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

Bodrun Nahar
B.S.S. (Honours) M.S.S. (Chittagong University, Bangladesh)
MEdc. (New England)

School of Business, Economics and Public Policy
Faculty of the Professions
University of New England
Armidale, NSW, 2351
Australia

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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.
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>APTA</td>
<td>Asia-Pacific Trade Agreement</td>
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<tr>
<td>AVAT</td>
<td>Advanced Value Added Tax</td>
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<tr>
<td>BBS</td>
<td>Bangladesh Bureau of Statistics</td>
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<tr>
<td>BOI</td>
<td>Board of Investment</td>
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<td>CBN</td>
<td>Cost of Basic Need</td>
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<td>CES</td>
<td>Constant Elasticity of Substitution</td>
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<tr>
<td>CET</td>
<td>Constant Elasticity of Transformation</td>
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<tr>
<td>CGE</td>
<td>Computable General Equilibrium</td>
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<td>FDD</td>
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<td>FEI</td>
<td>Food Energy Intake</td>
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<td>EPZ</td>
<td>Export Processing Zone</td>
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<td>ERP</td>
<td>Effective Rates of Protection</td>
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<td>GATT</td>
<td>General Agreement on Tariffs and Trade</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GOB</td>
<td>Government of Bangladesh</td>
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<td>GTAP</td>
<td>Global Trade Analysis Project</td>
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<td>HDR</td>
<td>Human Development Report</td>
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<tr>
<td>IPO</td>
<td>Import Policy Order</td>
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<tr>
<td>IFS</td>
<td>International Financial Statistics</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<tr>
<td>L/C</td>
<td>Letter of Credit</td>
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<td>LES</td>
<td>Linear Expenditure System</td>
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<td>Millennium Development Goals</td>
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<tr>
<td>MEN</td>
<td>Most Favoured Nation</td>
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<td>National Commercial Banks</td>
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<tr>
<td>NIP</td>
<td>New Industrial Policy</td>
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<tr>
<td>PRSP</td>
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<td>REER</td>
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