

Table of Contents

List of Tables.....	iii
List of Figures.....	iii
List of Abbreviations.....	v
List of Units and Currencies	vi
1 GENERAL INTRODUCTION.....	1
1.1 Motivation and research objective	1
1.2 Methodological approach and data sources	3
1.3 Structure of the thesis.....	4
2 THE WTO AND THE RELEVANT ECONOMIC POLICY OF AZERBAIJAN.....	7
2.1 World Trade Organization and Azerbaijan	8
2.2 Azerbaijan’s agricultural sector, agricultural policy, and WTO requirements	9
2.2.1 Agriculture sector in Azerbaijan	9
2.2.2 Azerbaijan’s agricultural policy and its compliance with WTO requirements	10
2.3 Azerbaijan’s trade patterns, tariff policy, and WTO requirements	15
2.3.1 Trade patterns of Azerbaijan	15
2.3.2 Azerbaijan’s tariff regime and its compliance with WTO requirements	16
2.4 Concluding remarks	17
3 THEORETICAL BACKGROUND OF WTO-IMPOSED REFORMS.....	19
3.1 Economics of trade liberalization.....	19
3.2 Economics of agricultural subsidy reforms.....	23
3.3 Trade liberalization and poverty links.....	25
3.4 Agricultural subsidies and poverty links.....	28
3.5 Dutch disease and WTO-imposed reforms	30
3.6 Concluding remarks	32
4 THE CGE MICRO-SIMULATION MODEL	33
4.1 Computable General Equilibrium approach.....	33
4.1.1 The CGE model for the Azerbaijani economy.....	36
4.1.1.1 Production environment and technology.....	37
4.1.1.2 Foreign sector.....	40
4.1.1.3 Institutions.....	44
4.1.1.4 Price system.....	49
4.1.1.5 Equilibrium conditions.....	50
4.1.1.6 The macroeconomic closure rules and numéraire.....	52
4.2 Micro-simulation approach	54
4.3 Linking the models.....	55
4.4 Welfare measurement.....	58
4.5 Endogenous poverty line and poverty measurement.....	58
4.6 Concluding remarks	60
5 DATA AND DESCRIPTIVE STATISTICS	61
5.1 Household Budget Survey of Azerbaijan.....	61
5.2 Social Accounting Matrix for Azerbaijan	64

5.2.1	Construction of the SAM	65
5.2.2	Balancing the SAM	72
5.3	Parameters for the model.....	75
5.4	Descriptive statistics.....	76
5.4.1	Income sources and consumption patterns of the households.....	76
5.4.2	Poverty profile.....	83
5.4.3	Structure of production and external trade	84
5.4.4	Sectoral contrasts in income generation.....	88
5.4.5	Important macroeconomic features of the economy	90
5.5	Concluding remarks	91
6	POLICY SIMULATIONS AND EMPIRICAL RESULTS.....	92
6.1	Counterfactual policy simulations.....	92
6.2	Empirical results.....	94
6.2.1	Macroeconomic impacts	94
6.2.2	Sectoral impacts	102
6.2.3	Household level welfare impacts	113
6.2.4	Poverty impacts	129
6.3	Concluding remarks	132
7	SENSITIVITY ANALYSIS AND GENERAL CONCLUSION.....	133
7.1	Systematic sensitivity analysis	133
7.2	General conclusion.....	138
7.2.1	Summary of the study and main findings.....	138
7.2.2	Limitations of the study and future research areas.....	144
	REFERENCES	146
	APPENDIX I: Mapping between SAM and HBS commodity classification.....	155
	APPENDIX II: A detailed documentation of SAM development	165
	APPENDIX III: Classification of activities/commodities in the SAM, IO table, and GTAP database.....	169
	APPENDIX IV: Calibration of model's share and scale parameters	177
	APPENDIX V: Changes in return to capital by sectors, in percentage.....	181
	APPENDIX VI: Changes in output, import, and export prices by sectors, in percentage	182

List of Tables

TABLE 5.1: The structure of the SAM for Azerbaijan.....	67
TABLE 5.2: Production sectors in the SAM for Azerbaijan	69
TABLE 5.3: The balanced aggregated 2006 SAM for Azerbaijan, in mln AZN.....	74
TABLE 5.4: Elasticity parameters for the AzCGE model	75
TABLE 5.5: Income sources of households, in percentage	77
TABLE 5.6: Consumption patterns of households, in percentage	79
TABLE 5.7: Foreign trade and production, in percentage	85
TABEL 5.8: Structure of trade by regions and applied tariff rates, in percentage.....	87
TABLE 5.9: Structure of value-added and intermediate use, in percentage	89
TABLE 6.1: Macroeconomic impacts, in percentage changes	95
TABLE 6.2: Poverty impacts, in percentage point variations.....	130

List of Figures

FIGURE 2.1: Agricultural production and trade (1991-2013)	10
FIGURE 2.2: The composition of domestic support measures in agriculture, in percentage (2002-2013).....	12
FIGURE 2.3: The percentage share of total subsidies in gross agricultural output (2002-2013).....	14
FIGURE 2.4: Trade patterns, in bln US\$ (1995-2013).....	15
FIGURE 3.1: General equilibrium effects of import tariffs	20
FIGURE 3.2: Production and price effects of lowering subsidies in the agricultural sector.....	23
FIGURE 3.3: Trade liberalization and poverty – the causal linkage.....	26
FIGURE 4.1: The nested structure of production.....	38
FIGURE 4.2: The structure of foreign trade.....	41
FIGURE 4.3: CGE micro-simulation framework.....	57
FIGURE 6.1: Sectoral level results from tariff liberalization, in percentage changes	103
FIGURE 6.2: The changes in import flows across trading partners from tariff liberalization, in percentage.....	105
FIGURE 6.3: Sectoral level results from agriculture subsidy reforms, in percentage changes	107
FIGURE 6.4: Sectoral level results from WTO accession, in percentage changes	111
FIGURE 6.5: The changes in import flows across trading partners from WTO accession, in percentage.....	112
FIGURE 6.6: Consumption price variations across simulation scenarios, in percentage changes	115
FIGURE 6.7: The national level distribution of estimated welfare gains/losses from tariff liberalization.....	116
FIGURE 6.8: On average welfare gains/losses across deciles and simulation scenarios.....	118
FIGURE 6.9: The regional level distribution of estimated welfare gains/losses from tariff liberalization.....	119

FIGURE 6.10: The national level distribution of estimated welfare gains/losses from agriculture subsidy reforms	121
FIGURE 6.11: The regional level distribution of estimated welfare gains/losses from agriculture subsidy reforms (<i>simulation scenario 2a</i>).....	122
FIGURE 6.12: The regional level distribution of estimated welfare gains/losses from agriculture subsidy reforms (<i>simulation scenario 2b</i>).....	123
FIGURE 6.13: The national level distribution of estimated welfare gains/losses from WTO accession.....	125
FIGURE 6.14: The regional level distribution of estimated welfare gains/losses from WTO accession (<i>simulation scenario 3a</i>)	126
FIGURE 6.15: The regional level distribution of estimated welfare gains/losses from WTO accession (<i>simulation scenario 3b</i>)	127
FIGURE 7.1: Systematic sensitivity analysis: macroeconomic effects, in percentage changes	136
FIGURE 7.2: Systematic sensitivity analysis: sectoral level output effects, in percentage changes	137
FIGURE 7.3: Systematic sensitivity analysis: welfare effects (on average) as percentage changes and poverty effects as percentage point changes.....	138