

**IMPACT OF TRADE POLICY REFORMS ON  
POVERTY AND INCOME INEQUALITY IN  
BANGLADESH: A COMPUTABLE GENERAL  
EQUILIBRIUM ANALYSIS**

**A thesis submitted for the degree of Doctor of Philosophy of the University  
of New England**

By

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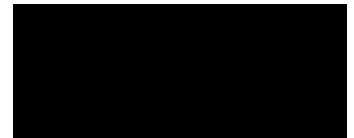
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## **Author's Certification**

I certify that the substance of this thesis has not already been submitted for any other degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledge in this thesis.



Bodrun Nahar

# **Dedication**

To my beloved father and mother, the sources of my inspiration.

## Abstract

In the 1980s and 1990s Bangladesh implemented various trade liberalisation reforms as part of its Structural Adjustment Programmes. During these periods, the country's growth performance was impressive. Nevertheless, a continuing high prevalence of poverty and increased income inequality raised concern that the trade liberalisation policies may have worked against the poor. Thus, the widely stated view that trade liberalisation is pro-poor has become a matter of great debate in the case of Bangladesh.

The present study develops an 86-sector, 4-factor and 9-household group poverty-focused static computable general equilibrium (CGE) model for Bangladesh. This is used to analyse the poverty and distributive effects of tariff reform policies on various household groups, in both the short run and the long run. Unlike traditional ORANI type CGE models, the present model has a social accounting matrix (SAM) extension. The SAM provides a quantitative framework in which the value added originating in the production process flows down to various factors of production as returns, which in turn flow to various household groups and other institutions as income. The model also endogenises the monetary poverty line to estimate poverty incidence among different household groups. A non-parametric representative household approach is used to estimate income distribution functions for each group of households from household survey data. These are then linked to the CGE model in a top-down fashion to estimate absolute and relative poverty.

Trade liberalisation has been simulated by the complete removal of all tariffs on imported goods and services, both with and without an increase in the consumption tax rate sufficient to ensure government revenue neutrality. The simulations suggest that trade liberalisation in the absence of a compensatory consumption tax induces expansion of GDP, employment and net exports both in the short run and long run. Export-oriented labour intensive agricultural and manufacturing industries experience substantial increases in output and employment. The female low-skilled category of labour experiences the highest increase in employment both in the short run and the long run, largely reflecting the growth of the export-oriented ready-made garments and knitting industries. In contrast, tariff reduction with a compensatory consumption tax induces negative growth in real GDP and aggregate employment in the short run, although free capital mobility helps increase real GDP in the long run.

Without a compensatory consumption tax, trade liberalisation results in the short run in marginal decreases in the poverty head count indexes in both rural and urban areas. The increased poverty gap and squared poverty gap indices in the urban areas imply, however, that in the urban areas the poorest of the poor become even poorer. In the long run, the income effects counter the poverty line effects, resulting in a decline in positive poverty for all household groups. In terms of income inequality, trade liberalisation increases inequality slightly in the short run, but it improves in the long run. Introducing a compensatory consumption tax produces increased poverty and inequality incidences in the short run, but the results are pro-poor in the long run in terms of both poverty and inequality. Moreover, all results are qualitatively robust with respect to variations in key elasticity values in the model.

# Table of Contents

<b>Author’s Certification .....</b>	<b>ii</b>
<b>Dedication .....</b>	<b>iii</b>
<b>Abstract .....</b>	<b>iv</b>
<b>Table of Contents.....</b>	<b>vi</b>
<b>List of Tables.....</b>	<b>x</b>
<b>List of Appendices .....</b>	<b>xvi</b>
<b>List of Abbreviations.....</b>	<b>xvii</b>
<b>Acknowledgements.....</b>	<b>xviii</b>
<b>Chapter 1 Introduction.....</b>	<b>1</b>
1.1 Background of the Study .....	1
1.2 Trade Liberalisation and the Bangladesh Economy .....	6
1.3 Research Problem.....	8
1.4 Objectives of the Study .....	10
1.5 Methodology.....	11
1.6 Outline of the Study.....	12
<b>Chapter 2 The Bangladesh Economy: Policies and Performance .....</b>	<b>13</b>
2.1 Introduction .....	13
2.2 Structural Conditions in the 1970s .....	14
2.3 Nature and Extent of Economic Reforms in Bangladesh.....	15
2.3.1 Import Policy Changes .....	15
2.3.1.1 Reforming the tariff structure.....	16
2.3.1.2 Elimination of quantitative restrictions (QRs).....	20
2.3.1.3 Simplifying import procedures.....	21
2.3.2 Export Promotion Policies .....	21
2.3.3 Financial Sector Reform Policies .....	25
2.3.3.1 Reforms in foreign exchange regime .....	26
2.3.4 Fiscal Policy Changes.....	28
2.4 Measuring the Degree of Openness of the Bangladesh Economy.....	30
2.4.1 A Brief History of the Measurement of Openness .....	30
2.4.2 Bangladesh Perspective .....	33
2.5 Macroeconomic Performance of Bangladesh.....	36
2.6 Concluding Remarks .....	44
<b>Chapter 3 An Overview of Poverty, Inequality and the Labour Market in Bangladesh.....</b>	<b>45</b>
3.1 Introduction .....	45
3.2 A Poverty Profile of Bangladesh.....	46
3.2.1 Trends in Poverty Incidence in Bangladesh .....	46
3.2.2 Incidence of Poverty by Labour Force Status of Head of Household .....	53
3.2.3 Poverty and Landownership .....	54
3.2.4 Poverty and Educational Attainment.....	55
3.2.5 Human Development Index (HDI) .....	56
3.3 Trends in Income Inequality in Bangladesh.....	59
3.4 Labour Market Development in Bangladesh.....	65
3.4.1 Demographic Changes and the Labour Market.....	65

3.4.2	Sectoral Distribution of Employment.....	66
3.4.3	Trends in Wages in Bangladesh, 1990-2000.....	68
3.5	Concluding Remarks.....	69
<b>Chapter 4</b>	<b>A Review of Literature on Income Distribution, Poverty and Trade Policy.....</b>	<b>71</b>
4.1	Introduction.....	71
4.2	Theoretical Approaches.....	71
4.3	Empirical Analysis: Methods to Investigate the Links between Trade, Poverty and Income Distribution in Developing Countries.....	77
4.3.1	Cross-Country Regression Analysis.....	77
4.3.2	Partial Equilibrium Analysis/Cost-of-living analysis.....	78
4.3.3	Computable General Equilibrium Models.....	81
4.3.3.1	Traditional representative household approach.....	83
4.3.3.2	Micro-simulation approach.....	88
4.3.3.2.1	Integrated multi-household CGE analysis (CGE-IMH).....	89
4.3.3.2.2	Sequential top-down/ layered micro-simulation approach.....	91
4.3.3.2.3	Iterative top-down/bottom-up approach.....	96
4.3.4	Multi-Country Analysis.....	98
4.4	CGE Modelling in Bangladesh.....	103
4.4.1	Previous Computable General Equilibrium Modelling of the Bangladesh Economy.....	103
4.4.2	Justification of the Present Study.....	109
4.5	Conclusions.....	111
<b>Chapter 5</b>	<b>The Bangladesh Model: The Theoretical Structure of the CGE Model for the Bangladesh Economy.....</b>	<b>113</b>
5.1	Introduction.....	113
5.2	Sets, Variables and Coefficients of the Model.....	115
5.3	Structure of the Core Model.....	117
5.3.1	Structure of production.....	117
5.3.1.1	Intermediate input demand equations.....	119
5.3.1.2	Demand for primary factors.....	123
5.3.1.3	Demands for primary factors and commodity composites.....	126
5.3.1.4	Output decisions: From industry output to commodity outputs.....	127
5.3.1.5	Input demands for the creation of fixed capital.....	128
5.3.1.6	Investment allocation.....	130
5.3.1.7	Household demands.....	133
5.3.1.8	Foreign export demands.....	137
5.3.1.9	Government consumption demands.....	138
5.3.1.10	Trade and transport margins.....	139
5.3.1.11	Zero pure profit and the price system.....	140
5.3.1.12	Market-clearing equations for commodities.....	143
5.3.1.13	GDP from the income and expenditure sides.....	145
5.3.1.14	Trade balance and other aggregates.....	147
5.4	Income Distribution, Saving and Consumption.....	148
5.4.1	Gross Operating Surplus.....	148
5.4.2	Households.....	150
5.4.3	Government.....	154
5.4.4	Rest of the World.....	156
5.5	Endogenising Poverty Lines.....	157
5.6	Closing and Checking the Model.....	159
5.7	Solution Approaches and Using GEMPACK to Solve the Bangladesh Model.....	162
5.7.1	Johansen Solution.....	163

5.7.2	Euler's Approach .....	164
5.7.3	Computing Solutions for the Bangladesh Model Using GEMPACK .....	165
5.8	Conclusions .....	168
<b>Chapter 6</b>	<b>The Database .....</b>	<b>169</b>
6.1	Introduction .....	169
6.2	Basic Data Requirements for the Model.....	170
6.2.1	The Bangladesh Model Input-Output Database .....	170
6.2.2	Parameters and Elasticities .....	174
6.3	Data Sources .....	175
6.3.1	The Input-Output Table for Bangladesh for the Year 2000 .....	175
6.3.2	Social Accounting Matrix (SAM) .....	178
6.3.3	GTAP Database for Bangladesh.....	180
6.3.4	Household Income and Expenditure Survey 2000 for Bangladesh.....	180
6.4	Steps in the Compilation of Input-Output Database.....	181
6.4.1	Conversion of HAR Format.....	183
6.4.2	Creating Value-added Matrices .....	183
6.4.3	Conversion from Producers' Prices to Basic Prices and Separating out Margins .....	186
6.4.4	Splitting the USEPD Matrix by Sources .....	187
6.4.5	Pro-rate Indirect Tax across Users and Subtract from USE Matrix .....	187
6.4.6	Estimation of Shares of Investment According to Capital Rentals .....	187
6.4.7	Creating ORANI-G Basic Flows .....	188
6.4.8	Disaggregation of the Household Sector .....	189
6.4.9	Ensuring that Data Written to File Add Up, and Further Adjustments .....	189
6.5	Elasticities and other Parameters .....	190
6.5.1	The Elasticity of Substitution between Domestic and Imported Commodities.....	190
6.5.2	Elasticity of Substitution between Primary Factors in Each Industry .....	191
6.5.3	Substitution Elasticities between Different Occupational Types of Labour.....	192
6.5.4	Export Demand Elasticities .....	192
6.5.5	Household Expenditure Elasticities and Marginal Budget Shares .....	193
6.5.6	Frisch Parameter .....	194
6.6	Data Compilation for Income Distribution Analysis.....	195
6.6.1	Production Activities .....	196
6.6.2	Gross Operating Surplus.....	196
6.6.3	Labour Income.....	196
6.6.4	Households .....	199
6.6.5	Government Income .....	199
6.6.6	Rest of the World Sector.....	200
6.7	Households' Income Distribution.....	201
6.8	Conclusions .....	205
<b>Chapter 7</b>	<b>Application of the Bangladesh Model: The Macroeconomic and     Household Level Effects of Across the Board Tariff Reduction .....</b>	<b>206</b>
7.1	Introduction .....	206
7.2	Simulation Design .....	207
7.3	Model Closure .....	207
7.3.1	Short Run Closure.....	208
7.3.2	Long Run Closure.....	210



7.4	A Comparative–static Interpretation of Model Results .....	212
7.5	Simulation Results .....	213
7.5.1	Macroeconomic Impacts .....	213
7.5.1.1	Simulation 1: Projected effects of a 100 per cent tariff cut in all sectors .....	213
7.5.1.2	Simulation 2: Projected effects of a 100 per cent tariff cut in all sectors with a uniform consumption tax (2.70 per cent) .....	219
7.5.2	Sectoral Effects .....	222
7.5.2.1	Simulation 1: Projected effects of a 100 per cent tariff cut in all sectors .....	222
7.5.2.2	Simulation 2: Projected effects of a 100 per cent tariff cut in all sectors with a uniform consumption tax (2.70 per cent) .....	230
7.5.3	Effects on Factor Price Changes and Employment by Occupation .....	233
7.5.4	Effects on Households' Income .....	236
7.5.5	Households' Consumption Effects .....	240
7.6	Sensitivity Analysis .....	241
7.6.1	Sensitivity of the Armington Elasticity .....	242
7.6.2	Sensitivity of the Primary Factor Substitution Elasticity .....	245
7.7	Conclusions .....	249
<b>Chapter 8</b>	<b>Poverty and Inequality Measurement.....</b>	<b>251</b>
8.1	Introduction .....	251
8.2	The Non-parametric Approach of Income Distribution: Estimation with the Kernel Method .....	252
8.3	Poverty Measures .....	253
8.4	Incorporating Poverty Analysis into the CGE Model .....	257
8.5	Estimation of Poverty Indices .....	258
8.5.1	Base Year Poverty Profiles .....	258
8.5.2	Post Simulation Poverty Profiles .....	260
8.5.2.1	100 per cent tariff reduction on imports .....	260
8.5.2.2	100 per cent tariff reduction on imports and consumption tax adjustment .....	274
8.6	Inequality Measures .....	278
8.6.1	Estimation of Inequality Indices .....	280
8.6.1.1	Base Case Inequality Scenario .....	280
8.6.1.2	Post Simulation Income Inequality .....	281
8.7	Sensitivity Analysis .....	286
8.7.1	Sensitivity to the Armington Elasticities .....	286
8.7.2	Sensitivity of the Primary Factor Elasticity .....	290
8.7.3	Income Inequality Sensitivity to Changes in Elasticities .....	293
8.8	Conclusions .....	294
<b>Chapter 9</b>	<b>Summary, Conclusions and Directions for Further Research .....</b>	<b>295</b>
9.1	Introduction .....	295
9.2	Overview of the Study .....	295
9.3	Summary of Results .....	297
9.4	Policy Implications .....	303
9.5	Limitations of the Research .....	307
9.6	Areas for Further Research .....	308
<b>Appendices</b>	<b>.....</b>	<b>310</b>
<b>References</b>	<b>.....</b>	<b>345</b>

## List of Tables

<b>Table 1.1: Proportion of people living on less than US\$1 a day (per cent), 1981-2004 .....</b>	<b>4</b>
<b>Table 1.2: Income disparities between the lowest and highest quintile in Bangladesh, 1981-2004 .....</b>	<b>9</b>
<b>Table 2.1: Evolution of import restrictions .....</b>	<b>20</b>
<b>Table 2.2: Average exchange rate (taka per US\$) .....</b>	<b>28</b>
<b>Table 2.3: Trends in fiscal account, 1980-2005 (as percentage of GDP) .....</b>	<b>30</b>
<b>Table 2.4: Annual exchange rates (TK per US\$) and trade policy bias in Bangladesh, 1991-1998 .....</b>	<b>35</b>
<b>Table 2.5: Trends in unweighted average tariff rates in South Asia (per cent).....</b>	<b>36</b>
<b>Table 2.6: Bangladesh: Basic macroeconomic indicators, 1973-2005 .....</b>	<b>37</b>
<b>Table 3.1: Poverty measures: Head count indices in various studies for Bangladesh .....</b>	<b>48</b>
<b>Table 3.2: Head count indices of poverty using the Cost of Basic Need Method, 1983/84-2005 (percentage of population below the poverty line).....</b>	<b>49</b>
<b>Table 3.3: Poverty reduction rates during pre- and post- reform era (using lower poverty line).....</b>	<b>51</b>
<b>Table 3.4: Poverty reduction rates during pre- and post- reform era (using upper poverty line).....</b>	<b>52</b>
<b>Table 3.5: Regional trends in poverty (head-count ratio), 1991-2005 (using the upper poverty line) .....</b>	<b>53</b>
<b>Table 3.6: Poverty incidence by labour force status of household head, 2000.....</b>	<b>54</b>
<b>Table 3.7: Trends of HDI in Bangladesh, 1975-2004 .....</b>	<b>56</b>
<b>Table 3.8: Human development: An international comparison.....</b>	<b>58</b>
<b>Table 3.9: Income distribution in Bangladesh (percentage share of income of households by quintile groups), 1973-2005.....</b>	<b>61</b>
<b>Table 3.10: Size and structure of the labour force in Bangladesh, 1981-2000.....</b>	<b>66</b>

<b>Table 3.11: Sources of employment: Changes in sectoral distribution .....</b>	<b>68</b>
<b>Table 3.12: Trends in real wages, 1990-2000 (base 1985-86=100) .....</b>	<b>69</b>
<b>Table 5.1: Main sets of the Bangladesh model.....</b>	<b>116</b>
<b>Table 5.2: Tally of variables and equations of the Bangladesh model (Standard closure).....</b>	<b>161</b>
<b>Table 6.1: Domestic Supply table at purchasers' prices .....</b>	<b>176</b>
<b>Table 6.2: Use Table at purchasers' prices .....</b>	<b>177</b>
<b>Table 6.3: Import duties by commodity .....</b>	<b>177</b>
<b>Table 6.4: Domestic taxes by commodity .....</b>	<b>177</b>
<b>Table 6.5: Contents of the RAWDATA.HAR.....</b>	<b>183</b>
<b>Table 6.6: Contents of the ORANI-G data files.....</b>	<b>184</b>
<b>Table 6.7: A simplified representation of the Bangladesh model SAM database (million taka).....</b>	<b>198</b>
<b>Table 6.8: Factorial income composition (%).....</b>	<b>201</b>
<b>Table 6.9: Labour income composition by occupation (%).....</b>	<b>203</b>
<b>Table 6.10: Households' income distribution .....</b>	<b>204</b>
<b>Table 7.1: Projected effects of a 100 per cent tariff cut in all sectors: Selected macro variables (percentage changes).....</b>	<b>215</b>
<b>Table 7.2: Projected effects of a 100 per cent tariff cut: output and employment by industry (percentage changes).....</b>	<b>225</b>
<b>Table 7.3: Percentage changes in nominal factor prices.....</b>	<b>234</b>
<b>Table 7.4: Employment by occupation (percentage changes) .....</b>	<b>236</b>
<b>Table 7.5: Changes in nominal income of households (percentage changes).....</b>	<b>238</b>
<b>Table 7.6: Households' consumption effects in the long run (percentage changes).....</b>	<b>241</b>
<b>Table 7.7: Effects of tariff liberalisation for different values of Armington elasticities in the short run (percentage changes) .....</b>	<b>243</b>
<b>Table 7.8: Effects of tariff liberalisation for different values of Armington elasticities in the long run (percentage changes).....</b>	<b>243</b>

<b>Table 7. 9: Effects of tariff liberalisation for different values of primary factor elasticities in the short run (percentage changes) .....</b>	<b>246</b>
<b>Table 7.10: Effects of tariff liberalisation for different values of primary factor elasticities in the long run (percentage changes).....</b>	<b>247</b>
<b>Table 8.1: Base year estimates of FGT poverty indices in Bangladesh .....</b>	<b>259</b>
<b>Table 8.2: Changes in poverty line (in percentages) .....</b>	<b>260</b>
<b>Table 8.3: FGT Poverty Indices (in percentages) for various policy experiments (Short run).....</b>	<b>270</b>
<b>Table 8.4: Percentage changes of Poverty Indices from the base case scenario (Short run).....</b>	<b>271</b>
<b>Table 8.5: FGT Poverty Indices (in percentages) for various policy experiments (Long run) .....</b>	<b>273</b>
<b>Table 8.6: Percentage changes of Poverty Indices from the base case scenario (Long run) .....</b>	<b>273</b>
<b>Table 8.7: Other poverty indices under different policy scenario (Short run).....</b>	<b>276</b>
<b>Table 8.8: Percentage changes of other poverty indices from the base case scenario (Short run).....</b>	<b>276</b>
<b>Table 8.9: Other poverty indices under different policy scenario (Long run).....</b>	<b>277</b>
<b>Table 8.10: Percentage changes of other poverty indices from the base case scenario (Long run) .....</b>	<b>277</b>
<b>Table 8.11: Inequality measures for different policy simulations (Short run) .....</b>	<b>284</b>
<b>Table 8.12: Percentage changes of inequality indices from the base case scenario (Short run).....</b>	<b>284</b>
<b>Table 8.13: Inequality measures for different policy simulations (Long run).....</b>	<b>285</b>
<b>Table 8.14: Percentage changes of inequality indices from the base case scenario (Long run) .....</b>	<b>285</b>
<b>Table 8.15: Income inequality sensitivity to changes in elasticities .....</b>	<b>293</b>

## List of Figures

<b>Figure 1.1: Share of poorest quintile in national consumption in the World, 1990 and 2004 (percentage) .....</b>	<b>5</b>
<b>Figure 2.1: Bangladesh 1991/92-2004/05: All tariff lines, unweighted average protective import duties .....</b>	<b>17</b>
<b>Figure 2.2: Bangladesh 1991/92-2004/05: Industrial tariff lines, unweighted average protective import duties .....</b>	<b>18</b>
<b>Figure 2.3: Bangladesh 1991/92-2004/05: Agriculture tariff lines, unweighted average protective import duties .....</b>	<b>18</b>
<b>Figure 2.4: Bangladesh FY 1996-FY2005: Average protective tariffs by type of goods .....</b>	<b>19</b>
<b>Figure 2.5: Import orientation, export orientation and trade–GDP ratios in Bangladesh, 1973-2000 .....</b>	<b>34</b>
<b>Figure 2.6: Import penetration ratio in Bangladesh, 1973-2003 .....</b>	<b>34</b>
<b>Figure 2.7: Annual growth rates of agriculture, industry and service, 1973-2005 .....</b>	<b>38</b>
<b>Figure 2.8 (a, b, c, d): Contribution of broad sectors in GDP, 1970-2005 .....</b>	<b>39</b>
<b>Figure 2.9 (a, b, c, d): Changing structure of exports in Bangladesh, 1980-2003 .....</b>	<b>41</b>
<b>Figure 2.10: Growth rate of exports, imports, trade balance and current account balance in Bangladesh, 1973-2003 .....</b>	<b>42</b>
<b>Figure 2.11: Annual growth rates of domestic savings and total investment, 1980-1999 .....</b>	<b>43</b>
<b>Figure 3.1 : Poverty incidence: The very poor, 1983-2005 .....</b>	<b>50</b>
<b>Figure 3.2 : Poverty incidence: The poor, 1983-2005 .....</b>	<b>51</b>
<b>Figure 3.3: Head count index by acres of land owned, 2005 (using upper poverty line) .....</b>	<b>55</b>
<b>Figure 3.4: Incidence of poverty by educational statistics, 2005 (using upper poverty line) .....</b>	<b>55</b>
<b>Figure 3.5: Long-term trends in inequality in Bangladesh, 1973-2005 .....</b>	<b>62</b>

<b>Figure 3.6: National Lorenz income inequality curves for the years 1973, 1981, 1995 and 2005 .....</b>	<b>63</b>
<b>Figure 3.7: Lorenz income inequality curves for rural areas for the years 1973, 1981, 1995 and 2005 .....</b>	<b>64</b>
<b>Figure 3.8: Lorenz income inequality curves for urban areas for the years 1973, 1981, 1995 and 2005 .....</b>	<b>64</b>
<b>Figure 5.1: Structure of production .....</b>	<b>122</b>
<b>Figure 5.2: Structure of investment demand .....</b>	<b>130</b>
<b>Figure 5.3: Structure of consumer demand .....</b>	<b>135</b>
<b>Figure 5.4: Multi-step solution using Euler’s method.....</b>	<b>165</b>
<b>Figure 5.5: From TAB to EXE file.....</b>	<b>167</b>
<b>Figure 5.6: From EXE file to model solution .....</b>	<b>167</b>
<b>Figure 6.1: The Bangladesh model input-output database.....</b>	<b>171</b>
<b>Figure 6.2: Overview of data preparation steps .....</b>	<b>182</b>
<b>Figure 7.1: The schematic representation of short run closure .....</b>	<b>210</b>
<b>Figure 7.2: The schematic representation of the long run closure.....</b>	<b>211</b>
<b>Figure 7.3: Comparative-static interpretations of results .....</b>	<b>212</b>
<b>Figure 7.4: Short run effects of complete tariff reduction on real incomes of household groups under different sets of Armington elasticities (Simulation 1).....</b>	<b>244</b>
<b>Figure 7.5: Long run effects of complete tariff reduction on real incomes of household groups under different sets of Armington elasticities (Simulation 1).....</b>	<b>245</b>
<b>Figure 7.6: Short run effects of complete tariff reduction on real incomes of household groups for different values of primary factor elasticities (percentage changes) (Simulation 1).....</b>	<b>248</b>
<b>Figure 7.7: Long run effects of complete tariff reduction on real incomes of household groups for different values of primary factor elasticities (percentage changes) (Simulation 1).....</b>	<b>248</b>

<b>Figure 8.1: Changes in absolute poverty within rural households (Short run) .....</b>	<b>262</b>
<b>Figure 8.2: Changes in absolute poverty within urban households (Short run) .....</b>	<b>264</b>
<b>Figure 8.3: Changes in absolute poverty within rural households (Long run).....</b>	<b>266</b>
<b>Figure 8.4: Changes in absolute poverty within urban households (Long run) .....</b>	<b>268</b>
<b>Figure 8.5: Short run: Poverty effects of 100 per cent tariff reduction under different sets of Armington elasticities .....</b>	<b>287</b>
<b>Figure 8.6: Long run: Poverty effects of complete tariff reduction under different sets of Armington elasticities .....</b>	<b>288</b>
<b>Figure 8.7: Short run: Poverty effects of 100 per cent tariff reduction under different sets of primary factor elasticities.....</b>	<b>290</b>
<b>Figure 8.8: Long run: Poverty effects of complete tariff reduction under different sets of primary factor elasticities.....</b>	<b>292</b>

## List of Appendices

<b>Table A 2.1: Effective Protection Rates (EPRs) in 40 sectors in Bangladesh (in percentages).....</b>	<b>309</b>
<b>Table B 5.1: List of Variables in the Bangladesh model.....</b>	<b>310</b>
<b>Table B 5.2: List of Coefficients and Parameters in the Bangladesh model.....</b>	<b>315</b>
<b>Table B 5.3: Derivation of consumer demand for a composite commodity.....</b>	<b>318</b>
<b>Table C 6.1: Commodity and industry classification in the Bangladesh model.....</b>	<b>320</b>
<b>Table C 6.2: Sectoral mapping of I-O table 2000 and SAM 2000 for Bangladesh...</b>	<b>323</b>
<b>Table C.6.3: Elasticity of Substitution.....</b>	<b>325</b>
<b>Table C 6.4: Household expenditure elasticity.....</b>	<b>326</b>
<b>Table D 7.1: Base case tariff rates, import share and export share (expressed as ratios).....</b>	<b>328</b>
<b>Table D 7.2: Fan Decomposition (Simulation 1) (percentage changes).....</b>	<b>330</b>
<b>Table D 7.3: Decomposing total imports to various usage categories.....</b>	<b>332</b>
<b>Table D 7.4: Sales structure.....</b>	<b>334</b>
<b>Table D 7.5: Ranked Fan decomposition (Simulation 2) (percentage changes).....</b>	<b>336</b>
<b>Table D 7.6: Occupation wise employment in industries (base year).....</b>	<b>338</b>
<b>Table D 7.7: Consumption shares for 94 commodities by household groups.....</b>	<b>340</b>



## List of Abbreviations

ADB	Asian Development Bank
APTA	Asia-Pacific Trade Agreement
AVAT	Advanced Value Added Tax
BBS	Bangladesh Bureau of Statistics
BOI	Board of Investment
CBN	Cost of Basic Need
CES	Constant Elasticity of Substitution
CET	Constant Elasticity of Transformation
CGE	Computable General Equilibrium
FDD	Foreign Direct Investment
FEI	Food Energy Intake
EPZ	Export Processing Zone
ERP	Effective Rates of Protection
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GOB	Government of Bangladesh
GTAP	Global Trade Analysis Project
HIES	Household Income & Expenditure Survey
HDR	Human Development Report
IPO	Import Policy Order
IFS	International Financial Statistics
IMF	International Monetary Fund
L/C	Letter of Credit
LES	Linear Expenditure System
MDGs	Millennium Development Goals
MEN	Most Favoured Nation
NCBs	Ntional Commercial Banks
NIP	New Industrial Policy
PRSP	Poverty Reduction Strategy Paper
QRs	Quantitative Restrictions
REER	Real Effective Exchange Rate
RIP	Revised Industrial Policy
RMG	Ready-made Garments
SAFTA	South Asian Free Trade Area
SAM	Social Accounting Matrix
SAP	Structural Adjustment Programme
SAPTA	South Asian Preferential Trade Agreement
VAT	Value Added Tax
WB	World Bank
WTO	World Trade Organisation
XPL	Export Performance Licensing

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