See Cernat (2003)]

While this approach is often used to assess trade between nations it has a number of limitations such as its vague underlying assumption that the structure of expenditure across countries is similar i.e people have identical homothetic preferences. Also the estimators obtained may be biased and this bias may be quite significant given varying transportation costs all of which may not be offset by efficiency gains from trade. [See Anderson (1979)]

Nonetheless in a study on the CARICOM region using a gravity model, Egoume-Bossogo and Mendis (2002) found on the basis of lower than normal but positive elasticities that membership in this RTA had a positive impact on bilateral intra-regional trade for all members including the East Caribbean Currency Union (ECCU) (also known as the OECS). However after controlling for various factors such as ACP membership, trade liberalisation and the EU banana regime, the RTA term for the ECCU/OECS region was no longer significant.

### **2.3.4 Some Other Issues in the Empirical Debate**

#### **(i) Correlation vs Causation**

Most of these studies, which were largely cross-sectional in nature, generally showed association but on average gave conflicting results with limited scope for policy related inferences. Also many of them were plagued with shortcomings in methodology including misspecification and confusion between association and causality. As a result parameter estimates are likely to be biased and inconsistent, leading to misleading causal conclusions. [See Greenaway (2002)]

In an effort to strengthen the empirical basis for policy prescription of trade liberalisation, subsequent studies focused on causality tests. These studies were motivated by the view that strong correlation did not prove causality as it was equally possible that rapid economic growth caused export growth and not vice-versa. Some examples include Jung and Marshall (1985); Sharma and Dhakal (1994) and Ghatak *et al* (1997) among others. In one such investigation, Islam (1998) found that a country's degree of openness or trade orientation was not significant in determining economic performance.

#### **(ii) Selective interpretation of the recent record of performance among countries**

Researchers such as Milanovic (2003) examines the record of performance across all countries except the OECD countries over the period 1960-98 which he sub-divides into a so-called period of import-substitution and (1960-78) and a period of structural adjustment and globalization from 1978-98. Contrary to popular expectation he found based on an inspection of the population-weighted world GDP per capita growth rate that the earlier period involved a degree of catch-up as growth was between 2 and 3 times higher for most countries in the 1960-1978 period as compared to the post 1980s period characterised by structural adjustment including trade liberalisation. On this basis the conclusions of the superiority of outward orientation based on the experience of the Asian Tigers may be premature. He also based his view of a poorer all round performance in the second period on an increase in the degree of income inequality across nations as indicated by a rise in the Gini coefficient. Against the weight of this evidence he questions the findings of the likes of Dollar and Kraay (2002) that arrived at contrasting conclusions including convergence among countries. Such findings are according to

Milanovic 2003 due to a selective process of weeding out so-called bad countries from amongst the “*globalisers*”.

### **2.3.5 Summary of the Debate of Trade Liberalisation on Economic Performance**

As the above discussion suggests, in the course of this wide debate concerning the impact of trade liberalisation on economic performance, various contributors have canvassed a vast diversity of issues. Considerable attention has been given to the analysis in relation to the most appropriate methodologies or analytical techniques to be employed.

In sum, the justification underlying the policy of increased openness created by trade liberalisation is that it leads to a more efficient allocation of a nation’s scarce resources. This is because trade based on comparative advantage allows a country to import goods more cheaply and consume more of the goods in which it enjoys a comparative advantage and also those in which it does not. Accordingly, countries would import those commodities in which they had lower comparative advantage and export those in which they enjoyed a greater comparative advantage. Static and dynamic gains from such specialisation will lead to enhanced export performance and overall economic growth.

However, the experience of countries with liberalisation episodes remains mixed as indicated by the many conflicting views and findings in the empirical literature. Despite all these views to the contrary the widely accepted link between exports and growth has been adduced by many commentators as evidence that trade-orientation and by extension trade liberalisation works. In many cases the predicted and anticipated improvement in the rate of growth has not been realised. For example, as concluded by Bleaney (1999) in a study involving ten (10) Latin American countries, trade liberalisation was only able to help with macroeconomic stabilisation. He found that while distortions in the economy were reduced, the gains (in terms of greater real exchange rate (RER) and income sensitivity) of manufacturing and total exports were offset by appreciation of the real exchange rate. Also key real variables such as GDP growth and investment ratios appeared not to have improved.

## ***The Debate around the Structural Impacts of Trade Reform***

### **2.3.4 Introduction**

Generally, the debate around structural impacts focuses on the changes in a country's trade flow patterns and in the relative shares of industrial sectors in GDP. [See Meier (1995)] Thus this is in effect an assessment of the impact of trade liberalisation on output and thus export composition. In this respect, the debate largely relates to the mechanisms through which trade liberalisation induces structural adjustment. This structural adjustment involves a reorganisation effect in formerly protected sectors resulting in an increase in total output due to productivity improvements. [See Gylfason (1999)] The operative mechanism here is one of internal resource reallocation and reorganisation in line with comparative advantage.

According to standard trade theory, the lowering of trade protection would bring domestic prices in the protected import-competing sector closer to international prices, thus inducing a shift of resources/factors of production towards export sectors, due to the incentives provided by the new relative prices. In effect, the reduction of tariffs and other barriers is tantamount to lowering domestic price distortions and the degree of anti-export bias in the trade regime. The argument is that the new incentives stimulate a supply-response such that producers are encouraged to produce for the export sector. In aggregate these responses precipitate fundamental changes in a country's economic structure in terms of the composition of output, relative performance and importance of economic sectors. [Greenaway (1999) and Krueger (1998)]

As a result of these changes, it is argued that at the very least, welfare is enhanced, as consumers are able to obtain a larger quantity and wider range of imports at cheaper prices. The export sector also benefits from cheaper inputs which helps relieve bottlenecks and increase export competitiveness. As a consequence of the neutral border prices due to liberalisation, domestic resource costs from static inefficiencies due to rent-seeking and other forms of misallocation of factors would also be lowered.

This process of transformation of the structure of production and trade based on a rise in the share of industry and hence exports, is regarded as necessary for sustained economic growth. [See Chenery (1980)] It involves a shift away from dependence on primary

products towards manufactures and non-traditional exports, including services, for foreign exchange and is considered moving upward on the ladder of comparative advantage.

Given these claims, a number of studies sought to evaluate the impact of trade liberalisation on structural change in developing countries. Many of these studies sought to assess this impact in terms of changes in various measures such as export competitiveness, diversification and stability based on changes in its revealed comparative advantage (RCA) [See Taylor (2003); Utkulu and Seymen (2004)] or its index of traditionality, export composition and specialisation. [See Guitiriez de Pineres and Ferantino (1997) ] Other studies such as Baumann (1976) focussed on changes in a country's factor proportions, net balance of trade as well as its propensity to export and import.

Then there are the structural break models which searched for evidence of a coincidence between a take-off in exports and aggregate growth and the implementation of liberalisation programmes. [See for example Greenaway, Leybourne and Sapsford (1997) and Ben-David and Papell (1997)] both of which searched for proof of a statistically significant change in the paths of the trade ratios of countries following tariff liberalisation.] Whereas the Ben-David and Papell study of 48 countries including some SIDS, found evidence of a structural break in most countries, it concluded that increases in imports were weakly related to exports. Likewise, the Greenaway model which used 13 countries from the landmark PMC (1991) study concluded that its claims of a strong growth-liberalisation connection are overstated and unwarranted.

Ruiz-Napoles (2001)found in a structural analysis of Mexico's liberalisation and export growth experience, that the positive effects of liberalisation in increasing manufacturing exports are limited and were offset by the increase in manufacturing imports, which displaced domestic production. The findings of Tybout and Westbrook (1995) were also mixed in the sense that although there was evidence of reduced average costs in most industries (due to falling price of intermediate goods), the increased level of import penetration also reduced demand for domestic products.

If the experience in the OECS is in anyway similar to this, the BOP implications may be quite significant given the region's high propensity to import and its declining export

market shares. The question, which follows out of this scenario is, will it be sufficient simply to “*get prices right*” or neutral in order to invoke the expected supply-responses needed for output to increase. Importantly, these models of structural change suggest that there is little correlation between the rise in the share of imports and the rate of growth of exports. Equally concerning is the likelihood that they may move in opposite directions.

Further, the debate on the structural transformation of a country also carries implications for the relative importance of the public and private sectors. In this regard proponents of liberalisation show a clear preference for a dominant private sector, regardless of the relative capacities and current stage of development of the country. [See Taylor and Ocampo (1998)] Also, to the extent that liberalisation and increased integration may accelerate this process of structural adjustment, concerns have also been expressed over the increased vulnerability inherent in narrow specialisation and export concentration in a dominant sector. [(CARICOM, 2000); Briguglio, 1995)]

### **2.3.5 The Fiscal Impact of Trade Reforms and the Role of the State**

With specific reference to SIDS such as the OECS, the debate around the structural impact of trade liberalisation has in particular, centred around three key concerns: firstly, the impact of liberalisation on the critically important public sector in terms of its structural fiscal dependence; secondly, the retreat into services as the mainstay of the regional economy and thirdly its implications for national sovereignty.

#### *2.3.5.1 On the Fiscal Impact of Trade Reforms*

Apropos the structural impact of trade liberalisation on the public sector, arguably the main concern of small countries (OECS included) relates to the fiscal implications of trade reforms.<sup>17</sup> This is so given their typically high fiscal dependence, (i.e trade tax/total tax revenue), such that trade taxes constitute on average 15-20 percent of GDP and an average of 50 percent of government revenue in the OECS. [CARICOM, 2001] Indeed a study by Khattri and Rao (2002) found evidence that trade liberalisation depressed the

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<sup>17</sup> Greenaway & Nam (1988) contends that the potential revenue loss from trade reform is probably the single biggest source of resistance to trade liberalisation.

tax revenue to GDP ratios in developing countries. This was due to structural characteristics which limited their ability to reform taxes in a manner that replaced trade taxes with domestic taxes. A principal consideration in this regard is the size of the tax base. Apprehension over the likely loss of government revenue is heightened by the possible twin-gap scenario of a parallel deterioration of the external sector in terms of a widening of the import-export gap and its implications for foreign exchange needed to service debt obligations.<sup>18</sup> The fiscal revenue shortfalls associated with trade liberalisation are likely to make the task of macroeconomic stabilisation more difficult. Efforts to compensate for the fiscal deterioration often result in increased public domestic or external debt, which ultimately leads to increased taxation to service interest payments. Hence, trade liberalisation policies usually tend to widen the fiscal deficit. [See Toye (2000)] For related reasons Greenaway and Milner (1991) argue that successful trade liberalisation requires careful assessment of the fiscal consequences as the claim that it is always eases fiscal constraints cannot be supported.

The usual remedy to this concern has been a set of complementary tax and fiscal reforms designed or intended to compensate for the inevitable tariff revenue loss, by reducing a country's dependence on border taxes. [See Stotsky *et al* (2000)]. In this regard trade reforms should at least be revenue neutral to induce governments to adopt them. As a result, sales taxes or even more complex and broad-based consumption taxes such as value-added tax (VAT) are usually recommended. However, as Bliss (1992) observes, the implementation of new tax systems take time and are often difficult to administer. He further asserts that these sources are often negligible when compared to trade taxes. Furthermore, they ignore the structure of the economies in terms of their small populations and hence tax bases, significant informal sectors and relatively high levels of unemployment.

#### *2.3.5.2 Implications for the Role of Government*

Viewed in this manner, trade liberalisation has direct structural implications for a nation in terms of the role and capacity of government. This is particularly important in SIDS

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<sup>18</sup> These concerns have grown in importance for the OECS in light of recent trends in their respective fiscal deficits and debt structures. For example fiscal deficits in the OECS grew from 4.3% of GDP in 2000 to 6.5% in 2001. [See the ECLAC report for 2001/2002]. Meanwhile a March 2002 report from ECCB indicated that the region's average debt to GDP ratio was about 65 percent and well above the prudential levels of 35-40 per cent.

with small private sectors and the pervasive problem of missing markets and market failure. For example it is accepted that if SIDS are to improve their economic performance and compete, they will need to increase their levels of efficiency. This makes the case that the typically significant public sector investment programmes in SIDS are vital, given that higher levels of investment is one of the principal ways of increasing efficiency in the economy.

The impact of trade liberalisation goes further. Trade liberalisation invariably reduces the capacity of government to discharge even a facilitative role in economic development. Importantly, the capacity of governments to assist failing public enterprises or even to stimulate growth through increased public sector spending in particular when the private sector is small and fragile as in the OECS is also reduced. By the same token the curtailment of the *transfer state* due to a reduction of government discretionary funds in particular from a principal source such as trade taxes in itself diminishes the power of governments.

In this respect, the role of government in the provision of public goods such as increasing the stock of human capital, which increases productivity and lowers the production costs of the private sector, is challenged. Hence the revenue implication of trade liberalisation does lead to some degree of economic policy impotence on the part of the state. This limits the scope for even a modest level of state-led economic growth. For example the state would be less able to subsidise tertiary education and incubating private enterprise in strategic sectors.

The role of government as a leading provider of social overhead capital such as education finds support in the *new growth theory* of endogenous growth advanced by Romer (1986) and Lucas (1988). They argue that the implication of the findings of the new growth theory for developing countries is that they should place greater emphasis on human capital. This makes a case for the preservation of important sources of government revenue, such as trade taxes.

The importance of government size for economic growth has also found support in the work of some advocates of liberalisation such as Ram (1987). In contrast to the expectations of the proponents of liberalisation, Rodrik (1998) found that there was a positive correlation between an economy's exposure to international trade and the size of governments. This successful implementation of reforms and the inherent administrative

challenges throws up issues of ‘governance’ and hence the need for a non-laissez faire type state. Importantly government spending plays a risk-reducing role in economies exposed to a significant amount of external risk. Moreover, governments are also helpful in making markets work in particular through macroeconomic management. The role of governments in providing counter-cyclical stimulus through fiscal expansionary policy during economic downturns is also crucial to economic stability. This is especially important given the marked slow down in official direct assistance (ODA) and foreign direct investment (FDI) observed in developing countries in recent times. The importance of this issue was such that it was the focus of the World Bank Development Report (1994). Trade liberalisation in so far as it reduces government revenue makes these functions more difficult.

Notwithstanding strong believers in the immutability of markets argue that the role of government should be more *laissez-faire* and less interventionist. Their arguments in favour of smaller governments are related to the counter notions of government failure, rent-seeking, corruption and *political clientelism* all of which have been cited as reasons for failed inward-looking strategies of development. [See Kurer (1996) and Krueger (1990)]

Nonetheless, while the neo-liberal paradigm emphasises privatisation and smaller governments, the challenges of today’s market forces creates what has been described as “*the paradox of the role of government*” wherein governments have been called upon to be a more credible and effective partner to the private sector in upgrading the productivity of resources and the competitiveness of firms. [World Development Report (1997)].

#### **2.3.5.3     *Issues of National Sovereignty***

In addition to fiscal implications, another indirect and perhaps unintended impact of the adoption of increased trade liberalization and openness especially within a regional or multilateral framework is its impact on the importance of the nation state. In this regard the embrace of the neo-liberal paradigm with promotion of economic internationalization invariably calls for the *withering* and retreat of the state. [Meier (1995)] This occurs in various ways such as privatization of state assets, a reduction in the need for the regulatory function of government, fiscal restraint and the redirection of public

expenditure mainly towards merit goods such as education, health and public infrastructure. [See Stern (1991)]

In this connection trade liberalization is thus seen as a policy norm of a wider ideological consensus that emphasizes deregulation in terms of the lowering of border barriers which not only increases the flow of goods and services but also facilitates increased integration of countries. In this way trade liberalization contributes not only to the advancement of the so-called wave of globalization but to the erosion of national sovereignty. Thus, while many commentators are supportive of the economic aspects of trade liberalization a number of worrying concerns have also surfaced.

Some of these relate to the question of national sovereignty in so far as supranational and multilateral bodies are increasingly determining domestic policies as governments are conditionally coerced or otherwise to acquiesce to various agreements. This trend wherein countries are increasingly made to walk a given policy line which is largely based on ensuring market primacy through deregulation, privatization and labour market flexibility has been described by Friedman (1999) as the *Golden Straitjacket*.

Importantly, the fixation of the neo-liberal paradigm with the pre-eminence of the market is such that it has altered the very philosophy of economic policy away from the once cherished ideals of the Keynesian welfare nationalist state (KWNS) which characterized most countries in the post WWII era. Instead trade liberalization packages with an array of associated reforms typically call for a minimalist and non-interventionist government. Accordingly the (KWNS) has been replaced with a post-nation state system which is based on constant flux and the need for constant innovation and flexibility due to constant competition. [Jessop (2004)] In this Schumpeterian environment of so-called “creative destruction” economies inherently face more risk and uncertainty. In conjunction with volatile external factors this makes economic planning less tenable.

In contrast the typical “mixed economy” along the lines of the KWNS was based on the pursuit of full employment, low inflation and the mobilization of savings to finance investment. Also significant is the fact that the KWNS system stressed the importance of governments in particular through the use of fiscal policy and demand management in influencing the level of employment as well as the distribution of income.

In sum, the debate on the impacts of trade reform on the role of governments is by no means resolved. Thus, Greenaway and Milner (1991) conclude that while it is unclear as to whether trade liberalisation leads to fiscal enhancement or depletion, the outcome depends on the initial conditions and the nature of the reform package. On balance, it would appear there are reasons to remain cautious over these impacts. Accordingly, the thesis also intends to investigate the repercussions of trade liberalisation on the government sector with emphasis on the fiscal implications.

The foregoing to a significant extent characterise the present standing of the debate between advocates and critics within the wider literature. However a number of issues remain. The first relates to the applicability of this policy prescription to small states/SIDS as well as issues relating to its mode of implementation. This is the task of the next two sections of this review.

## **2.5 *On the generalisations and applicability of neo-liberal trade model to SIDS***

One of the issues still unresolved in the literature is the question of the applicability of the neo-classical liberalization-growth models to SIDS in light of their structural characteristics. Indeed a number of models implicit and otherwise have been used to express the generality of the gains from trade liberalization. [Baldwin (1992)] The consensus among them is that small countries are the principal beneficiaries from open policies.<sup>19</sup> However as is now widely agreed the underlying H-O model which predicts gains of trade due to exchange and specialization based on factor proportions and based on comparative advantage is fraught with weaknesses. [See Salvatore (1995)] Therefore, while this may be so, *ipso facto*, in a world characterized by increasing opportunity costs, specialization is inherently incomplete in all nations including SIDS.

Also the findings of studies based on the standard neo-classical propositions of trade theory often involve normative assessments and generalizations that discount or even disregard the variability and diversity which reflects the real world including the particularities of SIDS. This is so despite the widely accepted view that the effects of

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<sup>19</sup> This view is based on the so-called small country case in which the small country receives all the gains from trade from complete specialisation under constant costs. [See Salvatore 1995]

trade liberalisation would be specific to each economy and depending on its production structure, tax system, labour market, and government's industrial and other policies. Thus Devons (1961) expressed skepticism over inferences made in relation to international trade given the relative crudity and simplicity of standard theory or statistical analysis compared to complexity of the real world. For similar reasons Sugiyarto (2002) noted in his review of the book "Trade Liberalisation and Poverty", that there is in effect no certain knowledge that trade liberalisation of type "A" will have effect "B". He also added that empirical results on its effects were at best inconclusive. This suggests that one cannot generalise the predicted outcomes of such a policy.

On the basis of such weaknesses Johnson (1964) argued that the challenge is to develop an understanding of both the general economic forces and the socio-economic relationships within the world economy. This includes the unique features that represent local and historical variability. For similar reasons Milanovic (2003) argues that the inadequacy of economic models in capturing the true picture of globalization and by implication the impact of trade liberalization on a country is rooted in the very methodological constructs used which are based on individual rational behaviour.

Against the backdrop of these contentions, we now broach some issues specific to SIDS such as the OECS.

### **2.5.1 Peculiarities of SIDS: Size and Structural Issues**

#### *(i) SIDS and the World Trade System*

It is widely agreed that international trade is more important for small countries than large ones in so far as it provides the only means for SIDS/small states to circumvent the limitation of a small domestic market and achieve economies of scale, increasing returns and the many other stated benefits of trade. It is also equally agreed that international trade is inherently associated with greater risk and uncertainties from external shocks. Moreover SIDs possess a number of characteristics that may compromise their ability to fully reap the benefits of trade liberalisation. [See (Streeten, 1993)]

Thus the achievement of successful export-oriented industrialisation through trade liberalisation and structural adjustment though endorsed in most SIDS is a lot easier said

than done. This is because SIDS suffer from many supply-side constraints, which in the face of the mounting intensity of open market competition, makes it increasingly difficult to set up export industries. [See Salvatore (1998), chapter 11] Theorists of the dependency school argue that the special circumstances of SIDS like many other LDCs relates to the historical role inherited by such nations in the international division of labour, based on a structure of production biased towards primary products. [See Myrdal, 1957] Meanwhile, analytical perspectives advanced in the new microeconomics of development, focus on the institutional dimensions of the difficulties faced by SIDS. Writers such as Stiglitz (1989), argue that problems related to imperfect information, high transactions costs and other forms of market failures constrain the ability of LDCs to record the performance improvements suggested by proponents of trade liberalisation.

Nonetheless, in the relentless march of trade reform and the advance of globalisation many of these size-related characteristics have been downplayed in the debate regarding the likely impact of trade liberalisation and other neo-liberal reforms on small states. Accordingly there is a need to draw attention to these special circumstances given that the concerns of SIDS are largely drowned in the surf of multilateralism with its resolute focus on a rules-based trading system, predicated on the WTO principles of reciprocity and non-discrimination.

(ii) *Conceptualisation*

In more ways than one this view is related to the debate on the conceptualisation and implications of smallness. To begin with, even the country categories covered under the WTO agreement do not accord to SIDS a unique status based on their size and degree of vulnerability. Instead it recognises only three categories based on stages of development, namely: (i) developed, (ii) developing and (iii) least developed. As a result many SIDS are calling for a wider menu of trade policy options and a separate “negotiating identity” based on the view that their interests are not well served under the *monocentric economics* and *one-size-fits-all* approach which characterises the multilateral trade system.

Then the general notion of a small open economy (SOE) relates to the definition of smallness widely used in economic theory merely relates to a country being a price-taker on the world market and hence unable to influence its terms of trade. Armstrong and Read (1998) argue that this definition lacks focus in its exclusion of larger countries

rather than its inclusion of small ones. Scitovsky (1960) provides a more useful definition based on the sub-optimality of size of small states. This suggests that SIDS are often below the critical minimum economic size (MES) needed to ensure viability. Others such as Looney (1982) sought to distil a set of unique characteristics of smallness that incorporate the conventional/population-based definitions with performance and policy variables. On this basis he found that the defining characteristics of small states include high trade to GDP ratios, large public expenditure to GDP ratios and relatively larger payment deficits. Further, Streeten (1993) adds that small countries are inherently less diversified and face relatively high foreign trade risks.

(iii) *Vulnerabilities and Special Circumstances*

The size-induced capacity constraints of SIDSs that contribute to their vulnerability are perhaps best captured in the vulnerability index developed by Briguglio (1995). These vulnerabilities include: (i) limited resource endowments, (ii) high external dependence and susceptibility to trade shocks, (iii) small domestic markets; (iv) limited ability to exploit economies of scale, (v) proneness to natural and environmental disasters (vi) high transport cost from remoteness, among other factors.

Most of these size related limitations serve to undermine strides at attaining higher levels of trade competitiveness. For example, small domestic demand results in small volumes and thus higher per unit transport and freight forwarding costs due to the need for bulk breaking. As a result transport and freight costs as a percentage of export values averages about 4 percent for large countries such as Brazil, Canada and the United States compared to about 30 percent for OECS states such as Antigua & Barbuda and St.Kitts and Nevis. [Jose (2002)] On this basis, Briguglio (1995) ranks the OECS region as the 25<sup>th</sup> most affected by transportation and freight costs, out of a sample of 137 countries <sup>20</sup>. Therefore according to Streeten (1993) transport costs is a form of natural protection for the domestic producers in large countries. This remains the case despite the faster decline in transport costs relative to production costs on account of technological advances.

Growing recognition of these vulnerabilities and other peculiarities of SIDS prompted the staging of the United Nation Global Conference (UNGC) on Sustainable Development on

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<sup>20</sup> Source: UNCTAD (1991), Table 5.1

SIDS (1994) and the subsequent adoption of a Programme of Action (POA) on the challenges faced by SIDS in the eastern Caribbean and elsewhere. Notwithstanding these efforts, SIDS have expressed consternation over the gradual erosion of benefits accorded to developing countries under the GSP (General System of Preferences) and the provisions for “Special & Differential” treatment incorporated in the WTO agreement (Article XVIII). [See Gonzales (2000)] Pacific Island Countries have likewise expressed similar concerns relating to the challenges and threats faced by SIDS in the multilateral and regional policy environment. [See Onguglo and Ito (2003)] The realisation of the unique challenges faced by small states in relation to vulnerability and possible marginalisation in the current global system has prompted an ongoing assessment of a case for their special treatment by a joint Commonwealth Secretariat/World Bank Task Force on Small States. [See (Commonwealth Secretariat, 2000)] For related reasons the International Policy Council (IPC) have likewise called for new approaches to the manner in which multilateral commitments are made as well as for Special and Differential Treatment (SDT) of developing countries to be based on income and capacity differences. They argue that its SDT categorisation is too broad and too shallow. This study likewise argues that there is a need to revisit the criteria for the WTO’s taxonomy with respect to its members.

(iv) *Conflicting Views*

Meanwhile there are many writers that hold and advance the view that a country’s smallness is not a significant factor in determining the effects of trade and economic policies on countries. One such writer is Srinivasan (1986) who argues that the small size of SIDS is not a handicap. Easterly and Kraay (2000) likewise disregard the limitations of size and contend that controlling for location, small states are capable of generating higher per capita incomes than other states. However, they nevertheless conceded that trade openness contributes significantly to greater volatility of income in microstates. Weiss (2002) concludes likewise, that the forces of globalisation have enabling effects and stresses that are not necessarily greater for small states. She contends that size matters less than the nature of domestic institutions in framing the way in which states cope with or take advantage of globalisation.

In contrast, Armstrong and Read (1998) and Scitovksy (1960) among others, acknowledged the problems associated with the diseconomies of size and their effects on efficiency and competitiveness. Similar sentiments were expressed by Meier (1995, pp. 485, 468) who contends that LDCs (including SIDS) are varied in their international competitiveness and capacity to take advantage of the gains of export markets. He argues that the weak penetrative power of exports in underdeveloped countries is due to a host of domestic impediments that limit the transmission of gains from exports to other sectors. Thus, although there may be a secular rise in exports in many countries post-liberalisation, it has not acted as the propulsive force to drive the rest of the economy. In view of this and lessons from the nineteenth century export-based plantation model experience of the Caribbean and elsewhere, Helleiner (1973) cautions about the dependence effects of a strategy of development based on export-oriented labour intensive industrial enclaves, selling to foot-loose multinational firms.

(v) *Empirical Studies: Applicability to LDCs and SIDS*

These special considerations have raised questions regarding the applicability and likelihood of success of the export-led growth hypothesis based on a policy of trade liberalisation in SIDS. Tyler (1981), Ram (1985) and Moschos (1989) represent studies that support the export-growth hypothesis but include the caveat that there was a *minimum threshold* level of development at which the effects of exports on economic growth held. Michaely (1977), Ram (1987) and Greenaway and Sapsford (1994) all found lower levels of statistical significance in low-income countries than for middle-income countries.

The importance of a critical stage of development seemed apparent in the trade liberalisation episodes of some Sub-Saharan African (SSA) states where the anticipated supply-responses and sustained growth did not materialise. Example Collier *et al* (1997) and Forouton (1993) found that structural characteristics of these states and other factors precluded any meaningful benefits from trade liberalisation. Given the structural similarities of such LDCs with most SIDS including those of the OECS, similar constraints cannot be ruled out.

These findings suggest that even when there is satisfactory evidence of statistical correlation or causation between exports and economic growth, the question of its

applicability to LDCs remains. For this reason, the positive correlation between exports and real GDP growth must be qualified by the Singer and Gray (1988) proviso, which states that, “when external demand is weak, the advantages of outward-orientation tend to vanish”.

The above issues highlight the disparate views in the debate on the implications of smallness in determining the outcomes of trade reform in SIDS. This study seeks to contribute some further case evidence regarding ongoing efforts of SIDS to grapple with changes in the new trading environment.

## **2.6 Additional Issues Arising from the Debate**

The foregoing review essentially summarises the broad contours of the debate on trade liberalisation, generally as well as with reference to SIDS such as the OECS. Two further issues relating to the implementation context however, also warrant discussion. These will now be discussed in the remainder of the review.

The first relates to economic integration and the regional context in which most trade reform programmes including that of the OECS are being pursued. At issue here are the effects and distribution of gains in a regional economic space. The second deals with the mode of implementation and the institutional environment as it relates to the exchange regime and its implications for successful liberalisation. Foremost in this regard are the issues of the timing and sequencing of reforms which are considered to be important in allowing for sustained reform with minimal adjustment costs.

### **2.6.1 Regionalism, Economic Integration and Trade liberalisation**

As the neo-liberal order gathered momentum in the 1990s there was a parallel resurgence of regionalism around the world. [Ethier (1998)] Indeed the recommendation and pursuit of trade liberalisation and increased openness has been to a large extent promoted within a framework of increased economic integration of countries. The situation in the OECS is

no different, where trade liberalisation has been pursued under the aegis of CARICOM. The overriding assumption is that this would lead to a *win-win* situation for all participating countries in terms of increased trade volumes and economic growth as well as a degree of convergence in growth rates among participating countries.

An important aspect of this emerging geography of trade patterns is an increase in the level of so-called *south-south* trade between non-industrialised nations. The advocacy for increased regional co-operation and economic integration among countries of the developing world is driven by various factors including their significant markets, improved product quality as well as the *new protectionism* in the developed markets of the north in response to rising unemployment and declining growth. These departures from the WTO-led global framework for trade liberalisation sparked debate and fear regarding its implications for the future of the multilateralism. [See Bhagwati (1990)] Notwithstanding the formation of such regional trading blocs is permitted under article XXIV of the GATT agreement which waives the non-discrimination obligation and thus allows countries to form regional trading arrangements (RTAs). Writers such as Echandi (2001) argue that regional trade integration can complement multilateralism and achieve a number economic objectives that are less likely at the multilateral level. Other contributors contend that RTAs are consistent with the objectives of multilateralism in so far as they provide incentives for enforcing liberalisation commitments, lock-in trade reform and enhance credibility. [See Fernandez and Portes (1998)].

However they concluded that although south-south agreements among developing countries of roughly similar stages of development may increase bargaining power against third parties, they are unlikely to positively impact growth of its members. [See Vamvakidis (1998)] Also the empirical evidence that regional integration agreements (RIA) stimulate growth is generally weak. [See De Mello *et al* (1993) as well as (Brada & Mendez, 1988a)] Nonetheless, the United Nations Development Programme (UNDP) World Development Report (1991) indicated that both the share of south-south trade as a share of developing country exports and as percentage of world exports have increased over the period 1970-1990. Other writers such as Fox (2004) see RTAs as a tool for development and a means for building trade capacity in small countries.

Impelled by these and other factors the SIDS of the OECS and their CARICOM neighbours have sought to establish the Caribbean Single Market and Economy (CSME). As a precursor to the broader objectives of this new regional economic configuration the region revised and amended the treaty of Chaguaramas to give effect to the policies of liberalisation of trade and capital flows in the regional economic space.<sup>21</sup> [See section 3.5 for more detail] It is intended that the resulting larger captive market would help improve the efficiency of production by allowing producers to reach the minimum efficiency scale (MES) and where possible attain economies of scale.

This would then allow firms to realise economies of scale and other pecuniary economies. Then there is the prospect that the increased market size may possibly stimulate foreign direct investment in the regional economic space. As a result countries may partly circumvent the limitations of their individual smallness through collective action. Though still collectively small the OECS region seeks to use the CSME as a platform for engaging and integrating with the rest of world. Thus, while neighbouring SIDS do not make logical candidates for insuring each other against trade related risk, they integrate to increase their bargaining power in relation to third parties and to reduce transactions and negotiations costs. [See Whalley (1996)]

Therefore to the extent that the OECS trade reforms are being implemented within the framework of regional integration under the purview of CARICOM the question regarding the likely impact of such reforms on the micro OECS states comes to the fore. In this regard the OECS are concerned whether the dynamic or centrifugal forces acting within the regional economic space will may cause a disproportionate flow of resources towards the large more advanced states. Similar concerns are echoed in Sheilds (1995):

*“Will the rapid proliferati[on]of regional arrangements turn out to be ‘building blocs’ or ‘stumbling blocs’...”*

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<sup>21</sup> In the hope of ensuring success with its liberalisation episode within the regional framework CARICOM sought to revise various protocols under the new treaty. To this end they have also worked on an inter-regional double taxation agreement and on the establishment of common quality standards in the region with the establishment of the CARICOM Regional Organisation for Standards and Quality (CROSQ). A key enabling protocol is Protocol II which deals with right of establishment, movement of factors labour and capital and as well as products including services. This ensures national treatment to all nationals of CARICOM states.

These questions are indeed appropriate for policy makers in SIDS and elsewhere especially given that the evidence in the case of NAFTA (considered the leading example of regional trade agreements and a catalyst in the recent upsurge of regionalism) has been according to Ghosh (2004) contrary to initial expectations. In his assessment as in others the main beneficiaries were large corporations in the strongest economy in the grouping. Moreover, the net effect on workers as a whole was negative. Hence although the volume and value of trade and investment flows increased significantly it did not translate into a commensurate increase in incomes as promised. Import penetration literally destroyed domestic manufacturing, income inequality worsened, domestic policies were curtailed and unemployment benefits and other forms of social security were reduced, Ghosh (*ibid*). Similarly, Forouton (1993) concluded that structural characteristics and the very uneven distribution of costs and benefits of integration due to differences among partner countries prevented any meaningful integration or benefits to the Sub-Saharan Africa (SSA) from forming an RTA.

Clearly these findings hold grave lessons for the prospective distribution of gains for the smaller OECS in comparison to the more developed countries in the regional space. While the verdict on the benefits to the OECS sub-region from regional liberalisation with the rest of CARICOM will be revealed in time, care must be taken to limit the effects of differentials in size and stage of development on the distribution of gains from integration.

#### **2.6.1.1 Welfare Effects of Trade Creation vs Trade Diversion**

Like the OECS with its trade liberalisation within the context of membership in CARICOM customs union, a significant concern for smaller nations regarding participation in RTAs remains its *trade effects*. At the core of this concern is the question of whether it is trade creating and beneficial or trade diverting and who are the winners and losers. This is in effect an assessment of the static partial equilibrium effects of the formation of an RTA or customs union. In this regard Jacob Viner in his pioneering work on the theory of custom unions showed that an RTA can reduce or increase the welfare of its members and thus such RTAs are inherently examples of the *theory of the second best*. [Lipsey and Lancaster (1956)]

Trade creation within an RTA such as CARICOM refers to the extent to which a country would import goods formerly produced domestically from a lower cost producer elsewhere in the RTA. This is considered to be welfare enhancing and the view is that it will encourage specialisation based on comparative advantage. [See Salvatore (1995; p300)] Trade diversion on the other hand examines the extent to which lower cost goods formerly imported from a third country outside the RTA are now being imported from the RTA due to preferential treatment given to members of the union. This represents a shift of resources away from comparative advantage.

However given that the ability of members in a given regional space to benefit from trade creation would ultimately be a function of their respective cost structures, the OECS are inherently apprehensive over the likely impact on their trade patterns. Therefore potential welfare gains from membership in and RTA must be weighed against the requirement of reciprocity and the likely adverse impact on domestic production due to displacement effects of more competitive regional imports.

## ***2.7 On the Implementation of Trade Liberalisation***

### **2.7.1 Sequencing and Timing**

To the extent that there is agreement with the pursuit of trade liberalisation as a policy to stimulate growth in an economy, views differ with regards to the most appropriate approach to its implementation. Here, concerns focus on issues such as credibility, minimising adjustment costs and the speed and sequencing of a liberalisation programme. One of the leading articles on this subject is Falvey and Kim (1992). Some other noted contributors include Greenway (1998), Dornbusch (1992) and Edwards (1987). Although there is some consensus regarding approaches to the implementation of trade reforms regarding the speed, timing and sequence of such programmes, a debate in the theoretical literature still continues. Thus as Bruno (1985) observes “whereas theory tells us that a fully liberalised economy is Pareto-superior to a controlled economy it tells us virtually nothing about the optimal transition paths in moving from a distorted system to one that is more liberalised”.

Nonetheless, as regards the sequence of policy reforms the recommendation is to first ensure macroeconomic stabilisation through the pursuit of monetary and fiscal policies

that ensures manageable levels of inflation and fiscal deficits<sup>22</sup>. This should be followed by the elimination of direct controls such as quantitative restrictions and import licenses in a manner that does not unduly disrupt the main sources of government revenue. Thereafter efforts should be directed to the reduction of the variance of rate of effective protection and the degree of home-market or anti-export bias. This according to Greenaway (1992) provides the foundation for subsequent tariff reforms and eventual capital-account liberalisation. Falvey and Kim (1992) also stress the importance of foreign investment and export incentives during liberalisation. This is important to off-set the likely increase in expenditure on imports.

Hence the thinking is that reforms should start with the real sector in terms of elimination of quantitative restrictions and other non-tariff barriers (NTBs) followed by the lowering and eventual elimination of tariffs. It is also thought that liberalising of domestic financial markets should precede capital account liberalisation. Also in cases where there are issues of cross-conditionality due to overlapping or parallel programmes with more than one institution or donor such as an IMF stabilisation programme and a World Bank structural adjustment loan, stabilisation should as far as possible be achieved first. [See Greenaway and Morrissey (1993)] Hence subject to macroeconomic stability, the fundamental point of the sequencing debate is that the current account (product and factor markets) should be liberalised first followed by the capital account.

With respect to the speed of liberalisation there is broad agreement that a gradual or ‘concertina’<sup>23</sup> approach to liberalisation is preferable in developing countries given that liberalisation is itself a classic second-best problem. This is in part because of the existence of distortions which cause private and social costs-benefits and hence discount rates to differ. These include various political economy considerations relating to government revenue, unemployment of factors, income distribution and reducing rents, which at best should be handled through gradualism. Furasawa and Lai (1999) also support the gradual approach and argue that trade adjustment assistance that compensates affected workers would serve to accelerate the pace of trade liberalisation. This is

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<sup>22</sup> Low levels of domestic inflation is required if to prevent an overvaluation of the real exchange rate of exports.

<sup>23</sup> This involves a proportional reduction in all tariffs and/or a rationalisation of tariff-cuts based on whether a good is a net substitute or complement to other goods or in the highest or lowest bracket of ad valorem tariffs.

important for small countries where unemployment cost is the principal source of adjustment costs. Indeed if one examines the evolution of trade liberalisation among developed countries under the GATT, it becomes clear that it was gradual. Meier (1995, p.487) also argues that a successful transition to a liberalised regime requires a sequence of changes over several years.

However, writers such as PMC (1991) and Havrylyshyn (2004) and others advocate the so-called *big bang* approach as a first-best approach on grounds of credibility. Nonetheless, the CARICOM/OECS region has chosen to gradually lower trade barriers in a pre-determined, non-discretionary manner that hopefully leads to higher welfare and greater probability of success.

### **2.7.2 Trade Liberalisation: Exchange Rate Regimes and Macroeconomic Stability**

Macroeconomic stability is a crucial requirement in the timing of a programme of trade liberalisation. In this regard the recommendation is that low inflation and fiscal deficits within manageable levels are considered necessary prior to implementation of a liberalisation programme. However, most programmes are typically pursued in response to failed policies, economic crises and instability. [See Rodrik (1992b)]. Further, whereas trade reforms may be revenue-enhancing or have a positive volume-effect on trade ratios they may in addition, also precipitate external (current account) imbalance in the presence of misaligned exchange rates. For example trade liberalisation may trigger an appreciation of the real exchange rate if it is associated with large private or capital inflows due to debt financing or foreign direct investment. Also the effects of domestic monetary expansion due to the build-up of reserves from capital inflows especially in the case of a fixed exchange rate may unleash inflationary pressures in the economy if it is not sterilised.<sup>24</sup> However, Xiangming (2003) argued that whereas trade liberalisation may result in a short-run appreciation in the case of non-credible reform it is more likely to result in a depreciation of the real exchange rate (RER). In any event a fall in the RER is required for successful trade liberalisation.

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<sup>24</sup> As happened in Mexico abundant capital inflows tend to lower the real exchange rate. [See Economic Survey of Latin America and the Caribbean, 2001-02; p.26]

On this basis, the standard policy recommendation is for compensated exchange rate devaluation and more flexible exchange rate regimes as a countervailing measure to the anticipated increase in imports and to increase export competitiveness. Proponents of this include Helleiner (1990) who concluded that a stable and preferably weak exchange rate is the best single explanation for successful trade performance in the medium term. Meanwhile Brada and Mendez (1988b) found that floating exchange rates led to a higher volume of trade given that the effects of exchange rate risk were less than the effects of restrictive commercial policy. However they also concluded that trade volumes would be lower and exchange risk greater between countries whose currencies were not fixed against each other. Others such as Greenaway and Milner (1991) argue that empirical evidence has established a clear link between inward-orientation and exchange rate overvaluation. Therefore an overvalued currency is a strong indication of an inward oriented economy. However, on the question of the link between exchange regimes and economic growth Collins (1996) cautions against attributing differences in performance to exchange rate regimes.

In view of the mixed reading of the role of exchange rate regimes Burton and Gilman (1991) concluded that the IMF has come to the realisation that there is no single exchange rate policy prescription—advice must be tailored to fit the policy priorities and institutional realities of the country concerned. Notwithstanding, the success of this policy (which on average raises the cost of imports) and its likely impact on fiscal revenue depends largely on the elasticities of demand for imports and supply of import substitutes.

Although not a major focus of this thesis, consideration will be briefly given to the mode of implementation of trade liberalisation in the OECS, as well as the role of institutional factors such as the choice of exchange rate regimes, in view of insights provided in the literature on speed, timing, sequencing and policy compatibility.

## **2.8 Literature Review: Some Concluding Remarks**

From this chapter it is most apparent that the literature relating to the subject of trade liberalisation is both extensive and controversial, spanning theoretical differences, methodological and analytical disputes, conflicting policy implications, as well as contrasting implementation scenarios.

In meandering through this landscape of divergent views we have attempted to highlight two central thematic areas relating to the impact of trade liberalisation on economic structure and economic growth. In each case emphasis has been given to the role of exports as a medium and principal indicator of these overall impacts. Along the way the debate has invariably widened and deepened to encompass broader issues such as the mode of implementation of trade policy reforms as well as the institutional environment as it relates to external factors such as the role of the WTO and BWI on the one hand and the role of government and hence fiscal implications and the exchange rate regime on the other. We also entertained some discussion as it relates to the implications of regionalism as a platform for implementation of trade liberalisation and vehicle for integration into the global trade arena.

This journey through this undulating terrain of diverse opinions, philosophical perspectives and empirical findings was necessary given that the underlying objective of this investigation is to shed some light on the larger question of the role of trade liberalisation in its current formulation as a strategy for the economic development of SIDS such as the OECS. Accordingly, the lessons and guidance gleaned from a critical review of the record of earlier experiences with trade liberalisation and economic performance would be useful in providing a backdrop for understanding and locating the results of the ensuing empirical evaluation in this study. As would be apparent the main sub-issues regarding linkages between policy and economic variables and conditions for successful trade reforms serve as the basis of the research questions in this study. Importantly the many contentious issues in the extant literature were surveyed from the perspective of LDCs in general and SIDS in particular.

Having done so we can reasonably conclude that while the advocacy of uninhibited trade remains a unifying theme among economists the empirical evidence is mixed and the

basis for caution and scepticism over the claims of proponents seem justified. Against this backdrop, we now shift our attention to focus on the specificities of the OECS (case countries) and revisit many of the issues raised here in the next chapter.

## **Chapter Three (3)**

### **Trade Policy in the OECS: Past, Present and Future**

#### **3.1 *Introduction***

In this chapter we present an overview of trade policy in the OECS in the post-independence era to the present. In so doing we reflect on the history of the region's trade experience in particular its export performance and the determinants of its growth over the sample period in the purview of this study (1984-2004). This involves a brief discussion of the changes in the political and multilateral foundations of the international trade environment that precipitated these trade policy reforms. Then we review various stylized facts on the economic structure and characteristics of the OECS so as to provide a context to assess the overall impact to-date of the region's experiment with trade liberalisation. There we discuss the role of government sector and institutional factors such as the exchange rate regime of the region and their implications for the efficacy of trade policy in the OECS.

Thereafter we highlight the steps taken by the OECS towards liberalising its trade regimes and re-positioning its economy as well as the complementary policies and reforms undertaken in the region's bid to restructure from inward-looking to outward-oriented economies. Brief attention is then given to the broad indications of structural transformation in the OECS as it relates to the decline of the productive sector and the corresponding rise of the services sector as the new engine of growth.

We end this background chapter by attempting to categorise the trade orientation of the OECS based on a subjective assessment of the nature of the reforms taken.<sup>25</sup>

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<sup>25</sup> As with the rest of the study, the analysis is couched in the context of the region's special characteristics as small-island developing states (SIDS).

### **3.2 Historical Antecedents and the Changing Trade Environment**

#### **3.2.1 Non-reciprocal Bilateral and Multilateral Trade Arrangements**

In line with the popular wisdom of the 1970s and 1980s regarding the appropriate strategy for growth and development in developing countries, the OECS likewise pursued an inward-oriented trade policy which encouraged import substitution and protection of domestic markets using tariff walls and other trade restrictions. The main thrust of this trade and development strategy was to shift the structure of aggregate production towards manufacturing of imports substitutes for domestic consumption and export. This approach to development has its roots in the writings of development economists such as Raul Prebisch (1950), Gunnar Myrdal (1957) and Hans Singer (1950) among others who advocated the import substitution industrialisation (ISI) strategy.

Throughout the pre-reform period (before 1993) the trading relations of the OECS with the rest of world was based largely on non-reciprocal bilateral trade arrangements. Importantly these bilateral trading relations catered to their special characteristics as small island developing states (SIDS). In the spirit of that understanding, article XVIII of the General Agreement on Trade and Tariffs (GATT) as well as the 1979 Tokyo Round Enabling Clause made provisions for the Special & Differential Treatment (SDT) of SIDS and LDCs. Similar considerations for the structural limitations of SIDS led the United Nations Conference on Trade and Development (UNCTAD) in 1964 to establish the “Generalised System of Preferences” (GSP) that truly championed the rights of LDCs such as the OECS to special protection in trade. This proposal called upon developed countries (mainly the US, EU and Canada) to grant preferential treatment to imports of manufactured and semi-manufactured goods from eligible countries.

Also as former colonies of the British Empire the OECS enjoyed preferential market access to the United Kingdom with regard to their exports. This historical trade relationship was from 1975 incorporated into the Lomé Convention which was especially beneficial to OECS commodity exports of sugar and bananas. This arrangement was in large measure a continuation of the pre-existing trading links established between the region as satellites and the UK as the metropolis during the well known plantation era (which marked the beginning of the region’s economic history and introduction to the

international trading system). Importantly the Lomé Agreements included a component to insulate producers from the non-systematic fluctuations in prices known as the stabilisation of export earnings (STABEX) programme. This, together with category ‘B’ licences of the pre-1993 banana regime was a most significant source of income which helped fuel the banana and sugar driven export-led growth of the region before the advent of the new banana regime (NBR) of 1993 and implications of the EU’s Common Agricultural Policy (CAP) for OECS sugar exports. Another significant international trade arrangement which facilitated the trade-related development of the OECS in the pre-reform years was the Multi-Fibre Agreement (MFA) which has been significant since 1974 in contributing towards the development of the region’s manufacturing exports to the US in particular.<sup>26</sup>

The region also benefited from participation in various preferential trade arrangements (PTAs) which with the developed countries in its hemisphere. These include CARIBCAN from 1985 with Canada and various initiatives under the US Caribbean Basin Economic Recovery Act (CBERA) or its successor the Caribbean Basin Trade Preferences Act (CBTPA) wherein goods deemed as non-competitive and satisfying certain criteria were allowed in duty-free. This included the Caribbean Basin Initiative (CBI) from 1984 and the Enterprise of the Americas Initiative (EAI) from 1990.<sup>27</sup> [See (World Bank, 1993a) for more on the above issues]

### **3.2.2 External Liberalisation: The Rise of Multilateralism**

However from the 1990s onwards multilateralism became the cornerstone and foundation of the global trading environment. During this period the region witnessed drastic changes in the complexion of its historical trading arrangements. In the new circumstances bilateral arrangements gave way to rules-based multilateralism under the auspices of the World Trade Organisation (WTO) with its new powers of enforcement. The resulting trade environment was characterised by a number of major changes and challenges

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<sup>26</sup> The quota based bilateral arrangement is scheduled to be phased out by 2005.

<sup>27</sup> Though significant to some extent these arrangements covered only a few products as most other exports were covered under the GSP. Moreover the benefits for the region from these programmes has been limited by the restrictive clauses for eligibility which includes stringent rules of origin, quotas, destination criteria and excluded goods considered as being sensitive to developed countries. See [Griffith (1987)]

mainly due to the rise to pre-eminence of the neo-liberal paradigm on trade and industrial organisation. The central theme of the new consensus was that liberalisation and increased openness was required for growth of the world economy while protection in all forms and for all reasons should be rejected. It focused and justified itself on the basis of greater global welfare even while issues of equity and distribution of such gains remained unclear. This new perspective called into question the traditional regulatory maxims of trade and rendered burdensome or irrelevant issues central to the political economy of trade policy such as sensitive or vulnerable sectors in developing countries.

Some of the pivotal events in the emerging multilateral order included the formation of the European Economic Community (EEC) in 1992, the subsequent Uruguay round of trade negotiations in 1993 and the formation of the World Trade Organisation (WTO) through the Marrakesh Treaty in 1994. This also marked the introduction of the then newly independent OECS/SIDS to the realm of multilateral trade negotiations.<sup>28</sup> Notably prior to this point in time the OECS/SIDS and many other less developed countries (LDCs) had been excluded from successive rounds of multilateral trade agreements regarding the reduction of tariffs and other barriers under the GATT (1947).

However, the advance of external trade liberalisation to the *bread basket* and traditional export markets of the OECS marked a fundamental turning point in OECS trade experience. The principal indication of these changes was with regard to the EU banana regime in which the bilateral import arrangements between the UK and the OECS/ACP states, buckled under pressures for WTO-compliance and the multilateral considerations of a unified EU market. In this new trade environment the Lome IV convention and other such initiatives under the GSP were considered *ultra vires* to the GATT (1994) and EU trade policy.

The subsequent ruling by the WTO Dispute Settlement Panel in 1997 in favour of the US-led challenge to the EU banana regime (and more recently in September of 2005) was yet another ‘watershed point’ in the region’s trading history. It signalled the time-tabled elimination of preferential market access in traditional export markets and unequivocally defined the parameters of the rules-based neo-liberal trading order. It made clear the

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<sup>28</sup> Most of the OECS countries had only recently acceded to the GATT/ WTO. However as this thesis seeks to argue membership in a global institution in a political sense should not be interpreted as economic equality in terms of the capacity of members to operate in the new trade environment.

sobering reality that the so-called “*rules of the game*” of trade relations with the rest of the world had changed. That the disparities of size, relative market share, structural dependence and other unique characteristics of SIDS were not significant factors in relation to the enforcement of the non-discrimination principles which now held pride of place in adjudication on trade matters. [See Read (1994) and Myers (2004) for more on these issues.] Notably while the Special and Differential Treatment provisions remained under the WTO they made no distinction between stages of development among developing countries. Accordingly the new system was a “*one-size fits all*” system in which SIDS were expected to adhere to the new rules without exception. In this new dispensation and new political economy (NPE) of trade, SIDS/LDCs were assumed to have ‘*grown up*’ and had somehow acquired new capacity to compete with the rest of world as ‘equal’ partners in the multilateral system.

The far reaching implications of these changes were immediately apparent given that bananas accounted for a majority of OECS agricultural exports. [See Section 3.6.2] The uncertainty associated with this trade policy shock was soon mirrored in declining fortunes in the banana industry and with it the general economic performance of the OECS. Since then the Lomé agreement which was a major aspect of EU development cooperation with the OECS and other ACP countries has been replaced (since June 2000) by the Cotonou agreement and soon afterwards by the ‘*Everything But Arms*’ (EBA) initiative (in March 2001) as the EU’s new preference scheme to assist developing countries. The latest version of the ever changing configuration of trade arrangements between the EU and region is in the form of an economic partnership agreement (EPA) which is currently being negotiated between CARIFORUM<sup>29</sup> and the EU. Meanwhile, the Enterprise of the Americas Initiative (EAI) with the US was also succeeded by the Summit of the Americas in December 1994 which is slated to give way to a hemispheric wide trading area known as the Free Trade Area of the Americas (FTAA).

Then there was the formulation of NAFTA in 1994 which for sometime excluded Caribbean countries and led to the erosion of some preferences under the CBERA Act of 1983. How the Trade and Development Act of 2000 signed by the Clinton Administration

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<sup>29</sup> CARIFORUM is a trade negotiating entity consisting of CARICOM member states and the Dominica Republic.

reversed this trade diversion gave Cariforum/OECS countries parity access thereby easing the initial adverse impact on ACP countries.

Thus the OECS region like other SIDS continue to adjust to the tumult and uncertainties wrought on by these earth-shaking events. These landmark events each trigger sweeping changes across the trading world as they lay out the building blocs for a new economic orthodoxy on trade relations between developed and developing countries.

Foremost in this regard was the creation of the WTO with its stringent rules. In particular, its principles of reciprocity and market access on a *quid pro quo* basis as well as non-discrimination and most favoured nation (MFN) treatment have presented tremendous challenges to the OECS. As the new international economic order (NIEO) unfolded and external liberalisation advanced the OECS and other LDCs witnessed a gradual but steady dismantling of preferential market access as the new principles are applied.

Along with these developments has been a corresponding change in the attitude of the developed world towards SIDS and other developing countries on matters relating to trade as well as development assistance. This has resulted in a concomitant decline in the levels of official development assistance (ODA) and access to concessionary development finance to the fiscally constrained OECS. [See McBain (1993)] For example US ODA to the region fell dramatically during the 1990s with aid to Grenada falling by 99%. Meanwhile a number of SIDS were graduated from eligibility to non-reciprocal trade preferences with the US having being categorised as “high income” countries. These include Antigua and Barbuda in the OECS and Barbados in CARICOM among other countries.

As can be expected the combined impacts of these fundamental shifts in the trade relations between the so-called North and South countries have had a profound impact on the trade experience of the OECS. In effect these developments have altered the development strategy and trade policy options for the OECS and the rest of the developing world.<sup>30</sup> [See table 3.1 below]

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<sup>30</sup> Mounting discontent from SIDS and other developing countries to the advancing WTO-led agenda of liberal reforms have resulted in cleavages between the developed and developing countries. This dissatisfaction have on occasion as in November 1999 in Seattle and September 2003 in Cancun boiled over bringing a temporary halt to the stampede of market opening in the developing world. Partly in

| Reference Period  | Event  | Year  | Key Implication for the OECS  |
|-------------------|--|---|---|
| Past (pre-reform) | <ul style="list-style-type: none"> <li>• Formation of the European Economic Community (EEC) now EU</li> <li>• Formation of NAFTA</li> <li>• The Uruguay Agreement</li> <li>• Establishment of WTO</li> <li>• WTO ruling against EU banana trade regime</li> <li>• Doha Development Round</li> <li>• Implementation of CET</li> </ul> | 1992<br>1992<br>1993<br>1994<br>1997<br>2001/<br>Ongoing<br>1993-<br>1998 | Change to Banana export regime towards a <i>tariff-only</i> system by 2006<br>Trade deflection especially in clothing and textiles and other manufactures<br>Lowering of tariffs on industrial goods; Tariffication in Agriculture; Termination of quota system in Multi-fibre Agreement (MFA)<br>End to bilateralism; Time-tabled commitments for liberalisations in various sectors; Various pressures for WTO compliance<br>Confirmation of end to preferential market access<br>Negotiations on a wide range of issues/ further intensification of the liberalisation process<br>Fiscal implication from loss of tariff revenue |
| Present           | <ul style="list-style-type: none"> <li>• Establishment of the CSME</li> </ul>  | 2006  | Capacity of domestic firms to compete with larger regional ones   |
| Future            | <ul style="list-style-type: none"> <li>• Formation of FTAA</li> <li>• Formation of an (EPA) with the EU</li> </ul>   | 2005-<br>2007   | Scope for regional firms to survive reciprocity with international competitors  |

**Table 3.1 Chronology and Political Anatomy of Global Trade Reforms**

The foregoing provided a synopsis of the key past and present developments in the OECS international trade arrangements. It highlights the ongoing efforts of the OECS in conjunction with other members of the region to scurry to keep pace and attempt to prepare to face the new trading realities through a range of domestic and regional strategic initiatives and agreements in a bid to hedge the likely adverse impact of trade liberalisation.

### **3.3 The Rationale and Motivation for OECS Trade and Economic Reforms**

Without a doubt these geo-political developments present a number of threats as well as opportunities to the OECS and other SIDS. In this section we elaborate on how the global

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response to these noises the WTO General Council on March 2002 agreed on a framework and procedures for a working programme on small economies. See ‘Framework and Procedures’ (WT/L/447)

trading relations chronicled above prompted a strategic response and provided a rationale for trade policy reform in the OECS. In so doing we discuss briefly some of the key factors which motivated the OECS/CARICOM recourse to unilateral trade liberalisation as a strategy to deal with the challenges of external liberalisation in the world economy.

### **3.3.1 Declining External Competitiveness**

Given the nature of economic organisation in the current era of neo-liberalism it has become widely accepted that the region had lost its external competitiveness in labour intensive production. The inherent increased competition from larger typically lower cost producers has been deemed chiefly responsible. In essence there has been a near inverse relationship between increased liberalisation (in substance or expectation) in OECS export markets in Europe and the UK in particular and OECS export competitiveness. This decline though evident in other exports is most apparent in agricultural exports such as sugar and especially bananas.<sup>31</sup> In the wake of these developments the region has also witnessed the closure of many firms engaged in labour intensive production especially in clothing, textiles and other forms of light manufacturing. More importantly this decline in external competitiveness has been reflected in a pattern of slow and modest growth, especially in the more agriculturally dependent countries. These external changes have adversely impacted the economies of OECS states albeit in a differential manner. Among the first casualties was Dominica which had to seek IMF intervention resulting in a programme of structural adjustment supported by an extended Stand-by Arrangement and access to the Poverty Reduction and Growth Facility.

Accordingly OECS governments have acknowledged the need to respond quickly to these challenges through economic re-structuring aimed at becoming more competitive in new areas so as to minimise the adverse impact of these changes. Similar sentiments were expressed at the 16<sup>th</sup> meeting of the CARICOM heads of Government Conference (1995) wherein it was said that “sustained growth and development could not be achieved

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<sup>31</sup> For example the average cost of production of Sugar in the CARICOM region is 39 cents per pound compared to 6 cents in Australia and Brazil. This figure includes the relatively competitive average costs of the larger CARICOM producers such as Guyana and Belize. The figure for St.Kitts the lone OECS territory producing sugar and the smallest producer in the world is likely to be higher. This country is expected to end production of sugar in 2005.

without an enhancement in the level of international competitiveness in the region's productive sectors".

In concurrence with this view a report for the EU Commission (Davenport *et al* 2002) suggested that the region had lost its competitiveness in labour intensive products and should stop production of both agricultural and manufacturing products. Instead the region should seek to reposition itself in the new international economic order (NIEO), through diversification away from traditional exports and tangible commodities in general. However the report acknowledged that the region faced a dilemma as regards its development strategy because it lacks the human resource base to compete with the rest of world in the new mainly/high-tech areas. [See also Karagiannis and Witter (2004)] Accordingly, it argues that a new economic model needs to be pursued. One that allows for a more effective combination of factors of production i.e human and natural resources based on knowledge-driven business development not necessarily high tech.

In light of these realities and recommendations the OECS have embraced trade liberalisation and other economic reforms as a strategy in their search for answers to improve their external competitiveness.

### **3.3.2 Multilateral Commitments under the Uruguay Agreement**

Notwithstanding the declining fortunes of the OECS in external competitiveness, as members of the World Trade Organisation the region had committed themselves to the liberalisation agreements under Uruguay Round (URA) of the GATT having recently acceded to the WTO. This accession to the multilateral trading system was in effect a tool to 'lock-in' and ensure the credibility of commitments for tariff reductions and removal of other trade barriers. As a result the time-table elimination of tariff-quota preferences and the full liberalisation of trade in key and sensitive exports was another pressing consideration which induced a degree of urgency for reforms in the OECS. Some of the imminent changes include:

- A tariff-only system in bananas post 2006
- The end to the quota system in sugar by 2009

- The phased elimination of the Multi-fibre Agreements (MFA)
- Multilateral Commitments under the Uruguay and the ongoing Doha Round of Negotiations

Moreover, the entrenched multilateral foundations of the new trade orthodoxy also motivated this policy stance impelled by an inevitable need to prepare to face the economic forces of a competitive global market place. In such an environment the instinct for survival is such that SIDS must constantly seek to adjust. This reaction and constant effort on the part of the OECS SIDS and others to seek WTO or RTA compliance in a seemingly illusive game of catch-up is related to Bhagwati's (1988) '*bicycle theory*', which says that a country just has to keep pedalling if not it will fall off. As a consequence the region had little alternative but to pursue a development strategy based on the adoption of a programme of trade and economic liberalisation policies as was the order of the day.

### **3.3.3 Changes in the Geography of Trade: The Re-emergence of Regionalism**

Along with the reconfiguration of trade relations on a multilateral basis there was a parallel resurgence in regionalism. In particular the establishment of the EU and NAFTA had triggered a renewed interest in regional economic integration as nations attempted to minimise the effects of trade diversion from non-inclusion. Indeed the large volumes of trade and financial flows between the EU, NAFTA and the ASEAN (Association of South East Nations) region have prompted writers to speak of the triadic and inward nature of globalisation which tends to exclude and therefore marginalise countries in the periphery. This led to the formation of numerous trade and economic agreements involving commitments for trade liberalisation around the world as countries sought to create ever larger trading blocs and economic spaces. These regional trade agreements (RTAs) were permitted by article XXIV of the GATT agreement which waives the non-discrimination obligation among countries.

As a result CARICOM and by extension the OECS responded to the new geography of trade and economic relations in the world through a number of regional initiatives of their own. This began with the establishment of the Association of Caribbean States (ACS) in 1994 followed by a number of partial-scope bilateral trade agreements with the wider Caribbean region in particular with Latin American and the non-English speaking Caribbean countries (such as the Dominican Republic, Costa Rica and Columbia. This

impulse for regional integration culminated with the formation of the CARICOM Single Market and Economy (CSME). However, prior to this region-wide process, the OECS had already begun its own initiative to establish the OECS-SME. In either case the momentum for deepening regional integration was part of a strategy of strategic positioning to mitigate the effects of the changing relations with the US and the EU and to contend with the forces of globalisation. Other SIDS such as the Pacific Island Countries (PICs) have likewise adopted this strategy and formed an RTA called (PICTA).<sup>32</sup>

Moreover, the self-induced liberalisation policies of the OECS/CARICOM were also driven by the US agenda for the establishment of the free trade area of the Americas (FTAA). In essence the timing of the region's own liberalisation process was driven by the rather arbitrary time line of 2005 set for the start of the FTAA. The imminence of this agreement has resulted in acceleration in the pace of trade and economic reforms and a hastening in the process of deeper economic integration in the region, in an attempt to create a common front and reach the critical mass needed to operate within a hemispheric trading space.

Notwithstanding, the OECS and indeed the rest of CARICOM continue in their attempts to conform to the dictum of trade reform and openness given their fear of a '*backwash-effect*' in which they would be relegated to truncated economic streams disconnected from the flow of the global trade and investment.

### **3.3.4 Objectives of Structural Adjustment and Trade reforms**

Against the backdrop of the inducing factors detailed in the preceding section, the region was also motivated by the possibilities of reaping the much touted economic gains from trade policy reform. These included *inter-alia*:

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<sup>32</sup> This deeper form of CARICOM integration has been facilitated by the amendment of the treaty of Chaguaramas which established CARICOM (in 1973). The revised treaty included some new provisions such as protocol II which allowed for the free movement of factors, labour and capital and as well as products including services.

- To reverse the stagnation of the region's economies and place them on a path of sustainable growth and development
- Enhance the external competitiveness of OECS firms at the regional and international level through new niche markets and areas of competitive advantage and foreign exchange
- Promote output by increasing the productivity of factors and the level of employment
- Reduce the BOP gap and arrest the pattern of fiscal deterioration and rising debt ratios through export growth
- Increase the overall efficiency of the regional economies
- Stimulate greater intra-regional trade
- Increase its level of global integration
- Meet the region's commitments under the Uruguay Round of Agreements

Put differently trade liberalisation was pursued as part of a strategy of structural adjustment aimed at re-structuring production towards tradable goods and services with a view to create new areas of competitive advantage.

### **3.4 *Economic Structure, Performance and Characteristics***

In the preceding sections we theorised on various factors that prompted the shift in OECS trade policy by revisiting defining events in the geo-political trade environment in the period leading up to the implementation of trade reforms in 1993. To complete the contextual backdrop to the study, in this section we present a brief discussion of some of the size-related structural and institutional characteristics of the OECS and their implications for trade reform.

#### **3.4.1 *Economic Structure and Characteristics: An overview***

The OECS region comprises of 8 microstates with a total population of just under 0.6 million and a total land area of about 3000 square kilometres.<sup>33</sup> In terms of economic

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<sup>33</sup> This underscores the spatial disparities in the region where the OECS in geographic area and population is less than most of the more developed territories which are themselves regarded as small.

structure the OECS territories are characteristically similar to that of other SIDS. These well known characteristics (some of which were mentioned in section 2.5.1) include a narrow resource base, high levels of openness and external dependence, inherently higher cost of production, vulnerability to external shocks among other size-related limitations.<sup>34</sup>

The OECS is also a sub-regional grouping within the wider CARICOM common market. It was established by the treaty of Basseterre in June 1981 and represents the economic integration and functional co-operational among the English speaking less developed countries (LDCs) of the Eastern Caribbean region. It is the most homogenous and integrated group of the CARICOM region with a common currency and central bank administered by a single monetary authority, common judiciary among other shared institutions. The common challenges faced by these islands as well as their structural and historical similarities (and common sense) have stimulated the development of collaborative relationships in numerous areas among them. Many of these forms of co-operation are managed by the OECS Secretariat comprising of heads of governments and various Committees in areas such as trade, economic and foreign affairs.

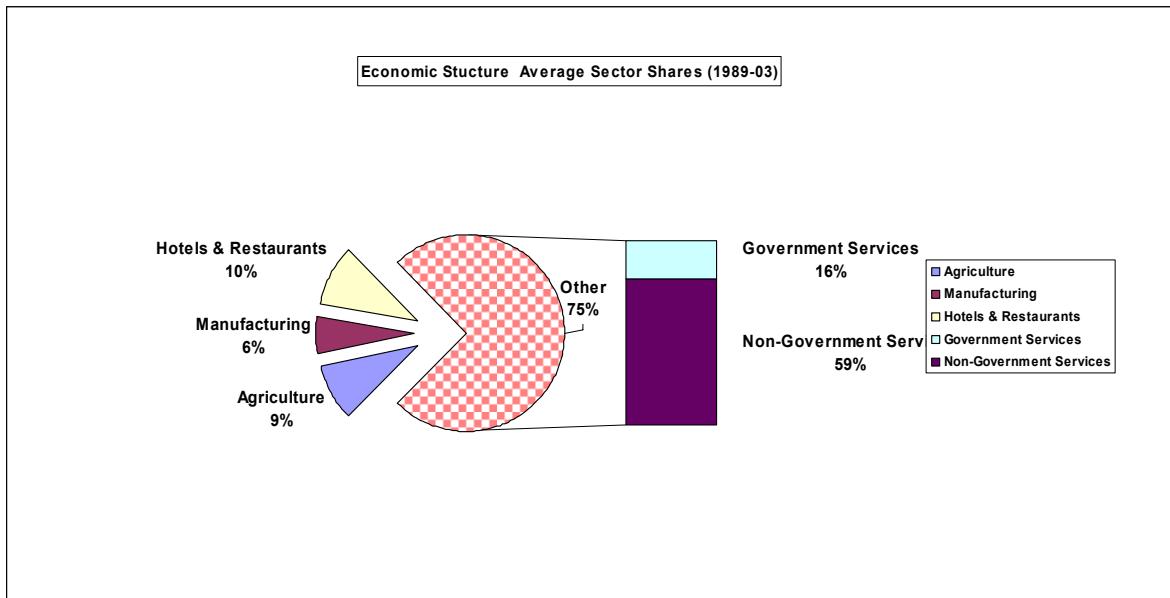
Notwithstanding, its economic institutions are a historic accretion from the remnants of the metropolitan plantation economy to the modern day enterprise. Accordingly much of the productive structure bears an imprint of the characteristics and modes of social and economic organisation of that era. Therefore the production structure of the islands is largely Ricardian-Ohlin in nature based on labour-intensive production of commodities (agricultural and manufacturing) and services that occupy the lower rungs in the international commodity value chain. At the core of each member economy is a receding dualistic agricultural sector which in terms of exports is largely mono-crop in nature with bananas or sugar production as the main traditional activities.<sup>35</sup> Around this inner core of staple export agriculture is a thinly developed strata of light manufacturing which represents the efforts of the region at industrialisation. This is surrounded by a relatively

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<sup>34</sup> The Commonwealth Secretariat and the World Bank Joint Task Force on small states have also drawn attention to some of the special challenges of small states. They both acknowledge that their high degree of openness renders them very susceptible to external shocks such as high-income/ export earnings volatility which can limit their capacity to benefit from trade liberalisation.

<sup>35</sup> Bananas in the Windward Islands sub-group of Dominica, Grenada, St.Lucia and St.Vincent and the Grenadines, sugar in St.Kitts & Nevis and nutmeg and other spices in Grenada. Agricultural exports have been less significant in the economies of the non-independent (British overseas territories) members (Anguilla and Montserrat).

new and growing services sector based mainly on tourism and to a lesser extent financial services. The manufacturing sector and to some extent the services sector (especially the hotel industry) are typically dominated by foreign enclaves made up of subsidiary units with few domestic linkages.<sup>36</sup> A significant government services sector in conjunction with the other service sectors completes the services-orientation of these economies. [See figure 3.1]



**Figure 3.1 Economic Structure of the OECS**

Given its narrow resource base the OECS territories have a narrow product range and a high-degree of export market concentration. This lack of diversification of the productive sector of OECS economies is major factor affecting adjustment and the development of new areas of comparative advantage.

The OECS recorded favourable growth rates in the 1980s due to preferential access to UK market a fact which masks the underlying fragility of their economic base. [See table 4.1] Notwithstanding unemployment rates typically range between 15-20%.

The principal export markets of the region in order of rank are the UK/EU for primary commodities, the US and CARICOM for light manufactured goods. The pattern of OECS trade in export services is broadly similar to its merchandise trade albeit in a slightly

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<sup>36</sup> This character has changed considerably in recent years as the share of locally or regionally owned hotels and to a lesser extent manufacturing concerns have increased. Various programmes have been undertaken to stimulate agro-tourism forward and backward linkages.

different order (led by the US given its proximity followed by the EU). In terms of composition OECS exports are largely low technology manufactured exports such as chemicals products, beverages, textiles and apparel and traditional agricultural exports. [See Caribbean Trade and Investment Report 2000 (CTIR)] Notwithstanding, as during the plantation era the OECS economies continue to be export-oriented relatively opened economies.

### **3.4.2 Structural Openness, External Dependence and the Balance of Payments**

Another characteristic of the OECS is its structural openness and high external dependence on foreign capital inflows to supplement national savings, increase the supply of investable resources and the rate of economic growth. Importantly these funds are needed to fill the foreign exchange gap created by the growing shortfall of export earnings in relation to imports. As hinted earlier these capital inflows have been mainly in the form of bilateral concessionary flows which have facilitated public sector investment in infrastructure and private flows in the form of foreign direct investment (FDI) mainly in the tourism sector. [See McBain (1993)]

In conjunction with declining exports and high external dependence the region's trade balance has been widening over the 1990s. [See figure 3.2 below)]. Despite a growing reliance on export services in particular tourism to offset the deficit on merchandise trade, the external current account has been deteriorating. Whereas this external imbalance has often been covered by private capital inflows, grants and other concessionary flows to the region in the 1980s and early 1990s, there has been since a noticeable decline in these largely erratic flows, since the dawn of the new liberal era.<sup>37</sup>

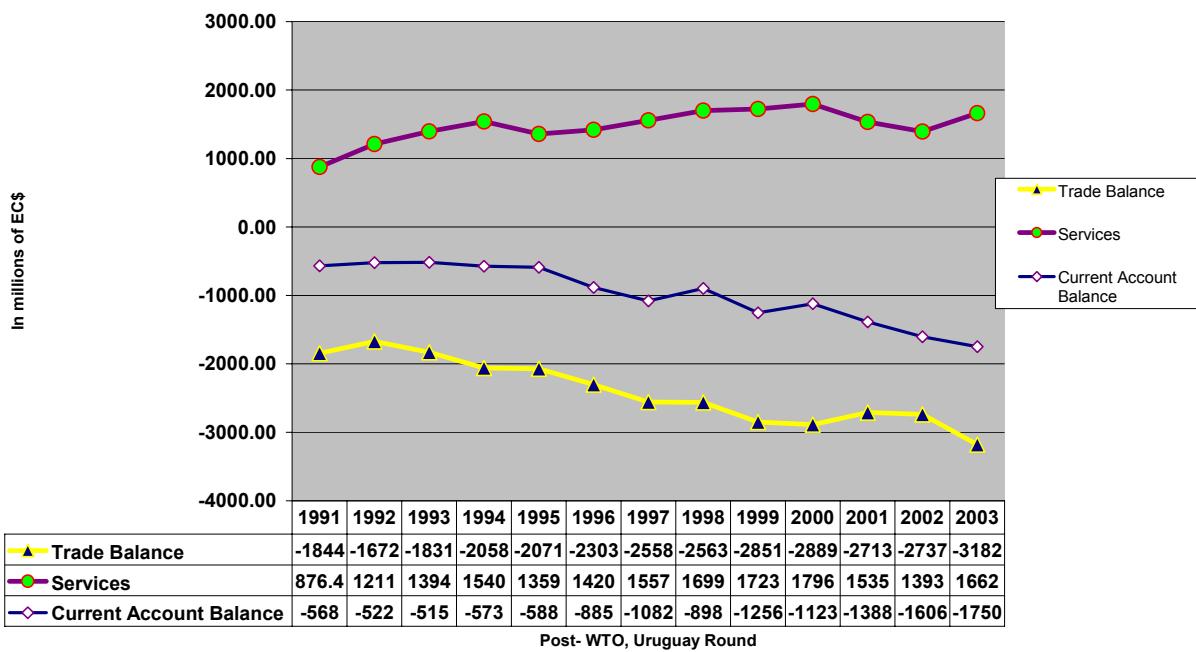
The widening gap on the merchandise trade account has contributed to a concomitant increase in public external debt (which averaged 73.4 % of exports of goods and services in 2000 compared to 57.6 % in 1999) as efforts to bridge the foreign-exchange-gap by borrowing have increased. Accordingly, future outflows of foreign exchange in respect of external obligations have likewise increased. This has the potential to constrain growth

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<sup>37</sup> This is in part due to a number of factors including the premature graduating of the region out the ranks of eligibility for many forms of international development assistance based on its per capita GDP. For this reason Bruguglio (1995) argued that a vulnerability-adjusted measure of per capita income may be more appropriate.

and development as less foreign exchange becomes available for the purpose of purchasing imports including intermediate inputs and other capital goods.

**Figure 3.2 Trends in External Sector**



The figure shows the role of export services in moderating the deteriorating trade balance and the current account deficit.

The trend of deterioration in the external sector has served to raise concerns regarding the merits in pursuing a strategy of trade liberalisation. In this connection the policy question relating to a strategy of increased openness focuses squarely on the external account. Put differently it begs the question how large can the trade and current account deficit be? Answers to such a question regarding the sustainability of the external sector points to the related question of whether there is a balance of payments constraint on growth. Hence the ability of the present development strategy to improve the balance of payments provides an acid-test of the benefits of trade liberalisation to the region.

### 3.4.3 Vulnerability

Given the combined effects of these distinguishing features it would come as no surprise that these fledgling nations are also among the world's most vulnerable states with a group ranking of 8<sup>th</sup> in the world.<sup>38</sup> (See table 3.2).

**Table 3.2 Selected Indicators of Vulnerability and External Dependence of OECS SIDS**

| Country                       | GDP per capita in US\$ (PPP\$1994) | Human Development Index | Vulnerability |             | Export and Imports as % of GDP | World Rank   | Disaster Proneness Rank | Vulnerability Adjusted Dev. Index |
|-------------------------------|------------------------------------|-------------------------|---------------|-------------|--------------------------------|--------------|-------------------------|-----------------------------------|
|                               |                                    |                         | Index         | Rank        |                                |              |                         |                                   |
| <b>Antigua &amp; Barbuda</b>  | 8977                               | 29                      | 0.843         | 1           | 115.95                         | 2            | 14                      | 0.394                             |
| <b>Dominica</b>               | 6118                               | 41                      | 0.6           | 18          | 51.6                           | 26           | 2                       | 0.455                             |
| <b>Grenada</b>                | 5137                               | 54                      | 0.635         | 10          | 71.5                           | 13           | n/a                     | 0.426                             |
| <b>St.Kitts &amp; Nevis</b>   | 9436                               | 49                      | 0.733         | 5           | 90.35                          | 6            | 18                      | 0.419                             |
| <b>St.Lucia</b>               | 6182                               | 56                      | 0.715         | 6           | 94.05                          | 5            | 5                       | 0.408                             |
| <b>St.Vincent &amp; Gren.</b> | 5650                               | 57                      | 0.649         | 9           | 74.05                          | 10           | 16                      | 0.408                             |
| <b>Regional Average</b>       | <b>6916.67</b>                     | <b>47.67</b>            | <b>0.70</b>   | <b>8.17</b> | <b>82.92</b>                   | <b>10.33</b> | <b>11.00</b>            | <b>0.418</b>                      |

<sup>1</sup>This is a measure of openness, integration and external dependence.  
It is computed as the average of the sum of Imports and Exports divided by GDP time 100  
Source; IMF 1991, UNDP(1997) and Briguglio, L (1995)

Source: Brigulio (1995) and UNCTAD (1991)

The high degree of external dependence and integration of the OECS with the rest of world is seen in the share of trade in GDP which is about the 10<sup>th</sup> highest in the world due mainly to the high proportion of imports in total trade. However Kaplinsky (2000) asserts that the nature of trade and the points of participation in the value-added chain in the international division of labour are more important than the volume of trade given that there is a difference between comparative advantage and competitive advantage.

Thus whilst increased levels of integration with the global economy has resulted in higher incomes and greater opportunities for many, there is along side these positives, a growing inequality in the distribution of the gains from production and exchange between states. Importantly, the losers also include countries that are very open and actively participate in the global economy. In fact as Kaplinsky (2002) observes, many countries that have suffered in distributional terms have at the same time seen a substantial rise in their trade to GDP ratios.

<sup>38</sup> See Briguglio (1995) for complete assessment of vulnerability and small states.

The vulnerability of the OECS like other SIDS is in large measure a function of their very small size and thus susceptibility to economic volatility of any kind. The region is especially vulnerable to natural disasters in particular hurricanes the threat of which it faces on an annual basis.<sup>39</sup>

### **3.4.4 Private Sector**

In line with the limitations of a small domestic market both in size and demand the private sector in the OECS is typically small and unsophisticated. This characteristic and their inherent high unit costs serve as a constraint on the attainment of international competitiveness. At the core of this commercial sector is a small indigenous merchant capitalist class made up of landowning expatriate interests and the surviving elite of the colonial era. For the most part these are conservative family concerns engaged primarily in the retail and distributive trades such as supermarkets and hardware stores, using a simple *cost plus* approach to business supplemented by occasional recourse to medium to long-term fixed rate debt financing. In essence the nucleus of the private sector is characterised by risk aversion, limited flexibility and slow rates of technological innovation. Moreover, while its composition and entrepreneurial disposition has changed to some extent in the post-independence period it continues to reflect the influences of its colonial legacy.<sup>40</sup> As a result their supply-response and rate of adjustment to policy changes such as trade liberalisation is inherently slow. This apparent slow rate of adjustment and diversification in the sector is also related to the difficulty in terms of risk and uncertainty of ‘*picking winners*’.

These characteristic traits are not unique to the OECS but have been found in the more developed CARICOM states. Accordingly Griffith (1990) contended that “national

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<sup>39</sup> A study by Chaveriat (2000) found that the OECS endured an average of 7 disasters in the period (1970-1999). For example in 1995 one of the OECS member territories (Montserrat) was all but completely destroyed by a volcanic eruption and has since been under a constant threat of further eruptions of which there has been a few. The region was given a grim reminder of its vulnerability with the advent of hurricane Ivan (2004) and its destruction of Grenada.

<sup>40</sup> See Lewis (1954) in which he presents a two-sector model of the typical underdeveloped African or West-Indian economy comprised of an informal rural sector and a small modern sector made up of the capitalist class.

entrepreneurs of any significance are unlike those in the commonly accepted use of the term”. They tend not to invest in the productive and industrial sectors as a whole.<sup>41</sup>

In any case, the number of profitable providers of many goods or services is limited, a scenario which also limits the amount of competition. Accordingly OECS economies have traditionally not been motored by the indigenous private sector which has been passive at best. On the contrary the private sector has traditionally looked to the government not only to create an environment favourable for profitable business but also for leadership. Also the industrial structure of the OECS made up of small and medium size enterprises (SME) renders the region unattractive to outside investors in a number of areas including export-oriented investment. This has meant a limited degree of internationalisation, access to corporate network, strategic alliances and also technology transfer. By the same token the degree of outward foreign investment even in the OECS and CARICOM is negligible.

In these circumstances government have had to assume the role of prime-mover in the economy in terms of its share of investment and employment generation. This often required the adoption of Keynesian-type fiscal expansionary policies to stimulate the economies and to avoid the trap of economic stagnation given limited capacity of the private sector.

As is expected the challenges inherent with globalisation in conjunction with efforts at trade liberalisation and other economic reforms have significantly increased competitive pressures on the private sector in the OECS. These pressures have made it imperative for the region to re-organise production and adjust its business ethos and outlook in a manner that is more responsive to market signals, incentives and opportunities. Notwithstanding their size-induced constraints OECS firms are required to metamorphose into enterprises able to compete with the cost structures of larger international companies from hereafter (however illusive this goal may be).

In this pursuit a number of region-wide initiatives have been taken to assist the private sector in re-orienting its production towards export markets. This is being done through the collaborative efforts of a number of agencies such as the OECS Development Export

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<sup>41</sup> Pryce (1985) found this categorisation to also be true even in Trinidad & Tobago considered to be the most advanced private sector in CARICOM.

Unit, the US-AID sponsored Small and Medium Enterprise Development Programme (SMED) among agencies. [See Section 3.6.2] In effect the quest for economic survival and to mitigate the binding limitations of size has caused the historic cooperation between governments to be extended to the private sector as well. This has led to initiatives such as the establishment of the Council of Eastern Caribbean Manufacturers and the Eastern Caribbean Investment Promotion Service (ECIPS) which seek to promote increased intra-regional trade, joint ventures and other forms of investment through indigenous private sectors as well as regional and international investors. A leading example of a collaborative effort to overcome the diseconomies of size is the Eastern Caribbean Drug Service which engages in bulk purchasing to reduce the unit cost of pharmaceuticals.

Along side the OECS-wide initiatives individual member states have also taken steps to increase exports through the use of more integrated export development strategies. Hence there has been a slow but perceptible change in the private sector in terms of its composition and entrepreneurial culture in the wake of the structural adjustment and reforms associated with trade liberalisation and the general preparations to meet the challenges of the CSME and other regional trade agreements.

### ***3.5 Institutional Factors and their Implications for Trade Policy***

#### **3.5.1 The Government Sector and the requirements of economic reforms: An Institutional Perspective**

Many of the institutions in the OECS sub-region and indeed the wider CARICOM region can be described as weak and fledging. As a result they are limited in their capacity to engender endogenous competitiveness and to provide the foundation for the effective implementation and enforcement of development-oriented policies. These weaknesses can be attributed to underdeveloped infrastructure, manpower limitations, relatively high cost of capital, legal and other capacity limitations.

For example in line with the nature of the OECS private sector (in terms of its size, scale of operation, ownership and management structure) the region's financial markets are inherently small and underdeveloped. Equity financing is still at an embryonic stage as there are very few firms listed or suitably structured for public offerings on the nascent

Eastern Caribbean Stock Exchange (ECSE). Moreover, the ECSE has only recently begun to integrate into the wider regional and to a lesser extent global financial market.<sup>42</sup> As a result portfolio investment and other such flows are negligible components of capital inflows. Further despite laudable strides made in the financial sector reform, it is still thinly capitalised and access to credit and trade financing is limited.

In such an environment the institution of the state by default, as dictated by the realities of economic structure is typically a lead actor in the OECS economy with an average contribution to GDP of 16 percent of GDP over the period 1989-2003. The important role of the public sector in the provision of government services, government autonomous expenditure and the exercise of fiscal policy is significant in determining aggregate demand in these economies. Hence an assessment of the impact of trade and other reforms must of necessity consider not only the allocative considerations but also its implications for the government sector in the OECS. In fact the government sector is the largest single employer in most member states and apart from foreign direct investment (FDI) has typically been the largest source of investment and growth in the island economies. This is in stark contrast to the situation which obtains in more developed countries where the government sector though significant is relatively less of a leading actor in the economy.

Further, high unemployment and the inequities in distribution of income and opportunity continue to make a case for a significant state. Indeed rising unemployment due to contraction of the agriculture and closure of manufacturing plants across the region has invariably resulted in increased reliance and demands on governments to mitigate the impact of adjustment. In such a scenario the minimalist state espoused by proponents of the liberal doctrine may be welfare-reducing. This is in part due to the fact that the retreat of the state has often not been matched by an advance of the private sector, local or foreign due to a small captive market. To the contrary, indications are that the reduction of subsidies on inputs (fertilisers and chemicals) and concessionary credit have only resulted in increased production costs and not the boon in agriculture predicted by the advocates of market based liberalisation. Thus it is foreseeable that the “*roll back of the*

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<sup>42</sup> The Eastern Caribbean Stock Exchange (ECSE) and the Regional Governments Securities Market (RGSM) have only recently been established. July 2001.

“state” will have dire implications for the agricultural sector as it relates to the provision of rural infrastructure, research, extension and other services. This attests to the presence of missing markets and the notion that state intervention is often consonant with the presence of market failure or other politically untenable economic crises.

In this connection, the significance of the government sector in providing institutional support to economic reforms in the OECS is also seen in its role in providing safety nets and compensatory measures to reduce the dislocation and costs of adjustment associated with trade liberalisation thereby reducing its political costs and enhancing its credibility. Moreover this relative importance of the state is likely to persist for some time in the future given that the small domestic market precludes the attainment of the minimum efficient scale in many sectors which is itself a moving target and function of the level of international competition. Thus we see that in much the same way that situational factors and the structure of production can have a direct impact on trade and economic policy options the same can be said of the role of institutional factors and in this case the institution of the state.

However, despite the pivotal role of governments in the OECS, the future success of its trade liberalisation and other economic policies will hinge heavily on their ability to engender credibility in the reform process through embedded autonomy of its institutions based on transparency and accountability. In so doing the state must resist interventions that tend to overburden the organisational capacity of the state resulting in policy impotence and further inefficiency. This requires the removal of institutional impediments including known government pathologies such as corruption and collusion with rent-seeking political and private sector special-interest groups.

### **3.5.2 Trade Tax Dependence and the Role of Government**

Given the foregoing and the stage of development of the private sector the relative importance of the government and public sector in the OECS economy is quite clear. In this setting the aim of tariffs in a protective regime is typically two fold with varying degrees of emphasis between the objective of revenue generation and protecting the home market. Notwithstanding, the posture of the state in most of the post-independent era has

been moderately interventionist with limited involvement in product and factor markets. However the adoption of tariff liberalisation and other measures certainly swings the balance of power in favour of markets in so far as they are likely to reduce the uptake of government revenue and its capacity to mitigate the excesses of the market, by acting as a redistributive agent among other catalytic functions in the economy.

This is because the region's small work force and private sector has meant that direct taxes on income, property, profits and withholdings are relatively low averaging 6-8 percent of GDP. Indirect taxes on other hand including import tariffs are more significant accounting for an average of 15 percent of GDP or over 70 percent of tax revenue. International trade taxes are the largest component and accounts in some cases for as much as 45 percent of current revenue.<sup>43</sup> This dependence of OECS governments on trade taxes is heightened by the fact that their capacity for domestic borrowing is limited as revenue from seigniorage and the option of monetising their debt by printing money is not open to them under the arrangements of the monetary union (ECCU).

This dependence on trade taxes therefore renders the OECS vulnerable to declines in revenue due to trade liberalisation. In effect fears over revenue depletion and other transitional impacts were among the major concerns expressed by governments in implementing the CET and associated trade reforms. This also explained the differential rate of implementation of member territories of the various phases of the CET.

Nonetheless given that the actual effect of a decrease in marginal or average tariffs rates would depend on the import elasticity of the tariff reduction and the extent to which it is above/below the revenue maximising level, OECS governments have attempted as far as possible to implement revenue-neutral trade and tax reforms in an effort to minimise the fiscal impact. This has been done in many ways including broadening the tax base/net.

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<sup>43</sup> Whereas, government indefinite protection may be harmful to long-term competitiveness of local producers, the revenue derived from international trade taxes is more than likely redistributed to society to increase its consumption of public goods, mitigating the effects of market failures and increasing welfare. [See Rodrik (1994)]

Before proceeding to itemise the efforts made by the OECS in liberalising its trade regime we discuss briefly its exchange arrangements which is an important institutional factor with implications for the outcome of the trade liberalisation experiment.

### **3.5.3 Exchange Rate Re-Alignment**

The relative importance of the government in the OECS economies can also be inferred from the region's institutional structure as it relates to its exchange rate regime. In this regard the region's fixed exchange range and inherent passive monetary policy has meant that fiscal policy is the key policy instrument in influencing economic performance.

Notwithstanding, exchange re-alignment is considered a standard component of a package of liberal reform. [See Mussa (1987)] A key consideration underlying this view is the possible adverse monetary and balance of payment consequences due in part to excess demand created by lower consumer prices.<sup>44</sup> Therefore exchange rate adjustment is deemed necessary to sterilise the windfalls of increased purchasing power as alluded to earlier.

More importantly there is the question of overvalued exchange rates. This is especially important in countries with fixed exchange regimes where movements in relative prices of traded goods are not self-corrected by offsetting movements in the exchange rates. Under these circumstances the gains from trade may be undermined by reductions in output and thus employment, all of which may serve to compress import demand. For example Caribbean countries with fixed exchange rates experienced a real appreciation in the 1980s which reduced their competitiveness in their major export markets by about 20-30 percent. [(World Bank, 1993a)]

Notwithstanding the stated virtues of this policy recommendation policy-makers in the OECS have opted to maintain a fixed exchange rate regime. The consensus in this regard is to forego the uncertain marginal gains in export competitiveness from policies based on real exchange rate targeting and instead place greater importance on the role of the exchange rate as a nominal anchor and source of price stability in the region. This stability it is argued imbues consumers and investors alike with greater confidence and

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<sup>44</sup> The BOP concerns are based on the assumption that lower prices as a result of tariff reductions are passed on to consumers.

thus allows for longer planning horizons in their investment and savings decisions. This position is no doubt motivated by the known ineffectiveness of monetary policy in small economies due mainly to their structural characteristics. [See Worrell (1991)] Hence this raises the question as to whether there are potential conflicts between the standard desiderata of trade reform and macroeconomic stability. The potential for such conflict calls for more attention to be paid to policy co-ordination and the sequencing of reforms to ensure stabilisation. Meanwhile the region's history of low to moderate inflation suggests *prima facie* that the degree of misalignment is modest at best and helps maintain the current exchange rate regime.<sup>45</sup>

The region's choice of exchange rate regime is influenced by a host of other factors including the fact that depreciations result in higher servicing costs of foreign currency denominated debts. While this policy stance runs the risk of an overvalued exchange rate the usefulness of the exchange as a policy instrument must not be judged purely in terms of its role in "*getting prices right*" but also in terms of its role in reducing the cost of capital and in dampening import induced inflation. [See Bruton (1998)] In any event the success of this expenditure switching instrument will depend heavily on the price and income elasticity of demand for the region's exports and imports. Hence the income terms of trade may not change in a favourable manner as expected if the view of a secular deterioration in the price of primary commodities is true. Yet, a policy that encourages some form of expenditure-switching towards intermediate or investment imports in SIDS such as the OECS through a managed rate in a narrow band or a one-off re-alignment may be justified in so far as growth may be constrained by a scarcity of foreign exchange. In this way, any excessive demand for foreign exchange to finance mainly consumerables as instead of capital goods needed to expand the productive capacity of the economy would be reduced.

However, given the likely political costs and other considerations of devaluation, policy makers in the region are disinclined to change the exchange regime which is set in the dicta of the founding treaty of the OECS. In this legally binding institutional setting a unanimous agreement among the member countries is required to alter the exchange rate which has been in place since 1976.

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<sup>45</sup> If the exchange rate is misaligned supportive fiscal measures that increase the level of voluntary savings could be used to reduce the level of BOP related leakages associated with the exchange policy if necessary See Temple (1997 ) for more on a similar approach used by some of the Asian Dragons.

Indeed the SIDS of the OECS have learnt from the harsh lessons of neighbouring CARICOM states such as Jamaica with its devaluation experience at the hands of the IMF in the 1970s and 1980s.<sup>46</sup> Of particular concern have been the distributional effects on small scale, fixed and low income producers. [This experience led Caribbean writers like Girvan (1980) to conclude that the medicine was too strong for the patient and thus made him worse.] Similar lessons have been learnt from Latin America where concerns abound over competitive devaluations in conjunction with flexible exchange rates have resulted in a widening gap between the real effective exchange rates (REER) and bilateral exchange rates (BER) with the US dollar. [See ECLAC (2001-2002)] Importantly, apprehension over devaluation is likely to lead to capital flight with possible destabilising contagion effects which may reduce investment. This may lead to an erosion of the capital base of public and private agents holding dollar-denominated debt which may precipitate capital flight as was the case in Trinidad & Tobago in the 1980s. It must also be noted that not one of the exchange rate policies followed by Mexico resulted in a positive trade balance in manufacturing. [See Ruiz-Napoles (1998)]

Also while a flexible exchange regime may help insulate the region against trade related shocks these perturbations would also increase the difficulties of managing macroeconomic policy in the region. Given the vagaries of this dilemma policy makers have placed a premium on stability over the uncertain gains of export competitiveness or the effects of increased BOP deterioration.

Despite these many concerns the region has nonetheless taken measures to liberalise their foreign exchange regimes. In this regard they have removed foreign exchange controls which served as a rationing device to restrict the supply of foreign exchange. While supply is not totally boundless it has been deregulated up to the equivalent of EC\$ 250, 000.00. In this way access to reasonable supplies of foreign exchange is ensured and black markets are inherently discouraged. It is important to note that government does not auction the supply and thus do not make any profits from a dual rate which falls above the official exchange rate.<sup>47</sup> As a result of this policy change it is expected that the private

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<sup>46</sup> The destabilising social and economic effects of IMF administered devaluations were also observed in Latin America. In particular the anticipated improved BOP from cheaper exports and more expensive imports did not materialise.

<sup>47</sup> Although not the focus of this study the region has taken a number of steps towards capital account liberalisation in the hope of increasing the flow of investment capital and FDI in the region. According to

sector is less restricted to obtain foreign exchange to import capital and other intermediate and investment goods thereby alleviating any bottlenecks which may be caused by exchange controls.

Notwithstanding these considerations and the consensus in the literature that exchange rate realignment is required for successful trade liberalisation (as a means of enhancing the export competitiveness of tradable goods and services), the OECS which is part of a monetary union (the Eastern Caribbean Currency Union) has continued to maintain a fixed exchange rate system, which serves as a nominal anchor to the regional economy. This policy choice which places a premium on macroeconomic stability nonetheless has implications for the outcome of the region's liberalisation experiment.

### **3.6 OECS Trade Liberalisations Efforts and Agenda**

#### **3.6.1 An Overview of the OECS Trade Regime: The Structure of Tariffs and Taxes on Production in the OECS**

As in many LDCs the trade regime of the OECS region in the period leading up to the early 1990s was characterised largely by an array of import substitution (IS), export promotion (EP) and discretionary fiscal incentives which in effect constituted a mixed *ex ante* strategy of pro-trade and anti-trade measures. Notwithstanding this mixed strategy the underlying philosophy of its trade policy was inherently inward-looking given the extensive use of tariff protection. The regime was characterised by a range of policy instruments which were not always complementary in their incidence and effect. The motivation for these instruments which evolved in a rather reactive and incremental manner varied between foreign exchange considerations and managing trade deficits. They were not deliberate but made with the broad intention to promote a particular activity or protect a given sector albeit without due consideration to the impact explicit or otherwise on the overall structure of relative incentives. As such the trade regimes of the OECS involved a mix of tariff and non-tariff barriers.

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the Caribbean Trade and Investment Report (2000) this has increased the level of conglomeration taking place in the region.

Tariffs which were initially based on the East Caribbean Common Market (ECCM) tariff schedule were either *ad valorem*, specific or compound tariffs in conjunction with transaction-based charges pro-rated according to the cost insurance freight (c.i.f) value of imports. The non-tariff barriers (NTBs) were mainly import licences and quantitative restrictions on various commodities. Thus taxes and charges on international trade included import and export duties, customs service charges, consumption taxes, charges on foreign currency and other taxes.<sup>48</sup> [See table 3.3 below for a breakdown of trade taxes before 1993 and after 1998]

**Table 3.3 Taxes on International trade and Transactions**

| Taxes on International Trade | Anguilla |   | Antigua |   | Dominica |   | Grenada |   | Montserrat |   | St.Kitts & Nevis |   | St.Lucia |   | St.Vincent |   |
|------------------------------|----------|---|---------|---|----------|---|---------|---|------------|---|------------------|---|----------|---|------------|---|
|                              | b        | a | b       | a | b        | a | b       | a | b          | a | b                | a | b        | a | b          | a |
| Import duty                  | ✓        | ✓ | ✓       | ✓ | ✓        | ✓ | ✓       | ✓ | ✓          | ✓ | ✓                | ✓ | ✓        | ✓ | ✓          | ✓ |
| Export duty                  | ✓        | X | ✓       | ✓ | X        | X | X       | X | X          | X | ✓                | ✓ | X        | X | ✓          | X |
| Foreign Currency Levy        | ✓        | ✓ | ✓       | ✓ | X        | X | X       | X | ✓          | ✓ | ✓                | X | ✓        | X | X          | X |
| Customs Service Charge       | X        | X | ✓       | ✓ | ✓        | ✓ | ✓       | ✓ | ✓          | ✓ | ✓                | ✓ | ✓        | ✓ | ✓          | ✓ |
| Consumption tax              | X        | X | ✓       | ✓ | ✓        | ✓ | ✓       | ✓ | ✓          | ✓ | X                | ✓ | ✓        | ✓ | ✓          | ✓ |
| Other                        | ✓        | ✓ | X       | X | X        | X | X       | X | X          | X | ✓                | ✓ | X        | X | ✓          | ✓ |

Notes: (i) 'b' represents trade taxes in place before trade policy reforms and 'a' represents those in place after;

It should be noted that these taxes and charges refer only to trade in goods.<sup>49</sup> The region's trade regimes also included a number of *ad hoc* concessions and arbitrary exemptions such as price controls and other interventions. These instruments were intended to influence the pattern of industrial development especially by protecting domestic industry in particular *cottage* or *infant* industries. In some instances trade restrictions are applied to counter the practice of dumping by other countries.

Notably, unlike elsewhere in the developing world and CARICOM, the OECS trade regime was not associated with excessive regulatory controls by government in the form of stringent import controls, nationalisation of industries, investment sanctioning and interest rate ceilings. On the contrary foreign direct investment was widely encouraged and investment sanctioning was essentially not practiced. This was done through tax

<sup>48</sup> Other taxes here are mainly in respect of services trades such as airport departure tax, cruise ship embarkation and ticket taxes associated with tourism.

<sup>49</sup> Various member countries tax on personnel such as embarkation and cruise ship taxes which although recorded under the category of taxes on international trade are not included in this analysis.

holidays, the provision of factory shell space among other fiscal and investment incentives.

Although only tentatively embraced there was a tendency to accept the view that firms with high value-added per unit of output or high volumes of exports should be protected. Nonetheless it was equally recognised from the onset that the very small size of the region's SIDS suggested that these islands should pursue an export promotion (EP) strategy as apposed to imports-substitution (IS) based on the protection of domestic industries.

These views in tandem with popular opinion in international policy circles and among economists induced a pendulum shift away from a strategy of growth and development based on protectionism, as the OECS under aegis of CARICOM sought to reform its trade regimes. This prompted a series of progressive liberalisation reforms across the region. Such reforms have long been advocated by writers such as [Worrell (1987)] who concluded that the protectionist regimes in CARICOM were innocuous at best and were especially ineffective in influencing growth and production in non-manufacturing areas. This perverse effect was partly due to the low coefficient of substitution of domestic output for import substitutes. Likewise a study by Ranis and associates (1982) found no correlation between the level of effective protection (ERP) and the share of local value added.

In the following sub-sections we comment briefly on some of the steps taken towards creating a more liberalised trade regime.

### *3.6.1.1 Export Subsidies and Discretionary Fiscal Incentives*

As in most developing countries tax incentives have been widely used by OECS countries as instrument to promote investment. [Sosa (2006)] However as the tide of opinion on trade policy shifted towards export promotion governments increased their use of export incentives as a means of encouraging diversification especially in non-traditional exports.<sup>50</sup> This involved a reduction in the use of tariffs and a greater use of export subsidies and discretionary fiscal incentives intended to attract foreign investors to

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<sup>50</sup> The use of subsidies is regarded as superior form of protection to tariffs in so far they cause the internal cost structure of firm to adjust to the lower (closer to world) price structure and thus more outward-looking. Thus they encourage more efficiency and help exports be more competitive. [See Thirwall (2002)]

promote exports as the regimes became more outward-oriented. These export incentives which are largely within the discretion and jurisdiction of individual member governments include tax holidays, ad hoc import duty concessions or exemptions especially on imported machine and intermediate inputs, export promotion assistance and tax rebates, grants and subsidized rents of factory space in specific industrial parks and export processing zones (EPZ).

Export industries in the region all took advantage of fiscal incentives and other forms of export subsidisation provided by the state. Notwithstanding there was not a commensurate take-off in the share of industry, in particular manufacturing in the economy of member countries. The best performers in terms of the share of manufacturing in the economy were St. Kitts & Nevis followed by St. Lucia where manufacturing accounted for average shares of 12.5 and 7 percent of GDP over the period 1989-2003. However there was the concern that these incentives aimed at export promotion policies have also contributed to the establishment of enclave industries with little connection and linkages to the local economy.

Notwithstanding these efforts in principle, production and export subsidies such as export re-discount facilities export credit insurance schemes, tax rebates on export profits and other compensatory export incentives are generally negligible in the region. Accordingly, export subsidies have accounted for less than a quarter percent of expenditure on GDP. Concessionary credit by commercial and development banks subsidised by individual governments often from funds sourced internationally for the purpose for on-lending to development person has become less significant since 1993. This is in stark contrast to other parts of the world such as Europe with its Common Agricultural Policy (CAP) where trade-distorting domestic support is more prominent.

### *3.6.1.2 Production Taxes*

Given the undeveloped and fledging nature of the private sector in the OECS taxes on production are generally kept low. The main tax in this regard is an excise tax which is levied on resident producers of goods taxable under the excise tax act. They tend to be exacted on selected inputs from which some expenditure-switching is encouraged. Among the goods covered by the act alcohol is the only significant category produced in

the region. The tax base is the weight or volume of such goods or on an *ad valorem* basis in which case the CIF value is used. Exemptions may be granted if the good is an input in the production of other goods or an imported good to be re-exported within three months. Example strong alcohol which is an input in the production of other alcoholic beverages would be exempted.

In general export taxes have largely been discontinued across the region. As a result taxes on production have remained near 16 % of current revenue since 1989 due mainly to import duty.

### *3.6.1.3 Direct Import Controls*

Another significant component of the reforms to the trade regime in the OECS was the reduction in the scope of direct import controls. These barriers which are largely in the form of quotas and licenses are considered inefficient given that they added scarcity value to imports and domestic substitutes which caused an artificial increase in prices above their market value. Therefore the region embarked on a programme of quota elimination and conversion of quotas, into their tariff equivalents, based on bound rates under the Uruguay Round of multilateral trade agreements (URA). This process called tariffication, involves the elimination of quantitative restrictions and replacing them with tariffs. The region's exports (mainly sugar and clothing and textiles) have been subject to such controls in the form of import quotas placed in its export markets under the Sugar Protocol and the Multifibre Agreement (MFA) now known as the Agreement on Textiles and Clothing (ATC).<sup>51</sup>

OECS governments have also attempted to increase their degree of outward-orientation by the removal of import licensing requirements on most goods hitherto restricted. Licences are considered to be especially distorting in so far as they create bottlenecks and rents which may be rationed based on political economy considerations. For similar reasons the number of items on the price control list has also been reduced.<sup>52</sup> Meanwhile

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<sup>51</sup> The MFA/ATC which are examples of sanctioned derogations to the WTO general principles will soon be subjected to liberal reforms in terms of the conversions of their quotas to tariff equivalents.

<sup>52</sup> This list is made up of a number of items deemed core essential to survival and which affect the consumption of everyone especially the people of the lowest income. This includes sugar, rice, flour and rice among others.

the number of items which were placed on the negative list as prohibited items, for reasons relating to national security and the like has also been reduced.

#### *3.6.1.4 Other Taxes and Charges on Trade and Transactions*

Another significant component of revenue on international trade is consumption taxes and throughput customs service charges (CSC). These charges which work largely as uniform transactions taxes have been adjusted upwards as a means of partly cushioning if not offsetting the loss in tariff revenue. However, writers such as Rutherford and Tarr (2002) argue that replacement taxes will significantly reduce gains from trade reform. The WTO has also requested that these too are removed or significantly lowered in due course.<sup>53</sup>

### **3.6.2 Tariff Liberalisation and the New Structure of Tariffs**

As discussed earlier the CARICOM region as a customs union and regional trade arrangement (RTA) took a decision to liberalise its trade regime in the hope of satisfying a number of objectives. In this regard the OECS like the rest of the region adopted a revised Common External Tariff (CET) involving a progressive lowering of tariff rates over four phases and over a five year period 1993-1998. The aim was to reform the tariff structure in a manner that engendered non-discrimination across products and sectors through the reduction of nominal tariffs, which ranged from 0-95 percent in the first phase to 0-20 percent in the final phase. This new strategy was intended to gradually create a set of relative prices that reduce the inherent anti-export bias in the regime and induce a shift towards neutral incentives to producers serving both the export sector as well as the domestic market. [See table 3.4 below for details of the schedule of implementation, rates and categories of goods.]

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<sup>53</sup> However, it is worth noting that the increases in consumption taxes are levied on intra as well as extra-regional trade thereby reducing its distortionary effect.

**Table 3.4 OECS Tariff Reduction Schedule**

| <b>Implementation Period</b>                          | <b>1/1/93-<br/>31/12/94</b>     | <b>1/1/95--<br/>31/12/96</b> | <b>1/1/97-<br/>31/12/98</b> | <b>From 1/1998</b> |
|---|---------------------------------|------------------------------|-----------------------------|--------------------|
| <b>Phase</b>  | <b>I</b>                        | <b>II</b>                    | <b>III</b>                  | <b>IV</b>          |
| <b>Category of Goods</b>                              | <b>Structure of Tariff Rate</b> |                              |                             |                    |
| Non-Competing primary, intermediate and capital goods | 0-5%                            | 0-5%                         | 0-5%                        | 0-5%               |
| Competing, primary inputs and capital goods           | 20%                             | 15%                          | 10%                         | 10%                |
| Competing intermediate inputs                         | 25%                             | 20%                          | 15%                         | 15%                |
| Non-competing final goods                             | 25%                             | 25%                          | 20/25%                      | 20%                |
| Agro-industry, garments and general manufactures      | 30/25%                          | 25%                          | 20/25%                      | 20%                |

The table shows a phased reduction and reduced dispersion in the applicable nominal tariff rates on both final goods and intermediate inputs. At a glance this suggests that the effective rates of protection as well as the domestic resource costs (DRC) are likely to have reduced as the differential between the rates on final goods and inputs narrow. Accordingly domestic valued added per imported commodity is likely to have also reduced.

The CET is essentially a non-discriminatory *ad valorem* tariff involving 99 chapter categories covering over 7000 tariff lines. In applying the CET, goods are categorised as competing or non-competing goods. These may be primary, intermediate or capital inputs and final goods including agro-industrial garments and general manufactures.

As a precursor to the tariff liberalisation process and implementation of the CET most members took strides to harmonise their tariff structures with the replacement of the Harmonized Commodity Coding System of classification of goods 1993 (HS 93) with a more disaggregated (HS 96).<sup>54</sup> Efforts were also devoted to the consolidation and simplification of the tax regime in terms of a reduction of the number of tariff bands.

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<sup>54</sup> It is a more disaggregated system with over 7000 tariff positions compared to the HS 93 with 6000.

Notwithstanding the stipulated minimum and maximum statutory rates the OECS benefits from some derogation to the CET in the form of exceptions which allow for national treatment and special provisions for the less developed member territories of the CARICOM region. These are specified in four different lists detailed as list A-D. There are also some rules of origin and guidelines on local content requirements on trade between member states. [See Chapter seven (7) of the CARICOM Treaty]

In addition, the CET provides for a list of conditional duty exemptions. Under this list, a member state of CARICOM is free to exempt from or subject to CET rates a list of imported goods for various reasons, including: incentives to encourage strategic industries such as agriculture, fishing, tourism and education among other sensitive sectors. The list of conditional duty exemptions includes a list of goods that are not eligible for exemptions and must be treated according to general CET rules or one of the four exception lists (A, B, C or D).

While most countries implemented the first phase in July 1993 the schedule of implementation for the other phases was prolonged due to concerns over issues relating to its fiscal implications and impact on various sectors of their economies. For example a government commissioned study on St.Lucia using 1997 trade data concluded that in the absence of a further shift in trade the fourth phase of the CET would result in a revenue loss of an estimated EC\$ 6.4 million. Such concerns over a decline in tariff revenue as the advanced phases of the CET came into effect were later confirmed. [See p.44 ECLAC (2001)]

In light of the possible revenue loss associated with tariff reduction tax reform policies aimed at reducing dependence on trade tax revenue have been on going. Some approaches being tried and pursued in the region include the implementation of Value-Added Tax (VAT) system and sales based taxation. However the relatively higher cost/yield ratio in terms of collection and other administrative cost and efficiency of such domestic tax systems as compared to border taxes has engendered some resistance.

### **3.7 Trade Liberalisation: Complementary Policies and Reforms**

#### **3.7.1 Improving the Enabling Environment**

As alluded to in Chapter two the mode of implementation of trade reforms is central to its success. According to Greenaway (1998) trade liberalisation may be necessary but not sufficient for growth and thus must be done in a compatible manner with ‘other policy reforms’ of a political economy and institutional nature. Meier (1995) also argued that the success of trade liberalisation depends on a number of complementary reforms in the domestic economy. He argued that strong and decisive reforms especially in the labour and financial market as well as a realistic exchange rate are vital to success. Such an approach is in conjunction with the *signalling effect* of public investment is considered vital to building credibility while reducing uncertainty especially in the private sector. [See Rodrik (1989) and Aizenman (1992)]

Hence in moving from theory to practice on the recommendations for implementing trade reforms the OECS in collaboration with CARICOM embarked on a number of trade facilitation measures designed to complement the basic first-generation reforms, which consisted mainly of easing border restrictions and relaxing foreign exchange controls. Many of these supportive measures intended for the internal market are in the spirit of deregulation of sectors and the establishment of adequate institutional and regulatory framework. In addition to these considerations, efforts have also been directed at modernisation of the region’s productive apparatus as well as improving administrative capacity to implement and monitor reforms thereby strengthening their credibility. Importantly, these complementary reforms based on fewer controls are inspired by the desire of governments to be less interventionist in its posture and allow for greater reliance on the market and private sector in their strategy for growth and development. The initiatives introduced are also intended to reduce anti-export bias and the implicit taxation of one sector by another, thereby improving the efficiency and quality of market signals in the economy. To this end a deliberate programme of reforms has been directed at both the public and private sectors in the hope of gradually and systematically reducing the wedge between domestic and international prices and thereby increasing the region’s competitiveness.

Success in this regard will support an export promotion strategy through a narrowing of the gap between the domestic and international marginal rates of transformation. [See Krueger (1980)]. These measures which are largely supply-side can be summarised as follows:

#### *3.7.1.1 Institutional Strengthening*

On the supply side efforts have been directed at improving the physical infrastructure and human resources engaged in the processing and recording of goods and services. This is based on realisation of the link between productivity and competitiveness. Accordingly, efforts have been directed towards the modernisation of port facilities, training of customs officials and the provision of improved system support in terms of the computerisation and simplification of procedures. In concert it is hoped that these measures would enhance overall port efficiency.<sup>55</sup>

Another important consideration in this regard is to minimise the administrative problems associated with trade and general tax collection which is deemed crucial to the realisation of the full potential gain from trade liberalisation. [See Pritchett and Sethi (1994)] Clearly this has implications for effectiveness of tariff reform.

#### *3.7.1.2 Export and Investment Promotion*

Measures have also been targeted at boosting investor confidence through increased transparency simplification of the requirements to set up business in the region and to enhance the speed of processing applications among other forms of support. In this regard national development co-operations or their equivalents have been transformed into so-called one-stop investment agencies.

Also as part of a number of initiatives to support the promotion of exports some territories established export processing zones (EPZs) in conjunction with various fiscal incentives in the hope of attracting foreign investors. Efforts have also been directed at improving their productive capacities and external competitiveness. In effect the OECS has largely

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<sup>55</sup> For example efforts are ongoing with regard to the installation of new software such the Automated System for Customs Data (ASYCUDA++) for Customs Departments across the OECS as well as a Standard Integrated Government Tax Administration System (SIGTAS) in the hope of providing a more efficient service to governments and the public.

adopted an ‘open door policy’. Meanwhile some individual countries have taken steps to mount their own efforts to promote exports using inter-governmental and private sector initiatives. Despite these effort on numerous fronts the OECS is yet to record the growth rates promised by the proponents of the policy changes as its relative share in the world’s industrial and economic progress remains much the same or less.

### *3.7.1.3 Private Sector Capacity Enhancement*

In keeping with the policy intention to induce the private sector to become the ‘engine of growth’ in the OECS economy a number of specialised institutions have been established in recent times to support its development. These include the Small and Medium Enterprise Development Program, the OECS Export Development Unit and the Caribbean Trade and Economic Competitiveness Project. The aim of these interventions is to reduce the scope of internal and external constraints faced by the private sector. In particular this refers to encouraging modern approaches to running businesses, including knowledge-driven business development and adjusting products to take advantage of market opportunities, standards and quality controls.

Many of these interventions are jointly funded by local governments and industrial trade partners. This includes the CPEC (Caribbean Private Sector Export Competitiveness) programme funded by Canada and the “Private Sector Development Strategy” programme funded by the EU. This programme provides assistance in the development of entrepreneurship in a manner that helps businesses make the adjustment to meet international standards and regulations, develop strategic alliances with regional and international corporations and to access domestic and external funding. Another component is its Business Upgrade Programme which places emphasis on direct business and support services to firms in areas such as product and market development. It involves grant funding to conduct needs assessments and commercial viability as well to design implement and manage business plans and provide training. The EU has also launched its Pro-Invest programme with ACP countries wherein it seeks to engage the private sector in partnership/joint venture initiatives.

### *3.7.1.4 Privatisation and Corporatisation*

In line with the view of the new political economy (NPE) and the *Washington Consensus* which advocates for a “*withering of the state*” a number of measures have been taken to reduce the involvement of the state in the productive sector. In this regard governments have receded from participation in a number of typically private sector activities including retail and procurement in the economy. They have also divested their shares and assets in a number of statutory bodies, mainly public utilities and commodity export structures. A leading example of the retreat of the state and the new thinking on issues of governance was the privatisation of the banana industry in the Windward Islands.

Notwithstanding there is thus far little evidence to suggest that the withdrawal of government from the so-called domain of the private sector has been matched by significant recapture or increased investment by the private sector. As was the case in some Sub-Saharan states this divestment of government did not result in the anticipated inflow of private or foreign investment as argued by proponents of smaller government.

### *3.7.1.5 Standardisation*

In recent times there has been an increase in the demands of consumers in export markets in areas such as quality, health and safety issues. In light of this trend the region in conjunction with the CARICOM Regional Organisation for Standards and Quality (CROSQ) has made some strides in establishing Bureaus of Standards and certification authorities in respect of the production of goods and services. In most cases the standards are national standards benchmarked against international ISO equivalents. One example of this demand is the EUREP-GAP certification for banana and other agricultural farms. This common standard is a set of guidelines called Good Agricultural Practices developed by the Euro-Retailer Produce Working Group in 1997.

The thrust of these efforts at standardisation is to attempt to meet the requirements of the WTO agreement on Sanitary and PhytoSanitary (SPS) and Technical Barriers to Trade as well as the market access criteria in respect of their export markets. While these are still being developed progress has been made in many areas including, metrology, packaging and labelling.

### *3.7.1.6 Greater Economic Integration of the OECS: The OECS Economic Union*

In recognition of the enormity of the challenges related to globalisation and trade liberalisation the OECS took a decision to deepen their economic integration by forming an OECS economic union parallel to the wider regional integration process in the form of the CSME. The motivation for this initiative is the acceptance that the development challenges faced by the sub-region require the creation of a single economic space in the hope of helping firms realise benefits of economies of scale. This new economic configuration would allow for greater volumes of trade and create greater business and employment opportunities and increase the competitiveness of regional firms. In this regard efforts have been directed to improve labour market flexibility through the enactment of laws similar in effect to protocol II of the CARICOM treaty providing for free movement and circulation of labour capital, goods and services.

### *3.7.1.7 Technical Assistance and Capacity Building Initiatives*

The OECS region has also taken several steps to increase its capacity to monitor and evaluate trade policies as well as to increase its participation in policy negotiations. It has done so through a number of initiatives chief of which is the Trade Policy Assistance Project (TPAP) funded by the Canadian International Development Agency (CIDA). The project aims to provide technical assistance to strengthen the capacity of the region to engage in negotiations (especially reciprocal rules-based negotiations), trade policy formulation and co-ordination. It includes a Services Workshop given the increased importance accorded to trade in services in the current WTO/FTAA negotiations. The feasibility of a Trade Negotiation Support Unit (TNSU) is also being considered.

Given the wide significance of ongoing negotiations and the general increased importance of trade in the determining economic fortunes in the region, the OECS Secretariat have sought to sensitize the region through the a number of trade policy publications. These efforts which are intended to complement the analytical research capabilities and information set of member countries are done in conjunction with the Caribbean Regional Negotiation Machinery (CRNM) and other international agencies such as the Commonwealth Secretariat through its “*Hub and Spoke*” initiative. The Commonwealth Secretariat has also conducted programmes aimed at enhancing competitiveness by identifying and remedying impediments to trade and investment through the trade

division of its Special Advisory Services Division (SASD). Other region-wide reform initiatives that have been pursued include a structural adjustment and technical assistance programme SATAP programme in conjunction with a team of consultants from the IMF and the Caribbean Regional Technical Assistance Centre (CARTAC).

#### *3.7.1.8 Legislative Reforms*

Given the commitments of each territory in the region to realisation of the goals of the various programmes of trade and economic reforms, significant work has also been done in terms of the enactment of the laws and other legal instruments to give effect and credibility to the ongoing restructuring process. This also involved the ratification and adoption of various agreements and Protocols at the OECS and CARICOM levels. The thrust of the fairly exhaustive programme of legislative reforms are to provide the enabling environment and legislative backing to the objective of free movement of goods, services, labour and capital and good corporate governance in the sub-region. Some of these include: (i) the Securities Act of 2001 (ii) the establishment of the Eastern Caribbean Securities Regulatory Commission etc. (iii) Labour market and Public Sector reforms. Perhaps the most significant initiative in this regard was the establishment of the CARICOM Court of Justice (CCJ) which will serve initially as a court of arbitration on trade disputes and vital step in the establishment of the CSME. Efforts have also been directed at legislation in competition policy, procedures for commercial arbitration, consumer rights, product development and standards certification system.

#### *3.7.1.9 Tax Reforms*

Given the known tariff and general fiscal dependence of SIDS such as the OECS, efforts have thus been directed towards tax reform in the hope of reducing this dependence. In large measure these have centred on the feasibility of introducing sales or transactions based taxes such as Value Added Tax (VAT). [See Stotsky *et al* (2000)] In this regard the Tax Reform and Administration Commission (TRAC) appointed by the Monetary Council of the ECCB recommended that all members of the OECS to replace all indirect taxes except import duties with a VAT. Steps have also been taken to establish fiscal

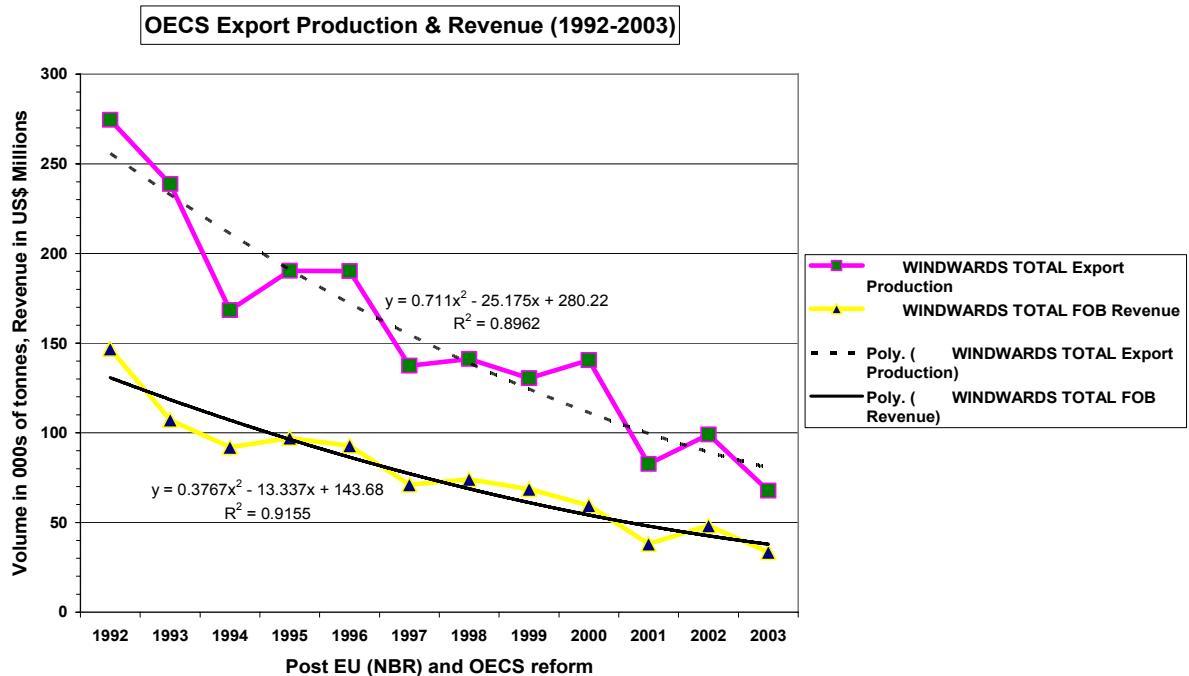
convergence criteria in a manner analogous to the EU’s Growth and Stability Pack as a means of engendering prudential fiscal management in the region.

### **3.7.2 Productive Sector Reforms**

As noted earlier a principal motivation for the OECS embrace of a broad based programme of trade reforms was in large measure in response to the trend decline in the external competitiveness of its traditional productive sectors, namely bananas and sugar in agriculture and light manufacturing in general. As a result reforms were also intended to arrest decline and stimulate growth in these key productive export sectors of the economy.

#### *3.7.2.1 Impact of trade liberalisation on key agriculture exports—Bananas*

As hinted before, perhaps the industry which best mirrors the changing fortunes regarding OECS external competitiveness in the new geopolitical trade and economic environment is the banana industry. Therefore any analysis of the OECS experience with trade liberalisation is incomplete without reference to this symbolic industry. Indeed the contribution of this vital industry to the region was so significant that it was called “*Greengold*” and the years of its prominence aptly called the “golden years”. However, since the commencement of challenges to the region’s preferential market access and the subsequent New Banana Regime in 1993, the OECS industry plunged into a state of uncertainty which was manifested in a downward spiral in output and revenue as grower and investor confidence waned. [See figure 3.3 below] Understandably the still ongoing drama surrounding the Caribbean’s banana industry and the OECS in particular has been a watershed point and crude lesson in the vagaries and vicissitudes of WTO administered trade environments on the fortunes of the region. [See UNCTAD (2003), Read (1993) and Payne and Sutton (2001) among others for further details]



**Figure 3.3 Export Trend in Key OECS Export-Bananas**

The figure shows the steady and synchronous decline in both output and revenue from a peak of 274,539 tonnes valued at US\$ 146.82 million in 1992 to a mere 62,595 tonnes valued at estimated US\$ 36.26 million in 2003. The contraction of the industry is such that the corresponding performances in export volumes and earnings in 2003 were 22.8 and 24.7 percent respectively of their 1992 levels. This dramatic decline underscores the extent of the banana shock in terms of the reaction of the industry in the face of the uncertainties associated with external liberalisation. [See Fernandez and Rodrik (1990)] To be sure the reduction in the share of agricultural sector in the regional economy largely reflected the decline of the banana industry. This marked contraction in the formerly prominent banana industry was such that the share and contribution of agriculture in regional GDP declined from an average of about 12% in the so-called golden years to a mere 6.7 % in the post reform years. As a result the loss of the weekly injections of foreign exchange crucial for debt serving and the so-called banana income multiplier on the income as a whole has had a negative ripple effect on the demand expenditure in the OECS. This adverse impact has been most dire on employment and rural economic stability.

Given its importance numerous attempts have been made to save and restructure the industry with a view to enabling to compete in a liberalised market. Some of these efforts

have attempted to address some of the structural problems of the industry in the face of relatively high wages and input costs. These include low levels of productivity of land and labour with per acre yields averaging between 6-8 tons in comparison to 10-15 tons in Latin America. [See Griffith (1990)] Notwithstanding, many reforms have been implemented in the hope of repositioning the industry. This includes privatisation of the industry, the provision of technical assistance, investment in infrastructure such as drainage and irrigation, recapitalisation, product re-branding<sup>56</sup>, targeting of niche markets as well as the establishment of production recovery plans and other industry-wide strategies.

Despite these ongoing efforts, the region's banana industry remains in a near comatose state with very little sign of recovery. In effect, the industry has suffered from massive exodus of farmers in the wake of falling prices resulting in a significant reduction and rationalisation of the producer-base. However, the outlook remains bleak as the date for a fully liberalised (tariff-only) EU market approaches. Efforts to operate under the “*Fair Trade Label*” seem the last vestige of hope of revival for the ailing industry.<sup>57</sup>

The OECS experience in the banana industry has taught the toughest lesson to the region which has all but sealed fears regarding the likely impact of trade liberalisation on the prospects of the region for survival in the new order.

As a result efforts at diversification aimed at developing productive capacity in areas such as fisheries, non-traditional agricultural crops and manufacturing in particular agro-processing have been intensified with a view to improve domestic food security and provide employment.

### *3.7.2.2 Impact of trade liberalisation on the region's manufacturing sector-early indications*

However, it is instructive to note that despite the decline in the agricultural sectors there was not a corresponding shift of resources to manufacturing as with the standard patterns

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<sup>56</sup> This includes a steady shift since 2000 towards operating under the Fair Trade Label wherein farmers are given reflecting real costs.

<sup>57</sup> This is part of a new trading ideology in which consumers are being encouraged to pay premium prices for the fruit produced in SIDS based on certain criteria.

of development and industrialisation. [See Chenery (1980)] More specifically, the average share of manufacturing in the regional economy has not exceeded 6 percent of OECS real GDP. On the contrary the share of manufacturing has dipped slightly by one (1) percentage point in the post-reform period as compared to before the commencement of trade liberalisation. [See section 4.2]

Thus since the early 1990s there has also been a trend of secular deterioration in the average price of manufacturing exports from the region and from developing countries in general. [See Wood (1997)] Consequently, the economic transformation to a greater proportion of industrial goods through export growth has not occurred in the region.<sup>58</sup> Similar concerns have also been expressed by some other CARICOM territories such as Barbados, which concluded that even after implementing a system of bound rates on sensitive manufacturing and agricultural products, a number of its industries would still be adversely affected. [See Lewis-Bynoe *et al* (2002).] Indeed one immediate effect of the lowering of the tariffs in the OECS has been the exodus of so-called *tariff factories* that were set up behind the so-called tariff walls in member territories. These branch plants and subsidiaries were principally in the area of light manufacturing such as garments and electrical assembly.

Given these trends uncertainty regarding the economic survival of the region's fledgling manufacturing sector remains one of the main sources of cynicism over the trade liberalisation process. To many, the process seems to lack conviction and clarity as to the distribution of gains and losses associated with the changing the system.

Nonetheless the region pursued economic transformation through a set of trade policies and incentives aimed at attracting investment in manufacturing and other forms of industrial production. These efforts at climbing the value-chain have been characterised by the production of largely standardised manufacturing exports products using mainly low-end, low-level technology at branch plant subsidiaries. At this low end of the value ladder there are many providers and the level of competition has been heightened through trade liberalisation. The inherent decreasing returns has contributed to the relative

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<sup>58</sup> According to Ronald Sanders productivity growth has declined since the 1990s and manufacturing is ruled out as an option for all but three CARICOM countries.  
[See Caribbeannews.com/2005/10/11/sanders.htm] This certainly does not include OECS countries.

stagnation of the industrial restructuring process around manufactured products, as the scope for eking out marginal gains from generic products at a mature stage of the product-cycle is significantly constrained by size and technology-induced production costs differentials, relative to larger competitors as well the *China-India* effect.

Therefore although the manufacturing sector was export-oriented it did not provide the anticipated industrial dynamism expected. Further efforts at export product diversification in tangible commodities continued to be confounded by sub-optimality constraints in factor endowments, lack of a critical mass to achieve scale economies and overcome the burden of high per unit transportation cost on small volumes. All of this suggests the stimulus for increased export production based on lower factor inputs costs may be negligible as factor intermediate goods/factor inputs are becoming less important sources of productivity and growth.

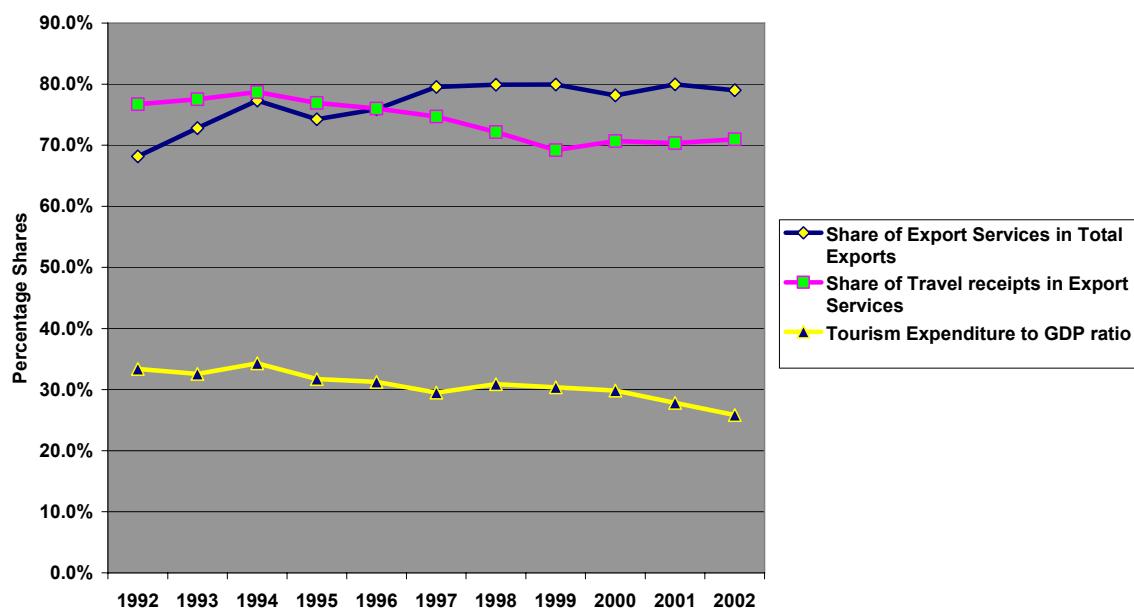
### **3.7.3 Services Liberalisation and the Rise of the Service Economy**

Against this backdrop of declining external competitiveness in commodity exports in particular, the region sought to diversify toward services and change their export specialisation. As a result most of the Caribbean region including the OECS, have increasingly sought their livelihood in services. [CARICOM (2000)] This structural transformation is most evident in the OECS where growth of the services sector has been significant, accounting for a rising share of GDP ranging from 55.4% to 77.7% over the period 1987-1997. [World Bank (1999)] Importantly, government services constituted 15-20% of GDP over that period.<sup>59</sup> However, it must be noted that the increase in importance of services is primarily due to growth in tourism. In this regard travel receipts from tourists accounted for an estimated 74 percent of export services which in turn made up an average of 77.2 percent of total exports of goods and services between 1992 and 2003. Estimated visitor expenditure made up about 31 percent of GDP over the same period. [See figure 3.4 below]

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<sup>59</sup> A United Nation Conference on Trade and Development UNCTAD (1997) report, which categorises SIDS according to their economic structure and vulnerability to external trade shocks, likewise reflects this change and places all the OECS countries in categories suggesting a high dependence on services such as tourism.

**Trends in the Shares of Export Services, Travel Receipts and Tourism Expenditure**



Author's calculations from ECCB data

**Figure 3.4 Trends in Export Services**

However, despite the encouraging performance in the OECS in tourism in the face of parallel declines in the once prominent traditional exports of bananas and sugar, there is an inherent feeling that the same pattern of over dependence on a single industry seems to be emerging again.<sup>60</sup> In this regard there are concerns over the nature and ownership structure of the industry with its growing share of “all-inclusive enclave resorts” as well as over the net expenditure of tourists in light of the high percentage of income leakage<sup>61</sup> in contrast to the greater domestic circulation and multiplier-effect of the banana dollar. Equally disconcerting is the uncertainties relating to oil prices and its cost implications for the airline services upon which the tourism industry depends heavily. Such scepticism led some writers to see tourism as unpredictable and dependent on the travel mood and prosperity of the core countries from which tourist originate. Further the annual threat of natural disasters especially hurricanes renders folly a one-pillar economy based largely on tourism.

<sup>60</sup> In this regard the Caribbean is the world’s most tourism dependent region with tourism representing half a million people directly employed in the tourism industry. [See Zaragoza (2002)] It is the lead sector in most OECS states especially Antigua & Barbuda.

<sup>61</sup> The average leakage rate and multiplier effect of tourism receipts in the OECS based on estimates from a study by Jayawardena and Ramajesingh (2003) is about 54% and 1.24 respectively.

Nonetheless, in conjunction with efforts at trade regime change in the OECS in relation to goods, there has been a concomitant wave of deregulation in the services sector. This involved efforts to improve services infrastructure with a view to increasing efficiency in the economy and enhance competitiveness by lowering the cost of transactions in services as well merchandise trade.<sup>62</sup> Therefore, as in trade liberalisation in goods, service-sector reforms were motivated by the view that increased openness in services would influence long-run growth performance. The importance of these reforms was underscored by a trend of higher growth rate in services compared to merchandise trade over the last two decades. As a result efforts at liberalisation of services have been ongoing on numerous fronts in terms of negotiations at the regional, (CSME) multilateral (WTO) and hemispheric wide levels (FTAA). One important initiative in this regard which is expected to give impetus to growth in services is Protocol II of the revised CARICOM treaty which among other things makes provision for the free movement of services in the OECS/CARICOM region.

Indeed such a development strategy based on a shift towards services has long been recommended by Demas (1965) who argued that SIDS should pursue sources of growth that are less dependent on industrialisation. Similar sentiments were echoed in a report prepared for the European Commission by Davenport *et al* (2002) which likewise surmised that future growth in the region will depend on stimulating new business notably in services. This broad shift towards services is so apparent around the world that McRae (1994) contends that competition in services rather than in manufacturing will drive economic growth in developing countries in the future. Further, given a trend in which actual production of commodities is increasingly becoming a low-margin activity with reduce relative importance in value chains, Quinn *et al* (1990) sees a future beyond products with a services-based strategy for growth based on core competencies and outsourcing.

The attractiveness of services to the region is partly due to its very nature in terms of its indivisibilities and non-transferability, as well as the fact that it is generally labour-intensive given the high employment concerns of the region. The allurement of services is also driven by the opportunities it presents for small states to specialise in high value-

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<sup>62</sup> In this regard Collier and Gunning (1999) observed that high transactions costs were most significant in impeding growth in Africa.

added niche sectors. Further, in contrast to agricultural products, services typically have a high-income elasticity of demand which help to insulate such countries from declining terms of trade. In fact the surplus on the services account of the balance of payments has been partly financing the growing deficit on the current account for much of the last decade. The capacity to cushion this gap, however, wears thin as its sustainability is brought into question. [ECCB, (2000)] [See figure 3.2]. For these and other reasons, it is felt that there is greater scope for the OECS/CARICOM to benefit from the General Agreement on Trade in Services (GATS). This is in part due to the modes of service delivery such as consumption abroad (mode II) as in tourism and commercial presence (mode III) wherein foreign participation requires direct investment. The thinking underlying this presumption is that there is scope for the OECS to select modalities of engagement in its offers and commitments made during WTO negotiations on multilateral liberalisation in trade in services.

While it is felt that there is in general greater scope for the OECS/CARICOM region to benefit from the General Agreement on Trade in Services (GATS), it may yet be a mixed blessing in so far as it limits the flexibility of domestic policy with respect to issues such as the movement of factors.<sup>63</sup> [See Karagiannis and Witter (2004)] Concerns over the market/economic size and stage of development of OECS-SIDS again come to the fore. A key consideration relates to the modalities for market access in particular the question relating to the establishment of local presence (modes II) and the movement of natural persons (mode IV) of service delivery, respectively. See table 3.5 below for an indication of the distribution of restrictions indicated by OECS states which are also reflective of their main concerns with liberalisation in services.

In view of these concerns the OECS like the rest of CARICOM offered a terms structure of commitments for the removal of restrictions on various services over the short to long term.<sup>64</sup> However given the broad similarities in the pattern of specific commitments of the OECS, the numbers of service sectors included in their commitments are few. For example a report by Cleland and Gomez (2003) indicated that the OECS scheduled

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<sup>63</sup> However, Marshall (2002) challenges the wisdom of economic restructuring of the eastern Caribbean region based on an economic strategy centred on export services, especially informatics and other knowledge-intensive services. He affirms that the requirements for success in this strategy are largely absent in the sub-region.

<sup>64</sup> As of 2001 the number of areas scheduled for removal of restrictions totalled 161.

commitments for future liberalisation in business and communications services, in only 28 sectors.

**Table 3.5 Specific Restrictions by Mode of Service Delivery**

| <b>Country</b>          | <b>Cross<br/>Border<br/>Trade</b> | <b>Right of<br/>Establishment</b> | <b>Consumer<br/>moves to<br/>Supplier</b> | <b>Movement of<br/>Natural Persons</b> |
|-------------------------|-----------------------------------|-----------------------------------|---|--|
|                         | <b>Mode 1</b>                     | <b>Mode 2</b>                     | <b>Mode 3</b>                             | <b>Mode 4</b>                          |
| Antigua & Barbuda       | 9                                 | 9                                 | 0   | 11                                     |
| Dominica                | 9                                 | 30                                | 2   | 15                                     |
| Grenada                 | 2                                 | 44                                | 1   | 19                                     |
| Montserrat              | 6                                 | 6                                 | 1   | 5                                      |
| St.Kitts & Nevis        | 3                                 | 2                                 | 1   | 5                                      |
| St.Lucia                | 5                                 | 41                                | n/a                                       | 15                                     |
| St.Vincent & Grenadines | 2                                 | 10                                | 0   | 4                                      |
| <b>OECS</b>             | <b>36</b>                         | <b>142</b>                        | <b>5</b>                                  | <b>73</b>                              |

Source: Adapted from Watson and Erriah (2001)

Initial efforts at services-sector liberalisation by the OECS were devoted to the non-traditional service exports, first financial services and then the telecommunication sector. A similar chain of events was associated with the liberalisation paths of some Asia Pacific countries such as Malaysia Razak and Siraj (1993) and Singapore Lim *et al* (1997). More recently, the growth of services in the OECS has been focussed on information technology.<sup>65</sup> In particular the regulatory reform of the telecommunications market allowed for the entry of new service providers and broke the grip of the former monopoly resulting in cheaper services to households and businesses. This has gone some way in creating a more competitive information and communication technology (ICT) sector. As a consequence of these developments the OECS witnessed the birth of its still embryonic informatics sector in the form of call centres and data entry, telemarketing, outsourced customer support services, information processing among other computer-based activities. Importantly, these new sources of growth have a skills-bias towards modern technology mainly in knowledge-based and information technologies and thus appeal and

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<sup>65</sup> Similar trends are in evidence elsewhere especially in the developing world as countries seize the opportunities presented by technological developments in information and telecommunications to increase their level and speed of global integration. [See Wirtz (2000)]

provide employment opportunities for the relatively skilled and computer literate work force while providing a platform for the development of e-commerce in the future. Importantly increased attention is being given across the region to create a labour force skilled in knowledge based technologies.

Amidst these developments, liberalisation of services has been ongoing on numerous fronts. These include local deregulations to negotiations in the regional, multilateral and hemispheric frameworks including at the level of the FTAA. One important initiative in this regard is Protocol II of the revised CARICOM treaty which among other things makes provision for the free movement of services in the OECS/CARICOM region.

The liberalisation of the telecommunications sector was also be used as a strategy to increase the competitiveness of the challenged offshore financial services (OFS) sector.<sup>66</sup> Indeed in the wake of significant contraction in tangible trade in agriculture and manufacturing the non-tourism services sector which is still finding its feet as well as the maturing but adaptable tourism sector have been the main sources of impetus in the OECS economies in the 21<sup>st</sup> century. An important trend in these developments is an increase in intra-regional direct investment in particular from the larger territories in CARICOM such as Jamaica and Trinidad and Tobago.

Notwithstanding the foregoing, the initial benefits to the regional economy of the combined impact of these initiatives in trade liberalisation in services can be seen in a rise in the share of communications in the regional economy from 7.7% in 1993 to 10.6% in 2003.

Nonetheless although the shift to a service-based economy is in evidence in the region it has not occurred through an endogenous process as suggested in the ‘stages of development’ theses advanced by Clark (1940) or Rostow (1960) and as observed in most developed countries. Instead, it was exogenously driven by loss of competitive advantage in labour-intensive production and preferential market access as well as a rise in the demand and mass consumption of leisure activities and information services consistent

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<sup>66</sup> Many of territories of the OECS had established Offshore Financial Sectors as a means of diversifying their economies away from the traditional sector of dependence. However the sector as whole was plunged into sunset mode very quickly as member territories faced the challenges of being blacklisted by the OECD as “Havens of Harmful Taxation”.

with growth in income in the developed world. In effect saturation of markets for manufactured goods and the inherent lack of competitiveness in mature and generic commodities such as garments, textiles and processed foods and chemical have also prompted the shift. Therefore, it would appear that the OECS and other later-comer SIDS have skipped the rung in the comparative advantage ladder where economies are propelled by manufacturing, especially the production of skilled labour-intensive goods. Instead they have leap-frogged into a post-industrial stage in which low/unskilled labour-intensive commodity production has been replaced with semi-skilled low-end information services factories.<sup>67</sup> [See Dore (1994) for more on late-comers]

Also despite the encouraging signs and strides made by the OECS in its services reforms and efforts to acquire greater comparative advantage needed to propel growth in the sector and in the economy as a whole, it is worth noting that *many of the constraints faced by SIDS in goods also exists in services*. [See Mattoo *et al* (2001) and Dunlop (2003)]. Accordingly some Caribbean commentators have questioned the pursuance of a development strategy in the region based on financial services. [See Marshall (2002) among others] Accordingly, given these limiting factors, liberalisation in services based on the same multilateral principles may mean that benefits accrued initially will (as in merchandise trade) eventually be undermined by the inescapable problems associated with the diseconomies of size.

### **3.8 The Nature of OECS Reforms: Implementation Issues**

The above account shows that the OECS trade reforms were bolstered by a number of complementary macroeconomic and regulatory reforms. Also, in keeping with standard recommendation on the sequencing of reforms OECS trade reforms had been preceded by financial liberalisation in various forms to ease the flow of capital. This included liberalisation of credit, interest rates policies and the relaxation of foreign exchange controls.

In tandem this institutional and multi-pronged approach to liberalisation is indicative of the credibility and level of commitment of the OECS and lends to its tractability and legitimacy. However, its sustainability may depend on the performance of the external

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<sup>67</sup> Mindful of these consideration efforts have been directed in parts of the region to diversify and reposition their tourism industry by targeting the high-end of the market.

sector and by extension the international trade environment and world economy. Deterioration of economic fundamentals may also erode domestic support because the momentum of structural reforms tends to slowdown as the economic climate deteriorates globally and regionally. This is likely to increase the cost of adjustment and render liberalisation less viable as a development strategy for SIDS.

Hence whereas the sustainability of the OECS reformed regime and the prospect of policy reversal remain uncertain its credibility is less in doubt. This is in part due to the regional approach taken to the implementation of trade liberalisation wherein trade policy decisions are made by the Council for Trade and Economic Development (COTED) which is an organ of CARICOM. This regional setup ensures transparency and oversight by regional partners and serves to enhance the credibility and sustainability of the region's reform episode. Further, the pre-conditions of political stability and commitment are largely in evidence in the OECS.

### **3.9 Concluding Remarks**

In this chapter we have attempted to establish the background and context to this study by providing an overview of the evolution of the trade policy environment faced by the OECS before, during and since its trade liberalisation experiment. In so doing we attempted to illustrate the historical external dependence of the OECS SIDS as well as its vulnerability to trade and other shocks. This was done with due cognisance to the special structural features of the OECS SIDS such as its institutional arrangements in particular as it relates to the importance of government at its current stage of development and by extension its fiscal dependence on trade taxes. Attention was also drawn to the most evident declines in the traditional export crops of bananas and sugar since the commencement of the process of external liberalisation as manifested in the loss of preferential access in traditional markets.

We then turned our attention to two more issues. In the first we provided an outline of the structure of trade taxes in the OECS and the statutory limits for tariff on commodities in a phased<sup>1</sup> implementation of trade reforms. This was followed by a list of complementary reforms and other steps taken to implement the process of trade liberalisation in terms of the CET under the ambit of CARICOM. As alluded to earlier these measures were geared towards capacity building and institutional strengthening in the hope of creating an enabling environment so as to elicit the best supply-response possible to the policy change, given resource constraints. Much of this effort was done through technical assistance from regional and international agencies. Secondly we shifted attention to the services sector which has been heralded as the new growth sector for the region. There we highlighted the trends and main features of this new lead sector as well as some issues of concern as it relates<sup>2</sup> to services liberalisation and a strategy of economic development centred on services.

Having established the trade liberalisation episode of the OECS a number of observations can now be made to describe the broad characteristics of these reforms. Following the typology and approach used by Greenaway and Nam (1988) and Brahmbhatt and Dadush (1996) we can thus form an informed opinion regarding the OECS trade regime from

among four categories ranging from moderately to strongly inward or outward oriented.<sup>68</sup> On this basis using the array of quantitative and qualitative indicators and measures presented in the preceding sections we can reasonably classify the OECS trade regime as having moved from moderately inward-looking before reforms in 1993 to one that is moderately outwardly-oriented (MO-O) post-reforms. This determination is based on the view that in tandem the measures taken towards trade liberalisation and outward-orientation would have significantly reduced but may not have fully offset pre-existing inward-orientation of the regime. See table 3.6 below for the basis of this determination. A similar categorisation was given to Cyprus which had a profile of reforms towards outward orientation similar to that of the OECS. [Patsalides (1989)]

| <b>Reform Criteria</b>           | <b>Comment</b>  |
|----------------------------------|---|
| (a) Effective rate of Protection | Lower average nominal tariff rates on inputs and final products also reduces the level and variance of the effective tariff rate thereby reducing the bias towards import substitution  |
| (b) Direct Controls              | The programmes of tariffication and removal of import licences significantly reduces the scope for rent seeking and quota-based distortions   |
| ( c) Export Incentives           | Incentives for non-traditional exports, the establishment of export processing zones and other fiscal incentives all suggest an export promotion strategy   |
| (d) Exchange Rate Alignment      | The fixed exchange rate may on occasion serve to counteract the gains made in removing the import bias if overvalued. However this may depend on the relative price and income elasticities for OECS exports. Moreover the effects of an overvalued EC\$ may be cushioned by depreciation of the US (currency relative to other currencies) to which the OECS dollar is pegged. |

**Table 3.6 OECS Trade-Orientation**

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<sup>68</sup> This classification though largely subjective is essentially an *ex ante* classification also used by the World Bank (1987).

## **SECTION II**

### **EMPIRICAL ANALYSIS**

## **Chapter Four (4)**

### **Impact on Export Structure**

#### **4.1 Introduction**

In the preceding chapter we sought to provide background and context to this study. This involved a presentation of the factors which motivated the trade policy and supporting economic reforms in the OECS and a discussion of the peculiarities of the case countries (such as their historical, institutional characteristics) as well as a synopsis of the steps they have taken towards trade liberalisation.

In this chapter we examine empirically the first of the two predicted effects of trade liberalisation namely its impact in terms of structural changes on trade and economic performance of the OECS countries over the sample period used in this study. In so doing we first examine the magnitude and direction of change of a number of macroeconomic indicators and other stylized facts on structure and performance in the pre and post reform periods. In particular we focus on measures of structural change in (merchandise) export related indices of performance. These indicators are presented both at the consolidated level of the OECS region and at the level of member countries.

The hypothesis underlying these structural indicators is that the process of structural change occurs in a fairly uniform manner across countries as income rises. [See Kuznets (1968) and Chenery (1979)] This suggests that the pattern of resource allocation as the level of per capita income rises is fairly robust. Also given that indices are largely at the macro-level and deal with the inter-related changes in the structure of the OECS economy as a whole, our analysis is implicitly one of general equilibrium wherein each indicator can be captured as a reduced form equation of the system.

Such an assessment of the existence and nature of structural change is important given that the underlying trade theory posits that export-led growth due to increased outward-orientation and openness will ensue as a result of trade liberalisation. Moreover resource shifts in particular changes in export structure are considered to be an integral part of the growth and development process. Thus structural change is likewise a necessary

component of the impact of such a policy change. Its impact is expected to be manifested in terms of changes in the market dynamics of the region's exports in terms of its patterns of specialisation and thus comparative advantage and competitiveness. From a normative stand point it is expected that this will involve changes in export diversification in terms of changes in the structure and composition of exports away from the dominance of largely Ricardian or primary goods to an increase in the share of higher performing goods based on higher skills and technology intensities. As a result there would be a shift to new export sectors or non-traditional goods and services of higher value added content and growth potential. In attempting to identify and evaluate this impact special attention is given at the disaggregated level to the nature of changes in the composition, rank and pattern of trade of region based on measures of export specialisation and or diversification.

As in most approaches to the analysis of structural change associated with economic growth the approach taken in this study typically focuses on the major features of resource mobilisation, accumulation processes, allocation, demand or expenditure processes. Indeed a shift to an outward-oriented economy through trade reform means to depend mainly on external resources to drive and finance the growth of an economy. The guiding framework and intuition in this type of analysis comes from Simon Kuznets who first showed the value of quantitative inter-country analysis of economic structures. [See Kuznets (1966) as well as various articles (1956-67)] The idea is that by identifying commonalities and differences in the patterns of a uniform set of variables we can make inferences regarding the relative strengths and weakness of alternative development strategies. It also allows us to derive performance standards and benchmarks as a basis of inter-period and inter-country comparisons.

Notwithstanding the fact that there are a number of sources and determinants of structural change our primary interests is in the components of structural change explained or due to independent variations attributable to trade policy and thus trade patterns. It is worth noting that despite proceeding at different rates, changes in the indices are highly correlated. As a result any attempt to identify the causes of structural change is complicated by the fact that supply and demand factors often interact due to their interdependence. Accordingly, there is some inherent simultaneity bias due to their endogeneity. To partly address this problem we use income (GDP) as far as possible, in

various forms such as per capita income or GDP ratios as our numeraire, to ensure a consistent framework of analysis.

#### **4.1.1 Chapter Organisation and Analytical Perspective**

Throughout much of the chapter, the sample period has been sub-divided into five-year sub-periods which generally coincide with the pre-liberalisation or import-substitution years (1989-1993), the implementation phase of the CET or during-liberalisation phase (1994-1998) and the post-liberalisation taken as from 1999 onward.<sup>69</sup> Accordingly the analysis involves comparing and contrasting the levels and rates of contemporaneous changes in these indicators in relation to acceptable benchmarks and performance criteria. Given the difficulties to disentangle the effects of trade policy from other deterministic factors acting in the economy, we estimate these impacts through a mix of parametric and non-parametric methods in an effort to obtain a broad impression of the structural impact of trade liberalisation in the OECS. The underlying inference in the ensuing analysis is that changes in the performance/structural indicators are likely to be correlated directly or inversely with the relative prices induced by trade liberalisation reforms. Therefore in a manner analogous to Greenaway and Nam (1988) we investigate whether there are systematic differences in macroeconomic performance and alternative trade strategies.

Thus sections 4.2 and 4.3 are dedicated to establishing the context from which we can assess the evidence as presented in the remainder of chapter. More specifically in section 4.2 we present a summary of performance and structural indicators in the OECS across five-year time blocs which coincide with the gradual implementation of trade reforms from the pre to post reform period. In particular we examine period averages of standard indicators deemed to be common and essential to the development process in all countries. The various indicators presented capture different dimensions of the overall structural transformation or lack of it.<sup>70</sup> In section 4.3 we present a brief discussion of behavioural patterns or propensities in terms of resource gaps and intra-regional trade flows before and after the implementation of the CET. and other reform measures.

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<sup>69</sup> Importantly, the post-1993 period also marked the start of the new banana regime (NBR) in Europe and commencement of the banana shock and adverse impact of external liberalisation on the OECS economies. View in this way both internal and external liberalisation impulses are in play at the same time.

<sup>70</sup> We abstract from other factors such as demographic factors which are considered to correlate positively with industrialisation and rising income. These include rural-urban migration, increases in life expectancy and the like.

Sections 4.4 to 4.6 represent the core of the chapter and deals with various aspects of structural change relating to export performance. We conclude the chapter with a short conclusion of findings and observations made.

## **4.2 An Overview of Economic Performance and Structural Change (1989-03)**

As we begin our assessment of the impact of trade liberalisation and complementary reforms on the economic performance and structure, it is appropriate to review the trends in aggregate economic performance in the OECS over the 15 year period (1989-03). This involves an examination of changes in key macroeconomic performance indicators since the implementation of the CET and other pro-trade liberalisation measures. Based on the phased implementation of trade liberalisation in terms of the CET, we assume that the degree of outward-orientation and openness would *cet par* increase from left to right with each five-year sub-period for any given speed or sequence of reforms.

### **4.2.1 Economic Performance**

Given the universal use of real GDP growth as a yardstick of economic performance we likewise use it as an overarching indicator and appropriate point of departure. Table 4.1 below clearly illustrates the declining fortunes of the OECS region over the past 15 years with a steady slowing down of average growth rate from an average of 4.3 percent during the so-called halcyon days of the late 1980s and early 1990s to modest growth of about 1.7 percent by the turn of the century and post implementation period. At a glance it is obvious that the period of most rapid growth in the OECS was before the implementation of trade and other reforms. Notably this coincided with the period where the trade policy was more geared towards a strategy of import substitution. Further it is also apparent that the 2 five-year periods during and after the implementation of trade policy reforms were associated with a sharp slow down in growth of the economies with Dominica followed by St. Lucia being the worst performers.

**Period Average Growth Rate of Individual OECS Countries <sup>2</sup>**

| <b>Country</b>          | <b>1989-93</b> | <b>1994-98</b> | <b>1999-2003</b> |
|-------------------------|----------------|----------------|------------------|
| Anguilla                | 6.91           | 4.63           | 2.48             |
| Montserrat <sup>1</sup> | 2.74           | -9.15          | -4.69            |
| Antigua & Barbuda       | 3.32           | 3.45           | 3.31             |
| Dominica                | 3.64           | 1.83           | -0.30            |
| Grenada                 | 3.34           | 2.66           | 3.52             |
| St.Kitts & Nevis        | 4.53           | 5.80           | 2.37             |
| St.Lucia                | 4.04           | 2.32           | 0.43             |
| St.Vincent & Grenadines | 5.93           | 2.61           | 6.17             |
| <b>OECS average</b>     | <b>4.31</b>    | <b>1.77</b>    | <b>1.66</b>      |

Source: Author's calculations from ECCB data on Real GDP at factor costs at constant (1990) prices

<sup>1</sup> The numbers for Montserrat reflect the impact of volcanic eruptions during the mid and late 1990s.

<sup>2</sup> Table does not include the British Virgin Islands (BVI) which is an associate member of the OECS

**Table 4.1 Five-year Average Growth rates-Before, During and After Reforms**

What is also apparent from table 4.1 is that the downward trend in the rate of economic growth of the OECS has been associated or coincided with the gradual increase in openness. Although a ‘cause and effect’ relationship between trade policy and the macroeconomic performance across the various sub-periods is not inferred, by deductive reasoning there are grounds for a strong *a priori* presumption that the impact of the policy changes would on average be reflected in these macroeconomic performance indicators.

#### **4.2.2 The Macroeconomic Picture**

Having observed the growth performance of individual member territories we now present an overview of the key macroeconomic indicators reported as period averages for the OECS as whole. [See table 4.2 below]<sup>71</sup>

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<sup>71</sup> The numbers reported in the table are based on data obtained from the Eastern Caribbean Central Bank (ECCB) on the Eastern Caribbean Currency Union (ECCU) which is the same as the OECS.

| A.   | 1989-1993 | 1994-1998 | 1999-2003 |
|--|-----------|-----------|-----------|
| Period In relation to Policy Change                                      | Before    | during    | after     |
| <b>1. Aggregate Income and Distribution</b>                              |           |           |           |
| Real GDP (in EC\$)   | 3850.9    | 4376.2    | 4963.2    |
| GDP per capita (in EC\$)   | 7173.9    | 7844.4    | 8596      |
| Real GDP Growth  | 3.47      | 2.72      | 1.87      |
| <b>2. Structure of Production</b>  |           |           |           |
| of which:  |           |           |           |
| Agriculture  | 11.7%     | 9.2%      | 7.2%      |
| Manufacturing  | 6.7%      | 6.1%      | 6.0%      |
| Services   | 74.2%     | 75.9%     | 76.4%     |
| <b>3. Structure of Trade</b>   |           |           |           |
| Merchandise trade  |           |           |           |
| of which:  |           |           |           |
| Real Exports   | 957.5     | 865.7     | 869.2     |
| Growth of real exports   | 1.10      | 1.02      | -0.19     |
| Real Imports   | 2688.6    | 3195.9    | 3712.6    |
| Growth of real imports   | 1.643     | 4.11      | 0.83      |
| Real Exports of Goods and Services                                       | 2906.2    | 3739.1    | 4295.9    |
| Real Imports of Goods and Services                                       | n/a       | 4640.7    | 5430.4    |
| Growth of Real Export Services   | 12.46     | 6.07      | 0.95      |
| <b>B. Average of key macroeconomic Indicators as a percentage of GDP</b> |           |           |           |
|  | 1989-1993 | 1994-1998 | 1999-2003 |
| Trade intensity/Global Integration                                       | 76.82     | 65.07     | 58.95     |
| Import penetration ratio (M/Y)   | 56.64     | 51.12     | 47.76     |
| Export -Orientation ratio (X/Y)  | 20.17     | 13.94     | 11.19     |
| Trade Balance.   | -44.96    | -53.25    | -57.29    |
| <b>4. Government Tax Revenue Dependence</b>                              |           |           |           |
| Tariffs on imports to GDP  | 5.15      | 5.59      | 5.36      |
| Taxes on International trade & transactions                              | 12.55     | 12.31     | 12.08     |
| <b>5. Structure of Domestic Demand</b>                                   |           |           |           |
| Private Consumption  | 75.17     | 85.75     | 88.45     |
| Public Consumption   | 22.48     | 27.94     | 34.30     |
| Gross Domestic Investment  | 33.79     | 33.29     | 36.95     |
| <b>7. Debt Service to Exports</b>  | N/A       | 13.33     | 29.77     |
| <b>8. Accumulation Processes</b>   |           |           |           |
| Gross National Savings   | 19.72     | 20.07     | 19.32     |
| Average Domestic Savings rate  | -4.48     | 5.74      | 0.57      |
| Gross Foreign Savings  | 14.01     | 13.33     | 17.64     |
| <b>9. Efficiency in Trade and Investment</b>                             |           |           |           |
| Incremental Capital Output Ratio (ICOR)                                  | -1.01     | 2.13      | 0.40      |
| Incremental Import-Output Ratio  | 12.38     | 11.37     | 6.95      |
| <b>10. Structure of Exchange</b>   |           |           |           |
| Inflation (CPI)  | 4.16      | 2.99      | 1.26      |
| Real Effective Exchange Rate   | 98.33     | 100.37    | 101.18    |
| Black Market/Foreign Exchange Premium (BMP)                              | 5.56%     | 6.23%     | 6.11%     |

Sources: Author's calculations from ECCB data

† Denotes the latest available data.

**Table 4.2 Summary of OECS Macroeconomic Indicators (1984-2003)**

Having considered all the key ‘stepping stones’ and considerations in the OECS liberalisation episode we can now formulate an overall picture of the relative performance and structural changes that have taken place five years before, during and after the commencement of these policy reforms.

In Panel A of the table we see a steady rise in the real per capita income which suggests an improvement in the general economic well-being of the citizenry of the OECS. This is accompanied by the so-called “*normal effect*” in terms of changes in the share of industrial sectors as per capita income increases. Most notable in this regard is the fall in the share of agriculture from approximately 12 percent of valued added in to about 7 percent as internal/external trade liberalisation advanced. The decline in tangible commodity output is likewise reflected in a steady slow down in the growth of real exports. Likewise the average share of exports in GDP fell from over 20% before the start of reforms to about 11% between 1999 and 2003. Thus there is evidence of a diversification of the economic/production base of the OECS away from a reliance on primary production. However and contrary to the objectives of the re-structuring process, this decline was not offset by an increase in the share of manufacturing in the regional economy. Instead the annual average growth in manufacturing value-added as well as its share in GDP declined steadily albeit at slow rate across each 5-year period. This is in itself a broad indicator of the impact of trade orientation on industrial performance. The trend decline in the relative shares of industry (both agriculture and manufacturing) in national output points to a process of deindustrialisation in the OECS.<sup>72</sup>

Accordingly the services sector which is the residual sector in this analysis invariably recorded a greater share of the GDP with a steady rise from an estimated 77 to 82 percent. *Prima facie* this may suggest that the economy has shifted closer to its comparative advantage as policy reforms shift prices closer to international prices. Notwithstanding, average growth of export services though superior to merchandise trade has likewise trended downward over the reform period from 12.46 % to 0.95 1999-2003.<sup>73</sup>

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<sup>72</sup> This process seems to be a common feature of development in most low and middle income countries. See Rowthorn and Ramswamy (1999)

<sup>73</sup> The figure for the post reform period 1999-2003 was adversely affected by the impact of the attacks of September 11 2001 on tourism in particular airline travel.

Meanwhile Panel B shows divergent paths for the export-orientation and import-penetration ratios resulting in a worsening trade deficit over the sample period from an average of 45% over 1989-93 to 57.3% in the post-reform period 1999-03. The underlying current account balance to GDP ratio suggests a rise in the average and marginal propensities of the region to import which was not compensated by a corresponding improvement in export growth and competitiveness. The inherent increased propensity to import and consume is presumably due in part to the price effects of tariff reductions and the removal of other trade barriers. Notably there was a trend increase in average share of public consumption in GDP as reforms progress. This is indicative of efforts on the part of governments to attempt to stimulate growth in the face of declining growth rates, uncertainties and anxieties associated with the implementation of the new trade regime. Such efforts are reflected in rising fiscal deficits from a prudentially acceptably level of less than 2% (1.7) over 1994-99 to a worrying average of 5.7% in the post reform period (1999-03).

As a result the post-implementation period of trade liberalisation has been associated with fiscal deterioration across most SIDS over much of the post-reform period. This has been noticeably in the form of a trend of rising debt ratios of the OECS. In this regard the average public debt of the region stood at 113% of GDP by the end of 2003 up from 43% in 1994.<sup>74</sup> In effect the OECS countries which are among the most indebted developing countries in the world were above the maximum acceptable public-debt to GDP ratio of 60% set out by the ECCB. Thus in conjunction with the slow down in export growth there was a marginal decrease in the debt service cover (rise in debt-service to export ratio) during the period of adjustment. Another key indicator of this has been a trend of rising external debt as well as growing current account deficits.<sup>75</sup> In this regard the mean debt of the OECS climbed from 30 to 43 percent over the pre-reform years (1984-1993) then

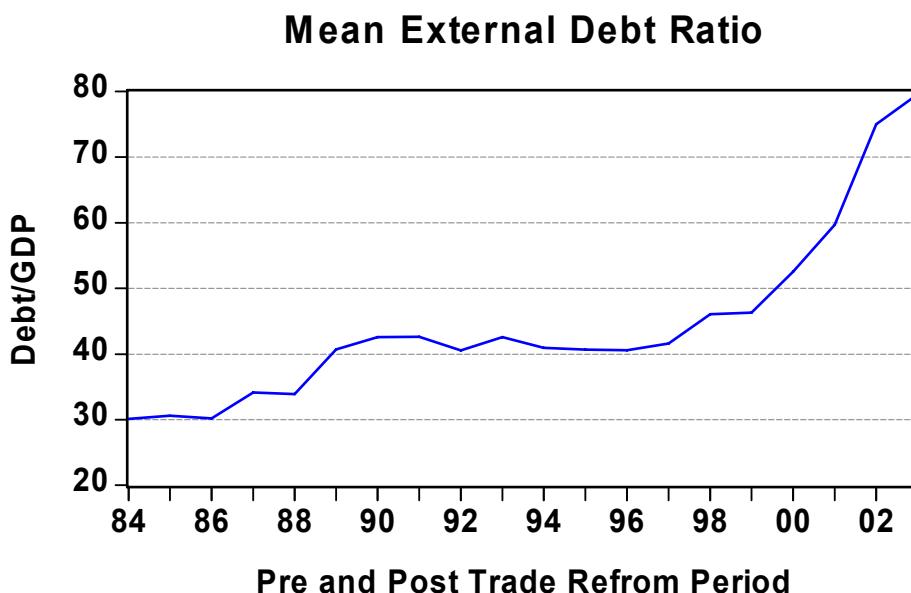
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<sup>74</sup> However the OECS are not eligible for debt cancellation or to benefit from the World Bank's credit facilities/programme for Heavily Indebted Poor Countries (HIPC) given that they are not categorised as "Least Developed Countries". Moreover 14 Caribbean countries are among the 30 most indebted countries.

<sup>75</sup> During this period Dominica was forced to undertake an IMF sponsored restructuring programme under its Poverty Reduction Growth Fund. Meanwhile in its annual country assessment report, the IMF warned that St. Lucia should check its high public debt. It noted that while St. Lucia recorded a 3.7 percent economic growth rate in 2003, the island's public debt was 64 percent of the Gross Domestic Product. The fund also noted St. Lucia had a high unemployment rate at 18 percent which posed serious social and political challenges.

increased dramatically from this level to an estimated 80 percent over the post reform period (1994-2003).

As a result we witnessed a significant increase in gross foreign savings which given the downward trend in export growth meant an increase in foreign capital inflows mainly in the form of external borrowing. However most of this borrowing has been in the form of commercial borrowing at market rates given that net resource flows such as official development assistance (ODA) and other concessionary flows have declined significantly. [See figure 4.1 below]



**Figure 4.1 Trend in External Debt Ratio**

As a consequence the average level of gross domestic savings (the increase of which is a necessary condition for growth) dipped slightly in the post reform period to 19.3% from 20.1%. Indeed an examination of the OECS trade and national accounts data between 1989 and 2003 indicated that the marginal propensity to save was negative during most of the implementation stage of the tariff reform (1994-1997) during which period the region essentially had a propensity to dissave as a result of the high levels of leakage in the economy.

An early indication of the fiscal impact of trade regime change can be seen in the slight decline in tariff revenue to GDP ratio despite a significant increase in the import-penetration ratio. Meanwhile the taxes on international trade as percentage of GDP dipped

slightly by an estimated 1 percentage point from 11.7 % in 1994-1998. Despite the increased volumes of imports tariff dependence measured by the share of import duties to GDP fell by a similar margin to 32.1 percent. [This is discussed more fully in section 6.3]

Notwithstanding this mixed picture presented thus far there were some desirable indicators and trends in attendance across the reform period under consideration (1989-2003). First we observe a fall in the crude measure of incremental-capital output ratio ICOR (measured as the ratio as  $\Delta K / \Delta Y$ ). This is broadly suggestive of improvement in efficiency in the organisation of production as well as in the use of investment capital. However such gains may be more attributable to improvements on the financial side of the regional economy, than gains from trade. The growing demand for services and corresponding reduction in the demand for capital per unit of output would also contribute to this fall in the crude measure of ICOR.

Perhaps the most significant indication of a conducive and non-crisis macroeconomic environment over the reform period was the decline and maintenance of relatively low levels of inflation. While this is largely a positive externality due to the prevailing conditions in the international environment and due to the fixed exchange rate regime of the OECS, it nonetheless indicated a degree of macroeconomic stability.

As discussed earlier exchange rate adjustments are deemed critical to the success of any trade liberalisation programme. In this regard the real effective exchange rate (REER) of the region which is a weighted measure of the foreign to domestic prices in a given currency suggests that the OECS currency (Eastern Caribbean dollar) has depreciated marginally relative to the currencies of its major trading partners. This is considered to be compatible with the goals of trade liberalisation as it serves to increase the competitiveness of the region's exports. Additionally the measure of the Black Market Premium (BMP) on foreign exchange is relatively low averaging 6% above parity through the period.<sup>76</sup> This is well below the 20% threshold used in the well known Sachs-

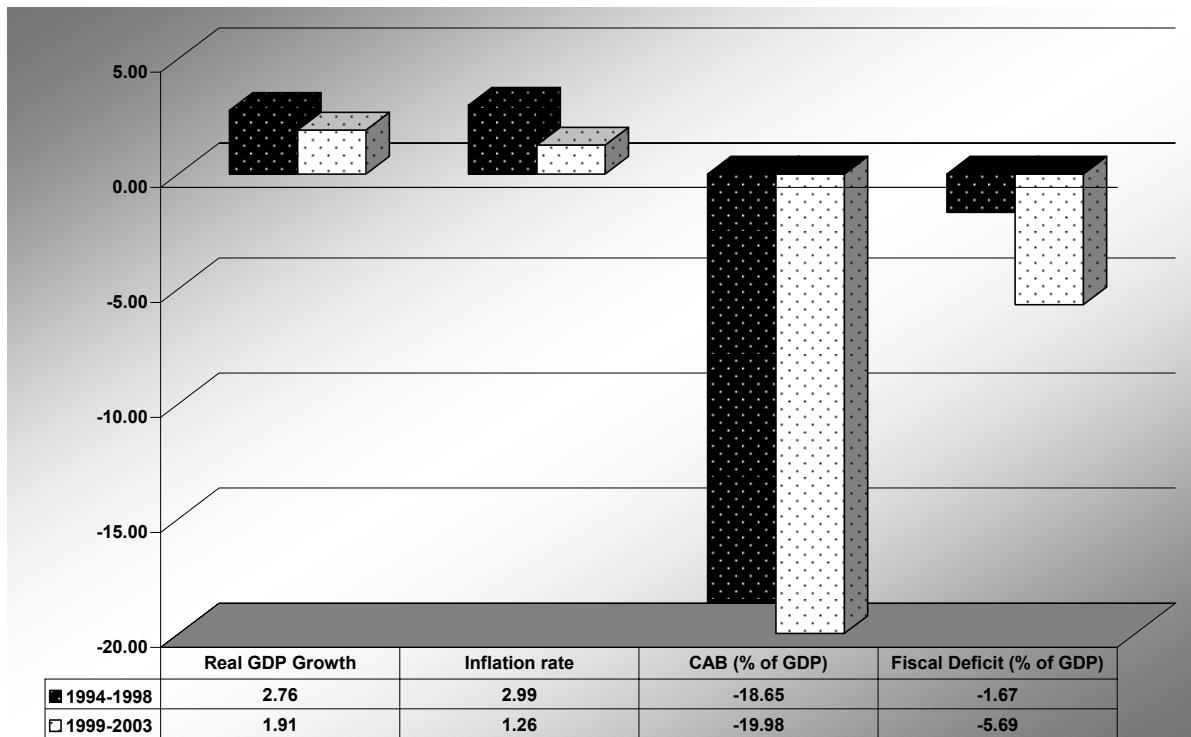
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<sup>76</sup> Here the Black Market Premium (BMP) is calculated as:  $BMP = \left( \left[ \frac{(M + T_M) + (X + S_x)}{M + X} \right] - 1 \right) * 100$  It is essentially the percentage deviation of the distortion of the domestic trade regime from world prices.

Warren definition of a closed economy. This suggests that OECS currency is not unduly overvalued despite its fixed exchange rate regime and that foreign currency rationing is negligible. As a result black market premia appear not to have a strong trade-restrictive effect on the economy.

#### **4.2.3 The Macro-picture: A Summary across the reform period**

The above macroeconomic profile of the OECS is summarised in figure 4.2 below. As is apparent the key issue of interest and around which the other macroeconomic indicators revolve is the trend deterioration in the trade performance of the OECS. This raises issues about the impact of relative prices on the trade balance with clear implications for the balance of payment as well as the sustainability of the trade strategy and the design of future liberalisation programmes.



**Figure 4.2 Key Macroeconomic Indicators**

Additionally, two other broad observations can be made from the preceding review of OECS economic performance over the reform period. The first is that although there were signs of weakening fundamentals, the OECS region was not in a state of economic crisis at the point in which it embarked on its programme of trade and economic reforms. The prevailing conditions at the commencement of reforms can be reasonably described as

one of relative macroeconomic stability. This is in stark contrast to the experience of many other SIDS and developing countries where commitment to a programme of reforms was a pre-condition to funding for the purpose of structural adjustment in the face of economic crisis.

Secondly, an inspection of the performance indicators suggests that they are not in keeping with the general predictions of increased outward-orientation suggested by the underlying trade theory. For example, as indicated by the summary statistics in table 4.2 above there was not an observed increase in the share of manufacturing or exports in GDP nor an increase in general economic growth over the reform period. This is contrary to the findings of Greenaway and Nam (1988) where there was a distinct pattern of improvement in these indicators for more-outward oriented countries.

Accordingly, we will be re-visiting some of these issues more fully in the subsequent sections in an attempt to understand the role of trade liberalisation and increased openness on the observed outcomes.

### **4.3 *Trade Behaviours Resource-Gaps, and Trade Liberalisation***

#### **4.3.1 Trade Liberalisation and the Foreign Trade Multiplier**

Against the generally accepted premise that trade liberalisation policies are designed to affect economic growth and hence national income principally through trade aggregates some of the most telling indications of the impact of such policies are likely to be associated with changes in trade flows.

More specifically cheaper inputs due to trade liberalisation are likely, given unchanged exchanged rates to result in an increase in the marginal propensity of the OECS to import and with it the income elasticity to import. Such a scenario is highly probable given the resource deficiencies of the OECS SIDS and thus their high external dependence. Another related consideration is the extent to which this increase in expenditure on imports is financed by a reduction in savings with obvious implications for the marginal propensity to save (MPS). This also has important implications for the region's BOP in terms of its current account and reserve positions. [See p.519 and 549 in Salvatore] In any case the

increase of such leakages without corresponding autonomous increase in exports and or investment is likely to reduce net exports and with it national income through the foreign trade multiplier (FTM).

Accordingly we examine the relative changes in these key indicators of the macroeconomics of international trade policies. The assessment is done at the level of the OECS region as a whole over a 15-year period broken down into in 3 successive five-year periods which broadly correspond to before, during and after its policy change.

The results are summarised in table 4.3 below.

| Indicator  | Reference Period | Before    | During    | After     |
|--|------------------|-----------|-----------|-----------|
|  |                  | 1989-1993 | 1994-1998 | 1999-2003 |
| Marginal Propensity to Import (MPM)                  |                  | 0.71      | 0.84      | 1.19      |
| Marginal Propensity to Save (MPS)                    |                  | 0.65      | 0.47      | -0.35     |
| Income Elasticity of Demand for Imports ( $\eta_Y$ ) |                  | 0.86      | 1.06      | 0.75      |
| Foreign Trade Multiplier (FTM)                       |                  | 0.76      | 0.79      | -1.24     |
| % Change in Net Exports (X-M)                        |                  | -11.62%   | -18.48%   | -6.39%    |

**Table 4.3 Net Exports and Changes in Propensities to Import and Save**

Here the income elasticity to import is given as the marginal propensity to import divided by the average propensity to import (import-penetration ratio) averaged for each five-year period.<sup>77</sup>

$$(4.3.1.1) \quad \eta_Y = \frac{\Delta M / \Delta Y}{M / Y}$$

Meanwhile the FTM is given as:

$$(4.3.1.2) \quad FTM = \frac{1}{MPS + MPM}$$

---

<sup>77</sup> A negative sign suggests that either the change in imports or income for a given sub-period was negative

As may be expected the region experienced a progressive increase in its level of imports as income increased over the period. This apparent rightward shift in import demand is in part due to positive income effects associated with the tariff reduction. Also noticeable over the period is a steady decline in the propensity to save until the region was a net debtor group, dissaving over the period 1999-2003. This period also coincided with a marked increase in the level of foreign borrowing of region. Meanwhile the relatively high income elasticity of imports confirms that there was a marked increase in import in the early phases of the implementation phase during which the region's marginal propensity to import was above its average propensity or import-penetration ratio. It then reverted to its pre-liberalisation levels in the post implementation period 1999-2003. This also suggests that a bottleneck on imports may have been relieved as consumers and importers cashed in on the supposedly cheaper imports and lifted quotas and licence requirements.

In tandem these indicators resulted in a foreign trade multiplier that was already less than one (1) in the pre-reform period to become negative in the post reform period. As a result the FTM has served to cause a contraction of the region's GNP.

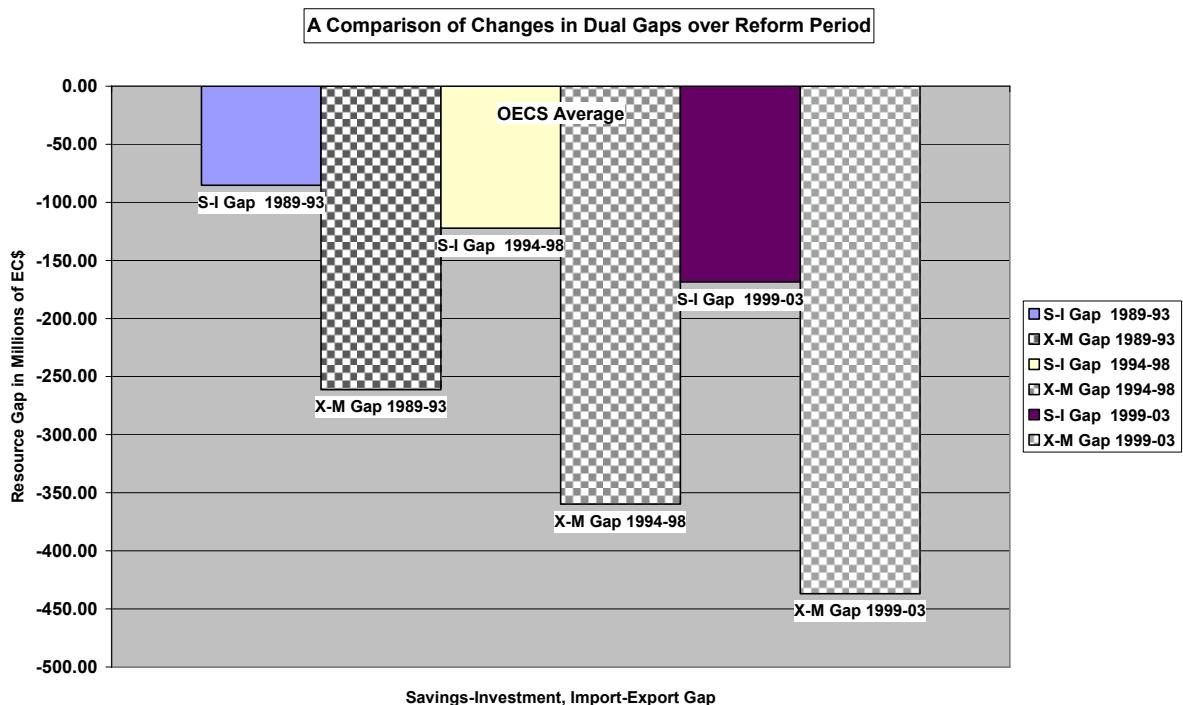
#### **4.3.2 Trade Liberalisation and the Dual-Gaps**

The import behaviour of the OECS in tandem with exogenous demand for its exports will impact directly on its import-export ( $M-X$ ) or foreign-exchange gap. This impact may occur through various channels and mechanisms. First of all the reduction of tariffs and other barriers, given the region's high propensity to import results *ceteris paribus* in an increase in the volume of imports and depletion in stocks of foreign exchange. However, if the increased volume of imports results in an increase in the ratio of investment/capital goods to income ( $c = M_i / Y$ ) then the productivity of imports as indicated by the incremental output-import ratio ( $m' = \Delta Y / M$ ) may also increase. This has the potential to raise the growth rate of the economy and to counteract the deterioration of foreign exchange reserves through an increase in exports growth.

Equally for any given growth rate of gross capital formation trade liberalisation may adversely impact the investment-savings (I-S) gap of the OECS, through a reduction in private or public savings or both. This is because residents may run down saving balances

to increase imports especially if the policy change is deemed to be transient or lacking in credibility. This has implications for growth if it is not offset by foreign direct investment (FDI) and other compensating resource inflows. In any case the larger of these gaps may serve to constrain growth. In the case of developing countries like the OECS the scenario is typically one of a foreign-exchange constraint in the sense that a significant proportion of domestic savings may lie idle as viable investment projects are not available. Hence the importance of raising the productivity of imports on which much of the foreign-exchange is spent by increasing the share of investment/capital goods.

Against the backdrop of these considerations, we examine the trends in these two-gaps to gauge the import/export and saving/investment behaviours in the OECS over the period of adjustment.

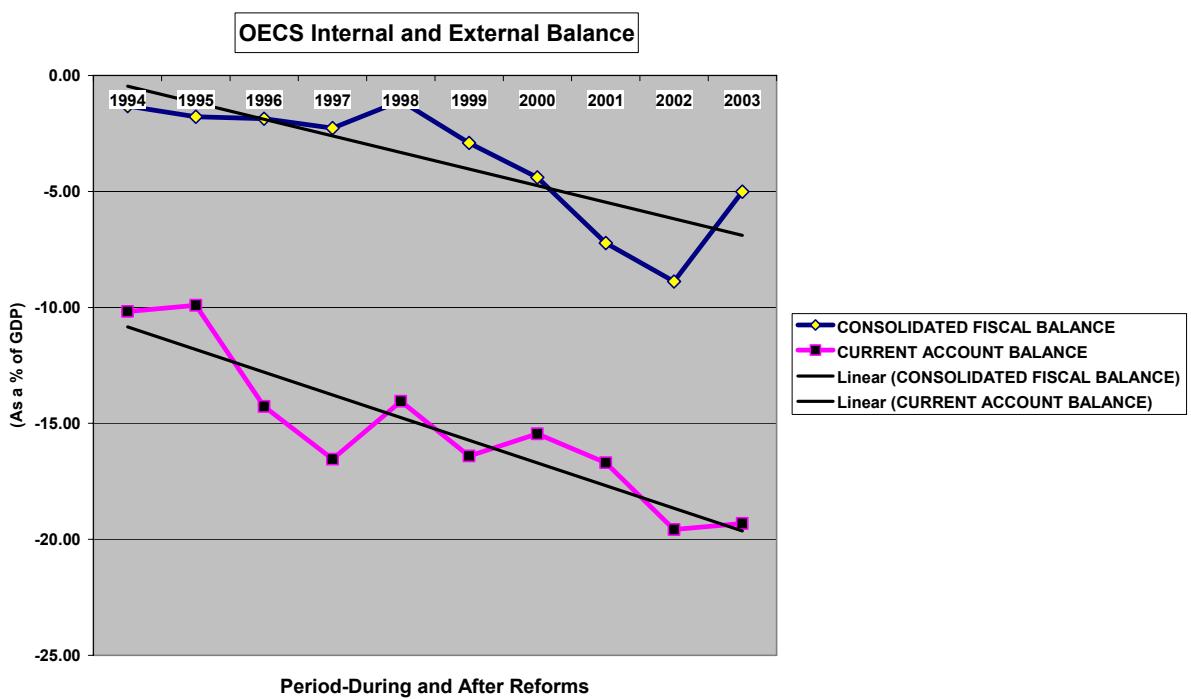


**Figure 4.3 Twin-Gaps**

Figure 4.3 shows that the import-export gap or foreign exchange gap is the dominant gap and hence poses a greater constraint on economic growth for all OECS member territories. It is also apparent that both of the gaps have become progressively larger as the trade reform process unfolded. These realities in tandem have resulted in deterioration of the BOP in particular current account deterioration which may potentially constrain growth. Thus *prima facie* export growth has not served to stem the merchandise trade deficits and reduce the internal gap neither has inflows of capital been sufficient to

reverse the external gap. This suggests that there has been a degree of fiscal deterioration among member governments resulting in increased dependence on foreign capital inflows especially foreign borrowing. Importantly the foreign exchange or investment required to realise any given growth target is likely to increase as the gaps widen. Clearly this has implications for the overriding goal of trade liberalisation which is to engender faster growth in erstwhile sluggish economies thereby reducing income-gaps and helping with “*catch-up*” between peripheral states such as the OECS and core states in the global economy.

However the region has experienced deterioration in both fiscal balance and its current account balance as a percentage of GDP over the reform period. This supports the claim of Yagci *et al* (1985) that the reduction of the average tariff rate reduces government revenue and increases imports which eventually leads to budget deficits and current account deficits. [See figure 4.4 below]



**Figure 4.4 Internal and External Balance**

In the figure we see fiscal depletion during and after trade reforms with the consolidated fiscal balance to GDP ratio for the OECS region trending downward from a deficit of 1.32 % in 1994 to 8.8% of GDP in 2002. In an almost parallel manner the region's current account balance has deteriorated from a deficit of approximately 10% of GDP to almost

20% of GDP. Clearly these negative net resource gaps are unsustainable over the long term.

### **4.3.3 Intra-Regional Trade and OECS Trade Reforms**

As indicated earlier the erosion of trade with former traditional bilateral partners resulted in a trade creating effect for the CARICOM region as the members were forced to turn inward for export markets. This was reflected in an increase in intra-regional trade during the implementation phase of the regional reforms. [(Stotsky *et al.*, 2000)] However, OECS intra-regional exports have traditionally been relatively small, averaging about 8 percent of CARICOM foreign trade from 1997-2002. As a result CARICOM intra-regional trade could provide an indication of the nature of the shift in the pattern, source and destination of OECS trade.

As discussed in section 2.8.2 a key concern of countries seeking membership in an RTA related to question of its *trade effects* in terms of trade creating or diverting effects as well as the distribution of the static and dynamic gains. The countries in the OECS had similar reservations over the formation of the CSME. In an effort to partly address this concern over the tendency for asymmetry in the distribution of gains from integration between countries at different stages of developments, special concessions have been granted to the LDCs (OECS and Belize). This includes less stringent rules of origin requirements and the ability to offer more favourable terms under the Fiscal Incentives Scheme.

In terms of observed intra-region trade an analysis of CARICOM trade data for the period 1990-2000 confirms that trade in terms of both imports and exports for the region as a whole had increased significantly. However, the distribution and pattern of the increased volume of intra-regional trade was such that the OECS unlike the MDCs continued to record a deficit with the rest of CARICOM which simply widened by 49 percent between 1995 and 2000, with a reduction in its share of exports and in particular manufactured goods. In fact, the OECS share of intra-regional trade fell from 39.8 percent in 1990 to 21.9 percent in 2000. [See table 4.4 for a breakdown of trade performance of OECS territories over this period]

**Table 4.4 Changes in OECS Intra-regional Trade with CARICOM**

| Country                         | Intra-regional Imports <sup>1</sup> |              | Average % Growth | Intra-regional Exports |             | Average % Growth |
|---------------------------------|-------------------------------------|--------------|------------------|------------------------|-------------|------------------|
|                                 | 1990                                | 2000         |                  | 1990                   | 2000        |                  |
| Dominica                        | 67.7                                | 106.9        | 4.7              | 37.6                   | 83          | 8.2              |
| Grenada                         | 69.5                                | 155.5        | 8.4              | 18.7                   | 32.5        | 5.7              |
| Montserrat                      | 21.2                                | 17.7 *       | -5.8             | 1.6                    | 0.4 *       | -12.9            |
| St.Kitts & Nevis                | 43                                  | 99           | 8.7              | 9.7                    | 7.3         | -2.8             |
| St.Lucia                        | 131                                 | 204.6        | 4.5              | 58.6                   | 31          | -6.2             |
| St.Vincent & the Grenadines     | 76.3                                | 131.9        | 5.6              | 76.5                   | 62.6        | -2.0             |
| <b>OECS Average<sup>2</sup></b> | <b>68.1</b>                         | <b>139.6</b> | <b>4.4</b>       | <b>33.8</b>            | <b>43.3</b> | <b>-1.7</b>      |

Notes: <sup>1</sup> in millions of EC\$.

<sup>2</sup> Average excludes numbers for Antigua & Barbuda which were unavailable but expected to be similar

\* Numbers for Montserrat reflect disruption to its economy due to volcanic eruptions in the mid to late 1990s.

Source: Trade reports obtained from the CARICOM website: [www.caricom.org](http://www.caricom.org)

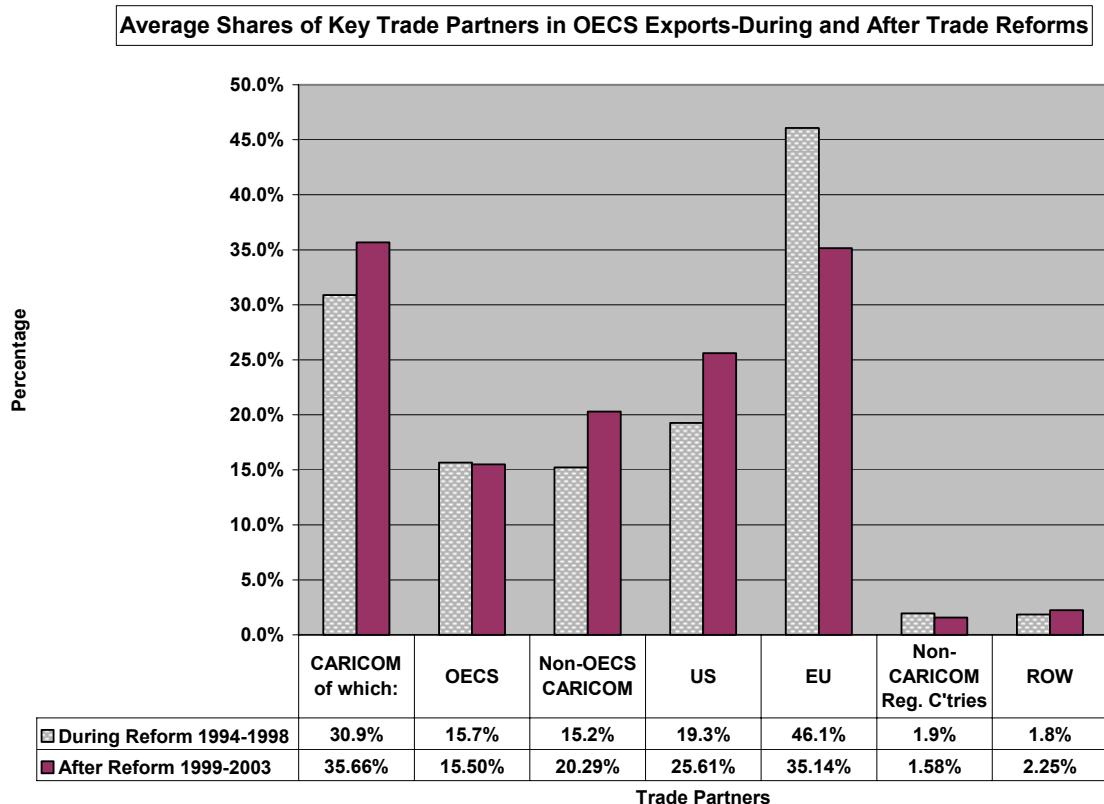
As table 4.4 shows whereas the average growth of OECS imports with CARICOM increased at a rate of 4.4% its exports on average declined by 1.7%.<sup>78</sup> On the contrary, all the MDCs enjoyed trade surpluses with the OECS with Trinidad and Tobago the region's only fuel exporter enjoying the lion share of trade.

However by the end of 2003 the situation showed signs of improvement presumably as the new regional trade arrangements took hold. Indeed a decomposition of the OECS total exports to the world by regions and key trade partner during and after trade reforms provides evidence of the impact of trade reforms and increased openness on intra-regional trade patterns. [See figure 4.5 below] The figure shows that there was a notable increase in OECS exports to CARICOM of almost 4.8% between 1998 and 2002 due mainly to an increase in exports to the wider CARICOM region. However, intra-OECS trade remained relatively flat near 16% in both periods.

In terms of the relative importance of its major trading partners some changes were observed. [See figure 4.5 below] There we see that trade reforms internal and external have been associated with opposite effects on OECS exports to its key trading partners namely the EU and US. In this regard trade with the EU in particular the UK which has been the principal trading partner of the OECS fell from an average of 46% during the

<sup>78</sup> In fact OECS intra-regional export share fell from 2.4% in 1985 to a paltry 1.4% by 2003.

adjustment period to 35% in the first five years of the post-reform period. This decline in agricultural exports (sugar and bananas) is mainly due to the impact of external liberalisation in the form of uncertainties regarding market access in traditional export markets in the EU. Meanwhile trade with non-CARICOM regional countries fell marginally as well. This decline was largely offset by a modest increase in OECS trade with the rest of the world (ROW) which includes Canada and Japan.



**Figure 4.5 Changes in Trade Shares with Key Partners**

(The Data used in this table is obtained from the United Nations Commodity trade database.)

In addition a study over a comparative period showed that there was a noted increase in FDI inflows into the region in general including the OECS. Notably a significant proportion of inflows into the OECS region originated from the MDCs territories suggesting a positive correlation between trade, FDI inflows and economic liberalisation. [See (ECLAC, 2001)]

The nature of these inflows hints at the perceived changes in the comparative advantage of the region. In this regard almost all of the FDI inflows in recent times have been directed to service sectors especially tourism. According to ECLAC (*ibid*) between 1997

and 1999 the tourism's share of inflows to the region ranged between 50% in Dominica to 83% in Anguilla, while agriculture and light manufacturing received a negligible share of inflows. Reflecting the significant shift in the economic structure of the Caribbean as a whole the report states that in 2000, over 80% of FDI from the US was in financial institutions. The shift towards informatics and other services that are currently in the growing phase of the production cycle with potential for dynamic comparative advantage may be a positive outcome of trade reforms with scope for future growth.

Nevertheless the mood in the private sector across the region has been one of mixed optimism at best as they adjusted to the new trade regime under the CET and prepared to face increased regional competition inherent with the impending establishment of the CSME thereafter. This air of cautious acceptance of the impending changes has been placated by a series of internal preparatory reforms and measures taken in an attempt to better meet the challenges of operating in a regional economic space. Supportive remarks by pro-trade reformist, representatives of trade, commerce, labour organisations and other key officials have also served to temper dissent and inspire confidence regarding the capacity of the OECS to compete as well as the opportunities presented with a larger regional market.

Up to this point we have provided readers with an overview of the macroeconomic picture by way of comparison with emphasis on trade related outcomes and behaviours at the general, intra-regional and country level before, during and after trade reforms. In the remainder of the chapter we now focus on indicators of performance and structural change in exports.

## **4.4 Structural Changes in OECS Export Trade**

### **4.4.1 Introduction**

According to proponents of trade liberalisation structural changes in terms of export diversification and new patterns of specialisation would ensue following trade reforms as a necessary precursor to export-led growth. [See Greenaway (1998)] This involves the reallocation of resources between and within sectors as the economy settles at a new, higher and more Pareto-efficient equilibrium. In particular the prediction is that trade

liberalisation would induce changes in relative prices that raise the reward to the export sector at the expense of the import competing sector.

The intellectual roots and theoretical basis of these claims are based on the *Heckscher-Ohlin-Samuelson* (H-O-S) model which posits that as a consequence of restructuring induced by opening up to international trade productive resources (factors of production) would move from import-competing firms to activities in line with a country's area of comparative advantage. Moreover, the conventional wisdom is that this would result in higher relative prices in the export sector in terms of higher wages and rates of return to capital reflected in higher productivity of factors used in the sector. Taken to its logical conclusion, as a result the expectation is that output in the exportable sector would increase. More importantly, this would be accompanied by a change in the structure of exports in terms of its composition in a manner that would be reflected in a greater share of skilled and technology-intensive manufactured goods. Similarly external liberalisation would lead to an increased level of competition in OECS export markets through the reduction of commodity preferences. This would stimulate some industry-rationalisation and export diversification.

It must be noted that the gains from this strategy have been challenged on grounds of the "adding-up problem" or *fallacy of composition* argument especially if developing countries pursue this strategy in groups. [See Mayer (2002)] As such other mechanisms have been found to be important in causing changes in export structure. For example Hoekman and Djankov (1997) argue that imports of intermediate goods are the major determinants of changes in export structure in countries of Central and Eastern Europe.

Notwithstanding in this section we examine changes in the structure and patterns of OECS export trade with the world over the period which coincides with its embarkation on a programme of trade liberalisation and related reforms. This involves an evaluation of various dimensions of export structure such as changes in comparative advantage and levels of external competitiveness based on observed movements in a number of export performance indicators. Similar assessments of the impact of trade liberalisation on export structure have been done by many other researchers. These include Sharma (2000), Bender and Li (2002) and Erlat and Erlat (2005).

In so doing we use the second edition of the revised Standard International Trade Classification (SITC) disaggregated at the two-digit level. [See Appendix A.4 for a full list] The data is obtained from the United Nations Statistical Database (COMTRADE).<sup>79</sup> More specifically we examine structural changes in: (i) export product and market diversification (ii) composition and concentration of exports (iii) rankings of key exports or commodity groups (iv) patterns of specialisation and (v) the stability of exports.

#### *4.4.1.1 An Overview of OECS Trade Performance: 1984-2003*

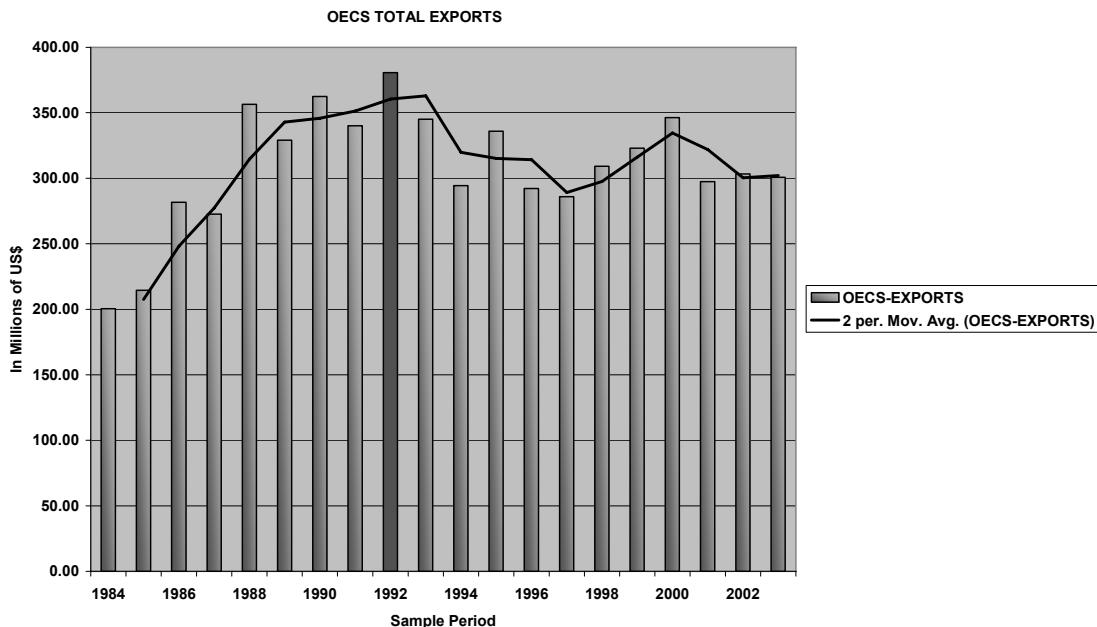
We begin by taking a look at the general pattern of OECS aggregate exports to the world over the sample period 1984-2003 so as to create a frame of reference for the understanding the export performance observed during and after the reform period. [See figure 4.6 below]

From figure 4.6 we see that the total exports for the group of OECS countries increased steadily over the pre-reform period from 1984 reaching a high point in 1992.<sup>80</sup> It then trended downwards during the first five-years of the implementation of trade reform until it reached a low in 1998. This was followed by a brief recovery up to 1998. After the implementation of domestic trade reforms the OECS aggregate exports schedule has been negative sloped As a result the value of exports in 2003 was approximately 21 percent less than the level attained in 1992. In light of the recorded performance of OECS exports in the face of trade policy reforms, we now embark on a multi-dimensional analysis of the relative changes in the underlying export structure at the level of export categories and industries in order to obtain a deeper understanding of the reasons for this outcome.

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<sup>79</sup> The analysis unless otherwise indicated (when Montserrat is included) is based on data on the independent OECS states excluding Antigua & Barbuda. Therefore Anguilla and the British Virgin Islands (BVI) are also excluded due to insufficient data on these associated member territories.

<sup>80</sup> As may be expected this coincided with the year of maximum output and export revenue from Bananas exports to the UK. It was also the year prior to the commencement of EU reforms to its banana import regime.



**Figure 4.6 Export Level and Moving Average (1984-2003)**

#### **4.4.2 Distribution of Export Sectors, Market Diversification and Export Concentration**

##### *4.4.2.1 Distribution of Export Sectors: Product Diversification*

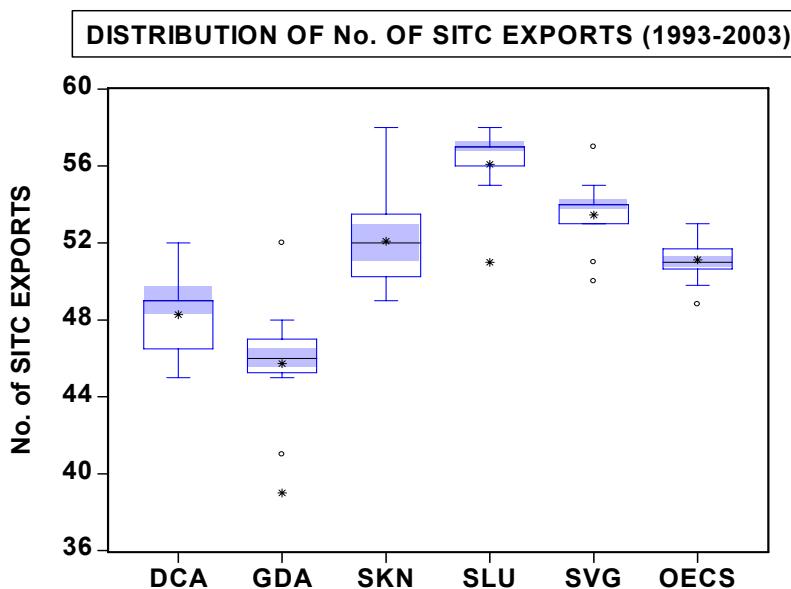
In table 4.5 below, we see that with the exception of Dominica all the member territories experienced contractions in the range of SITC categories exported. As a result the trend has been a downward sloping one for the region as a whole with an average of 51.1 sectors in 2003 compared to 53 in 1993. Despite the undulating pattern of declines followed by recovery, the territories have not been able to equal or surpass the range of exports recorded at the end of the pre-liberal era in 1993. This suggests that net product diversification has been negative and mainly in the form of product substitution as new products replaces lost ones. Put differently on average the number of new sectors gained has been less than those lost.<sup>81</sup>

<sup>81</sup>The gains from diversification were also found to be doubtful in Cyprus (which has a population of about 1.5 times that of the OECS) according to a study by Demetriades *et al* (1993). They concluded that the narrow resource base and consequent high import content of manufacturing output meant that manufacturing exports provided a rather small impetus to economic growth and only a marginal benefit to the current account.

| Year                   | COUNTRY     |             |                  |             |                    | OECS<br>Average |
|------------------------|-------------|-------------|------------------|-------------|--------------------|-----------------|
|                        | Dominica    | Grenada     | St.Kitts & Nevis | St.Lucia    | St.Vincent & Gren. |                 |
| 1993                   | 46          | 47          | 58               | 57          | 57                 | <b>53.0</b>     |
| 1996                   | 49          | 39          | 52               | 51          | 53                 | <b>48.8</b>     |
| 2000                   | 48          | 46          | 54               | 56          | 53                 | <b>51.4</b>     |
| 2003                   | 45          | 46          | 52               | 56          | 54                 | <b>50.6</b>     |
| <b>Average (93-03)</b> | <b>48.3</b> | <b>45.7</b> | <b>52.1</b>      | <b>56.1</b> | <b>53.5</b>        | <b>51.1</b>     |

**Table 4.5 Changes in Distribution of OECS Exports by member country**

The statistics of the distribution of SITC export categories presented in table 4.5 can be more fully appreciated with the aid of a box plot presented below.

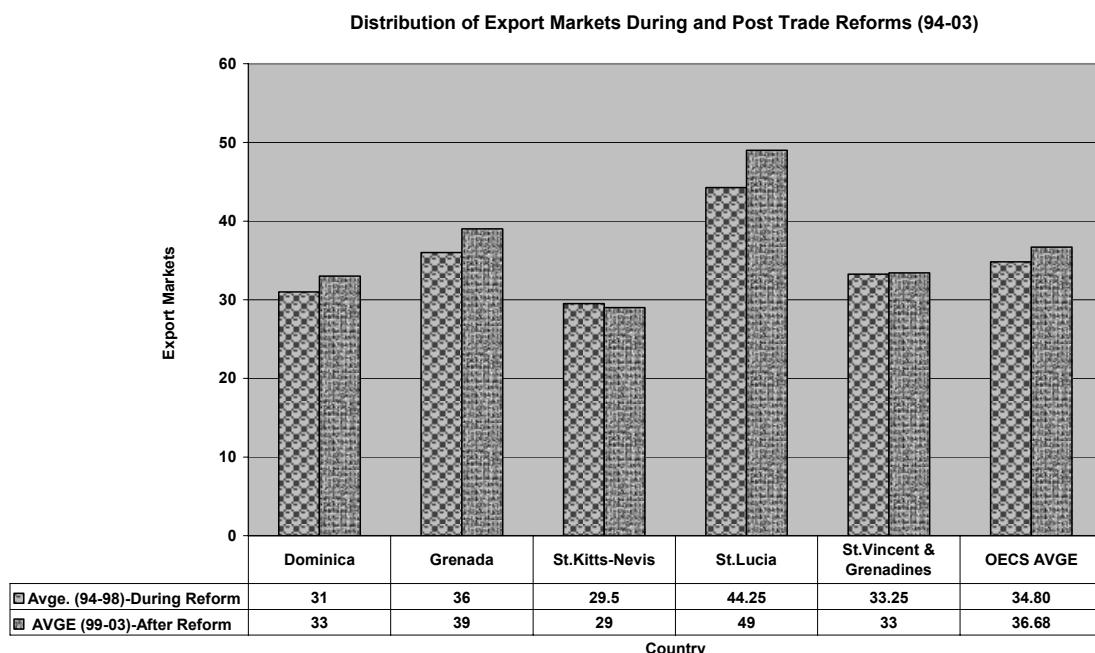


**Figure 4.7 Box Plot of Changes in OECS Export Categories**

It provides a snapshot or pictorial representation of the descriptive statistics of the export structure and relative performance of each country in relation to each other and the regional average. From the chart we see that Grenada and Dominica are below the regional average while St.Kitts and Nevis, St.Vincent & the Grenadines and St. Lucia are above it and are relatively more diversified economies. Notably the height of the box-plot points to the amount of structural change and adjustment that would have taken place in the export structure of each country. In this regard we see that St.Kitts & Nevis followed by Dominica experienced a greater degree of variation in their export base over the reform period. Whereas the dispersion or inter-quartile range has been more narrow for the St.Lucia, St.Vincent and the Grenadines and the region as whole.

#### 4.4.2.2 Export Market Diversification

Another very important indicator of the impact of trade reforms on the export structure of the OECS can be seen from the patterns in export market diversification. Figure 4.8 below indicates that there has been an increase in the number of exports markets and hence diversification of the export base for all of the states shown below with the exception of St.Kitts & Nevis where the number of markets has remained relatively unchanged. Accordingly the average number of markets served by the OECS territories indicated below show a net gain of 2 more markets in the post-reform period.



**Figure 4.8 Changes in the number of export markets by OECS territory**

#### 4.4.2.3 Changes in Export Concentration

In an attempt to further understand the export dynamics of the OECS sub-region over its period of trade reforms we examined the relative changes in the levels of export product concentration and diversification using the Herfindahl-Hirshman (H-H) index for two-digit SITC Revision-two data. The H-H index which ranges between zero and one is given as:

$$(4.4.2.3.1) \quad H_j = \frac{\sqrt{\sum_{j=1}^n \left(\frac{x_{ij}}{X}\right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}}; \text{ where } H_j \text{ is the concentration index value for country 'j'; } x_{ij} \text{ is the value of exports or imports of commodity 'i' for country 'j'.$$

$X = \sum_{i=1}^n x_{ij}$  and 'n' is the number of SITC product categories exported.

Using this formulation it was found that whereas changes in the number of export categories varied, territories formerly heavily dependent on bananas became less concentrated as the effects of external liberalisation in their principal export markets took hold. Put differently this reflected a reduction in the weight of such exports in total trade. The other formerly less concentrated territories such as Grenada and St. Kitts & Nevis became more concentrated and thus less diversified in their exports. The combined effect on these territories as a whole is such that the OECS has become less concentrated in its exports and slightly more diversified in its export base. In so far as this reduces dependence on a few export products this is regarded as a benefit from trade liberalisation. Indeed there are a number of desirable benefits from diversification such as improving foreign exchange stability. [See Newberry and Stiglitz (1981)] See table 4.6 below for a summary of changes in the concentration ratio of OECS exports at 5-year intervals.

| Country                 | 1993 (Before)     | During (1997)     | 2002 (After)      | Change                       |
|-------------------------|-------------------|-------------------|-------------------|------------------------------|
| Dominica                | 0.631 (46)*       | 0.541 (49)        | 0.486(46)         | Less concentrated            |
| Grenada                 | 0.269 (47)        | 0.119 (52)        | 0.341(48)         | More concentrated            |
| St. Kitts & Nevis       | 0.427 (58)        | 0.516 (52)        | 0.767 (51)        | More concentrated            |
| St.Lucia                | 0.483 (60)        | 0.531 (57)        | 0.324 (58)        | Less concentrated            |
| St.Vincent & Grenadines | 0.518 (57)        | 0.435 (55)        | 0.500 (51)        | Marginally Less Concentrated |
| <b>OECS Region</b>      | <b>0.442 (66)</b> | <b>0.300 (62)</b> | <b>0.249 (60)</b> | <b>Less concentrated</b>     |

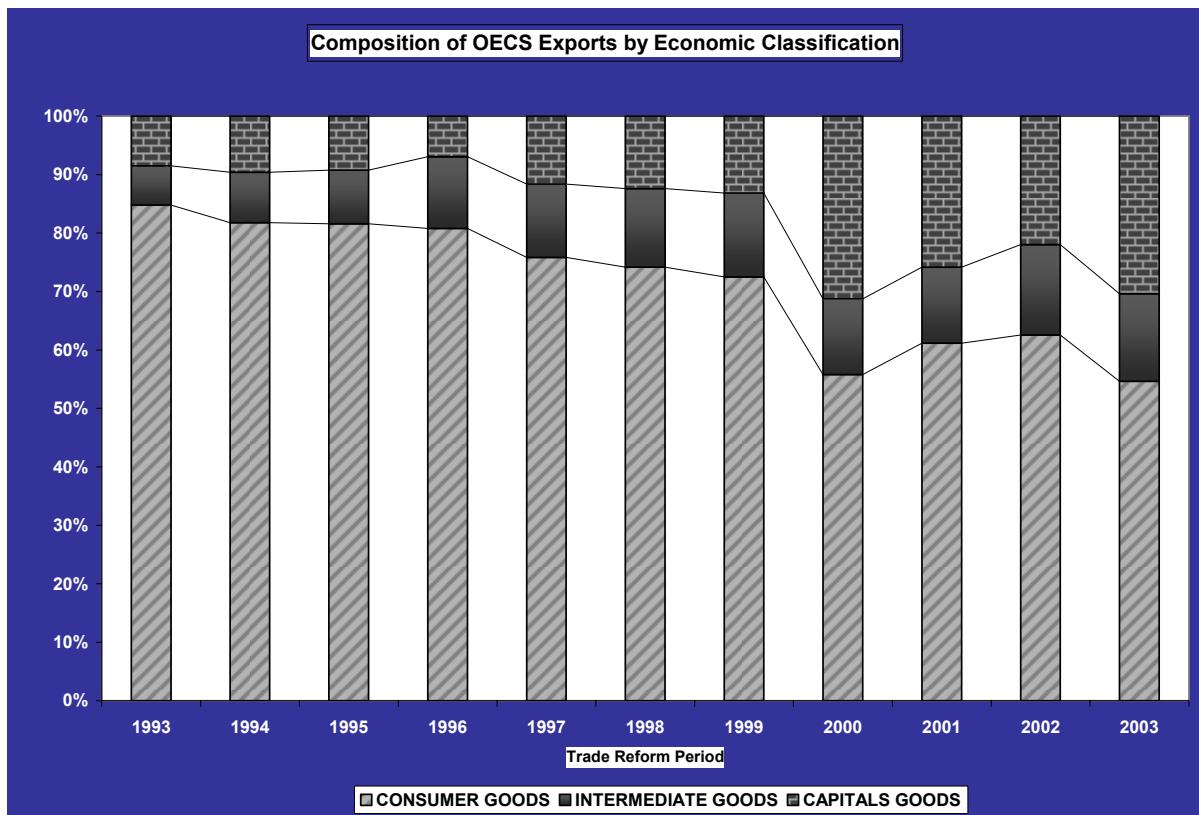
\* The number of exported commodities is given in parentheses.

**Table 4.6 Changes in Export Concentration Index of OECS over the reform period (1993-2002)**

### **4.4.3 Economic Composition and Technology Intensity of Exports**

#### **4.4.3.1 Changes in the Economic Composition of Exports**

Another good indication of the relative shifts in the underlying structure of OECS exports can be seen in the changes in the composition of exports according to economic classification. [See figure 4.9 below]



**Figure 4.9 Changes in the Composition of OECS Exports**

The figure shows that the share of Consumer goods fell from an average of 81.1% during the implementation phase to an average of 61.1% in the post reform years (1999-2003). Consequent on the region's efforts to shift away from dependence on traditional agricultural exports the share of intermediate goods in the region's exports increased from an estimated 9.7% to 14.1% over the adjustment period. For similar reasons the average share of capital goods in OECS exports (made up mainly of electrical appliances) increased from 9.2 % to 24.8 % over the corresponding periods.

However while these shifts in the composition of the region's exports may be encouraging they were achieved in the face of declining merchandise exports which grew

by an average of -1.42 % in exports over the five-year period (1994-98) and -1.11 % in the post reform years (1999-2003).<sup>82</sup>

#### 4.4.3.2 Changes in the Technology Intensity of OECS Exports

The impact of internal/external liberalisation on the export structure of the OECS can also be assessed in terms of changes in the industrial composition of exports. Accordingly, table 4.7 provides a comparative decomposition of OECS export trade with the world by commodity group and according to technology intensity.

**STRUCTURE OF OECS EXPORTS BY COMMODITY GROUP AND TECHNOLOGY INTENSITY (in US\$ Millions)**

| COMMODITY GROUP | TECHNOLOGY CATEGORY | DESCRIPTION OF PRODUCT GROUP            | EXPORT    | VALUE     | Percentage Change |
|-----------------|---------------------|---|-----------|-----------|-------------------|
|                 |                     |   | 1993-1997 | 1999-2003 |                   |
| I               | RMIG                | Primary                                 | 752.85    | 109.97    | -85.39%           |
| II              | LIG                 | Natural Resource                        | 188.35    | 18.68     | -90.08%           |
| III             | LTI-CG              | Generic Manufactures                    | 155.19    | 41.58     | -73.21%           |
| IV              | EIRIG               | Easily Imitated Research Intensive      | 23.34     | 10.76     | -53.90%           |
| V               | DIRIG               | Difficult-to Imitate Research Intensive | 91.27     | 45.80     | -49.81%           |
| VI              | NC                  | Goods Not Classified by Kind/Class      | 2.49      | 0.43      | -82.88%           |

Author's Own Calculations from data from the UN Statistical Database (COMTRADE)

Notes: Group 1/RMIG means Raw Material Intensive Goods; 2/LIG = Labour Intensive Goods;

3/LTCIG=Low technology Intensive Capital Goods; 4/ EIRIG are Medium Technology Intensive Capital Goods

5/DIRIG are high technology Intensive Capital Goods;

**Table 4.7 Changes in OECS exports by Technology Intensity**

In line with the overall downward trend in total exports, table 4.7 shows that there have been significant declines in the volume and value of trade in each of the commodity group types. Groups (I &II) have been the traditional main exports of the region. The comparative decline in average export value over a five-year interval ranged between 49.81%- 90.08% with the largest declines being in primary products (85.39%) and natural resource products (90.08%), respectively. Notably the much touted transformation of the export base to reflect a growing share of manufactures with increasing degrees of intensity has not taken place. Instead significant declines have also been witnessed in generic manufacturing and easily imitated capital goods by 73.21% and 53.9% in that order.

<sup>82</sup> Whereas growth in exports of non-factor services (especially tourism) normally compensated for this short fall its average growth fell from 6.1% during the implementation years of 1994-1998 to 0.9 % over the first –five years of the post reform years.

#### **4.4.4 Changes in Traditional Importance of Key Export Sectors**

##### *4.4.4.1 Cumulative Export Experience and Traditionality*

We begin from the premise that there is an *a priori* expectation that the combined impact of domestic liberal reforms and those in external export markets will be reflected in changes in the relative importance of key sectors. Thus we examine the nature of this impact by comparing the changes in the rankings of key exports over two-five year sub-periods. As in previous cases the first period represents the baseline scenario or initial export structure and the second sub-period represents the current or post reform scenario. To do this we compute the cumulative export experience index (CEEI) and the index of traditionality of each export category for the stated periods and rank them in descending order. Here the CEEI is given as:

$$(4.4.4.1.1) \quad C_i = \frac{\sum_{t=t_0}^t x_{it}}{\sum_{t=t_0}^{t_1} x_{it}}$$

and the measure of traditionality ( $T_i$ ) is given as the mean of the cumulative export experience index (CEEI) for each export category such that:

$$(4.4.4.1.2) \quad T_i = \frac{\sum_{t=t_0}^{t_1} CEEI_{it}}{t_1 - t_0 + 1}$$

The CEEI is analogous to a cumulative probability distribution function and thus is totally exhausted, summing to one over the period under consideration. On the other hand traditionality indicates the level of concentration or dominance of a given export in a country's export structure. The degree of traditionality of an export can also be gleaned from a graph of its CEEI. In this regard the CEE function for a typical traditional export would bulge to the left (of an upward sloping diagonal line oriented from left to right) in the early stages then converge to the diagonal line towards the end of the period as it loses its traditionality indicated by a slower increase in the CEEI. New or non-traditional sectors would tend to be flat in the initial stages, bulging to right of the diagonal getting steeper as they approach 1. [See figure 4.10]

Having obtained values for the traditionality of all export categories/sectors we then assess the changes in the relative importance of the top ten (10) industrial sectors in two

five-year periods ranked based on their traditionality scores and according to the cumulative export experience (CEEI). [See table 4.8 below].

| SITC CODE | Description                                | 1993-1997         |                          | 1999-2003         |                          |
|-----------|--|-------------------|--------------------------|-------------------|--------------------------|
|           |  | Cumulative Export | Traditionality ( $T_i$ ) | Cumulative Export | Traditionality ( $T_i$ ) |
| 05        | Vegetables and Fruits                      | 1                 | 27                       | 1                 | 13                       |
| 84        | Articles of Apparel, Clothing              | 2                 | 9                        | 11                | 15                       |
| 55        | Oils and Perfumes                          | 3                 | 52                       | 3                 | 21                       |
| 04        | Cereals and Preparations                   | 4                 | 38                       | 5                 | 20                       |
| 06        | Sugar and Preparations                     | 5                 | 54                       | 8                 | 18                       |
| 07        | Coffee, Tea, Cocoa Spices                  | 6                 | 44                       | 4                 | 17                       |
| 77        | Electrical Machinery Apparatus/ Appliances | 7                 | 37                       | 2                 | 38                       |
| 64        | Paper and Paper Board                      | 8                 | 23                       | 7                 | 37                       |
| 11        | Beverages                                  | 9                 | 34                       | 6                 | 35                       |
| 89        | Miscellaneous Articles, N.e.s              | 10                | 29                       | n/a               | 27                       |

**Table 4.8 Rank of Top ten (10) exports by Traditionality and Cumulative Export Value**

An inspection of the table based on cumulative export revenue shows that the ranking of 3 key sectors (84, 04 and 06) fell while that of 4 sectors (07, 77, 64 and 11) improved. Two sectors (05 and 55) remained unchanged in relative importance over the period. Of these two Vegetables and Fruits SITC-05 (mainly bananas) continued to be the lead sector in terms of foreign exchange contributions despite significant contractions in output, falling prices and hence export revenues. However Articles of Apparel, Clothing etc, SITC-84 which was ranked second in importance based on export value before the onslaught of neo-liberal reforms was ranked 11<sup>th</sup> in the post-reform period. This is in large measure reflective of the closure and exodus of a number of manufacturing concerns in the sector across the region. Many of these, relocated to larger markets with cheaper and more abundant labour supplies. The changes to the Multifibre Agreement which provided some degree of protection to such exports from the region also served to plunge the sector into sunset mode. The decline in importance of SITC-06 (sugar) from 5<sup>th</sup> to 8<sup>th</sup> in order of cumulated export revenue largely mirrored the declines of the banana industry.<sup>83</sup> Both

<sup>83</sup> This has affected the island of St.Kitts in particular which has now stopped producing sugar amidst near insurmountable industry debt and forecast of deep reduction in prices.

were largely induced by external liberalisation pressures in their export market in the EU in which they enjoyed some degree of preferential treatment as members of the ACP.

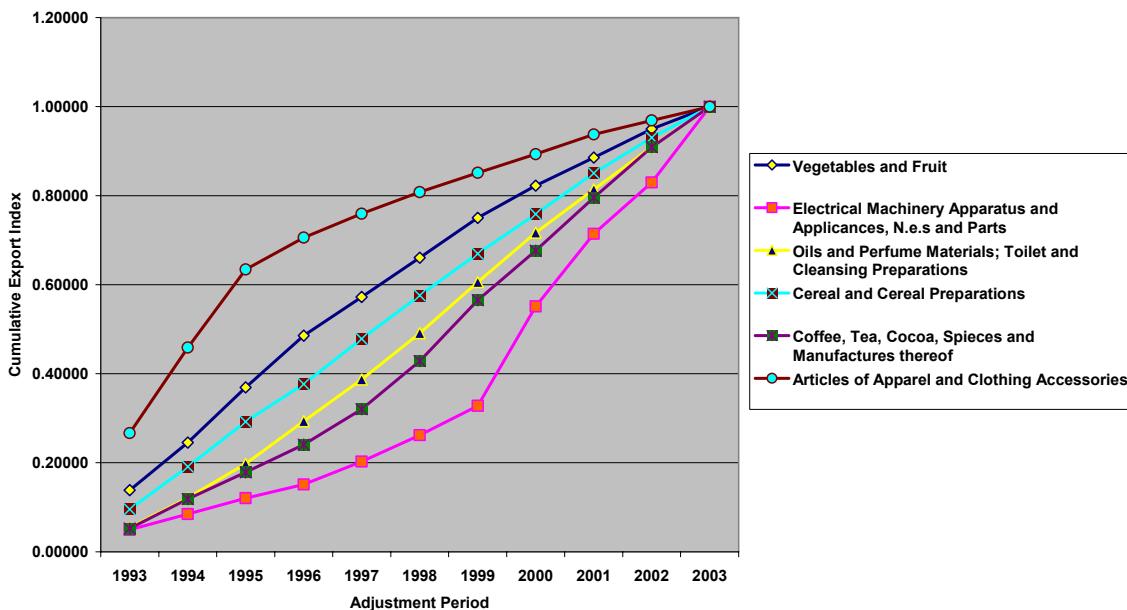
Of the sectors that improved Electrical Appliances and Apparatus was most significant climbing from 7<sup>th</sup> to 2<sup>nd</sup> in importance. This was followed by Spices etc SITC-07 exported largely by Grenada, which climbed from 6<sup>th</sup> to 4<sup>th</sup> in importance. The other improving sectors made modest gains.

When rankings are considered based on changes in traditionality scores the picture becomes ambiguous. This is because in some cases sectors that declined in importance according to one measure showed improvements in their ranking under the other. Those with contrasting changes in rank according to the two measures include SITC (04, 06, 11 and 77). Sectors that improved under both measures include SITC (07, and 64). Meanwhile the two sectors that were unchanged in their CEE indices in either period SITC (05 and 55) both recorded improvements in their traditionality ranks. These conflicting changes in the ranking of sectors of various key traditional exports based on their cumulative export experience (CEE) and their measure of traditionality suggest that there has been some degree of structural change in the OECS exports.

These indications of the structural change in the OECS exports in the last 15 years can be gleaned from an examination of the graph of cumulative export experience (CEE) index for the five (5) most important exports. [See figure 4.10 below]

The time path or the cumulative experience for articles of apparel (SITC-84) and vegetables and fruits (SITC-05) confirm a deceleration in their growth from 1995 and 1996 respectively. In contrast electrical appliances etc. (SITC-77), spices (SITC-07) and oils and perfume materials (SITC-55) in that order show the development of a non-traditional export given their near parabola shaped CEE functions, with bulges to the right of the imaginary positively sloped diagonal. While the CEE curves for spices (SITC-07) and oils and perfume materials (SITC-55) seem to have increased only slightly in their traditionality over the reform period, whereas there was a marked increase in the level of importance and traditionality of electrical appliances in OECS exports from 1999. Meanwhile cereal etc. (SITC-04) which is mainly exported by St.Vincent & the

Grenadines (79.2%) seems to have maintained its relative importance and traditionality over the entire period as indicated by an almost straight-lined CEEF.



**Figure 4.10 Cumulative Export Functions of Key (5) Exports**

Here again we see that articles of apparel and vegetables and fruits are the biggest losers. In this regard St.Lucia is the territory most affected by these declines given that it accounted for an average of 70.8% of exports of articles and apparel and 44% of exports of vegetables and fruits (mainly bananas) in the OECS. On the other hand the principal beneficiaries of the relatively more traditional or important exports in the post reform period are St.Kitts & Nevis (57.4%) of exports of electrical appliances, Dominica (96.8%) of exports of oils and perfume materials and Grenada with 90.4% of exports of spices (mainly nutmeg).

#### 4.4.4.2      *Changes in OECS Exports Structure: The UNCTAD Approach*

To further assess the nature of structural changes (SC) which may have taken place in the OECS over the reform period we adopt the UNCTAD approach and construct a structural change index using the following formula:

$$(4.4.4.2.1) \quad SC_i = \frac{\sum_{j=1}^n |S_{ij}^1 - S_{ij}^0|}{2}$$

This index is based on the composition of exports and ranges between zero and one ( $0 \leq SC_i \leq 1$ ). A value close to 1 indicates a significant change in the composition of exports or imports and a value close to zero suggest a high degree of traditionality in the exports or imports. Importantly the sign of the change indicates the type of change which has taken place. Therefore a positive change suggests an improved ranking and increased competitiveness of an export category and vice-versa for a negative sign.

Essentially the formula computes the arithmetic average of the absolute change in the share of each commodity ‘i’ in the total trade (import or export) of country ‘j’ in a given terminal year ( $S^1_{ij}$ ) from the share of the product in a reference or base year. ( $S^0_{ij}$ ). For our purposes 1993 will be our base year and 2003 our terminal. As before the years are chosen as points in two-distinct periods in terms of trade policy. In keeping with the time frames used throughout this investigation the initial point is a point within the pre-liberalisation or import-substitution years whilst 2003 the terminal point is firmly within the post-liberalisation years.

A summary of the changes associated with the top ten (10) winners and top 10 losers is given in table 4.9. Based on a definition of structural change of a change of at least 1% in the relative share of a given sector in either direction, we see from panel A that six (6) exports have experienced structural change.<sup>84</sup> It is worth noting that the top 10 winners have increased their share in the region’s trade by total of 35.4 % on average or structural change of 17.7%. By the same token panel B shows that two traditional sectors (both of which have been the subject of trade liberalisation in external markets) have experienced significant average contraction over the adjustment period. Indeed eight (8) of these export categories are traditionally significant to the OECS. However the combined average loss of export share by the 10 biggest losers is over 40% which corresponds to structural change of 20.1 % by this definition. As a result the net structural change in the value of export shares between winners and losers is an estimated -2.4%.

Most of these sectors whether leading or lagging have all recorded trade valued over US\$ 1 million in at least one of the intervening years. Notwithstanding the above it must be noted that the vast majority of export categories maintained their traditional insignificance of accounting for less than one percent of the region’s total annual exports.

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<sup>84</sup> The first four are particularly significant to the OECS while the significance of some of the remainder may be due to re-exports. These include Petroleum products, road vehicles and other transport equipment.

**A. 10 TOP WINNERS BY CHANGE IN EXPORT SHARE**

|           | Description of Commodity                                       | $S_{ij}^1 - S_{ij}^0$ | $( S_{ij}^1 - S_{ij}^0 )/2$ |
|-----------|--|-----------------------|-----------------------------|
| 77        | Electrical Machinery Apparatus and Appliances, n.e.s and Parts | 13.05%                | 6.53%                       |
| 55        | Oils and Perfume Materials; Toilet and Cleansing Preparations  | 4.50%                 | 2.25%                       |
| 11        | Beverages  | 3.27%                 | 1.64%                       |
| 07        | Coffee, Tea, Cocoa, Spices and Manufactures thereof            | 3.07%                 | 1.53%                       |
| 33        | Petroleum, Petroleum Products and Related Materials            | 2.64%                 | 1.32%                       |
|           | Telecommunications, Sound Recording and Reproducing            |                       |                             |
| 76        | Equipment  | 2.50%                 | 1.25%                       |
| 72        | Machinery Specialised for Particular Industries                | 1.93%                 | 0.97%                       |
| 78        | Road Vehicles  | 1.80%                 | 0.90%                       |
| 79        | Other Transport Equipment                                      | 1.77%                 | 0.88%                       |
| 27        | Crude Fertilizers and Crude Minerals                           | 0.85%                 | 0.42%                       |
| <b>B.</b> | <b>10 TOP LOSERS BY CHANGE IN EXPORT SHARE</b>                 | <b>35.39</b>          | <b>17.70%</b>               |
|           |  |                       |                             |
| 05        | Vegetables and Fruit   | -25.15%               | -12.58%                     |
| 84        | Articles of Apparel and Clothing Accessories                   | -9.99%                | -5.00%                      |
|           | Paper, Paperboard and Articles of Pulp, of Paper or of         |                       |                             |
| 64        | Paperboard   | -1.50%                | -0.75%                      |
| 06        | Sugar, Sugar Preparations and Honey                            | -1.36%                | -0.68%                      |
| 04        | Cereal and Cereal Preparations                                 | -0.63%                | -0.31%                      |
| 42        | Fixed Vegetable, Oils and Fats                                 | -0.58%                | -0.29%                      |
| 69        | Manufactured of Metals N.e.s                                   | -0.50%                | -0.25%                      |
| 29        | Crude Animals and Vegetable Materials, n.e.s                   | -0.17%                | -0.09%                      |
|           | Photographic Equipment and Supplies, Optical Goods;            |                       |                             |
| 88        | Watches etc  | -0.14%                | -0.07%                      |
| 89        | Miscellaneous Articles, N.e.s                                  | -0.11%                | -0.05%                      |
|           |  | -40.14                | <b>-20.07%</b>              |

**Table 4.9 Structural Change in top (10) Exports**

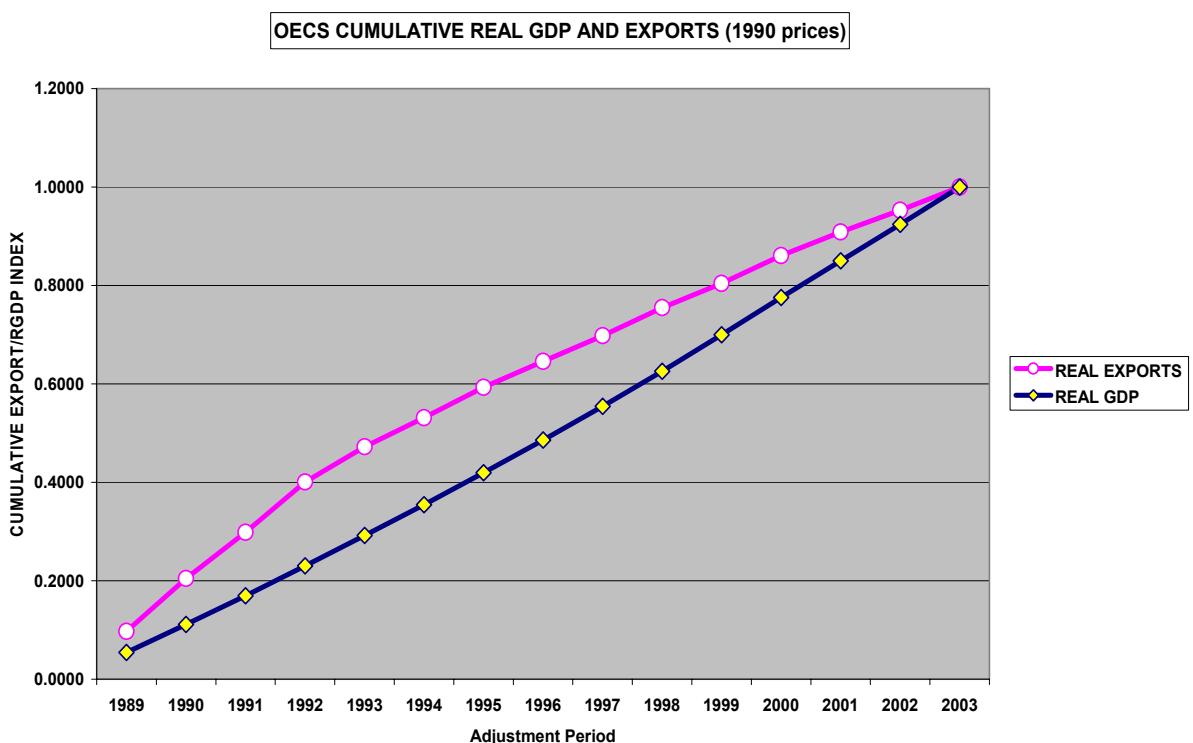
In terms of the *rationalisation effects* and shifts between export sectors there were zero new sectors gained and 6 old sectors lost resulting in a net reduction of six (6) exports sectors. However the number of sectors accounting for at least 1% of exports increased from 14 in 1993 to 19 in 2003 indicating the rise in importance of a few sectors at the same time of the decline in the dominance of bananas which accounted for 44.8 % in 1993 and a mere 19.7% in 2003.

At the level of export industries the biggest losers in contributed value and share of exports are the vegetable and fruit sectors followed by the clothing and apparel sector in particular with a combined average reduction of an estimated 35 percent which corresponds to a structural change impact of about 17.5 percent. On the other hand the biggest gainer was electrical machinery and appliances and oils and perfume materials (SITC 77 and 55) which experienced an increase in its share of the region's exports of

13.05 percent and a structural change impact of approximately 6.5 percent. This was followed by Oils and Perfumes and beverages in that order SITC 55 and 11.

#### **4.4.5 Cumulative Export Experience and Export-led Growth in the OECS**

Having examined various dimensions of the structural impact of trade liberalisation policies on the exports structure of the OECS we considered the important question of whether growth in the OECS is export-led or not. To test this hypothesis we use a non-parametric approach in terms of a plot of the cumulative distribution functions of real exports and real GDP expressed in 1990 prices. [See Gutierrez de Pineres and Ferantino (1997)] The series for real exports was obtained by adjusting the time-series on exports by the implicit GDP deflator. The results are presented in figure 4.11 below.



**Figure 4.11 Declining Role of Exports vis-à-vis Real GDP**

Despite the apparent decline in export performance it remains most apparent that the OECS region as a whole has had an export-led economy over the period under review. The traditional dominance of exports especially in the pre-1993 period is evident from the leftward bulge of its cumulative distribution function. Further inspection of the figure reveals that the export dynamism of the earlier period (1989-1993) has diminished steadily since 1994, coinciding with the advance of liberalisation in the domestic and

international economy. This in essence captures the net effect of the forces of internal and external trade liberalisation on the role of exports in economic performance in the OECS. It suggests that the impact of internal liberalisation supposedly through cheaper inputs or other benefits have been insufficient to counter the impact of external liberalisation in terms of changes in market access arrangements.

## **4.5 Structural changes in OECS Exports: Stability and Patterns of Specialisation**

### **4.5.1 Changes in Revealed Comparative Advantage**

In this section we assess the changes in the export structure and pattern of specialisation of OECS territories over the period of their trade reform. To do this we use the well-known RCA Index developed by Balassa (1965). This measure is selected in part because it is based only on export data and it is less likely to be distorted by government policies and interventions.<sup>85</sup> Accordingly it is well suited to capture the underlying comparative advantage of member countries. The Revealed Comparative advantage (RCA) of each member country in each of its export categories can be obtained using the following formula:

$$(4.5.1.1) \quad RCA_{ij} = \frac{X_{ij} / \sum_i X_{ij}}{\sum_j X_{ij} / \sum_i \sum_j X_{ij}}$$

On the basis of this index a value greater than one (1) suggests that a country has a comparative advantage in a given export sector in relation to a particular group of countries (in this case the OECS).<sup>86</sup> Table 4.10 provides a summary of the number of export sectors in each member country with an RCA index greater than one. The reported index is the average for two five-year reference periods which represents the scenario at the start of reforms compared to the post-reform scenario.

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<sup>85</sup> Indeed a number of other indices such as the Lawrence Index, Michael Index and Beneficial Index can also be used to capture structural change in trade performance.

<sup>86</sup> While an assessment of the relative RCA of OECS countries in CARICOM may be of some value this was not done given that the share of OECS trade in CARICOM is very small averaging about 7.2% from 1997-2002.

| Period    | Reference to Trade Reforms | No of Exports with RCA >1 |    |     |     |     | Average OECS |
|-----------|----------------------------|---------------------------|----|-----|-----|-----|--------------|
|           |                            | DCA                       | GN | SKN | SLU | SVG |              |
| 1993-1997 | During                     | 14                        | 19 | 30  | 32  | 24  | 23.8         |
| 1999-2003 | After                      | 12                        | 20 | 20  | 27  | 18  | 19.4         |
| Change    |                            | -2                        | 1  | -10 | -5  | -6  | -4.4         |

Source: Author's Calculation

**Table 4.10 Period average number of Specialised Export Sectors during and after reforms**

With the exception of Grenada all member countries experienced a reduction in the number of sectors in which they had some degree of specialisation in the OECS grouping with the biggest reductions being in St.Kitts & Nevis and St.Lucia respectively. As a result there has been an overall decline in the overall number of sectors in which the region had some comparative advantage since the commencement of trade and economic reforms. This in itself indicates one aspect of structural change in the region's export structure.

#### **4.5.2 Changes in Export Structure and Pattern of Specialisation**

Alternatively, the relative changes in the pattern of specialisation in the OECS in the pre and post-liberalisation period may also be viewed in terms of changes in the number and shares of the specialised (more competitive) industries in total exports. A point to point comparison of this indicator of structural change in conjunction with the top 10 industries according to export value is presented in table 4.11 below.

A COMPARATIVE SUMMARY OF THE TOP TEN AND SPECIALISED EXPORTS (1993 and 2002)

| COUNTRY                 | 1993                                   |                             |                                      | 2002                      |                              |                         |
|-------------------------|--|-----------------------------|--------------------------------------|---------------------------|------------------------------|-------------------------|
|                         | No.of Specialised Exports <sup>1</sup> | Share of Specialized Export | Share of Top 10 Exports <sup>2</sup> | No.of Specialised Exports | Share of Specialized Exports | Share of Top 10 Exports |
| DOMINICA                | 13                                     | 29.04%                      | 97.07%                               | 12                        | 94.14%                       | 96.13%                  |
| GRENADA                 | 15                                     | 39.52%                      | 90.70%                               | 20                        | 84.15%                       | 86.07%                  |
| MONSTERRAT              | 11                                     | 94.45%                      | 98.67%                               | 16                        | 97.08%                       | 94.10%                  |
| ST.KITTS & NEVIS        | 27                                     | 90.26%                      | 90.78%                               | 12                        | 92.48%                       | 95.23%                  |
| ST.LUCIA                | 25                                     | 94.30%                      | 94.10%                               | 33                        | 89.49%                       | 85.10%                  |
| ST.VINCENT & GRENADINES | 22                                     | 87.78%                      | 93.21%                               | 17                        | 88.65%                       | 91.95%                  |
| <b>OECS AVERAGE</b>     | <b>18.83</b>                           | <b>72.56%</b>               | <b>94.09%</b>                        | <b>18.33</b>              | <b>91.00%</b>                | <b>91.43%</b>           |

Notes: Author's Calculation from UNSD (COMTRADE) data

<sup>1</sup>The Number of Specialised Export Sectors are based on the RCA measure being greater than one.

<sup>2</sup>In Total Exports

**Table 4.11 Changes in the share of the Top ten (10) and Specialised Exports**

From the table it is apparent that there were changes in the number of specialised exports at the country level however at the level of the OECS the average number of specialised exports remained largely unchanged over the period. At the country level Grenada, Montserrat and St. Lucia recorded increases of 33%, 45% and 22% respectively.

In contrast, Dominica, St.Vincent and the Grenadines and St.Kitts & Nevis experienced declines in the number of specialised exports to the order of 7.7%, 22.7% and 55% respectively. Notably, the share of specialised exports increased from an estimated 73% to 91%. Meanwhile the average share of the top ten exports in total exports decreased from approximately 94.09% to 91.33% over the reform period. The value of the top ten exports fell in nominal terms for the countries heavily dependent on bananas (St.Lucia, Dominica and St.Vincent & Grenadines) reflecting the declines in exports in that industry. As a result of these changes in the structure of exports there is now an almost one-to-one mapping between the top ten exports and the so-called specialised exports or exports in which the region has some degree of comparative advantage. This indicator among other things captures the rationalisation effect associated with the adjustment process in the OECS.

#### **4.5.3 Stability of OECS Exports**

The RCA index of specialisation can also be used to assess the stability of a country's export structure. Therefore we do so by examining the distribution of the Balassa RCA index for OECS exports as a whole and individually in conjunction with changes in the variance of the traditionality index for select years. These findings are presented in table 4.12 below.

| Year                          | 1993   | 1994    | 1995   | 1996   | 1997    | 1998    | 1999    | 2000    | 2001    | 2002   | 2003    |
|-------------------------------|--------|---------|--------|--------|---------|---------|---------|---------|---------|--------|---------|
| Mean                          | 2.36   | 1.05    | 1.18   | 1.19   | 1.06    | 1.03    | 1.04    | 1.08    | 1.03    | 1.11   | 0.98    |
| Maximum                       | 438.15 | 10.52   | 13.38  | 10.33  | 8.71    | 6.96    | 8.01    | 7.86    | 7.19    | 37.44  | 5.94    |
| Average Variance of ( $T_i$ ) | 0.0164 | 0.0142  | 0.0129 | 0.0028 | 0.0045  | 0.0023  | 0.0051  | 0.0245  | 0.0092  | 0.0060 | 0.0148  |
| Percentage of RCA:            |        |         |        |        |         |         |         |         |         |        |         |
| <1                            | 53.03% | 58.33%  | 48.39% | 38.71% | 45.16%  | 49.21%  | 61.67%  | 34.92%  | 50.82%  | 70.00% | 58.33%  |
| <2                            | 89.39% | 100.00% | 82.26% | 90.32% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 91.67% | 100.00% |
| >2                            | 10.61% | 0.00%   | 17.74% | 9.68%  | 0.00%   | 0.00%   | 0.00%   | 0.00%   | 0.00%   | 8.33%  | 0.00%   |

Source: Author's own calculations.

**Table 4.12 Temporal Changes in the Distribution of Share of Specialised Export Sectors**

The table shows that the annual mean RCA for OECS exports have declined steadily from 2.36 in 1993 to less than 1 in 2003. Meanwhile the maximum RCA for any given export

category has also largely trended downwards over the period in line with the general loss of competitiveness and reduced levels of specialisation. However the annual volatility as captured by the variance of the traditionality index ( $T_i$ ) has shown relatively low levels of change over the period. The trend decline in external competitiveness is also captured in the rising share of RCAs of less than one (1) from 53-58% and the complete disappearance of RCAs of greater than two after 1995. This suggests that the export structure of the OECS has become more unstable over the period 1993-2003 during which trade reforms were implemented.

## **4.6 Structural Change in OECS Exports: A parametric Approach**

### **4.6.1 Introduction**

As is apparent from the preceding sections there are numerous techniques for evaluating structural change and export performance in countries. Thus in addition to the non-parametric approach used above to evaluate the stability of the export structure of the OECS we also used a parametric approach based on the Revealed Symmetric Comparative Advantage (RSCA) measure of export performance. The RSCA is an adjusted version of trade intensity or outcome based revealed comparative advantage (RCA) index. This adjustment is necessary, given the well-known limitations of the RCA measure regarding its skewness and hence the likelihood of biased estimates due to lack of normality in its distribution. To do so we use the now popular procedure advanced by Laursen (1998) and others. The conversion is based on the following equation for non-zero export sectors in the years under consideration.

$$(4.6.1.1) \quad RSCA_{ij} = (RCA_{ij} - 1) / (RCA_{ij} + 1)$$

The resulting adjusted RCA varies between -1 and +1 thereby solving the problem of asymmetry. On this basis an RSCA measure above zero (0) suggests that the country specialises in a given industry while values less than 0 imply a case of non-specialisation.

Using this measure we can now use a so-called Galtonian regression to assess structural change in exports based on the distribution of the RSCA at two points. In this case we use  $1993 = t_0$  and  $2002 = t_1$  as the start and end points respectively. This approach follows from

other researchers such as Dalum and Villumsen (1996) and Lauren (1998) among others. On this basis we specify the following linear regression:

$$(4.6.1.2) \quad RSCA_{ij1} = \alpha_j + \beta_j RSCA_{ij0} + \varepsilon_i$$

In this formulation  $\alpha$  and  $\beta$  are the standard linear regression parameters and  $\varepsilon$  is the error term assumed to be normally distributed. This equation essentially examines the structural stability of exports and specialisation trends. The intuition here is if the estimated  $\beta$  is not statistically different from 1 then there has been no change in the country's export structure in terms of the rankings of export industries. On the other hand if  $\beta > 1$  this suggests that the country has become specialised in its exports structure with a reduction in its industries and an increase in the relative share of its specialised industries. Then  $0 < \beta < 1$  suggests that a country has become less specialised in formerly specialised areas and more so in industries where it was less-specialised. This increased degree of instability may also be due to export diversification and increased dispersion in exports/markets.

#### **4.6.2 Results of Parametric Investigation**

The intercept terms 'α' in all the regressions are not significant except for Grenada while the slope coefficient 'β' is not significant for Grenada and Montserrat. The slope coefficient lies between 0 and 1 in all cases indicating that the pattern of export specialisation has moved towards the group average. This suggests that the degree of RSCA that individual member countries enjoyed in export categories of specialisation has reduced between the initial period (1993) and the terminal year (2002) while the corresponding measure for former areas of non-specialisation have increased. Accordingly there has been a sort of homogenisation in the structure of exports in terms of the pattern of specialisation of OECS countries over the sample period. In graphical terms this amounts to a flattening or clockwise rotation of the slope of the region's RSCA aggregate function.

Following Cantwell (1989) and Taylor (1989) we compute  $|\beta| / |R|$  (equal to the ratio of the standard deviation in the initial and terminal years) to further assess the extent to which diversification or specialisation may have taken place. A value greater than one (1) suggests an increase in the degree of specialisation in terms of an increase in the estimated RSCA and a reduction in the number of products exported. According to Table

17 this is the case for all the OECS territories except for St.Kitts and Nevis which posted a value less than one. However the realisation that all the slope coefficients are in the range  $0 < \beta < 1$  according to Cantwell 1989 and others calls for greater caution in interpreting the results. Hence he suggested that the regression and mobility effects,  $(1 - \beta)$  and mobility effects  $(1 - R)$  should be considered as well.

Given these considerations, St.Vincent and the Grenadines and Dominica display the highest levels of stability over the period of adjustment based on their relatively high  $\beta_s$  and  $R^2$  which implies low regression  $(1 - \beta)$  and mobility effects  $(1 - R)$  respectively. Accordingly their export structures have not changed significantly. Notwithstanding a value for  $|\beta| / |R|$  marginally over 1 hints at an incremental change in export specialisation together with an increase in diversification. Meanwhile the relatively modest regression (0.529) and mobility effects (0.466) for St. Kitts & Nevis suggests general stability in its export base with recent signs of slippage. The pattern is somewhat similar for St.Lucia only with a slightly greater degree of change in its export structure both in terms of regression effects (0.531) and mobility effects (0.570).

#### **4.6.3 Testing the Hypothesis of Export Stability**

Given the possible problems of sampling fluctuations which may undermine the reliability of the point estimates of the slope coefficients ( $\beta_s$ ), 95% confidence intervals were constructed around the estimated ( $\hat{\beta}_s$ ) to test the hypothesis that coefficient of export stability for each OECS territory was equal to one.<sup>87</sup> The results are presented in table 4.13 below.

From the table it is apparent that the hypothesis that  $\beta=0$  cannot be rejected for Grenada, and Montserrat, however the estimates of export stability for both of these countries were not statistically significant.<sup>88</sup> Nonetheless this suggests that exports from these member territories have undergone significant change. This is supported by the very low values of their R statistic which suggest a less specialised highly mobile export base. On the other hand the hypothesis that  $\beta=1$  cannot be rejected even at the 1% level for Dominica and

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<sup>87</sup> The confidence interval was constructed as

$\Pr[\hat{\beta}_j - t_{(n-2),\alpha/2} se(\hat{\beta}_j) \leq 1 \leq \hat{\beta}_j + t_{(n-2),\beta/2} se(\hat{\beta})] = 95\%$

<sup>88</sup> However as indicated earlier, findings for Montserrat over the intervening period must be taken with a degree of caution given the disruption of economic activity by volcanic eruption in the mid 1990s.

St.Vincent & the Grenadines which suggests that there has been little by way of structural change in their export base. Their relatively high ‘R’ statistic points to a degree of stability. However in the case of St.Lucia and St.Kitts & Nevis the null hypothesis that  $\beta = (0,1)$  are both rejected by a 95% confidence interval which suggests that the true level of their stability parameter falls outside the confidence interval.

RESULTS OF HYPOTHESIS TEST OF STABILITY OF OECS EXPORT STRUCTURE

| Country                               | N  | $\beta_1$          | $\beta_2$        | $R^2$            | 1-R   | $ \beta_1  / R_1$ | L95%   | U95%   | DF | $t_{crit}$ |
|---------------------------------------|----|--------------------|------------------|------------------|-------|-------------------|--------|--------|----|------------|
| DOMINICA<br>t-value<br>(SE)           | 39 | -0.052<br>(-0.733) | 0.886<br>(0.072) | 0.653<br>(0.106) | 0.192 | 1.096             | 0.670  | 1.102  | 37 | 2.035      |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| GRENADE<br>t-value<br>(SE)            | 43 | -0.191<br>(-2.114) | 0.207<br>(0.091) | 0.04<br>(0.157)  | 0.798 | 1.035             | -0.110 | 0.524  | 41 | 2.02       |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| MONTSERRAT<br>t-value<br>(SE)         | 11 | -0.330<br>(-1.327) | 0.315<br>(0.249) | 0.074<br>(0.370) | 0.727 | 1.158             | -0.522 | 1.152  | 9  | 2.262      |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| ST.KITTS & NEVIS<br>t-value<br>(SE)   | 50 | -0.299<br>(-4.134) | 0.471<br>(0.072) | 0.285<br>(4.378) | 0.466 | 0.882             | 0.254  | 0.688  | 48 | 2.01       |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| ST.LUCIA<br>t-value<br>(SE)           | 57 | 0.036<br>(0.516)   | 0.469<br>(0.071) | 0.185<br>(3.536) | 0.57  | 1.090             | 0.202  | 0.736  | 55 | 2.004      |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| ST.VINCENT & GREN.<br>t-value<br>(SE) | 39 | -0.053<br>(-0.733) | 0.886<br>(0.072) | 0.653<br>(8.340) | 0.192 | 1.096             | 0.670  | 1.102  | 37 | 2.035      |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |
| OECS<br>t-value<br>(SE)               | 31 | -0.135<br>(-3.113) | 0.700<br>(0.043) | 0.528<br>(5.691) | 0.274 | 0.964             | 0.4485 | 0.9515 | 29 | 2.045      |
|                                       |    |                    |                  |                  |       |                   |        |        |    |            |

Notes (i) The figures for the OECS are based on the average RSCA across the members excluding Montserrat on which the number of common sectors is only 11.

(ii) SE represents the standard error of the coefficients of stability

**Table 4.13 Results from Test for Changes in OECS Exports Stability**

The t statistics and standard errors are given in parentheses.<sup>89</sup>

This suggests that the export structure in these two-territories have undergone some marginal changes since the commencement of trade reforms.

This finding is supported by their relatively high coefficients of determination ( $R^2$ ) which suggests mobility in their export base, more so for St.Lucia. Meanwhile the confidence interval for the OECS as a whole confirms that OECS exports have undergone a degree of structural change given that the true measure of stability lies in an interval that does not include  $\beta=0,1$ . According we can conclude that the OECS export structure has undergone structural change and became less stable over the 10-year intervening period 1993 to

<sup>89</sup> As with the rest of the study these estimates were obtained using E-views version 5 econometric software programme.

2002. *Inter-alia* this reflects the effects of reduced specialisation/competitiveness in key/traditional exports and attempted diversification in response to internal and external liberalisation-related pressures. A principal factor in this regard has been the lost (actual and impending) of preferential market access to the EU together with changes to the Multi-Fibre Agreement (MFA).

Hence against the backdrop of the empirical evidence presented above one cannot help but remain sceptical that OECS will soon reap the much touted benefits of trade liberalisation. Indeed the pattern of structural change raises the prospects of whether in the resulting more liberalised and competitive global trade environment that economic size and other capacity limitations may be a binding constraint on the scope of the OECS SIDS for successful export diversification.

These results are somewhat similar to the findings of Taylor (2003) in a study on Latin America and the Caribbean's trade with the United States. However, unlike Taylor (2003) who used 1989 and 2000 this investigation examines OECS trade with the world based on common SITC categories in 1993 and 2002.

#### **4.7 Concluding remarks on Structural Change**

In this chapter we have examined in some detail various dimensions of structural change in OECS trade performance in response to internal liberalisation and changes in its external trade environment due to regional and multilateral liberalisation shocks. The analysis was conducted both at the level of the member territory and at the regional consolidated level. Throughout much of the analysis we made comparative assessments of various trade indicators using sub-periods or point estimates before and after the commencement of the OECS trade liberalisation reforms. In other cases we used qualitative judgements of these indicators based on generally accepted benchmark performance levels.

Apart from a few exceptions and ambiguities which may be due to statistical/measurement error and data limitations it is most apparent that the SIDS of the OECS have not experienced the kind of structural change desired or consistent with the underlying objective of trade reform in terms of increased competitiveness and

specialisation in non-traditional export sectors in which new comparative advantage had been gained. Our results are similar in essence to findings in other studies in developing countries such as those of Sharma (2000), Ruiz-Napolez (2001) among others.

This seemingly adverse net structural impact of trade liberalisation can be summarised as follows:

(a) *Macro-economy*

- Economic stagnation and decline in various macroeconomic performance indicators
- Retreat of merchandise productive sectors reflected in lower shares of agriculture and manufacturing in the OECS economy
- Internal and external imbalance indicated by widening resource gaps both saving-investment and foreign exchange, leading to rising debt ratios and growing current account deficits.

(b) *Export Structure*

- Lower rankings and loss of competitiveness of traditional exports many of which have declined in their dominance of OECS exports in share and growth rates.
- Reductions in the number of specialised sectors in which OECS territories had a degree of comparative advantage ( $RCA > 1$  or  $RSCA > 0$ )
- Increased instability in the structure of OECS exports.

However, there were some indications of structural change though not very significant which broadly point in a desirable direction as per the proponents of trade reform. These include:

- A reduced degree of concentration of exports
- A reduced dependence on agricultural products which were among the biggest losers (SITC05 especially bananas and sugar) and increased ranking of some manufacturing exports (especially in SITC 77 electrical appliances)
- An increase in the share of non-consumer goods in exports

- A slight increase in diversification of markets and export products
- A rise in the share of specialised industries in total export from 72.5% to 91%.

The impact of these changes on the region are presented in Appendix A.5 which provides a line by line comparative summary of the direction of change in relative competitiveness and specialisation for individual member countries in 1993 compared to 2003 based on technology category. There we see that out of 32 common sectors on average 14 sectors recorded improvements compared to declines in 18 others. These were made up of raw materials (4) and labour intensive goods (4) followed by light manufacturing (2) and easy-to-imitate capital goods (2) as the main sectors.

On the basis of these many indicators, it clear that the OECS have undergone structural changes in its export structure. However there is no evidence to support the view that it has resulted in the development of new areas of comparative advantage in commodity exports, high-valued added or otherwise. Moreover, it stands to reason that the nature of the subsequent growth expansion phase would invariably be heavily influenced if not determined by this structural adjustment phase. Thus although export services has not been a major focus of this study we are left to conclude that any new areas of comparative advantage can only lie in services, given the very limited prospects in visible trade.

Having assessed the nature and extent of the structural changes which have occurred since the implementation of trade liberalisation in the OECS, we now turn attention to the second of the twin impacts of trade reforms in the next chapter.

## **Chapter Five (5)**

### **Empirical Analysis of the Growth related Impacts of Trade Liberalisation**

#### **5.1 *Introduction***

As discussed earlier the impact of trade reforms on the economic performance of countries has been one of the most widely debated subjects in the literature on development economics in the last 2 decades of the 20<sup>th</sup> century and even up to the present. Indeed proponents have gone to great lengths to proclaim its benefits and applicability as a strategy for growth and development to all countries including SIDS and other microstates such as the OECS. The promulgation of this view based on conventional neo-classical trade theory has resulted in the ascendancy of a new orthodoxy on trade policy centred on increased openness through trade liberalisation in conjunction with other supportive reforms. Against this backdrop and impelled by impending changes in the configuration of regional/ international trade agreements, the OECS in tandem with the wider CARICOM region acquiesced to the wisdom of this new dispensation. This was done primarily through a set of domestically-driven and regionally co-ordinated policies of trade and economic reforms. [See sections 3.7] However as discussed in chapter two many have questioned the consensus regarding the efficacy of trade reforms as a strategy for growth and development, based on mixed empirical findings. Some detractors argue that a number of recurrent shortcomings in much of the empirical work continue to make it difficult to link performance outcomes to trade policy. [See Rodrik and Rodriguez (2000), Harrison (1996) among others] Concerns raised include the assumptions used, channels through which the effects occur, problems with disentangling simultaneous effects associated with other policies. Others contend that the trade policy and growth correlations are merely the observation of pro-cyclical economic patterns.

In light of these contrasting views regarding the growth effects of trade liberalisation, we attempt in this chapter to empirically assess various dimensions of the impact of trade liberalisation on overall economic growth in the OECS. In so doing we examine the association between trade policy and economic performance using various measures of openness in combination with the principal channels or determinants of growth. Accordingly we examine the incidence of trade policy on these deterministic factors

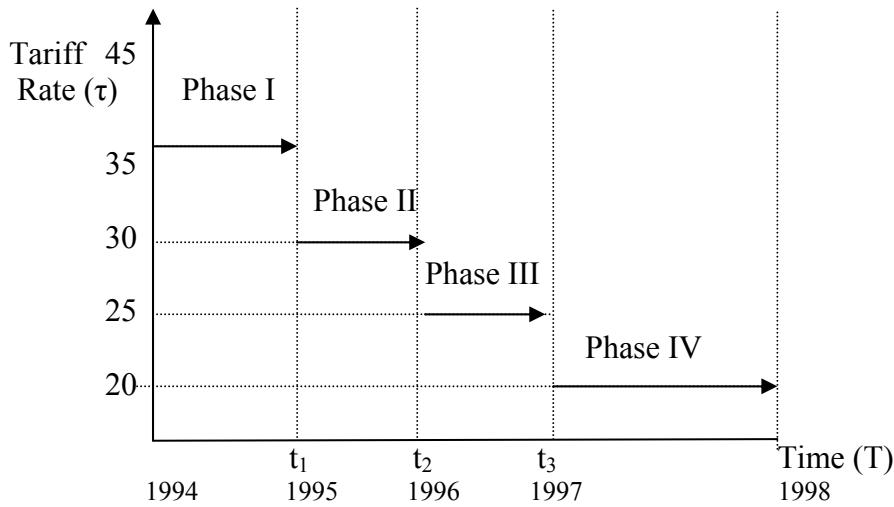
against their expected performance as extolled by the neo-liberal trade policy literature. The approach used is broadly similar to that taken by many other well-known researchers on this topic. [See for example Harrison (1996), Wacziarg (2001), Greenaway et al (2002) and Yanikkaya (2003) among others.]

### **5.1.1 Phased Implementation of the CET**

In Chapter three we identified and described the OECS liberalisation episode and highlighted the main indicators its policy reforms. Before beginning our empirical investigation it is worth restating that this process of trade liberalisation in the form of tariff reduction in the OECS is synonymous with the implementation of the common external tariff (CET) in the wider CARICOM region as a whole. The implementation of the CET which started in 1993 involved a phased reduction of tariffs within prescribed bands over specified periods. Thus, allowing a lag of one year for its impact to filter through the economies, we define 1994 as the start point of the policy change. In terms of the dichotomous framework of our sample period 1984-1993, represents the period *before* the policy change and 1994-2003 is referred to as *after* the commencement of trade reforms.

Identifying the period over which trade liberalisation took place in the OECS in this way is useful in so far it enables us to use a dummy variable (*LIB*) to capture the average effect of the policy over the years in which the reforms were implemented. Hence *LIB* takes a value of one (1) for the period 1994-03 and zero (0) elsewhere. As in chapter four (4) the ten-year implementation period 1994-2003 may be sub-divided into two five-year sub-periods 1994-1998 and 1999-2003 which roughly corresponds to the period *during* the phased implementation period and the post-reform periods, respectively. For ease of exposition these five-year reference periods are elsewhere referred to as *LIB1* and *LIB2*. [See section 5.12]

Although individual member countries implemented intermediate phases of the common external tariff (CET) on different dates, they all started phase one (I) together in 1993 and all had the same final target level of 20% by phase IV. Therefore the implementation of tariff liberalisation in the OECS was of the gradual or phased kind as appose to the big bang/shock approach advocated by some proponents. [See figure 5.1 below]



**Figure 5.1 Phased Reductions of Tariffs under the CET**

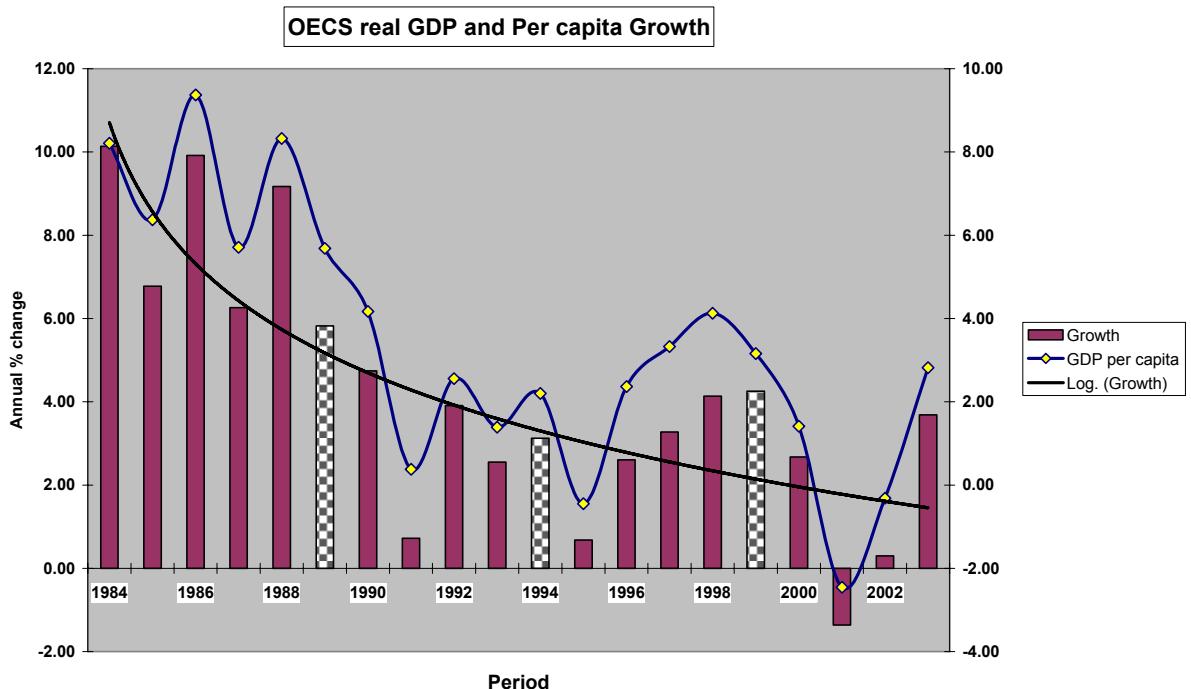
Given the conceptual difficulties of measuring trade liberalisation, this investigation takes an eclectic approach and utilises various measures of trade policy reform and openness (see section 5.6-7). Notwithstanding, the main policy instrument and indicator of trade reform considered in this study is the average effective import tariffs (AET) defined as the ratio of total taxes on trade and international transactions to imports (TIT/M). This is because trade liberalisation in the case of the OECS is largely in terms of tariff liberalisation.

## **5.2 The OECS Growth Experience (1984-2003)**

So as to provide perspective to the ensuing empirical analysis we begin by looking briefly at the growth experience of the OECS over the sample period.

As figure 5.2 below shows, the growth of OECS real GDP as well as the growth of its real income per capita trended downward over the 20-year period 1984-2003. A closer inspection of each 5-year sub-period reveals a steady deterioration until 1995 followed by a short-lived recovery during the implementation phase of the CET up to 1999. The trough and negative growth in 2001 has largely been attributed to an external shock due to terrorist attack of September 11<sup>th</sup>. The pattern in the last 2 years has been positive and suggestive of the so-called '*J*-curve' effect associated with economic adjustment alluded to by the PMC (1991) study. Importantly the regional economy has not returned to the

performance levels recorded in the late 1980s but from 1990 onwards has settled around average growth rate of 2.52% while real per capita growth has grown by an average of 1.76%.



**Figure 5.2 Time Path of Growth in Income**

It is assumed that the swings in output and therefore growth are in large measure correlated to changes in the OECS external trading arrangements i.e its preferential access to traditional export markets as well as its internal trade policies. Against this premise it is most apparent that the growth performance of the OECS over the reform period 1994-2003 has not matched the rhetoric and growth claims made during its implementation.

In the remainder of the chapter we attempt to assess the association and relative contribution of trade policy to economic growth in the OECS. However before doing so we present the theoretical justification for the variables used in the models to be estimated.

### **5.3 Channels in the Trade Policy-Growth Nexus**

While there is broad consensus that a policy of increased openness generates, enhances or causes economic growth, there is some debate as to the particular channels and

mechanisms through which this process occurs. [See Edward (1993), Rodriguez and Rodrik (2001) and Temple (1997) for a review of literature on growth and openness] For example Rodrik and Rodriguez (1999) in a survey of a number of studies cited various methodological weaknesses which may have led to the conclusions. In light of these concerns we take an approach akin to Wacziarg (2001) where we attempt to account for some of these methodological concerns by first trying to identify the channels through which trade policy impacts growth in the OECS. In so doing we classify the channels or macro-determinants in the trade policy-growth nexus under three (3) broad categories namely those due to changes in (i) government policy (ii) technology transmission and (iii) allocation and distribution. On this basis we hope to cover all of the main drivers of growth according to the contending theoretical schools of thought. In the following paragraphs we discuss briefly the manner in which these channels are seen to affect the growth process. The intuition for the approach used in the study comes from various sources such as Hall and Jones (1999) who argue that the differences in capital accumulation, productivity and output per worker are largely due to differences in the social infrastructure across countries. They further contend that it is this social infrastructure comprising of government policies, institutions and other factors which accounts for much of the difference in long-run growth. Moreover, this social infrastructure is largely endogenous.

The neo-classical growth models à la Solow (1957) and others treat government policy and by extension the effects of trade policy as being largely exogenous to long-run growth. Instead they regard growth as being largely a function of the rate of growth of the quality and quantity of capital and the productivity or efficiency of labour. [See p.143 in Thirlwall (2003)] In contrast, the new growth theory argues that economic growth is affected by a number of other factors including trade policy acting through the mechanism/channel of technological change. This linkage is consistent with early insights provided by W.A Lewis (1955) in his celebrated work on the *Theory of Economic Growth*. In this view the government sector and its policies in particular its trade policies play a role in generating economic growth through the adoption of trade reforms that lead to increase openness and the maintenance of macroeconomic stability.

In this connection trade policies aimed at increased openness would lead to increased imports of capital and intermediate goods that embody modern technology. These

imported inputs help increase productivity for domestic production as well as exports. Implicit in this view is that the level of technological improvement is a positive function of the degree of openness. The increased foreign exposure of the export sector results in positive externalities such as the diffusion of knowledge and other spillover effects which then leads to enhanced productivity and the development of more competitive industries. The expected absorption of technological know-how is expected to be reflected in a rise in the share of industry as a whole in the economy and in manufacturing exports in particular. Taken to its limit this adjustment induced by outward-oriented policies should eventually lead to exports as the engine of growth. In a similar manner it is likewise assumed that openness leads to greater levels of foreign direct investment (FDI) which then serves as a channel for the transmission of technological innovations from trade partners further contributing to the transfer of technology developed in more advanced countries.

The government sector is also able to contribute positively to growth in a direct manner from revenue obtained albeit from restrictive trade policy.<sup>90</sup> This occurs through the participation of the government sector in the economy in terms of its consumption and investment in infrastructure in particular its investment in human capital which increases the productivity of labour. In this way and with particular relevance to the developing countries such as those of the OECS, government revenue from trade taxes supports private sector activities and promotes economic growth through the provision of a pool of trained/better skilled labour. [See Lucas (1988)]

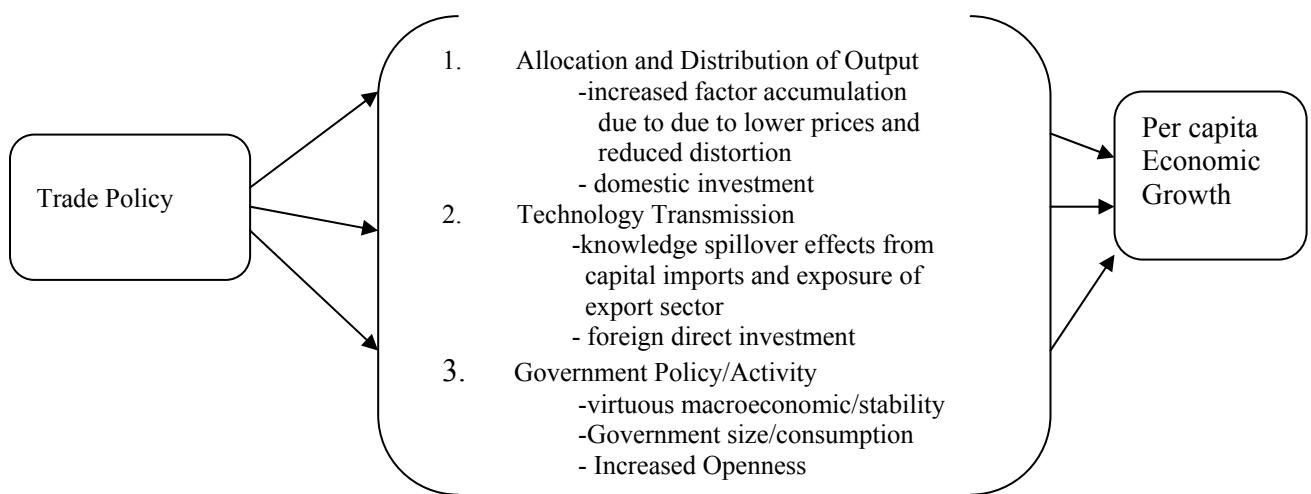
Finally allocation and distribution captures the internal adjustment of the economy due to reduction of price distortion induced by changes in the price incentives away from protection of the domestic import-competing sector towards more neutral prices. This involves the factor accumulation process that follows the shifts in the composition of output and other reallocation effects as trade more closely reflects areas of specialisation and comparative advantage. Other things being equal this would lead to an increase in investment both domestic and foreign driven in part by the lower relative price of imports especially investment goods. The main point here is that a more efficient pricing system due to the reduction of policy induced price-distortion would *ceteris paribus* lead to faster

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<sup>90</sup> In light of this possibility the endogenous growth literature argues that the effect of restrictive policies can be ambiguous resulting in an increase or decrease in growth. [See for example Grossman and Helpman (1990)]

output growth. Indeed the well-known study by Levine and Renelt (1992) found that the link between the investment ratio and growth was one of two robust results in their investigation. Also if the trade liberalisation process is done in the context of a regional agreement as in the case of the OECS allocation and distribution effects may be augmented by the possibility of economies of scale associated with supplying a larger export market.

Given the preceding discussion figure 5.3 below, summarises the channels or key macroeconomic determinants used in this ensuing analysis on the impact of trade liberalisation and openness on growth.



**Figure 5.3 Channels through which Trade Policy generates Economic Growth**

Put differently figure 5.3 says that economic growth can be modelled as a function of the interactions taking place between trade policy and 3 sectors of the economy, namely the private sector, the government sector and the external sector, through various channels. Trade policy determined by government influences allocation and distribution of output in the domestic economy in a manner that can increase factor accumulation through price and incentive effects. This results in increases in consumption and domestic investment due to reduce prices and distortion in the economy. Secondly, trade policy impacts growth by enhancing or restricting international trade. International trade is thought to increase growth through knowledge and technology spillover effects introduced through capital and other intermediate imports and through increase productivity and competitiveness of the export sector from exposure to external markets. Thirdly, government trade policy in

terms of trade liberalisation and increase openness as well as its own activity (consumption and investment) can also determine growth.

#### **5.4 Data Issues**

The study uses a range of openness and macroeconomic variables obtained from a number of sources. We use a panel framework constructed from a stacked pooled data set of 6 countries/cross-sectional units over a period of 20 years (1984-2003). The data used comes from two principal sources. Aggregated data on economic variables comes mainly from the World Development Indicators and the Eastern Caribbean Central Bank (ECCB) while data on bilateral trade with key partners is taken from the United Nations Statistical Database (UNSD).

The sample period was also chosen because it represents a period over which data is available on most of the key variables used in the study. However in the few cases where data points were missing for a given country we used interpolation based on a 3-year moving average or used the linear trend growth of a series to impute the missing values. Notwithstanding the actual specification of estimating equations were also limited by the availability of data on key variables. For example data on expenditure on primary/secondary schools or enrolment and other educational stock variables used to capture the role of human capital in an economy were largely absent. However as Islam (1995) points out, human capital has always been a weak spot in growth empirics. Although Barro and Lee (1993) have made some important progress in putting together a human capital data set for a wide cross-section of countries but as in many cases this does not include the OECS. Also as is well known trade policy data for developing countries is very limited in its availability. Also the often used measures of openness developed by Leamer (1988) and Edwards (1992) do not include the OECS. The same can be said of the trade policy classification measures developed by the World Bank.

#### **5.5 Methodology**

The methodology used here to assess the impact of trade policy on growth involves the use of a growth accounting macroeconomic framework based on new growth theory in which trade policy and key macro-determinants are explicitly modelled. [See section 5.6 for details] Against a backdrop of concerns raised in the empirical literature over

methodological weaknesses of various approaches, we investigate the trade-policy growth nexus using 3 three approaches. (i) First we use our model in a single-equation setting to examine the contemporaneous impact of the policy. (ii) Secondly we extend our growth model to examine the impact of openness measures on growth using an approach similar to Yanikkaya (2003); Thirdly we use a single-equation approach akin to Greenaway (1998, 2002) to examine the dynamic impact of trade liberalisation; (iv) Finally, we use the Wacziarg (2001) simultaneous equation setting to investigate the impact of trade reform in the OECS. A simultaneous equation approach is examined given the limitations of the single-equation in cases where variables on the right-hand side may correlate with the dependent variable. In such a case we are able to control for endogeneity or simultaneity bias inherent in the determinants of growth.

In all cases we examine the impacts of the trade liberalisation on growth *before* and *after* the implementation of trade liberalisation in the OECS.

We use stacked pooled data to create a panel data framework and proceed in a manner broadly similar to approaches taken by other researchers such as Greenaway *et al* (1998a), Wacziarg (2001), Santos-Paulino (2002) among others. While it is possible to estimate separate equations for each country a panel approach is used as this allows one the opportunity to increase the efficiency of estimates and to identify country-specific effects. It also helps to correct bias due to correlation between included persistent or fixed effects that are excluded in a single equation framework.

A panel-based approach is chosen for a number of reasons. First of all it allows one to explore both the time-series and cross-sectional dimensions of the data set and helps to circumvent the problems of insufficient data points. Secondly the structural similarity and historical commonalities shared by the OECS states given the harmonisation of fiscal and other policies suggests that there are likely to be benefits from joint estimation approaches based on a pooled or panel framework. Accordingly much of the estimation used involves the seemingly unrelated regressions estimation (SURE) technique which assumes contemporaneous correlation across the error terms due to shocks from omitted

variables.<sup>91</sup> It also provides opportunity to improve the efficiency of the estimation by estimating them together.

## **5.6 Model and Framework**

In keeping with our earlier discussion on modelling the relationship between trade policy and economic performance we specify a model based on new growth theory which takes the following general functional form.<sup>92</sup>

$$5.6.1 \quad Y_t = F(K_t, L_t : R_t)$$

where Y= GDP or the annual sum of value added in the economy; L = the stock of human capital and general labour; K = domestic physical capital and R = the instantaneous stock of technical knowledge which in the long-run is largely government policy-determined. The subscript 't' represents the time period under investigation.

Importantly 'R' which is analogous to a growth or productivity residual, is a composite term equal to the sum of factor accumulation due to government policy and investment in the economy plus knowledge spillover and technology transmission due to trade and increased openness.<sup>93</sup>

The above framework clearly highlights the profound influence of the government sector in determining 'R' and therefore necessitates that it be treated as an endogenous variable. Indeed a number of researchers have highlighted the importance of government policies in long-run growth performance. [See Gallup *et al* (1998); Hall and Jones (1997); Ram (1987) among others] This is also consistent with the typically larger share of public consumption in GDP in small countries and observed positive empirical relationship between trade openness and government size. [Alesina and Wacziarg (1999)] However, to emphasize the technology transmission and knowledge spillover effects of trade we then

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<sup>91</sup> Indeed some studies such as Harrison (1996) noted that she found better results from using a pooled approach as apposed to a cross-section based analysis.

<sup>92</sup> Our core new growth theory model draws on the work of Lucas (1988), Romer (1986), Levine and Renelt (1992) Harrison (1996), Knight *et al* (1993) among others.

<sup>93</sup> The composite term 'R' is analogous to the growth residual referred to by Harberger (1998) who argued that traditional inputs of labour and capital fell short in explaining observed output growth.

decompose the effects of ‘R’ to partition-off the government-determined trade policy effects on growth. As a result our model can now be written as:

$$5.6.2 \quad Y_t = F(K_t, L_t : T_t, Z_t)$$

‘T’ is a vector of factors which captures the growth impetus to the economy from trade related effects. In the view of this study these are mainly in terms of technology transfer (A) that increases the productivity of factors due to foreign exposure on both the import and export side. These effects are assumed to be a positive function of openness ( $O_i$ ) which will be measured using various measures of openness ( $i=1,2..n$ ). Hence  $T=A_i(O_{it})$  [The proxies for openness are discussed in detailed in the next section (5.7).]

Meanwhile  $Z$  = is a vector of control variables which captures *inter-alia* government’s expenditure (G) and its policy actions on the macro-economy including its trade policy (P) and the quality of its macroeconomic management (Q).

Accordingly the above growth model captures the usual sources of growth in terms of the returns to scale from factor accumulation and technical progress partition to highlight the role of trade policy and openness. In view of the above setup the model is driven by the policy actions of government on the one hand and by the externalities due to foreign exposure induced by trade liberalisation and openness on the other. This makes the components of R (Z and T) our main arguments of interest. Both of these broad determinants help to identify the model and may in reality be growth-enhancing or reducing. Accordingly, there is an inherent paradox where the government’s actions and policies may either promote efficiency and growth or reduce it.

It is worth mentioning that given the underdeveloped size of the private sector in the OECS the role of investment in research and development (R&D) as a source of technological progress or the process of learning-by-doing are also not explicitly considered. However, given that this is a new growth theory framework the effects of human capital on technological progress through cost reduction, product innovation and quality improvements and the like are considered important.<sup>94, 95</sup> Writers such as

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<sup>94</sup> As in the Lucas endogenous growth model or an augmented Solow-Swan model, human capital is pivotal to the new growth theory approach.

Edwards (1992) argue that “openness is primarily associated with growth in countries with human capital to effectively absorb new information.” However the absence of adequate data on the share of expenditure on education in GDP or enrolment rates at the primary, secondary and post secondary level has meant that human capital is not modelled explicitly as an observed variable but subsumed as a function of government policy and expenditure.<sup>96</sup>

In terms of its micro-foundations, the model can be written as an augmented Cobb-Douglas production function as follows:

$$5.6.3 \quad Y_t = K_t^\alpha L_t^\beta T_t^\gamma Z_t^\theta$$

where ( $0 < \alpha, \beta, \gamma, \theta < 1$ ). Assuming constant returns to scale in factor inputs (i.e  $\alpha + \beta = 1$ ) then the effect of trade openness (T) and government policy (Z) can increase or reduce output such that:

$$\alpha + \beta + \gamma + \theta \begin{cases} \geq 1 & \text{if } \gamma + \theta \geq 0 \\ \leq 1 & \text{if } \gamma + \theta \leq 0 \end{cases}$$

Thus the sign of the partial elasticity of output to trade openness  $\gamma$  as well as the partial elasticity of output to trade policy  $\theta$  are indeterminate *ex ante* and hence may be negative or positive. Accordingly the scale of returns or degree of homogeneity of the production function may be increasing or decreasing depending on the signs of  $\theta$  and or  $\gamma$ .<sup>97</sup> On the other hand the elasticity of output to labour and capital are expected to be positive. Put differently this says that the impact of trade liberalisation and openness on an economy such as the OECS is essentially an empirical question.

Differentiating equation (5.5.2) with respect to time and taking the natural log of each growth determining variable, gives the following growth equation.

<sup>95</sup> However Miller and Upadhyay (2000) contends, its place in the production function is still controversial with writers such as Mankiw *et al* (1992) stresses its importance while others such as Islam (1995) have dismissed it as largely irrelevant to explaining output.

<sup>96</sup> This is suitable given that expenditure on human capital is largely provided by government sector and accounts for in some cases 25% of the budget of some territories.

<sup>97</sup> As Harrison (1996) points out the assumption of constant returns to scale as well as perfect competition leads to upwardly biased estimates of the productivity residuals.

$$5.6.4 \quad \frac{\dot{Y}}{Y} = \alpha \frac{\dot{K}}{K} + \beta \frac{\dot{L}}{L} + \gamma \frac{\dot{T}}{T} + \theta \frac{\dot{Z}}{Z}$$

which can also be written as:

$$5.6.5 \quad d\ln Y_t = \mu + \alpha d \ln K_t + \beta d \ln L_t + \gamma d \ln T + \theta d \ln Z_t + \varepsilon_t$$

Based on this framework the impact of trade policy and trade openness on economic growth may result in constant, increasing or decreasing returns to scale. If the coefficients of composite channels  $Z$  and  $T$ , ( $\gamma$  and  $\theta$ ) are statistically insignificant we have no real effects from trade liberalisation. If they are both positive and significant for all or any of their respective components then we have evidence that the interactions of trade policy, openness, trade and government expenditure in the OECS economy have resulted in an increasing return to scale effect on growth. If they are of opposite signs the impact may be ambiguous and if they are both negative then the impact is decidedly one of decreasing returns to scale.

Given that the trade effects ( $T$ ) as well as government policy effects ( $Z$ ) are each made up of more than one component, the model can hence be represented in terms of the usual factor channels augmented by these effects as follows:

$$5.6.6 \quad d\ln Y_t = \mu + \alpha d \ln K_t + \beta d \ln L_t + \sum_{i=1}^n \gamma_i d \ln T_{it} + \sum_{j=1}^m \theta_j d \ln Z_{jt} + \varepsilon_t$$

where  $i=1..n$  and  $j = 1..m$  are the trade and government policy effects respectively.

The growth generating process for each channel or growth determinant occurs in the following manner:

(5.6.7.1)  $L_t = L_0 e^{nt}$  This says that labour grows at the exogenous rate of growth of the population ' $n$ '.

(5.6.7.2)  $K_t = s_k Y_t - \delta K$  The growth impetus of capital in the economy is a function of the share of national income invested on physical less the depreciation rate of the stock of capital.

(5.6.7.3)  $T_t = A_i e^{rt} O^v$  Here growth due to trade is a function of the rate of technological progress ( $r$ ), in conjunction with the growth stimulus from openness which is itself a function of the intensity or volume of trade flows. The subscript  $i= [1,2]$  represents the two sources of technological progress. Whereas technological progress due to trade has elsewhere been proxied by the share of manufactured goods in merchandise exports in this study it will be represented by the share of manufacturing in value added ( $A_1=\text{MANUVAR}$ ) on the domestic side and by the share of foreign direct investment to GDP ( $A_2=\text{FDIR}$ ) on the external side. In either case the growth impetus is a function of trade and thus depends on the rate of growth of exports ( $x$ ) and the share of investment goods in imports ( $m_i$ ).

(5.6.7.4)  $Z_t = G^g Q^q P^r$  This says that growth due to  $Z_t$  is a function of government policy which is reflected in its expenditure i.e fixed investment in the economy ( $G$ ); quality of its macroeconomic policies ( $Q=\text{MACQ}$ ) and its trade policy ( $P=\text{LIB}$ ).

Here we refer to the policy actions of government which may determine its size captured by its share of expenditure in the economy and its trade policy which would determine the level of trade restrictions (in terms of tariff and non-tariff barriers) and various trade volume measures of openness. Given the known fiscal dependence of the OECS the government's participation in the economy and hence its size is predominantly a function of trade tax revenue (TTR). However, whereas openness in terms of lower trade revenue is expected to reduce the size of government it may have the reverse effect. As noted by Rodrik (1998b) the degree of openness can influence the size of government with an increase in its size due to efforts to smooth consumption and the adverse effects of external shocks on the domestic economy. The reaction of the government to the vagaries of openness such as contracting new debt to finance the adjustment may also explain the ambiguous impact of trade liberalisation on the government sector and hence its contribution to economic growth.

Following Wacziarg (2001) we also include a variable (Q), which is an index of the quality of macroeconomic management by government.<sup>98</sup> Such a variable is relevant as a channel through which trade policy can lead to positive real effects given that macroeconomic stability is vital to the creation of an economic climate conducive to private sector led-growth. For example a more stable economic environment would typically be associated with lower levels of uncertainty which would allow investors to consider longer planning horizons. It also serves to encourage not only domestic and foreign investors alike to invest but also helps consumer confidence among a host of economic benefits. This macro-quality variable is expected to correlate positively with trade openness as well as growth. It is derived from an index of equally weighted percentile rankings of three (3) policy characteristics within the discretion of government. These characteristics are intended to capture the fiscal prudence of government and the extent of crowding out of the private sector, in particular. They include the rate of growth of the share of credit to the government sector in broad money (M2), external debt to GDP ratio and the level of inflation. In each case a lower ranking indicates better management of the economy given that lower values of each variable in the index is more desirable. Importantly, slow growth of government's share of M2 reducing the prospect of crowding out the private sector, hints that the government is not a diverter of resources or direct competitor to the private sector.

Further the terms and conditions inherent in the implementation of trade liberalisation agreements and openness in a regional or international setting tend to impose various conditions on member governments to ensure minimum standards of macroeconomic management in particular as it relates to fiscal performance.<sup>99</sup> Accordingly, scores close to 1 are considered to be congruent with such benchmark standards.

Substituting equations 5.6.7.1-5.6.7.4 into equation 5.6.5, we obtain a linear unconditional and expanded single equation model of these relationships which is given as:

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<sup>98</sup> The particular choice of variables in this index was determined by availability and the need for consistency in the basis on which the ranking can be assessed to be good. It would be noted that given that monetary policy is passive in the region, inflation rates are largely exogenously determined. However, inflation is used given that government can influence the domestic component of consumer prices as well as imports which is a major source of cost push type inflation.

<sup>99</sup> These terms are covered under the revised treaty of Chaguaramas and the CET. Also at the level of the OECS efforts have been directed at establishing a regional equivalent to the EU's Growth and Stability Pact.

(5.6.8)

$$d \ln y_t = \mu + \beta_1 d \ln K + \beta_2 d \ln L + \beta_3 d \ln A_1 + \beta_4 d \ln A_2 + \beta_5 d \ln O + \beta_6 d \ln G + \beta_7 d \ln Q + \beta_8 d \ln P + F_i + \varepsilon_t$$

where  $\mu$  and  $\beta_i$  are the parameters to be estimated and  $F_i$  represents country-specific effects.

The growth residual ( $\varepsilon_t$ ) is assumed to satisfy the requirements of the classical linear regression model of zero mean and constant variance. As will be seen in the ensuing sections various specification of this general model will be used to estimate the impact of trade on economic growth through various channels or growth determinants in conjunction with trade policy and openness variables.

The main variables used in this chapter are presented in the table below. Other secondary variables used in the study are described elsewhere as they are introduced.

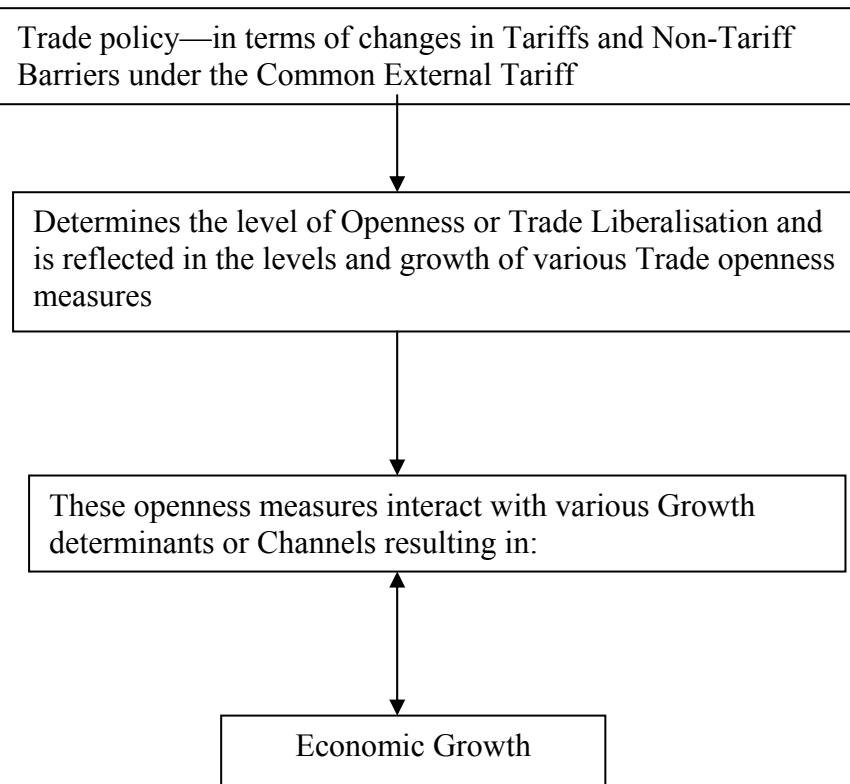
**Table 5.1 Variables and Definitions**

| Variable                              | Abbreviation   | Variable | Definition |
|---------------------------------------|----------------|----------|------------|
| Real GDP per capita                   | Y              | LNY      |            |
| Gross Domestic Invesment Ratio        | I              | INVR     | $I=dK/GDP$ |
| Stock of Physical Capital             | K              |          |            |
| Stock Labour                          | L              | LNPOP    |            |
| <i>1. Trade Effects</i>               | T              |          |            |
| (i) Technology Transmission           | A <sub>i</sub> |          |            |
| Share of Manufacturing in Value-Added | A <sub>1</sub> | MANUVAR  | MANUVA/GDP |
| Foreign Direct Investment Ratio       | A <sub>2</sub> | FDIR     | FDI/GDP    |
| (ii) Openness                         | O <sub>i</sub> | TINR†    | (X+M)/GDP  |
| <i>2. Government Policy Effects</i>   | Z              |          |            |
| Government Consumption Expenditure    | G              | GCR      | GC/GDP     |
| Macroeconomic Policy Index            | Q              | MACQ     | s.t        |
| Trade Liberalisation Policy           | P              | LIB†     | s.t        |

Notes: †Indicates the main proxy for the variable but that there are many alternative measures

's.t' means See Text

Given the above, the framework and intuition underlying our analysis of the relationship between trade policy and growth can be summarised and represented diagrammatically as follows:



**Figure 5.4 A Schematic representation of the trade policy-growth nexus**

From figure 5.4 we see that impulses from trade policies are transmitted through and reflected in various channels to various measures of openness which then impact on economic growth. The total impact of trade policy on economic growth in any case is the sum of its partial impacts on these channels and key determinants of growth.

Nonetheless, given these plausible relationships our first course of interest is to estimate the extent of the contribution of trade policy measured through various indicators of openness on growth. The corresponding impact on exports will be examined in section 5.10.3. However before doing so we first discuss and examine further the range of openness and trade restriction measures used in study.

## **5.7 Trade Openness Measures and Growth**

Measuring trade openness is still a highly subjective and contentious issue in the empirical literature. The unresolved nature of the debate has meant that the definition of openness remains somewhat imprecise. [See (Pritchett, 1996b); (Harrison, 1996) among

others]. In light of the known limitation of any one measure of openness and the lack of consensus on its definition we use a number of measures of trade policy and openness in investigating the degree of association and correlation between trade policy, openness and economic growth in the OECS.

More specifically as suggested by Baldwin (1989) we use a number of *incidence* and *outcome-based* measures of openness grouped under two broad categories namely (a) trade intensity measures and (b) price-based measures. Such a wide array of measures is used in an effort to be comprehensive and examine as many dimensions of the OECS trade liberalisation episode as possible.

- The trade shares based measures are:
  - (i) TINR—Trade intensity ratio given as—merchandise trade to GDP ( $X+M/GDP$ )—(the standard openness measure) all in real terms.
  - (ii) MGDP—Import penetration ratio ( $M/GDP$ )
  - (iii) XGDP—Export orientation ratio ( $X/GDP$ )
  - (iv) Bilateral trade intensity with key trading partners: (as a share of GDP)
    - a. BTUSR—with the US
    - b. BTEUR —Europe
    - c. BTWCMR —wider/non-OECS CARICOM
    - d. BTIOR—Inter OECS trade.<sup>100</sup>
- Meanwhile the price-based measures are given as:
  - (i) AET—The import-weighted average effective tariffs ( $TIT/M$ )
  - (ii) IDR—Import duties as a share of imports ( $ID/M$ )
  - (iii) NTBR—The share of non-tariff barriers to imports ( $NTB/M$ )
  - (iv) FDR—Fiscal dependence measures the share of taxes on international trade in total taxes ( $TIT/TT$ )
  - (v) BMP—The Black Market Premium or (Foreign Exchange Premium)
  - (vi) REER—The real effective exchange rate

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<sup>100</sup> The significance of bilateral trade or openness measures with non-CARICOM countries in essence captures the effects of WTO liberalisation and or other special trading arrangements with these trading countries.

Outcome measures are chosen because they go beyond the legal or official rates and policy intentions underlying the attitude of countries to trade but capture the observable and undisputable evidence. Moreover they can be used to deduce measures based on deviation from a free trade optimum. The price-related trade policy/openness measures are used to assess the extent to which they are distortionary and welfare reducing.

As mentioned earlier, the import-weighted average tariff rate (AET) is the principal policy variable which captures the liberalisation episode of the OECS in terms of the tariff reductions under the CET. It is derived from the two main types of trade barriers namely tariff barriers and non-tariff barriers. It provides an indication of the region's policy stance, changes in the structure of protection and extent of liberalisation.

The non-tariff barriers ratio (NTBR) is used to capture the potential distortionary effects of quantitative restrictions. The Black Market Premium or (Foreign Exchange Premium) (BMP) captures the extent to which the exchange rate may be misaligned (overvalued or undervalued) based on the deviation away from unity. It represents the extent to which domestic prices are above international prices. It is also an indication of the nature of macroeconomic management of the region. Likewise the REER is used as a measure of the extent to which export prices are above or below import prices.

The bilateral measures of openness are used to assess the extent to which openness to trade with key trade partners has contributed to the economic growth in the OECS. In so doing we control for the role of factors more typical of a gravity model framework such as distance and land area in trying to capture the true impact of trade policy on trade and economic performance.

## **5.8 Correlation between Economic Growth and Trade Policy and Openness Measures**

Here we examine the extent of simple pairwise correlation between openness measures and economic growth. The results are reported in panel A and B of table 5.2 below. Panel A shows the correlation between growth and price-based trade openness measures while panel B shows the correlation between growth and trade-intensity measures.

**Table 5.2.A Correlation between economic growth and Price-related trade policy variables**

|        | DLNY    | AET     | BMP     | LNREER  | IDR     | NTBR    | FDR     | LIB |
|--------|---------|---------|---------|---------|---------|---------|---------|-----|
| DLNY   | 1       |         |         |         |         |         |         |     |
| AET    | -0.2603 | 1       |         |         |         |         |         |     |
| BMP    | -0.2262 | 0.5988  | 1       |         |         |         |         |     |
| LNREER | -0.0748 | -0.1329 | 0.1439  | 1       |         |         |         |     |
| IDR    | 0.1849  | 0.1477  | -0.0433 | -0.3201 | 1       |         |         |     |
| NTBR   | -0.2215 | 0.7832  | 0.2877  | -0.0849 | -0.0206 | 1       |         |     |
| FDR    | 0.0789  | 0.3040  | 0.2290  | -0.1390 | -0.0929 | -0.0204 | 1       |     |
| LIB    | -0.3195 | 0.4359  | 0.3512  | -0.0357 | -0.2767 | 0.4077  | -0.0727 | 1   |

From Table 5.2A we see as expected that economic growth (DLNY) correlates negatively with all the price/trade tax-based measures of openness except the average import duty rate (IDR) and the measure of fiscal dependence (FDR).<sup>101</sup> However, it is instructive to note that the liberalisation dummy *LIB* (-0.320) and AET (-0.260) have the strongest albeit negative relationship with growth making them the best price-based proxies for capturing the impact of trade liberalisation on growth. This is followed by the black market premium (BMP) and the non-tariff barriers (NTBR) which are of largely similar magnitude in their correlation to growth. Notably the LNREER had the lowest correlation to growth in absolute terms. In terms of the correlation among the price-based measures the relationship is strongest between AET and NTBR at 0.783 followed by BMP and AET at 0.599. Elsewhere the correlation is quite weak.

**Table 5.2.B Correlation between Economic growth and trade volume-based Openness measures**

|        | DLNY    | LIB     | TINR   | MGDP    | XGDP    | BTUSR  | BTEUR  | BTWCMR | BTIOR |
|--------|---------|---------|--------|---------|---------|--------|--------|--------|-------|
| DLNY   | 1       |         |        |         |         |        |        |        |       |
| LIB    | -0.3195 | 1       |        |         |         |        |        |        |       |
| TINR   | 0.2723  | -0.6731 | 1      |         |         |        |        |        |       |
| MGDP   | 0.1253  | -0.2375 | 0.4299 | 1       |         |        |        |        |       |
| XGDP   | 0.0929  | -0.4978 | 0.7937 | 0.1605  | 1       |        |        |        |       |
| BTUSR  | 0.1564  | -0.1633 | 0.1060 | -0.1566 | -0.1359 | 1      |        |        |       |
| BTEUR  | 0.0239  | -0.1810 | 0.2028 | -0.0616 | -0.0492 | 0.3413 | 1      |        |       |
| BTWCMR | -0.0482 | -0.1792 | 0.2762 | 0.0825  | 0.3169  | 0.0909 | 0.6679 | 1      |       |
| BTIOR  | -0.0615 | -0.1018 | 0.1333 | -0.0653 | 0.0722  | 0.1726 | 0.8101 | 0.9099 | 1     |

Notes: Columns 3 is the standard trade intensity measures, merchandise trade to GDP. Columns 4 and 5 are the import-penetration and export-orientation ratio given as imports to GDP and export to GDP respectively. The remaining columns 6-9 are trade-share ratios measuring the four key trading partners of the OECS, namely, the US, EU, non-OECS CARICOM, and the OECS itself, respectively.

From table 5.2B we see that the trade-intensity openness measures on the other hand are mostly positively correlated with growth. Understandably the standard openness measure (TINR) has the strongest correlation with growth at 0.272 making it the best measure of openness. This is followed by trade with the US (BTUSR), import-penetration (MGDP)

<sup>101</sup> This implies that both the FDR and IDR schedules are downward sloping providing evidence of tariff liberalisation.

and export-intensity (XGDP) in that order. It must be noted that OECS bilateral trade within itself (BTIOR) and with the wider CARICOM region (BTWCMR) show a negative correlation with growth.<sup>102</sup> As expected trade openness is positively correlated with all the other volume-based measures of openness. However, the correlation between export-intensity and trade openness with the wider CARICOM is the most significant at 0.794.

## **5.9 Model Estimation**

We begin our empirical investigation by attempting to capture the contemporaneous effects of the trade liberalisation on economic growth using a single-equation representation of the trade policy-growth relationship using the model as presented in equation 5.6.8 above. The regression equation is specified in log differences as this reduces problems due to heteroscedasticity which may overstate the precision of the estimation. However given the similarities in the countries in the OECS in terms of size this is not expected to be a major problem as confirmed by a plot of the square of the residuals of the model against the dependent variable. The variables are also expressed in logs given that their coefficients approximate their growth rates.

Our estimation technique is based on the Seemingly Unrelated Regression (SUR) approach to estimation developed by Zellner (1962). The SUR approach is considered appropriate given its effectiveness in dealing with heteroscedasticity and contemporaneous correlation in the errors across equations. This estimation technique is amenable to the OECS given that there are likely to be factors omitted from the estimating equations that have affected the member territories in a broadly similar manner. This includes changes in the EU regime on agricultural imports and other international trade related shocks. The results of this initial estimation with and without fixed-effects are presented in table 5.3 below.

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<sup>102</sup> This is somewhat surprising because although the relative share of intra-OECS trade averaged 5.5% between 1993 and 2003, trade with the wider CARICOM was similar in volume with trade with the EU both averaging 20% over the same period. Thus the negative correlation between trade in region and growth may be a reflection of a tendency of trade with the region to increase when economic performance and competitiveness with the rest of the world is down.

The results show that growth in pre-reform period was better than in the post-reform period with or without regard to fixed-effects. More specifically domestic investment and trade openness were the principal determinants of growth in the pre-liberalisation period (1984-1993). However its significance in explaining growth weakened in the post implementation period as indicated by a slightly smaller coefficient, only significant at the 10% level. The post reform period also show that trade liberalisation was negatively related to growth at the 1% level. The estimated contractionary effect is given as approximately 4.3%. Contrary to expectation foreign direct investment showed a negative relationship to growth. Meanwhile while in keeping with the view of proponents of liberalisation government consumption in the economy was found to be insignificant in explaining economic growth. However, in both periods openness (DTINR) was found to be positively associated with growth.

**Table 5.3 Impact of Trade Policy and other growth determinants on Growth**

| Dependent Variable: Per capita growth<br>DLNY |        | Fixed Effects                                  |                            |                            |                            |
|---|--------|--|----------------------------|----------------------------|----------------------------|
|   |        | Pre-reform                                     | Post reform                | Pre-reform                 | Post reform                |
| <i>Explanatory variables</i><br>growth of:    |        |  |                            |                            |                            |
| Gross Domestic Investment                     | DINVR  | 0.0009<br>(2.0410)                             | 0.0008<br>(1.6530)         | 0.0009<br>(1.7856)         | 0.0007<br>(1.3714)         |
| Population                                    | DLNPOP | 0.0520<br>(0.2514)                             | -0.0278<br>(-0.1330)       | -0.0074<br>(-0.0332)       | -0.0901<br>(-0.3999)       |
| Foreign investment ratio                      | DFDIR  | -0.0013<br>(-2.3972)                           | -0.0016<br>(-2.9832)       | -0.0012<br>(-2.1021)       | -0.0015<br>(-2.7910)       |
| Share of Manu in VA                           | DMVA   | -0.0269<br>(-0.8758)                           | 0.0257<br>(0.9948)         | -0.0322<br>(-1.0274)       | 0.0288<br>(1.0940)         |
| Macroeconomic Quality                         | DMACQ  | 0.0030<br>(1.2573)                             | 0.0024<br>(0.9921)         | 0.0026<br>(1.0532)         | 0.0018<br>(0.7174)         |
| Government Consumption ratio                  | DGCR   | -0.0007<br>(-1.2309)                           | -0.0007<br>(-1.2407)       | -0.0007<br>(-1.1056)       | -0.0007<br>(-1.1552)       |
| Openness                                      | DTINR  | 0.1875<br>(4.2556)                             | 0.2145<br>(5.1668)         | 0.1902<br>(4.1120)         | 0.2197<br>(5.1002)         |
| Trade Liberalisation                          | LIB    |  | -0.0436<br>(-4.2084)       |                            | -0.0448<br>(-4.3820)       |
| Constant                                      | C      | 0.0288<br>(3.8545)                             | 0.0585<br>(6.5819)         | 0.0292<br>(3.9146)         | 0.0623<br>(7.0118)         |
|   | AR(1)  | 0.2173<br>(2.1156)                             | 0.1542<br>(1.4445)         | 0.1620<br>(1.4804)         | 0.1055<br>(0.9352)         |
| <i>Summary Statistics</i>                     |        | R-squared<br>F-statistic<br>Durbin-Watson Stat | 0.2948<br>5.1725<br>2.0330 | 0.4333<br>8.3259<br>2.0163 | 0.3049<br>3.1716<br>2.0136 |
| <b>Total Effect</b>                           |        |  | <b>0.2433</b>              | <b>0.2283</b>              | <b>0.1814</b>              |
| <b>0.1762</b>                                 |        |  |                            |                            |                            |

Notes: (i) Robust t-values are in parentheses.

(ii) All equations are estimated using Panel Enhanced Generalised Least Squares (Cross-section SUR)

To account for the country-specific factors, we then used a fixed-effects model which assigns a dummy variable for each country in the sample. F-statistic tests were then used to determine whether the data accepts the restriction on the period and country-specific effects. The results show improvements both in the measure of goodness of fit (R-squared) and the value of the F-test for the test of joint significance of the explanatory variables

To better relate to our model developed in section 5.6 (see equation 5.6.2 and 5.6.4 above) we decompose these results in terms of the contribution and impact of each argument and growth determinant. [See table 5.4 below.]

**Table 5.4 Channel Effects: Before and After Reforms**

| Dependent Variable: Per capita growth<br>DLNY | Growth index /<br>regression coefficient |        | Pre-reform    | Post reform   |
|---|--|--------|---------------|---------------|
| (a) Unspecified effects                       | $\mu$                                    | C      | 0.0288        | 0.0585        |
| (b) Factor Intensity Effects: $L, K$          |  |        | 0.0530        | -0.0270       |
| (i) Physical Capital                          | $\beta = \beta_1$                        | DINVR  | 0.0009        | 0.0008        |
| (ii) Stock of Labour                          | $\alpha = \beta_2$                       | DLNPOP | 0.0520        | -0.0278       |
| (c) Trade Effects: $T$                        | $\gamma = \beta_3 + \beta_4 + \beta_5$   |        | 0.1592        | 0.2387        |
| (i) Technology Transmission ( $A_i$ )         | $\beta_3 + \beta_4$                      |        | -0.0282       | 0.0242        |
| Share of Manu in VA                           | $\beta_3$                                | DMVA   | -0.0269       | 0.0257        |
| Foreign Direct Investment                     | $\beta_4$                                | DFDIR  | -0.0013       | -0.0016       |
| (ii) Openness                                 | $\beta_5$                                | DTINR  | 0.1875        | 0.2145        |
| (d) Government Policy Effects: $Z$            | $\theta = \beta_6 + \beta_7 + \beta_8$   |        | 0.0023        | -0.0419       |
| (i) Government Consumption Expenditure        | $\beta_6$                                | DGCR   | -0.0007       | -0.0007       |
| (ii) Macroeconomic Policy                     | $\beta_7$                                | DMACQ  | 0.0030        | 0.0024        |
| (iii) Trade Liberalisation Policy             | $\beta_8$                                | LIB    |               | -0.0436       |
| <b>Total Effects</b>                          |  |        | <b>0.2433</b> | <b>0.2283</b> |

In particular we comment on the magnitude and signs of the coefficients of the growth determinants and explanatory variables used in the growth model. The relative statistical significance as reported in table 5.2 has already been discussed.

The table shows that the total impact of the growth determinants in both the pre and post-reform periods were positive. However, their combined impact on growth was an

estimated 1.5% percentage points less in the post reform period. The role of factor accumulation on growth declined from positive 5.7% positive to negative 2.7% over the reform period due largely to a sharp fall in the contribution of labour to growth. Also notable is that trade effects like unspecified effects seem to have increased in its contribution to growth. The main contributor in this regard was trade openness which recorded an increase in its impact on growth during the reform period by an estimated 2.7%. A desirable outcome worthy of mention is that the growth impetus from technology transmission changed from negative to positive over the reform period resulting in a positive impact of an estimated 2.4%.<sup>103</sup> Nonetheless, the net positive overall contribution of growth-determinants to growth was almost entirely attributable to trade volume intensity which accounted for approximately 93.5 % of the growth impetus in the post-reform period compared to 77% in the pre-reform period.

On the other hand the effects of government policy on the OECS economy moved from positive to negative in line with expectations. Trade liberalisation is shown to be the most likely source of this outcome given that the impact of government expenditure remained unchanged over both sub-periods. However, the impact of its macro-management though remaining positive has declined slightly in its contribution to growth.

Finally we assessed whether the trade policy-growth model was growth-neutral i.e characterised by a constant returns to scale process or a growth enhancing or reducing returns to scale process. To do this, we used a Wald tests procedure to impose the restriction and test the null hypothesis that the sum of the estimated coefficients was equal to one (1). The results of these tests are presented in table 5.5 below.

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<sup>103</sup> However a Wald Test of the joint significance of the trade transmission variables was not significantly different from zero.

**Table 5.5 Returns to Scale**

| Wald Test:<br>Reference Period | <i>Null<br/>Hypothesis:</i> $H_0: \sum \beta_i = 1$ against $\sum \beta_i \neq 1$ |         |         |             |
|--------------------------------|---|---------|---------|-------------|
|                                | Test Statistic  | Value   | df      | Probability |
| Pre-Reform                     | F-statistic   | 11.3350 | (1, 99) | 0.0011      |
|                                | Chi-square  | 11.3350 | 1       | 0.0008      |
| Post reform                    | F-statistic   | 11.9376 | (1, 98) | 0.0008      |
|                                | Chi-square  | 11.9376 | 1       | 0.0006      |
| Pre-Reform with Fixed Effects  | F-statistic   | 12.3412 | (1, 99) | 0.0007      |
|                                | Chi-square  | 12.3412 | 1       | 0.0004      |
| Post reform with Fixed Effects | F-statistic   | 13.6313 | (1, 98) | 0.0004      |
|                                | Chi-square  | 13.6313 | 1       | 0.0002      |

Note: Restrictions are linear in coefficients.

Notes: 'df' represents the number of degrees of freedom in each test

The table shows that the null hypothesis that the sum of the coefficients is equal to one (1) is rejected by both the F-test and Chi-Squared procedures. Accordingly there is no evidence to support the view that the OECS growth process as modelled above was characterised by constant returns to scale or better in either period.

## **5.10 Trade Openness Measures and Economic Growth**

### **5.10.1 Price-based Measures**

We now turn our attention to the relationship between economic growth and openness proxied by various measures of trade restriction or price distortion. Here we use the general growth model developed earlier and augment this specification with proxies for openness each entering one at a time. We begin with the price-based measures. The results of this investigation are presented in table 5.6 and 5.7 below.

In table 5.6 we see that although the sign on all the trade restriction measures of openness excepting the import duty ratio (IDR) are in keeping with *a priori* expectations, they are largely insignificant in determining growth. Only the black market premium (BMP) and trade tax ratio (TTR) are statistically significant in their impact on growth, albeit negative over the period under consideration.

**Table 5.6 Price Based Measures and Growth**

| Variable                   | Equations            |                      |                      |                      |                      |                      |                      |
|----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                            | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                    |
| <i>Growth determinants</i> |                      |                      |                      |                      |                      |                      |                      |
| LNPOP                      | -0.0003<br>(-0.0190) | -0.0048<br>(-0.3145) | 0.0093<br>(0.8460)   | 0.0014<br>(0.0890)   | 0.0107<br>(0.8849)   | 0.0060<br>(0.3692)   | 0.0074<br>(0.6777)   |
| GCR                        | 0.0008<br>(0.9670)   | 0.0003<br>(0.3534)   | 0.0008<br>(1.8296)   | 0.0009<br>(1.0566)   | 0.0008<br>(1.8467)   | 0.0008<br>(0.8793)   | 0.0008<br>(1.5844)   |
| INVR                       | 0.0013<br>(1.8457)   | 0.0011<br>(1.7357)   | 0.0019<br>(4.0068)   | 0.0012<br>(1.8840)   | 0.0018<br>(4.0667)   | 0.0011<br>(1.6842)   | 0.0018<br>(4.0219)   |
| MACQ                       | 0.0025<br>(0.6150)   | 0.0036<br>(0.8985)   | -0.0015<br>(-0.4907) | 0.0027<br>(0.7723)   | -0.0012<br>(-0.4390) | 0.0070<br>(1.5467)   | -0.0018<br>(-0.6386) |
| MANUVAR                    | 0.0327<br>(3.6429)   | 0.0241<br>(2.4534)   | 0.0371<br>(3.9237)   | 0.0363<br>(4.8232)   | 0.0364<br>(3.5000)   | 0.0373<br>(4.1043)   | 0.0363<br>(3.7559)   |
| FDIR                       | -0.0015<br>(-2.0943) | -0.0012<br>(-1.6990) | -0.0013<br>(-2.3013) | -0.0014<br>(-1.9430) | -0.0012<br>(-2.1729) | -0.0016<br>(-2.0915) | -0.0010<br>(-1.9076) |
| C                          | -0.0782<br>(-0.4186) | 0.2044<br>0.7496     | -0.1823<br>(-1.2641) | -0.1536<br>(-0.7400) | -0.2411<br>(-1.7166) | -0.1083<br>(-0.5585) | -0.2291<br>(-1.7005) |
| <i>Openness measures:</i>  |                      |                      |                      |                      |                      |                      |                      |
| AET                        | -0.1280<br>(-1.2086) |                      |                      |                      |                      |                      |                      |
| BMP                        |                      | -0.2007<br>(-1.7401) |                      |                      |                      |                      |                      |
| REER                       |                      |                      | -0.0005<br>(-0.6537) |                      |                      |                      |                      |
| IDR                        |                      |                      |                      | 0.2278<br>(0.6254)   |                      |                      |                      |
| NTBR                       |                      |                      |                      |                      | -0.0389<br>(-0.3201) |                      |                      |
| TTR                        |                      |                      |                      |                      |                      | -0.7863<br>(-2.0255) |                      |
| FDR                        |                      |                      |                      |                      |                      |                      | 0.0406<br>(0.7706)   |
| AR(1)                      | -0.2241<br>(-1.4143) | -0.1652<br>(-1.0572) | 0.1110<br>1.0883     | -0.2685<br>(-1.6486) | 0.1171<br>(1.1688)   | -0.1125<br>(-0.7470) | 0.1083<br>(1.0721)   |
| R-squared                  | 0.1962               | 0.2231               | 0.3954               | 0.1963               | 0.3820               | 0.2329               | 0.3835               |
| No of observations         | 104                  | 104                  | 108                  | 104                  | 108                  | 104                  | 108                  |
| Durbin-Watson              | 2.1875               | 2.2105               | 2.0221               | 2.1581               | 2.0063               | 2.2267               | 2.0196               |

Notes: (i) All Equations estimated using panel Enhanced Generalised Least Squares (EGLS)

(ii) The cross-section SUR, standard error and covariances are degree of freedom corrected.

Again the pattern of significance among the growth determinants was largely the same with these alternative measures of trade restrictions as with the volume-based measures in table 5.6. Thus domestic investment as well as the share of manufacturing in GDP remains the principal growth determinants in both cases. The impact of the share of government consumption in the economy was positive and significant in conjunction with the contributions of non-tariff barriers (NTBR) and real effective exchange rate (REER) which were both negative and statistically insignificant. Hence the overall association between GCR and growth in the presence of price-based measures has been mixed. As with volume-based openness measures the quality of macro-management (MACQ) as well as population (LNPOP) were both insignificant in explaining growth performance in

general. Meanwhile the ratio of foreign direct investment (FDIR) continued to be significant and negatively associated with growth.

Having examined the contemporaneous impact of trade liberalisation on growth in the OECS in sections 5.9 and 5.10 we now turn to examine the dynamic and temporal dimensions of the impact of the policy change.

### **5.10.2      Volume-based Measures**

Here we continue with our assessment of the general relationship between economic growth and trade openness in the OECS over the full sample period (1984-2003). As before, we estimate a multivariate linear regression model which includes various trade intensity or volume-based measures of openness in conjunction with the set of key growth determinants based on the core growth model discussed above. The results are presented in table 5.7 below.

From the table we see that except for the overall trade-openness measure (TINR) which is the ratio of total trade to GDP, volume-based openness measures were otherwise not significant in explaining growth in the region. Of the other measures of openness the import-penetration ratio (MGDP) was most important. Moreover the pattern of significance of the growth determinants remained largely unchanged in the face of these alternative measures of openness. In this regard, the share of government consumption, the investment ratio as well as the contribution of manufacturing to value-added in the OECS remain the significant determinants of growth in the OECS. Contrary to expectations the share of foreign direct investment (FDIR) was surprisingly and consistently negatively associated with growth. Meanwhile the quality of macro-management (MACQ) though insignificant was negatively related to growth.

**Table 5.7 Volume based openness measures, Growth determinants and Growth**

| Dependent Variable: DLNY<br>Variable | Equations            |                      |                      |                      |                      |                      |                      |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                      | 1                    | 2                    | 3                    | 4                    | 5                    | 6                    | 7                    |
| <i>Growth determinants</i>           |                      |                      |                      |                      |                      |                      |                      |
| LNPOP                                | 0.0129<br>(1.2291)   | 0.0110<br>(0.9695)   | 0.0081<br>(0.7765)   | 0.0095<br>(0.4862)   | -0.0037<br>(-0.1642) | -0.0070<br>(-0.3278) | 0.0027<br>0.1341     |
| GCR                                  | 0.0011<br>(2.3145)   | 0.0009<br>(1.9343)   | 0.0009<br>(2.0029)   | 0.0013<br>(2.4783)   | 0.0023<br>(2.3095)   | 0.0014<br>(1.3521)   | 0.0019<br>(1.9731)   |
| INVR                                 | 0.0022<br>(5.0193)   | 0.0019<br>(4.1644)   | 0.0020<br>(4.4019)   | 0.0021<br>(3.9449)   | 0.0009<br>(0.8393)   | 0.0004<br>(0.3174)   | 0.0006<br>(0.5793)   |
| MACQ                                 | -0.0031<br>(-1.0568) | -0.0016<br>(-0.5577) | -0.0021<br>(-0.7335) | -0.0010<br>(-0.3115) | -0.0045<br>(-0.4956) | -0.0010<br>(-0.1001) | -0.0017<br>(-0.1765) |
| MANUVAR                              | 0.0235<br>(2.2880)   | 0.0339<br>(3.1004)   | 0.0337<br>(3.4404)   | 0.0343<br>(2.7325)   | 0.0533<br>(2.6504)   | 0.0535<br>(2.7108)   | 0.0499<br>(2.5035)   |
| FDIR                                 | -0.0011<br>(-2.1353) | -0.0012<br>(-2.1268) | -0.0010<br>(-1.9222) | -0.0023<br>(-3.3882) | -0.0015<br>(-1.0010) | -0.0012<br>(-0.7858) | -0.0011<br>(-0.7976) |
| C                                    | -0.2957<br>(-2.2193) | -0.2523<br>(-1.7822) | -0.2427<br>(-1.8270) | -0.2394<br>(-1.1310) | -0.0871<br>(-0.3028) | -0.0244<br>(-0.0906) | -0.1559<br>(-0.6154) |
| <i>Openness measures:</i>            |                      |                      |                      |                      |                      |                      |                      |
| TINR                                 | 0.0588<br>(2.4420)   |                      |                      |                      |                      |                      |                      |
| XGDP                                 |                      | 0.0003<br>(0.6900)   |                      |                      |                      |                      |                      |
| MGDP                                 |                      |                      | 0.0005<br>(1.3812)   |                      |                      |                      |                      |
| BTUSR                                |                      |                      |                      | 0.0100<br>(0.4096)   |                      |                      |                      |
| BTEUR                                |                      |                      |                      |                      | -0.1635<br>(-1.5019) |                      |                      |
| BTWCMR                               |                      |                      |                      |                      |                      | -0.1580<br>(-1.2808) |                      |
| BTIOR                                |                      |                      |                      |                      |                      |                      | -0.3731<br>(-1.5018) |
| AR(1)                                | 0.0855<br>(0.8434)   | 0.1205<br>(1.2009)   | 0.0802<br>(0.7857)   | 0.2057<br>(1.6729)   | -0.3597<br>(-1.7039) | -0.3799<br>(-1.6924) | -0.3982<br>(-1.8241) |
| R-squared                            | 0.4425               | 0.3824               | 0.4018               | 0.4998               | 0.3451               | 0.3318               | 0.3521               |
| No of observations                   | 108                  | 108                  | 108                  | 80                   | 66                   | 66                   | 66                   |
| Durbin-Watson                        | 1.9965               | 2.0083               | 1.9970               | 1.9985               | 1.9760               | 1.9298               | 1.9465               |

Notes: (i) All Equations estimated using the SUR approach accounting for contemporaneous correlation  
(ii) The standard error and covariances of the estimates are all degree of freedom corrected.

## 5.11 Modelling Trade Liberalisation in a Dynamic panel framework

To do model trade liberalisation in a dynamic framework we stay within our core new growth model and use a base specification largely similar to Greenaway et al (1998, 2002) who recommended that the impact of trade liberalisation is better investigated in a dynamic setting, given that the impact may involve a lag response. Accordingly we use our policy variable or liberalisation dummy (*LIB*) defined as before to take a value of one

(1) in the years of interest and zero (0) otherwise. In this way we determine whether there has been a statistically significant shift in the intercept of the growth equation in the periods covered by the policy indicator. Based on this framework we use the following dynamic growth model.

#### 5.11.1

$$d \ln y_{i,t} = c + \alpha d \ln y_{i,t-1} + \beta_1 GCR + \beta_2 d \ln REER_{i,t} + \beta_3 \ln d \ln POP_{i,t} + \beta_4 INVR_{i,t} + \beta_5 d \ln X + \beta_6 LIB_t + \Delta \varepsilon_{i,t}$$

where  $y_{i,t}$  = real per capita GDP;  $d \ln y_t$  = growth of real GDP; GCR = government expenditure in the economy used here as a proxy for human capital intended to capture expenditure on education; The REER = real effective exchange rate is a price variable used as a substitute for the terms of trade is intended to capture changes in the price of imports relative to export prices. POP = population serves as a proxy for labour (L); while INVR = the investment ratio ( $I/Y$ ) is a proxy for physical capital (K) and is represented by gross capital formation.  $LIB_t$  = is a dummy policy variable which captures the liberalisation episode at various periods.

$LIB$  captures the average impact over the full post-liberalisation period of the sample, while ( $LIB1$ ) and ( $LIB2$ ) represents 2 sub-periods of 5-years. These sub-periods broadly correspond to the implementation of phase I-III of the CET and phase IV, respectively. In addition, to these sub-periods we examined the timing of the impact of reforms on growth using lags of main the policy indicator  $LIB$ .

It would be noticed that the specification of the above dynamic model is broadly similar to the growth equation used in the initial estimation of the contemporaneous impact conducted in section 5.9.

The presence of the lagged dependent variables on the left hand side of the estimating equation is intended to capture the dynamic effects of the impact. However, this violates the assumption of independence of the explanatory variables due to correlation with the error term, resulting in biased and inconsistent estimates. Therefore the model must be estimated using a method which provides consistent estimates such as an instrumental variable approach. For this reason, we use the Generalised Method of Moments (GMM)

approach advanced by Arellano and Bond (1991) which is considered to provide the most efficient estimates. However as Greenaway (2002) points out, consistency of the GMM estimator requires a lack of second order serial correlation.

Thus for best results of the GMM estimator we attempt to find variables which are correlated with the lagged differenced term but not correlated with the first differenced error. Given the inherent difficulties in this regard we use lags of the endogenous and pre-determined variables of two-periods or greater as instruments. [See Anderson and Hsiao (1981)]

However, as a consequence of using the instrumental variables to estimate the parameters and control for the simultaneity problem we need to ensure that the restrictions associated with using the instruments are valid. Accordingly, we conduct a Sargan-type test to test the joint hypothesis that the model is correctly specified and the instrumental variables used are valid thereby avoiding problems of possible over-identification from use of too many instrumental variables. The results from the estimation of 3 forms of this base/core growth equation are presented in columns 1-3 in table 5.8 below.

Column 1 seeks to report the contemporaneous impact of trade reforms on economic growth. The impact of policy as captured by the liberalisation term (*LIB*) is negative and significant. Moreover it is similar in sign and magnitude to the results obtained in section 5.9 and reported in table 5.3. Column 2 examines the impact during the first-five year period (1994-1998) which coincides with phase I-III of the CET as compared to the second-five year period (1999-2003) during which the final phase (IV) was implemented. It shows that the impact in both periods was statistically significant and negative.

Meanwhile, column 3 examined the timing of the policy in conjunction with the dynamic effects. Once again the coefficient on *LIB* was comparable with estimates obtained earlier. Secondly we observe that only the one-year past growth performance had a statistically significant impact on current growth, albeit a negative one. Also of interest to this investigation and the timing of the impact is that the one and two-year lagged values of the policy variable were both found to be insignificant and negative in their impact on growth. On the basis of these findings it is apparent that the lack of significance of the

policy change on economic growth seem robust to various specifications of the timing of the reform.

**Table 5.8 Dynamic impact of Trade Policy on Growth**

| Variable                 | Coefficient | t-ratio       | Coefficient | t-ratio       | Coefficient | t-ratio       |
|--------------------------|-------------|---------------|-------------|---------------|-------------|---------------|
| Constant                 | -0.00822    | (-0.4845)     | -0.01933    | (-1.1029)     | 0.12544     | (2.30464)**   |
| dlny <sub>t-1</sub>      |             |               |             |               | -0.64550    | (-3.63268)*** |
| dlny <sub>t-2</sub>      |             |               |             |               | -0.14984    | (-0.6090)     |
| dlny <sub>t-3</sub>      |             |               |             |               | -0.09339    | (-0.5732)     |
| GCR                      | 0.00042     | (0.7928)      | 0.00081     | (1.6509)      | -0.00501    | (-2.36180)**  |
| dlnREER                  | -0.11908    | (-1.2154)     | -0.13298    | (-1.4458)     | -0.32558    | (-2.32034)**  |
| dlnPOP                   | -0.18914    | (-1.0764)     | -0.10061    | (-0.5753)     | -0.73014    | (-1.6149)     |
| INVR                     | 0.00151     | (5.37366)***  | 0.00152     | (5.35869)***  | 0.00162     | (2.26937)**   |
| LIB                      | -0.03450    | (-3.58081)*** |             |               | -0.04404    | (-1.8702)     |
| LIB1                     |             |               | -0.04909    | (-4.95673)*** |             |               |
| LIB2                     |             |               | -0.02077    | (-2.09835)**  |             |               |
| LIB(-1)                  |             |               |             |               | -0.01174    | (-0.7623)     |
| LIB(-2)                  |             |               |             |               | 0.02069     | (1.3071)      |
| AR(1)                    | -0.00584    | (-0.0738)     | -0.00248    | (-0.0303)     | 0.50145     | (3.2742)      |
| AR(2)                    | 0.03454     | (0.4489)      | 0.01990     | (0.2497)      | -0.21619    | (-1.2484)     |
| Validity of Restrictions |             |               |             |               |             | 0.93510       |
| R-squared                | 0.3655      |               | 0.43554     |               |             | 0.33326       |
| No.of observations       | 102         |               | 102         |               | 84          |               |

Notes: (i) All equations were estimated using the GMM method.

(ii) The test statistic for the validity of overidentifying restrictions (when the number of instruments is greater than the number of parameters) is given as the *J*-statistic times the number of observations used in the regression. The *J*-stat is distributed asymptotically Chi-squared with degrees of freedom equal to the number of over-identifying restrictions (*r*)

(iii) \*, \*\*, \*\*\* indicates significance at the 10%, 5% and 1% respectively.

(iv) The t-ratios are heteroscedastic robust based on Panel Consistent Standard Errors.

It must also be noted that given the possibility of heteroscedasticity and or autocorrelation of unknown form the estimation was done using various methods for estimating the coefficient covariance matrixes in an effort to improve the standard errors and precision of the estimates. Notwithstanding the pattern in terms of sign, significance and magnitude of coefficients remained largely robust and insensitive to changes in the instruments and assumptions used in generating the weighting matrixes and or coefficient covariances

In terms of the other growth determinants or channel variables we observe that the signs on the independent variables were mixed. In keeping with similar findings by other analysts the growth of POP was found to be associated with a reduction in economic growth and the share of government expenditure in the economy (GCR) though

significant was found to be negatively related to growth. Meanwhile the REER term was also statistically significant and negative in its relationship to growth. Once again, the positive impact of domestic investment ( $I/Y$ ) on growth remained the most consistent channel relating to growth. Important to our dynamic specification and the presence of lagged dependent variables is the fact that although the model shows first order serial correlation there is no second order serial correlation, suggesting that the model is not dynamically miss-specified. This was confirmed by a Sargan-type test for joint significance of the over-identifying restrictions which failed to reject the null hypothesis that the restrictions are satisfied.

Given the criticisms and known limitations of the single equation estimation framework such as the endogeneity problem we now attempt to investigate the impact of trade liberalisation and economic growth in the OECS using a simultaneous approach.

## **5.12 *Estimating the Trade Policy Growth nexus-A Simultaneous Model Approach***

### **5.12.1 Introduction**

Up to this point we have examined the relationship between trade policy and growth using a range of measures of trade policy and openness contemporaneously and in a dynamic sense all based on single equation modelling framework in a manner similar to many other well-known researchers on the subject. However in light of the often cited methodological weaknesses of single-equation based studies we now attempt to investigate the OECS liberalisation experience using a simultaneous approach. The approach taken is similar in many respects to that taken by Wacziarg (2001), thus some useful insights if not comparisons may be made from the findings in this instance. The emphasis here is to attempt to measure the impact of trade policy on growth in conjunction with the contribution of the key channels and determinants of growth. Among other reasons a simultaneous approach is considered useful in dealing with the known problems of endogeneity which causes simultaneity bias. As a result it is likely that coefficients on policy and other variables may be overstated.

### **5.12.2 Simultaneous Model - The Setup**

We specify a system of simultaneous equations in a manner largely consistent with our earlier discussion (section 5.3 and 5.6) regarding the various channels wherein trade-policy may influence growth and trade performance. Again this approach which follows closely the approach used by Wacziarg (2001) is in keeping with “new growth theory” in which a menu of factors are deemed to be relevant when estimating the trade policy-growth relationship, including the macroeconomic policy environment and initial level of development.

In a nutshell the approach taken here to model the growth process of the OECS economy attempts to capture the interaction between trade policy and growth through key macroeconomic determinants or channel variables according to growth theory.

More specifically we use a set of eight (8) quasi-structural equations made up of 6 channel equations, an openness equation and a growth equation. The workings of the model is such that each of the channel variables interact with trade policy in a manner that is reflected in the level of openness or volume of trade in each of the two sub-periods under investigation. According to this framework, trade policy and thus openness as derived in section 5.9 does not enter the growth equation directly. Hence economic growth is modelled as a function of the channel variables which are in turn a function of trade policy.

From these inter-relations which also represent 3 main structural blocks (openness, channels and growth) we have:

$$(5.12.2.1) \quad [Openness(TP_t)] = \gamma_t + \theta_t[Growth_{ij}] + \eta_{ij}[X_{ij}] + \omega_t.$$

$$(5.12.2.2) \quad [Channel_{it}] = \alpha_{it} + \delta_{it}[TP_{it}] + \beta_{ij}[X_{ij}] + \varepsilon_{it}$$

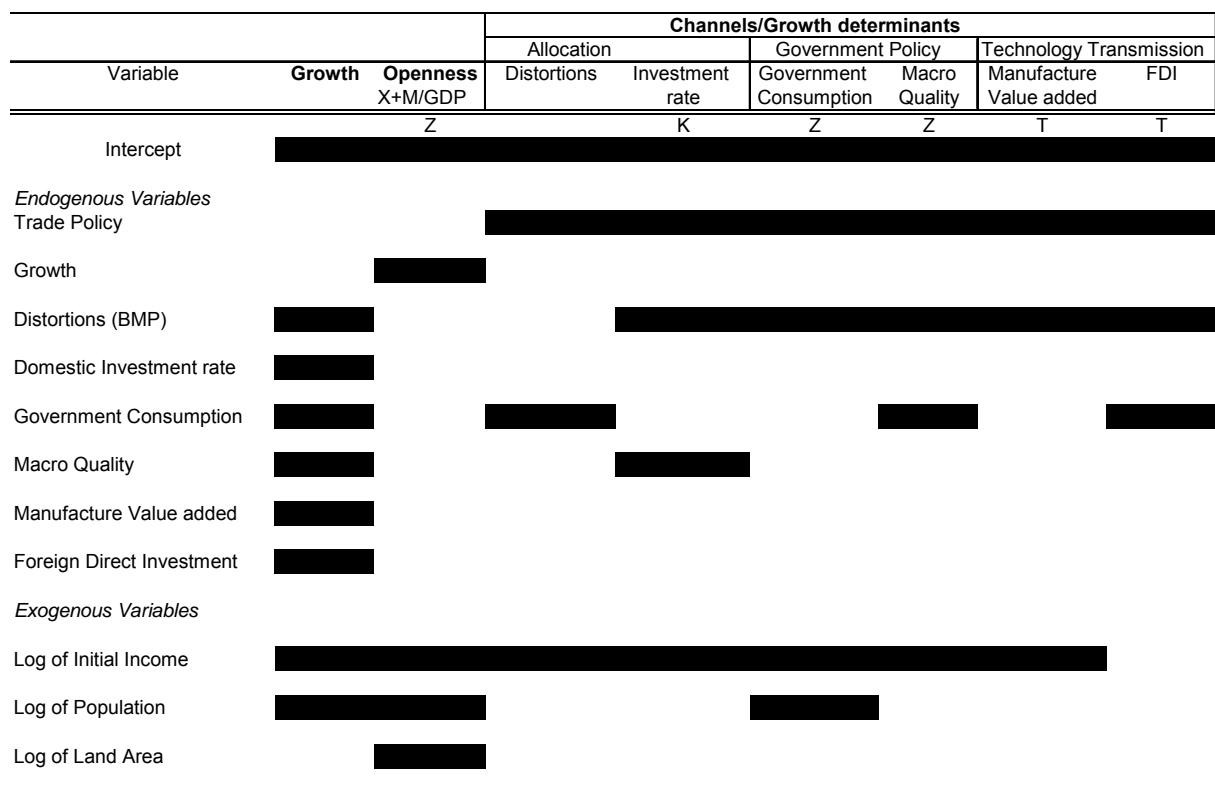
$$(5.12.2.3) \quad [Growth_t] = \mu_t + \lambda_{it}[Channel_{it}] + \phi_{ij}[X_j] + \nu_t$$

where  $i = (1,2\dots,6)$  represents the number of channels and  $t = (1,2)$  represents *before* and *after* the policy change. Each equation is augmented by  $j = (1\dots,k)$  additional controlled variables, X which may be endogenous or exogenous. The error terms  $\omega$ ,  $\varepsilon$  and  $\nu$  are assumed to satisfy the usual requirements of the classical linear regression model. Based

on this setup the total effect of trade policy on growth is the product of the effect of trade policy on a given channel multiplied by the effect of the given channel on growth.<sup>104</sup>

On this basis the contemporaneous relationship between the three structural blocks or eight quasi-structural equations used in this simultaneous framework is presented in figure 5.5 below

**Figure 5.5 Structural System-Equation Specifications and Interrelationship**



In addition to trade policy stances (*TPI & II*) which are largely based on government-determined trade restrictions this formulation also includes price-distortions as a channel through which trade policy may impact on growth. The Black Market premium (BMP) which captures the gap between the official exchange rate and the social value of foreign currency is used as a proxy for allocative inefficiency and distortion of the price system. Given that BMP was one of the most significant sources of distortion in our earlier estimation of the relative importance of price-based measures of openness in explaining growth (see table 5.6/5.2A) it is retained here as an appropriate measure in this aspect of our investigation.

<sup>104</sup> One drawback to this approach is that a positive sign must be interpreted with caution because it simply requires a similar sign positive or negative in each part of the transmission mechanism.

### **5.12.3 The Trade Policy Component of Openness**

We begin by generating two trade policy openness indexes intended to capture the relative contributions of the main trade policy variables, in trade performance *before* and *after* the commencement of trade liberalisation in the OECS. The intuition here is that trade performance at any given time can be modelled as a function of factor endowment, government policy and capacity or gravity variables. Hence using this *ex post* formulation OECS pre and post-liberalisation trade performance or openness (TINR) is given as a function of per capita growth, import duty (IDR), non-tariff barriers (NTBs), the CET or policy change indicator (LIB), initial per capita income and two gravity components (land and population).<sup>105</sup> The gravity components (land and population) are used to control for structural characteristics and non-policy determinants of trade intensity. In so doing we purge the trade performance ratios of gravity components. For example the small size of the OECS territories and their inherent limited factor endowment are inherently associated with a higher external dependence and trade intensity. With due regard to these considerations the resulting indexes which are designated as *TPI* and *TPII* are calculated as a weighted average of the estimated coefficients in a regression using the above mentioned variables as weights.

The results of the estimation are given in table 5-9 below.

The liberalisation variable ‘LIB’ captures the implementation of the CET and takes values of 1 in the post policy change years and is zero in pre-reform years. Trade performance and measure of openness is given as the trade intensity ratio defined as  $(X+M)/GDP$ . IDR=import duty ratio to imports and NTBR = non-trade barriers coverage ratio defined as the ratio of taxes on international trade and transactions less import duty to imports.

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<sup>105</sup> Similar indexes have been constructed by the likes of Wacziarg (2001), Thomas et al. 1991 as well as Papageorgiou et al. 1991 among others.

**Table 5.9 Estimation of Trade Shares due to Trade Policy**

| Independent Variable     |        | Trade Policy I<br>Baseline index | Trade Policy II<br>implementation of CET |
|--------------------------|--------|----------------------------------|--|
| Constant                 | C      | 0.8454<br>(0.9815)               | 0.9973<br>(1.3448)                       |
| Growth of per capita GDP | DLNY   | 0.0831<br>(1.1130)               | 0.1136<br>(1.5427)                       |
| Import duty ratio        | IDR    | -2.1821<br>(-3.3847)             | -2.3087<br>(-3.7389)                     |
| Non-tariff barrier ratio | NTBR   | -0.8710<br>(-3.2201)             | -0.8748<br>(-3.5037)                     |
| Liberalisation           | LIB    |                                  | -0.0706<br>(-3.0666)                     |
| Initial Income           | PCY84  | 0.0000<br>(-1.4379)              | 0.0000<br>(-1.7540)                      |
| Gravity components       | Lnpop  | 0.0179<br>(0.2440)               | 0.0103<br>(0.1636)                       |
| " "                      | Lnland | 0.0067<br>(0.0969)               | 0.0114<br>(0.1883)                       |
| Serial Correlation       | AR(1)  | 0.8397<br>(18.9832)              | 0.8170<br>(16.5529)                      |
| Adjusted R-squared       |        | 0.9695                           | 0.9808                                   |
| S.E. of regression       |        | 1.0853                           | 1.0911                                   |
| Durbin-Watson stat       |        | 1.9080                           | 1.8750                                   |
| No. of observations      |        | 104                              | 104                                      |

Notes: (i) The Equations were estimated using Panel Enhanced Generalised Least Squares  
(ii)The dependent variable is TINR or openness defined as the trade to GDP ratio ( $X+M$ )/GDP  
(iii) The number in parentheses are the t-statistics

As expected the trade shares are negatively related with both tariff and non-tariff barriers. However perhaps contrary to *a priori* expectation it was also negatively associated with the trade liberalisation in terms of the phased implementation of the CET captured by LIB. Isolating the trade-policy component of observed trade performance our openness indexes are given as follows.

$$(5.12.3.1) \quad TPI = -2.1821IDR_t - 0.8710NTBR_t$$

$$(5.13.3.2) \quad TPII = -2.3087IDR_t - 0.8748NTBR_t - 0.0706LIB_t$$

This shows that coefficients on the trade policy instruments (all of which are statistically significant) increased in absolute terms after liberalisation was implemented. Thus, although contrary to expectations, the impact of the CET on openness as captured by the policy variable LIB showed a slight reduction in the trade shares by 0.07%.

### **5.12.4 Correlation Analysis: Trade policy Indexes, Openness and Growth Channels**

#### *5.12.4.1 Trade Policy Openness Indexes and Trade Policy Instruments*

To gauge the importance and relative weight of each trade policy variable in trade performance *before* and *after* trade reforms we examined the correlation between each instrument and the corresponding trade policy index. This revealed that the correlation between import duty revenue and openness fell in absolute terms from 0.607 before reforms to 0.333 in the post-reform period. Non-tariff barriers on the other hand increased slightly from 0.782 to 0.812. Therefore non-tariff barriers have increased in relative importance in current trade regime of the OECS as a trade policy instrument. This is in contrast to tariff rates which have diminished significantly. The extent of the shift in trade policy between the two periods can also be inferred from the correlation between the trade policy indexes which is 0.854. This high degree of correlation suggests that the new regime is only different from the pre-reform regime by an estimated 15%.

[See table 5.10]

**Table 5.10 Correlation between Trade Policy Openness and Key components**

|      | TPI     | TPII    | IDR     | NTBR   | LIB    |
|------|---------|---------|---------|--------|--------|
| TPI  | 1.0000  |         |         |        |        |
| TPII | 0.8536  | 1.0000  |         |        |        |
| IDR  | -0.6070 | -0.3330 | 1.0000  |        |        |
| NTBR | -0.7821 | -0.8128 | -0.0206 | 1.0000 |        |
| LIB  | -0.1606 | -0.6509 | -0.2767 | 0.4077 | 1.0000 |

#### *5.12.4.2 Trade Policy Openness Indexes and Growth Channels*

We now examine the correlation between the growth channels and the openness indexes as this provides preliminary evidence of the nature of the underlying relationship between them while establishing the appropriateness of the channels used.

**Table 5.11 Correlation Matrix of Channels, Growth and Openness Variables**

|                | DLNY    | TPI     | TPII    | BMP     | GCR     | INVR   | MACQ    | MANUVAR | FDIR |
|----------------|---------|---------|---------|---------|---------|--------|---------|---------|------|
| <b>DLNY</b>    | 1       |         |         |         |         |        |         |         |      |
| <b>TPI</b>     | 0.0566  | 1       |         |         |         |        |         |         |      |
| <b>TPII</b>    | 0.2272  | 0.8472  | 1       |         |         |        |         |         |      |
| <b>BMP</b>     | -0.2262 | -0.2634 | -0.3920 | 1       |         |        |         |         |      |
| <b>GCR</b>     | 0.1157  | 0.1833  | 0.1609  | -0.1867 | 1       |        |         |         |      |
| <b>INVR</b>    | 0.1567  | 0.2762  | 0.2217  | 0.0750  | -0.1056 | 1      |         |         |      |
| <b>MACQ</b>    | 0.0579  | 0.2176  | 0.1612  | 0.0367  | -0.0113 | 0.2680 | 1       |         |      |
| <b>MANUVAR</b> | 0.0261  | -0.1355 | -0.0876 | -0.0971 | 0.3324  | 0.1253 | -0.0529 | 1       |      |
| <b>FDIR</b>    | -0.0155 | 0.2035  | 0.1094  | 0.0394  | 0.0683  | 0.4834 | 0.1782  | 0.3410  | 1    |

As can be observed from table 5.11 both trade policy openness indexes (*TPI* & *TPII*) correlated favourably with growth in particular the post-reform stance. Secondly all the growth channels except the foreign direct investment ratio (FDIR) have the expected sign in terms of their correlation with growth (DLNY). Further all the channel variables except the share of manufacturing in economy (MANUVAR) and the black market premium (BMP) are positively related to trade openness. Although there is evidence of a shift in the relative importance of various channels under either policy the domestic investment rate maintained the highest correlation with trade openness. This result underscores the dependence of the local private sector on trade. As may be expected the correlation of government consumption ratio (GCR) to trade openness declined with the regime change from 18 to 16 %. A similar trend of reduced correlation is apparent for all the other channels. The impact of the policy change in reducing systemic distortions is underscored by the increased negative relationship between BMP and trade openness.

## 5.12.5 Summary Indicators

### 5.12.5.1 *Trade Policy Indexes and Growth Channels*

Finally before presenting the results from the simultaneous approach to this investigation we first examine the summary statistics of the key variables used in the model so as to form a general impression in terms of their range, mean and standard deviation. [See table 5.12 below]

**Table 5.12 Summary Statistics of Key Variables**

| (1984-2003)               | Symbol  | Mean    | Minimum | Maximum | Std. Dev. |
|---------------------------|---------|---------|---------|---------|-----------|
| Growth                    | DLNY    | 0.0313  | -0.1588 | 0.2846  | 0.0575    |
| Trade Policy Pre-reform   | TPI     | -0.3081 | -0.4707 | -0.1769 | 0.0494    |
| Trade Policy Post-reforms | TPII    | -0.3551 | -0.4876 | -0.1842 | 0.0659    |
| Black Market Premium      | BMP     | 1.1609  | 1.0026  | 1.2870  | 0.0644    |
| Government Consumption    | GCR     | 20.9421 | 14.2595 | 60.1800 | 7.3335    |
| Investment Ratio          | INVR    | 31.6063 | 10.6000 | 58.1179 | 8.4471    |
| Macroeconomic Policy      | MACQ    | 3.5000  | 1.0000  | 6.0000  | 1.1409    |
| Manufacturing Value-Added | MANUVAR | 6.7630  | 2.0646  | 15.0114 | 2.9144    |
| Foreign Investment Ratio  | FDIR    | 9.1765  | 0.0000  | 31.2970 | 6.3025    |

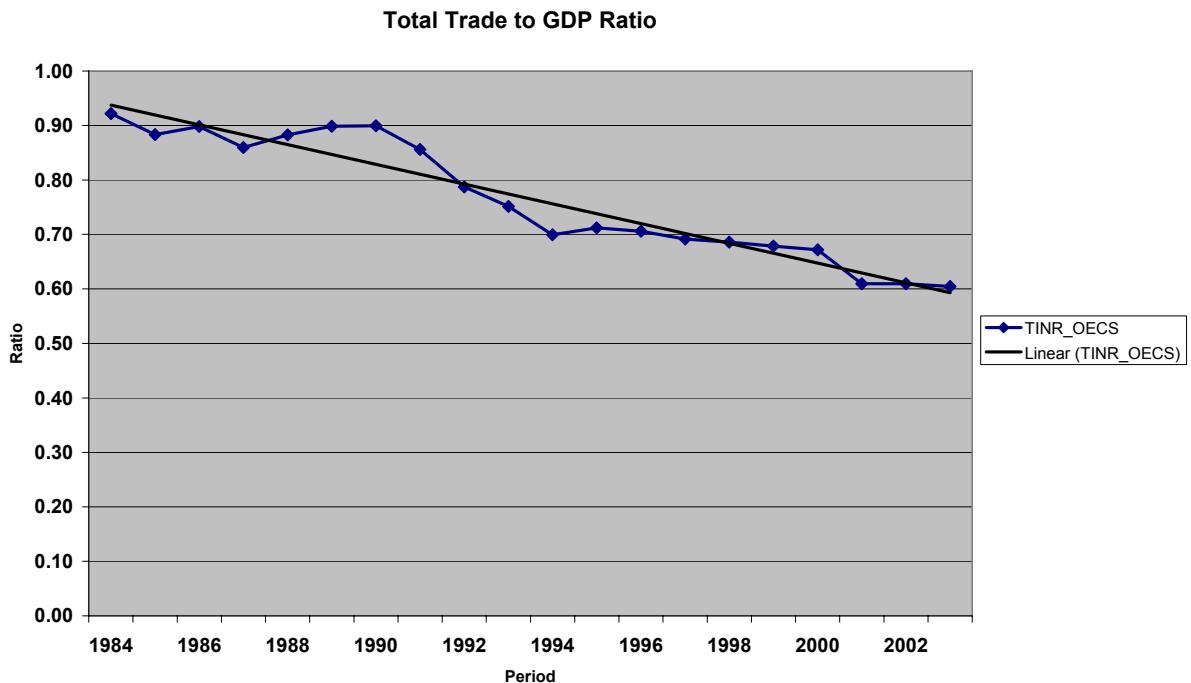
### 5.12.5.2 *Trade Policy Indexes and Growth Performance*

A similar inspection to compare and contrast growth performance in relation to openness as captured by the trade policy index, before and after the commencement of trade reforms in the OECS is given in table 5.12.

**Table 5.13 Summary Statistics of Growth and Trade Policy Indices**

|                   | Mean           | Maximum        | Minimum        | Std. Dev.      |
|-------------------|----------------|----------------|----------------|----------------|
| Growth (1984-93)  | 0.0506         | 0.2846         | -0.1588        | 0.0718         |
| Growth (1994-03)  | 0.0140         | 0.0900         | -0.0701        | 0.0325         |
| <i>Difference</i> | <i>-0.0367</i> | <i>-0.1946</i> | <i>0.0887</i>  | <i>-0.0393</i> |
| TPI (1984-93)     | -0.2999        | -0.1769        | -0.4707        | 0.0614         |
| TPII (1994-03)    | -0.3960        | -0.3238        | -0.4792        | 0.0349         |
| <i>Difference</i> | <i>-0.0961</i> | <i>-0.1469</i> | <i>-0.0085</i> | <i>-0.0265</i> |

At a glance (as implied by the negative signs) it is apparent that the performance in post-reform years has been largely inferior to the pre-reform years in the sample period. Thus apart from the standard deviation for growth which suggests a greater degree of volatility in the pre-reform years, the profile for growth and the trade intensity ratio (TINR) both in mean and range were better in the pre-liberalisation period (1984-1993). This result which is contrary to the expectation of proponents of trade liberalisation is confirmed by a plot of the trade intensity ratio defined earlier as (X+M/GDP). [See figure 5.6]



**Figure 5.6 Time Path of Trade Intensity Ratio**

In this regard the average trade exposure or intensity ratio reduced from 0.86 before trade reforms to 0.67 after due to slower growth of total trade as compared to GDP. The slow down in the growth of trade was due to faster decline in export growth as compared to imports both which slowed down in the post-reform period. The average import-export growth differential was 1.87% in favour of imports in the pre-reform period compared to 4.65% in the post reform period. In addition average GDP growth in the post-reform period (2.37%) though less than in the pre-reform period was still faster than that of total trade which averaged 2.27%. Thus in tandem the growth and trade share levels all indicate a better performance for the region in the period prior to its liberalisation episode.

### **5.13 Empirical Results-Simultaneous Model**

#### **5.13.1 Impact of Trade Policy openness-Pre Reform**

In this framework the parameters of the structural model were estimated using the seemingly unrelated regression (SUR) method of estimation. This method is considered appropriate given that it controls for heteroscedasticity and contemporaneous correlation in the errors across equations. The results from estimating this simultaneous model for each sub-period are presented in tables 5.14 to 5.17 below. (Here we are principally

interested in column 1 and row 2 which reports the impact of each of the six growth channels on economic growth and the impact of trade policy index on each of the growth channels before and after reforms respectively. Some attention is also paid to row 3 regarding distortions in the economy.)

**Table 5.14 Structural System: Baseline Scenario-Before Trade Reforms (1984-93)**

| Variable                    | Growth               | Openness             | Distortions          | Investment rate      | Government Consumption | Macro Quality         | Manufacture Value added | FDI                  |
|-----------------------------|----------------------|----------------------|----------------------|----------------------|------------------------|-----------------------|-------------------------|----------------------|
| Intercept                   | 0.2501<br>(0.6273)   | 0.5145<br>(0.3865)   | 1.2324<br>(20.0555)  | -15.3962<br>-0.6085  | 116.4084<br>(1.9012)   | 0.7575<br>(0.2534)    | 12.2097<br>(2.9418)     | 19.0750<br>(1.0759)  |
| <i>Endogenous Variables</i> |                      |                      |                      |                      |                        |                       |                         |                      |
| Trade Policy I              |                      |                      |                      | -0.1910<br>(-2.2356) | 8.8350<br>(0.4369)     | -8.4199<br>(-0.5793)  | 3.8467<br>(1.3334)      | 3.8679<br>(1.8269)   |
| Growth                      |                      | 0.0459<br>(0.6484)   |                      |                      |                        |                       |                         |                      |
| Distortions                 | -0.1680<br>(-1.6680) |                      |                      |                      | 36.2228<br>(1.8188)    | -36.6377<br>(-2.4260) | 2.7539<br>(1.2107)      | 0.0885<br>(0.0390)   |
| Domestic Investment rate    | 0.0016<br>(1.8258)   |                      |                      |                      |                        |                       |                         | 5.9950<br>(0.3945)   |
| Government Consumption      | 0.0013<br>(1.6150)   |                      | -0.0014<br>(-2.4298) |                      |                        |                       | -0.0085<br>(-0.4941)    | -0.2627<br>(-2.7586) |
| Macro Quality               | -0.0023<br>(-0.4703) |                      |                      |                      | -0.1013<br>(-0.1975)   |                       |                         |                      |
| Manufacture Value added     | -0.0021<br>(-0.6303) |                      |                      |                      |                        |                       |                         |                      |
| Foreign Direct Investment   | -0.0011<br>(-1.1805) |                      |                      |                      |                        |                       |                         |                      |
| <i>Exogenous Variables</i>  |                      |                      |                      |                      |                        |                       |                         |                      |
| Log of Initial Income       | 0.0000<br>(-0.6471)  | 0.0000<br>(-0.9228)  | 0.0000<br>(-1.8444)  | 0.0015<br>(1.6592)   | -0.0004<br>(-0.3855)   | 0.0002<br>(1.8372)    | -0.0009<br>(-1.8431)    |                      |
| Log of Population           | -0.0044<br>(-0.1679) | -0.0890<br>(-0.8719) |                      |                      | 4.6860<br>(-0.9576)    |                       |                         |                      |
| Log land                    |                      | 0.1973<br>(1.4226)   |                      |                      |                        |                       |                         |                      |
| R <sup>2</sup>              | 0.1164               | 0.8416               | 0.8098               | 0.5011               | 0.6435                 | 0.2168                | 0.9457                  | 0.4808               |
| D.W                         | 2.1642               | 2.0059               | 1.9365               | 2.1547               | 2.1040                 | 1.9953                | 2.1444                  | 1.8148               |

Note: (i) All equations in the simultaneous model were estimated using the SUR method

(ii) The numbers in parentheses are t-values

(iii) Estimates are corrected for degrees of freedom and are based on cross-section SUR Panel Consistent Standard Errors (PCSE) and covariance

From the baseline scenario presented in table 5.13 we see that trade policy in the pre-reform years (*TPI*) had a positive association with four of the growth channels. In two of these namely the share of manufacturing in the economy (MANUAR) and foreign direct investment (FDI) this association was statistically significant at the 95% level while in the other two—domestic investment (INVR) and the quality of macroeconomic management (MACQ), it was not. This suggests that with a prevailing import-substitution strategy both domestic and foreign firms were inclined to locate in the OECS given protection afforded them by higher tariff walls.

On the other hand *TPI* was negatively associated with two (2) channels —price distortions (BMP) and the government consumption expenditure (GCR) in a statistically significant and insignificant way respectively. Wacziarg (1998) who obtained similar

results argued that the former case reflects the absence of a significant effect of trade openness on the BMP.

The impact of the growth channels on growth over the pre-liberalisation years was mixed. Here again the domestic investment ratio (INVR) and the share of government consumption (GCR) in the economy were the main channels driving growth in this period. Meanwhile in line with *a priori* expectations we see that the level of distortions in the pre-reform period (BMP) had a negative and statistically significant impact on growth at the 10% level. On the other hand it was positively associated with domestic investment and the quality of the macroeconomic environment as proxied by (MACQ) perhaps reflecting home-market protection and the lower debt levels. Finally we observe that economic growth had a positive effect on the level of openness in the OECS economy hinting at possible reverse causation. However this relationship was not statistically significant.

Given the foregoing we now summarise the combined impact of each channel on growth and trade policy on each growth channel and thereby derive the total effects or impact of trade liberalisation on economic growth. The results for the pre-reform scenario are presented in tables 5.15 below.

**Table 5.15 Summary of Channel Effects Using Trade Policy I**

| Channel Variable          | Effect of:           |                      |                          |
|---------------------------|----------------------|----------------------|--------------------------|
|                           | Channels on Growth   | Openness on Channels | Trade on Policy I Growth |
| Distortions               | -0.1680<br>(-1.6680) | -0.1910<br>(-2.2356) | 0.0321<br>(+)            |
| Domestic Investment rate  | 0.0016<br>(1.8258)   | 8.8350<br>(0.4369)   | 0.0138<br>(+)            |
| Government Consumption    | 0.0013<br>(1.6150)   | -8.4199<br>(-0.5793) | -0.0112<br>(-)           |
| Macro Quality             | -0.0023<br>(-0.4703) | 3.8467<br>(1.3334)   | -0.0088<br>(-)           |
| Manufacture Value added   | -0.0021<br>(-0.6303) | 3.8679<br>(1.8269)   | -0.0083<br>(-)           |
| Foreign Direct Investment | -0.0011<br>(-1.1805) | 35.1273<br>(2.2908)  | -0.0398<br>(-)           |
| <b>Total Effect</b>       |                      |                      | <b>-0.0221</b><br>(-)    |

In column 3 of the table we see that trade policy openness was positively associated with only two (2) of the six (6) channels namely the domestic investment rate and

distortions.<sup>106</sup> Indeed the positive impact of distortions though contrary to the views in the mainstream literature on the subject is nonetheless not unusual. Indeed researchers such as Wacziarg (2001) and Yanikkaya (2003) found similar results and surmised that the possibility of beneficial results of trade restrictions to growth is more likely in developing countries. All the remaining channels including government consumption, the quality of macroeconomic management, the manufacturing sector as well as foreign direct investment all worked as negative channels for growth during the pre-reform period. As a result the overall effect of trade policy on growth for the pre-reform period was negative.<sup>107</sup>

### **5.13.2 Impact of Trade Policy openness-Post Reform**

With few exceptions, other than magnitude, the pattern of signs and significance were largely the same in the post-reform period. Therefore the trade policy index in the post reform period (*TPII*) was also positively related to four (4) of the growth channels namely the domestic and foreign investment, the share of manufacturing in the economy (MANUVAR) and surprisingly the quality of macroeconomic management (MACQ). However this association was only significant for the foreign direct investment ratio presumably reflecting among other factors, lower cost of imported inputs. Notably the formerly positive impact of the trade regime on the manufacturing sector had declined and was no longer significant. This may be reflective of a degree of rationalisation and internal adjustment in terms of contractions and closures of presumably non-competitive import-substitute producing concerns in the liberalised environment. Trade liberalisation is also seen to have been associated with some deterioration in the quality of macroeconomic management which though still positive perhaps due to role of lower border charges in containing inflation was no longer significant. [See table 5.16 below]

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<sup>106</sup> Although the level of significance of the total impact of trade policy on growth for each channel were not reported, the magnitudes of the coefficients are very plausible. However in interpreting the signs on the total effects, it is worth noting that a positive sign largely implies that the intermediate impacts (i.e channels on growth and openness on channels) were of the same sign. Likewise a negative impact suggests that the channel-growth or trade policy-channel effects are of opposite signs. Thus the signs on the intermediate impacts may be more informative.

<sup>107</sup> The actual levels of significance of the total effects are not reported. However these may be computed using linear approximations of the products of the effects around their estimated parameter values using a method such as the Delta Method based on a one-step Taylor approximation.

On the other hand as expected *TPII* was negatively associated with the level of distortions and government participation in the economy of the OECS at a 10% and an insignificant level, respectively.

Once again, in terms of the relative importance of growth channels domestic investment and the government sector remained the principal sources of growth in the economy. Notably the growth impetus provided by government appears to have increased marginally in the post reform periods. This accords well with the finding by (Rodrik, 1998) who argued that contrary to the expectations of the proponents of liberalisation increased openness may result in even larger governments. In the case of the OECS this may be reflective of efforts by governments to stimulate their economies and provide leadership to a private sector wary of uncertainties in the new environment.

**Table 5.16 Structural System: post-Reform Scenario (1994-2003)**

| Variable                    | Growth               | Openness             | Distortions          | Investment rate       | Government Consumption | Macro Quality        | Manufacture Value added | FDI                  |
|-----------------------------|----------------------|----------------------|----------------------|-----------------------|------------------------|----------------------|-------------------------|----------------------|
| Intercept                   | 0.2619<br>(0.6541)   | 0.4815<br>(0.3593)   | 1.2445<br>(20.3733)  | -15.7838<br>(-0.6257) | 116.9936<br>(1.9255)   | -0.1022<br>(-0.0352) | 12.2371<br>(2.9258)     | 18.0226<br>(1.0021)  |
| <i>Endogenous Variables</i> |                      |                      |                      |                       |                        |                      |                         |                      |
| Trade Policy II             |                      |                      | -0.1283<br>(-1.6766) | 6.5744<br>(0.3837)    | -8.1892<br>(-0.6478)   | 2.3497<br>(1.0649)   | 2.3203<br>(1.2208)      | 22.4662<br>(1.7075)  |
| Growth                      |                      | 0.0453<br>(0.6365)   |                      |                       |                        |                      |                         |                      |
| Distortions                 | -0.1727<br>(-1.7104) |                      |                      | 36.2970<br>(1.8059)   | -37.0909<br>(-2.4624)  | 3.0742<br>(1.2983)   | -0.0838<br>(-0.0369)    | 4.6992<br>(0.3036)   |
| Domestic Investment rate    | 0.0016<br>(1.8161)   |                      |                      |                       |                        |                      |                         |                      |
| Government Consumption      | 0.0014<br>(1.6561)   |                      | -0.0014<br>(-2.4554) |                       |                        | -0.0071<br>(-0.4102) |                         | -0.2687<br>(-2.7994) |
| Macro Quality               | -0.0019<br>(-0.3990) |                      |                      | -0.0958<br>(-0.1865)  |                        |                      |                         |                      |
| Manufacture Value added     | -0.0022<br>(-0.6538) |                      |                      |                       |                        |                      |                         |                      |
| Foreign Direct Investment   | -0.0010<br>(-1.0893) |                      |                      |                       |                        |                      |                         |                      |
| <i>Exogenous Variables</i>  |                      |                      |                      |                       |                        |                      |                         |                      |
| Log of Initial Income       | 0.0000<br>(-0.6935)  | 0.0000<br>(-0.9011)  | 0.0000<br>(-1.9360)  | 0.0015<br>(1.6548)    | -0.0004<br>(-0.3913)   | 0.0002<br>(2.1710)   | -0.0009<br>(-1.9010)    |                      |
| Log of Population           | -0.0051<br>(-0.1912) | -0.0854<br>(-0.8321) |                      |                       | -4.7279<br>(-0.9749)   |                      |                         |                      |
| Log land                    |                      | 0.1956<br>(1.4015)   |                      |                       |                        |                      |                         |                      |
| R <sup>2</sup>              | 0.1175               | 0.8416               | 0.8085               | 0.5011                | 0.6438                 | 0.2146               | 0.9454                  |                      |
| D.W                         | 2.1660               | 2.0071               | 1.9638               | 2.1588                | 2.1087                 | 2.0011               | 2.1363                  |                      |

Note: (i) All equations in the simultaneous model were estimated using the SUR method

(ii) The numbers in parentheses are t-values

(iii) Estimates are corrected for degrees of freedom and are based on cross-section SUR Panel Consistent Standard Errors (PCSE) and covariance

As with the pre-liberalisation scenario all the other growth channels (BMP, MANUVAR, MACQ and FDIR) were negative in their impact on growth during the post-reform

period. However of these, only the distortions channel was found to be statistically significant.

Based on the combined impact of these intermediate trade policy and growth channel effects the total effects of trade policy openness on growth in the post-reform period are given in table 5.17 below. We can now contrast these findings with the scenario as obtained in the pre-reform implementation period.

**Table 5.17 Summary of Channel Effects Using Trade Policy II**

| Channel Variable          | Effect of:           |                      |                           |
|---------------------------|----------------------|----------------------|---------------------------|
|                           | Channels on Growth   | Openness on Channels | Trade on Policy II Growth |
| Distortions               | -0.1727<br>(-1.7104) | -0.1283<br>(-1.6766) | 0.0221<br>(+)             |
| Domestic Investment rate  | 0.0016<br>(1.8161)   | 6.5744<br>(0.3837)   | 0.0103<br>(+)             |
| Government Consumption    | 0.0014<br>(1.6561)   | -8.1892<br>(-0.6478) | -0.0112<br>(-)            |
| Macro Quality             | -0.0019<br>(-0.3990) | 2.3497<br>(1.0649)   | -0.0046<br>(-)            |
| Manufacture Value added   | -0.0022<br>(-0.6538) | 2.3203<br>(1.2208)   | -0.0052<br>(-)            |
| Foreign Direct Investment | -0.0010<br>(-1.0893) | 22.4662<br>(1.7075)  | -0.0235<br>(-)            |
| <b>Total Effect</b>       |                      |                      | <b>-0.0121</b><br>(-)     |

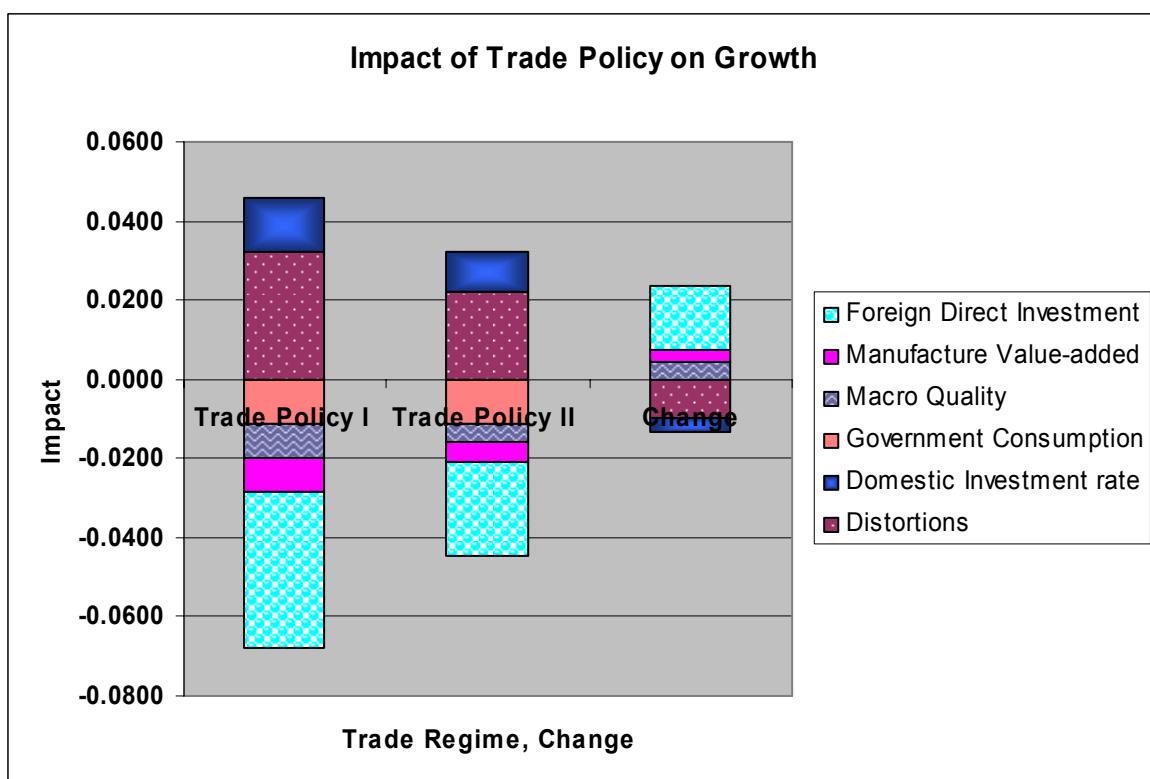
Here although the magnitudes of the total effects differ slightly the sign pattern for each growth channel was the same as the before trade liberalisation. As a consequence the same two channels (BMP and INVR) were found to be positively associated with growth in the post-reform period. In this regard and in line with expectations we see that a reduction in price distortion was associated with a positive total impact of about 2.2%. Perhaps, more pleasing to proponents of trade liberalisation and related reforms is that domestic investment and hence the private sector was a principal determinant of growth while the impact of government sector remained negative.

On the other hand the quality of macroeconomic management, the share of manufacturing in the economy and surprisingly foreign direct investment were all found to have had an overall negative effect on growth. This may be due to a rise in debt ratios in the region in the post-reform years, loss of competitiveness in manufacturing and reduced incentive for foreign investors to locate in OECS given reduced levels of protection. Importantly, the

magnitude of the total impact of each channel on growth in absolute terms was lower in the post-reform period, resulting in a smaller negative impact of the trade regime on growth. As a result the total effect of trade policy during the liberalisation episode of the OECS is shown to be a marginally negative impact estimated at 1.21% on growth over the period.

Nonetheless the change between the pre and post reform period would be a net positive impact of approximately 1% due to a total effect of the structural system on growth that is less negative. This in itself can be interpreted as a positive impact of trade liberalisation and an indication of reduced levels of distortion or put differently increased price efficiency and by extension allocative efficiency in the OECS economy. These results bear some broad similarities with findings of the Wacziarg (1998, 2001) especially as regards the importance of the domestic investment channel and significance of distortions on growth.

See figure 5.7 below for a graphical representation of the total impact of trade on growth decomposed according to channels before and after reforms as well as the net change per channel.



**Figure 5.7 Graphical representation of impact of growth determinants on Growth**

From figure 5.7 we see that although the separate impact in either period is negative the lower negative under *TPII* suggests a net total impact of trade liberalisation on the OECS economy is positive. This underlying positive change is suggestive of a gradual adjustment of the OECS economy along the lines of a so-called *J-curve* effect. If this is kept up *ceteris paribus* it is envisaged that the impact on the channels will increasingly be positive and significant as the economy moves towards a new long-term equilibrium growth path.

### **5.14 Sensitivity Analysis**

Given the debate in the empirical literature over the choice of liberalisation and openness indicators as well as model specifications this study utilised a range of openness measures in conjunction with various model specifications. Such an approach was considered appropriate given the known weaknesses of alternative specifications and the inherent degree of measurement error in each indicator. This approach has the merit of providing a basis for determining the sensitivity or robustness of estimated results.

Using the Eviews version-5 statistical software package these alternative estimation procedures were used to assess the results and their properties in terms of the statistical significance, variance or standard error of estimated coefficients as well as the goodness of fit of the model to the data among other diagnostics. In this way the conclusions from this aspect of the study are based on the determinants of growth including trade policy and openness entering a given model either at the level, first-difference or with a lag in a single equation or simultaneous in a pooled or panel framework. In many case the models were estimated controlling for individual or fixed-effects in an effort to account for persistent local factors across member countries.

Most of the single equation estimation was done using the Enhanced Generalised Least Squares (EGLS) procedure. This estimation method which is a non-linear estimating technique provides parameter estimates based on convergence after a number of iterations. More importantly it provides options for selecting cross-section weights as well as a menu of robust methods for computing the standard errors of estimated coefficients.

Using this method it was found that in most cases the estimated results using the Seemingly Unrelated Regression (SUR) option for the cross-section weights as well as the coefficient covariances gave superior results compared to alternatives such as the Ordinary Least Squares (OLS) estimates. This was the case with and without controlling for fixed effects.

The SUR estimation method was also found to provide generally better results in our simultaneous system estimation as well. This is in part because the SUR estimation technique accounts for heteroscedasticity and contemporaneous correlation in the errors across equations thereby providing more efficient parameter estimates. Accordingly, the estimated coefficients reported in the study are essentially based on heteroscedasticity robust asymptotic t-ratios and panel consistent standard errors (PCSE).

As observed in section 5.11 the temporal dynamics of the impact of the policy change was examined. This involved the use of lagged explanatory variables which then violate the Gauss-Markov theorem assumption of the classical linear regression model that regressors are uncorrelated to the errors. This causes the problem of endogeneity rendering OLS estimates biased and inconsistent necessitating an instrumental approach. Although the SUR procedure is also useful in combating simultaneity problems due to endogeneity due to its efficiency it may not be consistent given that it does not use instruments. For this reason alternative approaches based on instrumental variables which were capable of dealing with the endogeneity or reserve causality problem were used to estimate the dynamic model. This included the two and three-stage least squares (2 and 3SLS) and the General Method of Moments (GMM). Here the GMM procedure was found to provide the best estimates.

However, in spite of the usefulness of these estimation techniques in dealing with the endogeneity problem the difficulties of finding appropriate instruments are well known. Accordingly we used as far as possible variables known to be exogenous or pre-determined in conjunction with lagged values of the explanatory variables as instruments until the order condition for identification was satisfied. In so doing we observed that the results were sensitive to the functional form and number of instruments. Nonetheless in cases where instruments were used in the estimation process, a Sargan-type test for the validity of over identifying restrictions was conducted. Finally, Wald tests of restrictions

on estimated coefficients were also conducted to determine whether the joint significance of two or more variables were statistically different from zero.<sup>108</sup>

Notwithstanding the above considerations the general pattern of results in terms of significance and coefficient sign were robust across alternative estimation techniques. In this regard the trade policy indicator *LIB* was consistently negatively related to growth. In a similar manner trade intensity (*TINR*) was found to be the best measure of openness with a positive association and impact on growth. Meanwhile domestic investment was the leading growth determinant while foreign investment was repeatedly found to be negative in its association and the impact of government policy was ambiguous. Hence while there were slight variations in the estimated results across alternative methods these were not sufficient to alter the overall relationship between measures of trade policy and openness and economic growth. Therefore it is fair to conclude that in general our results are not sensitive to model specification.

## **5.15 Conclusions**

In this chapter we used a battery of estimation approaches in an effort to assess the impact of trade liberalisation on economic growth performance in the OECS over the period 1984-2003. This was done using multivariate regression models that are largely variations of approved approaches in the empirical literature. On the basis of the results obtained using these alternative approaches what emerges is that the prediction of the pro-liberalisation literature has largely not been seen in the OECS at least over the first ten years following the trade reforms. In most cases, we saw that the proxy for trade policy or price distortions had an effect contrary to the standard predictions.

In terms of the important channels through which trade policy affects growth and the signs of estimated coefficients the overall results were in line with prior expectations and broadly consistent with findings of some other researchers. In this regard the investment channel was found to be most important before and after reforms. There is evidence of reduced significance of the importance or reliance on government consumption which though positively associated with growth was negatively associated with trade openness.

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<sup>108</sup> This was done in various cases such as in trade, technology transmission or government policy effects in

While this may be somewhat welcoming news to proponents of smaller governments, the negative impact of the trade reforms on manufacturing sector, in the OECS economy (a proxy for technological absorption), quality of macroeconomic management and foreign direct investment would be a source of concern.

The impact of openness (the goal of trade reforms) on growth was assessed using an array of price-based and volume-based measures. In terms of the price-based measures it was found that the black market premium (BMP) followed by the average effective tariff (AET) were the most significant in their impact on growth. Also given the structural openness of the OECS SIDS it was not surprising that openness defined as the share of trade in GDP (TINR) was significantly and positively associated with growth. Moreover this finding was robust to various specifications of the estimating equations.

Based on our dichotomous framework of *before* and *after* trade policy reforms, the economic performance of most variables in the pre-liberalisation period (1984-1993) was consistently better than during the post-reform years (1994-2003). It is likely, that the reduced distortion in the economy may have increased the sensitivity of agents to changes in price-incentives. This amounts to increased efficiency of the economy which *cet par* may result in improved supply-responses in the future. Indeed the evidence (see columns 2/3 of table 5.3) suggests that the effects of trade liberalisation may involve a lagged reaction and thus may be better modelled dynamically. Accordingly, the less than favourable results may be indicative of the slow adjustment of the economy and the manifestations of the trough of a ‘J’-curve effect. If this is true then an assessment of the relationship over a longer post implementation period may be more positive.

However, while the broad picture of a largely negative or statistically insignificant impact on growth is clear, these conclusions remain tentative at best given that the estimation results are subject to a number of limitations including the small sample size and possible measurement errors. Example the unavailability of data on some key variables central to using a new growth theory framework such as human capital or imported investment goods may yield better. As such McNab and Moore (1998) points out that the omission of measures such as human capital may affect the robustness of the parameter estimates.

## **Chapter Six (6)**

### **Other Impacts of Trade Liberalisation: Export Growth, Fiscal Performance and Technology Transfer**

#### **6.1 *Introduction***

In the preceding chapter we examined the impact of trade policy reforms on economic growth in the OECS. There we saw on the basis of various estimating techniques that the impact of trade policy change on growth in the OECS was largely below prior expectations as touted by the proponents of trade liberalisation. At a glance this suggests that the OECS economy may be in the trough of the so-called *J-curve* type response alluded to by PMC (1991), Greenaway (2001) and others. Although the reasons for this flat performance are not yet clear, the underlying theory associated with trade liberalisation as well as the related literature provides a clue as to where we may look.

Accordingly, in this chapter we focus on three “other” important areas which may help elucidate the nature of the impact of trade liberalisation in the OECS. These are the impact of trade policy change on (i) export performance and (ii) technology transmission, (iii) and thirdly the fiscal impact of the policy.<sup>109</sup> We end the chapter by turning attention to the possible role of demand-side factors as a likely explanation for the observed growth performance over the trade reform period. Accordingly we investigate whether the economies of the OECS may be constrained by their balance of payments.

The impacts on export performance and technology transfer have been selected for separate and special attention given their prominence according to the neo-classical theoretical underpinnings of literature regarding the workings of the trade policy-growth relationship. As discussed in the literature review (Chapter two) a principal expectation of trade reform and increased openness is a reduction in anti-export bias which in conjunction with export promotion incentives should *cet par* result in export-led growth. Secondly and related to the export-growth nexus is an expected increase in technology transfer due to increased knowledge spillover from imports of capital/investment goods, exposure to international competition as well as due to foreign capital inflows.

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<sup>109</sup> This issue was of particular concern to many OECS leaders especially during the implementation stage.

On the other hand the fiscal impact of the OECS trade liberalisation experiment has been selected for special consideration given the high level of dependence of the OECS and SIDS in general on trade taxes as a source of tax revenue.

## **6.2 Impact of Trade Liberalisation on Export Performance**

### **6.2.1 A Supply-Side Assessment using the Feder Framework**

From the onset one of the standard propositions advanced in support of trade liberalisation is that it facilitated the outward-orientation of economies which in turn leads to export-led growth. According to this premise, the reduction of trade barriers would alter price incentives in a manner that reduces the so-called trade policy induced anti-export bias and cause a shift towards exports, driven in part by cheaper inputs. If this results in lower-priced exports then an associated rise in the relative price of imports would *ceteris paribus* improve the terms of trade, raise the share of exports in trade and lead to export-led economic growth. Secondly, as Balassa (1985) argues the associated export expansion impacts on growth positively through an improvement in the efficiency of resource allocation and increased capacity utilisation. Likewise the well-known Feder (1983) model argues that exposure of the export sector to international competition would result in economic growth through positive externalities from more efficient and productive firms in the export sector which benefit the non-export sectors in an industry as well.

Thus policies that promote exports and increased openness are deemed relevant because according to Feder, the marginal productivity of the export sector is greater than that of the non-export sector. As a result the non-export sector and economy as whole benefits from positive externalities in the form of technological spillover and imports of intermediate and capital goods which serves to foster export growth. The trade policy-export-growth nexus is also supported by the fact that export revenue does help reduce the foreign exchange constraint thereby providing resources to obtain more technology embodied imports which can then drive economic growth. Further export growth may also boost output and GDP through the so-called foreign trade multiplier. Thus we see that exports can positively influence growth through many channels.

Against these laudable claims and like many other researchers in other cases, we attempt to empirically assess the impact of trade liberalisation and openness on export performance in the OECS.<sup>110</sup> [See other work on this question example Balassa (1985), Edward (1992) and Grossman and Helpman (1995)] To do this two approaches are used. First we use an augmented Feder (1983) model to evaluate the contribution of exports to growth given as follows:

$$6.2.1 \quad d \ln Y_{it} = \alpha_0 + \alpha_1 INVR_{it} + \alpha_2 d \ln POP_{it} + \alpha_3 dXY + \varepsilon_{it}$$

where INVR is the investment ratio (I/Y) represents the share of growth of capital; DLNPOP = growth of the labour force (dL/L). Meanwhile DXY is a composite term which captures the share of exports in the economy times the growth of exports (X/Y)(dX/X). The coefficient of this term ( $\alpha_3$ ) is an amalgam of two effects, namely a foreign exposure or an externality effect ( $E_X$ ) and a productivity differential effect between the export and non-export sectors, given as  $(\delta/1+\delta)$ . To decompose the two effects and capture the externality effect we run the equation twice, first without the export growth term (dX/X) and then with it. The externality effect is then the difference between the total effect of the external or export sector and the productivity differential effect. In so doing we are then able to determine whether the inclusion of the export growth term increases the explanatory power of the model.

Having evaluated the contribution and significance of exports to economic growth in the OECS we now turn our attention to our principal interest in this section—the impact of the trade policy changes on export performance in the OECS. To do this we specify an export-growth equation augmented by two (2) trade policy variables: (i) DAET which captures the changes in average effective tariffs and (ii) LIB which is a dummy variable defined in the usual manner to capture the liberalisation experiment of the OECS with values of one (1) from 1994 to 2003 and zero (0) otherwise. It estimates the extent to which trade liberalisation altered the relationship between exports and growth

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<sup>110</sup> It must be noted however, that whereas we assume that the direction of causation runs from trade policy to growth through the export growth channel the causal ordering, though likely to be mainly from export growth to economic growth is possibly bi-directional. Thus economic growth may likewise Granger-cause export growth and not the other way around.

performance resulting in a statistically significant structural break. The equation to be estimated is thus given as follows:

$$6.2.2 \quad dXY_{it} = \beta_0 + \beta_1 dLny + \beta_2 dAET + \beta_3 d \ln IMP + \beta_4 LIB + \mu_{it}$$

The results of this investigation are given in the table 6.1 below.

**Table 6.1 Impact of Trade reforms on Export Performance-using a Feder-Type Formulation**

| Variable                                 |        | Single Equations     |                      | Simultaneous Equations |                      |
|--|--------|----------------------|----------------------|------------------------|----------------------|
|  |        | Dependent Variable   |                      | DLNY                   | DXY                  |
|  |        | DLNY                 | DXY                  |                        |                      |
| Intercept                                | C      | -0.0112<br>(-0.6449) | 0.0127<br>(0.6484)   | -0.0055<br>(-0.4258)   | -0.0145<br>(-0.5002) |
| Investment Ratio (I/Y)                   | INVR   | 0.0012<br>(2.2146)   | 0.0007<br>(1.2743)   |                        | 0.0012<br>(1.4007)   |
| Growth of labour                         | DLNPOP | -1.2160<br>(-2.4644) | -1.0226<br>(-2.1682) |                        | 0.4748<br>(0.6743)   |
| Growth in Export/GDP ratio<br>(X/Y*dX/X) | DXY    |                      | 0.4296<br>(4.4441)   |                        | 0.4538<br>(3.3657)   |
| Export Share (X/Y)                       | XR     | 0.1113<br>(1.8241)   |                      |                        |                      |
| Growth of Per capita GDP                 | DLNY   |                      |                      | 0.2573<br>(3.9911)     | 0.3974<br>(2.9878)   |
| Average Effective Tariff                 | AET    |                      |                      | -0.0035<br>(-0.0734)   | -0.0419<br>(-0.4973) |
| Growth of Imports                        | DLNIMP |                      |                      | 0.1284<br>(5.4566)     | 0.1681<br>(6.2152)   |
| CET Dummy variable                       | LIB    |                      |                      | 0.0010<br>(0.2097)     | 0.0057<br>(0.6713)   |
| Control for Serial Correlation           | AR(1)  | 0.1570<br>1.4238     | 0.1089<br>1.0653     | -0.0919<br>-0.9209     | 0.1115<br>1.1452     |
| <i>Summary Statistics</i>                |        |                      |                      |                        |                      |
| R <sup>2</sup>                           |        | 0.3674               | 0.3806               | 0.3233                 | 0.1258               |
| Durbin-Watson                            |        | 2.0127               | 2.0277               | 2.0279                 | 2.1252               |
| No. of Observations                      |        | 108                  | 108                  | 104                    | 110                  |
|  |        |                      |                      |                        | 110                  |

Note: (i) All equations are estimated using Panel Two-stage least squares with cross-section weights

(ii) robust t-statistics are given in parentheses

In columns 1 we estimate the Feder model without export growth term (DX/X) and report the average contribution of the share of exports (XR) to growth in the OECS economy over the period under consideration. We see that the share of exports is positive and significant accounting for an estimated 11.1% of economic growth for that period. This is also equal to the productivity differential between the export and non-export sectors. Conversely, column 2 estimates the full/standard Feder model and finds the composite export term (DXY) to have a positive and significant impact on growth.

Based on the Feder's model the externality effect or dynamic gains from trade is given as the difference between coefficients of XR and DXY which is approximately equal to 31.83 % of growth. The inclusion of the export growth term also improved the explanatory power of the model slightly.

The signs and patterns of significance on the other determinants of growth are largely consistent with earlier findings. [See chapter five (5)]. In this regard, the proxy for growth of the labour force (DLNPOP) continued to be associated with a negative impact on economic growth in contrast to the investment variable and proxy for capital (I/Y) which remained robustly positive both with varying degrees of significance. It must also be noted that these findings are based on the entire sample period 1984-2003.

In contrast to columns 1&2, column three (3) examines the impact of trade liberalisation on export performance proxied by the composite term (DXY). It shows that the impact of trade policy on export performance has been insignificant. Meanwhile import growth (DLNIMP) has been positively and significantly associated with export growth. This is consistent with the import-oriented nature of the OECS economies and may be reflective of the composition of imports in terms of intermediate goods which are used as inputs in agricultural and manufacturing exports. Whereas export growth was significant in explaining OECS economic growth performance the level of economic growth (DLNY) was also a key determinant of export share growth performance. This suggests that the causal ordering between export growth and economic growth seem to be bi-directional given that export growth generates economic growth as well as the reverse.

Once again given the questions raised over the reliability of such results based on concerns over the possible endogeneity of exports in growth, we re-estimated the equations in column 2 and 3 using a simultaneous approach with appropriate instrumental variables. Here we utilised the iterative two-stage least squares (I2SLS) method of estimation. The results of this estimation are reported in columns 4 and 5. It is encouraging to note that the signs and pattern of significance remained largely similar to that obtained under the single equation specification.

With few exceptions the degree of significance was generally higher in the simultaneous framework perhaps reflecting the efficiency gains and increased power of tests from pooling the data set. Moreover, the proportion of export performance explained by either model was largely the same. In particular the average tariff level was not associated with a positive impact on export performance. Similarly, there is no evidence to support the hypothesis that trade liberalisation has altered the relationship between export growth and overall economic performance.

Therefore what emerges from this aspect of our investigation is that although the contribution of exports in OECS economic growth performance is convincingly positive and not in doubt, trade policy on the other hand has not been a major determinant of its export performance. These results are largely consistent with observed reality in the OECS in terms of the former dominance of the export-sector in the economies based on traditional exports largely in the pre-liberalisation period compared to the trend of poor export performance in the post-implementation period.

### **6.2.2 Trade Liberalisation, Export Growth and Demand-Side Factors**

The second approach in our examination of the impact of trade liberalisation on export performance takes into consideration demand-side factors. More specifically we draw on an approach developed by Thirlwall (1979) and used by Santos-Paulino (2002) in a study on the larger but contextually similar region of Latin America. However, in contrast to Santos-Paulino who examined the impact of trade liberalisation on export growth based on the ratio of export duties to total exports, our analysis uses the average effective tariff (AET) and *LIB* as measures of trade liberalisation.

Hence we use an augmented export growth function which takes into account not only supply-related considerations as in the preceding section but also demand-side factors. In this formulation the demand for OECS exports is a function of relative prices and the level of income in the region's export markets.<sup>111</sup> In so doing the notion of the law of one price as implied by the assumption of the small open economy wherein a country faces an

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<sup>111</sup> The principal export markets of the OECS are the USA, UK, other CARICOM states, the OECS and Canada. The combined income of these economies is taken as the OECS external demand base. The activity or interaction between each country is defined as the difference between each territory's GDP and the combined GDP of its demand base.

infinitely elastic demand curve is relaxed, as this is seen not to be truly reflective of world market realities even for SIDS. This view is well supported by many including McCombie (1997), Goldstein and Khan (1978) among others.

According to this formulation a reduction in domestic prices relative to international prices is *cet par* expected to result in growth in exports while income growth in a country's export market is expected to correlate positively with its export performance. This view is also in keeping with Sir Arthur Lewis's view that growth of income in the quad or principal industrial importing nations is expected to correlate positively with the demand and growth of exports in SIDS such as the OECS. Thus the basic export growth relation is given as:

$$6.2.2.1 \quad X = A \left( \frac{P_d}{EP_f} \right)^\eta Z^\nu$$

where 'A' is a constant and the term in parentheses represents relative prices captured by the real effective exchange rate (REER). Z denotes the combined income of OECS export markets<sup>112</sup>. Taking the logs and differentiating with respect to time the basic export growth model can be then be written as:

$$6.2.2.2 \quad d \ln x_{it} = \alpha_0 + \beta_1 d \ln REER_{it} + \beta_2 \ln Z_{it} + u_{it}$$

where  $DLNX_{it}$  = growth of export;  $DLNREER$  = growth in the ratio of domestic to foreign prices and  $DLNZ$  measures income growth in OECS export markets. Their coefficients capture the short run price and income elasticities for the demand for OECS exports respectively.

We then augment this basic model first by adding a policy variable  $AET$  (average effective tariffs) followed by a dummy variable  $LIB$  to capture the effects *before* and *after* the commencement of trade reforms. Finally we include a lagged dependent term which enables us to capture the dynamic adjustment of the export growth between the long and

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<sup>112</sup> The OECS trading world is defined as the US, UK, Canada, non-OECS CARICOM countries and the OECS region itself. Together these key trading partners have accounted for an average of 83% of OECS trade with the world over the period 1993-2003.

short run. For reasons discussed earlier this formulation requires the use of instrumental variables. Accordingly, the estimated equation can be written as follows:

$$6.2.2.3 \ d \ln x_{it} = \alpha_0 + \beta_1 d \ln REER_{it} + \beta_2 \ln Z_{it} + \beta_3 d \ln x_{t-1} + \beta_4 AET + \beta_5 LIB + u_{it}$$

From this framework we also examine interaction effects between trade liberalisation and the price and income variables in the model using *LIB* as a slope dummy. The interaction variables which are denoted as *DLNREER\*LIB* and *DLNZ\*LIB* respectively assess the extent to which trade liberalisation may have induced an increased sensitivity of exports to price and income changes. These considerations are estimated with and without fixed effects using a dynamic panel data model in a generalised method of moments (GMM) framework. The results of these tests are summarised and presented in table 6.2 below.

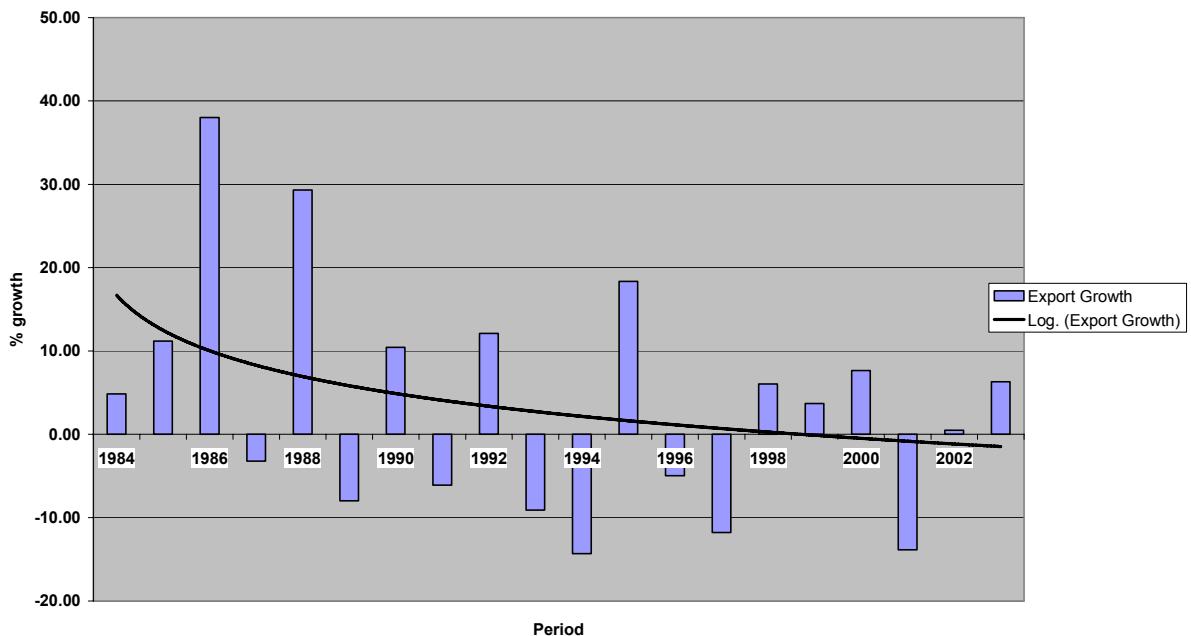
Columns 1 and 2 presents the estimates without fixed-effects based on the GMM estimation framework with and without the interaction terms, respectively. Once again with few exceptions the signs of the estimates are broadly consistent with economic theory and intuition. More specifically column 1 shows that export growth has been negatively associated with changes in the real effective exchange rate (*DLNREER*) and positively associated with the growth of the income in OECS principal export markets (*DLNZ*), albeit below an acceptable level of significance. Notably export growth was found to be positively associated with trade liberalisation (*LIB*) but insignificantly so in both column 1 and 2. However, contrary to expectations changes in the average tariff rate (*DAET*) as well as the growth of exports in the previous year (*DLNZ<sub>t-1</sub>*) were both found to have a negative association with export performance.

**Table 6.2 Export Performance and Trade Reforms—Demand-side considerations**

| Explanatory Variables               |                     | Dependent Variable:   |                      | DLNX                                      |
|-------------------------------------|---------------------|-----------------------|----------------------|---|
|                                     |                     | Without Fixed effects | With Fixed effects   |   |
| Intercept                           | C                   |                       |                      | -0.1837<br>(-2.7648) -0.0987<br>(-0.8120) |
| Lagged Export Growth                | DLNZ <sub>t-1</sub> | -0.5101<br>(-2.7919)  | -0.3868<br>(-2.0303) | -0.5030<br>(-3.0894) -0.5340<br>(-2.5952) |
| Change in REER                      | DLNREER             | -0.5008<br>(-0.5384)  | -3.1812<br>(-1.9645) | -0.5874<br>(-0.7193) -1.5365<br>(-1.1737) |
| Change in Income of Trading World   | DLNZ                | 0.6466<br>(0.3049)    | 1.5766<br>(0.4341)   | 4.1907<br>(1.7011) 1.1201<br>(0.2337)     |
| Change in Average Effective Tariffs | DAET                | -1.3092<br>(-2.3054)  | -3.5290<br>(-3.6870) | -0.8356<br>(-0.8499) -1.0763<br>(-1.0698) |
| CET Dummy variable                  | LIB                 | 0.0296<br>(0.3181)    | 0.0219<br>(0.1945)   | 0.0800<br>(1.2281) 0.1707<br>(0.9688)     |
| <i>Interaction Effects</i>          |                     |                       |                      |   |
| (i) Income of trade partners and TL | DLNZ*LIB            |                       | 0.2270<br>(0.0552)   | -2.7433<br>(-0.5130)                      |
| (ii) Price elasticity and TL        | DLNREER*LIB         |                       | 3.9826<br>(2.0551)   | 2.3210<br>(1.3531)                        |
| Long run income elasticity          |                     | 0.4281                | 1.1368               | 2.7882 0.7302                             |
| Long-run price elasticity           |                     | -0.3316               | -2.2940              | -0.3908 -1.0016                           |
| <i>Summary Statistics</i>           |                     |                       |                      |   |
| First order Serial Correlation      | AR(1)               | 0.8888<br>[0.0006]    | 0.7845<br>[0.004]    |   |
| Second order Serial Correlation     | AR(2)               | -0.1766<br>[0.3915]   | -0.3139<br>[0.164]   |   |
| <i>Wald Tests</i>                   |                     | 0.0004                | 0.0099               |   |
| R <sup>2</sup>                      |                     | 0.2946                | 0.4614               | 0.2754 0.2877                             |
| No. of Observations                 |                     | 55                    | 55                   | 55 55                                     |

Note: (i) All equations are estimated using a Generalised Method of Moments (GMM) framework  
(ii) Robust t-statistics are given in parentheses and p-values are reported in squared brackets  
(iii) The Long run price and income elasticities are calculated as the ratio of the coefficient on the price and income growth terms divided by the coefficient on the lagged export growth term respectively

Column 2 which reports the model re-estimated to include the interaction terms show an improvement in the measure of goodness of fit of the model to the data. It also shows a significant and negative association between export growth and past export growth performance (DLNZ<sub>t-1</sub>). This is not surprising given the trend decline of export growth over much of the period under consideration. [See figure 6.1 below]



**Figure 6.1 Trend Export Growth**

Meanwhile the short run price elasticity of export growth to changes in the relative price of exports (DLNREER) is significantly different from zero at the 1% level. This is in contrast to the short run income elasticity of export growth to changes in income growth of key trading partners (DLNZ), which has the correct sign but is statistically equal to zero.

The price interaction variable (DLNREER\*LIB) is positive and statistically significant suggesting that trade liberalisation has resulted in an improvement in the sensitivity of exports to real exchange rate movements and by extension market conditions. However the sign is contrary to expectations. On the other hand, the income interaction term (DLNZ\*LIB) is positive and in line with expectation, however it is statistically insignificant. In terms of diagnostic checks, columns 1 and 2 confirm the absence of second order serial correlation while a Wald test for the joint significance of all the coefficients in either specification rejects the null hypothesis that the coefficients are statistically equal to zero.

In columns 3 and 4 the export growth-trade policy model is re-estimated using the fixed – effects estimator. This involves the inclusion of a dummy variable to capture the effects

of country-specific factors of each country in the panel on the parameter estimates. As with columns 1 and 2 the one-year lag growth of exports ( $DLNZ_{t-1}$ ) was once again negatively associated with exports. Likewise the relationship between export growth and changes in the REER was also found to be negative though statistically weak and insignificant. In contrast and in line with *a priori* expectations the growth of income in OECS export markets ( $DLNZ$ ) was found to be positively associated with the demand for its exports. In particular this relationship was found to be statistically significant at the 10% level in the fixed-effects model without interaction terms. [See column 3]. As in the model without one-way fixed effects export performance was found to be insensitive to changes in both income ( $DLNZ^*LIB$ ) and relative prices ( $DLNREER$ ) under the fixed-effects estimator. However, although trade liberalisation ( $LIB$ ), our key variable of interest, was found to be positively associated with export growth this association was found to be statistically insignificant.

In terms of the dynamic effects, the long run elasticity of export growth to increases in the income of key export markets is estimated to range between 0.43 and 1.14 in the model without fixed-effects and between 0.73 and 2.79 with fixed-effects. In contrast the long run elasticity of OECS export growth to changes in relative prices was found to range between (-0.33 and -2.29) and (-0.39 and -1.0) under the corresponding models.

From the foregoing it is most notable that although trade policy change as captured by the shift dummy ( $LIB$ ) was associated with a positive effect on export growth this association was not statistically significant. Thus on this evidence trade liberalisation does not stand out as a significant determinant of export growth, which in turn weakens its ability to serve as an engine of growth, however desirable. Nevertheless its positive coefficient suggests that a longer period of adjustment may be needed before the policy change can begin to positively and significantly impact growth. If so, the OECS economy may still be in the “trough” stage of the so-called *J*-curve path of the adjustment which precedes the growth expansion stage. However, it is equally plausible that the anticipated resurgence of merchandise may be a forlorn hope in the new liberalised environment wherein prevailing relative prices and domestic conditions relating to factor cost and scale may render investment in such sectors non-viable in the face of ever increasing international competition.

## **6.3 Technology Transmission and Trade Policy Reform**

### **6.3.1 Theoretical Consensus**

As alluded to elsewhere in this study technology transmission has been credited with being a major source of the growth impetus associated with increased openness. In large measure it is seen as a positive externality of increased trade openness. Trade theory, in particular the endogenous growth literature suggests various channels through which international technology diffusion might raise total factor productivity (TFP) and enhance value-added growth in recipient countries. Key among possible transmission mechanisms are (i) technology embodied imported goods—intermediate/capital goods; (ii) foreign direct investment; and (iii) knowledge spillovers which fosters human capital development. Indeed there are a number of synergies and complementarities between trade-induced appropriable technology and growth such as increases in efficiency from “*learning by doing*” and exposure to new ideas and commodities. [See Arrow (1962; 1991);(Arrow, 1962)] This is especially relevant in the manufacturing sector which provides a barometer of the level of technical diffusion taking place in an economy.<sup>113</sup> [See Young (1991); Young (1995)] To be sure the link between technological progress and economic performance is well documented in the trade literature. For a more comprehensive view on the links between technology diffusion, capital accumulation, human capital and other growth determinants see Grossman and Helpman (1995); Navaretti and Tarr (2000); Faberger (1994); Rodrik (1992b) among others. The central view in each case is that technology and knowledge transferred through trade is expected to increase the stock of technical know-how in the host country which leads to productivity gains through various forms of imitation or innovation and eventually improved economic performance.

Against the thrust of these claims we attempt to assess the impact of trade liberalisation on technology transmission in the OECS. To do this we use two (2) variables used earlier in our trade policy-growth investigation in Chapter five (5) as proxies of technology transmission due to trade openness. The first is the share of manufacturing value-added in the economy (MANUVAR) and second is the foreign direct investment to GDP ratio

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<sup>113</sup> One area in which there has been a noticeable increase in technology transferred since the implementation of trade liberalisation is in telecommunication and information processing sector, ostensibly through increased foreign direct investment and imports of capital goods.

(FDIR). [See section 5.6, 5.13 and 5.15] Although other proxies such as manufacturing exports or imports of capital goods (SITC 7) were considered these variables were deemed inappropriate based on data availability and general suitability.<sup>114</sup> Given the high external dependence of the OECS manufactured goods characteristically have a high import content of supposedly technology embodying intermediate inputs and other capital goods. Moreover at minimum semi-skilled workers are used in the production of manufactures thus reflecting a level of human capital at work. The manufacturing sector is thus a suitable gauge of knowledge and technology absorption. On the other hand foreign direct investment entails the establishment of plants involving a high degree of foreign capital/equipment as well as the introduction of externally developed innovations due to R&D as well as new production and management systems. For this reason it has been cited as a principal conduit of technology diffusion across countries.

In terms of the growth model presented in 5.6.8 this is represented as A<sub>1</sub> and A<sub>2</sub>. The intuition here is that if increased openness due to trade liberalisation has had a positive impact on the rate of absorption of technology then technology transmission would *ceteris paribus* be at its highest at a point in the post reform period. Thus to investigate the growth-share dynamics of technology transmission in OECS, we utilise a logistic growth curve which is a popular a tool for modelling technology diffusion. [See Hill, Griffiths & Judge (2001)] In this regard we examine the cumulative distribution/behaviour of these measures of technology transmission over the sample period 1984-2003, using the following model:

$$6.3.1 \quad y_t = \frac{\alpha}{1 + e^{-(\beta_1 + \beta_2 t)}} + \varepsilon_t$$

where y<sub>t</sub> is the proxy variable for the share of technology in GDP transferred from the rest of the world which in this case will be given separately as MANUVAR and FDIR. Here time (t) is the only independent variable, while α, β<sub>1</sub> and β<sub>2</sub> are the parameters to be estimated. The error term is assumed to be uncorrelated random errors with zero mean and constant variance.

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<sup>114</sup> Other researchers such as Savvides and Zacariadis (2002) and Woerz and Castejón (2005) have also used a similar mix of proxies (capital/intermediate goods, foreign direct investment and the share of manufacturing in total output) in their investigations.

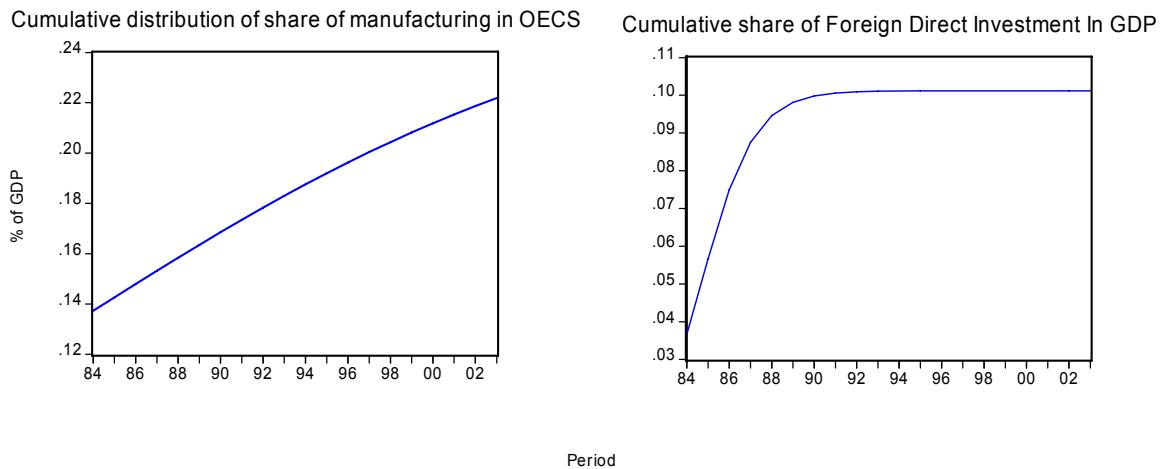
From equation 6.3.1 ‘ $\alpha$ ’ gives the upper bound of the function,  $\beta_1$  determines the initial level of technology diffusion at time zero and  $\beta_2$  indicates the speed of absorption. Meanwhile  $-\beta_1/\beta_2$  gives the point in time at which the function and rate of absorption of technology is at a maximum. More fully this saturation point occurs at the point  $M (\alpha/2, -\beta_1/\beta_2)$ . Accordingly our interest is to determine whether ‘M’ occurs during the post-reform years from 1994 onwards i.e after the 11<sup>th</sup> year (1994) in our sample.

Given that the shape of the logistic function is a sigmoid or an elongated ‘S’, the rate of absorption of technology is such that it rises until it reaches a maximum then increases at a decreasing rate beyond a critical point of inflection which marks the saturation point. Using this approach we are able to determine whether increased openness associated with trade liberalisation has resulted in an increase in the transmission of technology. This would also give us an indication of the timing of the effects of technology transmission in relation to the policy change.

### **6.3.2 Technology Transmission and Trade Liberalisation: Empirical Results**

We estimated the model described in equation 6.3.1 using non-linear least squares and present the graph of the associated cumulative share of technology in the economy as proxied by each variable in figure 6.2 below.

The left hand panel of figure 6.2 which shows the path of MANUVAR over the sample period suggests that the policy change has had no take-off impact on the share of manufacturing and thus technological absorption in the post-liberalisation period. Rather its cumulative path is broadly uniform over the sample period with a hint of decline in the post reform period. In contrast panel B shows that the share of FDIR increased from its initial level of over 3% of GDP in 1984 and increased dramatically to approximately 10% of GDP by 1990, well before the commencement of reforms and remained at this level over the remainder of the sample period, again showing no systematic increase.



**Figure 6.2 Cumulative Shares of Indicators of Technology Transmission**

Notwithstanding we tested the null-hypothesis that the year of maximum absorption occurred during the post-reform period. In this regard we arbitrarily chose the 15<sup>th</sup> year of the sample period which corresponds to 1998. The results of the estimation of the logistic regression as well as the hypothesis tests are present in table 6.3 below.

In the case of MANUVAR only  $\alpha$  was statistically significant. Meanwhile on the basis of the very low p-value and the high F-statistic a Wald coefficient test rejects the null hypothesis that maximum technology absorption took place in 1998 after the commencement of trade reforms. In the case of FDIR,  $\beta_1$  was below an acceptable level statistical significance. The corresponding Wald tests results suggest that the null hypothesis that the point of inflection or maximum absorption occurred in 1998 cannot be rejected at an acceptable level of significance. This result is somewhat ambiguous as the test statistic is slightly outside the 10% level of significance.

Nonetheless in both cases the results suggest that the point of maximum absorption of technology given by  $(-\beta_1/\beta_2)$  was found to be firmly in the pre-reform years. Although convergence was achieved after a number of iterations in the non-linear estimation method used to generate the parameters for reasons including a relatively small sample size these results must necessarily be seen as purely suggestive.

**Table 6.3 Technology Transmission Effects**

| <b>Dependent Variable</b> | <b>MANUVAR</b> |         | <b>FDIR</b> |         |
|---------------------------|----------------|---------|-------------|---------|
|                           | Coefficient    | t-stat  | Coefficient | t-stat  |
| $\alpha$                  | 0.2692         | 2.3913  | 0.1012      | 23.4285 |
| $\beta_1$                 | -0.0385        | -0.0565 | -1.3740     | -1.5698 |
| $\beta_2$                 | 0.0791         | 1.0609  | 0.8076      | 2.1136  |
| $\alpha/2$                | 0.1346         |         | 0.0506      |         |
| $(-\beta_1/\beta_2)$      | 0.4868         |         | 1.7013      |         |

| <b>Wald Test:</b> |                             |             |                                 |
|-------------------|-----------------------------|-------------|---------------------------------|
| Null Hypothesis:  | $H_0:(-\beta_1/\beta_2)=15$ | Alternative | $H_1:(-\beta_1/\beta_2)\neq 15$ |
| F-statistic       | 635.15                      |             | 2.5813                          |
| P-value           | 0.0000                      |             | 0.1265                          |

Even so these results are nevertheless not very surprising given the consistently poor (negative or insignificant) contribution of growth of the share of manufacturing (DMVA) or foreign direct investment (DFDIR) to economic growth. [See tables 5.3, 5.13 and 5.15] This apparent negligible level of technology diffusion associated with trade liberalisation as captured through these proxies in the OECS is also reflected in a 53% decline in the share of so-called easily-imitated-research-intensive (EIRIG) goods over the reform period. [See table 4.7] In a broad way this reflects the structural changes in the underlying specialisation patterns in the OECS away from commodity production in general towards services. As a result any positive impact of technology transmission since the advent of trade liberalisation is likely to be in the so-called knowledge and information sector which is still rather embryonic in the OECS.

However as Castejón and Woerz (2005) point out “*FDI alone rarely translate into higher output or productivity growth...a significant and positive relationship emerges when FDI is interacted with investment or export orientation*”. Moreover they contend that stage of development and thresholds of capitalisation are highly crucial to the impact of FDI on growth. In this regard factors *in situ* such as the technology-gap in relation to the technology to be transferred may render cost of production prohibitive thereby limiting the quality and scale of FDI which the OECS may be able to attract. In this connection the compatibility of the transmitted technology to a country’s factor endowment is crucial [See Glass and Saggi (1998)]

These findings, accord well with the observations made by Keller (1996) that “mere access to foreign technologies may not increase growth”. Despite laudable strides made by the region in building a growing pool of suitable human capital, limited absorptive capacity in conjunction with underdeveloped linkage effects continue to thwart potential gains from technology transmission. Therefore on the basis of the above there is little evidence to suggest that a switch to outward orientation through trade liberalisation has resulted in statistically significant/noticeable increases in the rates of technology transmission based on the above measures.

## **6.4 *The Fiscal impact of Trade Liberalisation in the OECS***

### **6.4.1 Background and Theoretical Issues**

We now turn attention to the third aspect of interest among our set of “other impacts” of trade liberalisation as set out in the objectives of this study. This relates to the fiscal impact of the OECS experiment with trade liberalisation. Given the economic structure of the OECS countries (as discussed in chapter 3) in terms of the relative importance of the government sector, its small market size and import dependence, the fiscal implications of trade reform has been a major factor influencing the speed and sequencing of liberalisation reforms. A key concern to the leaders of member governments was whether trade liberalisation would be able to achieve the often conflicting objectives of reducing the wedge between domestic and world prices without unduly depressing fiscal revenue. As has been suggested by Greenaway and Milner (1991) and others, the primary objective of trade taxes in developing countries such as the OECS is less about protection of domestic industries than it is about a source of revenue. This is in part due to their high external dependence and import-orientation as well as a relatively small import-substitutes sector.

Indeed many studies have focussed on the factors which increase government tax revenue such as economic growth and policies aimed at more trade. However less attention has been paid to the impact of trade reform on tax revenue. [See Katty and Rao (2002)] Theory suggests that the impact on tax revenues as a result of trade liberalisation is inherently ambiguous depending *inter-alia* on initial conditions and country

characteristics such as revenue productivity and tax structure. Greenaway and Milner (*ibid*) likewise contend that the net impact of a reduction in the spread or average level of tariffs will depend on a myriad of factors such as initial conditions and the components of the reform package. More specifically the impact of a marginal reduction of a tariff on government revenue will depend on the elasticity of demand for imports and the frequency and distance of the new tariff rates in relation to the maximum revenue rate. Thus, to the extent that tariff reforms may involve altering the base and rate of trade taxes, its impact would depend on the buoyancy and or elasticity of the OECS tax system to the tariff change which may result in fiscal enhancement or depletion.

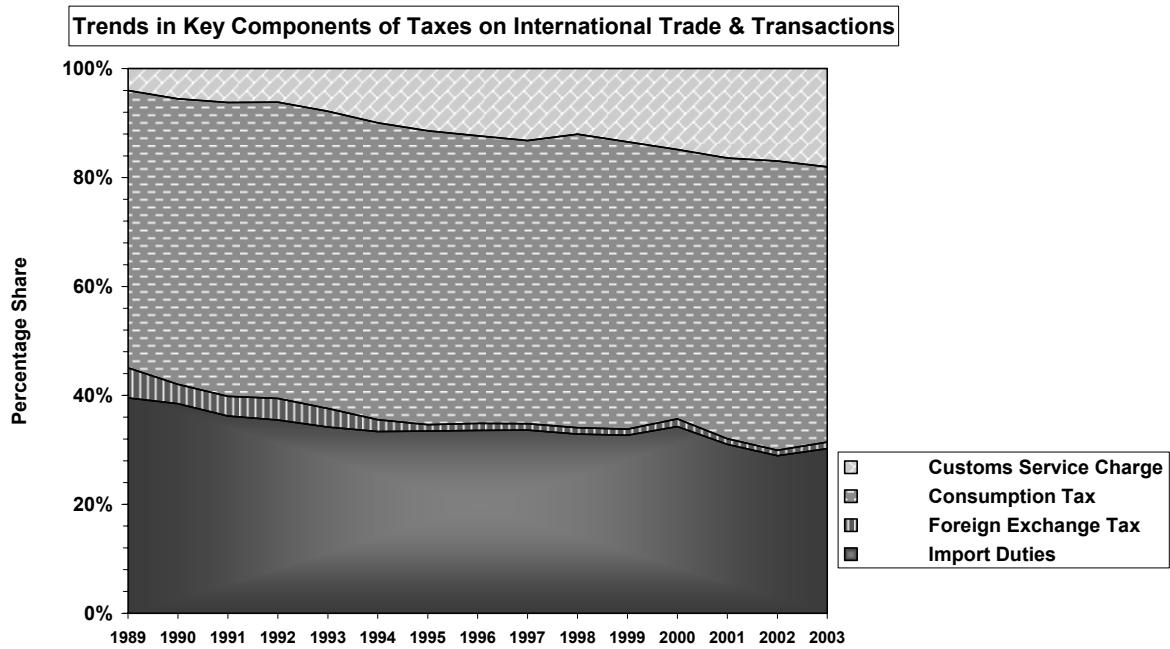
Against this backdrop, in this section we take a look at some aspects of the fiscal impact of trade liberalisation on the OECS as a whole given the regions fiscal dependence on import tariffs and trade taxes in general.<sup>115</sup> We begin with an examination of the impact of trade policy reforms on the relative shares of key components of trade tax revenue. [See figure 6.3 below]

#### **6.4.2 Shifts in Component Shares of Trade Taxes**

In Figure 6.3 we see that import tariffs have trended downwards in their share of trade taxes (TT) from a high of 40% in 1989 to about 28% in 2003. The levy on foreign exchange which was the least significance of the charges on international trade transactions declined steadily from 4% in 1990 until it was completely abolished in 2001. However, consumption tax which has traditionally been the largest component of taxes/charges on International Trade and Transactions increased from approximately 50% to 53% presumably to offset the decline in tariffs. Customs Service Charges also increased appreciably over the period from just over 6% to 17%. As a result non-tariff barriers as a whole increased from 62.33% to 72.52% of trade tax revenue.

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<sup>115</sup> It must be noted that trade taxes as used in this study are only in terms of import taxes given that export taxes are largely non existent.



**Figure 6.3 Components of Trade Taxes**

Despite these counter movements in the relative importance of various taxes on international trade and transactions the OECS have managed to reduce its fiscal tax dependence in terms of the share of trade tax revenue in total tax revenue. In this regard the share of tariff revenue fell from 17.2 % of current revenue to 12.4% over the same period. Trade taxes as a whole also diminished in its significance in financing government operations from 53.1 % in 1990 to 45 percent in 2002.

#### **6.4.3 Fiscal Dependence and the CET**

The fiscal impact of trade reforms can also be viewed from the standpoint of the fiscal dependence measured as a percentage of imports and GDP. These changes in relation to the phased implementation of the trade reforms under the CET are presented in table 6.3 below.

| Selected Year | Reference Period           | Taxes on International Trade(TT) |           |                         | Import Tariff Revenue |           |
|---------------|----------------------------|----------------------------------|-----------|-------------------------|-----------------------|-----------|
|               |                            | as a % of                        |           |                         | as a % of             |           |
|               |                            | Imports (AET)                    | GDP (TTR) | Total Tax Revenue (FDR) | Imports (IDR)         | GDP (TDR) |
| 1989          | <b>before</b>              | 21.20                            | 13.11     | 61.75                   | 8.04                  | 4.98      |
| 1993          | Start of <b>Phase I</b>    | 23.51                            | 12.41     | 60.1                    | 7.67                  | 4.05      |
| 1997          | During <b>Phase II</b>     | 24.1                             | 12.48     | 58.96                   | 7.68                  | 3.98      |
| 2000          | During <b>Phase II-III</b> | 23.37                            | 11.83     | 54.64                   | 7.28                  | 3.68      |
| 2003          | After <b>Phase IV</b>      | 27.04                            | 12.78     | 55.8                    | 6.33                  | 2.99      |

**Table 6.4 Fiscal Dependence and Implementation of the CET**

Source: Author's calculations.

Notes: AET= Average Effective Tariff; TTR=Trade Tax to GDP ratio; FDR= Fiscal Dependence Ratio; IDR=Average Import Duty rate and TDR=tariffs to GDP ratio

Table 6.3 shows that trade liberalisation has resulted in a steady fall in the share of tariff revenue to imports and GDP from an estimated 8.04% to 6.33% and from 4.98% to 2.99% respectively. In like manner the share of trade taxes (TT) in total tax revenue fell from an estimated 61.75% in 1989 to approximately 55.8% in the post-implementation period. For this reason the share of trade taxes in GDP has been flat dipping slightly downwards from 13.1% in 1989 to 12.78 in 2003. In contrast, the share of trade tax revenue to imports increased over the reform period from 23.51% to 27.04% thus underscoring the increase in importance of non-tariff barriers in the new trade regime in the OECS. Ironically in addition to steps aimed at lowering the levels and variance of tariffs some attention has also been given to removing non-tariff barriers (NTBs). These have been mainly been in terms of removing quotas and licence restrictions. Additionally the number of tariff peaks in the trade regime has been reduced significantly.<sup>116</sup>

Most significantly the table clearly shows that the OECS has reduced its fiscal dependence on trade taxes, in particular tariffs, since the commencement of its trade reform programme. Notably its import-weighted tariff rates are comparable to the world's average which according to Rodríguez (2006) is given as 7.05%.

<sup>116</sup> These refer to tariff rates above 15 percent. Table 3.4 shows that tariff peaks on all categories of non-competing goods as well as on primary competing primary inputs and capital goods have been removed.

#### 6.4.4 Changes in Fiscal Dependence by OECS Member Country

In contrast to table 6.4 which maps the changes in fiscal dependence indicators associated with the implementation of various stages of the CET for the OECS as a whole, table 6.5 provides a comparison of this performance at the level of each territory spanning a 10-year period *before* and *after* the commencement of trade liberalisation reforms in the OECS. Here we highlight changes in the average effective tariff (AET) and in the degree of trade tax and tariff dependence.

**Table 6.5 Summary Fiscal Dependence Indicators**

| Country                     | Average Effective Tariff |               |             | Trade Tax Dependence |               |             | Tariff Dependence |               |             |
|-----------------------------|--------------------------|---------------|-------------|----------------------|---------------|-------------|-------------------|---------------|-------------|
|                             | Before                   |               | After       | Before               |               | After       | Before            |               | After       |
|                             | 1984-1993                | 1994-2003     | Ratio       | 1984-1993            | 1994-2003     | Ratio       | 1984-1993         | 1994-2003     | Ratio       |
| Antigua & Barbuda           | 0.1671                   | 0.2162        | 1.29        | 0.6063               | 0.6458        | 1.07        | 0.2199            | 0.1859        | 0.85        |
| Dominica                    | 0.2781                   | 0.2761        | 0.99        | 0.6620               | 0.5321        | 0.80        | 0.1985            | 0.1378        | 0.69        |
| Grenada                     | 0.2703                   | 0.2771        | 1.03        | 0.5912               | 0.5873        | 0.99        | 0.2090            | 0.1355        | 0.65        |
| St.Kitts & Nevis            | 0.1738                   | 0.2314        | 1.33        | 0.5537               | 0.5135        | 0.927       | 0.2729            | 0.2052        | 0.75        |
| St.Lucia                    | 0.2002                   | 0.2719        | 1.36        | 0.4650               | 0.5600        | 1.204       | 0.2210            | 0.1643        | 0.74        |
| St.Vincent & the Grenadines | 0.2259                   | 0.2602        | 1.15        | 0.5467               | 0.5064        | 0.926       | 0.1750            | 0.1148        | 0.66        |
| <b>OECS Average</b>         | <b>0.2192</b>            | <b>0.2555</b> | <b>1.17</b> | <b>0.5708</b>        | <b>0.5575</b> | <b>0.98</b> | <b>0.2160</b>     | <b>0.1573</b> | <b>0.73</b> |

As can be expected the patterns of changes are consistent with table 6.3 above. Again we observe that the average effective tariff (AET) rates recorded an average increase of 17% despite the reductions in statutory tariff rates. This suggests that administrative efficiency gains have improved the tax yield and thus collection levels of tariff or revenue that either trade tax revenue is sufficiently buoyant or elastic to compensate for the tariff reductions. It may also be the result of tariffication which typically involves high tariff rates in nationally sensitive areas.<sup>117</sup>

In terms of the two other measures of fiscal dependence: (i) trade taxes in total tax revenue (TTD) and (ii) tariff revenue/import duty in tax revenue (IDD) the trends are more in keeping with expectations of trade liberalisation efforts. The average shifts for the region as whole was a decrease of 1.33% and 5.88% respectively, with the deeper change being in tariff dependence. At the level of member states the picture is somewhat mixed with the overall dependence on trade taxes falling in the case of 4 states and increases in two (St.Lucia and Antigua). For the countries where dependence on trade

<sup>117</sup> However, the applied and bound rates in respect of market access commitments in agriculture under Uruguay Round Agreement may alter this picture. This is because the initial ceiling rates for the tariff equivalents of quotas are high for most LDCs including the OECS. [See Agricultural Market Access Data (AMAD) via the Trade Analysis Branch (TAB) of UNCTAD.

taxes was reduced the diminished dependence ranged from 0.39% to 12.98%. Meanwhile based on the before/after ratio which ranged between 0.66 and 0.85 all countries experienced a shift away from tariff dependence. Thus in terms of the broad objectives of trade liberalisation, this is the success story. Nonetheless, it is instructive to note however, that a rank correlation of the trade tax dependence and average tariff ratios (columns 1 and 2) ranked in descending order was 0.8857. This according to Greenaway (1998) suggest that countries that most depend on tariffs are least able to do so and may partly explain the initial reluctance of governments to implement tariff reductions.

Up to this point the analysis has been purely non-parametric. We now employ econometric regression-based techniques to assess the impact of openness on trade performance and the relative importance of the determinants of trade tax revenue.

#### **6.4.5 Fiscal Impact of Trade Reforms: An Econometric Approach**

To empirically assess the fiscal impact of the OECS experiment with increased openness (via the implementation of the CET) we adopt a regression framework which is broadly similar to the approach taken by Kattray & Rao (2002), and others. Here we examine (i) the determinants of tax revenue (TRR); (ii) impact of openness and trade liberalisation on trade revenue mobilisation (TTR) and (iii) on OECS fiscal dependence. Finally in section 6.4.6 we examine whether trade taxes rates in the OECS were prohibitively high and a burden on fiscal performance in terms of being above a revenue maximising level. To do so we specifying the following models:

(6.4.5.1)

$$LNTRR = \alpha_0 + \alpha_1 \ln y_{it} + \alpha_2 \ln POP_{it} + \alpha_3 TINR_{it} + \alpha_4 \ln REER_{it} + \alpha_5 DMTAXR + \alpha_6 LIB + \varepsilon_{it}$$

(6.4.5.2)

$$LNTTR = \alpha_0 + \alpha_1 \ln y_{it} + \alpha_2 \ln POP_{it} + \alpha_3 \ln IMP + \alpha_4 AET_{it} + \alpha_5 \ln REER + \alpha_6 TINR_{it} + \alpha_7 LIB + \varepsilon_{it}$$

(6.4.5.3)  $LNFDR = \alpha_0 + \alpha_1 \ln y_{it} + \alpha_2 TINR_{it} + \alpha_3 AET + \alpha_4 LIB + \varepsilon_{it}$

LNTRR = the log of the ratio of tax revenue to GDP; LNY= is the natural logarithm of per capita GDP; lnPOP = is the log of the population; TINR=is the traditional trade openness measure (trade/GDP ratio); LNREER is the log of the real effective exchange

rate and DMTAXR is the share of domestic tax on goods and services to GDP. LNTTR = log of the share of taxes on international trade to GDP; LNIMP= is the log of imports; AET is the average nominal effective tariff equal to the ratio of total trade tax revenue divided by imports; LNFDR=log of the fiscal dependence ratio or the natural logarithm of the share of trade tax revenue in government's tax revenue (TIT/TT). LIB is dummy variable defined as before. [See section 5.1.1] The results of the estimation are given in table 6.6 below.

**Table 6.6 Estimation Results of Fiscal Impact of Trade Reforms**

| Independent variables               |                 | Dependent Variable   |                      |                      |
|-------------------------------------|-----------------|----------------------|----------------------|----------------------|
|                                     |                 | LNTTR<br>(1)         | LNTTR<br>(2)         | LNFDR<br>(3)         |
| Intercept                           | C               | -1.9748<br>(-2.0921) | -0.9233<br>(-0.8029) | -2.9612<br>(-5.7366) |
| Log of Per cap GDP                  | LN <sub>Y</sub> | -0.1308<br>(-3.7194) | -0.0692<br>(-1.3753) | 0.1767<br>(3.5914)   |
| Log of Labour                       | LNPOP           | 0.0942<br>(2.2936)   | 0.0583<br>(0.8978)   |                      |
| Openness Index                      | TINR            | 0.1328<br>(1.8442)   |                      | 0.5590<br>(4.6412)   |
| Log of Imports                      | LNIMP           |                      | 0.0958<br>(3.3583)   |                      |
| Domestic Tax Ratio                  | DmTaxR          | 2.7249<br>(2.9878)   |                      |                      |
| Log of Real Effective Exchange Rate | LNREER          | 0.0599<br>(0.4521)   | -0.2090<br>(-1.3867) |                      |
| Average Effective Tariff            | AET             | 0.8191<br>(3.5767)   | 0.5197<br>(9.5951)   | 1.8031<br>(5.5386)   |
| CET Dummy variable                  | LIB             | 0.0471<br>(2.2996)   | -0.0571<br>(-2.5415) | -0.0485<br>(-1.7001) |
| <i>Summary Statistics</i>           |                 |                      |                      |                      |
| R <sup>2</sup>                      |                 | 0.9787               | 0.9875               | 0.8492               |
| Durbin-Watson                       |                 | 1.7062               | 2.2363               | 1.9018               |

Note: (i) All equations are estimated using Panel Enhanced Least squares with cross-section weights

(ii) robust t-statistics are given in parentheses based on panel consistent standard errors (PCSE)

(iii) Equations are controlled for autocorrelations if necessary

Given the presence of serially correlated error terms the equations were modelled as autoregressive processes of order one (AR (1)). As a result the equations were estimated using the method of Enhanced Generalised Least Squares (EGLS) with cross-section weights in a panel framework. This technique transforms the errors to ensure that our parameter estimates which are also degrees of freedom corrected are also consistent.

The results with few exceptions are broadly in line with *a priori* expectations, with plausible magnitudes and signs. The high R<sup>2</sup> and acceptable Durbin-Watson statistics suggest that the data fitted the models well and the results are satisfactory.

In terms of the determinants of tax revenue reported in column (1) the results shows that population, domestic taxation, openness and average tariffs were all positively correlated to total tax revenue (TRR). Notably the proxy variable for the policy change (*LIB*) was found to be positively related to total tax revenue. In contrast, column (2) shows that the trade tax ratio (TTR) was only significantly related to import levels and the average effective tariff level and negatively associated with trade liberalisation as captured by the policy variable (*LIB*). Then in a somewhat counter-intuitive manner and similar to the findings of Khattri and Rao (2002), trade tax revenue was found to be negatively related to income per head (LNY) the share of total taxes in GDP. However this result was not significant. Other variables not reported such as inflation and the share of manufacturing in the economy which were used in similar investigations by researchers like Agbeyebe *et al* (2004) were all found to be statistically insignificant in explaining trade tax revenue. Meanwhile column (3) showed that fiscal dependence increased with openness and average tariffs and decreased with other unspecified factors as captured by the intercept term. However contrary to expectations it also suggested that fiscal dependence increased as GDP increased. This result though dubious at the very least emphasises the dependence of the OECS on trade taxes and the persistence in the structure of OECS tax system. Nonetheless, in line with popular thinking trade liberalisation was found to be inversely related to fiscal dependence.

The above findings suggests that although trade liberalisation has been positively associated with total tax revenue (TRR), it has also been associated with a reduction in the trade tax revenue (TTR) to GDP ratio as well as a decline in the level of fiscal dependence. These results suggest that the fiscal impact of trade liberalisation on the OECS is therefore mixed and slightly ambiguous. However, the sensitivity of the results to specification and choice of proxy for openness and trade liberalisation again suggest the need for caution in interpretation of these results.

#### **6.4.6 The Revenue Effect of OECS Trade Reforms (1984-2003)**

As was discussed in chapter three (3) the OECS trade reform process involved a reduction in the tariff bands and tariff differentials across commodities categories. Others things held equal, this has implications for the base of the tariff and by extension the revenue effect. In practice the actual revenue effect is *ex ante* indeterminate as it depends on a range of factors such as the number of tariff lines covered, initial conditions in terms of the level of the average tariff rate at the start of reductions and the tax yield/buoyancy. More importantly it depends on the supply and demand elasticities across import categories. [See Greenaway and Milner (1991), Tanzi (1989)] However if the average tariff rate is below the maximum revenue tariff rate trade liberalisation would *ceteris paribus* be revenue-depleting and conversely revenue-enhancing if it is above this critical level.

Therefore to better understand the nature of the impact of trade liberalisation on revenue we need to determine the level of the average effective tariffs (AET) in relation to the optimal or revenue maximising level. To do this we follow Khattray and Rao (2002) and assume that the underlying relationship between trade tax ratio (TTR) and AET is non-linear. Accordingly we estimate the following quadratic function in AET to obtain the parameter estimates.

$$(6.4.6.1) \quad TTR = A + bAET + aAET^2$$

where ‘A’ is a vector of control factors which are considered determinants of TTR such as were used in estimating equation 6.4.5.2 above. These include population, per capita income, trade openness and the real exchange rate. Differentiating with respect to AET and solving we get that the revenue maximising tariff level is given as  $AET = -b/2a$ . This works out to be 39.4 percent which is well above the level of the AET in the OECS. This suggests that the average tariffs in the OECS are well below the levels at which the so-called *Laffer effect* can set in to induce tax evasion. See Table 6.6 below for a summary statistics for AET and TTR.

| Reference Period               | 1984-93 |        | 1994-2003 |        |
|--------------------------------|---------|--------|-----------|--------|
|                                | AET     | TTR    | AET       | TTR    |
| Mean                           | 0.2139  | 0.1226 | 0.2555    | 0.1224 |
| Median                         | 0.2027  | 0.1226 | 0.2592    | 0.1225 |
| Maximum                        | 0.3499  | 0.1744 | 0.3335    | 0.1480 |
| Minimum                        | 0.1192  | 0.0761 | 0.1940    | 0.0936 |
| Std. Dev.                      | 0.0527  | 0.0233 | 0.0322    | 0.0108 |
| Observations                   | 55      | 55     | 60        | 60     |
| Correlation Matrix             |         |        |           |        |
| Average Effective Tariff (AET) | 1       | 0.7758 | 1         | 0.6976 |
| Trade Tax Revenue (TTR)        | 0.7758  | 1      | 0.6976    | 1      |

**Table 6.7 Descriptive Statistics of Fiscal Indicators**

The table show that the mean as well as the variance and thus the dispersion of both variables fell in the post-reform period. We also we see that the pairwise correlation between AET and TTR fell from 0.776 before the advent of trade reforms to 0.7 in the post-reform period. In loose language this confirms that on average tariffs has relaxed its grip on trade taxes.

#### **6.4.7 Fiscal Impacts—Some Concluding Remarks**

In this sub-section we have attempted to evaluate the fiscal impact of trade liberalisation from a number of perspectives using established techniques in the related literature. The results from the parametric tests support the findings of the non-parametric investigation. They suggest that while the evidence does not unequivocally confirm that trade liberalisation has resulted in fiscal depletion, there is equally no clear support for fiscal enhancement. Thus the net fiscal impact of the trade reform on total tax revenue in the OECS over the sample period can at best be described as a largely revenue-neutral overall adjustment. However, it must be noted that it is the largely unsustainable counter-increase in the share of non-tariff charges that has mitigated the possible adverse revenue impact of tariff reductions. Nonetheless what is clear is that, there is conclusive evidence of a shift in the composition and thus dependence of tax revenue away from trade taxes. Additionally, while there are indications that the tax reforms and measures intended to improve the efficiency of tax administration especially in terms of collection appear to have improved tax yields, trade liberalisation has not alleviated the fiscal or internal constraint among member states in terms of negative or a declining public savings-investment gap. The elimination of this fiscal imbalance would *inter-alia* require over the medium term, control if not balance on the external accounts in conjunction with fiscal

discipline. More generally, a supportive macroeconomic environment characterised by higher growth rates together with continued fiscal prudence will be needed to maximise revenue yield from the trade reforms.

Therefore on the basis of the foregoing it appears that the fiscal impact of trade liberalisation in the OECS has been mixed at best. These results show partial consistency with the findings of similar studies such as Suliman (2005) and Zafar (2005). Notwithstanding, tax reform efforts in customs revenue administration and the wider implementation of a broad-based tax such as Value-Added Tax (VAT) have laid the foundation for improved fiscal performance and greater fiscal stabilization which may soon begin to bear fruit.<sup>118</sup>

## **6.5 *The Impact of Trade Reforms on the BOP***

### **6.5.1 An Overview**

Having examined the above three issues (in sections 6.2-6.4) in our quest to better understand the impact of trade liberalisation, we turn our attention finally to a view posited by Thirlwall (1997) that the dominant constraint on demand and thus growth in most developing countries was their external constraint or the Balance of Payment (BOP). If so, are the economies of the OECS balance of payments-constrained? In answering this question we assess the extent to which the BOP of the region has had an adverse impact on the region's growth performance over the sample period. A key assumption of the BOP-constrained growth (BPCG) model is that relative prices play a quantitatively small role in explaining growth of trade flows. This implies that relative prices as captured by the real effective exchange rate (REER) do not change significantly thus substitution effects are negligible in the long run.. As a result the REER is not a major determinant of export and by extension economic growth performance. More importantly this suggests that the law of one price (LOOP) which assumes that small countries in a trade theory sense faced an infinitely elastic demand curve for their exports was not representative of

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<sup>118</sup> The International Monetary Fund supported by the monetary council of the ECCB has recommended that the OECS remodel its consumption tax regime and introduce a Value-Added Tax System. However concerns linger over its possible impact on the export sector.

reality.<sup>119</sup> A study by Faini *et al* (1992) on LDCs in the Caribbean and elsewhere in which they tested the zero-price homogeneity condition or the LOOP argument presented by Riedel (1988) found little support for any individual LDC that its demand curve was infinitely elastic.<sup>120</sup> They argued this was partly because LDC export competition was largely with each other.

If so policies such as trade liberalisation which essentially seek to improve growth of output by altering relative prices of inputs may be inherently limited in their capacity to positively impact growth. The corollary of this view is that it is differences in income elasticity of demand for exports and imports that largely determine economic growth. Moreover it is factors based on non-price competitiveness such as taste and the characteristics of a good that determines export performance. [See McCombie (1997)] Thus the price elasticity of demand for exports from countries such as those of OECS which are primarily agricultural commodities and low-technology intensity manufactures is expected to be low.

Against the thrust of this argument, we now empirically assess whether the lukewarm growth response of OECS SIDS following their trade reform episode is in part due to a BOP-constraint on their economies. To do so we examine whether the balance of payments constrained growth model or Thirlwall's law is a good predictor of long-run growth performance in the OECS.

### **6.5.2 The Balance of Payments Constraint Model**

We begin with the view as advanced by Thirlwall and Hussain (1982) that in the long-run a country's growth rate must be consistent with BOP equilibrium as our a point of departure. As a result deficits on the external account cannot be maintained and financed indefinitely by borrowing or other capital inflows. Put differently this says that at

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<sup>119</sup> Given that the SIDS of the OECS are indeed micro states and therefore small in every sense of the word we would expect the price-taker argument to generally hold. However institutional factors such as market access and various forms of imperfect competition such as strategic behaviour from competitors may amount to demand constraints and a downward sloping demand curve. For this reason Thirlwall (2003; p690) contends that the view that demand does not matter does not stand up to empirical scrutiny.

<sup>120</sup> However, based on findings from a study on New Zealand, Chatterjee and Michelini (1986) challenge the applicability of the assumption that the own and cross-price elasticities of exports and imports of a small country would be the same.

equilibrium the rate of growth of export earnings plus the growth of net capital flows must be equal to the rate of growth of import payments. Thus the overall balance on the BOP can be written as:

$$6.5.2.1 \quad P_d X + F = P_f M E$$

where  $P_d X$  is the domestic price of exports times the volume of exports,  $F$  represents net capital inflows while the term on the right hand side is the value of imports in domestic currency.

If we express  $X$  and  $M$  in multiplicative form as a function of relative prices, incomes of final consuming market and the price and income elasticities of demand for imports and exports we have:

$$6.5.2.2a \quad X = \left( \frac{P_d}{P_f E} \right)^\eta Z^\varepsilon;$$

$$6.5.2.2b \quad M = \left( \frac{P_f E}{P_d} \right)^\psi Y^\pi$$

Taking the logarithm of 6.5.2.2a and 6.5.2.2b, differentiating with respect to time and substituting in equation 6.5.2.1 we derive the general BOP-constrained growth model which can be written as follows:

$$6.5.2.3 \quad y = [(1 + \varphi\psi + \eta)(p_d + p_f - e) + (1 - \varphi)(cf - p_d) + \varphi\varepsilon(z)]/\pi$$

where ( $\psi$ ) and ( $\eta$ ) are the price elasticities of demand for imports and exports both of which ( $<0$ ). Meanwhile  $\varepsilon$  and  $\pi$  ( $>0$ ) represents the income elasticities of demand for exports and imports. The first made up of  $p_d$ ,  $p_f$  and 'e' represents relative prices, where  $p_d$  and  $p_f$  stands for the growth in domestic and foreign prices and 'e' is the exchange rate. The second term with 'cf' gives the rate of growth of capital inflows and the last term with 'z' gives the effect of exogenous growth of income in the OECS export markets. Meanwhile,  $\varphi$  and  $1 - \varphi$  are the relative shares/weights of export revenue and capital inflows used to finance the import bill.

If the rate of growth of capital flows as well as the rate of change of relative prices remains fixed or relatively unchanged in the short run then 6.5.2.1 can be written as:

$$6.5.2.4 \quad y_B = \varepsilon(z)/\pi$$

This simple growth rule is referred to as the *weak form* of the Thirlwall's wall or dynamic version of the Harrod trade multiplier Harrod (1933).<sup>121</sup> [Thirlwall and Hussain (1982)] However given that the term in the numerator (which is the product of the income elasticity of demand for the OECS exports times the income growth of its key trade partners) is difficult to measure but by definition equal to export growth, the so-called weak form of the Thirlwall is used for empirical purposes. This is given as:

$$6.5.2.4a \quad y_B = x/\pi$$

Predicted growth rates based on this measure can then be statistically compared to observed growth rates. A close relationship between observed economic growth ( $y$ ) and BOP-constrained growth ( $y_B$ ) will point to a diminished significance of relative prices in determining trade performance. If this holds then this may help explain why trade liberalisation has been negligible in its impact on growth. This formulation of the BOP-constrained equation shows that long-run growth is a function of export growth.<sup>122</sup> Perhaps what is most apparent from 6.5.2.4a is that the higher a country's propensity to import for a given rate of export growth ( $x$ ), the lower or more constrained would be its economic growth rate.

### **6.5.3 BOP-Constraint Growth—What Does the Evidence Say?**

To determine whether the member territories of the OECS are BOP-constrained we adopt an approach akin to one used by Atesoglu (1993).<sup>123</sup> This is related to the McCombie (1989) formal test to determine whether observed economic growth rates can be predicted by the BOP equilibrium growth rate. First we estimate an import demand equation along

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<sup>121</sup> It has also been referred to by Perraton (2003) as the 'strong' form of the Thirlwall's Hypothesis.

<sup>122</sup> This formulation of the BOP consistent growth rate has been referred to by Perraton (2003) as the 'weak' form of the Thirlwall Hypothesis.

<sup>123</sup> This may also be done using a test for cointegration between real export and real GDP growth. [See Atesoglu (1997) and others]

the lines of Houthakker and Magee (1969) including the trade liberalisation dummy (*LIB*) using the following equation:<sup>124</sup>

$$6.5.3.1 \quad D \ln IMP_t = \beta_0 + \beta_1 D \ln y + \beta_2 D \ln REER + \beta_3 LIB + \varepsilon_t$$

where  $\beta_1$  and  $\beta_2$  are the income and price elasticities of demand for imports respectively.

The results of this estimation are summarised in table 6.8 below.

**Table 6.8 Price and Income Elasticity of Demand for Imports**

| Dependent variable: DLNIMP      | c                    | Elasticity           |                      | Lib                  | R <sup>2</sup> | D.W    |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------|--------|
|                                 |                      | DLNy                 | DlnREER              |                      |                |        |
| Antigua & B'da <sup>1</sup>     | 0.1056<br>(1.3237)   | -2.7126<br>(-4.3123) | -1.1975<br>(-1.2233) | -0.0640<br>(-0.6726) | 0.6344         | 2.0314 |
| Dominica <sup>1</sup>           | 0.0631<br>(0.6249)   | -2.2388<br>(-1.9495) | -1.7931<br>(-1.4108) | -0.0423<br>(-0.3635) | 0.4225         | 1.5768 |
| Grenada <sup>1</sup>            | 7.4586<br>(5.7755)   | 0.5020<br>(1.7444)   | -0.3039<br>(-0.4571) | -0.0467<br>(-0.5591) | 0.8952         | 1.4221 |
| St.Kitts & Nevis                | -0.0116<br>(-0.1727) | 1.3915<br>(1.6662)   | 0.0100<br>(0.0124)   | 0.0198<br>(0.2956)   | 0.1774         | 1.7912 |
| St.Lucia                        | -0.1392<br>(-2.7168) | 2.6784<br>(5.0632)   | -0.4190<br>(-0.4555) | 0.1586<br>(2.3560)   | 0.7160         | 2.0114 |
| St.Vincent & Gren. <sup>1</sup> | -0.0547<br>(-0.5262) | -0.4274<br>(-0.2175) | -0.8299<br>(-0.5276) | 0.1026<br>(0.9194)   | 0.1216         | 2.1568 |
| OECS                            | 0.1432<br>(1.4940)   | -3.2820<br>(-2.2617) | -1.9483<br>(-1.8768) | -0.0675<br>(-0.7175) | 0.3567         | 1.8157 |

Notes: (i) <sup>1</sup> Adjusted for serial correlation in the residuals

(ii) t-values are given in parentheses

From Table 6.8 we see that income elasticity of demand for import has the expected positive sign for only two of the member countries namely St.Kitts & Nevis and St.Lucia.<sup>125</sup> Moreover this estimate was statistically significant for the region as a whole and in all territories except St.Vincent & the Grenadines. Meanwhile the relative price parameter (column 3) is correctly signed and insignificant in all member countries except St.Kitts & Nevis where it is positive but insignificant. This suggests that at least at the level of individual states changes in relative prices as captured by the DLNREER are not significant in inducing external adjustment through import compression. However for the sub-region as whole the price elasticity of demand for imports was found to be significant in curbing imports.

<sup>124</sup> Other specifications of the import demand equation (though not reported) were also examined. In this regard liquidity constraint faced by importers proxied by credit to the private sector as well as the lag of the relative price term to cater for a delayed impact of the policy change were tried as explanatory variables. Although these variables were largely significant their exclusion did not significantly alter the results.

<sup>125</sup> Though uncommon a similar result was found by (Sinha, 1997) in a study estimating the import demand function for Pakistan.

The estimated coefficients for the income elasticity of demand for imports ( $\hat{\pi}$ ) obtained above are then used to generate  $y_B$  based on equation 6.5.2.4a above. These and other results are summarised in table 6.8 below.

**Table 6.9 Summary Statistics: A Comparison of Actual and Predicted Growth**

| Country            | Growth of GDP<br>y | Growth of Exports<br>x | Estimated Income Elasticity of demand imports<br>$\hat{\pi}$ | BOP Equilibrium Growth rate <sup>1</sup><br>$y_b$ | BOP consistent, Import elasticity<br>$\pi^*$ | Deviation between<br>y and $y_b$ | Actual growth in relation to predicted growth |
|--------------------|--------------------|------------------------|--|---|--|----------------------------------|---|
| Antigua            | 4.1487             | 3.68                   | -2.7126<br>(-4.3123)   | -1.3566   | 0.89   | 5.5054                           | above   |
| Dominica           | 2.2982             | 3.51                   | -2.2388<br>(-1.9495)   | -1.5672   | 1.53   | 3.8653                           | above   |
| Grenada            | 4.0213             | 6.73                   | 0.5020<br>(1.7444)   | 13.4041   | 1.67   | -9.3828                          | below   |
| St.Kitts & Nevis   | 4.4297             | 6.65                   | 1.3915<br>(1.6662)   | 4.7795  | 1.50   | -0.3499                          | below   |
| St.Lucia           | 2.6371             | 4.11                   | 2.6784<br>(5.0632)   | 1.5328  | 1.56   | 1.1042                           | below   |
| St.Vincent & Gren. | 2.4743             | 0.16                   | -0.4274<br>(-0.2175)   | -0.3843   | 0.07   | 2.8587                           | above   |
| <b>OECS</b>        | <b>3.4658</b>      | <b>2.94</b>            | <b>-3.2820<br/>(-2.2617)</b>                                 | <b>-0.8943</b>                                    | <b>0.85</b>                                  | <b>4.3601</b>                    | <b>above</b>                                  |

From the table we see that in two (2) cases (Grenada and St.Kitts & Nevis) the predicted growth rate according to the dynamic multiplier was above the average actual growth rates recorded i.e ( $y < y_b$ ). In all other cases the BOP-consistent or predicted rates were below observed growth rates i.e ( $y > y_b$ ). The former scenario suggests that such countries on average experienced surpluses over the sample period while the later scenario more representative situation suggests that deficits financed by capital flows made the recorded growth rates possible.

Having obtained a general picture of average levels of these key aggregates in determining economic performance in the BOPC framework we now examine more formally whether the OECS territories are balance of payments constrained individually or and as a group. To do this we regress  $y_B$  against actual growth rates (y) to assess whether they are statistically similar in magnitude using the following equation.

$$6.5.3.2 \quad y_b = \alpha + \beta \Delta \ln y + \mu$$

The results from estimating this equation are presented in table 6.10 below.

**Table 6.10 Test of the Balance of Payments Constraint Hypothesis**

| Dependent variable $y_b$ | c                    | Real GDP growth y    | BOPC Status | R <sup>2</sup> | D.W    |
|--------------------------|----------------------|----------------------|-------------|----------------|--------|
| Antigua                  | -0.0413<br>(-2.0283) | 1.3872<br>(4.6940)   | Yes         | 0.5645         | 1.9689 |
| Dominica                 | -0.0355<br>(-0.7834) | 2.7425<br>(3.6314)   | Yes         | 0.4369         | 2.2101 |
| Grenada                  | 0.0982<br>(0.4218)   | -4.2247<br>(-2.7827) | Yes         | 0.3608         | 1.5439 |
| St.Kitts & Nevis         | 0.0296<br>(1.2009)   | 0.3111<br>(0.7230)   | No          | 0.0298         | 2.3665 |
| St.Lucia                 | -0.0465<br>(-2.3951) | 1.3751<br>(5.4648)   | Yes         | 0.6372         | 1.1945 |
| St.Vincent               | 0.0402<br>(1.4579)   | -0.7610<br>(-1.1516) | No          | 0.0724         | 2.6077 |
| OECS                     | 0.0916<br>(1.0400)   | -3.2517<br>(-1.7204) | Yes         | 0.1483         | 2.6399 |

Notes: Yes Indicates a country with a coefficient for real GDP growth that is statistically different from unity at the 5% level or better.

Here we see that the null hypothesis that the slope coefficient on actual growth (y) is statistically different from unity was rejected in five (5) cases including for the region as a whole. In all of these cases except St.Vincent and the Grenadines the predicted BOP equilibrium growth rate was less than the actual growth rates ( $y_b < y$ ). Hence with few exceptions observed growth (y) rates were statistically similar to those predicted by the simple version of the BOP-constrained growth rate ( $y_b$ ) or the so-called Harrod foreign trade multiplier. Accordingly the BOP constraint on economic growth in the OECS was largely binding in such cases. A check of the simple correlation (r) between actual and the BOP-consistent growth rates ranged between 0.660-0.751 for the individual territories and 0.385 for the region as a whole, lending further support to this view. Once again these results are subject to the limitations due to small sample size and thus must also be taken advisably.

Nonetheless, the implication of this is that export growth is not endogenously determined as a function of relative prices induced by expenditure-switching policy such as trade liberalisation. As a result such policies by themselves have been insufficient to induce adjustment to correct BOP disequilibria. This is in part because income elasticities are essentially exogenously determined and thus various non-price factors are important in determining export performance and thus growth.

The deviations of actual growth rates ( $y$ ) from the rate consistent with BOP equilibrium ( $y_b$ ) estimate in the OECS may be in part be due to the impact of capital inflows.<sup>126</sup> This is because the OECS countries are structurally import-oriented and thus tend to run current account deficits. This inherent foreign exchange short fall is met through autonomous capital inflows in the form of FDI and foreign borrowing. In this case the so-called extended version or *strong form* of the BOP constraint growth model inclusive of capital inflows would allow us to obtain  $y^*_b$  and compare it to actual growth rate ( $y$ ). This is especially important given that capital inflows would increase a country's import capacity.

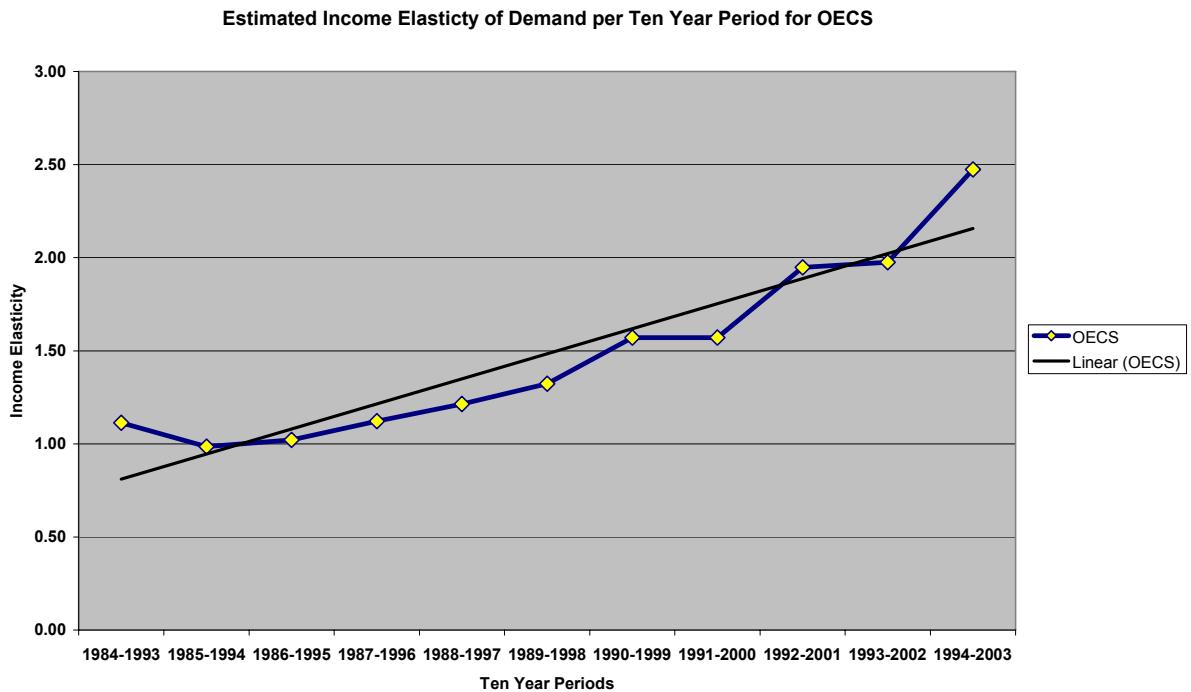
However the erratic and volatile nature of capital inflow patterns in the OECS (which shifted between deficit and surplus) meant that it has been impossible to obtain the required estimates.<sup>127</sup> As a result our attention has been focussed on the impact of changes of relative prices and thus competitiveness on growth performance given that the role of capital flows on the OECS economic growth rates in the face of its trade liberalisation efforts is not a principal focus of this study. Nonetheless a re-estimation of the BPCG rate inclusive of capital should provide a better prediction of the relevant BPCG rate.

Finally in order to obtain an appreciation of the evolution of the income elasticity of demand for imports in the OECS over the period of trade reforms we use the technique of rolling regression first used by Atesoglu (1993) using 11 overlapping periods starting from 1984-1993 until 1994-2003. We utilise the same import demand equation used earlier (in 6.5.3.1) but in a pooled data framework to obtain estimates of the income elasticity of demand for imports. Thereafter we plotted the resulting estimates against time to obtain an indication of the slope of the trend path of income elasticity of demand for imports in the OECS. The results of this estimation and the trend path of the income elasticity of demand for imports are presented in figure 6.8 below.

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<sup>126</sup> Deviations could also reflect the adverse or favourable effects of relative price movements. [See (A. P. Thirlwall & Hussain, 1982)]

<sup>127</sup> Perraton (2003) also found the estimation of the strong form of the Thirlwall's Hypothesis problematic due to erratic patterns of inflows.



**Figure 6.4 Rolling Ten-Year Trend Income Elasticity of Demand for Imports**

From the figure we see that there has been a trend increase in the income elasticity of demand for imports over the sample period starting from approximately 1.0 in 1985-1994 to 2.5 by 1994-003. The estimated trend equation is given as follows:

$$6.5.3.3 \quad \pi = 0.6761 + 0.1346t \\ (5.8111) \quad (7.845) \\ R^2 = 0.8724; D.W=1.08$$

This suggests that on average the income elasticity of demand for imports (IEDI) increased by approximately 13.5% over the sample period. At a glance growth would invariably be constrained by the associated import bill if comparable growth is not realised in exports or capital inflows.

Further, an examination of the interaction effects between imports and domestic income growth since the commencement of trade liberalisation further support the view of an apparent increase in the sensitivity of imports to income growth. [See equation 6.5.3.4 below]

$$6.5.3.4 \quad d \ln imp_{it} = \alpha_0 + \beta_1 d \ln REER_{it} + \beta_2 \ln y_{it} + \beta_3 d \ln y^* lib + u_{it}$$

|         |          |          |         |
|---------|----------|----------|---------|
| 0.016   | -0.802   | -0.398   | 1.81    |
| (0.594) | (-2.098) | (-2.198) | (4.183) |

$$R^2 = 0.153; \quad D.W = 2.050$$

There we see that the estimated coefficient of the interaction term ' $\beta_3$ ' is positive and significant. Moreover apart from the intercept, the partial slope coefficients are all significant and with the expected sign with the exception of the income term. However the total income effect on import growth is the sum of  $\beta_2$  and  $\beta_3$  which is positive and equal to (1.41).

#### **6.5.4 Trade Liberalisation and “Other Impacts”: Some Summary Remarks**

On the basis of our findings on the various sub-issues discussed in this chapter we can conclude that the impact of trade liberalisation on the OECS in each case has largely been tenuous at best and certainly below levels consistent with the claims of its proponents.

In section 6.2 we examined the impact of trade liberalisation on export growth performance from a supply and then demand side perspective. While the evidence indicates that exports have been a significant determinant of OECS economic performance, trade reforms have not been significant in improving or explaining export performance. The mixed picture that emerges was compounded by the various cases where the signs were in line with expectations but fell short of an acceptable level of significance.

In section 6.3 we attempted to assess the degree of technological absorption/diffusion which may have occurred over the reform period using two measures of technology spillover. The results do not suggest that the reform period 1994-2003 was associated with a significant increase in technological transfer. However the unavailability of data on human capital meant that we were unable to examine the complementarities which may have developed between human and physical capital.

Regarding the fiscal impact of OECS trade reforms, here again the evidence shows, a somewhat revenue-neutral impact, while reducing the relative dependence of the region on trade taxes in general and import tariffs in particular. In broad terms this may be regarded as a successful outcome of trade reforms. However, this has largely been facilitated by counter increases in non-tariff barriers. If as is expected these increases are reversed and then progressively lowered the fiscal impact of the trade liberalisation experiment may then be one of fiscal depletion.

Then finally on the basis of the picture emerging from the findings of these sub-sections as well as the nature of the findings of chapters 4 and 5 we were compelled to investigate whether the OECS-SIDS were balance of payments constrained as a plausible explanation for the less than expected performance in economic and export growth. Having done so, it is apparent that the weight of evidence suggests that changes in relative prices have not been very influential in determining economic performance.<sup>128</sup> Accordingly trade liberalisation has had a very limited impact on economic growth especially in the short-run and its long run impact on economic growth is less clear.

On the contrary, the trend rise in the income elasticity of demand for imports and the general higher propensity to import as compared to export will invariably undermine efforts at growth through price changes. This high import elasticity among other things reflects a low elasticity of supply of imports substitutes and low share of competitive imports in total imports. Further the relative dominance of income effects point to the importance of non-price factors in driving export performance. The trend upward shift in the income elasticity of demand for imports, despite slowing down in recent years, may be a principal source of the pattern of low growth which gripped the OECS region especially in the post-reform period 1998-2003. This is because as Pacheco-Lopez and Thirlwall (2005) contend, trade liberalisation will only raise growth substantially if it raises the growth of exports more than it does the rate of income elasticity of imports. On the strength of the multifaceted evidence in this study we must conclude that this has not been so. Therefore the impact of trade liberalisation on the both export and economic growth has been negligible over the sample period.

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<sup>128</sup> For example in the export services (cruise ship) sector a study indicated that the itinerary and cruise line—as opposed to price—remain the two most important deciding factors when customers book a cruise.

Having arrived at this finding, we nonetheless concede that the limitations of the small sample size used in the study, necessitates that these findings be taken with some caution. Nonetheless, it is not anticipated that the results would not be drastically different even for a larger sample size.

## **SECTION III**

THE STATE OF PLAY: RESULTS & ISSUES: CONSIDERATIONS FOR AN  
ALTERNATIVE WAY

## **Chapter Seven (7)**

### **Synthesis of Results and Issues: Understanding the Trade Liberalisation Experience of the OECS- SIDS**

#### **7.1 *Introduction***

In this chapter we attempt to provide a synthesis of the results and findings of section II of the thesis in which we conducted a multi-dimensional empirical investigation into the impact of trade liberalisation on the OECS-SIDS. From this assessment we hope to identify and summarise the main aspects of the OECS experience with trade liberalisation as observed over the sample period of the study. Some of the more important of these will be discussed, and their influence on the liberalisation process highlighted. In so doing attention will be drawn to a range of features unique to the OECS and SIDS in general which are relevant to understanding its particular experience. Finally we pose questions on why such outcomes have occurred and make some recommendations regarding plausible alternative approach to trade liberalisation in SIDS.

#### **7.2 *Discussion of Results: What Have We Found?***

As discussed in the literature review (Chapter two) the standard predictions of the underlying neo-classical trade-growth model is for a two-stage impact firstly in terms of a structural change or internal streamlining and re-alignment of the economy to reflect the new price incentives and areas of comparative advantage. This would then be followed by the all important take-off phase of faster economic growth, driven in particular by export-led growth.

Thus in an attempt to arrive at our conclusions regarding the extent to which such a pattern of adjustment has occurred in the OECS following its trade liberalisation episode we revisit the main results from the empirical investigation presented in section two (chapters Four to Six). In what follows we present the main aspects of the OECS experience with trade reform in accordance with our research questions outlined in section 1.2.1. On this basis the main findings of the study can be summarised as follows.

### **7.2.1 Findings in Relation to Research Questions**

Together each result in the string of findings listed below help paint a comprehensive picture regarding the impact of trade liberalisation on economic structure and performance in the OECS. In relation to our research questions these findings can be summarised as follows:

#### **1. Impact on Economic Structure:**

##### **a. Macro-economy**

- The first ten-year period following the implementation of a policy of trade liberalisation in the OECS has been associated with macroeconomic decline mainly in terms of slow growth and widening resource gaps (savings-investment as well as foreign exchange) reflected in rising external debt ratios and growing current account deficits.
- Trade liberalisation has precipitated structural changes in the OECS economy which amounts to a movement away from commodity production in general (agriculture and manufacturing) resulting in a greater dependence on services which has become the new engine of a still largely mono-pillar OECS economy.
- Circumstantial evidence indicates a shift in the composition of exports towards a few non-traditional exports but their contribution to foreign exchange has been minor.

##### **i. Trade Patterns and Behaviours:**

- There were indications of a slight increase in intra-regional trade (within CARICOM) however the balance of this trade shows a widening deficit for the OECS in relation to its larger neighbours. However FDI from CARICOM also increased.
- There is evidence of an increase in the income elasticity of demand for imports and thus an increase in the sensitivity of imports to changes in OECS income.

##### **ii. Impact on Export Structure:**

- Evidence of structural change in terms of declines in relative importance of traditional exports. Changes in the ranking of the top ten exports according

to the cumulative export experience index (CEEI) and the measure of traditionality underscored this structural impact.

- This was reflected in a reduction in the degree of export concentration from 0.442 in 1993 to 0.249 in 2002 according to the Herfindahl-Hirshman Index. As a result the share of primary products in OECS exports declined from 67.28% in 1993 to 47.87% in 2003.
- Although the share of non-consumer goods in exports increased there was a reduction in the exports across all technology-intensity categories in post-reform period (1999-03) compared to 1994-1998
- In terms of specialisation and competitiveness the RCA index indicated an overall decline in the number of competitive sectors wherein the share of non-competitive sectors ( $RCA < 1$ ) increased from 53% in 1993 to 58% in 2003 while sectors with an  $RCA > 2$  disappeared altogether by 1997.
- Regression based analysis also confirmed at the 1% level of statistical significance that the region as whole suffered de-specialisation and instability in its export base. [See section 4.6.1]
- Although there was evidence of export-led growth in the OECS this attained a maximum in 1994 and declined steadily after the commencement of trade reforms.

## 2. Impact on Economic Performance:

### a. Overall Economic Growth

- The results from each of two estimation approaches revealed that the impact of trade liberalisation was consistently negative.
- The first estimation approach showed that total growth fell when the trade policy term (*LIB*) was included. The model which was estimated both with and without one-way fixed effects indicated that *LIB* had a negative effect of 4.36% and 4.48% at the 1% level, respectively. Hence the combined impact of the growth determinants on growth was less in the post-reform period as compared to the pre-reform period.
- Likewise, the contemporaneous impact in the second estimation approach which was based on a dynamic panel framework returned a comparably negative impact of -3.4%

- Lagged versions of the policy variable for up to 2 years were also considered. They were both found to be statistically insignificant. However a change in the sign of the export coefficient from negative to positive in the second year hints at a future positive effect which suggests a possible *J-curve* type effect. But this result seemed sensitive to the instruments used.
  - This view is partly supported by the observation that the impact of the policy during phase I-III of the CET (1994-98) was negative and slightly larger in absolute terms than during phase IV (1999-03). [See table 5.8]
  - Meanwhile the results from an examination of the impact of trade policy openness in a simultaneous equation framework indicated that the total effect of trade policy openness on growth in the pre and post reform period was -0.221 and -0.0121 respectively. The less negative impact in the post reform period again points to a likely *J-curve* effect.
- On the other hand, an assessment of the association of trade openness with economic growth using specification of the model developed in section 5.6 with growth determinants specified at levels in conjunction with each of seven (7) price and volume-based proxies for openness measures indicated that trade openness was positively associated growth:
- Of the volume-based measures only trade intensity (TINR) was statistically positive and significant.
  - Of the price-based measures the BMP and TTR were most important with the expected negative effect on growth
- Throughout these estimations the main growth determinants in the OECS over the sample period were:
- Domestic investment ratio (INVR) and trade openness (TINR)
  - The impact of the government sector on growth was found to be mixed

b. **Other Impacts:**

i. **Export Growth:**

- The record shows that growth of OECS exports has slowed steadily over the reform period. [See figure 6.1]

- Using a Feder inspired supply-side approach estimated in a single-equation and simultaneous framework as well as a demand-side approach similar to one followed by Santos-Paulino (2002) with and without fixed effects the results repeatedly showed that trade liberalisation (*LIB*) was positively associated with export performance. However it must be noted that this association was statistically insignificant on each occasion. [See tables 6.1 and 6.2]
  - However, its positive coefficient again suggests that a longer period of adjustment may be needed before the policy change can begin to positively and significantly impact growth. If so, the OECS economy may still be in the “*trough*” stage of a so-called *J-curve* path of adjustment which precedes the growth expansion stage.
  - There are indications that the economy has apparently become more sensitive to prices. Interaction effects also suggest that trade liberalisation has improved the sensitivity of OECS exports to movements in the real exchange rate.
- ii. Technology Transmission
- Various tests for the predicted increase in technology transmission due to increased openness showed no indication of an increased level of diffusion and absorption in the post-reform period.
- iii. Fiscal Dependence
- There is clear evidence of a reduction in the degree of fiscal dependence of the OECS on trade taxes both in terms of the share of tariffs in trade taxes and the share of trade taxes in total taxes.
  - There are also clear indications that the implementation of trade liberalisation reforms in OECS has been tailored in such a way so as to minimise the possible adverse revenue impact on the region. This has largely been done through a corresponding increase in non-tariff barriers (NTB) in OECS trade tax revenue.
  - Existing tariff rates in the OECS were also found to be below the revenue-maximizing rate and thus were not a constraint on revenue by encouraging tax evasion.

- Meanwhile an econometric investigation indicated an ambiguous impact of trade reforms on fiscal performance. On one hand the trade policy change was found to have had a positive effect on the share of taxes in GDP (TTR) but a negative association with the share of trade taxes in total tax revenue (TRR). As a result trade reforms have been regarded as revenue-neutral at best.
- iv. Trade reforms—Impact of BOP on growth
  - An assessment of the extent to which economic growth in the OECS was constrained by deterioration of the current account was conducted. The results showed that the region as a whole and most of the member territories on average recorded growth rates well above that which was compatible to BOP equilibrium.
  - A comparison of actual growth rates with that which is BOP consistent showed that predicted growth rates were higher in only 2 OECS countries (Grenada and St.Kitts & Nevis) while the reverse was true in all the other territories including the region as a whole.
  - On the basis of a formal tests of the statistical difference between observed growth ( $y$ ) and predicted or BOP consistent growth rates ( $y_B$ ) we found that the region as a whole and four of the member territories were found to have a BOP-constraint on growth. The exceptions being St.Vincent and the Grenadines and St.Kitts Nevis.
  - Although export growth has trended down with net losses across the region, income elasticity of demand for imports has trended up. In tandem this has served to undermine and constrain growth. This suggests a growing reliance on imports. In this regard there was a trend increase of about 13.5% in the income elasticity of demand for imports over the sample period (1984-2003).
  - The apparent increase in the sensitivity of imports to income growth was also confirmed by a positive and significant interaction between the two. [See equation 6.5.3.4]
  - Importantly the relative price parameter as captured by the coefficient of the real effective exchange rate was found to be insignificant in explaining growth in all member countries except one (St.Kitts & Nevis).

## 7.2.2 Summary of Findings

Thus in summary trade liberalisation has resulted in structural change in exports and the wider economy. However it has not resulted in the expected increase in economic growth. The net impact of internal and external liberalisation on the top-ten exports of the OECS is summarised in table 7.1 below.

| SITC                          | COMMODITY             | DOMINICA          | GRENADA         | ST.KITTS & NEVIS | ST.LUCIA          | ST.VINCENT &      | OECS AVERAGE      |
|-------------------------------|-----------------------|-------------------|-----------------|------------------|-------------------|-------------------|-------------------|
| 05                            | Vegetables and Fruits | L(-19.30)         | L (-2.96)       | L (-0.02)        | L(-42.40)         | L(-14.10)         | L (-78.78)        |
| 77                            | Electrical Apparatus  | W (0.02)          | L (-0.55)       | W(31.29)         | L (-3.65)         | W (0.33)          | W (27.44)         |
| 55                            | Oils and Perfumes     | W (8.09)          | W (0.19)        | L(-0.004)        | L (-0.31)         | W(0.001)          | W (7.97)          |
| 04                            | Cereals etc           | L (-0.07)         | W (1.91)        | L (-0.08)        | W (0.36)          | L (-6.40)         | L (-4.28)         |
| 07                            | Spices                | W (0.02)          | W (5.50)        | L (-0.01)        | L (-0.04)         | W (0.10)          | W (5.57)          |
| 84                            | Articles of Apparel   | L (-0.17)         | L (-1.47)       | L (-1.29)        | L (-23.67)        | L (-1.65)         | L (-28.25)        |
| 06                            | Sugar and Preps       | L (-0.01)         | L (-0.01)       | L (-5.27)        | W (0.001)         | L (-0.02)         | L (-5.31)         |
| 11                            | Beverages             | W (0.75)          | L (-0.34)       | L (-0.47)        | W (5.59)          | W (0.42)          | W (5.59)          |
| 64                            | Paperboard            | L (-1.12)         | W (1.28)        | L (-0.06)        | L (-5.20)         | L (-0.36)         | L (-5.46)         |
| 03                            | Fish                  | W (0.17)          | W (0.71)        | W (0.11)         | W (0.09)          | W (0.19)          | W (1.27)          |
| <b>Net Impact/Total Value</b> |                       | <b>L (-11.62)</b> | <b>W (4.26)</b> | <b>W (24.20)</b> | <b>L (-69.23)</b> | <b>L (-21.49)</b> | <b>L (-74.24)</b> |

Notes: (i) W/L sector in which a net Gain/Loss was recorded  
(ii) Values in parentheses represents value of net impact in millions of USD

**Table 7.1 Net-Impact: Win-Lose Distribution of Top 10 exports**

Table 7.1 confirms a net loss for the OECS of US\$ 74.24 million in terms of export revenue for the top ten (10) exports in 2003 as compared to 1993. At the level of individual members we observe that only two (2) member territories recorded net gains. Grenada with a modest US \$4.26 million and St.Kitts & Nevis despite loses in eight other sectors including its traditional export of sugar was the principal beneficiary with gains of US\$ 24.2 million. Grenada's gains came from its niche specialisation in spices which were not adversely affected by changes in the EU import regime. In contrast the gains in St.Kitts & Nevis were due to significant export-oriented foreign direct investment in production of electrical apparatus and appliances.

It is instructive to note that the Windward Islands led by St.Lucia were the most affected OECS territories with a net loss of US\$ 69.23 or 93.25% of the loss to the OECS. These losses reflect relative dependence on bananas and exports of apparel and articles of clothing which were the two sectors in which all member territories recorded losses and which were most affected by external liberalisation. One sector which has clearly emerged over the period is the fish and crustaceans sector reflecting investment in aquamarine agriculture.

On the basis of the above indicators the experience of the OECS with trade reform thus far has been more negative than positive. As such the net impact of trade liberalisation on the export structure of the OECS has been largely to accelerate the decline of traditional commodity exports and precipitate a structural transformation of the economy based on services (mainly tourism). While proponents of this economic adjustment may argue that this is where the region's comparative advantage lies, the inherent increased vulnerability to exogenous shocks cannot be denied.

To be sure the claims of studies such as PMC (1991) that trade liberalisation results in rapid growth of exports and more rapid growth of real GDP without transitional costs in unemployment or government fiscal performance is not in evidence in the OECS experience. On the contrary welfare losses associated with the closures of a number of import-oriented but also export-oriented plants notably garments and light manufacturing in the region suggest otherwise.

Indeed efforts at maintaining a more diversified economy in part through encouraging production and investment in manufacturing albeit as part of a strategy of export promotion have not fared well in the face of increased openness. Increased foreign competition has made the attainment of the minimum efficiency scale even more elusive. This is evident in the net losses in the key export sectors where a significant proportion of domestic production capacity has been displaced.

In sum the experience of the OECS with liberalisation thus far has been mixed and appears *prima facie* to have more in common with regions such as Sub-Saharan Africa where it has turned out according Greenaway (1993) to be a false dawn in which the anticipated significant supply-response did not materialise. This is in stark contrast with the outcome in the HPAEs and the advanced developing nations many of which experienced export take-off on account of WTO-led trade liberalisation.<sup>129</sup>

The apparent difference in the OECS experience as compared to other more successful SIDS lends support/credence to the view that the outcome of trade policy depends on the

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<sup>129</sup> This includes Brazil, India and China among others. Example the Philippines liberalisation was associated with the spawning of a number of new industries and a noticeable expansion of growth in merchandise exports again due mainly to new investment.

characteristics of the economy, i.e initial conditions, timing and the particular mix of policy interventions. [See Chang *et al* (2005)]

### **7.3 *Understanding the OECS Experience with Trade Liberalisation: Plausible Explanations***

The trade and economic performance of the OECS since its trade reforms as summarised above immediately begs the question. Why? While a full and indisputable answer to such a question may be beyond the scope of this thesis some contributory if not causative factors maybe identified. To be sure the observed impacts are due to the combined effect of a number of internal and external factors. In what follows, we will attempt to explore and explain some of the more plausible reasons for this, with a view to arriving at our subsequent policy and other recommendations.

On the basis of the empirical evidence presented in this study we deduce two propositions either of which may be the principal explanation for the impact of trade liberalisation in the OECS.

- (i) The first is that it may be a *J-curve* type adjustment in which export and overall growth are initially weak or even negative followed by output expansion with faster growth thereafter.
- (ii) Alternatively it may be a case of *trade policy-induced marginalisation*<sup>130</sup> wherein the pattern of slow growth and trade imbalances persist as the OECS battle the challenges of openness and integration into a global trade system that makes little concession for the structural limitations of SIDS.

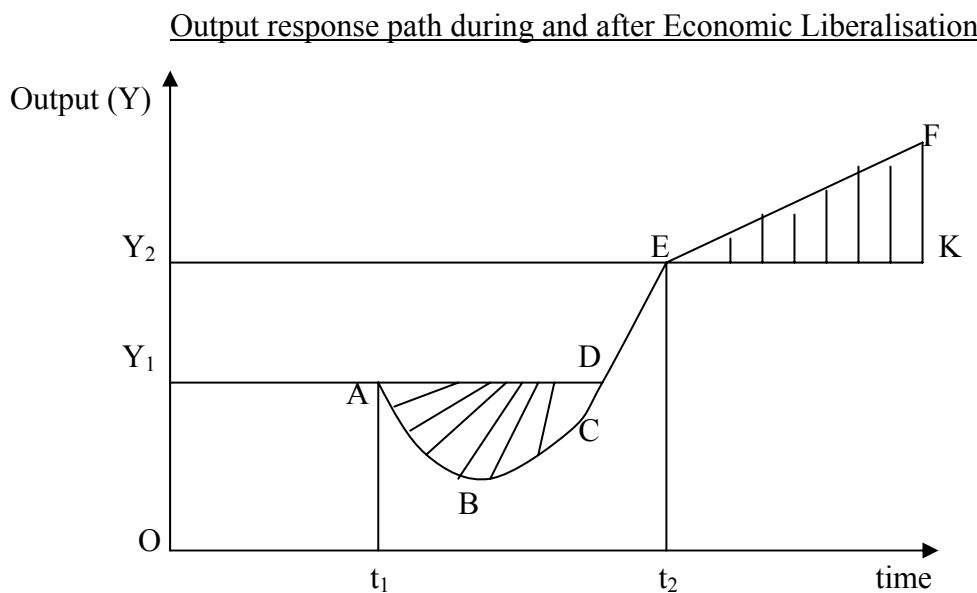
The core reasons for each possible explanation differ significantly. In the case of the first scenario the source of the problem is considered to be largely internal and transitory in nature while the latter scenario suggests that external factors dominate the observed impact and are likely to be more persistent in nature.

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<sup>130</sup> This can be thought of as a sort of de-industrialisation and backwash effect where the OECS SIDS are largely unable to gain sufficient competitiveness in any industry to generate sustained growth in the current liberalised global environment due to mainly due to threshold limitations.

#### **7.4 Proposition 1: The J-curve Type Response**

According to this view the OECS economy may still be in the trough of the so-called *J-curve* with a sluggish adjustment or re-orientation of the economy towards new and growing sectors. [See figure 7.1 below].



**Figure 7.1 J-curve Type Adjustment Path**

Thus on the basis of the above record of performance the OECS economy is likely to be somewhere between B and D along the *J-curve* adjustment path AE. This view is based on the fact that current growth rates are below levels attained before the commencement of trade reforms at A. However the expected location of the economy as predicted by the proponents of trade liberalisation is along the line segment EF.

This inherently slow-supply response may be related to a number of internal factors which serve to create industrial inertia and persistence. These factors which affect the speed of adjustment for the most part are related to capacity constraints and structural characteristics of the OECS and limitations of the policy change itself on the other. Below we discuss two key considerations to further explain this view.<sup>131</sup>

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<sup>131</sup> Before doing so it is worth noting that the expectation of a quicker turnaround and adjustment of the economy assumes the redeployment of resources to new ‘competitive’ sectors with external market occurs smoothly.

#### **7.4.1 Implications of Institutional Factors and High Costs Structures for the Speed of Adjustment**

A major factor which has hampered post-reform adjustment in the OECS is its inherently high cost of production. This is largely due to the diseconomies of scale. Given its cost structures trade liberalisation may be limited in its ability to encourage investment and location of industry without significant tax and other incentives by government.<sup>132</sup> This structural stylised fact is manifested in terms of high transport costs to market (inadequate shipping and air freight) and as well higher per unit cost of supplies and labour costs.<sup>133</sup> Importantly the wage setting mechanisms in the OECS as in most of the Caribbean has implications for the competitiveness of exports and thus the success of an export-led growth strategy. This has been cited as one of the reasons for the falling share of OECS exports in CARICOM. For example the average price of energy per residential kilowatt in the OECS is US\$ 0.24 compared to US\$ 0.03 cents in Trinidad and Tobago. Similar cost differentials and rigidities are evident in the labour market where on average a construction worker earns US\$ 3.98 in the OECS compared to US\$ 2.02 in CARICOM. Meanwhile, rising entry costs and competition in new and non-traditional sectors increase the difficult of picking winners, leading to further entrenchment of the risk-averse mentality and the inertia in the business sector. [See Taylor (2003)] Another source of friction which impedes adjustment relates to specificity of assets and skills to a given industry which cannot readily be deployed to alternative uses. This is most apparent in the sugar industry in St.Kitts.

Moreover the peculiarities of the OECS with an underdeveloped capital and financial market imply that the options to diversify risks are few while the cost of capital is relatively high. These realities are compounded by the relative low capacity of the region to absorb new technology needed to allow for efficiency and productivity gains which is essential for economic expansion. Even so the introduction of new technology is not costless given the new strictures regarding intellectual property rights.

This inherent high adjustment costs underpin the importance of adequate institutional infrastructure to support adjustment such as social safety nets, retraining and contingency

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<sup>132</sup> A glaring example where volume constraint affect the ability of the OECS SIDS to compete even in the so-called growth sector of tourism services is seen in the repeated need for countries to subsidise seats on Airlines serving their territories.

<sup>133</sup> A study by Briguglio (1995) found that on average transportation and freight costs in SIDS was 43.24% of exports compared to 23.75% for developing countries and 4.66% for developed countries.

funding to help smooth the adjustment process. This is important given dislocation costs associated with adjustment of the economy that plunges some industries into sunset and others in sunrise may also increase income inequality. Hence the welfare effects of trade liberalisation in terms of its impact on income distribution would also affect the post-reform recovery.

Without doubt the loss of temporary protection for start-up/infant industry has deterred entrepreneurship in terms of new ventures given high cost of failure. As a result it has become more difficult for member countries of the OECS to develop new comparative advantages or created assets. In tandem these costs related factors have served to reduce the pace of the diversification and constrain the overall adjustment process post-trade reform with dire implications for the ability of the OECS to compete in the region, needless to say internationally.

#### *7.4.1.1 High Costs, Institutional Factors and the Speed of Internal Adjustment: Why Not Shift From Bananas to Spices?*

The above discussion clearly indicates that the option of coping with the negative/downside effects of trade reform based on internal adjustment and repositioning in the sense implied by the neo-classical model and as expected by the WTO and other proponents is largely not feasible for the OECS-SIDS, at least in the short-term. Such adjustment in itself assumes a capacity and flexibility of the OECS economy of a kind that does not exists and with insufficient regard to the binding nature of structural and institutional constraints on the policy options available to these SIDS. As Laird (2006) of UNCTAD noted, the capacity of LDCs to adjust depends on their level of development, institutional capacity, resource endowment, vulnerability to external shocks and natural disasters. This capacity is weakened by heavy dependence on primary products for foreign exchange, the prices of which are subject to long run secular declines.

For example the contrasting experiences of the banana and sugar dependent territories (with loss of preference margins) as compared to the more stable prices enjoyed by the lone spice exporting OECS territory (Grenada) begs the question why not shift to spices as a response external liberalisation? Despite the apparent logic to such a recommendation at the surface the exigencies of adjustment in these islands work to

render this proposal less feasible. Thus in terms of internal factors this *industrial inertia* and slow adjustment in production is due to *inter-alia*:

- (i) Factors relating to crop husbandry and agronomy which tends encourage perseverance with bananas as compared to other crops. First of all the banana is a cash crop that bears fruit in a matter of months and thereafter it may be harvested almost weekly. In contrast a nutmeg and mace tree needs 7-10 years to mature to market quality and can be harvested twice annually. The processing is longer as the seed must be dried in the sun for about two months. Moreover bananas are more resilient to natural disasters given their shorter recovery time [See Benson and Clay (2001)]
- (ii) Secondly, prohibitively high (lumpy) investment costs associated with market entry and establishing the infrastructure needed to reallocate productive resources elsewhere. As the result the prospect of financing a shift of production and the development of distribution networks (farmers, input suppliers, trained human resources) and other support institutions remains relatively infeasible in the short-run. Moreover, the structure of ownership in agricultural production in the OECS made up largely of small farmers with small holdings renders these costs even more insurmountable.
- (iii) Thirdly, given uncertainty and information gaps there are costs associated in building confidence and support (buy-in) in the potential of a new sector (in particular after the decline of another). Here again the need to establish the requisite institutional infrastructure to support this adjustment can itself be an impediment.
- (iv) Fourthly, geographical factors such as location and the associated risks of crop damage from hurricanes (which has increased in frequency in the past decade) as was seen with hurricane Ivan in Grenada and other natural disasters has created a form of path-dependence which has served to increased risk-aversion, export pessimism and increased insurance costs. All of these constraints have been noted and included as priority areas in the BPOA. [See Bettelli (1999)]
- (v) Thus despite the significant potential for entry in the world market for spices and possibly other commodities, the above mentioned factors in conjunction with supply and other constraints of a structural nature, (these relate to soil

quality, topography, land tenure and acreage) have rendered this alternative as yet non-viable or insufficiently attractive. As a result a somewhat perverse situation has unfolded in which there has been the tendency to persist with existing export crops especially in the banana dependent territories of Dominica, St. Lucia and St. Vincent.<sup>134</sup>

#### **7.4.2 Limitations of Price Signals**

Perhaps one theme which is most apparent throughout this investigation and another reason for the slow adjustment of the OECS economy is the limited effect of the new price incentives created by trade liberalisation in inducing resource shifts at levels sufficient to impact growth positively and significantly. Thus although the economy has apparently become more sensitive to prices and the trade regime more pro-trade or outward oriented, this has generally not been significant enough to induce export growth either in terms of a supply-response or increase in external demand. As a result prices on the whole have not been very significant in explaining export performance. This finding is compounded by the view that the sensitivity of final demand to reductions in the price of commodity exports may be constrained by the asymmetric transmission of prices to consumers where upwards movements are passed on while downward movements are not. This serves to create artificially induced low price elasticity of demand for primary commodities. [See Morisset (1998)]

Nonetheless, the OECS have sought to seek and develop various niche markets. However, the gains from this strategy are inherently transient as entry and imitation is relatively easy for competitors given the typical low technology of such products. It would take rather substantial changes in relative prices certainly significantly beyond the scope of mere tariff reductions or removal of quotas to counter non-price advantages of competitors. [See Fetherston *et al* (1977)]. For instance, if exchange rate adjustment was attempted the range of possibly effective rates may be politically non-feasible and self-defeating to the extent they trigger cost-push inflation due to wage demand and uncertainty, as people try to maintain real income and asset value. In addition these price

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<sup>134</sup> Notably the current institutional infrastructure was established under a much more protective environment with very little costs to individual suppliers. This is in stark contrast to the burden of costs associated with establishing new production and export arrangements to service a new crop. As a result long standing crops have a momentum of their own.

adjustments may give only a short-term push to the economy as apposed to sustainable expansion which is sought. Hence continuous real adjustment /depreciation may be needed and not a once and for all devaluation.

Then even if the price stimuli were effective trade based on comparative advantage induced by trade reform may lead a country to specialise in goods in which technological innovation and learning by doing are largely exhausted (i.e mature generic goods) hence further trade liberalisation may actually reduce long-run growth prospects.

Indeed Helleneir (1990) argues that there is no theoretical basis for the heavy emphasis that much of the writing has placed on inter-industry incentive structures. Rather there are many less emphasized factors that may be no less important to adjustment growth and development. Helleneir (*ibid*) and Bruton (1989) extend this presumption of a fairly baseless premise and argue that the preference of export promotion over efficient import substitution may be more mythical than factual as each strategy is capable of earning foreign exchange and can equally contribute to alleviation of bottle necks and increased capacity utilisation. Kwon (1994) showed that even severe distortions in factor markets had negligible effects on efficiency.

By that chain of reasoning trade policy orientation may not be a dominant determinant of growth. Hence the fixation with trade reforms and other price incentives may be wholly misplaced. For reasons such as these, many commentators have concluded that there is a degree of policy myopia inherent in trade liberalisation. These findings point increasingly to the view that the fears over the distortionary impact of tariffs are largely overstated and that other non-tariff factors are equally or in some cases much more distortionary than tariffs even in low tariff industrialised countries.<sup>135</sup>

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<sup>135</sup> For example in Germany, to mention only one feature, the IMF estimates that industrial incentives are the equivalent of a 30 percent tariff. [Chomsky Chomsky (1991)]

## **7.5 Proposition II: External Environment-Liberalisation and other factors**

Undoubtedly the observed outcomes of trade policy reforms are a function of internal and external factors. However, given the undeniably high structural external dependence of the OECS, this study posits that the primary reasons for less than expected results with trade reform are largely of an external origin. Such factors were likewise found to be instrumental in the marginalisation of much of Africa. [See (Economic Report on Africa, 2004) ] Accordingly we now draw attention to a few of these external factors that are likely to have been instrumental if not causative in determining the observed outcome.

We argue that if these forces are not tempered economic liberalisation efforts may be insufficient to eschew marginalisation of weak regions.<sup>136</sup> Below we attempt to identify some of the key changes in the international trading environment which may disproportionately determine the outcome of the OECS and SIDS in general with trade reform.

### **7.5.1 Changes to EU Market-Access Regime for OECS Traditional Exports**

As has been mentioned throughout this study the OECS liberalisation experiment/reforms were largely driven by external pressures in particular loss of preferential market access to the EU market and a host of imminent changes in the configuration of trade with key partners involving new trade agreements. Perhaps the straw that broke the camel's back was the then impending changes in the EU banana regime leading to a *tariff-only* market regime to be implemented by January 2006.

Uncertainties associated with the direction of trade liberalising reforms in key export markets and its impact on traditional exports then triggered a degree of risk-aversion that discouraged investment. This uncertainty surrounding the market regime for OECS traditional agricultural export commodities also resulted in a perverse situation wherein domestic banks were very cautious in their attitude to lending to the productive sector while farmers have themselves been risk-averse with low levels of demand for credit.

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<sup>136</sup> Indeed a World Bank Agenda report on the Caribbean (2005) raises the spectre of a growing risk of economic marginalisation of the region if certain changes are not made.

Meanwhile external liberalisation triggered industrial restructuring especially in the agriculture sector mainly the banana industry in the Windward Islands where efforts were made to create a more market-oriented industry. However, the result has been a more fragmented industry (especially in St.Lucia) which has served to limit the gains from scale economy exploitation as may have been anticipated.

Thus although the liberalisation experiment in the OECS and CARICOM was induced by the trend deterioration in the region's external competitiveness in the case of the OECS it is apparent the causal ordering runs from liberalisation to terms of trade deterioration. In particular external liberalisation has resulted in increased supply and depressed prices especially in traditional exports of bananas and sugar. Indeed even well known proponents of liberalisation such as PMC (1991) concede that small-scale producers are typically hurt more by liberalisation than large-scale ones. [See Hellenier (1990)]. In a similar version of events EU trade commissioner Peter Mandelsohn concluded that:

*"Radical liberalisation only serves the interest of the more developed members of the developing world and MNC agricultural companies in the developed world."*

### **7.5.2 Impact of New Global Trade Dispensation: WTO Rules and Principles**

The fixation of the WTO with the *one-size fits all* approach to the application of its trading rules has made it difficult for small vulnerable SIDS to integrate fully in the global trading system as equal trading partners. As a result the gains from globalisation and trade liberalisation are unevenly distributed. At the centre of this concern is the need for a change in the entrenched attitudes or myths regarding SIDS and LDCs. Indeed the death of the infant industry argument which reflects the hardening of attitudes towards LDCs/SIDS was a strategic blow that almost smacks of conspiracy by those that have benefited from such assistance in the past to deny SIDS and other small states a similar opportunity. [See Chang (2003)]

The growing complexities of trade in terms of market access, in particular overcoming technical trade barriers (TBT) and sanitary and phytosanitary (SPS) requirements as well as environmental, health and safety considerations (supposedly aimed at protecting local consumers) and other stringencies associated with meeting international standards all

serve to reduce the feasibility of adjustment and maintain inertia in the OECS economy. It must be noted that these new and innovative barriers to trade are prohibitively high even in the presence of duty-free and quota-free access.

Needless to say some of the challenges that SIDS are directly related to the WTO rules. For example increased market access to OECD markets would necessitate lowering of subsidies.<sup>137</sup> However, farmers in these countries are worried that this would not result in increased market access to them in developing country markets. On the other hand vulnerable farmers in LDCs are fearful of being displaced by market access given to subsidized international competition. Hence the International Policy Council (IPC) recommends that the WTO develop objective criteria to determine eligibility of SIDS to the various provisions for SD&T. Again to account for differences in economic capacity, liberalisation commitments and offers on market access, export competition and domestic support should also be pro-rated on a stage of development basis. Meanwhile, although the consensus among developed nations is that the developing world should open their economies many with the possible exception of the US and UK remain largely closed with a small level of imports from the third world. [See Thurow (1996); p. 132.]

One fact that is lost on those that are bent on using the same yardstick of compliance on SIDS as they do for large so-called developing states such as Mexico, Brazil, China and Argentina (which can possibly influence prices) is that the volumes from SIDS such as the OECS are so small that they pose no threat to any country in the world while being very significant to the region and each member country. For example although the actual share of Windward Island bananas in the EU market is minuscule it typically accounts for approximately 50% of the merchandise exports of some OECS countries. [See Fajarnes-Garces and Matringe (2002)] For this reason writers such as Bora *et al* (2002) have argued that the developed world such as the EU and the USA should not require reciprocity in market access in liberalisation agreements with the developing world. They found that non-reciprocal trade liberalisation targeted at LDCs would benefit such countries with negligible effects on the developed countries. On this basis they make a case for co-ordinated action aimed at improving market access among Quad countries based on the elimination of trade barriers.

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<sup>137</sup> Despite limits set under the Uruguay Round Agricultural subsidization for the period 1996-98 averaged \$350 billion compared to exports of \$170 in exports from developing countries. [UNCTAD, Trade and Development Report 1999]

#### **7.5.2.1 Implications of Timing and Sequencing of Trade Liberalisation Reforms**

Yet another recurrent issue which has contributed to the outcomes realised in the OECS trade reform experiment relates to implementation issues of timing and sequencing. This view is stressed by Morrisey and Filatovchev (2000) who argue that one of the reasons for poorer than expected results with liberalisation in some small countries including the SSA, is that domestic firms are exposed to increased import competition before they have fully adjusted and have increased their efficiency and competitiveness. In his celebrated book *Globalisation and its Discontents* Stiglitz (2002) argues that for economic liberalisation to succeed it must be implemented at the right speed and right sequence. He goes to great length to register his discontents with the mode of implementation of liberalisation policies. He argued that in many cases these have not been done fairly, are often too fast and in the wrong order. Therefore he was particularly at odds with the speed and sequencing of liberalisation which was largely due to the advice of the multilateral institutions. In such cases he contends “such pro-globalisation policies are likely to be costly and result in increased vulnerability of countries to external shocks, reduced growth and eventually increased poverty”. Likewise the originator of the infant industry argument List (1856) made it resounding clear that premature trade liberalisation in terms of a country’s capacity or stage of industrial development would only succeed in ruining infant industry.

Then there is also the folly of using the apparently logical but simplistic approach of hard/fixed timeframes in trying to achieve specified goals for the attainment of various goals relating to global trade reform.<sup>138</sup> This approach is apparent in the manner in which commitments to opening various sectors to foreign participation are made. As indicated in section 3.8.3 the OECS have made a number of commitments under this approach. Of concern here is the arbitrariness in the way sectors are indicated and the time table within which countries must then work to honour them. Real issues which would actually determine ‘effective as apposed to superficial compliance’ appear less important in deliberations. As a result the liberalisation agenda proceeds in a rather uneven and less systematic way with a backlog of commitments in which many previously agreed commitments are yet to be implemented. Khor (2000) cites this as a major reason for the failure at Seattle. We argue that greater attention to the capacity issues would reduce the

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<sup>138</sup> This is evident with the progress towards achievement of the Millennium Development Goals where there has been slippage and drift associated with the various targets set to be attained by 2015.

gap between agreements in principle and practice. The set of liberalisation related WTO-commitments and the largely arbitrary time periods agreed for implementation has meant that the North-South negotiations have gone all but silent.

#### *7.5.2.2 Strategic Responses by Corporate World to Trade Liberalisation: Implications for Exports from SIDS*

In the wake of ongoing efforts by the multilateral institutions that spearhead the process of trade liberalisation and deregulation to dismantle regimes of protection and by extension promote competition there has been a parallel phenomena of so-called strategic responses in particular by international firms especially MNCs. These mega-sized firms, which are larger in most cases than the economies of all SIDS, create artificial monopolies and barriers which virtually crowd-out small actors and make the global market more imperfect and less competitive. This occurs through the process of corporate concentration and centralisation as well as the establishment of strategic alliances and quasi-vertical integration among each other. Given their sheer size they in effect cordon off large portions of markets and economic spaces with their vast networks of value-chains based on flexible production around a set of core firms. The supply and distribution contracts between major players in the banana business in the UK provided important lessons for the OECS in this regard. [See Read (1994)]

There is also the question of strategic behaviour of incumbent firms in foreign markets in terms of predatory and limit pricing, the maintenance of excess capacity and other forms of investment in entry deterrence. As a result the world markets have become increasingly characterised by oligopoly especially in the developed countries. Such conduct will in time significantly undermine the efficacy of the **reciprocity** and **market access** principles of the WTO. Together these considerations make clear the nature of the forces at play in the market place and the inherent limitations of marginal differences in prices in translating into meaningful advantages for SIDS. This debunks the H-O assumption that markets are atomistic and firms are passive with no market power. In such an environment a country or region may be trading and specialising in its area of comparative advantage in a bilateral sense with a given trading partner yet find it impossible to sustain trade with that partner owing to the gap between itself and other competitors in the same market.

The foregoing suggests that the structure and nature of the international market place has been significantly reconfigured in a manner that continues to make it increasingly difficult for small states or firms to compete internationally, while their domestic markets are penetrated at will by larger lower cost competitors. Given the interdependence of the world economy and the level of integration such spatial changes in the economic organisation of business would invariably impact on outcomes of reform policies such as liberalisation. As a result, traditional theories and approaches to the economic questions of how, what and for whom to produce, such as trade based on comparative advantage have become less relevant. Indeed some observers argue that as national boundaries and governments become increasingly irrelevant policy makers are becoming increasingly beholden to corporate interest. These worrying trends make a case for reform of the trading environment with a view to neutralising these behaviours so crisis may be avoided and better results achieved.

### **7.5.3 Other External Shocks: Upward Trend in Oil Prices**

As discussed earlier the resource deficiencies and external dependence of SIDS renders them very vulnerable to external shocks. [See Guillamont (1991; 1989)] Perhaps the most worrying of these shocks is the upward trending oil prices.<sup>139</sup> This has the potential to undermine the gains from liberalisation and economic reforms and in particular affect the competitiveness of exports in oil-importing countries like the OECS. [See Mitra (1993)] For example oil prices reached US \$67 in August 2005 and US \$73 by April 2006. Moreover, based on current demand and known available supply this trend is expected to continue in the near future with dire implications for the process of economic adjustment and the balance of payments of the region. This upsurge in oil prices may also adversely affect the rate of growth in the region directly and through a knock-on effect from the US with its growing trade deficit. In particular this may unleash new protectionism among disaffected countries including developed nations with potential detrimental effects for market access and the already low levels of demand for exports of SIDS and other developing countries including the OECS. Possible inflationary pressures as witnessed with earlier oil-shocks are likely to frustrate liberalisation efforts. In the face of this uninviting outlook the OECS export growth continues to be slower than its import growth

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<sup>139</sup> The alarms raised by the recent price hikes (August 2004) has caused leaders in the OECS to lobby with the major oil exporters in the region to help contain the economic impact of soaring oil prices.

making for the prospect of even further deterioration in the BOP. Indeed rumour regarding the so-called “peak oil” theory are even more threatening. Therefore if at all gains were realised from trade reforms the trend climb in oil prices in the past 5 years driven by high demand would grossly erode their effect, emphasizing the role of external factors in undermining potential gains from trade reform.

## **7.6 Recommendations: Re-emphasising Good Policies**

On the basis of the two propositions discussed above we now present a number of recommendations which may go some way to improving the success of the OECS with its trade policy adjustment process in general and its prospects with the imminent full establishment of the CSME in particular. In keeping with our earlier diagnosis the recommendations likewise are intended for internal policy consumption on the one hand and reform of the external (regional and international) policy environment on the other.

### **7.6.1 Internal Policy: Scope for Improvement**

Amidst the policy dilemma face by developing countries there has been no shortage of recommendations for amendments to the design and mode of implementation of trade policy in the LDCs. Recommendations have come from a wide spectrum of policy advisors including the region itself. [See CARICOM Secretariat (2000)] In each case the raison d'être has been the mixed and less than convincing evidence on the efficacy of trade reforms as a strategy for sustained growth. Below we present a few recommendations which may likewise merit consideration.

#### **7.6.1.1 Promotion of Linkage Effects**

Given that the performance of the OECS with exports has not been sufficient to engender export-led growth at this juncture in its structural adjustment one area from which greater gains can be sourced is through backward and forward linkage effects. [See Hirschman(1958)] In this way the inputs of a given industry can be linked to the output of another on the basis of derived demand. While initiatives in this regard have been mooted before they have not been sufficiently systematic or pursued with ample vigour, hence there is need for a re-emphasis. While there may be a number of permutations of input-output relationships the main one is conceivably between industry and services.

Accordingly both the agricultural and manufacturing sectors which are in decline and insufficiently competitive at the export level may be oriented to provide inputs and finished goods to the lead service sector. In so doing a number of complementarities may be explored and developed. A strategy so targeted can lead to diversification and greater capacity utilisation in the region. For example "below export market quality" fruits such as bananas can be sold in a secondary market or directed to an agro-processing plant which services the tourism and airline industry with confectionery and related products or the livestock industry with animal fodder. As a result a number of satellite or client industries can be developed around the core industry. This would increase the circularity index of the OECS and help reduce the displacement coefficient associated with the influx of cheaper imports. Appropriate input-output analyses of industrial production would be needed to support this initiative.

#### *7.6.1.2 Balancing Trade Reforms and the Revenue Objectives*

As indicated earlier the mixed outcome associated with the fiscal impact of trade liberalisation suggests that the net impact is revenue-neutral at best and that existing tariff rates are not prohibitive. However the structural dependence of small and underdeveloped countries like the SIDS necessitates a degree of balance between the objectives of trade reforms and public revenue requirements of governments. Indeed as mentioned earlier the motive for tariffs and other charges on trade inflows was largely revenue generation and not protection given the known fiscal dependence of OECS. This is because the small size of the domestic markets in the OECS in conjunction with the high levels of unemployment and few safety nets or welfare institutions limits the scope for tax reform to compensate for possible trade-induced revenue losses. Moreover the larger share of public consumption in GDP attributable to smaller countries given the higher per unit cost of the provision of public goods as well as their greater degree of openness implicitly justifies the maintenance of such a principal source of revenue. [See Alesina and Wacziarg (1998)]

In any case the structural dependence of OECS like other LDCs on trade taxes must be assessed against the view that it is virtually the conventional wisdom that "late developing countries" typically rely on extensive state intervention and coordination. In fact, it is hard to find any exception, late or early. [Chomsky (1991)] Similar views were recently

affirmed by Kattray and Rao (2002), Rodrik and others who pointed out that there is a general inverse relationship between the level of development and dependence on trade taxes as a source of revenue to finance operations of government.

As a consequence Kuznet's hypothesis that reliance on trade taxes declines with economic development is limited in application to SIDS and the OECS as the share of trade in GDP is typically close to one or greater. On the other hand the tax revenue/GDP ratio varies positively with the level of development expressed in terms of per capita income as the capacity of state to tax the populace increases. Thus while fiscal prudence is required needed sustainable trade liberalisation must pay greater attention to internal balance and factors *in situ* such as the elasticity and buoyancy of taxes in LDCs.

#### **7.6.1.3     The Role of Institutional Factors**

Another factor important to successful trade and economic reform is the institutional support environment. Thus in concurrence with many other writers such as Rodrik (2000) and World Bank (2002) which emphasis its importance, we include institutional reforms as an area which needs continued attention in the OECS. Here we draw attention to only two issues: (i) the exchange rate regime and (ii) internal governance. This is because in large measure the profitability of the tradable sector depends on the exchange rate. The conventional thinking is that it should be allowed to find an equilibrium level consistent with external balance. However, given that devaluation may assist the current account but be harmful to capital inflows such flexibility needs to be balanced. Thus both the trade and financial side of exchange rate re-alignment must be considered.

However, to the extent that the exchange rate regime of the OECS may have contributed to its exports and overall economic performance there may be the need for some realignment. If this conjecture is correct, measures aimed at ensuring a more competitive or realistic real exchange rate such as a managed float between reasonable bands may potentially increase the effectiveness of the price-effects on trade performance. However, this would depend on a number of factors such as the level of *pass-through* from exchange rate variations to domestic prices. It is well known however that despite huge swings in exchange rates during the 1980s the effects on the real economy were at best muted. [Krugman (1989) in McCombie (1993)] This is largely due to the oligopolistic

pricing or other less perfect market structures in which strategic behaviour is conducted wherein exchange rate volatility is absorbed in price margins while emphasis shifts to non-price forms of competition to increase market share. However as Ocampo and Taylor (1998) asserts the effects of a package mixing liberalisation and devaluation are indeterminate. Hence while the potential benefits must be balanced against the adverse effects of deregulation, it is an issue that warrants some re-examination if the region is pursue to export-led growth based on increased external competitiveness.

On the point of improving internal governance the metaphor of *governing the market* coined by Wade (1990) in his assessment of the East Asian experience is relevant here. In this regard there is need for institutional reform to increase the efficiency of public spending and to make government more transparent, less influenced by special-interest groups such as political parties and powerful private actors. This is essential to engendering creditability of its reforms. Throughout this process the OECS governments must continue efforts at creating a dynamic private sector to drive economic growth while focusing the function of the state on issues of good governance, the provisions of public goods and the protection of the environment and civil society from the excesses of markets and unfettered capitalism even as it juggles between issues of national sovereignty and issues of regional interests.

## **7.6.2 Reform of the External Policy Environment: Some Thoughts**

As in the case of domestic policy reform, numerous recommendations have likewise been made in the hope of improving welfare and economic performance of LDCs in the face of trade liberalisation and the current international trade environment. Here we present a few such views which may be workable in effecting change in the external trade and policy environment. Appropriate adjustment in these areas may go someway towards successful trade reform in SIDS such as the LDCs.

### *7.6.2.1 The Role of Governments in the New Market Dominated Era*

As noted previously the era of trade reforms which swept across the developing world based on the reform agenda dubbed the *Washington Consensus* advocated for smaller governments. However as argued in this study and elsewhere such as Evans and Greenaway (1991) there is need to encourage a more balanced interplay between effective

government policy and efficient market solutions in dealing with issues facing developing countries. This is particularly relevant to SIDS where government inherently plays a leading role in the economy. A key consideration here is the need for integration in regional and international arrangements not to overly compromise national sovereignty and policy space.

Investment has to be directed to the infrastructure of autonomy and state sovereignty which is partly achieved by increasing or maintaining government revenue of which trade and tariff revenue is a principal component. This is a point made by Maria Cattaui<sup>140</sup> who argues for “big government” especially in poor countries to provide in particular the social infrastructure. Cattaui argues that participation in the process of globalisation requires strengthening government in terms of public sector bureaucracy and capacity to implement changes. It requires social security, leadership and the provision of institutions to manage change. In this regard government spending increased for most OECD countries from about 30 to about 45% of GDP. This is due to increased spending on retraining, unemployment benefits, providing safety nets and other forms of support during the adjustment phase. Above all, continued investment in education and human resource development is required in order to ensure technological absorption and innovation. Moreover, to the extent that there are externalities and market failures there will be a case for government intervention. Thus while unwarranted protection should be discouraged there is a case for “justified interventionism” on a case by case basis.

#### **7.6.2.2            Reform of the WTO and its Rules of Trade Engagement**

The World Trade Organisation as a rules enforcing agency has been seen by some as an indirect instrument for further institutionalising the global inequalities and injustice of the global economic system. Indeed there has been widespread discontent with the results of WTO sponsored liberalisation around the world since its establishment in 1994. For example OECS and other Caribbean have expressed concerns over the possible adverse impact of ongoing multilateral negotiations as in the “*Singapore Issues*” on OECS and other Caribbean countries in terms of constriction of policy space, irreversibility of negotiated outcomes and implementation costs. [See Khor (2003)] Similar

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<sup>140</sup> Former Secretary General to International Chamber of Commerce of Switzerland

disappointment elsewhere has spawned numerous proposals for reform of the institutions which manage the global trading system. [See Khor (2000)]

Below we provide a sample of some suggestions that have been proffered and why. The recommendations though diverse in nature are all within the spirit of ongoing searches for innovative proposals for rationalising governance systems in the new global trade and economic environment.

In light of widening *development-gap* partly attributable to inequality in the distribution of gains of international trade and exchange and the trend of divergence instead of *catch-up* or convergence between growth rates of developing and developed countries, many leading researchers and writers on trade policy and related issues have called for reforms to the international trade and economic system. In this regard a study by Milanovic (2002) showed that over a 5-year period 1988-1993 global inequality had increased by 5% such that the average income of the richest decile was 114 times that of the poorest 10%. Likewise Wade (2002) found that world PPP-income polarization measured as the richest to the poorest decile had increased since 1980 along with the advance of the long-wave of globalisation and trade liberalisation.<sup>141</sup> Given these worrying trends Wade (*ibid*) surmised that there is need for increased political influence on resource allocation to counter the tendency of free markets to concentrate incomes and power.

This political activism and reaction to widening income gaps have come especially from NGOs wherein neo-liberalism has been labelled as an economic and environmental debacle. Indeed it is this growing view among LDCs and others that has led to organised protest such as at Seattle, the collapse of the Doha round of trade negotiations and the LDC stand-off in the Cancun Ministerial Meetings (September 2003). As a result the developing world including many SIDS are convinced that further liberalisation should only be agreed after they can determine whether such reforms will result in further negative tradeoffs for their economies.

This growing dissatisfaction with the Washington Consensus has led to various *post Washington Consensus* views and what Gore (2000) describes as the latent *Southern Consensus*. Instead of adherence to a given blueprint set of policy measures these new

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<sup>141</sup> The number of people subsisting on less than \$1 a day has remained unchanged at 1.2 billion from 1987 to 1998 while a sixth of the world's population receives almost 80% of world income or about \$70 a day.

approach argue that trade policy should be adapted to a country's initial conditions and the external environment. [See Stiglitz (1998a) and (1998b)]

Other voices include Thirlwall (2003) who called for a new international economic order (NIEO) based on some of the principles put forward by Keynes. This involves stabilisation of export prices of primary products and controlling short-term speculative capital flows. Against the recommendations of the Brandt Report, Thirlwall (*ibid*) like Thompson (2002) and others have also called for *managed trade* as an alternative development model. Meier (1995, p342) noted that an institutional framework different from the present one is clearly needed for successful industrialisation in economically depressed areas in the world.

Milner (1994) argues for mix trade strategy based on import-substitution (IS) and export promotion (EP) strategy which generates a pro-tradeable bias based on a 3-sector trade model that includes non-tradeables. Meanwhile Weeks (1999) uses the experience learnt in the case on Latin America to argue for country by country approaches without prior theoretical bias. He also espouses a policy alternative approach wherein tariff rates are linked to fluctuations in border prices on a transitional basis. In effect he recommends a production switching policy and measures to mitigate the disincentive effects of falling prices. While noting the need for the WTO to play a greater role in helping developing countries with market access Hoekman (2002) argued for the need for a multi-prong strategy beyond the WTO including more aid to enhance trade capacity among developing countries.

Some Caribbean luminaries have also joined the chorus of voices calling for a reform of the WTO. Among them Sir Shridath Ramphal (2003) urged CARICOM to use the Doha Development round to promote an agenda for reforming the WTO. Others have stated clearly that hopes for economic revitalisation would depend on a new consensus based on global initiatives that improve the developing countries position within the world order. [p15, Economic Survey of (LAC 2000-01); see also Benn and Hall (2003) for other proposals from a Caribbean perspective]

In common with many of the above cited views this study advances a view which is more *Galbraithian* in its outlook in so far as it is contrary to the "conventional wisdom"

regarding the scope and benefits of trade liberalisation as a policy prescription for SIDS. In other words we reject the *one-size fits-all* approach as naïve and simplistic. Instead of a politically acceptable policy based on MFN and reciprocity we argue that one should strive for an economically and socially viable policy that is informed by the realities faced by LDCs including SIDS. A key consideration in this regard would be a country's stage of development or economic size and hence capacity to face free trade.

### **7.6.3 Towards an Alternative Approach to Trade Liberalisation**

#### *7.6.3.1 Introduction*

##### *(i) Backdrop and Motivation*

The preceding issues all point to the need to rethink and redesign the mode of implementation of trade liberalisation in particular as it relates to developing countries.

The motivation for this proposal is that current supply-side approaches have had limited success in causing a *catch-up* or reduction in the income disparities between LDCs and the developed world. More pointedly the so-called "*trickle down effect*" associated with lower taxes on trade have generally not lived up to expectations.<sup>142</sup> Meanwhile the environment in which LDCs/SIDS operate has also changed dramatically. To begin with the literature on trade theory has cited most arguments for protection in all countries including vulnerable SIDS as being fallacious. They contend that issues of employment protection or correction of chronic BOP deficits are "*beggar thy neighbour*" in nature. Even the infant-industry argument has been deemed to be baseless.

For this reason timely action is needed if trade liberalisation is not to be regarded as a euphemism for further marginalisation of developing countries. As is well known, for a number of reasons many developing countries lack the economic capacity to fully participate as equal trading partners in the world trade environment.<sup>143</sup> Moreover,

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<sup>142</sup> Indeed a speech by Mark Vaile deputy prime minister of Australia (October 2005) he conceded "Liberalising world trade, aid and debt relief are not enough to end world poverty".

<sup>143</sup> In this regard president Benjamin W. Mpaka of Tanzania who presented a report to the ILO (March 2004 entitled "A Fair Globalisation: Creating opportunities for all" concluded that while the centrality of trade to the development process is duly noted, trade is of little help to SIDS and LDCs if they lack the capacity to take advantage of the opportunities provided by the new environment.

indisputable evidence regarding widening foreign exchange and income gaps, the roots of which are embedded in the international structure of trade, demands a new approach. It is instructive to note that it was the debt crisis of the 1980s which served as a clarion call for change in trade policy across the developing world. Similarly, the ominous signs of mounting debt in a number of developing countries in part due to runaway importation in the neo-liberal era are suggestive of the need to revisit existing policies.<sup>144</sup>

While a perfect solution is not suggested here, we argue that special attention needs to be paid to the mode of implementation of trade liberalisation, especially as it relates to market access in LDCs and SIDS. Debates on this issue typically centre on timing and sequencing issues. Existing approaches suggest that welfare varies in the same direction as import volume both increasing with radial reductions in tariff levels.

In contrast we advocate a form of trade policy reform which focuses on the approach to the reduction of tariffs itself. Accordingly, we recommend the implementation of a stage of development or capacity-based tariff which is more sensitive to the realities of LDCs and SIDS. This approach can be justified on many counts including the need to balance fiscal revenue considerations (needed to finance internal capacity-building in terms of infrastructure and debt obligations) against the benefits of increased openness. Thus in large measure the issue reduces to one of cost-benefit analysis in public choice in which the marginal cost of government borrowing is pitted against the marginal benefit of tariff reduction.

#### *(ii) Definition and Scope*

This socio-economic approach to trade policy reform is not antithetical to the liberalisation thrust but merely seeks to enhance domestic capacity of LDC/SIDS such as the OECS to sustain reforms. In so doing it has the potential to promote greater social and economic justice thereby leading to a better global redistributive system. In particular it will help LDCs build the institutions needed to support reforms and increase benefits from global integration. Hereinafter we refer to this tariff as the *Stage of Development Allowance Tariff* (SODAT). In a nutshell the SODAT seeks to compensate for cost differentials between countries that are due to the constraining effects of structural,

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<sup>144</sup> For example despite having paid \$1.5 trillion in debt between 1983 and 1990, the debt burden of all the world's developing nations rose from \$1.25 trillion in 1983 to about \$3 trillion at present. [World Bank]

circumstantial and non-systematic factors beyond the control of a country, with a view to restoring equity.<sup>145</sup> The net or cumulative effect of these situational factors which are largely of a historical, geographical and environmental nature is reflected in the current stage of development of the country and its capacity to trade sustainably. However, given that such circumstances may diminish overtime it is a moving base tariff that is performance-sensitive revised periodically say every five (5) years using an adjustment or discount factor in accordance with a given performance indicator. In this way the convergence of average tariff rates across countries would be in line with their economic development.

Thus SODAT is essentially a base tariff which represents a country's relative zero level of tariffs and a basis for real free and fair trade among countries. In this way it is by definition equal to zero and analogous to a scientific tariff in so far as it only compensates for inequity. Viewed in this way it does not distort world trade or constitute protection to domestic producers while assisting with capacity development.

Invoking the small open economy assumption (wherein the import prices of price-taking nations do not affect world prices) the SODAT may be applied at the level of a country or an industry. At the level of the country the challenge lies in its proper calibration and while at the industry level the challenge is to develop a selection and eligibility criteria. Accordingly liberalisation may be implemented selectively example on capital and intermediate inputs in strategic and not in nationally sensitive industries as in the East Asian model. However its calibration, selection and eligibility criteria may be pre-determined through a process of consensus in a multilateral framework. Indeed one of the issues which tend to derail workable schemes of *capacity-building* even those that potentially reduce global social and economic imbalances has been the fear of retaliation. This problem can be circumvented if its details can be hammered out in a multilateral negotiating and institutional framework such as the DOHA development round under the auspices of the WTO. Accordingly tables detailing its ranges for country categories or levels for individual countries can be developed and be publicly available.

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<sup>145</sup> If such disadvantages are not militated against they persist in time and result in increasing returns or cumulative advantages that are reflected in income and other gaps.

Also using project appraisal or income stream valuation techniques based on factor proportions and existing prices, a notion of potential or actual comparative advantage and potential ‘winners’ may be *ex-ante* determined. Using this framework infant industry programmes may be monitored and implemented in a globally transparent framework in the sense that protection is removed or revised as the industry and in this case a country grows-up or acquires greater economic capacity. Importantly this base tax must be below the revenue maximising level for desired results.

At the level of regional groupings such as customs unions and other forms of economic integration the SODAT can be used as a Common External Tariff (CET). It offers a more objective criterion to the differential tariff rates levied on third countries by most free trade areas (FTAs).

#### *7.6.3.2 Voices in Support of SODAT-like Approach to Tariff Liberalisation*

Discontent around the world with trends regarding the nature of global integration in particular as it relates to many small and less developed states has led to an ongoing search for alternative approaches to the manner in which globalisation has unfolded. Towards this end a number of normative ideas have been advanced in the quest for workable schemes and solutions to curb the trend of income divergence or possible marginalisation of some LDCs. For example countries which have been disappointed by the lower than expected gains in export earnings and market access in developed countries in the post-WTO period have suggested that they need higher bound tariffs so that their applied tariffs maybe raised. Alternatively, they need special safeguards to regulate imports of sensitive products. [Chand and Bathla (2005)]

To some extent it is the growing currency of these sentiments across the world that led to the launching of the Doha Development Round of WTO multilateral trade negotiations in 2000. Thus to the extent that trade liberalisation and increased openness remains a key strategy for this integration, the modalities surrounding its implementation have also come under scrutiny. In this regard there have been numerous voices advancing various suggestions as to how this still illusive objective of income convergence and a more equitable distribution of the gains from trade reforms might be achieved.

As a result support for the normative idea as embodied in the SODAT with its pro-development focus has come from diverse sources. Although many of these individuals and like-minded groups have approached the central issue of capacity-building as a strategy for sustainable trade and economic development from various angles in terms of emphasis, the unifying theme across their contributions is the need to contain the stampede of neo-liberal economic reforms which discredits all forms of government discretionary intervention such tariffs as taboo. The emerging view is that economic reforms as enshrined in the Washington Consensus has been excessively dismissive of the role of infant industry measures in fostering industrial development. [See Shafaeddin (2000), UNCTAD (2000) Discussion Paper No. 149] Given the state of play such as the absence of an effective SD&T regime Hoekman *et al* (2004) have called for a new approach that puts emphasis on efforts to improve the development relevance of WTO rules on basis of allowing for greater differentiation across WTO members with regards to the application of its rules and disciplines in the hope of introducing a development dimension to multilateral trade negotiations.

Writers such as (1986), Yanikaya (2003) and Ocampo and Taylor (1998) and others have all showed that trade barriers under certain conditions can and have had a positive associated with economic growth. Then there are writers such as Naito (2000) who makes the point that depending on history (initial patterns of specialisation) and the external environment (world prices) an economy may fall into a poverty trap (zero growth) under free trade. In such a situation a temporary trade policy involving infant-industry protection can release the economy from this trap.

Support for the SODAT has also come from a number of pro-development organisations such as the International Policy Council (IPC) on Food and Agricultural Trade albeit vicariously through their support for a reformed S&DT. Some of the related ideas being bandied around include:

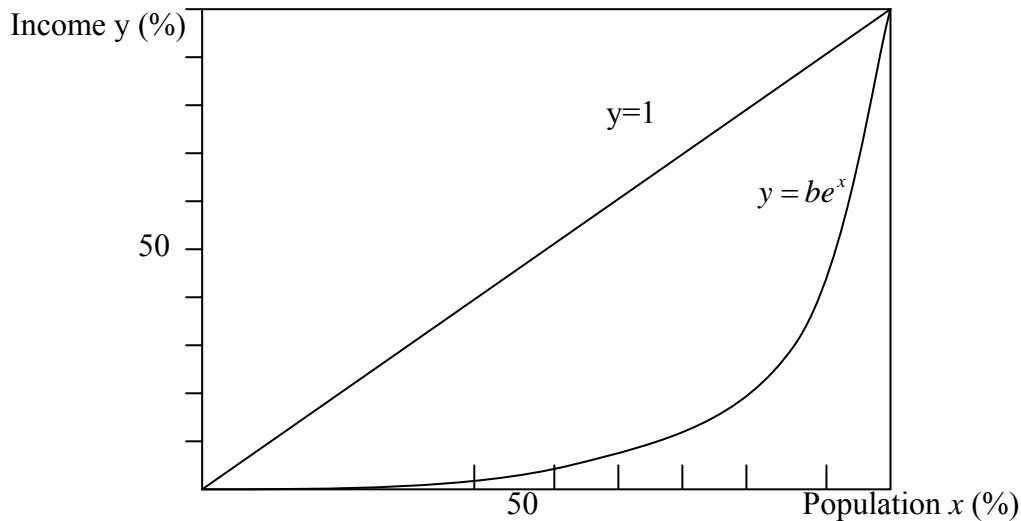
- The need for a differentiated symmetry or different parameters/weights to allow for SDT provisions.
- Then there has been talk of a member-specific “flexible maximum” or ceiling tariff based on the profile of each member.

- More recently APEC ministers (attending a two-day ministerial held in Ho Chi Minh in June 2006) expressed the view that there should be two-coefficients in the so-called “Simple Swiss Formula” for tariff reductions, one for developed and developing countries.
- In like manner a number of CARICOM states (Barbados, Jamaica and Trinidad & Tobago) echoed a view also expressed by African and Asian negotiation groups saying “*that the economic realities and [stage] of development of each member [of the WTO] must dictate the pace at which tariff reduction takes place*” TN/MA/W/30 [See Doha Round Briefing Series Vol.2 No.4 ]
- Meanwhile in its “Positive Agenda initiative” UNCTAD (1999a) argues that developing countries should link their trade policies to their development Agenda.

Thus from the foregoing it is most apparent that there is a significant degree of support for an approach to tariff reform that emphasizes developmental considerations by recognising the differences in the level of development capacity of WTO members to implement and benefit from current modalities to trade reforms, of a kind such as the SODAT.

#### *7.6.3.3 Construction of the SODAT*

Here again numerous approaches may be considered. However like the trade restrictive index (TRI) developed by Anderson and Neary (1996) we wish to derive a scalar index of tariff-reduction capacity for LDCs. The SODAT for simplicity adopts the income-based stage of development categorisations used in World Development Reports in accordance with their gross national per capita income in purchasing power parity dollars. We likewise group countries according to the income thresholds associated with the categories of low, lower middle, upper middle and high-income countries. The Lorenz curve framework is used as a system of parity given that it shows the relative distribution of income and hence inequality across the world at a given point in time. [See figure 7.2 below] It is an *ex post* indicator of the net effect of *inter-alia* trade and economic policies on countries.



**Figure 7.2 Lorenz Curve modelled as an Exponential function**

Its slope at any given point gives the per capita income ratio for a given country or group. Thus using per capita income levels as a measure/proxy for stage of development we calculate the adjustment or *compensation factor* needed to cause the rate of change of income with population to be equal to the slope of the 45 degree line of perfect income equality. This we will call the SODA index. It is the analogue to the Gini-coefficient and is the reciprocal of our called SODAT parameter to be estimated. Given that this function increases monotonically, the higher the income of a country or group the higher will its slope and thus per capita income be. By the same token the adjustment factor needed to restore equity will also be higher. Using this metric a country with a rate of change of income with population greater or less than one will be adjusted as needed. In keeping with the general thrust of trade reforms centred on tariff reduction the actual SODAT tariff level would then be the compensating/adjustment factor multiplied by a *maximum permissible tariff* (MPT) for a given country category. The MPT is a pre-determined tariff allowance given to countries according to their income groups based on their special circumstances. The MPT attempts to mitigate or compensate for the adverse effects of underdevelopment, external shocks and geographic determinism (i.e size, topography and other spatial constraints) on a country's competitiveness.

Thus to derive the SODAT we begin by assuming that the Lorenz curve at a given point in time can be modelled as an exponential function of the form:<sup>146</sup>

$$(7.6.3.3.1) \quad y = f(x) = be^x \quad \text{where } 0 < b < 1$$

‘y’ is percentage share in world income accounted by country group ( $i = 1..n$ ); ‘b’ is an arbitrary constant, ‘e’ is the natural base and ‘x’ is percentage share in world population. The constant ‘b’ controls the curvature of the exponential function compressing it towards the horizontal axis in a manner which improves its fit in relation to the existing Lorenz curve which it approximates. The per capita income for a group is given as the slope of the curve at the point which corresponds to its income and population shares, say  $A(x,y)$ . The compensating factor is then the slope of the inverse or reciprocal function at that point. It stands to reason that the inverse to this function would be given as:

$$(7.6.3.3.2) \quad y' = f'(x) = \frac{1}{be^x} = [(be^x)^{-1}] = \frac{1}{b} e^{-x}.$$

Notably the slopes of (7.8.1.1) and (7.8.1.2) are given as:

$$(7.6.3.3.3a) \quad \frac{d}{dx} f(x) = be^x \text{ and}$$

$$(7.6.3.3.3b) \quad \frac{d}{dx} f'(x) = \frac{1}{b} e^{-x} \text{ respectively}$$

The intuition draws upon the mathematical relationship that the product of the slope of a curve times its reciprocal would be equal to 1. Accordingly our task is to find the slope of reciprocal function or the value of the index  $(1/b)e^{-x}$  for a given ‘b’ consistent with our line of equality.

To illustrate the workings of the SODAT we proceed as follows. For the purposes of illustration let  $b=1/2$ . This parameter should be estimated or selected so as to allow the shape of the exponential function to be as close as possible to the Lorenz curve. Using some actual data on income and population shares we construct and present an example of the SODAT below. [See table 7.2]

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<sup>146</sup> A Lorenz curve can be otherwise expressed as a function of the cumulative proportion of ordered pairs mapped onto corresponding cumulative proportions of their size where;  $L(y) = \frac{\int_0^y x dF(x)}{\mu}$ ,  $F(y)$  is the cumulative distribution function of the ordered individuals and  $\mu$  is the average size.

**Deriving the SODAT**

| Income groups | Income (%) | Population(%) | Per Cap. Income        | SODAT Index          | SODAT           |
|---------------|------------|---------------|------------------------|----------------------|-----------------|
|               | y          | x             | y/x=(be <sup>x</sup> ) | 1/(be <sup>x</sup> ) | MPT             |
| High Income   | 0.77       | 0.25          | 3.08                   | 0.32                 | 6.49            |
| Middle        | 0.17       | 0.15          | 1.13                   | 0.88                 | 22.06           |
| Low           | 0.06       | 0.6           | 0.10                   | 10.00                | 40 <sup>a</sup> |
| SIDS*         | 0.15       | 0.26          | 0.58                   | 1.73                 | 40              |

Sources: (i) \* The PPP income and population nos for SIDS are taken from Melchoir (2005);

(ii) Numbers for other income groups are from Thirlwall (2002);

Notes: MPT=Maximum Permissible Tariff allowed per income group

HI=20, MI=25, LI=40 and SIDS=40

<sup>a</sup> The MPT should be used in cases when the SODAT exceed MPT

**Table 7.2 Illustrative example of the SODAT**

In the table 7.2 we have derived stage of development adjusted tariff rates weighted by an internationally agreed maximum permissible tariff rate (MPT) according to income category. It bears noting that the numbers in the above schedule are purely illustrative. In reality they will depend heavily on the MPT levels for each income group and the 'b' parameter.

#### *7.6.3.4 Scope for Refinement and Other Possible Applications of a SODAT*

In the above exposition we used the Lorenz curve to obtain the SODAT. This was done in a bid to incorporate a strong sense of social justice and equality in its derivation. However given the known limitations of the Lorenz curve for inter-temporal comparison we present an alternative perhaps more conventional approach to the derivation of the SODAT.

Here we define the SODA index as a basket of internationally agreed factors which are deemed to determine or affect a country's capacity to trade effectively and undertake tariff reductions. In this regard structural and institutional factors, trade policy related factors and a country's level of development are taken into account.

Thus for our purposes and ease of explanation the component factors of the SODA should among other factors proxy the following: (a) A country's stage of development and capacity to import; (b) its degree of global integration/openness and share of exports in GDP (X/Y); (c) its degree of vulnerability and resilience to external trade shocks.

Component (c) emphasises the role of geographic determinism and other naturally occurring factors on a country's trade performance. As will be appreciated the list of factors in (a) to (c) are purely suggestive as a more comprehensive list of factors which affect a country's ability to trade effectively would include a wider array of factors. The *Trade and Development Index* (TDI) developed by UNCTAD is a useful example.

On the basis of its component factors (a) to (c) above, the SODA index which is a composite index can be further disaggregated into a number of sub-components ( $C_{ij}$ ) or indices. Here we consider four (4) such sub-factors.

- (i) GNI per capita (average income and purchasing power) measured in international dollars (USD or euros).
- (ii) The standard openness or trade intensity measure  $(X+M)/GDP$  or its sub-measures of export-orientation  $(X/Y)$  or import-penetration  $(M/Y)$
- (iii) Transport costs and remoteness—ratio of transport costs to merchandise export earnings as an indicator of remoteness and smallness of output
- (iv) Proneness to natural disasters—an indication of the impact of geographic and spatial factors including location on a country. [Using values obtained from Briguglio (1995) ]

Accordingly the SODA index is the arithmetic mean (if sub-components are given equal weights) or a weighted sum of these sub-indices. In either case the weights sum to 1 ( $\sum w_i = 1$ ). In the case of the latter the weights are pre-determined based on a judgement of their relative importance in influencing the observed pattern of development or trade capacity.

These four sub-component measures may be classified into the 3 broad components mentioned in (a) to (c) above. In this regard (i) represents standard of living and by extension serves as a proxy for domestic import demand and stage of development in a broad sense. In either of its forms (ii) presents a structural measure of the degree of external dependence of the country and the nature of its integration with the world in particular its exports performance. Meanwhile sub-components (iii) and (iv) give an indication of a country's vulnerability and the extent to which it may be handicapped by

its geography in terms of its size, location, geophysical hazards, topography and so on. [See UNDRO (1990);Briguglio (1995)]

Given the various scales used in these components we must first standardise them using the following formula:

$$(7.6.3.4.1) \quad C_{i,j} = \frac{(X_{ij} - Min_{ij})}{(MaxX_i - MinX_i)}$$

This gives the stage of development allowance attributable to the  $i$ th sub-component variable for the  $j$ th income-group. Accordingly the SODA index can be given as:

$$(7.6.3.4.2a) \quad SODA_j = \frac{1}{4} \sum_1^4 C_{ij}$$

Alternatively, it may be written as:

$$(7.6.3.4.2b) \quad SODA_j = \sum_i w_i C_{ij}.$$

In either case the SODAT for a given income group or stage of development is given as:

$$(7.6.3.4.3) \quad SODAT_j = MPT_j \times SODA_j.$$

By way of example we can impose weights of relative importance on each sub-component such that the weight for stage of the development and import demand, trade integration, transport costs and disaster proneness indices are  $w_1=0.4$ ;  $w_2 = 0.3$ ,  $w_3 = 0.2$  and  $w_4 = 0.1$  respectively. Using numbers presented for the component indices obtained from Briguglio (1995) we illustrate the derivation of SODAT for the the OECS SIDS. The results are presented in table 7.3 below. There we see that the level of the SODAT for the OECS territories would range from an estimated 20% for St.Vincent and the Grenadines to 27% for Antigua and Barbuda. For the OECS region as a whole the SODAT would be about 23% based on an MPT of 40 for their income category. In essence these tariff levels represent the relative zero tariff on goods or tariff lines for which SODAT is deemed applicable. Accordingly tariff reduction should not proceed below these levels until the constituent component or determinants detailed in (a) to (c) above changed significantly.

| SODAT for OECS SIDS and Sub-region as a Group<br>(averaged and weighted versions) |                             |                        |                       |                           |                               |                    |                               |                    |
|---|-----------------------------|------------------------|-----------------------|---------------------------|-------------------------------|--------------------|-------------------------------|--------------------|
| Country weights   | Stage of Development<br>0.4 | Trade Intensity<br>0.3 | Transport Cost<br>0.2 | Disaster Proneness<br>0.1 | SODA <sub>j</sub><br>averaged | SODAT <sub>j</sub> | SODA <sub>j</sub><br>weighted | SODAT <sub>j</sub> |
| Antigua & Barbuda   | 0.394                       | 1.150                  | 0.832                 | 0.024                     | 0.6                           | <b>24.00</b>       | 0.671                         | <b>26.858</b>      |
| Dominica  | 0.455                       | 0.516                  | 0.129                 | 1.413                     | 0.628                         | <b>25.133</b>      | 0.586                         | <b>23.429</b>      |
| Grenada   | 0.426                       | 0.715                  | 0.348                 |                           | 0.496                         | <b>19.859</b>      | 0.430                         | <b>17.198</b>      |
| St.Kitts & Nevis  | 0.571                       | 0.904                  | 0.357                 | 0.280                     | 0.528                         | <b>21.110</b>      | 0.652                         | <b>25.918</b>      |
| St.Lucia  | 0.531                       | 0.941                  | 0.203                 | 0.812                     | 0.621                         | <b>24.858</b>      | 0.648                         | <b>25.918</b>      |
| St.Vincent & Grenadines   | 0.464                       | 0.745                  | 0.165                 | 0.360                     | 0.433                         | <b>17.335</b>      | 0.478                         | <b>19.138</b>      |
| OECS Average  | <b>0.474</b>                | <b>0.828</b>           | <b>0.339</b>          | <b>0.578</b>              | <b>0.551</b>                  | <b>22.049</b>      | <b>0.578</b>                  | <b>23.076</b>      |

Notes: (i) MPT = 40

**Table 7.3      Estimated SODAT rates using a Composite Index of Trade Performance Determinants**

In addition to the above, the SODAT approach to tariff formation and reform can be refined in many ways. However such refinement must be guided by the need to improve its simplicity, degree of equity, flexibility, transparency and effectiveness while ensuring international comparability. Having said so, some thoughts regarding alternative applications and how it may be operationalised may be instructive, illuminating its potential.

- To begin with the menu of sub-indicators used in constructing the SODA index above is not exhaustive and can be revised thereby improving the index qualitatively. Some possible factors for consideration include the use of a country's income terms of trade as a measure of competitiveness and capacity to purchase imports based on its export earnings.
- In terms of its feasibility and cost-effectiveness the implementation of the SODAT among countries does not require us to reinvent the wheel but rather to use existing international infrastructure for reporting trade and other economic indicators. In this regard the SODAT may be calculated and reported annually or periodically in a manner similar to the Human Development Index (HDI) disseminated by the UNDP. The logic of such an approach flows from the fact that SODAT shares some structural similarity to the HDI in that it is a multi-dimensional index with sub-indexes with weights or levels that vary among countries. The same can be said in respect of its kindred connection to the Vulnerability Index developed in Briguglio (1995).

- Also the SODAT is to some extent analogous to the *de minimis*<sup>147</sup> provisions given to developing countries in terms of the extent of trade distorting domestic support permitted to developing countries for specific products. SODAT can help make this provisions binding. Thus the SODAT can be thought of as a rational device for setting and implementing *de minimis* thresholds to safeguard the special interests of LDCs.
- In terms of immediate practical relevance to the OECS, a SODAT can help to break the ongoing banana trade war on an acceptable level for duties on banana exports from differently-abled supplier countries. Thus it may be used as a basis for agreement among competing banana exporters to the EU on what is an equitable tariff-only system.
- SODAT which in its current design is based on capacity-building using targeted/selected performance-based protection can be refined and refocused to embrace market access considerations. Notwithstanding it bears some resemblance to the so-called WTO formula aka the *Girard formula* which places countries into 3 categories according to their “capacity to adjust” (leaders, adjusters and new entrants).

The limitation of space does not permit further discussion on many other links and possible applications and refinements of a SODAT, but the point regarding its useful is hopeful more apparent.

#### 7.6.3.5 *Tariff Reduction and the SODAT*

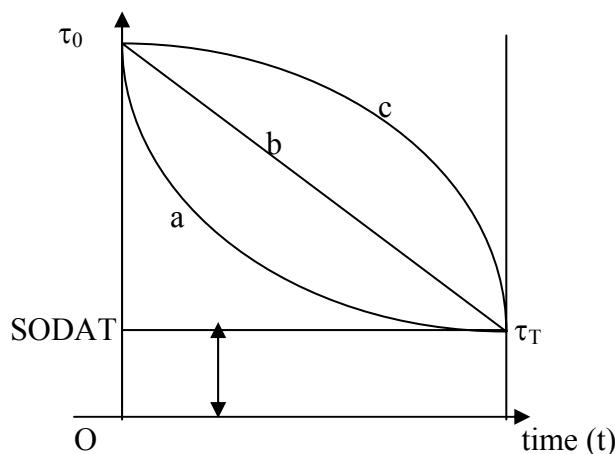
The SODAT may be used in various scenarios. In contrast to approaches that focus on the height of a tariff SODAT says what the floor and minimum height of the tariff should be for a programme of trade liberalisation at a country’s current stage of development. Hence starting from an initial average bound or applied tariff level,  $\tau_0$  at time  $t = 0$  a country pursuing trade liberalisation would adjust its tariffs downward over a stipulated time period to the level of its SODAT<sub>j</sub> ( $\tau_T$ ) at the end of the reform period ( $t = T$ ). The difference between the applied or in other cases the bound tariff (depending on the amount of “*water in the tariff*”) and the SODAT gives the scope for tariff reduction on a given tariff line or HS commodity category.

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<sup>147</sup> Domestic support valued between 5-10% of the value of output of DCs and LDCs

Having determined the target tariff at the end of a tariff reduction/liberalisation episode the objective of policy makers at the level of a government or in a multilateral framework should be to find the adjustment path of the average tariff level that minimises economic dislocation or adjustment costs. This can be defined as a path that maximises some predetermined and visible intermediate performance indicator such as export growth, export to GDP ratio ( $X/Y$ ) or overall economic growth. In large measure this amounts to a case of *dynamic optimisation* subject to a given set of constraints.

Therefore based on a society's preference a suitable tariff reduction formula can be utilised to reduce tariffs from the initial tariff level ( $\tau = 0$ ) to a final or target level ( $\tau_T$ ) such that the final tariff level ( $\tau_T$ ) is equal to the  $SODAT_{ij}$  for the  $i$ th country or  $j$ th income group. A set of admissible adjustment paths based on alternative tariff reduction formulae (such as the Swiss or Girard formula) are depicted below. [See figure 7.3]



**Figure 7.3 Possible Adjustment paths**

Hence a country can choose speeds of adjustment or tariff reduction following path a, b or c. In the case of 'a' reductions are frontloaded or faster initially and slower thereafter as compared to 'c' where cuts are smaller at first followed by deeper reduction. Paths 'a'

and ‘c’ are non-linear paths analogous to the so-called *Swiss Formula*. Path ‘b’ is a uniform reduction per period using an approach such as the *Capped Formula*.<sup>148</sup>

An important feature of this proposed tariff system is that it can be revised periodically say every  $t = 5$  years as countries acquire capacity and graduate out of tariff dependence. Accordingly a country’s base tariff would be reduced by an adjustment factor rho ( $\rho$ ) which moves in a step-wise manner according to a stipulated performance, level of the intermediate performance indicator example average growth rate  $\bar{y}$ . A possible approach is given in equation 7.6.3.3.1 below.

$$(7.6.3.3.1) \quad SODAT_{t+1} = SODAT_t (1 - \rho); \text{ for } t = (0, 1..n)$$

$$\text{where } \rho = \begin{cases} 0 & \bar{y} < 0 \\ 0.1 & 0 \leq \bar{y} \leq 1 \\ 0.2 \text{ for } & 1 < \bar{y} \leq 2 \\ : & : \\ 1 & y \geq 10 \end{cases}$$

#### 7.6.3.6 A Preliminary Summary On the need for a SODAT

In sum the SODAT is a mode of tariff formation with the merit that it is based on the principle of fair trade and thus creates a true *level playing field* between countries. It provides a workable approach given the ongoing search for modalities for tariff reduction evident in the WTO negotiations on non-agricultural market access (NAMA). It is also broadly akin to the recent proposal for a new tariff formula contained in paragraph 16 of the Doha Ministerial Declaration and paragraph 50 which call for ‘*less than full reciprocity*’ in tariff reduction under Articles XVIIIBis of the GATT 1994. Its features are

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<sup>148</sup> *Swiss Formula:*  $T_1 = \frac{(axT_0)}{(a + T_0)}$ ; A non-linear harmonising formula where ‘a’ is the maximum coefficient and  $T_1 \leq a$

*Capped Formula:*  $T_1 = (axT_0)$ ; Involves across-the-board, uniform reductions in average bound tariff levels. Where  $(1 - a)$  is the per cent of tariff reduction. Includes a capped mechanism =  $3t_a$

(In each case  $T_0$  is the initial Tariff and  $T_1$  is the final rate.) [See Fernandez de Cordoba and Vanzetti (2006)]

also in keeping with a recent decision of the WTO members in July 2004 to adopt a “*tiered formula*” for tariff reductions in converting tariffs to their *ad valorem* equivalents (AVE). It represents an improvement over the Uruguay Round Approach (URA) where all tariff lines were treated as a single group. Most importantly it is capacity-based, flexible and dynamic. A notable difference with other approaches is the fact that it seeks to explicitly account and thus compensate countries for geographic and other circumstantial constraints that adversely affect their ability to trade effectively (i.e import sustainably or export competitively).

Accordingly with a few modifications it can help in the search for meaningful approaches for future liberalisation, while maintaining Special Safeguard Mechanisms (SSM). Moreover in view of the experience in the OECS and elsewhere the SODAT lends support to the view that the categorisation of trade regime should be based more on trade performance and less on incentives structures based on tariffs, average effective exchange rate (EER) for imports or exports and the like. Finally we argue that trade and indeed tariff reform should be less time-bound and driven by political economy considerations but instead should be performance-driven and development-centred. Because if the fundamental determinants of trade performance (which are rooted in a country’s structural and economic capacity) as well as the external environment do not change with trade reforms, longer time frames for implementation may in themselves be a futile attempt or insufficient to bring about meaningful trade/export led growth.

## **7.6 Conclusions**

In this chapter we presented the main elements of the empirical investigation in this study. Thereafter we sought to provide an explanation for the observed outcomes. In this regard we argued that the growth effects of trade liberalisation through export promotion would depend on more than the price effects induced from the lowering of tariffs to provide the momentum needed to sustain growth. This is in part because there are limits to trade liberalisation. [Rodrik(1992c)] Liberalisation has its political and possibly intrinsic limits. These threshold limits especially in LDCs are sometimes beyond the reach of price incentives and efficiency gains.

In sum the efficacy of trade liberalisation is confounded by a milieu of internal and external factors. These roughly amount to size-related capacity constraints on the one hand and deficiencies in the architecture of the global trade as it relates to the rules of trade and flawed assumptions of standard trade theory on the other. [See Shaikh (2003)] Therefore optimal outcomes from trade reform with joint action on the part of liberalizing countries and importantly on the part of the international community at the level of the WTO and other multilateral organisations.

This is because trade liberalisation in its present formulation based on rules with little regard for the stage of development of countries and an over fixation on price-incentives in the relentless pursuit of efficiency gains is more likely to perpetuate the marginalisation of SIDS such as the OECS. Against this backdrop the findings of Francois *et al* (1997) are instructive. They conclude that the implications of policy reforms for developing countries are qualitatively different to those for developed ones. Importantly the dynamic effects of trade liberalization on economic growth depend crucially on the initial state of development of the country. Also throughout much of this discourse, the need for a gradual and selective approach to trade liberalisation and structural reforms has been a repeated refrain of writers of a heterodox persuasion.

Mindful of the foregoing and the force of its logic in conjunction with an array of non-supportive empirical performance indicators regarding the OECS liberalisation experience we proceeded to sought possible explanations to the observed outcomes. In so doing we examined some of the internal policies in the OECS and the external

environment faced by OECS for possible weaknesses with a view to presenting plausible and specific corrective solutions. We then proffered a possible alternative approach to trade liberalisation in LDCs/SIDS that caters more to their economic diversity and differences in their economic capacity to grow and benefit from trade liberalisations and related reforms, in particular those of the multilateral and reciprocal kind. The intuition here is that there are limits to what can be reasonably achieved through tariff reduction and trade liberalisation in general. This is because like biodiversity, economic diversity is an immutable fact of life which must be accommodated in policy making. It is somewhat futile to attempt to achieve full liberalisation in terms of absolute zero-tariffs among all nations given the existential and “*performance determining*” differences between them. Thus at best a pro-rated system may be all that may be truly feasible.

## **Chapter Eight (8)**

### **Summary and Conclusions**

#### **8.1 Introduction**

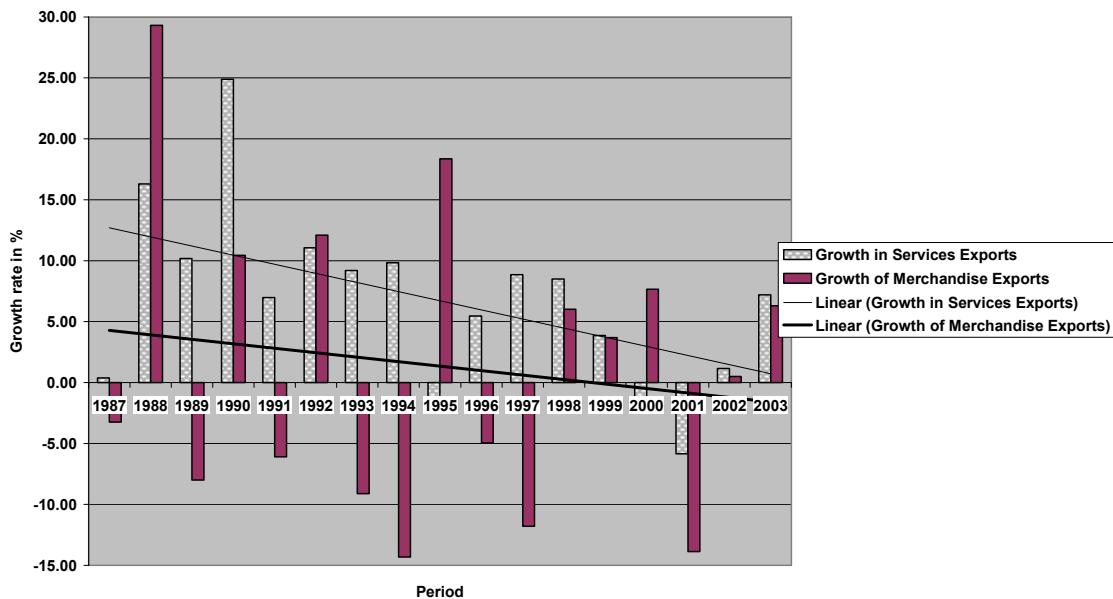
In this study we surveyed, discussed and presented an extensive array of issues relating to the much supported view that there is a strong positive link between trade liberalisation and economic performance. According to this view outward-orientation and increased openness facilitated by trade liberalisation policy would first result in structural change of the economy as the misallocation of resources due to protection is corrected followed by faster economic growth. Against this premise we embarked on a wide ranging empirical investigation in a bid to uncover the nature of the impact of trade liberalisation on the economies of the OECS/SIDS. The analysis focused on trade and economic performance while controlling for the effects of additional factors deemed relevant in determining outcomes observed in terms of growth rates and structural changes for the economy as a whole and the export sector in particular. Some attention was also given to the fiscal impact of the policy change among other important indicators. For the most part the analysis has been comparative based on a dichotomous framework of *before* and *after* the onslaught of internal and external trade liberalisation on the OECS economies. The main elements of this impact are summarised below.

#### **8.2 Impact of Trade Liberalisation: A Summary**

##### **8.2.1 Economic Structure**

The impact of trade liberalisation on the export structure of the OECS is most evident in a contraction of the share of commodity production (agriculture and manufacturing) in GDP. This decline has been reflected in changes in the rankings and degree of competitiveness of traditionally key sectors. However the predicted reallocation of productive resources to new commodities in which the region had acquired new comparative advantage is not very apparent. This suggests a slow adjustment or that those alternative commodities are largely non-existent at this juncture given the dynamic nature of competition in international trade.

The corollary to this view is that such comparative advantage lies in services which accounts for a growing share of the economy. However, it is instructive to note that although growth rates in the services sector which is largely dominated by tourism has been above growth rates in merchandise trade, there too growth rates have trended downward over the post-reform period covered in the study (1994-2003). [See figure 8.1 below]



**Figure 8.1 Comparison of growth in Merchandise and Services exports**

### 8.2.2 Economic Growth

In a manner similar to many other writers on the subject, this study utilised numerous proxies for trade liberalisation and openness in various formulations of a core growth equation framework. [See Greenaway (1998, 2002), Yanikkaya (2003), and Wacziarg (2002) among others] Following this approach our conclusions are based on the broad/common findings across three related but different estimation frameworks. This approach was considered useful in so far as it helped to gauge the sensitivity or robustness of the results in light of the methodological weaknesses of alternative specifications and techniques.

As can be expected there were some differences in the results under the various approaches taken but these were not large enough to significantly alter our conclusions.

Thus while the impact of trade liberalisation on the OECS cannot be determined unambiguously some things are most apparent. To be certain the predicted impetus to economic growth in general or to exports in particular as predicted by the pro-liberalisation literature was not apparent in the OECS. Hence based on the empirical investigation conducted in this study we are left to conclude that there is little evidence to support the proposition that trade liberalisation in terms of the implementation of the CET has had a positive impact on growth in the OECS. [See Calderon *et al* (2004); Heleiner (1986) and Dowrik and Holley (2004) and others for similar findings.] On the contrary we found that the relationship between trade liberalisation as captured by *LIB* has been predominantly negative. An important finding here is that there are no indications that changes in imports have been matched by a concomitant increase in exports. In fact the correlation fell from 0.87 to 0.242 in the post-reform period. This result is similar to that of Ben David and Papell (1997).

On the other hand while openness as captured by trade intensity ratio (TINR) has been positive in its association with growth, this cannot be attributed to recent trade reforms but more to historical openness. Further although trade policy openness (*TPI* and *TPII*) were found to correlate positively with growth, the total effect on growth under each regime was found to be negative, albeit less so after the implementation of trade reforms. As Greenaway (1998) argues, openness can be caused by many factors other than liberalisation. Indeed advances in telecommunication, land and air transportation have also increased levels of openness and integration among countries. In any case the OECS have been structurally open countries with relatively high degrees of external dependence in the first place. In fact the traditionally high levels of openness as measured by  $(X+M/GDP)$  declined with the implementation of liberalisation. Notwithstanding, we find that the relationship between trade liberalisation and thus openness with trade and economic growth is not a straightforward one but depends on a myriad of factors. However there are a number of notable observations: (i) the sensitivity of income and imports to relative prices have increased. (ii) In terms of channels of growth the positive contribution of domestic investment was robust to changes in specification and estimation method.

### **8.3 Synthesis**

The weight of evidence as presented above elicits a conclusion that there has been a relatively poor supply-side response associated with the new price incentives induced by trade liberalisation in the OECS. The declines in the export performance in both merchandise and service exports have been mirrored in correspondingly low economic growth rates across most of the reform period. This suggests that the relatively weak trade and economic performance of the OECS/SIDS, ten-years after its implementation of trade liberalisation policies cannot be explained merely by the level of openness which is inherently high or the impact of domestic price distortions on allocative efficiency. We argue that the observed outcomes are a reflection of a complex mix of internal and external factors most of which are of a structural but dominantly external nature. Thinking along these lines Rodriguez and Rodrik (1999) point out in a corrective to the neo-liberal model that “*the relationship between trade policy and economic growth remains an open question.*” He argues that there may not be any unambiguous relationship between trade policy and growth waiting to be discovered. Instead the relationship may be contingent on a number of country-specific institutional and external characteristics. We argue that binding capacity constraints and other structural factors of that kind are more important in determining OECS economic performance than small reductions in the level of anti-export bias or domestic market distortion brought about by tariff reductions.

This view is indeed consistent with the findings of a growing number of writers who challenge the orthodox neo-liberal argument citing importance of other non-price factors. For example a survey by Winters (2004) point to the role of other policies relating to governance and institutional factors. Meanwhile others like Abromavitz (1986) and Howitt (2000) stress the importance of a critical threshold level of development and domestic capacity before countries are able to effectively benefit from diffusion and technology spillovers. In terms of export growth, demand-side factors have been emphasised by writers such as Baumol (1986) and McCombie and Thirlwall (1997).

Indications, however do suggest that consumers and importers or producers in the OECS benefited from the basic static welfare gains due to lower tariff rates or quota removals. However there is little evidence to support the more dynamic and long term gains such as

increased factor productivity resulting enhance export competitiveness thus export growth. Indeed the OECS experience thus far lends credence to the Sachs and Warner (1997) assertion that the high share/specialisation of primary products in OECS exports (bananas/sugar) limits their ability to share in the dynamic gains. Nonetheless, modest gains in OECS exports of low intensity manufactured goods to CARICOM are encouraging. However it must also be noted that its negative trade balance with CARICOM expanded even further in the post CET implementation period.

Hence from this perspective, trade policy has thus far not been a very effective instrument for raising trade volumes within the OECS. However, the asymmetry in the distribution in gains and losses in CARICOM under the CET are not too surprising as this is consistent with the empirical evidence in other cross-regional integration arrangements in which the differentials in gains are related to size. [See World Bank (2003)] Hence the establishment of the proposed Regional Development Fund to help finance recovery due to adjustment costs associated with the CSME is absolutely essential for the more vulnerable OECS states. If the approach taken in its capitalisation is pro-rated on the basis of trade shares then the *winners* can then compensate the *losers*, thereby raising their welfare.

The above results and findings essentially exposes the gap between theory and evidence in particular as it relates to the generalisation of the applicability of a growth and development strategy based merely on trade liberalisation based largely on static gains with insufficient/scope regard for dynamic benefits. [See Shafaeddin (2000a);Pacheco-Lopez (2005) and Weeks (1999) for examples where growth and other expectations from trade liberalisation were not fulfilled]

#### **8.4 Future Challenges**

Undoubtedly the advent of trade liberalisation (internal and external) has (technically if not actually) increased the level of openness and the degree of integration of the OECS in relation to regional and international trading partners. It has likewise ushered in a host of new challenges. Many of these are related to demands from operating in the new regional and international trade and economic environment with its complex array of rules, compliance and commitment schedules. The profound impact of these rules on SIDS

such as the OECS necessitates their participation in the typically lengthy and costly exercise of negotiations and rule making with a view to ensuring/promoting a degree of flexibility and sensitivity to their specificities.

Perhaps the biggest challenge of the region in the wake of its trade reform experiment is the debt overhang and widening deficit on the current account of the BOP.<sup>149</sup> Although this may be a short-run outcome pending a take-off in export growth, it is clear that it is unsustainable in the long run. Importantly a significant proportion of the net capital inflows which have financed the short fall on the current account have not been in the form of foreign investment but significantly in the form of rising external debt. Accordingly, if this external imbalance is not addressed the stock of foreign liabilities of the region will continue to rise with macroeconomic implications for savings and investment and OECS welfare. The unintended consequence of this is that OECS workers will invariably face higher future tax rates and will have to work increasingly to pay their country's foreign creditors. As a result the search for a suitable fiscal strategy is even greater now in the post liberalisation world.

This challenge is related to the strictures associated with policy co-ordination or harmonisation though with its merits also reduces the ability of governments to use fiscal policy to stimulate or cool the domestic economy as needed. Hence there exists a potential conflict between trade liberalisation and macroeconomic stability. As Khatkhate and Short (1980) points out a high degree of openness can be such that it has an adverse impact on the ability of policy makers to conduct macroeconomic stabilisation policy. This argument applies with great force to the OECS with its fixed exchange rate and limited options to manipulate nominal wage rates given that monetary policy is inherently passive.

Although this study did not take up the question of the impact of trade liberalisation on wages and employment, the character of economic growth in terms of the jobs created during the adjustment phase is yet another challenge faced by OECS government. To the extent that it favours certain skills it may have adverse distribution effects on income and potentially confound effort at achieving other development goals such as poverty reduction, health and education targets. This is because the skill-bias associated with

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<sup>149</sup> Average public debt in 2003 was 113% of GDP. [Tincani (2005)]

structural changes in the economy is towards the services sector which cannot absorb both new entrants and dislocated workers. This is reflected in the high levels of unemployment among the youth in the OECS and some Caribbean countries.<sup>150</sup> Thus as Fields (1984) and Nicholas Stern in World Development Report (2004) so persuasively argue with some well founded justification, a high rate of growth is neither necessary nor sufficient to address these problems. Hence employment creation and the related implication for social, political and economic stability will be a challenge for the region.

The wage setting mechanisms in the OECS as in most of the Caribbean also have implications for the competitiveness of exports and thus the success of an export-led growth strategy.<sup>151</sup> These and other challenges give expression to some of the many concerns of SIDS and provide a yardstick against which the efficacy of trade liberalisation as a development strategy may be judged.

## **8.5 Some Positives**

There can be no doubt that trade liberalisation has exposed the OECS to ever increasing competition from the more developed regional CARICOM neighbours as well as from international sources. However while this has created a number of challenges for the region it has nonetheless had a number of positive outcomes. Noticeably the logic of survival in an increasingly competitive trade environment has precipitated deeper integration and co-operation within the OECS. This is manifested in numerous forms of joint representation in extra-regional ventures ranging from its technical mission in Geneva to trade shows and in diplomatic relations.<sup>152</sup> It is hoped that ongoing efforts further advance this process through the OECS Economic Union Treaty and improve the capacity of the sub-region to meet the vicissitudes of trade as it relates to regional and international trade agreements. Importantly that it would enhance the capacity of the OECS to negotiate and articulate a vision for a reformed trade environment that is more sensitive to its needs.

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<sup>150</sup> According to World Development Indicators from 1996 to 1998, St Lucia had the highest youth unemployment rate in the Americas, followed by Jamaica. In the Caribbean, St Lucia, followed by Dominica, St Vincent and the Grenadines, and Jamaica, have the highest youth unemployment rates.

<sup>151</sup> This wage rigidity is due to institutional factors such as significant trade union activism in the labour market as well as the adoption of minimum wage rates in most territories.

<sup>152</sup> Consideration is now being given to extend this co-operation which already exists in areas such as joint purchase of pharmaceutical to agriculture in terms of the formation of an OECS Chamber of Agriculture.

Meanwhile there are indications however slight of a gradual change in the thinking of some developed nations and the international community regarding the capacity for LDCS/SIDS to compete. The reaffirmation of the need for SDT by the fourth Ministerial WTO Declaration with the possibility for derogation in strategic sectors from the MFN principle offers a glimmer of hope for small nations. [Mazza *et al* (2006)] The recent enactment of the Trade and Development Act by the US which gave 25 countries in the Caribbean Basin Initiative (CBI) as well as 48 ACP countries trade parity with Mexico which had gained a trade diverting advantage over the region as a member of the North American Free Trade Agreement (NAFTA) illustrates some change in attitudes towards LDCs and SIDS. Importantly, this will go someway to stem the erosion of preferences conceded under the Caribbean Basin Economic Recovery Act (CBERA) of 1983 as it will include a number of products such as apparel, textiles which had erstwhile been excluded. Moreover, with the implementation of the Enterprise of Americas Initiative (EAI) which supersedes the Caribbean Basin Initiative, the US has extended its partnership to all western hemisphere countries in a largely uniform manner to the benefit of the OECS as well.

## **8.6 Limitations of the Study**

As alluded to earlier and as is typical, the study had a number of limitations and as such the results must be taken with this proviso in mind. However, in large measure these limitations relate to the perennial problem of data availability and its implication for the shape and scope of the research design. In this regard a larger sample size may have conveyed a number of statistical benefits such as increased degrees of freedom, power of tests with implications for the magnitude, sign and level of statistical significance and inferential value of estimated coefficients.

## **8.7 Future Research**

Given the research design and the limits imposed on the study the scope for future research on other issues using alternative methodologies and approaches are many. For example given the largely macro-perspective taken in this study, studies focusing on a number of microeconomic aspects of the relationship between trade policy and growth can be expected to provide useful information on issues such as welfare gain/losses,

distortions and exchange rate alignment understanding and the like. Some other possible areas include: (i) the price-incidence effects of a trade tax increase or decrease, (ii) the effective rate of protection; (iii) distributional effects in terms of the impact of trade reforms on industrial sectors and household

As has become common CGE modelling based on multi-sector/market data or input-output data in a Global Trade Analysis Project (GTAP) framework may be used to conduct policy simulations aimed at assessing various impacts of trade liberalisation in the OECS. An assessment of the role of human capital as a determinant of growth through technology spillover and learning may further insights regarding the role of the government sector and the nature of the impact of trade reforms. Equally a gravity model approach may also be used to identify the impact of internal/external determinants of export performance on OECS bilateral trade in the region as well as their trade creating or diverting effects.

Given the limitations of various measures of trade liberalisation it may be useful to compute a composite index of trade liberalisation that incorporates the key measures of openness to be used in various estimation scenarios. Additionally we can conduct an analysis of the temporal precedence and direction of causation between trade liberalisation exports and economic growth. The point is there is a rich research agenda that waits to be explored in an ongoing search for a better all round understanding of the impact of trade liberalisation on the economic structure and performance in the OECS economy.

## **8.8 Conclusions**

The findings of this study regarding the impact of the OECS liberalisation episode for the most part do not support the claims and predictions of the standard neo-classical trade model. It shows that efforts at using increased integration into the regional and international economy as a strategy for increased growth and development has thus far not yielded expected results. In effect after ten years since the commencement of its liberalisation experiment, the result show evidence of structural changes in terms of contraction in the so-called inefficient productive sectors in which the region lacked comparative advantage. This left its major industry agriculture in a moribund state while manufacturing which formerly represented the next step in the industrialisation process

remains beleaguered. What has emerged is a largely one-pillar economy based on tourism as the principal export service industry, which by inference represents the sector in which the region has new comparative advantage on account of the new relative prices induced by trade policy.

However, despite slightly better indications in the services sectors, the OECS and indeed the wider Caribbean have not realised a commensurate increase in their economic growth rates in line with expansion in global trade. [See Lall (1993) In contrast growth rates have been largely low to modest at best. Understandably claims that liberalisation in services is the new key to faster global growth are greeted with some scepticism as the challenges and vulnerabilities associated with this economic sector are in many ways similar to those associated with agriculture and manufacturing and therefore not a quick-fix or long run panacea. [See (Mann, 1999; OECD, 2005; Verkios & Zhang, 2000)] Thus although the governments of the OECS have accepted the prescriptive relevance of trade liberalisation and its stated promises, there is still disquiet and uncertainty among many, especially as it relates to further liberalisation as a precondition to complete the Doha round of MTNs. A study on the impact on another Caribbean economy, Jamaica likewise expressed the need for caution in further liberalisation of its trade regime. [See Hudson (2003)]

Meanwhile significant differences in income and price propensities for OECS imports as compared to its exports have constrained growth as well as increase the foreign-exchange gap and level of external indebtedness. This finding corresponds with Khor (2000) who arrived at similar conclusions. Thus while trade liberalisation and openness may yet be a positive force for growth, co-ordinated action is needed at the global policy and institutional level to counter negative forces, reform the operating environment and improve the scope for sustained growth from trade liberalisation in the OECS to fruition.

To this end the study sought to explain the OECS experience through two proposals based on internal or external factors one of which was cited as the dominant explanation for the results observed. In this regard we posited that the supply-response may be a *J-curve effect* wherein the period of adjustment is longer than may have been initially anticipated. This may in part be due to the combined effects of the initial conditions and the persistence of the peculiarities of the OECS-SIDS which serves to hinder the speed of adjustment. Alternatively it may be the result of external factors in particular the WTO

*one-size fits all* rules. With regard to either proposition the study surveyed a range of recommendations directed at improving the internal and external environment faced by LDCs/SIDS such as the OECS in the hope of realising the still elusive goals of sustained economic growth. These included calls for:

(i) Remedial measures aimed at improving intersectoral linkages and enhancing the competitiveness of sectors while mitigating the down-side of openness. As has been suggested elsewhere significant investment is needed to establish competitive export industries in order to capture the mutually reinforcing linkages between trade, investment and growth. [See (UNCTAD, 1999b)] (ii) Equally, increased investment in human capital development to increase knowledge transfer and the productivity of labour especially in tourism and emerging ICT sectors is needed. A joint private/public sector approach may yield best results. Notwithstanding the region's cost structures and absorptive capacity the private sector must be further encouraged to invest in higher-end technologies and be more innovative in combining new technologies in their operations. Institutional reforms and issues of governance aimed at rationalising government spending towards more productive activities are also needed if deficits, borrowing and debt obligations are to be reduced.

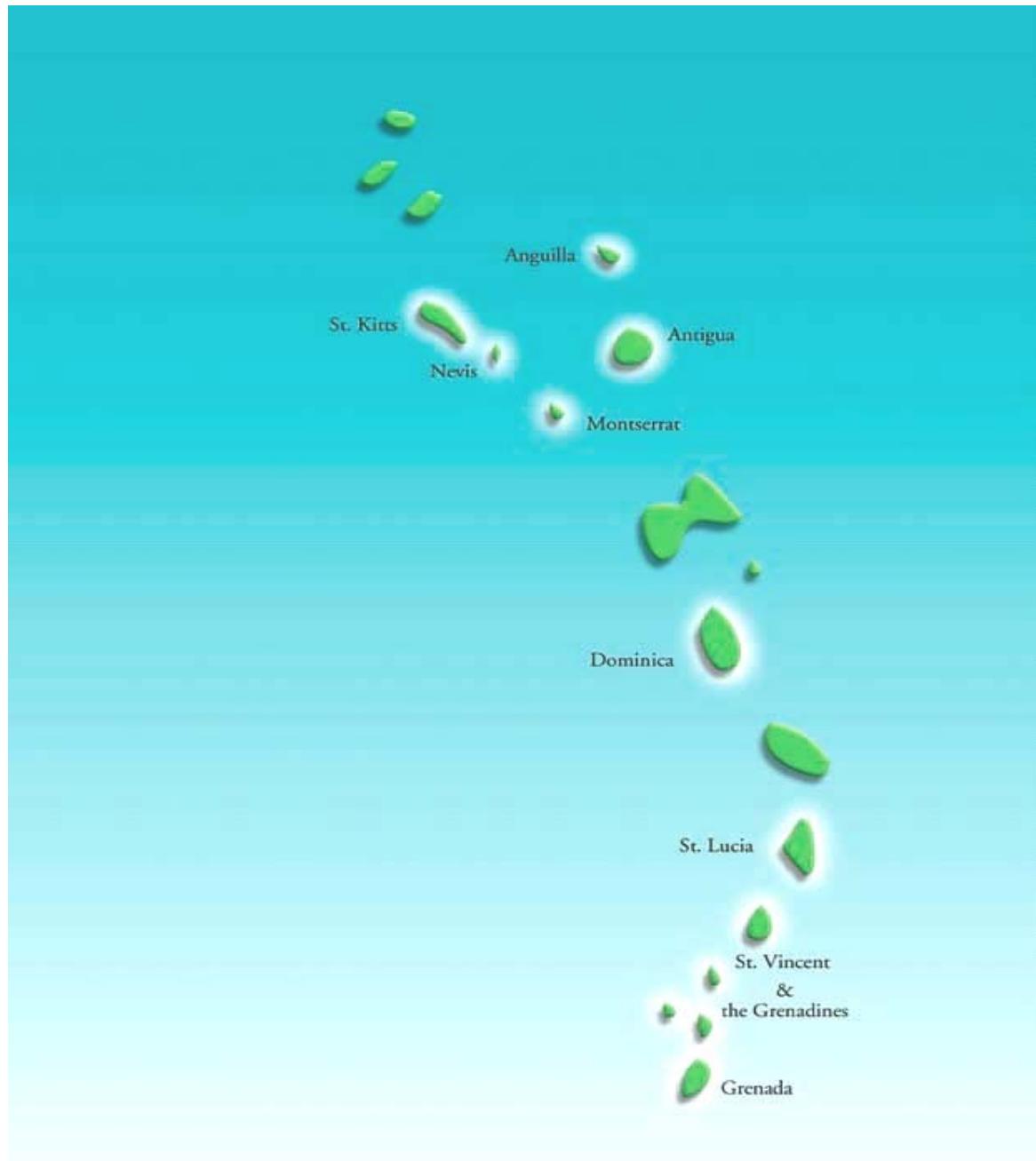
Finally as a contribution to the search for workable approaches for successful trade reform in LDCs/SIDS, this thesis recommends an import-based system of international transfer based on a stage of development adjustment tariff (SODAT) which essential allows for a blend of contingency protection and sophisticated infant-industry programmes.

Notwithstanding, the gap between theory and observed reality the general attributes of the OECS reform package nonetheless appear to have a beneficial outlook which may translate into growth and development at least in the longer term. Therefore it is envisioned that with increased openness as capital and technology move into the OECS the force of arbitrage may increase the productivity of factors and with it output. However this will in large measure depend on critical changes in the regional and international trading environment that recognise and cater to the limitations of SIDS like the OECS in terms of size, industrial capacity and economic structure.



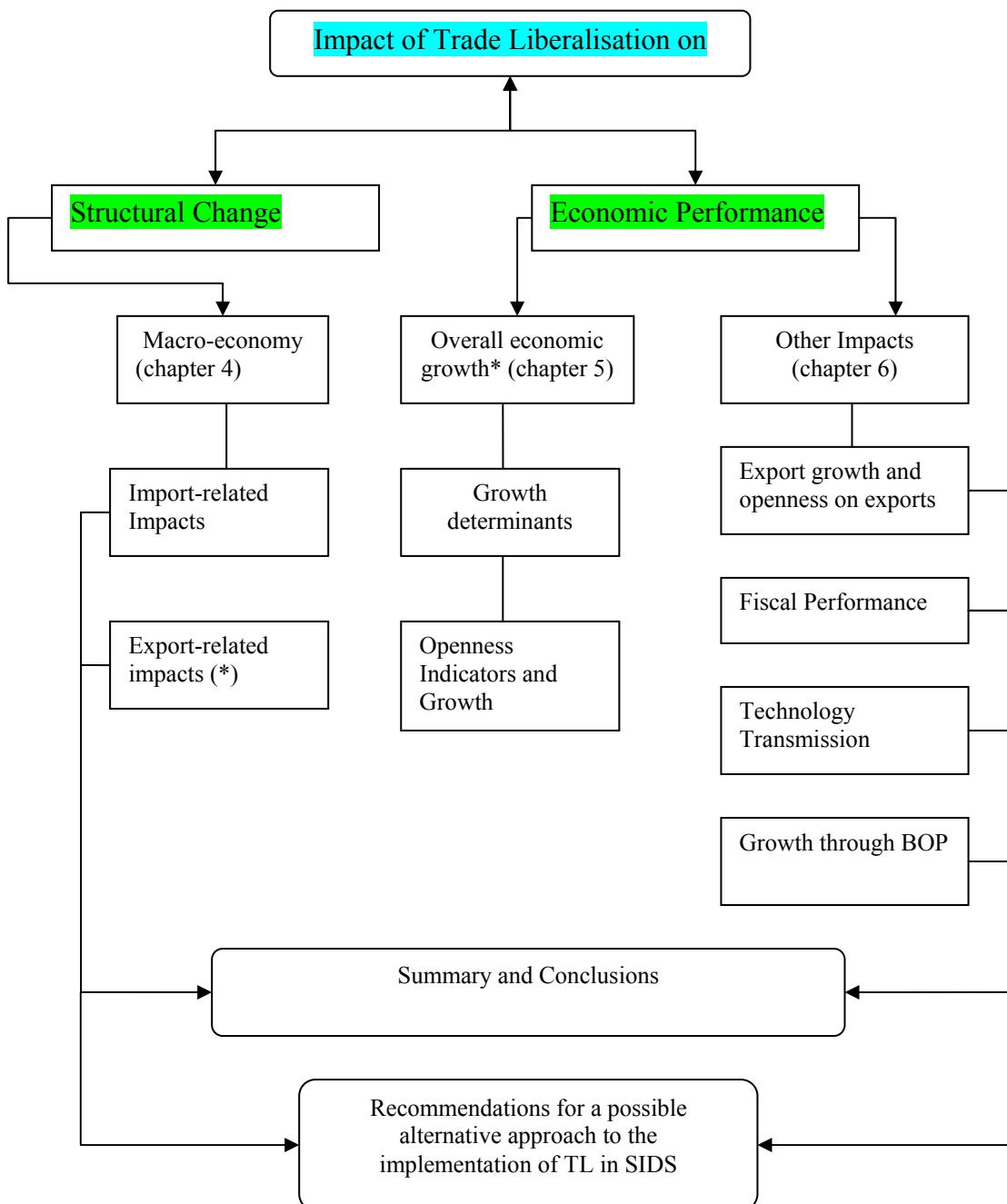
## APPENDICES

### APPENDIX A.1—Map of OECS Region



## **APPENDIX A.2—Schematic Outline of Study**

The main elements of the analysis to be carried out in the study are summarised in the diagram below. The diagram shows 2 main branches of focus relating to the impact of trade liberalisation on economic structure and economic performance. As indicated these principal branches are sub-divided into a number of sub-aspects deemed relevant in an assessment of the total impact. An asterisk (\*) represents the main areas of interests.



**APPENDIX A.3—Abbreviations and Definitions**

|         |   |
|---------|---|
| ACP     | African, Caribbean and Pacific                          |
| AET     | Average Effective Tariff                                |
| ANG     | Anguilla  |
| ASYCUDA | Automated System for Customs Data                       |
| ATG     | Antigua & Barbuda                                       |
| AVE     | Advalorem Equivalents                                   |
| BOP     | Balance of Payments                                     |
| BMP     | Black market Premium                                    |
| BTEUR   | Bilateral Trade with the EU to GDP ratio                |
| BTIOR   | Bilateral Trade among OECS territories to GDP Ratio     |
| BTUSR   | Bilateral Trade with the US to GDP                      |
| BTWCMR  | Bilateral Trade with wider CARICOM to GDP Ratio         |
| BVI     | British Virgin Islands                                  |
| BWI     | Bretton Woods Institutions                              |
| CARICOM | Caribbean Common Market                                 |
| CAB     | Current Account Balance                                 |
| CAP     | Common Agricultural Policy                              |
| CARTAC  | Caribbean Regional Technical Assistance Centre          |
| CBERA   | Caribbean Basin Economic Recovery Act                   |
| CBI     | Caribbean Basin Initiative                              |
| CBTPA   | Caribbean Basin Trade Partnership Act                   |
| CEEI    | Cumulative Export Experience Index                      |
| CIDA    | Canadian International Development Agency               |
| CGE     | Computer General Equilibrium                            |
| CIF     | Cost Insurance Freight                                  |
| CRNM    | Caribbean Regional Negotiating Machinery                |
| CROSQ   | CARICOM Regional Organisation for Standards and Quality |
| CSME    | CARICOM Single Market and Economy                       |
| DIRIG   | Difficult to Imitate Research Intensive Goods           |
| DCA     | Dominica  |
| DRC     | Domestic Resource Costs                                 |
| EAI     | Enterprise of America Initiative                        |
| ECCB    | Eastern Caribbean Central Bank                          |
| ECCU    | Eastern Caribbean Currency Union                        |
| ECCM    | Eastern Caribbean Common Market                         |
| ECIPS   | Eastern Caribbean Investment Promotion Service          |
| ECLAC   | Economic Commission for Latin America and the Caribbean |
| ECSE    | Eastern Caribbean Stock Exchange                        |
| EGLS    | Enhanced Generalised Least Squares                      |
| EIRIG   | Easy to Imitate Research Intensive Goods                |
| EPA     | European Partnership Agreement                          |
| EU      | European Union  |
| FDR     | Fiscal Dependence Ratio                                 |
| EGLS    | Enhanced Generalised Least Squares                      |
| FTAA    | Free Trade Area of the Americas                         |
| FTM     | Foreign Trade Multiplier                                |
| FPE     | Factor Price Equalisation                               |
| GATS    | General Agreement on Trade in Services                  |
| GATT    | General Agreement on Trade and Tariffs                  |
| GDA     | Grenada   |

|        |   |
|--------|---|
| GSP    | General System of Preferences                         |
| GMM    | Generalised Method of Moments                         |
| GTAP   | Global Trade Analysis Project                         |
| HDI    | Human Development Index                               |
| H-O    | Hechscher-Ohlin                                       |
| HPAE   | High Performing Asian Economies                       |
| ICOR   | Incremental Capital Output Ratio                      |
| ICT    | Information and Communication Technology              |
| IDR    | Import Duty Ratio                                     |
| IMF    | International Monetary Fund                           |
| IPC    | International Policy Council                          |
| KWNS   | Keynesian Welfare Nationalist State                   |
| LDC    | Less Developed Countries                              |
| LIG    | Labour Intensive Good                                 |
| LTCIG  | Low Technology Capital Intensive Goods                |
| MDC    | More Developed Countries                              |
| MDG    | Millenium Development Goals                           |
| MES    | Minimum Efficiency Scale                              |
| MFA    | Multi-Fibre Agreement                                 |
| MFN    | Most Favoured Nation                                  |
| MNC    | Multinational Corporation                             |
| MON    | Montserrat  |
| MPM    | Marginal Propensity to Import                         |
| MPS    | Marginal Propensity to Save                           |
| MTN    | Multilateral Trade Negotiations                       |
| NAFTA  | North American Free Trade Agreement                   |
| NAMA   | Non-Agricultural Market Access                        |
| NGOs   | Non-Govermental Organisations                         |
| NIEO   | New International Economic Order                      |
| NTBs   | Non-Tariff Barriers                                   |
| N.e.s  | Not Elsewhere Specified                               |
| ODA    | Official Development Assistance/Aid                   |
| OECS   | Organisation of Eastern Caribbean States              |
| OECD   | Organisation for Economic Cooperation and Development |
| OLS    | Ordinary Least Squares                                |
| PCSE   | Panel Consistent Standard Errors                      |
| PIC/TA | Pacific Island Countries/ Trade Area                  |
| PPP    | Purchasing Power Parity                               |
| RCA    | Reveal Comparative Advantage                          |
| REER   | Real Effective Exchange Rate                          |
| RGSM   | Regional Government Securities Market                 |
| RMIG   | Raw Material Intensive Good                           |
| ROW    | Rest of the World                                     |
| RSCA   | Reveal Symmetric Comparative Advantage                |
| RTA    | Regional Trade Agreement                              |
| SAL    | Structural Adjustment Loans                           |
| SAM    | Social Accounting Matrix                              |
| SASD   | Special Advisory Services Division                    |
| SDT    | Special and Differential Treatment                    |
| SER    | Social Exchange Rate                                  |
| SIDS   | Small Island Developing States                        |

|        |   |
|--------|---|
| SIGTAS | Standard Integrated Government Tax Administrative System    |
| SITC   | Standard International Trade Classification                 |
| SKN    | St.Kitts & Nevis  |
| SLU    | St.Lucia  |
| SME    | Small & Medium Enterprises                                  |
| SPS    | Sanitary and Phyto-Sanitary                                 |
| SSA    | Sub-Saharan Africa  |
| SUR    | Seemingly Unrelated Regression                              |
| SVG    | St.Vincent & the Grenadines                                 |
| SATAP  | Structural Adjustment Technical Assistance Programme        |
| TBT    | Technical Barrier to Trade                                  |
| TNSU   | Trade Negotiation Support Unit                              |
| TPAP   | Trade Policy Assistance Project                             |
| TRAC   | Trade Reform and Administration Commision                   |
| TSLS   | Two Stage Least Squares                                     |
| TINR   | Trade Intensity ratio                                       |
| URA    | Uruguay Round Approach                                      |
| UNCTAD | United Nations Council on Trade and Development             |
| UNDP   | United Nation Development Programme                         |
| UNGCS  | United Nations Global Conference on Sustainable Development |
| UNIDO  | United Nations Industrial Development Organisation          |
| UNSD   | United Nations Statistical Division                         |
| VAT    | Value Added Tax   |
| WB     | World Bank  |
| WTO    | World Trade Organisation                                    |

#### **APPENDIX A.4—List of SITC Revision Two (2) Commodities**

| <b>CODE</b> | <b>INDUSTRY/ COMMODITY DESCRIPTION</b>                        |
|-------------|---|
| 00          | Live Animals Chiefly for Food                                 |
| 01          | Meat and Preparations   |
| 02          | Dairy product and Bird Eggs                                   |
| 03          | Fish and Crustaceans, Molluscs and Preparations thereof       |
| 04          | Cereal and Cereal Preparations                                |
| 05          | Vegetables and Fruit  |
| 06          | Sugar, Sugar Preparations and Honey                           |
| 07          | Coffee, Tea, Cocoa, Spices and Manufactures thereof           |
| 08          | Feeding Stuff for Animals (not including unmilled cereals)    |
| 09          | Miscellaneous Edible Preparations                             |
| 11          | Beverages   |
| 12          | Tobacco and Tobacco Manufactures                              |
| 21          | Hides, Skins and Fur skins, Raw                               |
| 22          | Oil Seeds and Oleaginous Fruit                                |
| 23          | Crude Rubber (including Synthetic and Reclaimed)              |
| 24          | Cork and Wood   |
| 25          | Pulp and Waste Paper  |
| 26          | Textiles Fibres (not wool tops) and their Waste (not in yarn) |
| 27          | Crude Fertilizers and Crude Minerals                          |
| 28          | Metaliferous Ores and Metal Scrap                             |
| 29          | Crude Animals and Vegetable Materials, n.e.s                  |

|    |  |
|----|--|
| 32 | Coal, Coke and Briquettes  |
| 33 | Petroleum, Petroleum Products and Related Materials                  |
| 34 | Gas, Natural and Manufactured  |
| 35 | Electric Current   |
| 41 | Animals and Oils and Fats  |
| 42 | Fixed Vegetable, Oils and Fats                                       |
| 43 | Animal and Vegetable Oils and Fats, Process, and Waxes               |
| 51 | Organic Chemicals  |
| 52 | Inorganic Chemicals  |
| 53 | Dyeing, Tanning and Colouring Materials                              |
| 54 | Medicinal and Pharmaceutical Products                                |
| 55 | Oils and Perfume Materials; Toilet and Cleansing Preparations        |
| 56 | Fertilizers, Manufactured  |
| 57 | Explosives and Pyrotechnic Products                                  |
| 58 | Artificial Resin and Plastic Materials, Cellulose, Esters etc        |
| 59 | Chemicals Material and Products, N.e.s                               |
| 61 | Leather, Leather Manuactures, N.e.s and Dress Furskins               |
| 62 | Rubber Manufactures, N.e.s   |
| 63 | Cork and Wood, Cork Manufactures                                     |
| 64 | Paper, Paperboard and Articles of Pulp, of Paper or of Paperboard    |
| 65 | Textiles Yarn, Fabrics, Made-up Articles N.e.s, and Related Products |
| 66 | Non-metallic Mineral Manufactures, N.e.s                             |
| 67 | Iron and Steel   |
| 68 | Non-Ferrous Materials  |
| 69 | Manufactured of Metals N.e.s   |
| 71 | Power Generating Machinery and Equipment                             |
| 72 | Machinery Specialised for Particular Industries                      |
| 73 | Metal Working Machinery  |
| 74 | General Industrial Machinery and Equipment, N.e.s and Parts          |
| 75 | Office Machines and Automatic Data Processing Equipment              |
| 76 | Telecommunications, Sound Recording and Reproducing Equipment        |
| 77 | Electrical Machinery Apparatus and Appliances, N.e.s and Parts       |
| 78 | Road Vehicles  |
| 79 | Other Transport Equipment  |
| 81 | Sanitary, Plumbing, Heating, Lighting Fixtures and Fittings N.e.s    |
| 82 | Furniture and Parts Thereof  |
| 83 | Travel Goods, Handbags and Similar Containers                        |
| 84 | Articles of Apparel and Clothing Accessories                         |
| 85 | Footwear   |
| 87 | Professional, Scientific, Controlling Instruments, Apparatus N.e.s   |
| 88 | Photographic Equipment and Supplies, Optical Goods; Watches etc      |
| 89 | Miscellaneous Articles, N.e.s  |
| 91 | Postal Packages not classified according to kind                     |
| 93 | Special Transactions, Commodities not classified according to class  |
| 94 | Animals Live N.e.s (including Zoo Animals, Pets, Insects, etc)       |
| 95 | Armoured Fighting Vehicles, War Firearms, Ammunitions Parts, N.e.s   |
| 96 | Coin (other than gold coin) not being legal tender                   |
| 97 | Gold non-monetary (excluding gold ores and concentrates)             |

## **Appendix A.5-Net impact on exports by country**

### DIRECTION OF CHANGE OF RSCA FOR COMMON SECTORS BETWEEN 1993 AND 2002

| SITC CODE | INDUSTRY/ COMMODITY DESCRIPTION                             | DCA<br>% chg. | GDA<br>% chg. | SKN<br>% chg. | SLU<br>% chg. | SVG<br>% chg. |
|-----------|---|---------------|---------------|---------------|---------------|---------------|
|           | <b>Raw Material Intensive Goods</b>                         | <b>5/7</b>    | <b>4/7</b>    | <b>2/7</b>    | <b>4/7</b>    | <b>5/7</b>    |
| 04        | Cereal and Cereal Preparations                              | (+)           | (+)           | (+)           | (-)           | (+)           |
| 05        | Vegetables and Fruit  | (-)           | (+)           | (-)           | (+)           | (-)           |
| 06        | Sugar, Sugar Preparations and Honey                         | (-)           | (-)           | (-)           | (-)           | (-)           |
| 07        | Coffee, Tea, Cocoa, Spices and Manufactures thereof         | (+)           | (-)           | (+)           | (+)           | (+)           |
| 09        | Miscellaneous Edible Preparations                           | (+)           | (+)           | (-)           | (+)           | (+)           |
| 24        | Cork and Wood   | (+)           | (-)           | (-)           | (-)           | (+)           |
| 29        | Crude Animals and Vegetable Materials, n.e.s                | (+)           | (+)           | (-)           | (+)           | (+)           |
|           | <b>Labour Intensive Goods</b>                               | <b>4/9</b>    | <b>4/9</b>    | <b>4/9</b>    | <b>5/9</b>    | <b>4/9</b>    |
| 63        | Cork and Wood, Cork Manufactures                            | (-)           | (+)           | (-)           | (-)           | (-)           |
| 64        | Paper, Paperboard and Articles of Pulp, of Paper or of Pa   | (+)           | (+)           | (+)           | (+)           | (+)           |
| 65        | Textiles Yarn, Fabrics, Made-up Articles N.e.s, and Relate  | (+)           | (+)           | (+)           | (+)           | (+)           |
| 66        | Non-metallic Mineral Manufactures, N.e.s                    | (-)           | (-)           | (-)           | (-)           | (-)           |
| 67        | Iron and Steel  | (+)           | (-)           | (+)           | (+)           | (+)           |
| 69        | Manufactured of Metals N.e.s                                | (+)           | (-)           | (-)           | (-)           | (+)           |
| 84        | Articles of Apparel and Clothing Accessories                | (-)           | (-)           | (-)           | (+)           | (-)           |
| 85        | Footwear  | (-)           | (+)           | (+)           | (+)           | (-)           |
| 89        | Miscellaneous Articles, N.e.s                               | (-)           | (-)           | (-)           | (-)           | (-)           |
|           | <b>Capital Goods</b>  |               |               |               |               |               |
|           | <b>Manufacturing with Low-technology Intensity</b>          | <b>1/2</b>    | <b>1/6</b>    | <b>1/2</b>    | <b>2/3</b>    | <b>1/2</b>    |
| 11        | Beverages   | (-)           | (+)           | (-)           | (+)           | (-)           |
| 53        | Dyeing, Tanning and Colouring Materials                     | (+)           | (-)           | (+)           | (-)           | (+)           |
| 55        | Oils and Perfume Materials; Toilet and Cleansing Prepara    | (-)           | (-)           | (+)           | (+)           | (-)           |
| 62        | Rubber Manufactures, N.e.s                                  | (-)           | (-)           | (-)           | (-)           | (-)           |
| 67        | Iron and Steel  | (+)           | (-)           | (+)           | (+)           | (+)           |
| 78        | Road Vehicles   | (+)           | (-)           | (-)           | (+)           | (+)           |
|           | <b>Easy-to-Imitate Research Intensive Goods</b>             | <b>1/1</b>    | <b>1/3</b>    | <b>2/3</b>    | <b>0/3</b>    | <b>1/1</b>    |
| 59        | Chemicals Material and Products, N.e.s                      | (+)           | (+)           | (+)           | (-)           | (+)           |
| 75        | Office Machines and Automatic Data Processing Equipme       | (+)           | (-)           | (+)           | (-)           | (+)           |
| 76        | Telecommunications, Sound Recording and Reproducing         | (+)           | (-)           | (-)           | (-)           | (+)           |
|           | <b>Difficult to Imitate Research Intensive Goods</b>        | <b>1/7</b>    | <b>1/7</b>    | <b>2/7</b>    | <b>1/7</b>    | <b>1/7</b>    |
| 71        | Power Generating Machinery and Equipment                    | (-)           | (-)           | (-)           | (-)           | (-)           |
| 72        | Machinery Specialised for Particular Industries             | (+)           | (-)           | (-)           | (-)           | (+)           |
| 73        | Metal Working Machinery                                     | (-)           | (-)           | (+)           | (-)           | (-)           |
| 74        | General Industrial Machinery and Equipment, N.e.s and P     | (-)           | (-)           | (-)           | (-)           | (-)           |
| 77        | Electrical Machinery Apparatus and Applicances, N.e.s an    | (-)           | (+)           | (+)           | (-)           | (-)           |
| 87        | Professional, Scientific, Controlling Instruments, Apparatu | (-)           | (-)           | (-)           | (-)           | (-)           |
| 88        | Photographic Equipment and Supplies, Optical Goods; W:      | (-)           | (-)           | (-)           | (+)           | (-)           |
|           | <b>No. of sectors with positive changes in RSCA (x/32)</b>  | <b>16</b>     | <b>11</b>     | <b>13</b>     | <b>14</b>     | <b>16</b>     |

Notes: Fraction represent number of sectors in which each member country was competitive (RSCA>0)

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