TRADE FLOWS AND TRADE PROTECTION:

A MULTI-COUNTRY AND MULTI-SECTORAL INVESTIGATION

by

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TABLE OF CONTENTS

LIST OF TABLES 5

1. Purpose of the Study 7

2. The structure of the study 8

3. Plan of Report 11

CHAPTER TWO: GLOBAL TRADE PROTECTION: THE DATA 13

1. Introduction 13

2. The Measurement of Trade Protection 13

3. The TRAINS and The WTDB 16

5. Global Trade Protection: An Overview 20

CHAPTER THREE: 27

ESTIMATING THE IMPORT-REDUCING EFFECTS OF TRADE BARRIERS 27

1. Introduction 27

2. Review of Literature 27

3. The Empirical Model 35

4. Data 36

5. Model Estimation and Results 38

6. Summary 47

CHAPTER FOUR: 48

REMOVAL OF GLOBAL TARIFFS AND NON-TARIFF BARRIERS: A STATIC ANALYSIS FOR THE U.S. 48

1. Introduction 48

2. Tariff Barriers Faced by U.S. Imports and Exports 48

3. Non-tariff Trade Barriers Faced by U.S. Imports and Exports. 54

4. Removal of Tariffs and NTBs: A Counter-factual Analysis 57

5. Concluding Remarks 64

CHAPTER FIVE: 65

REMOVAL OF TARIFFS: SIMULATION WITH A BILATERAL TRADE MODEL 65

1. Introduction 65

2. Bilateral Trade Model: An Overview 66

3. Bilateral Trade Model: Update and Improvement 70

4. Simulations: Removal of Tariffs among the 16 Countries and Regions 79

5. Concluding remarks 116

CHAPTER SIX: 117

LIST OF TABLES

Number		Page
2.1	The U.S. Imports Regime in 1994 for Selected Apparel Products	19
2.2	Types of Non-Tariff Barriers Imposed by the U.S. in 1994	19
2.3	The Bilateral Trade Flows between the U.S. and Singapore	21
2.4	Trade Protection Imposed by Each Importing Countries	25
2.5	Rank Correlation Between Per Capita GNP and Import Regime Indicators	26
2.6	Trade Protection Faced by Each Exporting Countries	27
2.7	Rank Correlation between Per Capita GNP and Protection Faced by Exporting Countries	28
2.8	Trade Protection Across Industries By Tariffs in 1994	30
2.9	Rank Correlation between Tariff Rate and NTBs Coverage Ratio Across Industries	30
2.10	Trade Protection Across Industries By NTBs in 1994	31
2.11	Rank Correlation between Industry's Trade Share and Tariff Rate/ NTBs Coverage Ratio across Industries	32
3.1	Summary of Representative Studies	35
3.2	Results from Regressing Output Share on A Set of Instrumental Variables by Industry	36
3.3	Results from Regressing Import NTB Coverage Ratio on A Set of Instrumental Variables with Industry Fixed Effect	57
3.4	Estimation of Trade Protection Effects on Trade Flows with Industry Fixed Effects	58
3.5	Estimation of the Trade Protection Effects on Trade Flows with Industry Fixed Effects and Categorized NTBs	61

4.1	The Tariff Rates Faced by the U.S. Imports and Exports	64
4.2	NTB Coverage Ration Faced by U.S. Imports	71
4.3	NTB Coverage Ration Faced by U.S. Exports	72
4.4	U.S. Export Increases from Removing Tariffs	76
4.5	U.S. Import Increases from Removing Tariffs	77
4.6	U.S. Exports Increase from Removing NTBs	82
4.7	U.S. Imports Increase from Removing NTBs	83
5.1	INFORUM 120 Commodity Categories	89
5.2	Bilateral Tariff Rates in 1994	94
5.3	Different Specifications in the Trade Share Equation	103
5.4	The Responses of Aggregate Imports to Removal of Tariffs	108
5.5	The Responses of Aggregate Exports to Removal of Tariffs	108
5.6	The Responses of Imports by Sector to Removal of Tariffs	109
5.7	The Response of Exports by Sector to Removal of Tariffs	123
5.8	Import Increase -- Top Ten Contributing Commodity Groups	143
5.9	Exports Increase -- Top Ten Contributing Commodity Groups	144
5.10	Price Elasticities of Import Demand by Country and Sector	148
5.11	The Responses of Aggregate Imports	150
5.12	The Responses of Aggregate Exports	150
5.13	Import Increase -- Top Ten Contributing Commodity Groups	151
5.14	Export Increase -- Top Ten Contributing Commodity Groups	152

CHAPTER ONE:

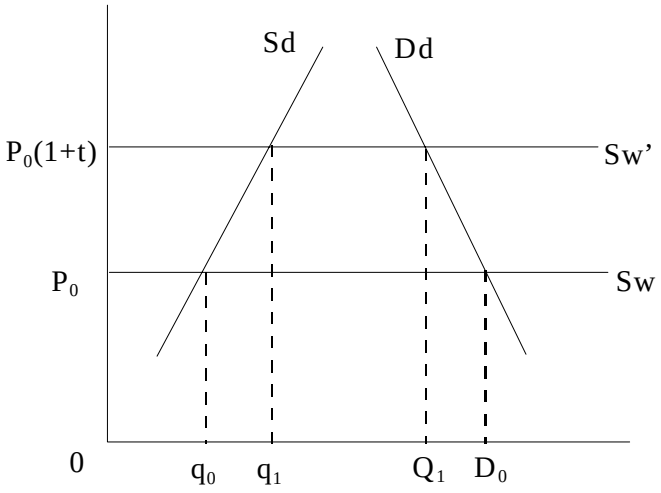
INTRODUCTION

1. Purpose of the Study

Trade barriers have many different effects, which include price and quantity effects on trade and production, as well as employment, and welfare effects. These occur not only in the country applying them but also in other countries directly and indirectly affected by them. Our primary focus in this study is on ascertaining the impact of trade barriers on trade flows. More specifically, our purpose is to carry out a comprehensive investigation on the impact of a global trade liberalization on trade flows of each country/region involved in a multi-sectoral and multi-regional framework.

The direction of trade barriers' impact on trade flows is not an issue of major theoretical concern. The magnitude, however, is far from conclusive. On the direction, most international trade models offer unambiguous explanations. The standard partial equilibrium trade diagram as given in Figure 1.1, which is one of the most straightforward and widely used analytical tools, provides a clear illustration of the issue. Domestic demand and supply are given by Dd and Sd, respectively. World supply (Sw) is assumed to be completely elastic (otherwise it would slope up to the right), and the initial domestic price is P_0. Domestic producers supply q_0 and imports are $Q_0 - q_0$.

Figure 1.1



If an *ad valorem* tariff *t* is imposed, the main effect is that domestic consumption and imports both decline, reflecting a higher price. Domestic

producers can produce more and capture a larger share of the domestic market. On the diagram, the import supply curve and prices facing domestic consumers increase to S_w' and P_1 (equal to $P_0(1+t)$), respectively. Domestic consumption and imports decline to Q1 and $Q_1 - q_1$, respectively.

Given a picture as clear as Figure 1.1, how do we quantify the impact of trade barriers on trade flows? When we enter into the complexity of the real world, this question becomes much more difficult to answer than it appears to be. Our study is among the attempts at giving answer to this seemingly easy question. There are around 200 countries in the world, trading among one another thousands of commodities and services. One country's trade policy affects its own imports and export s which are the corresponding imports and exports of its trading partner countries. The interdependency among countries demands that a comprehensive study be multi-regional and multi-sectoral. The large number of regions and sectors makes the task most challenging.

Our study is an exercise through which we want to estimate the impact of a global trade liberalization on global trade flows. The trade liberalization of our study refers specifically to a scenario – the "Final Round" -- under which all countries involved remove their trade barriers completely. Our data on both trade barriers and trade flows are quite comprehensive in terms of sectoral details, which makes it possible for our estimation to be done at a very disaggregated level of economic sector classification. Moreover, since the trade liberalization is global, and countries involved are interdependent among one another, our approach of investigation is designed to explicitly model the interdependency and ensure the estimation consistency among the countries involved.

2. The structure of the study

Our study is an empirical analysis, and our approach is empirical modeling that tries to combine real world data with theory as part of the mix of inductive and deductive reasoning that make up economic analysis. We economists acknowledge our inability to conduct controlled experiments and therefore reply on economic models to estimate and simulate policy changes. Four elements determine the results of a policy simulation: the data that describe the situation under investigation, the form of equations, the value of estimated parameters and the scenarios. As a comprehensive investigation of the impact of trade barriers on trade flows, our study is structured to tackle each of the four major issues involved.

2.1 Data

The scope of our study is multi-regional and multi-sectoral, which entails a quite demanding data support. The trade data in our study is from the World Trade Database (WTDB), which provides very detailed information on bilateral commodity trade flows for over 150 countries. The trade protection data is from Trade Analysis and Information System (TRAINS), which provides information on tariffs, NTBs and trade flows for most OECD countries and some 80 developing countries. Both trade flow and trade protection data have to be aggregated for the purpose of doing empirical analysis by economic modeling.

However, to aggregate trade protection data, we need to take trade-flow weighted average of tariff rates and NTB indicators, so we must combine trade flow data from WTDB and trade protection data from TRAINS. This combination process was complicated by the fact that the two data sources are reported in two different classification systems. Trade flow data are reported in 4-digit Standard International Trade Classification (SITC) and trade protection data in 6-digit Harmonized Commodity Coding and Classification System (HS). Combining data on bilateral trade flows with that on trade protections, we construct a bilateral trade protection database, which describes in great detail the situation on global trade protection including both tariffs and NTBs and serves as the data foundation of our empirical analysis. One of the important features of the bilateral trade protection database is that it reveals the effective bilateral discrimination in a country's trade protection regime.

2.2 Parameter Estimation

The key parameters used in our study are those related to the sensitivities of how imports respond to changes in trade barriers including tariffs and NTBs. In the literature, parameters are normally determined in one of two ways: by assumptions or by estimation. Assumptions are based on relevant theoretical models, which may not necessarily be supported by empirical evidences. Since theoretical models abstract from reality, their implications for empirical analysis are limited. As far as estimation of key parameters is concerned, people can choose to either borrow the results from previous studies or carry out their own estimation. However, given the fact that a limited number of relevant empirical studies have been made so far and the lack of consensus in the literature on this issue, how much confidence should be put in the borrowed results is really a matter of judgement. Making one's own estimation of the parameters is time-consuming and may not necessarily lead to convincing improvement without strong support from quality data.

We, nevertheless, choose to carry out our own estimation using the data from the database that we constructed by combining WTDB and TRAINS. We use a model that is based on the monopolistic competition trade model and 1994 cross-country data on trade barriers, trade flows, and production to estimate the import-reducing effect of trade barriers including both tariffs and NTBs. Our sample covers a broad range of countries -- more than 70 in total -- including countries from the most developed ones like those in the G-7 group to the least developed ones such as Bangladesh. By pooling across both industries and countries, we can conduct the estimation based on a very large sample of data, an important advance over previous studies. Moreover, since we have access to the most updated and systematic data, the results from this study contribute to a better understanding of the recent situation on the relevant issues. Other studies, known to us, use now at least ten years old data. We estimate the effects of both tariffs and NTBs, with the latter being categorized into several different types according to their functional features. In the equation estimation, we specify an empirical model which is capable of capturing the stylized facts fairly well and helps generate more sensible and econometrically efficient estimates. Finally,

our econometric framework is designed to control for the simultaneous determination of trade flows, trade barriers and production.

2.3 Modeling approach

Our primary purpose is to model the impact of a global trade liberalization or a "Final Round", a situation in which each country involved removes their respective trade barriers. A country's imports will increase in response to the removal of trade barriers, and the magnitude of increase can be estimated based on the existing level of trade barriers and estimated sensitivities of imports with respect to the corresponding trade barriers. With each country involved increasing its imports as a consequence of trade liberalization, its exports will increase accordingly. The impact on a country's exports can therefore be estimated by summing up all the impacts on its trading partners' imports. This is the basic approach that we adopt to estimate the impact on trade flows of a global trade liberalization. Our estimation is made with close attention to the sectoral details of trade flows.

However, an issue arises which is related to the effective bilateral discrimination of a country's trade protection regime. Given that an importing country may treat its trading partners differently, after the trade barriers are removed, its imports from countries which faced high barriers should increase more than from those countries which were previously treated favorably. In another word, although the country involved may increase its overall level of imports following the trade liberalization, it does not necessarily increase its imports from each of its trading partners by proportionally the same amount. From the perspective of an exporting country, its exports to a specific country could increase or decrease depending on how it is treated by its trading partners in terms of trade barriers prior to the trade liberalization. Therefore, a complete estimation should somehow model this 'sourcing' effect of trade liberalization.

We conduct two studies in two different approaches. In the first one, we estimate the impact on US imports and exports under a scenario where the US as well as its trading partners remove their respective trade barriers, including tariffs and NTBs. In this study, our purpose is to highlight the impact of the difference in the degree of trade protection imposed by the US as well as its trading partners. Here we do not address the issue of bilateral discrimination; instead we assume that US trading partners increase their imports from the US in proportion to their overall level of import increase as a result of the global trade liberalization.

In the second study, we expand the scope and simulate the impact of global trade liberalization on 16 counties and regions, which, together, cover the global trade flows. This extensive study is made possible by employing a Bilateral Trade Model (BTM). The function of BTM is to allocate each country's imports to their countries of origin in accordance with the commodity-share matrices. The sum of all the allocations of a particular product to one country then yields a consistent estimate of exports of that country. The BTM helps simulate the impact of trade liberalization on the 16 countries and regions all at once, which could otherwise entails very onerous computational work.

Moreover, with BTM's help, we are also able to model explicitly the bilateral discrimination and identify its impact on a country's trade flows amidst a global trade liberalization.

Both studies are done with close attention to sectoral details. The first study covers fifty-one trading sectors in the US economy, and the second one covers 120 sectors. We are able to identify how trade flows of each sector in a country's economy will be impacted by the global trade liberalization. The aggregate impact is estimated by summing up across sectors. This bottom-up approach ensures the estimation to be consistent among countries at sectoral as well as aggregate level.

3. Plan of Report

The report is presented in the next six chapters. Chapter 2 considers data preparation. The issue of trade protection measurement is first discussed, followed by a description of the two original data sources – TRAINS and WTDB. Then, we describe our approach of combining the two database to create a bilateral trade protection database which serves as the data foundation of our further studies. After presenting some pieces of information from the bilateral trade protection database, we make a preliminary statistical analysis of the data in order to give an overall picture of the situation on global trade protection before digging into details of modeling.

In Chapter 3, we estimate the import-reducing effect of trade barriers and derive the estimates of key parameters, i.e. the sensitivities of imports with respect to tariffs and NTBs. A literature review is conducted first, which helps identify the pros and cons of various ways of conducting the estimation and to determine an empirical model based on the monopolistic competition trade model. The technical details of econometric estimation are then discussed, and data requirements other than trade flows and trade protection indicators are described. Finally, we present and discuss the estimation results and their implications for determining the estimates of the sensitivities of import with respect to tariffs and NTBs.

Chapter 4 focuses on one particular country and tries to answer the question: what would happen to U.S. imports and exports if all countries removed their respective existing tariffs and NTBs on all commodities? The econometric study in Chapter 3 provides estimates on the relationship between imports and the trade barriers including tariffs and some forms of NTBs. As an application of the previous study, two related aspects are covered: the facts -- presentation of the data from our database on the tariff and non-tariff barriers faced by U.S. imports and exports; and the counter-factual analysis -- estimation of changes in U.S. imports and exports assuming all countries remove their existing tariffs and NTBs on all commodities.

In Chapter 5, we expand the scope of our study by estimating the effects of removal of tariffs among 14 countries and 2 regions, which, together, over the global trade. A Bilateral Trade Model (BTM) is employed to simulate the effects of tariff removal and quantify by sector how the imports and exports of each

country and regions respond to a complete removal of tariffs. We first introduce the important features of the existing BTM and then describe how it is upgraded to incorporate the trade protection factors. Finally, the simulation results for the 16 countries and regions under three different scenarios are presented and discussed.

In the Chapter 6, we make concluding remarks and suggestions for future research.

CHAPTER TWO:
GLOBAL TRADE PROTECTION: THE DATA

1. Introduction

Governments of almost all countries often intervene in trade across borders through the use of tariffs, quotas, and other non-tariff barriers (NTBs). Reductions in these trade restrictions are regularly achieved through multilateral trade negotiations or preferential trade arrangements. Complete and transparent disclosure of the trade protection data is the key to assessing the current situation of global trade protection and implementing any future trade liberalization plans. The United Nations Conference on Trade and Development (UNCTAD) has been tracking and compiling the information on world-wide trade protection measures for decades. The Trade Analysis and Information System (TRAINS), recently released by the UNCTAD, is the most comprehensive collection of publicly available information on tariffs and NTBs. It contains information on tariffs, NTBs and trade flows for most OECD countries and some 80 developing countries. For each basic Harmonized System good (6-digit level) of each country, it provides the average tariff rate, an NTB indicator and the corresponding value of imports. It therefore allows for a cross-country comparison of import controls. However, in order to obtain a complete picture of the situation on trade protection, it is desirable to have the information on how a country's outbound trade flows are restricted. Forming an idea of how a country's exports are restricted by its trading partners necessarily involves combining the information of the country's bilateral trade pattern with that of its trading partners' import regime. Since TRAINS does not provide bilateral trade data, we resort to a separate data source -- the World Trade Database (WTDB) produced by the Statistics Canada. By combining TRAINS and WTDB, we constructed a Trade Protection Database which adds to the original TRAINS the capability of providing data on trade barriers faced by each country's exports.

This chapter consists of six sections. After this introduction, we discuss the issue of trade protection measurement in section two. In section three, we briefly describe TRAINS and WTDB. Section four focuses on how the combination is carried out. An overview of the situation on global trade protection is made in section 5. Section six summarizes.

2. The Measurement of Trade Protection

This section is concerned with the measurement of trade protection for the purpose of trade policy modeling. Trade protection measures consist of two broad categories: custom tariffs and NTBs.

2.1 Tariffs

Customs tariffs are usually published in book form indicating the percentage of customs duty to be charged on commodities being imported, and they are typically classified according to national tariff classifications, which, based on Harmonized Commodity Coding and Classification System (HS), may contain as many as 13 digits. Since most of the tariffs are currently specified in

ad valorem form, measurement of tariffs entails taking the average of tariff rates at the tariff line level in order to obtain *ad valorem* tariffs at a more aggregated level. If it is desired to use some kind of weighting, an ideal but unavailable set of weights in these averages would be the level of imports that would have occurred if there were no barriers. [1]

Three alternative sets of weights are suggested instead of the ideal weights: home (importing) country imports, global imports and equal weights. However, each of these sets of weights is likely to depart substantially from the ideal. Weighting by home country imports understates the ideal rates if barriers are effective in reducing imports. In addition, the computed average tariff rates may be sensitive to the commodity structure of the imports distorted by protection. Weighting by total global imports can also suffer from downward bias if the commodity structure of barriers is similar in most countries. Moreover, since each country uses the same set of weights, the country-specific import structure is not taken into account. Unweighted averages seem likely to be an even worse approximation to the ideal average since barriers against commodities with negligible trade are treated the same as those against the imports of major commodities. In addition, like world import-weighted averages, unweighted averages also ignore different countries' characteristics that would cause differences in their free-trade import levels. It is also suggested that domestic output (or demand) should be used as weights instead of trade flow. However, since domestic output (or demand) data are usually not available at the tariff line level, it is still necessary to make simple averages of tariff lines to the point where the lowest level of output classification starts.

The average tariff rates generated by using different weighting methods can be utilized as indicators of home country's tariff barriers against all of its trading partners. However, tariff rates faced by different exporters may vary for a variety of reasons. Discriminatory rates could result from regional trade agreements and an importer's refusal to grant Most Favored Nation (MFN) status to a particular exporter. It is also argued that, in reality, implicit discrimination, operating through the composition of trade in country-specific tariff schedules, far outweighs in importance the explicit discriminatory tariff practices like preferential trading arrangements. So if one chooses to focus on the issue of bilateral tariffs, then, when the relevant average is taken, the bilateral trade flows should be employed as weights to account for the compositional differences in trade.

2.2 Non-tariff Trade Barriers (NTBs)

In the literature as well as practice, two different approaches have been adopted to quantify the NTBs. These alternative approaches differ considerably in their methodology and in the nature of their empirical results. The first approach attempts to quantify trade and other economic effects of NTBs, often through the estimation of their *ad valorem* equivalents. The second, often

1 See Nogues et al. (1986)

referred to as the "inventory" approach, has been used primarily to produce descriptive statistics on the kinds, pattern and frequency of use of NTBs.

For empirical modeling, an important input is the price effect or "price wedge" associated with each NTBs - often called the tariff equivalent of NTBs. This is the difference between the free world price of a product and the domestic price which is protected by NTBs. If world prices are genuinely free, they can be obtained from world commodity markets. They can then be compared directly with the domestic prices of identical products. It might also be possible to use an economic model of an industry, together with relevant supply and demand elasticities, to compute the price wedge based on observed changes in the volume of production and trade. Since no central records exist for non-tariff nominal equivalents, they must be independently estimated. As far as modeling disaggregated trade flows with a global scope is concerned, this approach is deemed impractical because it usually involves collecting data from various sources that not readily available.

The inventory approach is to record the number, form, and trade coverage of non-tariff trade policies as determined through surveys, frequency of complaints by trading partners and government reports. For empirical analysis involving NTB inventories, two indices have been designed. One measure is a frequency index (F*j*) showing the percentage of tariff lines covered by some pre-selected group of non-tariff measures, where N_i is *i*th tariff line, D_i is a dummy variable that takes a value of unity if one or more NTBs are applied to the *i*th item or zero otherwise. The above summation is made over all countries exporting to importing country *j*.

$$Fj = \frac{\sum D_i N_i}{\sum N_i} * 100$$

Given that matched tariff-line-level import statistics are available, in which individual countries of origin for shipments are identified, a second index showing the share of total imports subject to NTBs can be computed. This trade coverage ratio (C_j) is defined as,

where $V_{i,\,t-n}$ represents the value of imports in tariff-line item *i* in year (*t-n*), and $D_{i,t}$ is a dummy variable that takes a value of unity if an NTB is applied to the item and zero otherwise. If *n* and *m* are zero, the index is based on current trade values, otherwise it is expressed in a base year's trade weights. Holding *n* constant and varying *m* will measure the effects of changes in effective protection with constant trade weights, whereas holding *m* constant and varying *n* will measure the effects of changes in effective protection caused by changes in the structure of trade.

$$C_j = \frac{\sum D_{i,t-m} \times V_{i,t-n}}{\sum V_{i,t-n}} * 100$$

Since both the frequency index and the coverage ratio are numbers falling into the range between 0 and 1, in empirical analysis, they are typically

treated as if they were average *ad valorem* tariff rates and used as explanatory variables in models explaining trade flows at an aggregate level. In the literature, almost all the empirical studies which involve NTBs in a multi-country and multi-sector context have used one of those two ratios as NTBs indicators.

A point to note, however, is that the inventory data are compiled mainly from official publications such as national customs schedules or GATT notifications. The reliance on official sources may cause underestimating the importance of some NTBs. Furthermore, the import coverage ratio and frequency ratio measure the extent to which imports are subject to NTBs and not the degree to which they are restricted. Finally, since the coverage ratio involves the value of imports, those drawbacks associated with tariffs when the import-weighted average of *ad valorem* tariff rates are being computed will also exist in the case of NTB.

3. The TRAINS and The WTDB

As noted above, the measurement of trade protection across industries and countries involves computing the average *ad valorem* tariff rates and NTB coverage ratios based on very detailed data of tariffs, NTBs and corresponding trade flows.

3.1 The Trade Analysis and Information System

The United Nations Conference on Trade and Development (UNCTAD) has been tracking and compiling the information on world wide trade protection measures for decades. The Trade Analysis and Information System (TRAINS), recently released by the UNCTAD, is acclaimed by a leading figure in this field as "the most comprehensive collection of publicly available information" on tariffs and NTBs.[2] It contains, inter alia, information on tariffs, NTB and trade flows for most OECD countries and some 80 developing countries. TRAINS enables users to extract information on trade protection measures, and the associated trade flows. The data are reported for the year of 1994 for most of the countries. For each basic Harmonized System item (6-digit level), it allows for a cross-country comparison of indicators on the import regime, such as the average of tariff rate and the NTBs frequency ratio; likewise, it allows the same comparison to be made of import values. Tariff schedules for most countries contain between 5,000 and 10,000 tariff lines and products.

Tables 2.1 and 2.2 illustrate the type of data available in TRAINS. Table 2.1 shows a sample of data on U.S. imports for a few apparel products. For each 6-digit HS item, TRAINS reports , for each country, the value of imports, the Most Favored Nation (MFN) tariff rate, the rate of total charge (tariffs plus customs fees) and the NTB coverage ratio. For example, for Overcoats of man-made fibers (HS code 620193), the value of U.S. imports is about is about $1.1 million. The total rate of charge (tariffs plus other custom fees) on this good is 16.1 percent, and the NTB coverage ratio is 100 percent. For NTBs, in addition to the coverage ratio, TRAINS also provides detailed information on the nature

2 Laird, S.(1996)

of the NTBs at the 8-digit HS level. For example, for Overcoats of man-made fibers (HS 620193), there are five subcategories in the U.S. HS scheme. Each of the five subcategories is subject to several types of NTB measures, which explains the NTB coverage ratio of 100 percent for the 6-digit category shown in Table 2.1. These NTB measures imposed by the U.S. are shown in Table 2.2 for the five subcategories. Each is subject to several components of the Multi-Fiber Agreement. In addition, other types of barriers are present for some of these products.

Table 2.1: The U.S. Imports Regime in 1994 for Selected Apparel Products

Product	Import ($1000's)	MFN Range(%)	MFN Average(%)	Total Charge(%)	NTB Ratio(%)
611599	4,164	8 - 20	13.2	13.2	75
611610	82,569	0 - 25	13.8	13.8	30
611691	12,031	9 - 9	8.7	8.7	100
611692	80,781	0 - 25	12.3	12.3	33.3
611693	93,325	0 - 19	10.1	10.1	66.7
611699	4,059	0 - 20	8.4	8.4	50
611710	20,456	8 - 12	9.8	9.8	75
611720	3,286	6 - 7	6.7	6.7	100
611780	35,314	12 - 15	14.3	14.3	25
611790	8,251	12 - 15	13.4	13.4	100
620111	55,785	21 - 21	20.9	20.9	100
620112	51,715	5 - 10	7.2	7.2	100
620113	28,548	5 - 29	18.4	18.4	100
620119	3,354	2 - 3	2.5	2.5	100
620191	18,647	14 - 23	18.5	18.5	100
620192	325,582	5 - 10	7	7	100
620193	1,120,678	5 - 29	16.1	16.1	100
620199	28,203	3 - 4	3.8	3.8	100
620211	96,758	21 - 21	21	21	100
620212	56,557	5 - 9	7	7	100
620213	77,826	5 - 29	18.5	18.5	100
620219	6,055	2 - 3	2.5	2.5	50
620291	24,723	16 - 21	18.5	18.5	100

Source: UNCTAD, 1996, Trade Analysis and Information System.

Table 2.2: Types of Non-Tariff Barriers Imposed by the U.S. in 1994 on Overcoats of Man-made Fibers (HS Code 620193)

62019310	62019320	62019325	62019330
MFA export restrains	MFA export restrains	MFA export restrains	MFA export restrains
MFA quota agreement	MFA quota agreement	MFA quota agreement	MFA quota agreement
MFA consultation agreement	MFA consultation agreement	MFA consultation agreement	MFA consultation agreement
	Countervailing duties	Antidumping duties	Countervailing duties
			Antidumping duties

Source: UNCTAD, 1996, Trade Analysis and Information System.

Empirical trade policy models necessarily incorporate trade policies based on aggregations of these tariff lines. TRAINS, as the examples above illustrate, has a great deal of detail. However, when aggregates are extracted from TRAINS, they are only unweighted averages of tariff rates and NTB frequency ratios. Moreover, since TRAINS does not have data on the bilateral trade flows, it cannot provide information on either the bilateral trade protection or the trade barriers faced by outbound trade flows, both of which are particularly important and interesting as far as the trade relationship among a group of countries is concerned. The Trade Protection Database, described below, will overcome these limitations of TRAINS.

3.2 The World Trade Database (WTDB)

Since TRAINS does not provide bilateral trade data, we use a separate data source – the World Trade Database (WTDB) prepared by the Statistics Canada. The main source for bilateral trade data is the United Nations Statistical Office, which collects trade data from individual countries and publishes annual yearbooks of International Trade Statistics. But the UN Statistical Office does not attempt to supplement the reported data to fill in missing values or make data consistent across countries or years. Statistics Canada has compiled the UN trade data on a consistent basis with commodities defined in terms of the Standard International Trade Classification (SITC) Revision 2. The resulting data set is called the World Trade Database (WTDB) and it produces annual bilateral trade values for all countries over the period of 1980-95 at the level of 4-digit SITC detail. The value of trade is measured consistently in thousands of U.S. dollars. Valuation is performed to ensure the dollar value of exports will equal the dollar value of imports for world trade in each commodity. The trade flow data reflects reported imports.

Table 2.3 shows a sample of data extracted from the WTDB for a few U.S. imports from Singapore. For each data record, the WTDB reports the importer, exporter, product, and the time series of the corresponding bilateral trade flows. For example, in 1995 the U.S. imported form Singapore about $ 3.1 million of the commodity under Fatty acids, acid oils, and residues (SITC 4313).

Table 2.3: The Bilateral Trade Flows between the U.S. and Singapore
(In thousands of US Dollars)

Importer	Exporter	SITC	1990	1991	1992	1993	1994	1995
218400	457020	4111	0	0	22	0	0	0
218400	457020	4113	57	104	44	101	49	16
218400	457020	4232	0	24	273	115	3436	4960
218400	457020	4239	0	0	0	0	0	16
218400	457020	4241	0	11	12	0	20	0
218400	457020	4243	0	60	0	0	0	8
218400	457020	4249	1002	1666	2514	9563	5839	12317
218400	457020	4313	799	1206	1244	1016	3291	3126
218400	457020	4314	163	99	130	61	107	195

4. The Trade Protection Database

The TRAINS and the WTDB are both unique in that they collect the most comprehensive information on trade protection measures and bilateral trade flows, respectively. By combining them together, we create Trade Protection Database (TPD) which has the capability of providing information on the trade barriers faced by a country's exports as well as on the regular import barriers imposed by the country itself. From the TRAINS, we can extract three types of data for each item of 6-digit HS: (1) the *ad valorem* nominal rate for the total import charges which includes all duties and customs fees collected at national border, (2) NTBs frequency ratio, and (3) the corresponding value of imports. For simplicity, we call the rate of total import charges as "tariff rates" below.

Because the WTDB is classified by SITC, we converted the TRAINS data from its HS classification to SITC. With the help of a concordance table between 6-digit HS and 4-digit SITC, we computed the import-weighted tariff rates and NTB coverage ratios at the 4-digit SITC for each country. Bilateral tariff rates and NTB coverage ratios at higher level of aggregation than 4-digit SITC are computed by aggregating the 4-digit SITC average tariff rates and NTB coverage ratio to the desired level with the 4-digit SITC bilateral import values as weights.

As pointed above, use of the detail is important because significant differences can occur among aggregated tariff rates or NTB coverage ratios for a broadly defined commodity aggregate (Apparel, for example) that is imported from different countries. For example, within a commodity aggregate, imports from developing countries may be mostly primary or semi-processed goods, while imports from developed countries may be mostly processed goods. If tariff rates vary with the stage of processing, as they often do, then for a commodity aggregate, the average tariff faced by exports from developing countries will differ in a systematic way from that faced by developed countries. In the TPD, we capture this distinction by deriving aggregated from 4-digit SITC bilateral detail.

The final computation allows us to examine barriers from the perspective of exporters. The tariff rates and NTB coverage ratios faced by a country's exports were computed as the weighted average of all the tariff rates of its trading partners, using its exports to each country as the weights.

The resulting TPD consists of three kinds of matrices: bilateral trade flows, bilateral tariff rates, and bilateral NTBs coverage ratios, each for one category of commodity at desired level of aggregation based on 4 digit SITC. The dimension of the matrix varies according to how the trading partner countries are grouped. For a visual sample of the matrices, the appendix to this chapter presents a 63 by 63 matrices for tariff rates, coverage ratios and trade flows at the highest aggregated level. Since the matrices are too large to fit on one page, we have to break each of the three large matrices into four panels: upper left, lower left, upper right, and lower right.

5. Global Trade Protection: An Overview

Before we examine the sectoral details of a specific country, it is useful to get a general picture of the current situation in global trade protection. In this section, we present an overview based on the TPD from two perspectives: country and industry.

5.1 Global Trade Protection: A Country Perspective

The bilateral trade protection matrix is the core of the TPD, which contains very rich information for comparing trade protection regimes of different countries. In the matrix of a specific commodity, the element in row i and column j, a_{ij}, is the tariff rate or NTB coverage ratio imposed by country i on exports from country j. Therefore, the elements down a column are the import tariff rates or NTB coverage ratios imposed by a column country against its trading partners, and the elements across a row are the tariff rates or NTBs coverage ratios imposed upon the row country's exports by each of its trading partners. Taking the average of each column, we can get, for a specific category of commodity, the tariff rates or NTBs coverage ratios imposed by column countries. Similarly, taking the average of each row, we can get the average tariff rates or NTBs coverage ratios faced by each of the row countries. Therefore, we can find out which country is protected or being protected against the most by what kind of trade protection measures. Furthermore, by comparing the variation of numbers across each column or row, we can get an idea of how discriminatory certain country's import regime is or whether a country is being treated equally by its trading partners.

Table 2.4 shows the column mean and other statistical indicators for the bilateral trade protection matrix in 1994 at the highest aggregation level. For each country, we list the average tariff rate, NTBs coverage ratio, and the corresponding coefficient of variation (COV)[3], which we use as an indicator of the degree of discrimination of that country's import regime. The table is sorted by the average tariff rate. A country is more protected the higher the tariff rate or NTBs coverage ratio. A country's import regime is deemed more discriminatory the larger its coefficient of variation. In table 2.5, we compute the Spearman rank correlation of per capita GNP of each country with its average tariff rate, NTBs coverage ratio and the coefficient of variation, respectively.[4]

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[3] Coefficient of variation is defined as the ratio of standard deviation over mean.

4 See Kendall, Maurice and Jean Dickinson Gibbons (1990) for detailed discussion of rank correlation; the number in the parenthesis is: Probability > | Computed Coefficient | under H_0: Real Coefficient = 0; namely, the smaller this number is, the more statistically significant is the computed correlation coefficient.

Table 2.4: Trade Protection Imposed by Each Importing Countries

	Tariff		NTBs	
Country	AVE (%)	COV	AVE (%)	COV
Bangladesh	45.10	0.90	2.87	2.86
Algeria	21.85	0.84	15.60	1.99
Tunisia	21.72	0.57	6.84	2.66
India	19.09	0.72	10.58	1.23
Philippines	18.72	0.63	0.00	0.00
Kenya	18.65	0.89	0.00	0.00
Egypt	16.59	0.86	0.00	0.00
Jamaica	14.19	1.01	28.30	1.02
Mauritius	13.25	1.01	0.00	0.00
Sri Lanka	12.63	0.87	0.02	4.66
Poland	12.61	0.53	0.00	0.00
Madagascar	12.33	0.85	0.00	0.00
Hungary	12.09	1.13	0.00	0.00
China	12.00	0.81	2.21	2.49
Cameroon	11.50	0.79	0.00	0.00
Cote D'ivoire	11.32	0.87	0.00	0.00
Mexico	11.26	0.67	17.11	1.39
Peru	11.16	0.53	5.88	2.88
Argentina	10.51	0.57	5.49	1.89
Congo	10.48	1.12	0.00	0.00
Ecuador	10.11	0.73	0.00	0.00
Venezuela	10.09	0.61	11.79	1.87
Gabon	9.79	0.60	0.00	0.00
Malawi	9.78	1.26	0.00	0.00
Nicaragua	9.52	0.95	4.45	4.36
Bolivia	9.40	0.97	0.00	0.00
Thailand	9.14	0.64	17.22	1.70
Chile	9.01	0.43	3.47	3.96
Costa Rica	8.87	1.20	0.00	0.00
Brazil	8.72	1.08	11.73	1.63
Dominican RP	8.42	1.12	0.00	0.00
Central Afr. Rep.	8.31	1.23	0.27	6.52
Chad	8.25	1.30	0.00	0.00
Trinidad TBG	8.15	0.82	0.00	0.00
Uruguay	7.90	0.78	2.01	2.53
Saudi Arabia	7.71	0.72	0.04	6.50
Korea RP	7.48	0.69	0.16	4.07
Guatemala	7.21	0.79	0.00	0.00
Turkey	7.13	1.00	0.62	2.08
Honduras	6.77	0.85	0.00	0.00
Morocco	6.19	1.59	2.56	2.48
Indonesia	6.04	0.73	0.00	0.00
South Africa	5.81	0.78	0.00	0.00
Paraguay	5.74	1.00	0.00	0.00
El Salvador	5.67	1.08	13.21	1.35
Colombia	5.23	1.08	0.00	0.00
Malaysia	5.19	1.36	5.46	2.58
Canada	5.16	0.93	13.16	1.56
Czechoslovakia	4.79	0.63	0.36	5.72
USA	4.67	1.36	19.76	1.01
European Union	4.45	0.60	22.16	1.07
Norway	3.87	1.19	6.55	2.04
Iceland	3.79	1.33	0.71	3.76
New Zealand	3.62	0.91	0.89	4.85
Australia	3.53	0.77	0.90	3.15
Oman	3.43	1.43	2.85	2.62
Israel	3.28	1.27	0.00	0.00
Japan	2.81	0.71	2.71	1.42
Singapore	0.00	0.00	3.16	3.83
Switzerland	0.00	0.00	0.00	0.00
Hong Kong	0.00	0.00	0.00	0.00

Table 2.5: Rank Correlation Between Per Capita GNP and Import Regime Indicators

No. of Observations: 61

	Rate/Ratio	Degree of Discrimination
Tariff	-0.71 (0.00)	-0.24 (0.06)
NTBs	0.27 (0.04)	0.27 (0.03)

The correlation coefficients show that, in a relative sense, the richer a country is, the lower is its average tariff rate, and the less discriminatory is its tariff structure. However, when it comes to the NTBs, the situation is exactly the opposite: the richer a country is, the higher is its average NTBs coverage ratio, and the more discriminatory is its NTBs structure. In a word, mixed results come out of the efforts to discover the relationship between the level of a country's per capita income and its import protection regime. Two explanations can be put forward. First, implementing NTBs usually involves high administrative cost and thus poor countries tend to resort to tariffs both as a means of protection and as source for revenues in government finance; second, countries, especially developed ones, use NTBs to offset the diminished tariffs negotiated in the various GATT rounds.

In table 2.6, we list the same statistics as table 2.4 except that this time they are computed for the rows. Thus we are comparing protection faced by exports out of different countries. Again, the table is sorted by the average of tariff rates, with the countries at the top suffering the most protection from the rest of world. The rank correlation coefficients between per capita GNP and trade protection indicators are as follows:

Table 2.7: Rank Correlation between Per Capita GNP and Protection Faced by Exporting Countries

No. of Observations: 61

	Rate/Ratio	Degree of Being Discriminated against
Tariff	0.17 (0.20)	-0.49 (0.00)
NTBs	-0.32 (0.01)	-0.41 (0.00)

Table 2.6: Trade Protection Faced by Each Exporting Countries

	Tariff		NTBs	
Country	AVE (%)	COV	AVE (%)	COV
Mauritius	10.67	1.49	9.11	2.45
China	10.31	1.21	3.17	3.75
Madagascar	10.20	1.68	1.65	3.78
Bolivia	10.10	1.47	6.57	3.12
Ecuador	9.88	1.35	6.59	3.13
Hungary	9.84	1.38	6.71	2.11
Sri Lanka	9.71	1.45	5.24	2.85
Morocco	9.69	1.52	4.54	2.17
Guatemala	9.40	1.70	7.23	3.03
Iceland	9.22	1.50	1.02	3.71
Hong Kong	9.19	1.56	5.52	1.93
Cameroon	9.10	1.74	4.78	4.06
Argentina	9.03	1.45	6.53	2.45
New Zealand	8.70	1.39	5.91	2.92
Turkey	8.66	1.62	5.52	2.24
Colombia	8.56	1.29	4.96	3.75
Trinidad TBG	8.48	1.71	2.94	3.87
Korea RP	8.46	1.60	5.23	1.85
Singapore	8.41	1.62	3.19	2.04
Czechoslovakia	8.31	1.25	3.05	2.32
Oman	8.21	1.29	2.67	2.83
Jamaica	8.18	1.53	3.94	1.93
South Africa	8.16	1.56	2.44	2.41
Bangladesh	8.14	1.25	8.24	2.69
Chile	8.14	1.29	3.05	4.27
Egypt	8.02	1.37	5.70	2.51
Japan	7.96	1.54	4.10	2.29
Malawi	7.93	1.50	0.97	4.96
Uruguay	7.90	1.45	5.70	2.92
Tunisia	7.86	1.26	5.31	2.86
Malawi	7.60	1.59	3.81	2.49
Peru	7.57	1.40	2.69	2.69
Thailand	7.27	1.64	4.07	2.46
Gabon	7.25	1.34	5.22	2.56
El Salvador	7.13	1.36	9.59	2.58
Mexico	7.06	1.30	2.86	2.97
Australia	7.06	1.54	2.45	2.57
Cote D'ivoire	6.94	1.47	1.35	4.80
Poland	6.93	1.52	2.93	2.68
Philippines	6.84	1.60	5.65	2.62
Canada	6.79	1.53	3.84	2.90
Brazil	6.78	1.34	2.33	2.46
Switzerland	6.71	1.69	2.08	3.18
European Union	6.69	1.60	4.15	1.91
Venezuela	6.68	1.37	3.97	4.23
Nicaragua	6.52	1.27	2.44	4.33
Honduras	6.50	1.36	3.63	4.03
Norway	6.41	1.68	2.12	2.51
Kenya	6.39	1.54	3.77	3.83
Israel	6.30	1.82	3.74	3.00
USA	6.08	1.46	2.78	2.34
India	5.79	1.22	5.20	2.30
Dominican RP	5.69	1.35	3.13	3.38
Paraguay	5.37	1.28	4.59	3.28
Saudi Arabia	5.24	1.22	2.42	5.37
Algeria	5.04	1.84	2.21	5.93
Indonesia	5.01	1.27	3.94	3.66
Chad	3.95	1.82	1.10	7.24
Congo	3.72	1.70	0.23	7.65
Central Afr. Rep.	3.69	2.34	0.53	5.31
Costa Rica	3.38	1.42	4.11	4.43

5.2 Global Trade Protection: An Industry Perspective

For each matrix, the last column and row stores the averages of the corresponding row and column, respectively. One element in the matrix which has been left out so far on purpose is the one in the lower right corner, and it holds the weighted average of all the elements other than those in the last column and row. Since we have a trade protection matrix for every commodity, the number in the right low corner of a matrix can be interpreted as the average tariff rate or NTBs coverage ratio imposed on that specific group of commodity on the world market. In the current version of TPD, the commodities have been aggregated according to Inforum 120-trade-sector scheme.[5] Taking the number in the lower right corner of each of the 120 matrices, we get the average tariff rates and NTBs coverage ratios imposed upon commodities from those 120 sectors, which help us to examine the global trade protection from an industry perspective. Table 2.8 and 2.10 list the twenty most- and least-protected trade sectors by tariffs and NTBs, respectively.

Four rank correlation coefficients are calculated in table 2.9 and 2.11: the first is between the tariff rates and NTBs coverage ratios, the second between their respective ratios of standard deviation, and the last two are those between industries' world trade shares and tariff rates/NTBs coverage ratios. The findings are: in a relative sense, if an industry is highly protected and discriminated against by one type of trade barriers, it tends to be highly protected and discriminated against by the other type as well. A high level of protection appears to be given to large trade sectors.

5.3 Summary

Despite many years of multilateral trade negotiation and unilateral cuts in trade protection measures, the current level of overall trade protection is still high. It also varies considerably across countries and industries. Without digging into commodity details, we examine the overall trade protection regime from two perspectives: country and industry. Here are some findings:

- Countries of lower income tend to impose higher tariffs and more discriminatory tariff structure against imports from their trading partners.
- Counties of higher income tend to impose higher NTBs and more discriminatory NTBs structure against imports from their trading partners.
- Exports coming out of higher income countries tend to be more protected but less discriminated against in the form of tariffs by the rest of the world.
- Exports coming out of lower income countries tend to be more protected and discriminated against in the form of NTBs by the rest of the world.
- If an industry is highly protected and discriminated against by one type of trade barrier, it tends to be highly protected and discriminated against by the other type as well.
- High level of protection tends to be given to large trade sectors.

[5] In terms of the level of aggregation, Inforum 120 trade-sector scheme is roughly in concordance with 4 digit International Standard Industrial Classification (ISIC).

Table 2.8: Trade Protection Across Industries by Tariffs

Sector	Share of World Trade	AVE (%)	COV
Twenty Most Protected Trade Sectors			
36 Wearing apparel	3.40	61.1	1.45
35 Floor coverings	0.20	58.4	1.58
33 Cotton fabric	0.42	48.8	1.45
34 Other textile products	1.64	40.7	1.50
32 Yarns and threads	0.90	33.8	1.58
20 Preserved fruits,vegetables	0.67	27.4	2.58
27 Food products n.e.c.	0.87	24.6	1.74
6 Cotton	0.18	24.5	1.88
7 Wool	0.10	23	2.46
12 Coal	0.35	21.1	3.12
25 Sugar	0.27	20.9	1.34
107 Motorcycles and bicycles	0.15	18	1.50
29 Alcoholic beverage	0.60	15.4	1.71
62 Cement	0.09	15.4	2.11
1 Unmilled cereals	0.65	15.1	1.86
39 Footwear	0.82	15.1	1.69
67 Aluminum	0.84	15	2.06
22 Vegetable,animal oils,fats	0.70	14	1.85
23 Grain mill products	0.23	13.9	1.59
48 Fertilizers	0.52	13	1.96
Twenty Least Protected Sectors			
113 Watches and clocks	0.42	0.4	3.97
46 Printing,publishing	0.51	0.3	2.41
110 Other transport equipment	0.19	0.3	2.53
115 Musical instruments	0.11	0.3	3.50
8 Other natural fibers	0.01	0.2	2.86
42 Furnitures and fixtures	0.91	0.2	3.60
44 Newsprint	0.22	0.2	4.03
50 Paints,varnishes,lacquers	0.24	0.2	3.53
79 Other power machinery	0.06	0.2	4.03
13 Non-ferrous metal ore	0.40	0.1	4.03
41 Other wood products	0.41	0.1	2.59
76 Boilers and turbines	0.48	0.1	4.03
77 Aircraft engines	0.30	0.1	4.03
11 Iron ore	0.15	0	0.00
17 Electrical energy	0.16	0	0.00
57 Product of coal	0.05	0	0.00
68 Nickel	0.08	0	4.03
104 Warships	0.00	0	0.00
109 Aircraft	1.56	0	4.03
118 Works of art	0.14	0	0.00

Table 2.9: Rank Correlation between Tariff Rate and NTBs Coverage Ratio Across Industries

No. of Observations: 120

Rates/Ratios	Degree of Being Discriminated
0.53 (0.00)	0.19 (0.04)

Table 2.10: Trade Protection Across Industries by NTBs

Sector	Share of World Trade	AVE (%)	COV
Twenty Most Protected Trade Sectors			
29 Alcoholic beverage	0.60	33.16	1.26
31 Tobacco products	0.48	30.06	1.10
36 Wearing apparel	3.40	24.54	0.66
106 Motor vehicles	6.21	24.53	0.88
35 Floor coverings	0.20	24.45	0.77
39 Footwear	0.82	24.25	0.68
30 Non-alcoholic beverage	0.09	24.20	0.77
24 Bakery products	0.20	23.70	0.75
20 Preserved fruits,vegetables	0.67	23.67	0.86
38 Leather products	0.40	23.18	0.73
18 Meat	1.00	22.08	1.47
42 Furnitures and fixtures	0.91	21.93	0.73
2 Fresh fruits,vegetables	0.65	21.63	1.83
52 Soap,other toilet preparations	0.60	21.44	0.80
95 Household electrical appliances	0.67	21.00	0.80
33 Cotton fabric	0.42	20.24	0.88
25 Sugar	0.27	19.98	1.07
119 Manufactured goods nec	1.02	19.95	0.79
26 Cocoa, chocolate,etc	0.39	19.90	0.74
63 Ceramics	0.33	19.75	0.77
Twenty Least Protected Trade Sectors			
16 Non-metallic ore	0.26	7.38	1.28
78 Internal combustion engines	2.09	6.90	1.13
51 Drugs and medicines	1.35	6.75	1.24
8 Other natural fibers	0.01	6.53	1.57
44 Newsprint	0.22	6.37	1.16
55 Fuel oils	0.95	5.94	1.02
109 Aircraft	1.56	5.81	1.19
120 Scraps,used,unclassified	3.75	5.80	1.46
43Pulp and waste paper	0.54	5.47	1.78
6 Cotton	0.18	5.39	1.20
5 Silk	0.01	5.08	2.98
13 Non-ferrous metal ore	0.40	4.86	1.25
57 Product of coal	0.05	4.62	1.58
12 Coal	0.35	4.43	1.49
15 Natural gas	0.61	4.42	1.19
14 Crude petroleum	3.62	3.80	2.02
7 Wool	0.10	3.78	1.48
11 Iron ore	0.15	1.85	2.16
17 Electrical energy	0.16	0.15	4.39
104 Warships	0.00	0.00	0.00

Table 2.11: Rank Correlation between Industry's Trade Share and Tariff Rate/ NTBs Coverage Ratio across Industries

No. of Observations: 120

Tariffs	NTBs
0.23	0.11
(0.01)	(0.24)

CHAPTER THREE:

ESTIMATING THE IMPORT-REDUCING EFFECTS OF TRADE BARRIERS

1. Introduction

In this chapter, an econometric investigation of trade protection barriers across countries and industries is presented. Specifically, we use a model that is based on the monopolistic competition trade model and 1994 cross-country data on trade barriers, trade flows, and production to estimate the import-reducing effect of trade barriers including both tariffs and NTBs. We used the most updated disaggregated cross-country, cross-industry data on manufactured goods and, unlike previous studies, our sample covers a broad range of countries -- more than 70 in all -- including countries from the most developed ones like those in the G-7 group to the least developed ones such as Bangladesh. By pooling across both industries and countries, we can conduct estimation based on a very large sample of data, an important advance over the previous studies. Moreover, since we have access to the most updated data, the results from this study contribute to a better understanding of the recent situation on the relevant issues. Other studies known to us use data now at least ten years old data. We estimate the effects of both tariffs and NTBs, with the latter being categorized into several different types according to their functional features. In the equation estimation, we specify an empirical model which is capable of capturing the stylized facts fairly well and helps generate more sensible and econometrically efficient estimates. Finally, our econometric framework is designed to control for the simultaneous determination of flows, trade barriers and production.

This chapter has six sections. The next section reviews the literature. In section III, we specify an empirical model based on the monopolistic competition model of trade. Section IV is devoted to the description of how the data set in this study is constructed. In section V, we discuss the estimation and present the results. The last section concludes.

2. Review of Literature

Three important factors contribute to a successful estimation of the effects of trade barriers: (1) theoretical foundation, (2) empirical model specification and (3) data support. In this section, I will briefly review the literature from those different perspectives.

2.1 An Overview of the literature

This study is built upon a relatively small amount of literature. The topic has long intrigued the profession, however, the substantial data requirement usually involved in this kind of study is so demanding that comprehensive studies did not appear until late 1980's, when progress in information technology made the task less onerous. In table 3.1, we briefly summarize the key features of several representative studies closest to this one.

Table 3.1: Summary of Representative Studies

Author(date)	Theoretical Model	Data Sample Coverage	Empirical Model	Major Findings
Leamer (1988a)	Generalized factor proportions model	Fourteen OECD countries; nineteen commodity categories in 1978.	Regress domestic output on capital, labor, tariffs and commodity dummies; also do the same regression for each industry separately.	Measured trade barriers have a clear effect on the composition of output; Credible estimates of trade barriers may require simultaneous treatment for the trade barriers.
Leamer (1990)	Generalized factor proportions model	Fourteen OECD countries; ten commodity categories in 1983.	Regress imports on tariffs and NTB's with importer and commodity dummies; Baysian method is used to help to generate sensible coefficient estimates which vary across importers and commodities.	The model that accounts for differences in commodities and countries shows that NTB's effects are difficult to detect, whereas the effects of tariffs are more substantial.
Lawrence (1987)	Monopolistic Competition Model	Thirteen OECD countries for the period of 1970-1983; Twenty-one manufacturing sectors.	Regress import penetration ratio on world production share, distance and country dummy.	Japan has an unusually low volume of imports in manufactures.
Harrigan (1993)	Monopolistic Competition Model	Thirteen OECD countries; Twenty-eight manufacturing sectors in 1983.	Regress the share of bilateral imports in aggregate spending on exporting countries' output, bilateral trade barriers and transport cost.	In 1983, imports were not reduced very as much by NTBs; transport cost and tariffs had large negative effects on imports.

Table 3.1: Summary of Representative Studies (continued)

Author(date)	Theoretical Model	Data Sample Coverage	Empirical Model	Major Findings
Ray (1981b)	Generalized factor proportions model	The U.S. data in 1970 at 4-digit SIC level	Imports and trade barriers equation are simultaneously estimated; factor intensity and NTBs are included in the imports equation.	The NTBs have no apparent concurrent impact in the structure of imports across the manufacturing sectors.
Trefler (1993)	Generalized factor proportions model	The U.S. data in 1983 at BEA Input-Output classification level.	Import penetration ratio equation and NTBs equation are simultaneously estimated in a Tobit model; factor shares and NTBs are included in the import penetration ratio equation.	When NTB are modeled endogenously, their restrictive impact on imports is much larger than otherwise.
Lee and Swagel (1995)	Monopolistic Competition Model	Forty countries; twenty-eight manufacturing sector in 1988.	Import penetration ratio and NTBs are simultaneously determined; output share, distance and trade barriers are included in import equation.	The structure of NTBs across countries and industries can be explained by sectoral conditions, which is consistent with the political-economy explanations of trade protection.
Harrigan (1996)	Monopolistic Competition Model	Twenty OECD countries; Twenty-eight manufacturing sectors in 1985.	Regress bilateral imports on exporting countries' output and commodity, exporter, and importer dummies.	The openness between Japan, the US and the EU countries differs significantly.

2.2 Theoretical Foundation

When studying the effects of trade barriers on trade flows, a natural starting point is a theoretical model describing what trade patterns would be in absence of trade barriers. The usual practice in the literature is then to modify the original model by adding variables related to trade barriers. Therefore, how one models the effects of trade barriers on trade flows, to a large extent, depends on one's choice of trade determination model.

The Ricardian model is the cornerstone of international trade theory, and it attributes comparative advantage entirely to differences in labor requirements of production. Its most important implication is that there is complete specialization in equilibrium under free trade. If relative labor costs of production could be observed, a simple regression of trade on these labor costs would suffice to test the theory and then make inferences on the trade pattern. However, observing relative labor requirements has at least two almost insurmountable obstacles: first, relative labor requirements are just as difficult to observe as relative autarky prices; second, comparing labor requirements in all countries of the world poses prohibitively practical difficulties. It is no surprise that we do not find, in the literature, any study of the trade barriers effects being made within the Ricardian framework.

The Heckscher-Ohlin (H-O) model has occupied a central place in trade theory for much of the post-war period. It says that countries will tend to export those goods which use relatively intensively the relatively abundant factors of production. Put differently, countries will tend to export the services of their abundant factors, embodied as factor content in the goods they trade. The H-O model is generally regarded as superior to the Ricardian model because it offers an intellectually more sophisticated explanation of trade. Leontief's (1954) seminal application of the H-O model of factor proportions stimulated a large body of research that continues today in an effort to more rigorously test the theory. Nonetheless, it remains true that no unambiguously correct and conclusive test has been formulated and applied. Realizing that a full understanding of trade pattern seems to require some departure from the H-O assumptions, economists resort to a "generalized factor proportions model" as a theoretical basis for empirical work and adopt a new strategy which is, as characterized by Leamer and Levinsohn (1994), "estimate, don't test!". The generalized factor proportion model allows for factors beyond just capital and labor. As a general approach to understanding trade, the factor proportions theory has stood remarkably well to the empirical scrutiny of commodity composition of trade.

Within the framework of the generalized factor proportions model, Edward E. Leamer is the leading figure in exploring the empirical issues on the effect of trade barriers. In a series of studies which started as Leamer (1974) and culminated as Leamer (1990), Leamer gives this issue a more persistent and comprehensive treatment than anyone else does in the literature. Leamer's contributions range from a building theoretical foundation for empirical models

suitable for cross-section estimation, and discussing the data problems caused by the dimension of the data sets to applying particular econometric techniques to the estimation of the effects of trade barriers. Leamer (1990) estimates the effects of trade barriers based on cross-country as well as cross-commodity variability of barriers and imports. Although it has been hailed as the best attempt at the relevant issues, Leamer's model is not free from the common weakness of the factor proportion model, namely its inability to address issues of the bilateral patterns and gross volume of trade. In a strict sense, the model derived by Leamer is for the determination of net trade flows. However, when it comes to the empirical study, the trade barriers' impact on gross import is what should be under investigation. In a word, Leamer's empirical model specification is supported only by a loose theoretical justification.

Beginning in the late 1970's, an initially small group of theorists began to develop a different approach to international trade, which later became known as the New Trade Theory. This line of work was, in part, motivated by the observation that much international trade appears to be in goods that are quite similar. The core of the new trade theory is the so-called monopolistic competition trade model as summarized in Helpman and Krugman (1985). Two major assumptions distinguish the monopolistic competition trade model from various traditional factor proportions models. The first is that there are internal economies of scale at the level of the firm; the second is that there is an aggregate demand for variety in goods. This demand for variety can come from variety-loving and/or heterogeneous consumers, or from final goods production processes that make use of differentiated intermediate products (Ethier, 1988). Because of the interaction between scale economies and demand for variety, in equilibrium each firm in an industry produces a single differentiated product.[6]

One of the major implications of the model is that the volume of trade is much larger than it would be if differences in international factor endowments were the only cause of trade. The model gives predictions about the equilibrium volume of trade:[7]

$$M_j^n = s_j (y^n - y_j^n) \qquad (1)$$

where M_j^n is the total gross import of good *n* by county *j;* m_{ij}^n is the gross import

$$m_{ij}^n = s_j y_i^n \qquad (2)$$

of good n by country *j* from country *i*, s_j is country *j*'s share of total world

[6] Bhagwati, Panagariya and Srinivasan (1998) provide an excellent survey of various kinds of models in this literature.

[7] The assumptions are: identical, symmetric, homothetic preferences worldwide; identical technology; sufficiently 'similar' factor endowments; and free trade.

spending; y_j^n is output of industry *n* in country *j*; y^n is the total world production of good *n.* Equation (1) and (2) provide a basic framework to estimate trade pattern and gross volume of trade. This frictionless model predicts that a country's import of good *n* is proportional to the amount of good *n* produced outside that country.

Lawrence (1987) was the first to use the monopolistic competition model to specify predicted volume of trade and to use disaggregated data on production and trade flows to determine which countries and industries differ significantly from the model prediction. Lawrence's conclusion that Japan has an unusually low volume of imports has attracted considerable attention in the literature. Harrigan (1993) investigates import-reducing effects of trade barriers in OECD countries for the year of 1983. His model is based on Equation (2). Rather than attributing any deviation of actual imports from predicted imports to the effects of protection as did in Lawrence (1987), Harrigan explicitly adds measures of trade barriers to the original model so that he can directly examine the impact of trade barriers on trade flows. His finding is that in 1983 tariffs and transport costs were a more substantial barrier to trade in manufactures between developed countries than were NTBs. In a follow-up study, Harrigan (1996) addressed a similar issue using a slightly different version of his 1993 model. Lee and Swagel (1995) was another recent study of trade barriers within monopolistic competition framework. Theirs has so far been the most comprehensive study, in which they investigate the trade flows at 3-digit ISIC just as Harrigan (1993) did, but the number of countries that they covered was almost triple that of Harrigan (1993). However, their focus is more on the political economy determinants of NTBs than on the impact of protection (both tariff and non-tariff measures) on disaggregated trade flows.

2.3 Data Support and Empirical Model Specification

Strong data support is critical to reliable empirical estimation. It is more so for the estimation of the effect of trade barriers, which usually involves data from multiple sources including trade flows, trade protection measures, production, factor endowments and so on. All the investigations in the literature face the same fundamental problem, which is caused by the dimension of those data sets. In terms of time dimension, it is usually easy to obtain time series data on trade flows, but, for trade protection data, it is extremely difficult. In terms of the number of countries, for a long time, only OECD countries published reliable trade protection data. It is not until recently that a more comprehensive data set has been made available to the public, namely the Trade Analysis Information System (TRAINS). In terms of the number of commodities, the situation is much better --- we have many commodities. It is accordingly essential to pool across countries and/or commodities to estimate the effects of trade barriers.

Leamer (1990) estimated a model similar to:

$$\log(M_i^n) = a_i + b_n + (c_i + d_n)NTB_i^n + (e_i + f_n)TAR_i^n + u_i^n \qquad (3)$$

where *i* is importer, *n* is commodity, M is imports, TAR is the tariff rate and NTB is NTB coverage ratio. He used one-year trade protection and import data from 14 OECD countries with commodities disaggregated into 10 categories. In order to capture trade barriers' import-reducing effects that vary by importers and commodities, he pooled across both countries and commodities and controls for their difference by dummy variables. One contribution of his paper was that he used a Baysian estimation method to overcome the lack of degrees of freedom usually required by such kind of dummy variable model. However, Leamer did not hesitate to mention his uncomfortableness with the fact that he had to resort to cross-commodity variation to carry out the estimation, because it was like estimating a demand equation by comparing demand for different commodities.

Lawrence (1987), for the first time in the literature, used a monopolistic competition model to investigate the issue of openness. His model was a variant of Equation (1),

$$\log(M_i^n / DU_I^n) = a_n + b_n \log(y_i^n / y^n) + c_n \log(T_I^n) + u_i^n \qquad (4)$$

where DU is domestic use (production + imports - exports), T is transaction cost. Instead of modeling trade barriers explicitly, he attributed deviations from model predictions to trade protection measures. Free from the dimensionality constraint imposed by the paucity of trade protection data, he was able to run regressions by industry based on a panel of 13 OECD countries for the period of 1970-83. Lawrence avoided Leamer's dilemma of pooling across commodities, but he ignored the simultaneity problem between trade and production, which is a potentially important issue since the monopolistic model suggests that imports and production are jointly determined. Also, there may be many other sources of errors in the model, not just trade barriers.

Harrigan's (1993) data set was the same as Leamer's (1990), but since he adopted a distinct theoretical framework and thus could specify an empirical model which allowed him to take advantage of another dimension of the original data set. He slightly transformed equation (2):

$$m_{ij}^n / \pi_j = y_i^n / \pi \qquad (5)$$

where, *j* is importing country, *i* is exporting country, *n* is commodity, π is aggregate spending. Equation (5) says that bilateral imports are proportional to each partner country's output. This implication allows him to exploit the bilateral variation in the trade pattern within a certain category of commodity and, therefore, nearly increase the number of observations by a factor of its original size. (i.e. from the number of importing countries to the product of the number of importing countries and trading partners.) For each of the 28 sectors at 3-digit ISIC level, he estimated an equation as follows:

$$\log(m_{ij}^n / \pi_j) = a_n + b_n \log(y_i^n) + c_n \log(1 + TAR_{ij}^n) + d_n \log(1 + NTB_{ij}^n) + u_{ij}^n \qquad (6)$$

Harrigan also addressed the simultaneity problem between imports and output. In his study, economy-wide factor endowments were used to instrument for production. He found that in 1983, gross imports were not reduced much by NTBs, and although their levels are generally low, average tariffs had large negative effect on imports.

Puzzled over the "small " estimates of the impact of NTBs, some trade theorists look for answers from endogenous protection literature. The theory of endogenous protection predicts that, in response to increased import competition, domestic interests will intensify their lobbying activity for protection, which implies that higher levels of import penetration will lead to greater protection.[8] Ray (1981b) was among the first to test the prediction. He estimated trade and protection equations simultaneously for both United States and an aggregate of seven other industrialized countries, and he found no empirical evidence supporting the notion that trade protection and imports are concurrently determined. In a more recent attempt at this issue, Trefler (1993) found that, just on the contrary, taking into account the simultaneous determination of imports and trade protection results in a significantly larger estimate of the effect of protection on imports. Since both studies were based on U.S. data, the mixed results call for testing in a broader context.

With their focus on the trade protection determination, Lee and Swagel (1994) also estimated trade and protection equations simultaneously. They included in their sample both developed and developing countries, and their results turned out to be similar to Trefler's. However, due to the model specification in the paper, their work seemed to bring more debates than closure to this issue. When specifying the determinants of trade protection, previous researchers chose import competition and variables such as industry concentration, economies of scale, labor structure, occupation, foreign protection level etc., which are presumably close proxies of political-economy factors and, in this context, reasonably exogenous. However, when the sample is expanded to include many other countries, the same kinds of variables are extremely difficult to obtain. Lee and Swagel therefore had to use some readily available data such as real wage change, export share in gross output, labor productivity, sectoral share of value added. From the point of view of estimating the trade barriers' effect, we think that introducing those remote proxies of political-economy factors into the protection equation opens the door to a wide variety of endogeneity problems, precisely what their use was supposed to overcome.

[8] Brock and Magee (1978); Hillman (1982); Baldwin (1985); and Magee, Brock and Young (1989).

3. The Empirical Model

The monopolistic competition model suggests that correlating the difference between actual trade flows and the flows predicted by the model with information on trade barriers can give an indication of the trade-reducing effects of trade barriers. One prediction from Equation (1) is that the import share of a good in a particular country is inversely related to that country's share of world output of that good,

$$M_i^n / DU_i^n = F(y_i^n / y^n), \qquad F' < 0 \tag{7}$$

Three assumptions are, however, crucial for this result: similarity in tastes, absence of trade barriers, and zero transaction costs. If countries have a preference for goods made at home, shares of home goods in domestic consumption will exceed those of home goods in world production. Import barriers such as tariffs and NTBs will raise the share of home goods in home consumption relative to their share in world production. If there are international transaction costs, home goods will be relatively cheaper in the domestic market and their share in domestic consumption could deviate from that in world production. Unlike the simple linear relationship as suggested by Equation (1), it has long been observed that, as far as international trade is concerned, an economically small country is relatively more open than a large one.

In specifying the equation to be estimated, we try to add to the theoretical model those real world complexities that have been originally assumed away. We follow Lawrence (1987), Harrigan (1993), and Lee and Swagel (1994) among many others in the literature and adopt a log-linear functional form:

$$\log\left(\frac{m_i^n}{du_i^n}\right) = a_n + b*\log\left(\frac{y_i^n}{y^n}\right) + c*\log\left(\frac{du_i^n / du^n}{gdp^i / gdp^w}\right) + d*\log(Dis\tan ce^i) + e*\log(1+TAR_i^n) + f*\log(1+NTB_i^n) + u_i^n \tag{8}$$

where,

m_i^n = the total value of imports of commodity n by country i.

du_i^n = the domestic demand (production+imports–exports) of commodity n by country i.

du^n = the world total domestic demand of commodity n.

y_i^n = the output of commodity n in country i.

y^n = the world total output of commodity n

gdp^i = the GDP of country i.

gdp^w = the world total GDP.

$distance^i$ = the trade-weighted average of the distance between country i and all its trading partners.

TAR_i^n = the *ad valorem* tariff rate imposed on commodity n by country i.

NTB_i^n = the NTB coverage ratio imposed on commodity n by country i.[9]

a, b, c, d, e and *f* are parameters to be estimated.

The larger the share of a country's output in the world is, the larger portion of its domestic demand is going to be met by its own production, and thus the smaller the import penetration ratio (m_i^n/du_i^n). Distance is used as an indicator of international transaction costs. Higher transaction costs prevent a country from importing more. On top of that, the presence of tariffs and NTBs will further reduce the volume of imports. Unlike others, we also include the relative demand term which is measured as the ratio of a country's share of world domestic demand over its share of world GDP. If a country has a strong preference for a particular kind of goods, then its demand for it should be high relative to its GDP. Subsequently, the relative demand will be inversely related to the import penetration ratio if countries tend to have a preference for goods made domestically. For example, the French like drinking wine, which can be reflected on the disproportionately high consumption of wine relative to France's GDP to the world. If the French have a strong preference for wine made in France as they actually do, then the higher their demand for wine is, the relatively less amount of the demand will be satisfied by importing from abroad.

Since the production of each good is determined simultaneously with trade flow, we follow Harrigan (1992) and use factor endowments as instrumental variables for the sectoral production share. Specifically, we regress production share on factor endowments such as skilled labor, unskilled labor, capital stock and land. We then use the fitted values of production share in estimating equation (8). However, it should be pointed out that there is tradeoff associated with introducing instrumental variables. On the one hand, instrumental variables may help to get asymptotically consistent estimates; on the other hand, they can compromise the efficiency of the estimates.

As for another simultaneity problem caused by the political economy factors leading to import barriers often being erected in response to large volumes of imports, we are also going to control for it by a set of instrumental variables. Since tariff rates in most of the countries are under WTO strictures, they can be more comfortably taken as exogenous than NTBs. Moreover, because our main concern is to control for the simultaneity problem rather than to specify a structural model of trade protection, in the instrumental variables set we include all the predetermined variables as well as variables such as tariffs and NTBs faced by a country's exports, which can be justifiably treated as exogenous. The econometric strategy amounts to a two-stage estimation.

4. Data

The data requirement for this study is very large. It involves four data sets, covering all countries and industries: trade flows, trade protection

[9] As to be detailed in later section, we calculate and include in the equation the coverage ratios of several different categories of NTBs.

measures, production and factor endowments. Ideally, in order to be consistent with the theoretical model, we should include in our sample as many countries and commodities as possible. However, at a more disaggregated commodity level, we end up with fewer countries and hence smaller number of observations for each commodity category.[10] In another word, there is a trade-off between the sample size in terms of country and commodity. After balancing between the advantages and disadvantages, we settled on a disaggregation level of 28 industries, i.e. 3-digit ISIC (Revision 2) so that our sample covers as many as 74 countries.

4.1 Trade Flows

The source of our trade flow data is the World Trade Database (WTDB) released by Statistics Canada. The current version of WTDB covers trade flows data for some 160 countries for the period of 1980-96. We get the unilateral and bilateral imports data in this study by aggregating the data from 4-digit SITC to 3-digit ISIC level according to a classification conversion table.

4.2 Trade Protection

The original source of trade protection data including both tariffs and NTBs is TRAINS. The trade flow weighted tariff rates and NTB coverage ratio are derived from combining TRAINS and WTDB. The tariff data in our database are the *ad valorem* tariff rate plus additional custom charges. The NTBs are classified into eight broad categories according to their functional nature as documented in the UNCTAD coding system of trade control measures.[11] Those categories are: 1) Tariff Measures, including tariff measures other than *ad valorem* tariffs such as tariff quota, seasonal charges, temporary duties and etc; 2) Para-tariff Measures, including custom surcharges, additional charges and internal taxes levied on imports; 3) Price Control Measures, including measures controlling price of imported articles for such reasons as sustaining the domestic price, stabilizing domestic price level, and countering the damage caused by the application of unfair practice of foreign trade; 4) Finance Measures, including regulations of the access to and cost of foreign exchange for imports and define the terms of payments. 5) Automatic Licensing Measures. 6) Quantity Control Measures, including quota, license, prohibition and so on; 7) Monopolistic Measures, including measures which create a monopolistic situation by giving exclusive rights to one or a limited group of economic operators; 8) Technical Regulations, including quality, safety, health and other regulations.

We include in our equation the tariff measures, price control measures, quantity control measures, monopolistic measures and technical measures. The para-tariff measures are dropped out because in computing the *ad valorem* tariff rate, we already include those additional charges. The finance measures are excluded because our data shows that they are rarely used in practice. The

[10] Some countries do not report their data at a level as detailed as others.

[11] Please refer to the Appendix for a complete description of the UNCTAD coding system of trade control measures.

automatic licensing measures are excluded because, according to the UNCTAD coding system of trade control measures, they do not actually involve restriction.

4.3 Production

As specified in the model, the production data at industrial level for all countries involved is required to calculate the import penetration ratio and production share as well. United Nations Industrial Development Organization (UNIDO) makes available its database of industrial statistics at 3-digit ISIC level. The database covers 89 countries and regions. The data are generally related to the period of 1981-96 inclusive and arranged according to ISIC Revision 2. The information is presented by country, year and industry.

We take from the UNIDO database the production data for one single year: 1994. Since industrial output is reported in domestic currencies, we convert them to U.S. dollars based on exchange rates from the World Development Indicator (WDI) Database. Industrial production data is then used to calculate the output ratio and, together with import and export data from WTDB, the import penetration ratio.

4.4 Factor Endowment and Distance

Factor endowments include land, capital, skilled labor and unskilled. The data on cropland, pasture and other land areas can be taken directly from the WDI database. However, we have to compute the capital stock based on time series data on gross fixed investment, which can also be found in the WDI. In deriving the capital stock, we use an overall depreciation rate of 13.3%, the same rate as used by Summers and Heston (1990) in their construction of the Penn World Table. The International Labor Organization (ILO) publishes labor force data according to seven occupational categories. Following Maskus and Penubarti (1995), we define skilled labor as occupational category 0/1 and 2 and unskilled labor as total labor force minus skilled labor.

The distance data is downloaded from the web-site maintained by Jon Haveman.[12] In the original data set, he provides the distance between economic centers of any two countries for some 100 countries. Following the practice in the gravity model literature, we use a trade flow-weighted measure of distance between a country and its trading partners as proxy for the transaction cost.

5. Model Estimation and Results

As pointed out by Leamer and Bowen (1981) and Leamer (1988), the response of imports to tariffs and NTBs is likely to vary across industries, since it depends on the elasticities of supply and demand, which might differ widely across industries. In contrast, there is likely to be less variation in these elasticities within a given industry across countries. We choose to pool across both countries and industries and use industry dummy to control for the industry-specific effect.

Our estimation procedure involves two stages. The first stage includes two steps. In step one, for each industry, we regress production share on factor

[12] http://intrepid.mgmt.purdue.edu/Trade.html

endowments. The results are presented in Table 3.2. The estimated coefficients are comparable across the industries and indicate that capital stock is important to all the industries, whereas unskilled labor has a negative effect on output share for a majority of the industries. In step two, aiming at controlling for the endogeneity problem of NTBs, we regress the import NTBs coverage ratio on a set of instrumental variables which includes the tariff rates and NTBs coverage ratios faced by a country's exports plus other exogenous variables including the country's import tariff rates, distance and factor endowments such as the area sizes of different kinds of land, skilled and unskilled labor, and capital stock. Our argument is that, when it comes to a country's decision on NTBs, the tariffs and NTBs faced by that specific country's exports can be justifiably treated as given. The regression results are presented in Table 3.3. A point worthy of mentioning is that one needs to be very careful in selecting instruments, because the exogeneity of the instruments is just as important as their relevance.

At the second stage, we estimate the model as specified in equation (8) by using the corresponding fitted values of the output share and the NTBs coverage ratio from the first stage regression. As mentioned in section 3, there is a tradeoff between efficiency and consistency associated with introducing instrumental variables. For the sake of comparison, we report the estimation results with and without instrumental variables for either NTBs or output share.

Table 3.4 shows that the estimation results are in general well reconciled with the predictions of our model. Output share, relative demand share, distance and tariffs are correctly signed and statistically significant. The more a country produces a kind of goods domestically, the less it will import from abroad. The stronger a country's preference for a particular kind of goods, the less it will import from abroad since, other things being equal, a country tends to have preference for goods made domestically. Trade flow-weighted distance as a proxy of transaction cost does effectively impede the potential trade flows between countries. The presence of tariffs significantly reduceS a country's imports. Our estimation shows that, assuming that domestic demand does not change, a one percent increase in the tariff rate will lead to a two percent decrease in a country's imports. Introducing instrumental variables for output share and NTBs, while having little impact on the estimates of the tariff effect, does make a difference on the estimate of the effect of NTBs. Using instrumental variables for NTBs gives the correct sign for the estimated effect of NTBs, and the estimation is also statistically significant, whereas using instrumental variables for output share leads to an enhanced effect of NTBs. However, concern has been raised over the including both output and domestic demand as independent variables. The estimated effects for tariffs and NTBs[13], -- the primary focus of this study – changes little.

The functional features of various NTBs are not homogenous. As a matter of fact, different categories of NTBs may play quite different roles in restricting imports. We categorize the NTBs into five types and calculate

[13] The estimation results from alternative equation specifications are presented in the appendix.

coverage ratio for each of them. Then, in place of a single overall NTB coverage ratio, we include in the equation the coverage ratios for all the five different types

Table 3.2: Results from Regressing Output Share on A Set of Instrumental Variables by Industry

Dependent variable: Output share	***No. of Observations***	Independent variables							
Sectors:		R^2	***Constant***	***Capital***	***ULabor***	***SLabor***	***Crop***	***Pasture***	***Other***
311 Food Products	68	0.89	-13.38*	0.74*	-0.62*	0.67*	0.42*	-0.002	0.30*
313 Beverages	62	0.82	-12.37*	0.78*	-0.47*	0.54*	0.08	0.19*	-0.27*
314 Tobaccos	60	0.83	-15.77*	0.86*	0.18	0.02	0.08	0.02	-0.16*
321 Textiles	61	0.86	-18.59*	0.70*	-0.05	0.73*	0.25*	0.03	-0.44*
322 Apparel, except footwear	62	0.82	-15.22*	0.98*	0.04	0.01	0.60*	-0.01	-0.57*
323 Leather products	64	0.82	-18.28*	0.76*	0.15	0.10	0.35*	0.18*	-0.38*
324 Footwear	66	0.76	-18.22*	0.62*	0.10	0.63*	-0.03	0.16	-0.33*
331 Wood products	68	0.80	-17.07*	1.20*	-0.65*	0.23	0.53*	-0.28*	0.16
332 Furniture, except metal	60	0.86	-10.91*	1.52*	-0.81*	0.03	0.41*	0.03	-0.25*
341 Paper and products	69	0.88	-16.09*	1.00*	-0.70*	0.86*	0.24	-0.09	-0.16
342 Printing and publishing	61	0.84	-12.91*	1.08*	-0.93*	0.87*	0.33*	-0.09	-0.28*
351 Industrial Chemicals	61	0.85	-17.32*	1.12*	-0.44*	0.53	0.55*	-0.07	-0.43*
352 Other Chemicals	61	0.85	-17.85*	0.74*	-0.40*	0.80*	0.40*	0.07	-0.43*
353 Petroleum refineries	65	0.64	-16.95*	0.62*	-0.91*	1.13*	0.56*	0.03	-0.31
354 Misc. petroleum and coal	64	0.55	-14.18*	0.97*	-0.12	0.10	0.45	-0.11	-0.33
355 Rubber products	60	0.85	-18.08*	1.05*	-0.16	0.03	0.67*	-0.06	-0.32*

Table 3.2: Results from Regressing Output Share on A Set of Instrumental Variables by Industry

(continued)

Dependent variable: Output share	***No. of Observations***	Independent variables							
Sectors		R^2	***Constant***	***Cap***	***ULabor***	***SLabor***	***Crop***	***Pasture***	***Other***
356 Plastic products	67	0.87	-16.69*	0.94*	-0.78*	1.00*	0.33	0.06	-0.36*
361 Pottery, china, earthenware	69	0.67	-15.46*	1.17*	-0.10	0.12	0.22	0.15	-0.44*
362 Glass and Products	60	0.78	-15.75*	1.13*	-0.44*	0.37	0.14	0.12	0.19
369 nonmetal mineral products	61	0.77	-14.60*	0.89*	-0.30	0.40	0.29*	0.02	-0.32*
371 Iron and steel	68	0.86	-20.32*	1.14*	-0.30	0.39	0.49*	-0.20*	-0.12
372 Nonferrous metals	68	0.81	-18.41*	1.54*	-0.50*	0.06	0.23	-0.09	0.14
381 Fabricated metal products	60	0.89	-15.55*	1.27*	-0.68*	0.62*	0.30*	-0.01	-0.32*
382 Non-electrical machinery	68	0.90	-19.62*	1.52*	-0.97*	1.12*	0.36	-0.07	-0.41*
383 Machinery electric	69	0.91	-17.78*	1.36*	-0.49*	0.59*	0.40*	-0.14	-0.39*
384 Transport equipment	61	0.88	-21.75*	1.44*	-0.37	0.31	0.42*	-0.04	-0.19
385 Professional & scientific eq	64	0.84	-14.16*	1.55*	-0.78*	0.66	0.00	0.04	-0.32*
390 Other manufactures	64	0.73	-15.85*	1.11*	-0.31	0.27	0.41	-0.18	-0.21

Note: * significant at 0.05

Table 3.3: Results from Regressing Import NTB Coverage Ratio on A Set of Instrumental Variables with Industry Fixed Effect

Independent Variable: NTBs	Parameter	t-ratio
NTBs faced by exports	-0.14	-5.72
Tariff faced by exports	0.05	1.92
Import Tariff	0.07	2.97
Distance	-25.2	-5.06
Capital	4.15	1.44
Skilled labor	-0.54	-0.11
Unskilled labor	6.20	1.70
Crop land	0.09	0.97
Pasture land	2.25	1.48
Other land	-3.05	-1.62
Adjusted R^2	0.16	
No. of Observations	1652	

Table 3.4: Estimation of Trade Protection Effects on Trade Flows with Industry Fixed Effects

Independent Variable: Import Penetration Ratio	(1)	(2)	(3)	(4)
Output Share	-0.14 (-17.6)	-0.13 (-15.0)	-0.10 (-11.5)	-0.08 (-8.5)
Relative Demand Share	-0.15 (-7.5)	-0.16 (-7.6)	-0.26 (-11.6)	-0.25 (-11.5)
Distance	-0.13 (-3.0)	-0.20 (-3.6)	-0.18 (-4.2)	-0.31 (-5.4)
Tariff	-2.30 (-14.3)	-2.23 (-13.3)	-2.21 (-12.9)	-2.03 -(11.5)
NTBs	0.06 (0.30)	-0.66 (-2.0)	0.002 (0.01)	-1.22 (-3.4)
Adjusted R^2	0.53	0.53	0.49	0.49
No. of Observations	1675	1675	1675	1675

Note:
In column 1, no instrumental variables are used for either NTBs or output share; in column 2, instrumental variables are used for NTBs, but not for output share; in column 3, instrumental variables are used for output share, but not for NTBs; in column 4, instrumental variables are used for both NTBs and output share. In parenthesis are the corresponding t-ratios

of NTBs. In carrying out this estimation, we decide not to tackle the simultaneity problem for NTBs, because it is very difficult to get a different set of

Table 3.5: Estimation of the Trade Protection Effects on Trade Flows with Industry Fixed Effects and Categorized NTBs

Independent Variable: Import Penetration Ratio	(1)	(2)	(3)	(4)
Output Share	-0.14 (-18.1)	-0.10 (-12.0)	-0.13 (-16.2)	-0.09 (-10.2)
Relative Demand Share	-0.18 (-8.3)	-0.27 (-12.7)	-0.17 (-7.7)	-0.26 (-11.8)
Distance	-0.12 (-3.0)	-0.18 (-11.1)	-0.13 (-3.1)	-0.18 (-4.2)
Tariff	-2.04 (-12.5)	-1.90 (-11.1)	-2.22 (-13.4)	-2.08 (-11.9)
Tariff measures	1.39 (4.9)	1.28 (4.4)	-0.50 (...)	-0.50 (...)
Price control	2.83 (5.5)	3.06 (5.8)	-0.50 (...)	-0.50 (...)
Quantity control	-0.42 (-2.4)	-0.46 (-2.6)	-0.43 (-2.4)	-0.49 (-2.6)
Monopolistic measures	-0.61 (-1.4)	-0.53 (-1.2)	-0.51 (-0.7)	-0.42 (-0.5)
Technical measures	-0.44 (-2.5)	-0.58 (-3.4)	-0.54 (-3.1)	-0.62 (-3.9)
Adjusted R^2	0.55	0.52	0.53	0.50
No. of Observations	1675	1675	1675	1675

Note:
In column 1, no instrumental variables are used for output share; in column 2, instrumental variables are used for output share; in column 3, no instrumental variables are used for output share with the coefficient for tariff measures and price control measures being constrained to be –0.50; in column 4, instrumental variables for output share, with tariff measures and price control measures being constrained to be –0.50. In the parenthesis are the corresponding t-ratios.

instrumental variables for each different type of NTBs. In column 1 and 2 of Table 3.5, we present the estimation without and with instrumental variables

for output share, respectively. After breaking down NTBs by categories, the coefficients on output share, relative demand, distance and tariff are still signed correctly as well as statistically significant, and their magnitudes do not differ much from those from previous estimation. As far as NTBs are concerned, three of the five types of NTBs, including quantity control measures, monopolistic measures and technical measures, are estimated to negatively influence the import penetration ratio, and the magnitudes of their effects all fall into a range between -0.4 and –0.6. We found positive coefficients on tariff measures and price control measures whether or not we used instrumental variables for output share. To the extent that the estimated positive coefficients of NTBs can be explained by the theory of endogenous protection, the results in Table 3.4 seem to indicate that, when facing high import penetration ratios, a country is more likely to have recourse to tariff measures and price control measures than to quantity control, monopolistic measures and technical measures. It follows that the estimated coefficients for quantity control measures, monopolistic measures and technical measures may be, to some extent, less affected by the endogeneity problem. Therefore, we re-estimated the equation, constraining the coefficients of both tariff measures and price control measures to be –0.5, the magnitude with which we feel more comfortable. As shown in column 3 and 4 of Table 3.4, the constrained estimation results in lower R^2, the other coefficients, however, are robust to the constraints. According to the estimation, assuming that domestic demand does not change, one percent of increase in the coverage ratio of one category will lead to roughly a 0.5 percent decrease in a country's imports.

6. Summary

We use a model that is based on the monopolistic competition model and 1994 cross-country and cross-industry data on trade barriers, trade flows, and production to estimate the import-reducing effect of trade barriers. We find that in general both tariffs and NTBs are effective in reducing a country's imports. The magnitude of the estimated tariff effect is broadly in line with that agreed upon in the literature. The NTBs are then categorized into five types, and we take one step further to study how those different types of NTBs may affect the imports differently. The results are mixed. Our estimation shows that among the five types of NTBs, quantity control measures, monopolistic measures and technical measures reduce a country's imports and the magnitudes of their estimated coefficients all fall into a range between –0.4 and –0.6. Not controlling for the NTBs' simultaneity problem may explain the fact that we have positive estimates on tariff measures and price control measures. Re-estimating the equation by constraining the coefficients on these two measures to be –0.5 leave the coefficients of the rest of the variables largely unchanged.

CHAPTER FOUR:

REMOVAL OF GLOBAL TARIFFS AND NON-TARIFF BARRIERS: A STATIC ANALYSIS FOR THE U.S.

1. Introduction

What would happen to U.S. imports and exports if all countries should remove their existing tariffs and NTBs on all commodities? It is impossible to know the answer with great certainty. However, the econometric study in the previous chapter provides estimations on the relationship between imports and the trade protection measures including tariffs and some forms of NTBs. As an application of the previous study, in this chapter we try to give an informed answer. This chapter covers two related aspects: (1) the facts -- presentation of data on the tariff and non-tariff barriers faced by U.S. imports and exports; and (2) the counter-factual analysis -- estimation of the changes in U.S. imports and exports assuming all countries remove their existing tariffs and NTBs on all commodities – the "Final Round".

2. Tariff Barriers Faced by U.S. Imports and Exports

In this section, we present data from our Trade Protection Database (TPD). We compare the barriers that the U.S. imposes on imports with the barriers faced by U.S. exports as a result of the import protection measures of its trading partners.

2.1 Trade-flow Weighted Average Tariff Rates

Table 4.1 summarizes the results for tariffs with aggregates at the level of INFORUM LIFT sector scheme.[14] It shows 1994 tariff rates faced by U.S. imports and exports. The tariff rates are computed by taking a weighted average of tariff rates at the 4-digit SITC level, with trade flows as the weights. In computing the average rates, we exclude Canada, Mexico, because trade with them is already covered by NAFTA and would not be affected by the final round. We also excluded those countries whose information on trade protection is not available from TRAINS.

In general, tariffs facing U.S. exports are higher than the tariffs which the U.S. levies on imports. This situation is well publicized for agricultural and related products. Our estimates show 1.6 percent tariffs on imported products

[14] LIFT, standing for Long-term Interindustry Forecasting Tool, an interindustry-macroeconomic model of the US economy created and maintained by INFOURM.

from agriculture, forestry and fishery, as opposed to 15 percent tariffs facing exports of them. But large disparities also exist for other goods. For example, the U.S. imposes tariffs of 3 percent on Motor vehicles and parts, while similar

Tabel 4.1 The Tariff Rates Faced by the U.S. Imports and Exports

(Excluding Canada and Mexico) Unit: percentage

Sector No.	LIFT Sector Title	Imports	Exports	Sector No.	LIFT Sector Title	Imports	Exports
1	Agriculture, forestry, fishery	1.6	15.0	26	Copper	1.7	4.6
2	Iron ore mining	0.0	4.6	27	Other nonferrous metals	2.4	6.2
3	Non-ferrous metals mining	0.3	1.6	28	Metal products	3.9	7.9
4	Coal mining	0.0	0.3	29	Engines and turbines	1.1	2.7
5	Natural gas extraction	0.0	0.0	30	Agricultural machinery	0.5	3.9
6	Crude petroleum	0.4	5.0	31	Construction, mining, oil field equipn	1.1	6.6
7	Non-metallic mining	0.5	1.6	32	Metalworking machinery	3.2	5.5
8	Construction	0.0	0.0	33	Special industry machinery	1.8	5.4
9	Food & tabacco	6.5	18.0	34	Misc non-electrical machinery	2.4	6.9
10	Textiles, excluding Knits	8.9	8.7	35	Computers	1.3	3.2
11	Knitting	0.0	0.0	36	Other office equipment	0.7	2.5
12	Apparel, household textiles	13.2	17.8	37	Service industry machinery	1.6	6.4
13	Paper	1.3	4.4	38	Communications eq., electronic comp	1.3	3.7
14	Printing & publishing	0.4	2.6	39	Electric industrial appl & distribution	3.5	5.9
15	Agricultural fertilizers	5.3	5.5	40	Household appliances	3.0	10.4
16	Other chemicals	3.8	7.1	41	Misc electrical equipment	3.6	6.7
17	Petroleum refining	2.2	4.5	42	TV sets, radios, phonographs	2.9	6.9
18	Fuel oil	2.4	5.3	43	Motor vehicles	3.0	11.2
19	Rubber products	3.1	6.4	44	Aerospace	1.1	1.6
20	Plastic products	2.0	5.6	45	Ships, boats	1.5	4.1
21	Shoes and leather	12.8	5.6	46	Other transport equipment	2.5	7.5
22	Lumber	4.1	8.0	47	Instruments, excl. medical equipment	3.5	3.8
23	Furniture	1.8	7.1	48	Misc. Manufacturing	2.3	3.2
24	Stone, clay, glass	6.3	8.0	56	Electric utilities	0.0	0.0
25	Ferrous metals	3.6	7.9	57	Gas utility	0.0	3.6

exports face duties of 11.2 percent. For Special industrial machinery, tariffs on imports are 1.8 percent, compared with 5.4 percent tariffs that exporters face. For household appliances, tariffs on imports are 3 percent, compared with 10.4 percent tariffs that exporters face.

In 42 of the 50 commodity categories, the tariff rates faced by exports exceed (by more than 0.5 percentage points) those imposed on imports. The rates on imports exceed rates on exports by this amount in only two categories. Import tariff rates are less than 5 percent for more than 90 percent of the commodity categories; Apparel and Shoes are the two sectors that are subject to the highest import tariff rates – 13.2 and 12.8 percent, respectively.

In contrast, as far as tariff rates faced by U.S. exports are concerned, more than 50 percent of the commodity groups are subject to tariff rates higher than 5 percent. Exceptionally high tariff rates faced by U.S. exports are found in commodities such as Agriculture, forestry and fishery, Food and Tobacco, Apparel and Motor vehicles.

2.2 Distribution of Trade Flows According to the Trade Barriers

The situation on U.S. trade protection can be assessed from another perspective, which is to show the amount of trade subject to various levels of trade protection. The trade protection levels can be grouped by brackets. This approach is free of the downward bias associated with taking the import-weighted average.

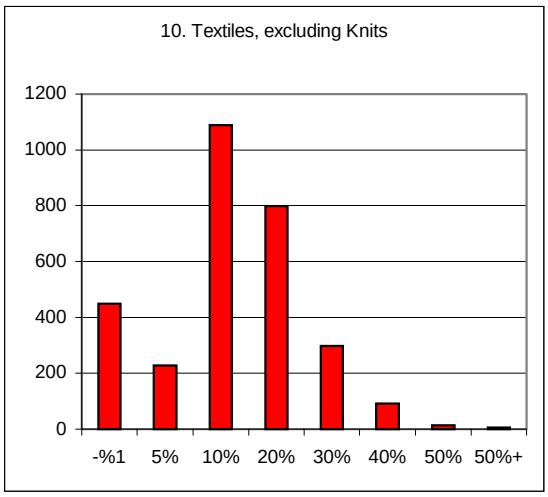
First, we define the brackets for tariff rates. The actual tariff rates are grouped into eight ranges: 1% and below, 1%-5%, 5%-10%, 10%-20%, 20%-30%, 30%-40%, 40%-50% and 50% and above. Then, when aggregating the trade protection data at 6-digit HS level up to 4-digit SITC level, we allocate the trade flows to their respective tariff rate brackets in accordance with their corresponding tariff rates. The allocation is made in proportion to the value of imports associated with the 6-digit HS codes within a single 4-digit SITC code. After the second step, we are able to get, at the 4-digit SITC level as well as any subsequent aggregates, the distribution of trade flows according to the predefined tariff bracket. For instance, we can show how an import's value is distributed according to the import tariff rates as specified in the predefined bracket. Based on the bilateral trade flow information, we then can derive how an export's value is distributed according to tariff rates imposed by its trading partners.

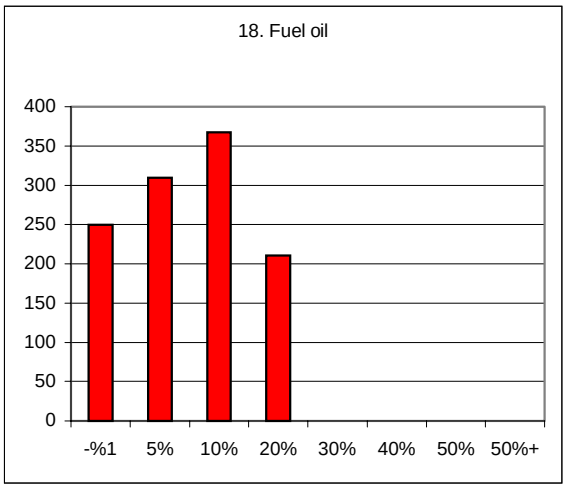
We show the distribution of the value of selected U.S. imports and exports at the INFORUM LIFT model sector scheme.[15] As an appendix to this chapter, we plot the same charts for all the sectors. On the vertical axis are the values of exports or imports of 1994 in millions of U.S. dollar, and across the horizontal axis are the predefined tariff brackets. Not surprisingly, the charts reveal much variation beneath the seemingly moderate level of weighted average

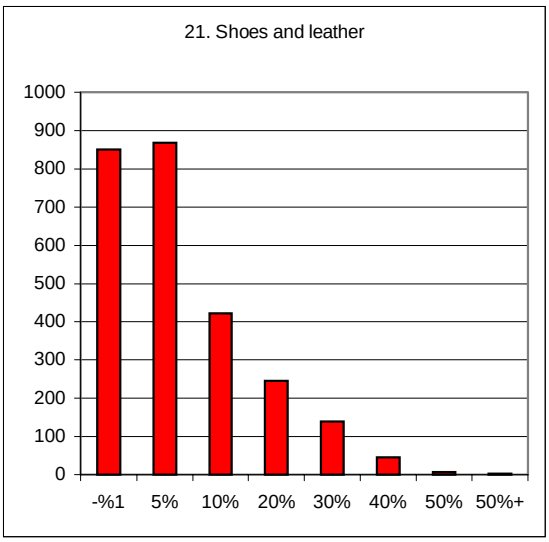
15 The trade flows do not include Canada, Mexico and those countries whose information on trade protection is not available.

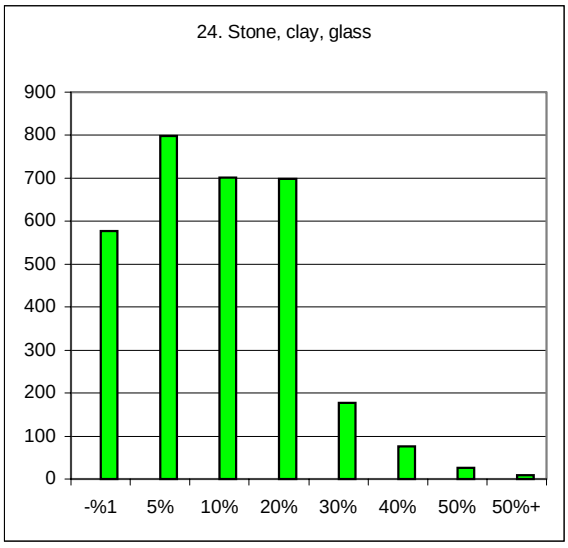
tariff rates. For instance, the exporters of Textiles (Sector 10) on average face about 8.7 percent tariff rate, however, more than 40 percent of their exports

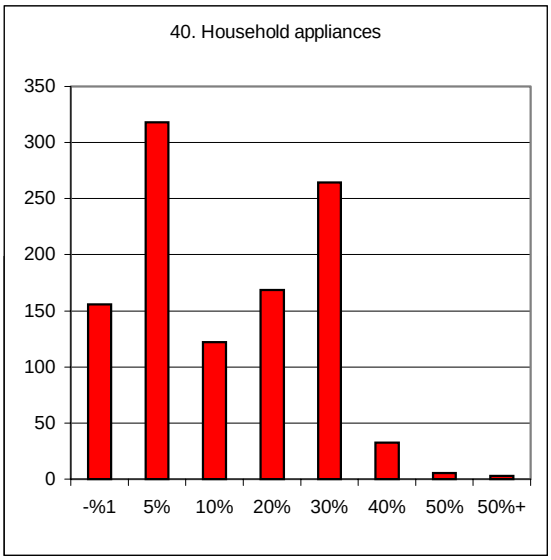
Distribution of US Exports in 1994 according to Export Tariff Rates
(In milliions of US dollars)

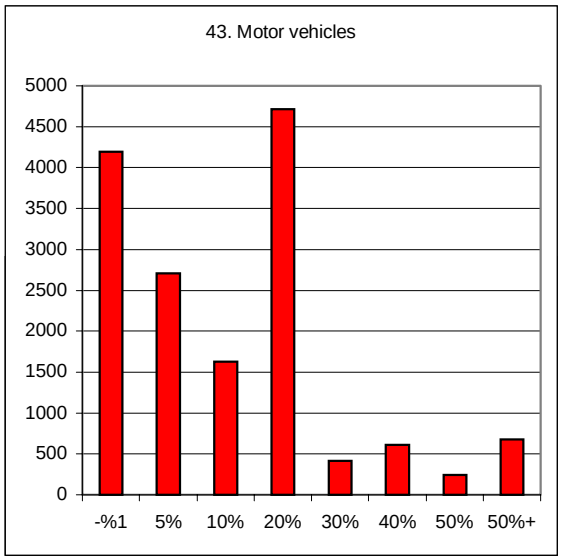




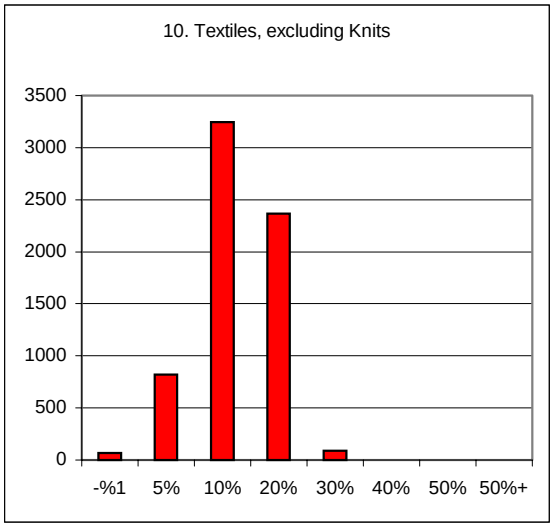


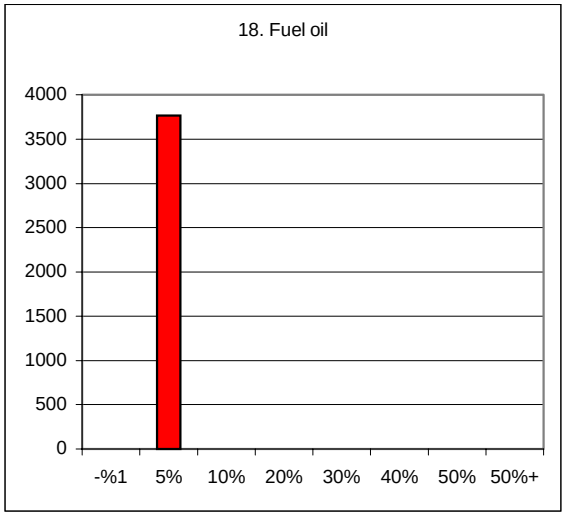


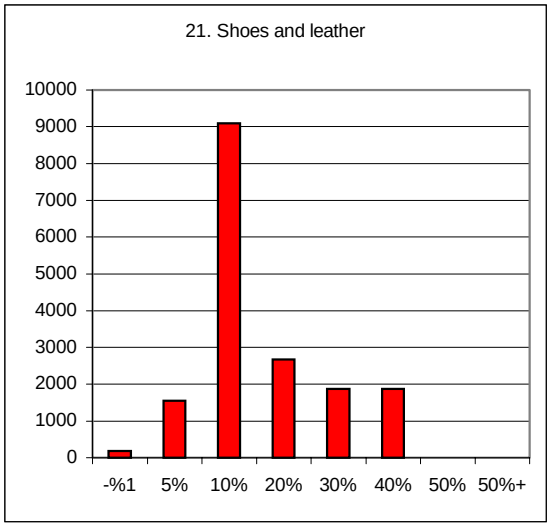


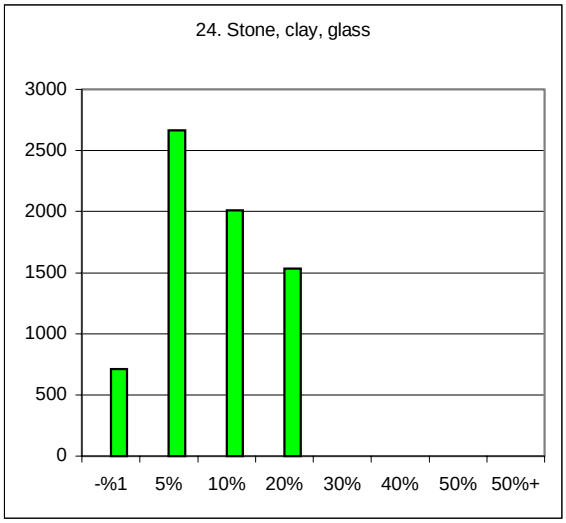


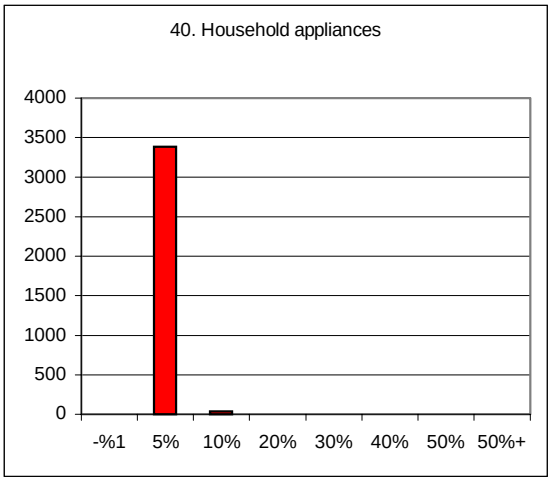
Distribution of US Imports according to Import Tariff Rates
(In millions of US dollars)

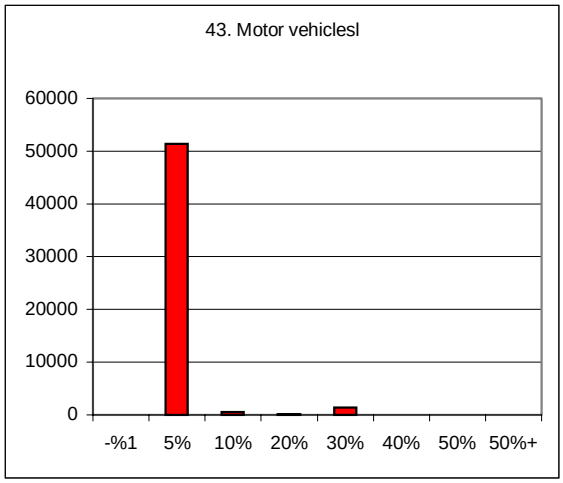












actually were faced a tariff rate over 20 percent. As a matter of fact, the charts show that a substantial amount of the U.S. exports are subject to tariff levels over 30 percent. For example, about $2 billion of U.S. exports of Motor vehicles (Sector 43), equivalent to 12 of its total value of exports, were subject to tariff rates of over 30 percent. Meanwhile the U.S. imported around $5.2 billion of Motor vehicles, and only about 2.5 percent were subject to a tariff rate of 30 percent. While it imposed less than 5 percent tariff rate on over 99 percent of its imports of Household appliance (Sector 40), the U.S. saw about 85 percent of its appliance exports subjected to a tariff rate higher than 5 percent. Other goods such as Fuel oil (Sector 18) and TV sets, radios (Sector 42) share a similar situation where U.S. exports face higher tariff protection than do the exports from the rest of the world in getting into U.S. market.

3. Non-tariff Trade Barriers Faced by U.S. Imports and Exports.

The NTBs are classified into eight broad categories according to their functional natures: (1) tariff measures (TM), (2) para-tariff measures (PTM), (3) price control measures (PC), (4) finance measures (Fin), (5) automatic licensing (Alic), (6) quantity control measures (QC), (7) monopolistic measures (Mono) and (8) technical regulations (TR).[16] We calculate the coverage ratios for the eight categories of NTBs faced by U.S. imports and exports. Just as we do for the tariffs, the coverage ratios are computed by taking the weighted average of coverage ratio at 4-digit SITC level. For the same reason, we exclude Canada, Mexico and those countries whose information on the trade protection is not available from TRAINS. The results for imports and exports are summarized in Table 4.2 and 4.3, respectively.

Among the various categories of NTBs, the U.S. mainly relies on two of them: price control measures (3) and quantity control measures (6). According to the UNCTAD Coding System of Trade Control Measures, several trade protection practices fall into the price control categories such as administrative price fixing, antidumping measures and countervailing measures. Table 4.2 shows that the US imposes price control measures on imports of 29 of 50 commodity categories. Apparel (Sector 12) and Shoes (Sector 21) are under the most extensive protection under price control measures; their coverage ratios are 63.7 and 73.8 percent, respectively. However, it is somewhat surprising that Communication equipment (52.8 percent) and TV sets, radios and phonographs (33.1 percent) are also subject to unusually high protection. Although not as extensively used as price control measures, quantity control measures are used on 24 of 50 commodity groups. Textiles (90.3 percent) and Apparel (86.6 percent) are at the top in terms of coverage ratio.

Para-tariff measure (2) and automatic licensing (5) are, on the contrary, used quite selectively. In either case, only three commodities are affected. Four sub-sets are distinguished within the para-tariff measures: custom surcharges,

[16] See appendix for a complete description of the trade control measures.

Table 4.2: NTB Coverage Ratio by Category Faced by US Imports

LIFT Sector Title	TM	PTM	PC	Fin	Alic	QC	Mono	TR
Agriculture, forestry, fishery	8.3	0.0	4.1	0.0	0.0	0.1	0.0	0.0
Iron ore mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-ferrous metals mining	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Coal mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Natural gas extraction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crude petroleum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-metallic mining	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Food & tabacco	12.9	21.5	14.8	0.0	0.5	2.8	0.0	0.0
Textiles, excluding Knits	0.7	0.0	13.7	0.0	0.9	70.3	0.0	0.0
Knitting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apparel, household textiles	0.1	0.0	63.7	0.0	0.0	86.6	0.0	0.0
Paper	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Printing & publishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Agricultural fertilizers	1.0	0.4	5.8	0.0	0.0	0.0	0.0	0.0
Other chemicals	3.2	0.2	7.0	0.0	0.0	0.4	0.0	0.0
Petroleum refining	7.6	46.3	0.0	0.0	0.0	0.0	0.0	0.0
Fuel oil	9.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0
Rubber products	0.0	0.0	13.8	0.0	0.0	0.0	0.0	0.0
Plastic products	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shoes and leather	35.6	0.0	73.8	0.0	0.0	9.1	0.0	0.0
Lumber	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Furniture	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Stone, clay, glass	0.0	0.0	11.4	0.0	0.0	4.2	0.0	0.0
Ferrous metals	0.5	0.0	40.4	0.0	0.3	9.4	0.0	0.0
Copper	0.0	0.0	8.4	0.0	0.0	8.4	0.0	0.0
Other nonferrous metals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Metal products	1.3	0.0	13.9	0.0	0.0	7.1	0.0	0.0
Engines and turbines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Agricultural machinery	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0
Construction, mining, oil field e	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
Metalworking machinery	0.0	0.0	9.0	0.0	13.5	0.7	0.0	0.0
Special industry machinery	0.0	0.0	5.5	0.0	0.0	0.6	0.0	0.0
Misc non-electrical machinery	0.0	0.0	18.7	0.0	0.0	16.3	0.0	0.0
Computers	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0
Other office equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Service industry machinery	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Communications eq., electronic	0.0	0.0	52.8	0.0	0.0	2.5	0.0	0.0
Electric industrial appl & distrib	0.0	0.0	14.2	0.0	0.0	20.0	0.0	0.0
Household appliances	0.0	0.0	15.9	0.0	0.0	0.0	0.0	0.0
Misc electrical equipment	0.0	0.0	1.5	0.0	0.0	3.6	0.0	0.0
TV sets, radios, phonographs	0.0	0.0	33.1	0.0	0.0	5.2	0.0	0.0
Motor vehicles	2.7	0.0	10.6	0.0	0.0	1.0	0.0	0.0
Aerospace	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ships, boats	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other transport equipment	0.0	0.0	2.9	0.0	0.0	0.2	0.0	0.0
Instruments, excl. medical equip	0.0	0.0	1.2	0.0	0.0	2.4	0.0	0.0
Misc. Manufacturing	0.0	0.0	1.1	0.0	0.0	0.7	0.0	0.0
Electric utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas utility	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 4.3: NTB Coverage Ratio by Category Faced by US Exports

LIFT Sector Title	TM	PTM	PC	Fin	Alic	QC	Mono	TR
Agriculture, forestry, fishery	4.3	0.0	5.2	0.4	0.7	19.6	6.8	41.6
Iron ore mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-ferrous metals mining	0.0	0.0	0.0	0.0	0.1	0.0	0.0	6.7
Coal mining	0.0	0.0	0.1	0.0	17.3	34.2	0.0	0.0
Natural gas extraction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Crude petroleum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-metallic mining	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.3
Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Food & tabacco	3.8	0.0	4.8	0.0	3.3	14.4	14.4	35.8
Textiles, excluding Knits	0.0	0.0	0.8	0.0	0.0	32.6	0.0	0.9
Knitting	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apparel, household textiles	0.0	0.0	0.1	0.0	0.0	14.4	0.0	1.2
Paper	0.0	0.0	0.3	0.0	0.1	1.6	0.0	4.7
Printing & publishing	0.0	0.0	0.0	0.0	2.2	1.9	0.0	0.0
Agricultural fertilizers	0.3	0.0	1.4	0.0	1.6	15.8	6.5	27.1
Other chemicals	0.8	0.0	1.0	0.0	0.1	4.2	1.4	9.7
Petroleum refining	0.1	0.1	0.9	0.0	0.4	13.6	9.8	9.3
Fuel oil	0.0	0.0	0.9	0.0	1.5	5.5	2.4	16.9
Rubber products	0.0	0.0	0.1	0.0	0.0	1.8	0.0	5.5
Plastic products	0.0	0.0	0.6	0.0	0.1	1.0	0.0	2.4
Shoes and leather	0.6	0.0	0.1	0.0	6.8	14.0	0.1	13.4
Lumber	0.0	0.0	0.0	0.0	0.0	1.2	0.0	2.1
Furniture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Stone, clay, glass	0.0	0.0	0.3	0.0	0.0	1.7	0.0	5.0
Ferrous metals	0.3	0.0	1.8	0.0	10.9	7.1	0.0	2.3
Copper	0.0	0.0	12.3	0.0	0.0	0.3	0.0	2.3
Other nonferrous metals	0.0	0.0	0.6	0.0	0.0	0.7	0.0	4.2
Metal products	0.0	0.0	0.2	0.0	0.8	1.5	0.0	2.5
Engines and turbines	0.0	0.2	0.0	0.0	0.0	7.6	0.0	0.9
Agricultural machinery	0.0	0.0	0.6	0.0	0.0	5.3	0.0	2.6
Construction, mining, oil fielc	0.0	0.0	0.0	0.0	0.0	5.4	0.0	2.6
Metalworking machinery	0.0	0.0	0.0	0.0	0.2	2.9	0.0	5.4
Special industry machinery	0.0	0.0	0.0	0.0	0.0	4.6	0.0	3.2
Misc non-electrical machinery	0.5	0.0	0.2	0.0	0.0	5.6	0.0	3.6
Computers	0.7	0.0	0.0	0.0	8.8	4.0	0.0	0.4
Other office equipment	0.8	0.0	0.0	0.0	0.0	4.4	0.0	0.1
Service industry machinery	0.0	0.0	0.0	0.0	1.1	3.3	0.0	6.9
Communications eq., electror	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.4
Electric industrial appl & dist	0.1	0.0	0.4	0.0	0.0	2.6	0.0	2.0
Household appliances	0.0	0.0	1.0	0.0	0.0	2.6	0.0	7.5
Misc electrical equipment	0.0	0.0	1.0	0.0	0.0	5.2	0.0	0.3
TV sets, radios, phonographs	0.0	0.3	0.4	0.0	1.1	8.5	0.0	1.8
Motor vehicles	0.8	0.5	2.3	0.0	6.0	8.2	0.0	18.3
Aerospace	0.0	0.0	0.0	0.0	1.0	10.6	0.0	0.0
Ships, boats	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0
Other transport equipment	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Instruments, excl. medical eq	0.1	0.0	0.0	0.0	0.1	3.1	0.0	8.2
Misc. Manufacturing	0.0	0.0	0.1	0.0	0.3	12.7	0.0	2.3
Electric utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas utility	0.0	0.0	0.0	0.0	0.0	4.0	3.6	72.7

additional charges, internal taxes and decreed customs valuation.[17] The three commodity groups with para-tariff measures are Food & Tobacco (Sector 9), Petroleum refining (Sector 17) and Fuel oil (Sector 18), whose coverage ratios are 21.5, 46.3 and 55.0 percent, respectively. The three commodities that are subject to automatic licensing are Food and Tobacco (Sector 17), Ferrous Metal (Sector 28) and Metalworking Machinery (Sector 32). However, their coverage ratios do not carry much information about the protection, since, as mentioned before, Automatic Licensing does not actually involve protection of any substance. The incidence of Tariff Measures is relatively high, and a dozen of commodity groups are subject to its influence. In particular, thirty five percent of U.S. imports of Shoe and Leather (Sector 21) are under protection by Tariff Measures (1) of some kinds. Our data shows that Finance Measures (5), Monopolistic measures (7) and Technical regulations (8) are not among the U.S. options of NTBs.

Table 4.3 shows that, in terms of the number of commodities, U.S. exports face more NTBs protections than imports. A striking difference from the case of imports is that U.S. exports tend to be regulated with technical measures (8) by its trading partners, and, as a matter of fact, 42 of 50 commodities are under its influence. Another major difference is that para-tariff measures (2), monopolistic measures (7) and automatic licensing (5) are used much more extensively as far as exports are concerned. Similarity does exist however. Just like the U.S., its trading partners also rely heavily on quantity control measures (6). 45 of 53 commodity groups are subject to quantity control measures (6). U.S. trading partners also use price control measures just as extensively. Finance measures are rarely used by either the U.S. or any other countries.

Aggregate summaries can obscure restrictions on specific products. Tariffs rates and NTB coverage ratios are also presented as Appendix to this chapter and describe in some product detail, by 4-digit SITC.

4. Removal of Tariffs and NTBs: A Counter-factual Analysis

What would happen to U.S. imports and exports if all countries should remove their existing tariffs and NTBs on all commodities? In Chapter three, we estimate the import-reducing effects of tariffs and various types of NTBs in an econometric framework. Our estimation indicates that the sensitivity of imports penetration ratio with respect to tariff rate is in the neighborhood of –2.0. The estimation results for various NTBs are in general mixed, however, we do have grounds to place due trust on the estimates of three types of them, including quantity control measures, monopolistic measures and technical measures. According to our estimation, the sensitivities associated with those three types of NTBs are in the neighborhood of –0.5. The estimated sensitivities can be good approximations of sensitivities of imports with respect to tariff rate and NTB coverage ratio, assuming domestic demand does not change. A one percent reduction of tariff rates will incur two percent imports increase. A one percent

[17] See appendix for a complete description of the trade control measures.

Table 4.4: U.S. Exports: Increase from Removing Tariffs

	1997 Exports				Increase in Exports	
	1	2	3	4	5	6
LIFT Sector Title	% Domestic Output	Producers Value (Bil$)	% Not Subject to Tariffs	Value (Bil$) Subject to Tariffs	Percent	Value (Bil$)
Total		560.72	37.8	348.70	9.80	34.172
1 Agriculture,forestry,fisheries	8.2	23.49	25.2	17.58	9.60	1.687
2 Iron ore mining	21.7	0.53	99.9	0.00	8.80	0.000
3 Nonferrous metals mining	5.9	0.75	43.9	0.42	2.80	0.012
4 Coal mining	9.5	2.51	16.1	2.11	0.60	0.013
6 Crude petroleum	8.4	4.94	98.5	0.08	9.60	0.007
7 Non-metallic mining	4.3	0.83	25.8	0.62	2.80	0.017
8 Construction	0.0	0.11	0.0	0.11	0.00	0.000
9 Food & tobacco products	6.0	34.26	32.3	23.20	24.40	5.661
10 Textiles, exc. knits	9.0	6.11	48.2	3.17	15.00	0.475
11 Knitting	5.9	1.13	0.0	1.13	0.00	0.000
12 Apparel, household textiles	10.4	8.36	38.2	5.17	29.20	1.509
13 Paper	7.8	13.28	39.3	8.07	7.80	0.629
14 Printing & publishing	2.1	4.55	54.1	2.09	4.60	0.096
15 Agricultural fertilizers	17.3	4.57	22.9	3.53	10.00	0.353
79 Drugs	12.0	10.59	19.6	8.52	4.00	0.341
16 Other chemicals	15.9	45.12	35.9	28.93	12.40	3.588
17 Petroleum refining	5.1	10.56	37.0	6.66	8.20	0.546
19 Rubber products	12.3	4.08	59.3	1.66	11.20	0.186
20 Plastic products	7.4	7.43	57.5	3.16	9.60	0.303
21 Shoes and leather	23.5	1.92	24.1	1.46	9.80	0.143
22 Lumber	4.8	6.38	43.2	3.62	13.60	0.493
23 Furniture	5.9	3.69	66.3	1.25	12.20	0.152
24 Stone, clay, glass products	6.6	5.89	55.5	2.62	13.80	0.362
25 Ferrous metals	5.1	5.47	68.9	1.70	13.60	0.231
26 Copper	5.6	1.02	58.3	0.42	8.60	0.036
27 Other nonferrous metals	8.7	9.73	54.5	4.42	11.00	0.487
28 Metal products	7.3	14.97	59.1	6.12	13.60	0.833
29 Engines and turbines	46.8	10.00	47.0	5.30	4.80	0.254
30 Agricultural machinery	16.8	4.06	49.2	2.06	7.20	0.148
31 Constr,mining,oilfield equipment	40.8	10.68	37.2	6.71	12.00	0.805
32 Metalworking machinery	15.7	5.23	38.6	3.21	10.00	0.321
33 Special industry machinery	28.0	8.96	31.3	6.15	9.60	0.591
34 Misc non-electrical machinery	20.7	18.93	41.0	11.17	12.20	1.363
35 Computing equipment	38.1	36.34	24.2	27.56	5.80	1.599
36 Other office equipment	13.5	1.05	22.1	0.82	4.80	0.039
37 Service industry machinery	14.2	5.20	39.3	3.16	11.20	0.354
38 Communic eq,semiconductors, & electronic components	26.6	54.07	24.7	40.71	6.60	2.687
39 Elec indl app & distrib e	27.4	12.72	51.7	6.15	10.40	0.639
40 Household appliances	14.8	3.07	56.8	1.33	17.60	0.233
41 Misc electrical eq	32.3	18.19	48.0	9.46	11.60	1.097
42 Tv sets,radios,phonograph	39.1	4.76	29.9	3.34	12.00	0.401
43 Motor vehicles	15.2	51.43	68.0	16.43	17.40	2.859
44 Aerospace	41.2	47.67	10.7	42.57	3.00	1.277
45 Ships, boats	11.8	1.74	26.5	1.28	7.00	0.089
46 Other transportation equipment	21.0	3.74	70.5	1.10	13.00	0.143
80 Medical instruments and supplies	18.6	6.30	26.5	4.64	7.00	0.325
81 Ophthalmic goods	19.3	0.59	26.5	0.43	7.00	0.030
47 Instruments	25.5	16.56	26.5	12.18	7.00	0.853
48 Misc. manufacturing	10.8	5.91	17.9	4.85	5.40	0.262
56 Electric utilities	0.3	0.46	100.0	0.00	0.00	0.000
57 Gas utility	0.8	0.79	63.0	0.29	2.60	0.008

Notes

Column 1: 1997 Exports, Percent of Domestic Output of Nondefense Activity

Column 2: 1997 Exports, Billion $, Producer Value

Column 3: Percent of Exports not Subject to Tariffs in Year 1994 (Canada, Mexico and Countries with Unknown Tariff Rates.)

Column 4: 1997 Exports Subject to Tariffs, Billions $ Estimated from 1997 Exports and the Exclusion Ratio

Column 5: Percent Increase from Removal of Tariffs

Column 6: Estimated Exports Increase from Tariff Factor and Trade Subject to Tariffs, Billion $

Table 4.5: U.S. Imports: Increase from Removing Tariffs

	1997 Imports				Increase in Imports	
	1	2	3	4	5	6
LIFT Sector Title	%Domestic Demand	Domestic Port Value (Bil $)	%Not Subject to Tariff	Value (Bil $) Subject to Tariff	Percent	Value (Bil $)
Total		870.48	30.6	604.305	6.60	39.884
1 Agriculture,forestry,fisheries	7.6	22.42	64.2	8.03	2.80	0.225
2 Iron ore mining	45.3	1.48	71.5	0.42	0.00	0.000
4 Coal mining	1.2	0.27	48.4	0.14	0.00	0.000
6 Crude petroleum	48.7	50.75	53.8	23.44	0.80	0.188
7 Non-metallic mining	10.0	1.80	57.7	0.76	1.00	0.008
9 Food & tobacco products	5.7	31.24	28.2	22.44	10.60	2.379
10 Textiles, exc. knits	11.7	7.80	24.1	5.92	16.00	0.948
11 Knitting	8.3	1.62	0.0	1.62	0.00	0.000
12 Apparel, household textiles	46.5	59.31	13.3	51.39	22.80	11.717
13 Paper	9.7	15.46	76.1	3.69	2.40	0.089
14 Printing & publishing	1.5	3.02	30.6	2.09	0.60	0.013
15 Agricultural fertilizers	13.8	3.28	26.6	2.41	9.80	0.236
79 Drugs	24.3	23.88	7.4	22.12	0.00	0.000
16 Other chemicals	12.1	34.58	30.7	23.98	7.20	1.726
17 Petroleum refining	5.0	24.41	40.7	14.47	4.20	0.608
19 Rubber products	27.4	11.07	33.4	7.37	6.20	0.457
20 Plastic products	7.1	8.00	28.0	5.76	3.80	0.219
21 Shoes and leather	74.4	17.69	4.6	16.88	21.60	3.645
22 Lumber	10.7	13.88	51.4	6.74	7.80	0.526
23 Furniture	17.1	11.65	47.6	6.10	3.40	0.208
24 Stone, clay, glass products	13.2	12.33	37.6	7.70	11.60	0.893
25 Ferrous metals	15.7	18.48	27.6	13.39	6.80	0.910
26 Copper	17.5	3.23	45.1	1.77	3.40	0.060
27 Other nonferrous metals	18.8	15.77	71.9	4.43	4.60	0.204
28 Metal products	9.6	20.60	33.9	13.62	7.20	0.980
29 Engines and turbines	25.2	3.79	29.3	2.68	2.00	0.054
30 Agricultural machinery	16.7	3.97	32.8	2.67	1.00	0.027
31 Constr,mining,oilfield equipment	23.0	5.05	10.6	4.52	2.20	0.099
32 Metalworking machinery	26.1	10.07	17.8	8.28	6.00	0.497
33 Special industry machinery	28.4	9.63	12.5	8.43	3.60	0.303
34 Misc non-electrical machinery	21.2	19.14	25.1	14.34	4.60	0.660
35 Computing equipment	53.2	67.74	11.0	60.27	2.40	1.446
36 Other office equipment	17.3	1.78	16.1	1.50	1.40	0.021
37 Service industry machinery	9.9	3.49	24.0	2.66	3.20	0.085
38 Communic eq,semiconductors, & electronic components	28.6	57.21	13.1	49.72	2.20	1.094
39 Elec indl app & distrib e	27.0	13.20	38.7	8.09	6.60	0.534
40 Household appliances	24.6	5.63	19.6	4.52	5.80	0.262
41 Misc electrical eq	39.1	24.39	31.0	16.82	6.80	1.143
42 Tv sets,radios,phonograph	79.9	22.78	24.6	17.18	5.60	0.962
43 Motor vehicles	30.0	121.91	47.3	64.19	5.60	3.595
44 Aerospace	21.0	16.62	19.1	13.44	2.00	0.269
45 Ships, boats	5.2	0.67	22.0	0.52	2.80	0.015
46 Other transportation equipment	23.2	3.87	52.8	1.83	4.60	0.084
80 Medical instruments and supplies	16.7	5.21	12.3	4.57	6.60	0.302
81 Ophthalmic goods	45.7	1.93	12.3	1.69	6.60	0.112
47 Instruments	33.4	21.76	12.3	19.08	6.60	1.259
48 Misc. manufacturing	42.7	35.62	13.9	30.66	4.40	1.349
56 Electric utilities	0.4	1.03	100.0	0.00	0.00	0.000

Column 1: 1997 Impors, Percent of Demestic Demand of Nondefense Activity
Column 2: 1997 Imports, Billion $, Domestic Port Value
Column 3: Percent of Imports not Subject to Tariffs in Year 1994 (Canada, Mexico and Countries with Unknown Tariff Rates.)
Column 4: 1997 Imports Subject to Tariffs, Billions $ Estimated from 1997 Imports and the Exclusion Ratio
Column 5: Percent Increase from Removal of Tariffs, assuming elasticity = -1.0
Column 6: Estimated Imports Increase from Tariff Factor and Trade Subject to Tariffs, Billion $

reduction of NTB coverage ratio, will lead to 0.5 percent increase in imports. Based on the information on the sensitivities and our data on the current level of trade protection of tariffs and NTBs, we can calculate how much a country's imports will increase if it chooses to eliminate its exiting trade protection.
It should be pointed out that the estimated sensitivity in the previous chapter is an indicator of the cross-country and cross-industry average. By applying the same sensitivity parameter to different countries and industries, we only capture the average tendency of the response of an industry in a country to the trade liberalization shock. Consequently, the variations in the estimated changes of imports reflect those in the pre-liberalization levels of trade barriers.

4.1 Removal of Tariffs

We take the estimated sensitivity –2 as given and compute, at the 6-digit HS level, the percentage change in each country's imports that would occur if tariffs were eliminated by all countries. We then take the import-weighted average increase in imports at the 6-digit HS level to get the percentage increase at 4-digit SITC level. Since we assume the tariff cuts are nondiscriminatory, each country consequently increases its imports of the same commodity from different sources by the same percentage. To calculate the increase in each country's exports, we use bilateral exports as weights.

Tables 4.4 and 4.5 show the respective increase of U.S. exports and imports from the elimination of tariffs by the U.S. and its trading partners. The percentage increase is shown in column 5 of the tables. The levels, shown in billions of dollars in column 6, result from the application of the percentages to 1997 trade data. INFORUM's LIFT model and database are the source of 1997 data on trade and domestic production. Again, because we want to analyze trade not covered by existing agreements to remove barriers, we exclude trade with Canada and Mexico. Also excluded form the estimates are those countries whose tariff data are not available from TRAINS.

As shown in Table 4.4 and 4.5, U.S. total commodity exports would increase by $34 billion, while imports would increase $40 billion. In several industries, increased exports are approximately offset by increased imports. These sectors include Lumber, Fabricated metal products, Computing equipment, Household appliances, and Medical instruments. But this pattern is not typical for most industries. In terms of net exports, 27 out of 51 sectors enjoy gains. Such industries as Food & tobacco, Agriculture, Chemicals, Communications equipment, semiconductors and electronic components, and aerospace, where the U.S. have traditionally been competitive in the global market, are among the winners, with gains form exports exceeding increases in imports. Significant losers are Apparel and Shoes. Indeed, the aggregate decline in net exports is due mainly to their large import increase: $11.7 billion in Apparel and $3.6 billion in Shoes. Other net losers, where increased imports exceed the gain from exports, are Instruments (including cameras, watches, and photocopiers), Steel, and Motor vehicles and parts.

Tables 4.4 and 4.5 include several other useful measures. In addition to the increases in imports expected from tariff removal, Table 4.5 shows the level of 1997 imports valued in domestic port prices,18 import as a share of domestic demand, and the imports assumed to be subject to the tariff reduction. In several sectors, significant import penetration has occurred in spite of high tariffs. Apparel and Shoes are notable examples, with imports providing 47 percent and 74 percent, respectively, of domestic demand.

Several export indicators appear in Table 4.4. It indicates the portion of domestic non-defense output which is exported, the 1997 level of exports valued in producers' prices, and exports to countries other than Canada and Mexico which would be impacted by the change in tariffs.

Exports of capital goods (machinery and transportation equipment) account for about half of the increase in exports. Large portions of production of most of these industries are exported. Generally, export gains were greater than the increases in imports of capital goods. Motor vehicles and Instruments were, however, an exception to this pattern.

Although Agriculture, Food, and many capital goods sector benefit from the removal of tariff barriers, our estimates suggest that the aggregate economy experiences little direct benefit or loss in the trade balance. Gains in exports are approximately offset by increased imports. There are several reasons for this somewhat surprising result. Particular industries will benefit from open trade and they are vocal in presenting their case. Rhetoric on trade barriers tends to imply, somewhat inaccurately, that U.S. markets are completely open, while foreign markets erect barriers to keep U.S. goods out. But data show that the U.S. imposes tariffs on many goods. Import penetration has been significant in several industries in spite of important tariffs in some cases. Removal of U.S. tariffs will increase imports. While the increase in imports of labor-intensive goods such as Apparel is not surprising, impacts on some other industries are not so easily anticipated. For example, out estimate suggest that, with the removal of tariffs, exports from the Motor vehicle and parts industry will increase by nearly 17.4 percent, $2.86 billion. Although imports of vehicles and parts will increase by a smaller percentage (5.6 percent), the $ 3.6 billion increase exceeds the gain from exports.

The analysis examined the direct impacts of removing tariffs. There are, of course, other reasons to promote open trade. For example, open trade allows consumers to enjoy a wider variety of goods at lower prices than would be available in the restricted market. International competition tends to spur domestic productivity.

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18 Imports in Table 5 are valued in domestic port prices, the value at which imports compete with goods produced by domestic industries. This valuation includes the cost of international freight, insurance and duties, as well as the cost of the good.

Table 4.6: U.S. Exports: Increase from Removing NTBs

	Percent				Increase in 1997 Exports
	Q	M	T	Sum	Value (Bil $)
					18.46
Agriculture, forestry, fishery	6.3	2.3	13.1	21.6	3.80
Iron ore mining	0.0	0.0	0.0	0.0	0.00
Non-ferrous metals mining	0.0	0.0	2.1	2.1	0.01
Coal mining	13.0	0.0	0.0	13.0	0.27
Natural gas extraction	0.0	0.0	0.0	0.0	0.00
Crude petroleum	0.0	0.0	0.0	0.0	0.00
Non-metallic mining	0.1	0.0	0.4	0.5	0.00
Construction	0.0	0.0	0.0	0.0	0.00
Food & tabacco	4.6	4.5	11.3	20.4	4.73
Textiles, excluding Knits	10.3	0.0	0.3	10.5	0.33
Knitting	0.0	0.0	0.0	0.0	0.00
Apparel, household textiles	4.5	0.0	0.4	4.9	0.25
Paper	0.5	0.0	1.5	2.0	0.16
Printing & publishing	0.6	0.0	0.0	0.6	0.01
Agricultural fertilizers	5.0	2.0	8.5	15.5	0.55
Other chemicals	1.3	0.5	3.0	4.8	1.37
Petroleum refining	4.5	3.1	3.1	10.8	0.72
Fuel oil	2.0	0.9	5.6	8.5	0.00
Rubber products	0.6	0.0	1.8	2.4	0.04
Plastic products	0.4	0.0	0.8	1.1	0.04
Shoes and leather	4.4	0.0	4.1	8.5	0.12
Lumber	0.4	0.0	0.6	1.0	0.04
Furniture	0.0	0.0	0.1	0.1	0.00
Stone, clay, glass	0.5	0.0	1.6	2.1	0.06
Ferrous metals	2.3	0.0	0.8	3.0	0.05
Copper	0.1	0.0	0.8	0.9	0.00
Other nonferrous metals	0.3	0.0	1.3	1.5	0.07
Metal products	0.5	0.0	0.8	1.3	0.08
Engines and turbines	2.4	0.0	0.3	2.6	0.14
Agricultural machinery	1.6	0.0	0.8	2.4	0.05
Construction, mining, oil field equipment	1.8	0.0	0.9	2.6	0.18
Metalworking machinery	1.0	0.0	1.8	2.8	0.09
Special industry machinery	1.5	0.0	1.1	2.6	0.16
Misc non-electrical machinery	1.9	0.0	1.1	3.0	0.34
Computers	1.3	0.0	0.1	1.4	0.38
Other office equipment	1.5	0.0	0.0	1.5	0.01
Service industry machinery	1.0	0.0	2.1	3.1	0.10
Communications eq., electronic component	0.5	0.0	0.5	1.0	0.41
Electric industrial appl & distribution eq.	0.9	0.0	0.6	1.5	0.09
Household appliances	0.9	0.0	2.4	3.3	0.04
Misc electrical equipment	1.6	0.0	0.1	1.8	0.17
TV sets, radios, phonographs	2.8	0.0	0.6	3.4	0.11
Motor vehicles	2.6	0.0	5.8	8.4	1.38
Aerospace	3.3	0.0	0.0	3.3	1.38
Ships, boats	0.8	0.0	0.0	0.8	0.01
Other transport equipment	0.0	0.0	0.0	0.0	0.00
Instruments, excl. medical equipment	1.0	0.0	2.5	3.5	0.43
Misc. Manufacturing	4.0	0.0	0.8	4.8	0.23
Gas utility	1.3	1.1	22.8	25.1	0.07

Table 4.7: U.S. Imports: Increase from Removing NTBs

	Percent				Increase in 1997 Imports
	Q	M	T	Sum	Value (Bil $)
					12.58
Agriculture, forestry, fishery	0.0	0.0	0.0	0.0	0.00
Iron ore mining	0.0	0.0	0.0	0.0	0.00
Non-ferrous metals mining	0.0	0.0	0.0	0.0	0.00
Coal mining	0.0	0.0	0.0	0.0	0.00
Natural gas extraction	0.0	0.0	0.0	0.0	0.00
Crude petroleum	0.0	0.0	0.0	0.0	0.00
Non-metallic mining	0.0	0.0	0.0	0.0	0.00
Construction	0.0	0.0	0.0	0.0	0.00
Food & tabacco	1.1	0.0	0.0	1.1	0.12
Textiles, excluding Knits	23.0	0.0	0.0	23.0	3.68
Knitting	0.0	0.0	0.0	0.0	0.00
Apparel, household textiles	27.6	0.0	0.0	27.6	6.30
Paper	0.0	0.0	0.0	0.0	0.00
Printing & publishing	0.0	0.0	0.0	0.0	0.00
Agricultural fertilizers	0.0	0.0	0.0	0.0	0.00
Other chemicals	0.3	0.0	0.0	0.3	0.02
Petroleum refining	0.0	0.0	0.0	0.0	0.00
Fuel oil	0.0	0.0	0.0	0.0	0.00
Rubber products	0.0	0.0	0.0	0.0	0.00
Plastic products	0.0	0.0	0.0	0.0	0.00
Shoes and leather	3.5	0.0	0.0	3.5	0.76
Lumber	0.0	0.0	0.0	0.0	0.00
Furniture	0.4	0.0	0.0	0.4	0.01
Stone, clay, glass	1.4	0.0	0.0	1.4	0.16
Ferrous metals	3.3	0.0	0.0	3.3	0.22
Copper	2.9	0.0	0.0	2.9	0.10
Other nonferrous metals	0.0	0.0	0.0	0.0	0.00
Metal products	2.5	0.0	0.0	2.5	0.18
Engines and turbines	0.0	0.0	0.0	0.0	0.00
Agricultural machinery	0.0	0.0	0.0	0.0	0.00
Construction, mining, oil field equipment	0.5	0.0	0.0	0.5	0.01
Metalworking machinery	0.3	0.0	0.0	0.3	0.02
Special industry machinery	0.3	0.0	0.0	0.3	0.01
Misc non-electrical machinery	6.0	0.0	0.0	6.0	0.28
Computers	0.0	0.0	0.0	0.0	0.00
Other office equipment	0.0	0.0	0.0	0.0	0.00
Service industry machinery	0.0	0.0	0.0	0.0	0.00
Communications eq., electronic compon	0.9	0.0	0.0	0.9	0.02
Electric industrial appl & distribution eq.	6.3	0.0	0.0	6.3	0.41
Household appliances	0.0	0.0	0.0	0.0	0.00
Misc electrical equipment	1.3	0.0	0.0	1.3	0.09
TV sets, radios, phonographs	2.0	0.0	0.0	2.0	0.11
Motor vehicles	0.4	0.0	0.0	0.4	0.02
Aerospace	0.0	0.0	0.0	0.0	0.00
Ships, boats	0.0	0.0	0.0	0.0	0.00
Other transport equipment	0.1	0.0	0.0	0.1	0.01
Instruments, excl. medical equipment	0.9	0.0	0.0	0.9	0.06
Misc. Manufacturing	0.3	0.0	0.0	0.3	0.01
Gas utility	0.0	0.0	0.0	0.0	0.00

4.2 Removal of NTBs

Coverage ratios indicate the presence of barriers to trade, but do not give an indication of the degree to which trade is restricted by the barriers. In Chapter 3, we explored the sensitivities of imports with respect to five different types of NTBs. Our equation explains reasonably well the sensitivities of the import share in term of three types of NTBs, including quantity control measures, monopolistic measures, and technical measures. It suggests that imports are reduced by about 0.5 percent for each percent of imports covered by the three types of NTBs. Taking the estimated sensitivities as given and following exactly the same steps as we do for the tariffs, we estimated the impact on U.S. trade from the removal of each of the three NTBs. We calculated the percentage change of trade flows incurred by removing each of the three types of NTBs. The total effect is estimated by simply adding up the effects of the three types of NTBs. The value magnitude of the trade flows change is then estimated based on 1997 data on trade flows. Table 4.6 and 4.7 shows the estimated impact for 50 aggregate industries.

The impact on imports is concentrated in a few commodity groups (Textile, Apparel and Shoes). As far as exports are concerned, the impact of removal of NTBs is widespread but not significant except for five commodity groups: Agriculture, Coal mining, Food & tobacco, Fertilizers and Gas utility. Combining the information on the estimated impact with the data of imports level in 1997, we further estimate that, without NTBs, U.S. imports (from countries other than Canada and Mexico) would have been 2.1 percent ($12.58 billion) higher than their 1997 levels and U.S. exports would have been 5.3 percent ($18.46 billion) higher than their 1997 level. In particular, about 80 percent of the import increase is accounted for by three sectors: Textile, Apparel and Shoes.

5. Concluding Remarks

Taking a static approach, we estimate the impact on U.S. trade from removal of tariffs and NTBs. Several assumptions used in the study may influence our results. For example, measured tariff rates and NTB coverage ratios for aggregate commodity groups might be understated if barriers have been effective in reducing trade in those goods with protection. We have assumed constant sensitivities to estimate the change in exports or imports from removal of tariffs. Where import shares are already high (for example, imports of apparel and shoes into the U.S.), the constant sensitivities might overstate the increase in imports of such goods. Alternatively, where tariffs have prevented imports from penetrating domestic markets, the assumption might understate changes. Our estimation of the impact of NTBs seems somewhat crude, nevertheless we believe it is an worthwhile exercise on the basis of serious thought and solid data support. We note also that this study has analyzed commodities and has not addressed trade in services.

CHAPTER FIVE:

REMOVAL OF TARIFFS: SIMULATION WITH A BILATERAL TRADE MODEL

1. Introduction

In the previous chapter, we focused on one single country and its trade relationship with the rest of the world. We estimate the impact on U.S. trade under an assumed scenario, a "Final Round", in which the existing trade barriers of all the countries in the world are removed. The estimation was made possible by our estimation of the sensitivities of imports with respect to tariffs and NTBs and the data on existing level of trade protection. We calculated the import increase of the U.S. as well as its trading partners. The increase in the U.S. exports was then calculated by summing up the increases of imports of all its trading partners. This approach guarantees the accounting consistency of the bilateral trade transactions. Namely, the level or change of a country's volume of exports should be consistent with the level or change of its trading partners' volume of imports. In principle, the same kind of computations can be done for all the other countries.

Two major assumptions were made in the study in the previous chapter. The first one is that the tariff cuts are nondiscriminatory, and each country consequently increased its imports of the same commodity from different sources by the same percentage. The second one is that the sensitivities of imports with respect to tariff cuts are uniform across countries and commodity groups. In this chapter, we first relax the first assumption by explicitly modeling the impact of bilateral discrimination on trade shares. Then, in a separate exercise, when estimating the response of imports to tariff cuts, we use country and commodity-specific sensitivities which were estimated in separate studies made by INFORUM and its foreign partners. We also expand the scope of our study by estimating the effects of removal of tariffs among 14 countries and two regions, which together cover the global trade.

A different approach is taken. More specifically, we use a Bilateral Trade Model (BTM) to simulate the effects of tariff removal and quantify by sector how the imports and exports of each country and region respond to a complete removal of tariffs. As to be elaborated later, the function of BTM is to allocate each country's imports to their source countries in accordance with the commodity-share matrices. The sum of all the allocations of a particular product to one country then yields a consistent estimate of exports of that country. BTM is designed to ensure the accounting consistency of bilateral trade transactions at a disaggregation level of 120 sectors.

The remainder of this chapter is divided into four sections: in section II, we briefly describe the existing BTM; in section III, we discuss how the BTM is updated and improved so as to deal with the trade protection issues; in section

VI, we present and discuss the results from our simulation with the BTM under different scenarios; Concluding remarks are made in the last section.

2. Bilateral Trade Model: An Overview

BTM explicitly models the impact of tariffs on trade shares. The existing BTM was developed at INFORUM by Qiang Ma (1996). INFORUM, which stands for the Inter-industry Forecasting at the University of Maryland, was founded by Clopper Almon in 1967. INFORUM is a research organization dedicated to improving business forecasting and government policy analysis. At the heart of INFORUM's research is a set of inter-industry macroeconomic models for the U.S. and other foreign countries. These models are dynamic, and produce annual forecasts for a variety of industry indicators through at least 2010. The central role of the BTM is to link each national model and produce forecasts of trade flows that are consistent from country to country. The BTM allocates each country's imports to their source countries in accordance with the commodity-share matrices. The sum of all the allocations of a particular product to one country then yields a consistent forecast of exports of that country.

Nyhus (1975) built the first comprehensive trade model in advance of most of the national models it was to link. The linked international system, as envisaged in Nyhus' study, would work like a solar system, in which the trade model is treated as the Sun and the country models as the planets. The "Sun" draws imports and absolute domestic prices to itself and radiates exports and world prices back to the "planets". Market-clearing world prices and exports are determined simultaneously through an iterative solution process.

Unfortunately, this linking plan was never implemented. The principal reason was the trade model's heavy reliance on the role of prices in the determination of the country of origin for imports. The national models were relatively slow in their development of price forecasts because work on the price forecasting can be developed only after the "real" constant-price part of the model has been working for some time. Indeed, at the end of 1984, only the models of the United States, Japan and Italy had domestic prices as an integral part of the forecasts each model produced. Today, by contrast, domestic price projections are available in all of INFORUM's national models. By the time that the national models were ready, the first bilateral trade model was hopelessly out of date because its database was the 1962-1972 period. Furthermore, the individual country makeup of the INFORUM system had changed markedly with the addition of Korea and China.

The bilateral trade model is a multi-sectoral world trade model for 16 trading partners and 120 commodity categories. The 16 trading partners are Canada, USA, Mexico, Japan, Korea, China, Taiwan, Austria, Belgium, France, Germany, Italy, Spain, UK, the Rest of the OECD and the Rest of the World. The 120-commodity category is the classification scheme used by INFORUM international system, which is roughly consistent with the 3-digit ISIC revision 2. A list of the commodities is presented in Table 5.1. The scope of BTM is

global and covers all the world commodity trade. In particular, excluding the two aggregate regions, the total trade value of the 14 individual countries accounts for over 65 percent of the total world trade in 1995.

Table 5.1 : INFORUM 120 Commodity Categories

1	Unmilled cereals	61	Glass
2	Fresh fruits,vegetables	62	Cement
3	Other crops	63	Ceramics
4	Livestock	64	Non-metallic products n.e.c.
5	Silk	65	Basic iron and steel
6	Cotton	66	Copper
7	Wool	67	Aluminum
8	Other natural fibers	68	Nickel
9	Crude wood	69	Lead and zinc
10	Fishery	70	Other Non-ferrous metal
11	Iron ore	71	Metal furnitures and fixtures
12	Coal	72	Structural metal products
13	Non-ferrous metal ore	73	Metal containers
14	Crude petroleum	74	Wire products
15	Natural gas	75	Hardware
16	Non-metallic ore	76	Boilers and turbines
17	Electrical energy	77	Aircraft engines
18	Meat	78	Internal combustion engines
19	Dairy and eggs	79	Other power machinery
20	Preserved fruits,vegetables	80	Agricultural machinery
21	Preserved seafood	81	Construction,mining,oilfield eq
22	Vegetable&animal oils,fats	82	Metal,woodworking machinery
23	Grain mill products	83	Sewing and knitting machines
24	Bakery products	84	Textile machinery
25	Sugar	85	Paper mill machines
26	Cocoa, chocolate,etc	86	Printing machines
27	Food products n.e.c.	87	Food-processing machines
28	Prepared animal feeds	88	Other special machinery
29	Alcoholic beverage	89	Service industry machinery
30	Non-alcoholic beverage	90	Pumps,ex measuring pumps
31	Tobacco products	91	Mechanical handling equipment
32	Yarns and threads	92	Other non-electrical machinery
33	Cotton fabric	93	Radio,TV,phonograph
34	Other textile products	94	Other telecomm eq
35	Floor coverings	95	Household electrical appliances
36	Wearing apparel	96	Computers
37	Leather and hides	97	Other office machinery
38	Leather products	98	Semiconductors
39	Footwear	99	Electric motors
40	Plywood and veneer	100	Batteries
41	Other wood products	101	Electric bulbs,lighting eq.
42	Furnitures and fixtures	102	Electrical indl appliance
43	Pulp and waste paper	103	Shipbuilding,repairing
44	Newsprint	104	Warships
45	Paper products	105	Railroad equipment
46	Printing,publishing	106	Motor vehicles
47	Basic chemicals	107	Motorcycles,bicycles
48	Fertilizers	108	Motor vehicles parts
49	Synthetic resins,man-made fibers	109	Aircraft
50	Paints,varnishes,lacquers	110	Other transport eq
51	Drugs and medicines	111	Pro measurement instruments
52	Soap,other toilet preparations	112	Photographic,optical goods
53	Chemical products n.e.c.	113	Watches and clocks
54	Petroleum refineries	114	Jewellery
55	Fuel oils	115	Musical instruments
56	Product of petroleum	116	Sporting goods
57	Product of coal	117	Ordnance
58	Tyre and tube	118	Works of art
59	Rubber products,n.e.c.	119	Manufactured goods n.e.c.
60	Plastic products,n.e.c.	120	Scrap,used,unclassified

The centerpiece of the bilateral trade model is the trade-share matrix. Trade shares show, for a country importing a certain product, the proportions imported from each source country. It provides the fundamental trade linkage mechanism that directly connects the import demand of a country to the export supplies of its trading partners', as represented by the following matrix notation: where X is the export vector with n elements, each of which corresponds to the

$$X_{n\times 1} = S_{n\times n} * M_{n\times 1} \qquad (5.1)$$

total exports in a given sector by one of the 16 countries or regions in the trade model, M is the import vector for the same sector, and S is the trade-shares matrix for this sector.

The trade shares are not constant; and, in fact, in Ma's study each element of the trade-shares matrix is a function of relative price, relative capital stock growth and other factors. The main task of the bilateral trade model is to forecast the S matrices. Mathematically, the typical S_{ij} element of the trade-shares matrix can be written as follows:[19]

where,

S_{ijt} = the share of country *i* in the imports of a given product into a given country j in year t (0 denotes the base year 1990);

P_{eit} = the effective price of the good in question in country *i* (exporter) in year t, defined as a moving average of domestic market prices for the last three years;

$$S_{ijt} = \beta_{ij0} * \left(\frac{P_{eit}}{P_{wjt}}\right)^{\beta_{ij1}} * \left(\frac{K_{eit}}{K_{wjt}}\right)^{\beta_{ij2}} * e^{\beta_{ij3} T_t}$$

P_{wjt} = the world price of the good in question as seen from country j (importer) in year t;

K_{eit} = an index of effective capital stock in the industry in question in country *i* in year t, defined as a moving average of the capital stock indices for the last three years;

K_{wjt} = an index of world average capital stock in the industry in question as seen from country j in year t with the country weights being S_{ij0};

T_t = Nyhus trend variable, set to zero in the base year;

β_{ij0}, β_{ij1}, β_{ij2}, β_{ij3} are estimated parameters.

The world price, P_{wjt}, is defined as a fixed-weighted average of effective prices in all exporting countries of the good in question in year t:

and the world average capital stock, K_{wjt}, is defined as a fixed-weighted average

$$P_{wjt} = \sum_i S_{ij0} P_{eit} \quad ; \qquad \sum_i S_{ij0} = 1 \qquad (5.2)$$

$$K_{wjt} = \sum_i S_{ij0} K_{eit} \quad ; \qquad \sum_i S_{ij0} = 1 \qquad (5.3)$$

of capital stocks in all exporting countries of the sector in question in year t:

The fixed weights in Equation 5.2 and 5.3, S_{ij0}, are the trade shares for the base year 1990. The use of the fixed weights ensures that the share equation satisfies the "homogeneity" condition as suggested by the demand theory. For example, if all effective prices, P_{eit}, are doubled, then a doubling of the world prices as seen by each importing country (or its import prices) leaves the price ratio unchanged. Ma (1996) estimated the BTM using time series regression on annual OECD and UN data of international trade by commodity and country of origin and destination for the 1974-91 period. Several empirical studies using BTM have been conducted.

3. Bilateral Trade Model: Update and Improvement

The BTM as developed by Ma did not address the issue of trade protection. It assumed that a country imposes a uniform tariff on the same kind of goods regardless of its country of origin, then the level of its tariff rate should not affect the relative competitiveness of its trading partners. As far as trade share equation is concerned, the same tariff factor enters into both the denominator and numerator of the relative price term, and thus its net effect is neutral.

However, as discussed in Chapter 2, the effective tariff rates faced by different exporters are not uniform for at least two reasons: 1) an importer refuses to grant Most Favored Nation (MFN) status to a particular exporter; 2) the member countries of regional trade agreements treat fellow member countries and nonmember countries differently. Moreover, in reality, the *de facto* discrimination, operating through the composition of trade in country-specific tariff schedules, can be as important as the explicit discriminatory practices.

In Table 5.2, we present the bilateral tariff matrix for selected commodities of the 120 commodity categories. As discussed in Chapter 2, the effective bilateral tariff rate imposed by importer A against exporter B is derived as the weighted average of country A's tariff rates using the bilateral are faced by tariff rates of roughly the same magnitude, the treatment received by different trading partners however are marginally different. For instance, the US exports of meat (Sector 18) to Japan faces an effective tariff rate of 30 percent, whereas the effective tariff rate on exports of same goods from Korea was only 2 percent. The differential treatment on the part of effective bilateral tariff rates, combined with the preferential trade agreement, can presumably play a critical role in determining an exporter's trade shares on the market of its importing partner. import flow of A from B as weights. The weighted averages of tariffs at the 6-

19 See Ma (1996) for detailed explanations.

Table 5.2 The Bilateral Tariff Matrix for Selected Commodities of the 120 Commodity Categories

Sector 4: Livestock

	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	Rest of OECD	Rest of World
Canada	0.0	0.1	0.0	1.4	14.8	6.1	12.0	6.4	0.0	2.4	9.2	1.1	19.3	25.1	11.1	7.6
US	1.0	0.0	0.6	0.0	6.1	0.6	6.2	0.3	0.7	0.1	0.3	5.6	8.4	16.3	3.2	10.3
Mexico	0.0	0.0	0.0	23.8	23.8	23.8	23.8	23.8	23.8	23.8	27.8	0.0	0.0	0.0	23.8	12.7
Austria	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.4	0.7
Belgium	0.0	2.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	8.0	7.7	3.2	8.5
France	1.9	0.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	5.5	14.7	32.8	2.6	7.4
Germany	0.0	0.2	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	6.7	14.7	59.7	3.0	2.3
Italy	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0	264.6	1.9	9.4
Spain	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.8	0.0	0.0	0.0	2.2	13.8
UK	0.8	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	5.8	10.6	2.5	3.6
Japan	0.0	0.9	0.0	4.7	0.0	4.7	4.7	0.0	0.0	0.1	0.0	8.4	10.4	50.7	4.7	14.0
China	0.0	1.4	0.0	0.0	23.7	21.2	22.6	15.5	23.1	23.5	21.3	0.0	88.4	0.0	21.4	3.9
Korea	0.0	3.0	0.0	0.0	0.0	4.7	0.0	4.7	4.7	0.0	0.0	0.0	0.0	8.0	4.7	7.5
Taiwan	0.0	1.3	0.0	0.0	1.7	0.0	0.0	4.7	4.7	0.0	0.0	8.1	8.0	0.0	4.7	5.3
Rest of OECD	0.0	0.3	3.6	8.7	0.3	1.0	1.1	0.3	0.3	0.9	2.8	5.9	9.2	14.4	3.1	1.0
Rest of World	0.0	1.8	2.1	20.2	5.0	5.5	20.9	2.9	20.8	5.5	12.4	7.3	14.3	230.2	4.3	3.2

Sector 18: Meat

	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	Rest of OECD	Rest of World
Canada	0.0	4.5	16.9	1.2	4.3	5.9	0.5	5.2	0.4	0.4	7.6	19.7	34.9	31.3	15.4	15.1
US	15.0	0.0	13.0	0.6	5.7	4.1	0.9	1.9	3.0	2.3	30.0	20.5	39.2	32.2	12.2	16.5
Mexico	0.0	1.3	0.0	0.0	7.0	7.0	0.2	0.0	0.0	0.0	4.5	0.0	11.4	0.0	0.0	16.7
Austria	0.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	17.5	19.2
Belgium	4.3	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	11.2	22.5	21.6	18.3
France	2.1	1.2	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	20.2	22.0	13.5	25.0	17.5
Germany	2.0	0.5	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	18.4	11.4	11.2	22.5	16.9
Italy	12.2	0.6	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	19.3	0.0	13.3	22.7	18.4
Spain	0.4	1.5	18.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6	20.0	11.4	11.4	29.4	19.3
UK	3.7	0.8	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	23.8	29.4	11.2	23.7	16.8
Japan	0.3	3.0	10.0	0.0	13.5	3.6	1.7	0.0	10.1	2.8	0.0	20.0	14.1	15.3	1.8	16.7
China	0.9	0.4	8.0	2.4	3.7	3.9	2.1	1.6	0.8	1.8	7.2	0.0	17.9	11.8	3.3	17.7
Korea	2.0	2.9	0.0	0.0	0.0	0.0	0.2	13.5	0.0	0.0	2.0	18.1	0.0	26.9	6.4	13.7
Taiwan	0.4	0.4	14.3	0.1	0.0	0.2	0.2	0.2	0.2	1.3	2.4	18.1	16.8	0.0	0.5	13.2
Rest of OECD	11.2	6.6	16.1	3.7	3.0	1.0	2.3	0.5	1.3	2.6	24.9	20.4	36.8	39.8	25.8	16.5
Rest of World	10.2	5.4	18.8	4.7	4.9	4.3	2.6	4.1	2.9	9.6	8.3	20.5	12.8	11.9	18.1	16.7

Sector 21: Preserved seafood															
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	Rest of OECD	Rest of World
Canada	0.0	1.1	19.9	14.3	15.9	11.8	11.6	13.9	10.7	19.7	5.5	24.7	11.5	12.3	14.2	19.7
US	1.7	0.0	19.0	16.7	10.9	9.5	11.8	10.1	9.1	18.5	4.8	21.8	11.2	14.3	14.7	22.1
Mexico	0.4	1.1	0.0	0.0	0.0	11.8	0.0	10.7	11.7	0.0	5.5	0.0	19.9	19.8	20.1	20.4
Austria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	16.1	18.5
Belgium	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	10.4	21.1
France	1.5	0.6	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	14.6	20.0	16.3	10.8	23.9
Germany	2.9	3.3	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	20.6	14.4	15.1	13.2	21.6
Italy	4.3	5.2	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	29.0	0.0	20.0	12.2	21.6
Spain	6.5	4.5	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	19.4	12.5	10.1	11.0	25.5
UK	1.8	2.9	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	19.0	18.6	14.9	12.3	18.5
Japan	1.2	1.6	20.0	17.2	16.7	13.3	13.7	10.8	13.7	14.2	0.0	21.4	13.9	17.0	15.6	24.4
China	1.9	0.6	20.0	12.7	12.6	11.7	13.0	11.2	12.8	11.8	6.8	0.0	13.7	14.1	13.2	19.1
Korea	1.5	3.2	20.0	19.3	19.9	19.5	15.4	18.8	17.9	17.5	5.7	23.0	0.0	15.1	18.6	26.1
Taiwan	0.5	1.1	19.5	18.2	8.4	9.6	9.7	9.1	9.6	10.8	5.8	15.7	18.8	0.0	12.5	26.4
Rest of OECD	0.5	0.8	19.8	13.7	13.0	10.8	12.0	12.1	11.1	13.4	4.7	20.5	13.1	15.3	12.0	20.1
Rest of World	2.3	2.3	18.7	19.1	15.2	16.1	15.8	12.3	11.2	16.0	5.3	20.9	14.7	16.9	13.3	20.1

Sector 41: Other wood products																
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	Rest of OECD	Rest of World
Canada	0.0	2.2	20.0	3.3	3.5	3.0	3.3	3.6	3.4	3.2	2.0	16.5	8.0	6.6	3.4	17.1
US	4.7	0.0	19.0	3.4	3.5	3.2	3.4	3.5	3.5	3.3	1.7	17.5	7.1	6.9	3.4	17.4
Mexico	7.4	3.5	0.0	4.3	3.0	2.8	4.3	2.7	3.3	3.8	4.5	0.0	0.0	5.0	3.3	17.1
Austria	3.1	3.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	12.1	8.0	8.0	4.5	16.5
Belgium	6.0	2.8	19.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	14.2	8.0	7.9	4.9	16.7
France	5.4	2.8	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	17.2	7.4	6.3	4.2	17.7
Germany	5.2	2.7	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	14.6	7.6	7.2	4.5	16.8
Italy	5.0	3.2	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	16.9	7.5	7.8	3.7	17.1
Spain	3.0	3.0	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	16.0	7.5	6.8	4.0	17.4
UK	6.8	3.4	18.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	16.6	7.3	7.1	4.5	17.6
Japan	8.4	3.7	19.5	3.1	4.1	3.9	3.8	2.9	3.6	3.6	0.0	17.3	7.5	7.6	3.7	17.7
China	6.2	3.6	18.7	3.5	3.6	3.3	3.3	3.6	3.4	3.6	4.5	0.0	7.9	7.6	3.6	17.9
Korea	7.9	4.2	19.4	3.1	3.3	4.4	3.4	4.2	3.8	4.3	4.6	17.3	0.0	8.0	3.3	18.7
Taiwan	5.5	3.0	18.6	3.6	3.2	3.0	3.1	3.5	3.3	2.9	4.1	14.4	8.0	0.0	3.2	15.4
Rest of OECD	5.0	3.1	19.1	3.3	3.6	3.3	3.4	3.9	4.1	4.2	2.3	16.3	8.0	8.0	3.8	17.6
Rest of World	5.2	3.5	17.9	3.2	3.9	3.3	3.8	3.8	3.4	3.4	4.3	12.1	7.6	7.0	3.9	16.9

Sector 49: Synthetic raisins; man-made fibers															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	5.8	9.7	7.7	4.3	8.7	8.1	7.9	7.3	7.8	2.6	16.2	8.0	8.0	8.7	15.9
US	7.5	0.0	10.5	7.8	7.1	6.8	7.0	7.4	7.7	7.2	3.6	15.8	8.0	8.0	7.5	15.9
Mexico	7.5	5.1	0.0	7.1	8.5	7.1	8.3	6.8	7.0	9.5	2.6	16.2	8.0	8.0	7.4	15.6
Austria	5.4	4.5	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	16.6	8.0	8.0	8.5	15.8
Belgium	3.3	4.6	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	15.6	8.0	8.0	8.4	16.2
France	5.9	5.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	15.4	8.0	8.0	8.4	16.5
Germany	7.7	5.5	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	16.1	8.0	8.0	8.3	15.8
Italy	8.1	5.8	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	16.3	8.0	8.0	8.5	16.3
Spain	6.8	5.3	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	16.5	8.0	8.0	8.6	16.4
UK	7.7	5.6	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	15.9	8.0	8.0	8.3	16.0
Japan	7.0	5.6	10.4	7.4	6.9	7.4	7.3	6.6	7.6	7.8	0.0	15.6	8.0	8.0	7.7	15.9
China	6.0	5.7	10.2	9.5	7.5	6.9	6.0	7.8	5.5	7.0	2.6	0.0	8.0	8.0	8.0	16.5
Korea	6.6	5.2	10.8	7.4	7.8	7.7	7.2	6.6	7.8	7.8	3.8	16.3	0.0	8.0	8.1	16.2
Taiwan	7.4	5.8	10.6	7.0	6.7	7.5	8.8	6.7	6.5	7.0	3.7	16.1	8.0	0.0	8.0	16.4
Rest of OECD	6.9	5.4	8.9	8.2	8.4	8.0	8.3	8.1	8.2	8.5	3.3	16.4	8.0	8.0	8.5	16.2
Rest of World	6.9	5.9	9.6	8.9	8.4	7.7	7.6	8.4	8.4	8.5	3.7	16.3	8.0	8.0	8.1	16.4
Sector 60: Plastic products															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	4.2	18.5	6.7	6.9	6.6	6.7	6.4	6.3	6.4	4.4	20.6	8.0	8.0	7.1	20.6
US	10.5	0.0	18.5	6.6	6.9	6.8	6.7	6.8	6.8	6.7	4.3	20.7	8.0	8.0	7.0	21.0
Mexico	6.8	4.0	0.0	7.0	6.4	6.3	6.5	5.9	6.6	6.0	3.0	19.6	8.0	8.0	6.2	21.9
Austria	10.7	4.4	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	19.2	8.0	8.0	7.3	20.9
Belgium	10.8	4.3	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	19.0	8.0	8.0	7.2	21.4
France	10.3	3.7	18.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	19.3	8.0	8.0	7.3	21.1
Germany	11.5	4.2	18.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	19.6	8.0	8.0	7.3	20.6
Italy	10.9	4.3	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	19.3	8.0	8.0	7.2	20.7
Spain	9.5	3.1	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	19.5	8.0	8.0	7.0	21.5
UK	10.9	4.3	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	19.7	8.0	8.0	7.1	20.8
Japan	9.4	3.6	18.6	6.6	6.8	6.5	6.3	6.2	6.5	6.1	0.0	20.0	8.0	8.0	6.9	20.7
China	9.0	2.7	17.8	5.6	6.3	6.2	6.1	5.9	5.9	6.2	3.9	0.0	8.0	8.0	6.7	20.8
Korea	11.3	4.2	18.4	6.6	6.6	6.9	6.6	6.6	6.5	6.8	4.3	20.0	0.0	8.0	7.1	20.5
Taiwan	8.4	3.7	18.2	6.2	6.4	6.5	6.5	6.4	6.4	6.5	4.2	19.5	8.0	0.0	6.8	20.5
Rest of OECD	10.9	4.3	18.6	6.9	6.9	7.0	6.9	6.9	6.9	7.0	4.3	20.3	8.0	8.0	7.2	21.0
Rest of World	6.8	2.3	18.3	6.2	6.1	6.3	6.2	6.2	6.2	6.5	3.9	20.7	8.0	8.0	6.7	21.1

Sector 70: Other non-ferrous metal															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	2.1	10.0	1.3	1.8	1.0	1.6	1.8	0.2	0.7	0.7	7.9	3.6	4.7	1.8	16.6
US	0.7	0.0	10.6	1.7	0.2	1.0	1.0	0.6	0.5	0.6	0.2	6.2	3.2	3.5	0.9	23.4
Mexico	0.0	2.0	0.0	0.0	1.8	0.0	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.6	18.0
Austria	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	4.8	0.0	0.5	16.2
Belgium	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.1	4.8	4.8	0.3	29.5
France	1.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	8.1	3.8	3.7	0.6	20.6
Germany	0.4	1.0	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	7.5	3.1	4.1	0.5	16.2
Italy	1.8	0.5	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	6.1	3.0	2.2	0.5	24.8
Spain	1.9	2.4	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.2	24.5
UK	0.2	0.8	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.0	3.8	4.0	0.7	27.2
Japan	0.1	1.5	0.0	1.8	1.0	1.0	1.4	1.7	1.8	1.5	0.0	5.8	3.7	3.2	1.1	18.5
China	1.8	2.7	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.7	0.0	4.8	4.8	1.7	10.7
Korea	0.0	0.6	0.0	1.8	1.8	0.1	1.1	1.8	1.8	0.4	0.4	7.0	0.0	3.2	1.8	25.0
Taiwan	1.8	0.8	10.0	0.0	0.0	0.0	0.4	0.2	1.8	0.7	0.1	7.6	4.2	0.0	0.2	13.3
Rest of OECD	1.0	1.7	10.0	1.3	0.3	0.9	0.5	0.4	0.4	0.7	0.1	4.9	4.2	3.0	0.7	14.7
Rest of World	1.4	1.8	10.2	1.6	1.1	1.2	0.9	1.7	1.4	0.7	0.6	7.5	4.6	4.6	1.4	21.5
Sector 80: Agricultural machinery															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	0.3	1.9	3.8	1.8	2.7	1.9	1.4	3.2	2.0	0.0	11.4	8.0	8.0	2.8	10.2
US	1.3	0.0	5.1	2.0	2.0	1.9	2.4	2.6	3.2	2.3	0.0	13.1	8.0	8.0	2.8	10.6
Mexico	1.8	0.4	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	10.6
Austria	0.6	0.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	8.0	0.0	2.8	10.7
Belgium	0.6	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	8.0	8.0	2.1	10.1
France	1.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	8.0	8.0	2.8	10.5
Germany	1.8	0.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	8.0	8.0	2.8	10.2
Italy	2.0	0.4	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	8.0	8.0	3.0	10.7
Spain	1.1	0.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3	8.0	8.0	2.4	10.4
UK	1.7	0.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7	8.0	8.0	3.6	10.9
Japan	2.2	0.5	7.1	3.3	2.6	2.6	3.1	2.9	2.5	3.4	0.0	13.2	8.0	8.0	3.8	10.8
China	2.3	0.4	6.5	0.0	2.6	1.4	2.1	1.8	0.0	1.4	0.0	0.0	8.0	8.0	2.7	10.9
Korea	0.6	0.2	0.0	0.0	0.0	0.0	0.0	3.9	0.0	1.7	0.0	14.6	0.0	8.0	1.9	11.2
Taiwan	0.7	0.4	2.1	1.4	1.8	2.1	1.7	1.4	2.0	1.5	0.0	11.3	8.0	0.0	2.4	10.1
Rest of OECD	1.2	0.4	1.3	1.9	1.8	1.8	1.8	2.5	2.3	1.9	0.0	11.7	8.0	8.0	2.6	10.4
Rest of World	1.6	0.4	2.4	2.0	1.8	2.4	3.1	2.4	2.2	1.8	0.0	12.1	8.0	8.0	2.9	10.7

Sector 101:Electric bulbs, lighting equipments															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	3.1	11.4	4.1	3.4	3.9	4.6	4.1	3.5	3.4	1.2	14.3	7.8	7.4	4.1	16.2
US	6.4	0.0	11.8	3.7	4.0	3.8	3.7	3.8	4.0	3.9	0.2	13.5	7.8	7.7	4.0	16.7
Mexico	6.1	3.3	0.0	6.0	4.3	3.3	3.0	4.0	4.8	5.2	0.0	0.0	8.0	8.0	3.6	16.9
Austria	6.7	4.6	12.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	14.2	8.0	7.9	4.7	17.4
Belgium	6.7	3.0	14.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.5	7.7	7.6	4.2	17.1
France	6.9	3.7	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	14.9	7.8	7.3	4.1	16.6
Germany	6.4	2.9	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	14.3	7.8	7.6	4.1	16.8
Italy	6.9	3.8	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	14.8	7.7	7.7	4.6	17.0
Spain	7.0	4.4	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	17.3	7.7	7.9	4.1	17.3
UK	6.5	3.0	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.8	7.4	7.7	4.0	16.8
Japan	6.3	2.6	12.3	3.1	3.0	3.2	3.3	3.1	3.0	3.1	0.0	13.9	7.7	7.5	3.5	15.8
China	7.0	4.5	13.4	4.4	4.8	4.4	4.3	4.4	4.2	4.8	1.1	0.0	8.0	8.0	4.9	17.5
Korea	7.0	3.2	11.0	5.1	3.9	3.8	3.9	3.8	3.8	3.5	1.1	13.5	0.0	7.8	3.8	16.9
Taiwan	6.8	4.1	12.2	4.8	4.9	4.4	4.7	3.9	4.0	4.3	1.0	14.4	7.8	0.0	4.6	17.0
Rest of OECD	6.9	3.2	11.9	4.2	4.0	3.9	4.1	3.8	3.9	3.8	0.3	13.1	7.9	7.5	4.3	17.4
Rest of World	6.9	4.0	12.1	4.4	4.3	4.1	4.1	4.0	4.2	4.3	0.8	14.2	7.7	7.9	4.5	16.5
Sector 106: Motor vehicles															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	-21.0	19.8	10.0	9.2	9.7	9.9	9.4	10.1	8.8	0.0	41.8	8.9	10.0	10.2	36.8
US	7.2	0.0	19.5	9.8	9.9	9.4	9.7	9.3	9.8	9.6	0.0	70.8	9.4	10.0	9.9	35.3
Mexico	7.1	5.0	0.0	0.0	10.0	10.0	10.0	10.1	10.0	10.0	0.0	80.6	0.0	0.0	10.3	36.7
Austria	5.2	2.6	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.2	8.2	9.0	9.7	32.9
Belgium	7.3	2.5	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.1	10.0	10.0	10.3	36.5
France	6.5	14.8	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9	9.2	9.9	10.1	36.2
Germany	7.3	2.6	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.9	9.7	10.0	10.1	35.7
Italy	7.1	2.3	16.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.3	8.1	9.6	9.9	34.8
Spain	4.0	5.5	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.2	9.0	10.0	10.3	35.9
UK	7.0	3.8	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.9	9.3	9.8	10.0	35.7
Japan	7.2	-6.1	16.9	9.7	9.8	9.2	9.6	9.3	9.5	9.9	0.0	54.2	9.6	9.9	10.3	33.8
China	7.4	1.4	16.1	5.2	4.6	2.8	3.3	4.6	4.0	3.0	0.0	0.0	8.0	8.9	3.5	21.6
Korea	7.3	2.4	16.2	10.1	9.3	10.2	10.0	10.1	10.0	7.9	0.0	55.4	0.0	9.6	10.1	34.6
Taiwan	7.4	1.6	16.8	5.7	8.1	6.1	6.8	7.4	7.6	4.3	0.0	19.2	8.1	0.0	6.3	22.1
Rest of OECD	7.2	2.7	18.4	9.7	9.9	9.9	9.3	9.9	10.1	10.2	0.0	58.8	9.9	9.9	10.1	34.2
Rest of World	7.0	2.7	19.6	8.0	6.3	10.0	9.3	10.0	9.4	9.6	0.0	57.3	9.5	8.1	9.0	33.5

Sector 109: Aircraft															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	1.1	5.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
US	0.0	0.0	5.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
Mexico	0.0	1.1	0.0	0.0	0.0	1.8	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	4.1
Austria	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	1.7	4.1
Belgium	0.0	1.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.1
France	0.0	1.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	1.7	4.1
Germany	0.0	1.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	1.7	4.1
Italy	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	1.7	4.1
Spain	0.0	1.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	4.1
UK	0.0	1.1	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	1.7	4.1
Japan	0.0	1.1	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
China	0.0	1.1	0.0	0.0	0.0	1.8	1.8	0.0	0.0	1.8	0.0	0.0	0.0	0.0	1.7	4.1
Korea	0.0	1.1	0.0	1.8	0.0	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
Taiwan	0.0	1.1	0.0	0.0	1.8	1.8	1.8	0.0	0.0	1.8	0.0	3.9	0.0	0.0	1.7	4.1
Rest of OECD	0.0	1.1	5.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
Rest of World	0.0	1.1	5.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.0	3.9	0.0	0.0	1.7	4.1
Sector 111: Professional measurement instruments															Rest of	Rest of
	Canada	US	Mexico	Austria	Belgium	France	Germany	Italy	Spain	UK	Japan	China	Korea	Taiwan	OECD	World
Canada	0.0	2.8	10.7	2.5	2.4	2.7	2.1	2.5	2.5	2.8	0.1	12.4	8.0	8.0	2.8	10.6
US	2.7	0.0	10.5	2.5	2.4	2.5	2.5	2.4	2.5	2.6	0.1	11.2	8.0	8.0	2.5	10.1
Mexico	3.0	2.7	0.0	3.1	2.9	2.6	2.9	2.9	3.0	3.2	0.9	13.7	8.1	8.6	2.7	10.1
Austria	2.2	3.3	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	12.1	8.0	8.0	2.8	10.9
Belgium	2.5	2.9	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.4	8.0	8.0	2.5	10.7
France	2.0	3.1	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.9	8.0	8.0	2.6	10.5
Germany	2.1	2.8	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	11.9	8.0	8.0	2.7	10.2
Italy	5.4	4.8	10.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	12.3	8.0	8.0	2.8	16.8
Spain	2.9	3.5	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	12.5	8.0	8.0	2.7	13.1
UK	2.1	2.9	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	11.7	8.0	8.0	2.7	12.4
Japan	2.5	3.1	10.2	2.6	2.5	2.5	2.6	2.6	2.6	2.9	0.0	12.3	8.0	8.0	2.8	10.0
China	5.7	2.6	11.9	0.8	1.4	1.9	2.4	1.5	1.9	2.7	0.8	0.0	8.0	8.0	2.0	17.3
Korea	3.6	3.9	11.0	2.8	2.9	2.8	3.6	2.8	2.9	2.7	0.8	12.5	0.0	8.0	2.9	10.9
Taiwan	4.9	2.7	10.9	2.9	3.0	3.0	2.9	2.9	2.9	2.9	0.8	13.0	8.0	0.0	3.0	11.4
Rest of OECD	2.0	3.0	10.9	2.5	2.3	2.2	2.5	2.4	2.5	2.4	0.5	11.7	8.0	8.0	2.5	12.1
Rest of World	5.0	3.8	11.0	2.7	2.7	2.6	2.7	2.5	2.7	2.8	1.4	12.9	8.0	8.0	2.8	14.5

digit HS are taken for each of the 120-commodity categories. We take into account the regional trade agreement factor in this calculation so that the bilateral tariff rates between two countries are set to be zero if they are members of the same regional trade agreement.

It is apparent from Table 5.2 that the effective bilateral tariff rates between an importer and its trading partners are far from uniform. Although, except in the cases when regional trade agreement is involved, trading partners

In order to make the BTM capable of dealing with trade protection issue, we add the bilateral effective tariff rate into the import-share equations. Specifically, the relative price term is modified as following,

where τ_{ij} is the effective bilateral tariff rate imposed by importer j on exporter i. It should be pointed out that, by introducing bilateral tariff rate into the trade

$$\frac{P_{eit} * (1+\tau_{ij})}{P_{wit}} \quad , \qquad and \quad P_{wjt} = \sum_i S_{ijt} P_{eit} (1+\tau_{ij}) \quad ; \qquad \sum_i S_{ijt} = 1 \qquad (5.3)$$

share equation in this way, we assume that the bilateral tariff structure is constant over the period of estimation since we do not have the time series data of tariffs.

The existing BTM was estimated using trade data in the period of 1974-91. In updating the BTM, we use the 1980-95 data from WTDB, which is more up-to-date and consistent than the data available to Ma. The significant disaggregation by commodity categories and by import markets in the trade model entails estimation of an unusually large number of trade share equations. For each of the 120 trade sectors, there are 242 possible share equations (=16 x 16 – 14), one for each off-diagonal element of the trade-shares matrix, plus the diagonal element representing the intra-regional trade for the rest of OECD and the rest of the World. For the whole trade model, therefore, there are 29,040 possible trade-share equations. After eliminating cells with less than 5 observations in the sample period (1980-95), a total of 23,088 equations were actually estimated.

In estimating the share equations, a ‘search’ procedure is used to explore the parameter space and to retain only estimates with correct signs and reasonable magnitudes. This search-estimation methodology is similar to the one used by Ma (1996) but refined by adding ‘reasonable magnitude’ as a second searching criterion. More specifically, in estimating the share equation, constraints are put on the parameters for the relative price and relative capital stock terms. The estimated parameter for the relative price should be negative and the one for relative capital stock positive. Moreover, their absolute magnitudes should not be higher than a critical value, beyond which the parameter is deemed unreasonable.

Depending on whether the constraints are binding, seventeen different equation specifications are searched and estimated, more than doubling that in Ma’s methodology. The seventeen different specifications are summarized in Table 5.3. The lower bound we choose for the parameter of relative price is

minus two and the upper bound for that of relative capital stock was four. The limits were based on experience with Ma's BTM; implausible results were connected with values outside this range.

4. Simulations: Removal of Tariffs among the 16 Countries and Regions

4.1 Simulations under Assumption of A Uniform Parameter of Sensitivity

In this section, we use the updated and improved BTM to simulate removal of tariffs among the 16 countries and regions. The simulation is carried out as a two-step procedure. In step one, we calculated how much each country's imports will increase in response to a complete removal of their current tariffs. In step two, through the BTM run, the changed levels of imports from each country and region involved are then translated into a changed level of exports of each of their trading partners. In the first step, we calculate the increase in imports based on each country's current level of tariff rate and our

Table 5.3: Different Specifications in the Trade Share Equation

No.	Variable(s) Included	Constraint(s) Imposed
1	P, K, T	None
2	P, K, T	$\beta_p = B_p$
3	P, K, T	$\beta_k = B_k$
4	P, K, T	$\beta_p = B_p$ and $\beta_k = B_k$
5	P, K	None
6	P, K	$\beta_p = B_p$
7	P, K	$\beta_k = B_k$
8	P, K	$\beta_p = B_p$ and $\beta_k = B_k$
9	P, T	None
10	P, T	$\beta_p = B_p$
11	K, T	None
12	K, T	$\beta_k = B_k$
13	P	None
14	P	$\beta_p = B_p$
15	K	None
16	K	$\beta_k = B_k$
17	T	None

Note: P: the relative price.
K: the relative Price.
T: the Nyhus time Trend.
β_p: the estimated parameter for P.
β_k: the estimated parameter for K.
$B_{p:}$ the lower constraint for $\beta_{p.}$
$B_{k:}$ the upper constraint for $\beta_{k.}$

120 commodity categories by each of the 16 countries and regions. As the second step and with a new level of imports as inputs, the BTM runs under the scenario that effective bilateral tariff rates are reduced to nil. The results are the assumed sensitivities of imports with respect to the tariff change. The methodology is the same as the one we use for the U.S. in the previous chapter. After the first step, we will have obtained a new level of imports of each of the estimated exports of each of the 120 commodity categories for each of the 16 countries and regions, reflecting both the change in the level of imports and the change in the trade shares due to the tariff cuts. Simulations under three different scenarios are made. The first one is the so-called baseline scenario, a situation in which we assume there is no change whatsoever in the tariff rates. The other two are the adjustment scenarios. Under the first adjustment scenario, we assume the tariff cuts affect both the level of imports and the trade shares. Under the second adjustment scenario, we assume the tariff cuts affect only the level of imports but leaves trade shares unchanged.

Comparing the results under adjustment scenarios with those under baseline scenario, we expect to: 1) find out what is the overall impact of tariff cuts on countries' trade performance; 2) disentangle the 'level' effects and 'share' effects from the overall effects, and therefore highlight the effects of the bilateral discrimination. More specifically, the 'level' effects increase a country's exports since, with trade shares given, the increased level of imports is always translated into increased level of corresponding exports, or trade creation. However, the 'share' effects do not necessarily work in the same direction of the 'level' effects. A country more discriminated against than its fellow competitors, will certainly benefit more from the trade liberalization than those who have previously been treated favorably. The purpose of our study is to quantify the fine difference between trade creation, trade diversion and the overall effects of the global trade liberalization.

Our simulations are done for the period of 1990-95. We assume the global tariffs are completely removed in 1995 for three reasons: 1) we would like to assess a situation as current as possible; 2) most of our tariff data are that of 1994; 3) 1995 is the base year of the newly updated BTM.

The baseline scenario assumes that the global trade regime remains unchanged. Figures generated under the two adjustment scenarios are presented as percentage differences from the baseline figures to highlight the changes incurred by the policy shock. The difference between these two differences can then be attributed to the 'share' effects, or the changes brought by eliminating the *bilateral* discrimination *per se*.

The simulation results are presented in Table 5.4 - 5.7. In Table 5.4, we first present the change in the aggregate imports of all the 120 sectors of each of the 16 countries and regions. The changed imports serve as inputs of the BTM. Since, under either of the adjustment scenarios, the responses of imports to the

removal of tariffs are the same, only two columns were presented – column one for the actual values of imports (in millions of US dollar) in 1995 and column two for the increase of imports in response to the tariff cuts presented as percentage difference from the base. As shown in the table, percentage changes of a country's imports are directly related to its levels of tariff rates prior to the liberalization. China and the Rest of the World are estimated to increase their imports by 28 and 26 percent, respectively. South Korea and Taiwan form the second tier of countries in terms of the magnitude of import increases, 17 and 18 percent, respectively. The import increases for the third tier of countries are from 6 to 10 percent, including the U.S., Canada, and the Rest of OECD. The EU countries, the bulk of whose trade has been conducted within the EU and already been liberalized, all see their imports increase by less than 6 percent.

In Table 5.5, simulation results are then shown for the aggregate exports of all the 120 sectors. For every country and commodity category, four columns are presented: column one for the actual values of exports in 1995, column two for the overall effect of the tariff cuts or the first adjustment scenario, column three for the level effect of the tariff cuts, or the second adjustment scenario, and column four for share effect of the tariff cuts, or the difference between column two and column three. Among the 16 countries and regions, exports from the US, Korea and China enjoy an enormous boost, all increasing by more than 15 percent. Japan's exports increase by more than 12 percent. The export increases of Taiwan, the Rest of OECD and the Rest of the World are also impressive, all above 11 percent. Not surprisingly, the magnitudes of increases for EU countries are relatively on the low side. Italy's exports increase by almost 13 percent, the largest increase among the EU countries, followed by Spain, Germany, France and Belgium, whose increase are 12, 11, 11 and 10 percent, respectively. Both UK and Austria see their exports increase by less than 9 percent.

The overall effects can then be broken down into 'level' effects and 'share' effects. Eliminating existing tariffs places all competitors on a level playground. Countries who enjoy bilateral preferential treatment before may lose their market shares to new competitors afterwards. It is no surprise that when taking the difference between the overall effects and the 'level' effects, we can see that the 'share' effects are negative for all the EU countries, who, prior to the trade liberalization, were entitled to preferential treatment from its fellow member countries. In particular, share effects worked strongly against Austria and Belgium, since over 50 percent of whose exports took place within the EU in 1995. On the other hand, South Korea, China, and Mexico, are the major beneficiaries of removing bilateral discriminations. The share effects for the U.S. and Japan, the two giants in the world trade market, are modestly positive, reflecting the fact that their exports are geographically diversified, and the effects incurred by eliminating bilateral discrimination should be mostly marginal. The same argument also applies to the insignificant share effects for the two regions, the Rest of the World and the Rest of OECD.

Presentations by commodity category and country are made in Table 5.6 and 5.7. Given a uniform sensitivity of imports with respect to tariffs, the

variations in the percentage increase of imports reflect the initial levels of tariff rates faced by a specific commodity group in a specific country. The BTM translates import increases into export increases. As a summary and highlight, in Table 5.8 and 5.9, we list top ten contributing commodity groups in each country in terms of import and export increases in absolute value. As shown in Table 5.8. Wearing apparel (Sector 36) appears on the top-ten list of imports in 12 (8 on the top) of 16 countries and regions, reflecting widespread protections imposed by industrialized countries on this particular commodity group. Basic chemicals (Sector 47) and Motor vehicles (Sector 106) also are well represented

Table 5.4: The Responses of Aggregate Imports to the Removal of Tariffs

	1	2
Canada	170,678.5	2.5
USA	782,122.0	4.8
Mexico	72,673.5	5.9
Austria	67,277.4	3.4
Belgium	154,024.7	4.7
France	286,488.5	3.8
Germany	468,758.9	5.5
Italy	199,064.6	3.8
Spain	118,241.7	3.4
UK	275,697.2	5.1
Japan	310,795.5	5.5
China	163,829.6	28.3
Korea	125,332.5	16.8
Taiwan	95,084.4	18.3
ROE	720,791.8	10.2
ROW	1,217,635.0	26.3

Table 5.5: The Responses of Aggregate Exports to the Removal of Tariffs

	1	2	3	4
Canada	205,701.0	9.7	10.3	-0.5
USA	626,932.6	15.6	15.2	0.4
Mexico	84,563.5	9.9	9.2	0.7
Austria	60,473.5	8.6	9.7	-1.0
Belgium	175,121.3	9.7	11.7	-2.0
France	301,489.1	10.6	11.5	-0.9
Germany	539,121.6	9.9	10.5	-0.6
Italy	245,457.7	12.0	13.6	-1.5
Spain	95,056.8	11.1	11.9	-0.7
UK	265,886.9	8.4	9.2	-0.9
Japan	443,015.1	11.6	11.1	0.5
China	148,719.7	15.7	14.8	0.9
Korea	125,045.4	15.9	14.3	1.6
Taiwan	125,503.6	11.1	10.4	0.7
ROE	739,283.1	11.1	11.4	-0.2
ROW	1,047,125.0	11.4	11.1	0.3

Table 5.6: Responses of Imports by Sector to Removal of Tariffs Barriers

	1 Unmilled cereals		2 Fresh fruits,vegetabl		3 Other crops	
	1	2	1	2	1	2
Canada	152.3	0.0	1,612.6	0.2	690.2	1.6
USA	684.7	0.2	3,542.3	3.5	4,245.4	2.8
Mexico	1,015.4	0.0	138.5	8.6	1,103.1	1.8
Austria	45.3	0.0	517.0	7.7	412.6	10.2
Belgium	1,385.6	0.0	1,127.7	8.2	1,287.2	3.9
France	252.1	0.0	2,470.8	7.1	2,249.9	7.5
Germany	1,035.7	0.0	6,515.3	8.8	5,339.9	9.9
Italy	1,605.2	0.0	1,151.7	7.7	1,341.6	5.3
Spain	1,468.0	0.0	948.8	8.1	1,597.1	2.0
UK	617.8	0.0	2,837.4	9.2	1,715.9	6.6
Japan	3,918.0	3.3	1,828.2	10.6	5,123.9	2.2
China	2,857.6	106.3	171.0	40.1	830.3	39.6
Korea	1,768.4	139.1	115.9	155.0	1,219.1	136.1
Taiwan	1,037.5	157.7	215.3	124.5	1,161.1	152.2
ROE	3,195.6	21.0	5,033.0	16.7	6,627.2	6.6
ROW	13,200.1	39.5	5,505.6	25.9	6,425.1	31.1
	4 Livestock		5 Silk		6 Cotton	
	1	2	1	2	1	2
Canada	139.5	0.0	0.3	0.0	117.3	0.0
USA	1,932.7	0.2	1.9	0.8	130.4	9.9
Mexico	45.1	0.4	0.3	0.0	231.8	1.0
Austria	33.7	14.1	4.3	0.0	55.9	0.0
Belgium	413.9	0.8	1.1	1.8	102.6	0.0
France	617.8	0.8	5.4	3.2	299.9	0.0
Germany	798.8	6.0	30.1	3.3	390.4	0.0
Italy	1,965.4	0.2	87.5	2.0	788.0	0.0
Spain	578.1	1.0	0.4	0.0	160.7	0.0
UK	274.9	3.5	5.5	0.8	120.3	0.0
Japan	279.6	9.3	90.0	0.0	739.6	0.0
China	42.7	12.0	5.1	15.5	1,459.9	5.8
Korea	27.4	20.8	70.0	52.7	541.5	3.9
Taiwan	10.9	57.3	2.4	53.5	343.8	3.9
ROE	1,531.2	5.8	6.9	3.5	1,029.8	0.0
ROW	2,581.1	6.0	260.7	47.9	3,685.1	7.9
	7 Wool		8 Other natural fibers		9 Crude wood	
	1	2	1	2	1	2
Canada	12.7	0.6	1.2	0.0	954.9	0.0
USA	224.3	2.8	40.7	0.0	6,813.3	0.0
Mexico	20.9	0.8	0.7	8.2	167.5	4.1
Austria	10.6	0.2	10.2	0.0	656.8	0.8
Belgium	144.8	0.4	91.1	0.0	864.9	1.4
France	327.9	0.0	57.7	0.0	1,216.7	1.4
Germany	376.9	0.2	15.3	0.0	2,482.5	1.6
Italy	802.9	0.2	47.1	0.0	2,602.5	1.0
Spain	61.8	0.2	21.3	0.0	842.4	1.4
UK	382.6	0.4	60.3	0.0	1,963.4	2.0
Japan	491.0	0.0	33.9	0.0	9,244.2	1.6
China	916.3	25.9	46.3	11.5	634.9	6.2
Korea	293.4	3.9	10.6	3.9	1,292.2	6.0
Taiwan	167.3	3.9	10.6	3.9	718.4	8.2
ROE	348.5	0.2	79.7	0.2	5,418.2	1.8
ROW	787.5	22.9	132.0	10.8	4,408.5	13.8

	19 Dairy and e		20 Preserved fruits,vegetabl		21 Preserved seafood	
	1	2	1	2	1	2
Canada	174.0	0.0	1,387.8	2.2	801.5	2.0
USA	699.1	34.4	3,344.8	10.4	4,507.5	2.8
Mexico	401.6	48.1	155.0	13.6	46.9	16.4
Austria	269.7	0.0	496.7	17.2	169.0	19.2
Belgium	2,868.0	0.0	1,304.7	14.5	693.5	17.7
France	2,341.5	0.0	3,251.8	13.8	2,456.4	16.9
Germany	4,283.3	0.0	5,740.3	16.7	2,134.7	20.8
Italy	3,155.4	0.0	1,317.8	14.1	1,791.8	16.2
Spain	919.9	0.0	642.9	15.8	1,854.0	15.5
UK	1,768.1	0.0	3,058.5	15.2	1,533.1	23.9
Japan	808.2	32.6	3,013.2	23.8	10,925.3	10.2
China	151.2	31.5	127.6	41.7	381.3	34.4
Korea	134.1	68.7	330.2	109.8	597.9	23.2
Taiwan	304.3	74.8	295.6	93.2	551.3	27.3
ROE	5,606.5	40.3	5,613.9	27.9	4,620.5	22.2
ROW	8,290.0	28.0	5,005.5	30.2	4,913.9	35.0
	22 Vegetable&animal oils,f		23 Grain mill products		24 Bakery products	
	1	2	1	2	1	2
Canada	383.5	2.4	188.6	0.2	436.7	3.0
USA	1,598.3	2.4	375.3	8.1	984.0	3.9
Mexico	686.0	7.9	110.0	6.8	39.4	5.3
Austria	233.3	2.8	43.2	0.0	260.0	0.0
Belgium	985.8	6.2	278.3	0.2	467.6	0.0
France	2,193.4	2.6	553.1	0.2	1,097.8	0.0
Germany	1,994.7	6.9	521.2	0.4	1,296.2	0.0
Italy	1,832.0	6.2	129.4	0.8	268.9	0.0
Spain	1,185.6	5.4	123.8	0.4	246.0	0.0
UK	1,449.7	6.8	379.6	1.2	748.8	0.0
Japan	933.8	5.1	395.1	11.9	292.2	23.2
China	2,747.9	82.8	519.7	102.5	54.1	40.0
Korea	693.3	12.7	111.5	85.3	56.5	14.8
Taiwan	225.8	12.7	26.0	88.9	79.0	14.8
ROE	5,832.4	10.6	1,472.0	28.6	1,589.0	20.8
ROW	13,062.6	44.0	8,114.2	32.8	2,298.8	35.9
	25 Sugar		26 Cocoa, chocolate,etc		27 Food products n.e.c.	
	1	2	1	2	1	2
Canada	291.3	0.6	531.0	4.5	1,586.9	1.8
USA	783.4	20.6	1,523.0	7.9	5,298.2	4.1
Mexico	13.4	0.4	104.6	10.2	376.0	6.9
Austria	58.3	0.0	282.7	2.2	688.8	7.1
Belgium	600.0	0.0	753.7	3.7	1,830.1	7.5
France	312.4	0.0	1,523.0	2.4	3,296.7	6.9
Germany	334.1	0.0	2,365.9	3.7	6,859.0	10.1
Italy	285.4	0.0	609.5	3.0	2,299.7	6.0
Spain	253.6	0.0	400.0	2.8	1,837.2	5.8
UK	937.2	0.0	1,095.1	4.3	3,294.4	10.2
Japan	582.2	3.5	580.2	21.1	3,246.8	16.4
China	974.4	46.2	209.6	22.5	300.3	46.6
Korea	406.9	12.4	111.2	17.4	541.8	72.9
Taiwan	61.9	19.8	113.1	20.0	597.0	90.1
ROE	939.6	28.2	3,703.1	13.3	9,132.3	17.2
ROW	5,564.2	30.5	3,671.6	29.9	10,495.1	33.8

	28 Prepared animal feeds		29 Alcoholic beverage		30 Non-alcoholic beverage	
	1	2	1	2	1	2
Canada	123.6	1.0	716.2	4.5	103.7	8.1
USA	147.7	3.2	4,628.2	5.3	373.0	3.2
Mexico	53.6	8.8	150.1	20.0	28.5	1.4
Austria	34.9	2.0	188.4	3.9	33.5	3.7
Belgium	226.3	5.4	1,246.1	2.8	429.2	7.1
France	196.9	3.3	1,552.3	2.6	295.5	6.4
Germany	365.1	5.6	3,210.8	3.7	473.8	4.9
Italy	244.2	3.5	918.5	6.0	51.2	5.4
Spain	132.7	4.9	1,147.6	5.3	60.5	6.8
UK	248.9	4.5	3,049.6	4.1	249.4	9.2
Japan	566.6	0.6	2,110.9	25.0	281.4	19.2
China	317.2	8.1	392.3	58.0	64.9	69.4
Korea	33.3	21.0	174.7	57.8	9.3	15.3
Taiwan	254.1	13.1	591.8	56.6	27.9	15.3
ROE	1,075.8	6.8	4,834.2	20.1	692.2	20.6
ROW	1,055.6	11.7	6,091.7	54.7	1,492.6	36.2

	31 Tobacco products		32 Yarns and threads		33 Cotton fabric	
	1	2	1	2	1	2
Canada	53.6	4.9	645.6	6.8	335.8	12.9
USA	513.4	56.8	1,508.7	10.6	1,799.3	16.0
Mexico	27.5	23.0	203.2	5.4	213.0	9.9
Austria	85.8	31.4	509.0	3.5	219.0	7.1
Belgium	2,150.5	75.1	1,595.4	4.9	567.4	11.3
France	1,645.5	57.8	2,230.3	3.0	916.0	7.3
Germany	1,343.8	27.7	2,831.6	4.7	1,388.3	7.9
Italy	1,117.4	66.5	2,953.5	5.3	988.6	9.9
Spain	667.6	32.6	889.6	5.3	293.5	7.7
UK	712.6	20.6	1,838.8	5.1	1,082.0	11.7
Japan	2,191.3	0.2	1,589.9	7.5	557.9	10.1
China	818.6	76.5	3,996.3	30.2	2,025.9	32.5
Korea	771.9	55.8	1,690.9	14.3	350.6	14.8
Taiwan	345.8	53.7	729.8	14.5	151.4	14.8
ROE	2,702.1	62.1	5,080.1	11.7	2,849.4	18.5
ROW	7,978.3	63.4	9,359.6	30.4	9,108.4	44.7

	34 Other textile products		35 Floor coverings		36 Wearing apparel	
	1	2	1	2	1	2
Canada	2,126.1	13.1	330.4	7.3	2,915.9	27.9
USA	7,829.5	16.2	1,022.7	8.6	36,187.6	22.1
Mexico	1,391.9	10.4	82.9	3.3	1,976.8	15.3
Austria	1,315.5	5.8	224.3	8.4	3,234.7	10.2
Belgium	2,152.5	8.1	319.1	7.5	4,877.6	11.7
France	4,722.2	6.0	559.8	5.3	10,729.9	13.8
Germany	9,490.5	8.4	2,344.4	8.8	26,304.8	16.7
Italy	2,642.4	8.8	268.8	10.6	4,685.3	14.5
Spain	1,761.7	7.9	109.4	7.7	3,022.7	10.8
UK	4,534.3	9.5	832.2	6.9	8,658.5	17.4
Japan	3,808.9	14.1	611.2	12.0	17,702.8	22.7
China	8,709.9	47.7	73.4	47.0	3,267.1	45.6
Korea	1,917.3	14.8	70.6	14.8	1,230.6	14.8
Taiwan	973.7	14.8	37.7	14.8	1,174.9	14.8
ROE	14,002.8	17.9	1,812.8	16.0	23,809.5	21.8
ROW	28,294.2	44.5	1,454.0	33.5	30,168.2	40.5

	37 Leather and hides		38 Leather products		39 Footwear	
	1	2	1	2	1	2
Canada	346.8	3.3	371.0	12.7	876.1	25.9
USA	1,371.1	4.9	4,731.0	17.9	13,697.7	24.4
Mexico	268.5	3.5	146.9	19.5	84.7	34.0
Austria	209.2	1.2	295.2	4.1	711.9	7.7
Belgium	244.5	1.4	364.9	5.6	973.6	8.1
France	805.9	1.8	1,136.5	6.0	2,603.8	9.5
Germany	1,375.9	2.0	1,944.1	7.1	5,318.6	10.6
Italy	3,563.3	3.2	925.9	7.1	1,121.5	15.5
Spain	831.7	2.8	252.1	5.4	406.9	13.6
UK	565.7	2.4	960.2	7.9	2,351.3	12.9
Japan	695.3	11.1	2,891.0	20.6	2,611.0	30.8
China	3,584.7	19.7	483.4	40.4	61.4	34.4
Korea	1,882.9	7.5	331.3	14.8	191.2	14.8
Taiwan	668.7	7.5	311.8	14.8	221.7	14.8
ROE	3,385.1	5.1	2,322.0	9.7	5,389.6	20.8
ROW	5,874.6	18.4	4,039.6	37.8	6,461.3	37.4
	40 Plywood and veneer		41 Other wood products		42 Furnitures and fixtures	
	1	2	1	2	1	2
Canada	151.5	2.2	468.7	1.8	854.3	3.2
USA	885.3	9.3	3,668.1	2.6	3,547.5	2.2
Mexico	41.8	9.3	163.6	4.1	278.2	3.5
Austria	131.5	6.9	629.1	3.3	604.1	1.2
Belgium	257.6	11.5	664.3	3.5	790.5	2.0
France	289.0	9.3	1,323.6	3.0	1,458.7	1.6
Germany	976.0	10.4	4,770.7	4.7	3,577.4	3.0
Italy	252.3	9.7	771.9	4.5	284.5	2.4
Spain	85.9	11.0	479.1	4.7	258.6	1.6
UK	663.7	13.9	1,162.5	4.7	854.9	2.6
Japan	2,106.5	15.5	1,960.2	6.6	1,165.0	1.6
China	1,189.9	26.1	331.6	23.8	69.5	35.7
Korea	546.3	14.8	441.7	13.9	116.0	14.8
Taiwan	423.8	14.8	354.3	13.3	139.2	14.8
ROE	1,300.2	15.7	3,719.2	7.9	3,410.4	5.6
ROW	1,694.3	30.5	2,703.0	29.1	2,470.2	35.8
	43 Pulp and waste paper		44 Newsprint		45 Paper products	
	1	2	1	2	1	2
Canada	672.4	0.0	8.5	0.0	2,709.7	0.8
USA	4,171.3	0.0	4,815.7	0.0	8,947.5	1.2
Mexico	729.4	0.2	54.4	1.0	1,758.7	2.6
Austria	545.5	0.0	65.0	1.8	1,527.6	3.9
Belgium	606.1	0.0	134.7	6.0	4,141.0	4.9
France	1,802.2	0.0	296.4	6.4	7,432.1	4.1
Germany	3,655.8	0.0	788.9	6.6	10,121.1	5.8
Italy	2,264.5	0.0	308.8	4.1	3,837.6	4.5
Spain	540.0	0.0	210.2	5.4	2,833.3	5.3
UK	1,633.7	0.0	757.4	8.1	7,355.0	6.4
Japan	2,946.8	0.0	598.0	0.0	1,434.5	3.2
China	723.2	2.0	30.2	0.0	2,841.9	28.3
Korea	1,671.8	3.9	120.1	14.8	740.8	14.8
Taiwan	852.0	3.9	212.8	14.8	986.6	14.8
ROE	2,809.6	0.0	1,119.1	7.9	17,167.9	11.7
ROW	3,000.6	7.5	1,885.6	13.8	17,485.1	27.1

	46 Printing,publishing		47 Basic chemicals		48 Fertilizers	
	1	2	1	2	1	2
Canada	1,996.3	0.4	3,490.8	3.0	773.2	0.8
USA	2,719.0	0.4	19,297.0	8.2	2,038.7	1.4
Mexico	640.0	0.8	2,556.8	4.7	240.7	1.6
Austria	965.6	0.4	1,274.4	4.3	169.6	4.7
Belgium	1,128.4	0.6	8,129.2	4.3	904.0	5.4
France	2,266.8	0.6	10,932.0	5.1	2,832.9	3.9
Germany	2,137.3	1.2	12,838.0	5.4	1,827.5	7.7
Italy	537.7	0.6	8,555.8	5.1	1,075.2	5.1
Spain	463.2	0.4	4,780.0	4.3	693.9	5.6
UK	1,867.3	1.2	9,075.3	6.0	1,107.4	6.2
Japan	772.8	0.0	10,143.5	5.3	741.7	3.2
China	345.8	16.0	4,828.6	18.2	2,457.6	10.2
Korea	173.0	2.2	6,762.7	14.5	231.1	12.0
Taiwan	217.9	2.4	6,315.7	13.9	155.4	13.3
ROE	5,966.4	2.6	26,501.6	11.0	4,033.1	10.6
ROW	4,373.1	17.5	33,879.9	17.9	8,613.8	18.2

	49 Synthetic resins,man-ma		50 Paints,varnishes,lacquer		51 Drugs and medicines	
	1	2	1	2	1	2
Canada	3,839.5	1.4	515.9	1.2	1,693.5	0.0
USA	7,950.7	6.2	520.7	5.4	5,703.1	0.0
Mexico	2,135.8	2.4	197.3	4.5	522.8	11.7
Austria	1,965.9	4.5	290.4	2.4	1,533.5	0.0
Belgium	5,874.5	5.8	535.2	3.3	2,951.2	0.0
France	8,677.1	4.1	884.1	3.2	4,986.1	0.0
Germany	12,258.9	6.9	1,028.2	5.1	6,056.0	0.0
Italy	8,207.0	3.9	548.7	2.8	3,635.2	0.0
Spain	3,316.1	3.9	361.6	2.4	2,119.2	0.0
UK	7,255.5	6.2	530.0	5.3	4,043.7	0.0
Japan	2,173.6	6.9	206.6	6.9	3,947.9	0.0
China	12,993.5	27.9	555.4	24.2	956.5	18.7
Korea	2,304.7	14.8	249.3	14.8	615.9	13.4
Taiwan	2,494.0	14.8	263.2	14.8	628.9	13.6
ROE	19,839.5	15.3	2,789.3	12.0	15,521.9	0.4
ROW	30,827.3	27.7	3,573.3	25.2	14,940.0	16.2

	52 Soap,other toilet prepara		53 Chemical products n.e.c		54 Petroleum refineries	
	1	2	1	2	1	2
Canada	1,065.8	3.5	2,192.2	2.6	615.3	6.8
USA	2,041.7	3.2	6,563.9	4.9	5,218.7	3.0
Mexico	309.0	7.7	978.1	7.5	716.7	2.0
Austria	649.4	1.6	1,022.3	2.6	289.8	3.0
Belgium	1,265.5	2.0	2,350.3	3.5	1,494.6	4.1
France	1,989.7	1.8	4,760.8	4.1	1,399.5	2.0
Germany	2,902.8	2.2	5,902.9	5.4	2,916.3	4.1
Italy	1,390.6	1.4	3,392.9	3.7	876.5	2.6
Spain	914.0	1.0	1,829.6	3.0	483.2	3.0
UK	1,947.0	2.4	3,614.4	4.7	755.9	4.3
Japan	1,059.0	4.7	3,436.3	4.5	3,104.0	6.0
China	277.0	34.2	1,840.2	28.2	335.9	15.7
Korea	427.4	14.8	2,214.5	25.5	895.1	12.7
Taiwan	603.5	14.8	1,551.3	21.8	353.6	12.7
ROE	6,528.2	9.2	11,521.8	10.8	4,896.9	6.0
ROW	7,951.7	30.2	15,707.6	21.6	8,220.2	15.3

	55 Fuel oils		56 Product of petroleum		57 Product of coal	
	1	2	1	2	1	2
Canada	225.0	2.2	295.3	0.4	112.2	0.0
USA	4,236.8	4.5	419.0	4.3	348.7	0.0
Mexico	177.4	8.2	182.7	2.2	44.6	3.0
Austria	450.2	2.2	89.6	4.7	110.3	0.0
Belgium	2,034.2	6.0	326.4	3.7	215.0	0.0
France	1,836.3	3.2	382.1	2.4	139.5	0.0
Germany	3,100.7	5.1	618.1	2.4	349.7	0.0
Italy	2,699.7	4.5	294.9	1.8	117.8	0.0
Spain	822.3	2.6	146.7	2.8	75.2	0.0
UK	1,444.2	4.9	237.7	2.8	51.2	0.0
Japan	1,644.7	6.6	315.9	2.6	56.9	3.2
China	2,459.6	15.5	199.7	16.9	0.2	9.5
Korea	2,525.9	12.7	291.0	11.3	22.2	9.3
Taiwan	720.3	12.7	184.5	11.9	29.4	8.2
ROE	5,022.7	6.6	1,354.4	5.8	379.0	0.2
ROW	20,714.9	15.2	2,175.1	17.5	424.8	12.4
	58 Tyre and tube		59 Rubber products,n.e.c.		60 Plastic products,n.e.c.	
	1	2	1	2	1	2
Canada	1,090.4	4.5	913.1	3.5	1,888.4	4.9
USA	3,316.5	4.5	2,604.8	3.9	10,025.7	4.5
Mexico	313.7	12.7	485.1	5.6	2,239.3	3.9
Austria	474.3	2.2	364.2	1.2	1,736.7	3.3
Belgium	949.2	3.0	641.5	2.4	2,139.7	5.3
France	1,302.1	2.2	1,089.1	1.8	4,289.2	4.1
Germany	2,661.7	3.3	2,076.9	2.6	6,385.9	6.8
Italy	1,258.2	2.6	654.8	2.4	1,579.7	5.4
Spain	856.3	1.6	668.5	1.0	1,404.0	3.7
UK	1,391.9	3.9	981.0	2.8	3,622.4	7.5
Japan	580.6	0.0	447.1	2.6	2,233.6	7.9
China	61.6	41.4	307.5	24.1	1,249.3	33.8
Korea	85.4	14.6	255.0	14.3	547.7	14.8
Taiwan	176.7	14.6	248.1	14.3	558.9	14.8
ROE	3,992.4	9.7	3,057.0	7.1	10,682.7	13.4
ROW	4,841.6	34.0	3,287.6	32.4	10,916.5	34.6
	61 Glass		62 Cement		63 Ceramics	
	1	2	1	2	1	2
Canada	1,640.2	1.4	44.4	0.0	632.9	4.7
USA	5,559.8	7.1	602.5	0.0	3,783.1	9.3
Mexico	1,001.9	3.7	6.3	0.4	645.0	4.3
Austria	659.0	2.6	77.5	3.5	312.7	3.9
Belgium	1,200.2	4.5	70.4	2.2	470.2	5.3
France	2,613.2	2.6	158.8	0.6	974.8	5.6
Germany	4,096.3	5.1	572.1	3.3	1,923.2	6.8
Italy	1,402.6	3.0	99.3	3.7	460.2	6.8
Spain	936.7	3.9	128.0	4.3	385.8	6.6
UK	1,919.7	5.1	81.2	3.3	820.1	7.9
Japan	1,383.7	4.3	37.1	5.1	631.6	6.2
China	1,118.0	28.6	21.2	14.8	459.1	37.8
Korea	944.4	14.8	91.5	9.7	157.8	14.8
Taiwan	597.5	14.8	186.5	9.7	208.8	14.8
ROE	5,780.0	11.7	499.8	4.5	2,533.2	12.6
ROW	8,076.6	30.2	2,088.6	31.1	3,573.5	36.5

	64 Non-metallic prod		65 Basic iron and steel		66 Copper	
	1	2	1	2	1	2
Canada	691.9	4.5	3,445.2	4.3	561.8	0.6
USA	3,110.9	8.8	15,362.3	5.6	3,556.4	2.0
Mexico	317.8	14.3	1,875.3	6.8	290.9	4.5
Austria	737.2	1.0	2,041.9	2.0	525.5	1.4
Belgium	1,196.8	1.8	5,142.5	2.0	1,054.8	0.8
France	2,235.1	1.2	9,543.1	1.2	2,462.2	1.2
Germany	4,904.5	2.2	17,172.6	3.0	3,894.1	1.8
Italy	974.2	1.4	9,135.6	2.4	2,541.0	1.0
Spain	497.2	1.2	3,809.3	1.6	852.9	1.0
UK	1,136.4	2.4	6,005.3	3.0	1,955.2	1.4
Japan	1,356.8	1.2	5,545.2	4.7	1,555.4	5.6
China	639.2	34.0	6,824.6	18.0	1,818.0	10.6
Korea	576.6	14.8	5,680.5	13.1	1,477.8	10.8
Taiwan	572.2	14.8	4,851.0	13.3	1,875.9	10.6
ROE	5,171.1	7.5	25,283.6	8.1	4,143.8	7.7
ROW	7,290.5	28.0	35,227.9	23.5	7,542.6	16.5

	67 Aluminum		68 Nickel		69 Lead and zinc	
	1	2	1	2	1	2
Canada	1,545.3	0.4	124.8	0.6	31.3	2.6
USA	6,268.7	1.8	902.5	0.6	1,132.2	1.0
Mexico	686.0	4.1	20.9	2.2	15.6	0.2
Austria	832.0	7.3	34.3	1.0	111.2	1.2
Belgium	1,606.3	7.7	154.6	0.4	170.9	1.2
France	2,599.3	6.4	315.1	1.0	283.9	1.2
Germany	5,561.8	8.1	766.7	0.6	538.7	2.8
Italy	2,639.0	6.6	222.2	0.4	204.5	2.0
Spain	665.5	5.4	71.4	0.6	59.5	1.4
UK	2,274.3	7.3	308.7	2.2	307.6	3.9
Japan	4,620.2	0.6	407.3	5.3	210.8	1.8
China	1,320.3	21.4	66.0	11.3	158.0	10.2
Korea	1,661.1	11.3	139.6	11.9	150.6	9.7
Taiwan	986.9	12.2	119.7	10.6	313.7	9.7
ROE	6,587.6	13.9	486.9	1.8	699.3	5.8
ROW	6,139.5	22.9	374.8	13.1	1,179.9	17.2

	70 Other Non-ferrous metal		71 Metal furnitures and fixt		72 Structural metal products	
	1	2	1	2	1	2
Canada	418.4	0.6	562.7	5.6	606.3	1.2
USA	2,750.4	2.4	2,549.2	7.9	521.8	3.0
Mexico	43.6	1.4	199.4	4.9	77.5	10.6
Austria	89.0	1.2	396.0	2.4	421.1	2.2
Belgium	486.2	0.6	523.3	4.1	442.2	3.3
France	789.9	1.0	973.0	2.8	742.8	1.4
Germany	1,123.6	1.2	2,277.1	4.7	2,385.9	4.1
Italy	497.5	0.6	244.8	3.7	153.3	2.6
Spain	213.8	0.6	209.4	3.0	146.7	2.2
UK	1,781.3	1.0	626.1	5.1	701.7	4.5
Japan	1,429.7	0.6	713.9	4.1	409.4	2.8
China	104.9	13.1	93.1	29.5	411.6	28.3
Korea	259.3	7.7	89.5	14.8	91.6	14.8
Taiwan	164.8	7.5	103.1	14.8	114.2	14.8
ROE	1,547.4	1.6	2,471.5	10.2	2,943.5	7.9
ROW	1,980.0	33.9	2,077.1	30.2	3,944.7	38.6

	73 Metal containers		74 Wire products		75 Hardware	
	1	2	1	2	1	2
Canada	252.8	1.0	186.5	2.6	4,220.2	3.0
USA	497.7	1.2	695.2	5.4	14,133.6	5.4
Mexico	109.5	3.0	75.9	5.4	2,776.3	5.4
Austria	168.6	1.8	111.4	1.0	2,193.3	1.8
Belgium	338.1	3.0	199.1	2.4	2,800.7	2.6
France	476.4	1.0	357.5	1.0	5,888.7	2.2
Germany	666.6	3.7	459.7	4.3	10,247.8	4.3
Italy	97.4	1.6	138.6	2.0	2,804.5	3.0
Spain	157.0	2.4	132.7	2.0	2,383.2	1.8
UK	413.0	3.9	238.3	2.6	4,779.9	3.9
Japan	238.2	7.3	73.0	7.1	2,546.7	2.2
China	149.0	28.0	62.4	16.9	1,585.2	24.2
Korea	89.9	14.8	83.3	14.8	1,544.7	14.6
Taiwan	45.5	14.8	43.2	14.8	1,011.2	14.6
ROE	1,667.7	8.8	775.1	8.2	15,561.5	8.1
ROW	1,818.3	28.6	1,163.1	31.5	17,373.7	28.9

	76 Boilers and turbines		77 Aircraft en		78 Internal combustion engines	
	1	2	1	2	1	2
Canada	984.0	0.4	744.1	0.2	6,059.4	1.6
USA	3,964.5	3.0	3,507.2	2.8	12,403.2	2.0
Mexico	157.9	9.2	108.1	2.6	1,546.4	6.9
Austria	301.0	1.2	36.6	1.4	1,003.8	1.2
Belgium	529.6	2.2	168.6	1.8	2,598.0	3.3
France	1,921.0	2.0	1,520.8	2.2	2,676.9	3.0
Germany	2,450.3	2.8	1,268.5	2.2	4,475.6	2.2
Italy	569.3	1.6	307.5	1.8	1,457.8	2.4
Spain	558.7	1.4	206.6	1.2	3,116.0	1.6
UK	1,824.2	2.4	1,376.2	2.4	2,770.1	3.9
Japan	977.7	0.0	750.3	0.0	553.0	0.0
China	726.8	18.0	116.2	13.3	1,264.7	21.4
Korea	921.6	11.0	552.9	9.3	1,198.5	13.8
Taiwan	368.6	12.6	173.5	9.3	707.8	13.9
ROE	3,468.0	5.6	1,866.0	3.2	5,456.4	8.4
ROW	5,600.4	13.4	2,768.9	9.3	9,326.0	27.1

	79 Other power machinery		80 Agricultural machinery		81 Construction,mining,oilfiel	
	1	2	1	2	1	2
Canada	178.1	0.6	1,368.2	0.6	1,638.0	0.8
USA	390.1	2.8	2,685.1	0.6	3,867.5	2.0
Mexico	28.2	13.4	84.1	1.4	330.3	3.7
Austria	95.4	1.6	374.1	0.8	483.1	1.0
Belgium	55.5	1.8	497.3	1.2	734.1	2.0
France	157.7	2.0	2,191.4	1.2	1,285.5	1.2
Germany	227.5	3.5	1,447.0	2.0	2,029.9	1.4
Italy	100.9	1.6	447.8	1.4	684.9	1.0
Spain	37.3	1.4	581.9	1.2	615.8	0.8
UK	146.8	2.8	1,127.2	1.6	1,278.9	2.0
Japan	54.7	0.0	275.2	0.0	358.7	0.0
China	105.6	22.4	107.4	22.4	1,681.6	23.3
Korea	163.6	13.3	209.0	14.8	479.1	14.8
Taiwan	38.0	13.3	118.4	14.8	467.6	14.8
ROE	491.9	6.9	3,735.4	5.6	4,848.7	4.5
ROW	630.2	20.6	2,904.6	19.2	13,875.7	17.4

	82 Metal,woodworking mac		83 Sewing and knitting ma		84 Textile machinery	
	1	2	1	2	1	2
Canada	2,847.4	2.4	77.5	2.0	267.1	4.7
USA	11,070.2	5.1	718.6	2.0	1,974.2	4.5
Mexico	1,536.2	7.3	110.8	3.5	335.0	1.6
Austria	1,329.0	1.6	28.4	5.3	140.5	1.2
Belgium	1,752.8	1.8	42.6	5.1	404.6	1.4
France	4,018.7	2.0	101.9	6.8	599.6	1.2
Germany	7,073.8	3.3	245.9	9.7	793.4	3.2
Italy	2,942.1	2.4	141.7	5.1	1,110.6	2.2
Spain	1,396.8	1.4	54.4	5.6	328.9	1.4
UK	3,291.0	3.0	105.6	6.9	500.4	2.0
Japan	2,010.1	0.0	213.9	0.0	345.2	0.0
China	6,154.2	23.2	433.2	36.2	2,652.3	19.3
Korea	3,764.3	14.8	70.5	14.8	994.6	12.9
Taiwan	2,210.5	14.8	83.3	14.8	733.2	12.9
ROE	10,676.7	5.8	555.0	10.2	3,155.3	5.8
ROW	18,574.3	19.3	1,703.8	29.2	6,343.1	19.3
	85 Paper mill machines		86 Printing machines		87 Food-processing machines	
	1	2	1	2	1	2
Canada	414.5	1.8	310.3	1.8	152.0	2.8
USA	1,016.0	1.2	2,184.9	2.6	560.0	3.0
Mexico	207.0	1.4	119.4	2.0	85.9	7.3
Austria	116.4	1.8	176.1	1.0	89.7	1.6
Belgium	173.4	1.4	401.0	2.4	155.9	2.2
France	340.9	1.8	726.0	1.6	304.2	1.8
Germany	475.0	3.3	1,060.0	2.8	375.4	2.8
Italy	290.3	2.0	563.0	1.8	135.5	2.6
Spain	147.5	1.2	274.2	1.4	134.5	1.6
UK	444.2	2.8	1,105.2	2.0	282.4	3.2
Japan	152.1	0.0	471.4	0.0	142.5	0.0
China	455.9	22.1	687.5	30.1	525.6	22.4
Korea	409.1	14.8	506.6	14.8	126.6	14.8
Taiwan	153.2	14.8	229.1	14.8	70.6	14.8
ROE	1,528.3	5.6	2,639.4	4.7	1,239.8	6.6
ROW	2,239.2	12.6	3,139.8	19.8	2,404.8	19.5
	88 Other special machinery		89 Service industry machin		90 Pumps,ex measuring pump	
	1	2	1	2	1	2
Canada	1,859.4	2.2	2,528.1	1.2	1,411.7	0.8
USA	6,012.4	3.2	5,971.8	2.6	3,852.4	3.0
Mexico	1,242.3	7.3	1,282.9	6.2	462.8	6.8
Austria	620.3	1.2	1,142.3	1.0	633.7	0.8
Belgium	987.2	1.4	1,647.6	1.4	570.4	1.2
France	2,196.8	1.4	3,626.3	1.4	2,256.1	1.0
Germany	3,169.8	2.2	4,624.4	2.2	2,739.5	2.0
Italy	1,291.2	1.6	1,974.3	2.0	1,642.7	1.0
Spain	997.3	1.0	1,813.2	1.4	1,048.4	1.0
UK	2,140.5	2.0	2,951.7	2.2	1,902.0	1.4
Japan	1,492.1	0.0	1,732.0	0.0	689.9	0.0
China	4,400.3	23.9	3,891.3	32.5	1,169.6	25.6
Korea	3,301.3	14.8	2,704.5	14.8	1,366.0	14.8
Taiwan	1,718.8	14.8	1,344.3	14.8	741.2	14.8
ROE	6,765.0	4.7	10,755.0	5.1	4,763.0	4.3
ROW	14,105.6	19.8	19,751.2	23.6	8,574.6	23.0

	91 Mechanical handling eq		92 Other non-electrical ma		93 Radio,TV,phonograph	
	1	2	1	2	1	2
Canada	1,367.1	1.0	1,558.5	2.0	3,466.3	1.6
USA	3,904.7	1.2	5,833.1	4.9	22,054.5	2.2
Mexico	433.5	6.8	576.3	8.2	1,943.2	9.9
Austria	645.0	1.2	739.7	2.0	1,205.0	7.3
Belgium	1,297.3	2.0	930.7	3.7	2,137.0	8.4
France	2,090.8	1.2	1,977.5	2.8	5,157.9	6.9
Germany	2,994.3	2.0	3,393.1	4.9	9,586.4	9.7
Italy	881.5	1.6	1,517.8	3.2	2,987.0	6.6
Spain	727.7	1.2	782.6	2.2	2,275.6	8.2
UK	1,914.0	2.4	1,576.0	4.9	6,246.3	9.7
Japan	489.4	0.0	1,374.8	1.2	6,334.5	0.0
China	1,811.7	25.5	953.5	19.5	4,470.0	32.4
Korea	1,144.4	14.8	1,007.9	14.1	1,532.7	14.1
Taiwan	564.5	14.8	652.8	14.3	1,210.2	14.3
ROE	5,273.8	5.3	5,254.1	9.7	15,038.7	13.3
ROW	9,911.8	19.0	7,247.2	21.3	31,363.2	27.4
	94 Other telecomm eq		95 Household electrical		96 Computers	
	1	2	1	2	1	2
Canada	3,372.2	5.3	1,251.8	3.0	6,084.1	0.6
USA	22,235.0	6.6	4,988.4	4.9	30,343.9	2.4
Mexico	2,358.2	11.0	414.3	7.5	1,115.0	6.9
Austria	1,040.7	3.7	876.9	1.2	1,350.6	2.0
Belgium	1,828.5	4.3	983.3	2.0	2,370.0	2.2
France	4,587.1	4.1	2,649.2	1.8	8,336.1	2.8
Germany	9,243.0	6.8	3,966.3	2.4	14,227.8	3.2
Italy	2,924.5	4.1	935.9	2.4	3,859.6	2.4
Spain	2,044.4	4.3	1,087.1	1.8	2,090.9	2.2
UK	7,064.8	7.9	2,068.3	2.4	11,757.3	3.3
Japan	5,951.6	0.0	1,318.7	0.0	9,686.5	0.0
China	7,732.8	23.2	632.4	39.9	1,338.7	22.2
Korea	2,254.3	14.8	314.6	14.8	2,140.9	14.8
Taiwan	1,506.7	14.8	384.2	14.8	1,654.8	14.8
ROE	15,723.8	9.9	6,560.3	7.3	26,249.3	4.3
ROW	36,985.8	23.0	6,918.0	34.6	16,476.9	14.8
	97 Other office machi		98 Semiconductors		99 Electric moto	
	1	2	1	2	1	2
Canada	3,601.7	0.2	6,304.0	0.0	883.1	2.4
USA	27,277.7	1.2	37,948.6	0.8	3,389.0	4.7
Mexico	1,298.1	1.0	4,493.4	3.3	575.8	4.9
Austria	700.8	2.8	919.2	7.5	261.8	2.2
Belgium	955.1	2.8	868.5	5.3	351.6	2.0
France	4,679.3	3.3	5,316.5	6.4	1,046.6	2.0
Germany	8,474.0	3.7	11,608.1	7.7	2,232.7	3.3
Italy	2,607.6	2.4	4,372.5	4.9	867.1	2.4
Spain	1,454.2	2.6	854.5	4.3	596.3	1.2
UK	7,255.8	3.5	8,022.5	9.2	1,052.1	3.2
Japan	5,479.4	0.0	12,435.7	0.0	1,238.6	0.0
China	2,813.7	17.4	4,026.7	15.0	1,680.5	24.7
Korea	1,197.3	14.8	9,610.1	14.8	732.6	12.0
Taiwan	1,949.8	14.8	14,038.1	14.8	525.2	12.0
ROE	15,085.7	4.7	11,387.6	12.0	3,128.6	6.2
ROW	19,876.5	14.1	63,268.4	12.0	8,262.4	23.6

	100 Batteries		101 Electric bulbs,ligł		102 Electrical indl appliance	
	1	2	1	2	1	2
Canada	354.5	3.2	872.2	2.2	4,977.6	1.6
USA	1,728.2	5.6	2,539.8	5.1	22,965.6	4.3
Mexico	301.2	6.0	449.0	4.7	5,563.0	4.9
Austria	117.7	2.0	269.9	1.8	1,752.6	2.0
Belgium	262.9	3.3	525.3	2.2	2,374.7	2.4
France	619.1	2.6	1,150.1	2.0	6,015.6	2.6
Germany	1,039.3	5.1	1,713.1	3.0	12,351.4	4.5
Italy	435.0	2.6	663.5	2.0	4,511.1	2.2
Spain	297.4	2.4	618.0	1.4	2,754.4	2.0
UK	804.4	5.1	991.7	3.5	7,488.6	3.9
Japan	357.7	0.0	371.1	1.0	4,605.0	0.6
China	403.5	28.9	249.0	24.7	5,381.9	22.1
Korea	206.9	14.8	155.7	14.3	3,101.2	14.8
Taiwan	372.7	14.8	192.5	14.1	3,487.9	14.8
ROE	2,053.3	8.2	2,629.4	8.1	17,661.8	7.1
ROW	3,110.0	30.8	3,260.5	28.6	35,143.5	23.8
	103 Shipbuilding,repairing		104 Warships		105 Railroad equipment	
	1	2	1	2	1	2
Canada	113.1	3.3	75.4	0.0	606.6	0.4
USA	1,400.8	2.4	933.9	0.0	1,251.5	2.6
Mexico	14.7	21.8	9.8	0.0	149.8	8.4
Austria	28.9	0.8	19.3	0.0	152.5	2.0
Belgium	79.9	1.8	53.3	0.0	130.3	1.4
France	358.4	1.2	239.0	0.0	185.2	0.4
Germany	871.7	2.0	581.2	0.0	474.4	3.0
Italy	192.9	1.6	128.6	0.0	109.6	2.6
Spain	177.7	1.4	118.5	0.0	85.7	1.4
UK	673.1	2.0	448.7	0.0	370.4	0.4
Japan	149.6	0.0	99.8	0.0	103.2	0.0
China	479.6	15.2	319.7	0.0	158.0	8.8
Korea	178.6	5.3	119.0	0.0	222.6	9.3
Taiwan	57.9	5.3	38.6	0.0	100.3	9.3
ROE	2,580.2	2.6	1,720.1	0.0	1,551.4	6.8
ROW	13,940.4	17.0	9,293.7	0.0	1,424.6	19.0
	106 Motor vehicles		107 Motorcycles,bicycles		108 Motor vehicles parts	
	1	2	1	2	1	2
Canada	15,477.5	2.2	210.3	10.1	15,965.5	0.8
USA	82,843.0	3.3	1,535.8	9.5	24,307.6	2.0
Mexico	682.6	9.3	43.4	20.5	5,322.5	5.3
Austria	5,651.5	3.9	173.5	9.2	2,533.0	2.8
Belgium	11,439.1	4.3	215.0	10.8	7,000.1	3.2
France	22,789.0	2.2	643.6	7.9	6,252.4	1.6
Germany	32,162.3	5.6	1,112.1	10.6	13,386.6	2.2
Italy	16,827.4	2.6	291.0	12.7	2,711.9	1.6
Spain	8,315.8	3.2	244.0	8.1	6,006.9	1.0
UK	19,937.4	4.7	416.5	12.7	9,344.4	2.4
Japan	10,566.4	0.0	558.0	0.0	2,114.3	0.0
China	2,027.1	74.4	670.3	42.6	2,074.5	43.6
Korea	566.0	17.7	55.3	14.8	1,836.9	14.5
Taiwan	3,045.8	18.2	384.4	14.8	1,601.9	14.6
ROE	42,268.9	18.7	1,456.8	16.0	14,717.2	9.3
ROW	50,921.1	51.6	2,561.1	42.2	17,876.7	37.1

	109 Aircraft		110 Other transport ec		111 Pro measurement instruments	
	1	2	1	2	1	2
Canada	2,174.1	0.0	0.0	0.0	4,699.3	0.8
USA	11,337.2	1.8	0.0	0.0	16,360.0	5.3
Mexico	180.6	2.6	0.0	0.0	1,891.6	4.3
Austria	561.0	3.0	0.0	0.0	1,863.8	1.8
Belgium	735.8	2.4	0.0	0.0	3,050.5	2.2
France	8,103.1	0.6	0.0	0.0	7,228.3	2.4
Germany	4,941.8	1.4	0.0	0.0	12,015.0	3.3
Italy	1,667.4	2.0	0.0	0.0	4,224.1	2.2
Spain	1,184.8	3.0	0.0	0.0	2,626.1	1.8
UK	4,749.6	2.8	0.0	0.0	6,723.8	3.5
Japan	3,054.2	0.0	0.0	0.0	7,787.5	0.8
China	1,545.3	7.5	0.0	0.0	2,487.0	21.4
Korea	2,566.0	0.0	0.0	0.0	3,881.1	14.8
Taiwan	2,315.4	0.0	0.6	14.8	2,210.3	14.8
ROE	9,722.2	3.3	5.1	6.0	18,611.6	5.1
ROW	27,105.5	7.9	58.7	29.2	22,071.3	20.0
	112 Photographic,optic		113 Watches and clocks		114 Jewellery	
	1	2	1	2	1	2
Canada	1,415.7	2.6	212.2	8.6	824.8	0.6
USA	10,330.4	5.6	2,973.5	10.8	10,848.1	2.2
Mexico	453.1	8.8	89.6	19.8	97.3	1.8
Austria	531.4	4.3	261.5	8.4	464.9	1.0
Belgium	841.4	4.9	187.8	6.9	9,934.4	0.0
France	2,452.4	5.1	803.0	7.7	1,502.1	0.6
Germany	4,349.9	6.9	1,328.6	9.0	2,167.0	0.6
Italy	1,473.8	4.5	936.6	8.6	744.2	0.6
Spain	830.2	4.3	470.9	8.4	288.8	0.6
UK	2,826.4	6.2	809.6	8.4	7,467.2	0.2
Japan	2,368.6	1.0	2,024.9	0.0	5,794.6	0.8
China	1,348.4	23.0	1,290.3	32.2	285.2	14.8
Korea	1,922.1	14.6	272.3	14.8	1,430.6	6.9
Taiwan	1,424.4	14.8	402.7	14.8	926.3	6.9
ROE	7,005.8	8.4	2,066.1	9.5	8,015.2	0.8
ROW	8,737.0	21.1	8,344.0	26.8	23,900.6	10.6
	115 Musical instrumen		116 Sporting goods		117 Ordnance	
	1	2	1	2	1	2
Canada	114.3	6.0	308.7	6.4	230.4	1.8
USA	1,009.9	7.7	1,691.7	5.8	371.2	3.9
Mexico	49.5	10.6	95.1	7.1	5.5	1.4
Austria	55.3	4.1	122.9	3.2	12.8	3.7
Belgium	54.5	5.4	80.2	3.7	64.1	5.3
France	220.7	5.8	303.0	3.7	97.0	3.2
Germany	379.5	6.8	491.7	4.3	292.4	4.9
Italy	105.9	6.0	204.1	3.0	42.2	4.5
Spain	67.5	5.6	111.7	3.7	83.2	3.0
UK	191.7	6.9	286.1	5.6	423.6	4.7
Japan	365.4	0.0	1,337.4	1.8	366.5	17.5
China	88.9	36.2	98.8	29.8	4.1	26.1
Korea	111.6	14.8	150.1	14.8	251.1	4.5
Taiwan	73.8	14.8	111.0	14.8	252.8	4.5
ROE	464.0	8.2	788.2	6.9	964.0	5.8
ROW	520.4	23.9	768.6	24.2	3,959.6	14.5

	118 Works of art		119 Manufactured goods n.e.		120 Scraps,used,unclassified	
	1	2	1	2	1	2
Canada	70.0	1.6	1,313.7	4.5	5,331.0	2.4
USA	2,241.8	0.0	12,862.5	5.3	19,827.0	0.0
Mexico	15.2	0.0	478.5	11.1	2,394.2	0.0
Austria	55.3	0.0	688.0	3.3	778.0	0.0
Belgium	72.6	0.0	1,006.1	5.1	3,241.2	0.0
France	199.9	0.0	2,500.4	4.5	2,819.9	0.0
Germany	318.8	0.0	4,076.2	6.4	7,117.0	0.0
Italy	64.4	0.0	1,303.5	6.0	5,214.5	0.0
Spain	106.4	0.0	903.6	4.7	2,313.0	0.0
UK	1,298.7	0.0	2,634.3	6.4	5,802.1	0.0
Japan	494.8	0.0	2,852.8	7.5	4,596.2	0.0
China	30.9	17.7	1,444.5	37.1	2,912.5	1.4
Korea	109.0	0.0	513.9	14.8	2,580.8	0.8
Taiwan	41.9	0.0	602.2	14.8	2,048.7	0.4
ROE	1,373.2	0.0	6,239.1	9.3	13,397.7	0.0
ROW	899.0	8.6	10,724.7	35.9	93,469.5	37.9

Table 5.7: Responses of Exports by Sector to Removal of Tariff Barriers

	1 Unmilled cereals				2 Fresh fruits,vegetables				3 Other crops			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,727.4	68.8	61.8	7.0	701.0	13.3	16.4	-3.1	2,056.0	26.2	24.2	2.0
USA	15,228.5	34.3	35.2	-0.8	3,687.5	10.5	9.1	1.4	8,079.9	16.2	16.0	0.2
Mexico	44.0	-2.4	0.4	-2.8	2,044.0	11.6	8.3	3.4	152.2	27.8	26.7	1.1
Austria	129.0	15.9	15.9	0.0	78.4	19.9	16.1	3.8	94.1	9.1	9.2	0.0
Belgium	284.3	17.5	17.4	0.1	1,042.5	9.4	9.7	-0.2	543.4	8.5	7.6	0.8
France	5,582.1	20.3	22.0	-1.8	1,861.4	11.0	12.4	-1.4	1,340.2	9.5	8.7	0.8
Germany	1,583.7	7.4	7.8	-0.3	569.6	14.5	13.9	0.7	1,127.2	9.6	7.7	1.9
Italy	117.6	0.6	0.6	0.0	2,110.3	10.6	10.8	-0.2	769.0	11.7	9.6	2.1
Spain	195.2	8.6	10.0	-1.4	4,216.0	8.8	11.6	-2.8	465.2	39.3	36.4	2.9
UK	855.4	19.0	19.5	-0.5	308.3	6.5	10.4	-3.9	258.9	19.4	19.5	-0.1
Japan	1.1	33.1	33.1	0.0	27.9	34.1	32.4	1.7	162.7	45.2	48.4	-3.2
China	59.8	91.8	90.9	0.9	1,171.2	22.3	22.6	-0.3	1,397.0	28.6	29.0	-0.4
Korea	1.6	11.7	11.8	-0.1	157.9	13.6	8.8	4.8	333.0	22.2	20.9	1.2
Taiwan	0.1	-0.1	0.2	-0.3	110.5	16.2	15.0	1.1	205.1	6.4	16.9	-10.5
ROE	3,141.9	42.8	50.5	-7.7	7,431.3	10.7	8.7	1.9	8,578.8	9.6	9.1	0.5
ROW	3,287.6	8.5	8.8	-0.3	8,213.4	22.8	21.9	0.8	15,807.1	14.6	14.4	0.3
	4 Livestock				5 Silk				6 Cotton			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,213.7	8.5	2.8	5.8	0.0	0.8	0.8	0.0	1.6	10.7	9.9	0.8
USA	604.6	3.6	3.6	0.0	0.4	7.8	17.1	-9.4	4,103.8	4.0	4.1	-0.2
Mexico	610.2	-1.0	2.0	-3.1	0.0	0.0	0.0	0.0	186.7	2.9	3.7	-0.9
Austria	107.4	-0.4	3.5	-3.9	3.6	2.1	2.1	0.0	5.9	0.1	0.0	0.1
Belgium	573.7	5.3	3.6	1.7	0.1	4.7	7.7	-3.0	23.8	0.1	0.1	0.0
France	2,080.8	4.9	3.9	1.0	0.7	2.0	2.3	-0.3	53.7	0.3	0.2	0.1
Germany	755.7	1.6	3.2	-1.7	31.3	2.7	2.9	-0.2	102.1	0.5	0.5	0.0
Italy	54.5	-0.4	4.2	-4.5	6.2	22.9	42.9	-20.0	34.8	7.8	8.0	-0.2
Spain	266.9	17.6	5.7	11.9	0.9	2.1	2.1	0.0	29.8	0.1	0.1	0.0
UK	580.7	2.2	2.4	-0.2	2.4	5.6	6.7	-1.1	33.9	0.4	0.5	0.0
Japan	9.7	-2.5	1.2	-3.7	4.3	27.1	46.2	-19.2	13.1	2.1	2.0	0.0
China	601.9	10.4	4.8	5.6	352.9	16.6	22.1	-5.5	48.9	4.0	3.6	0.3
Korea	10.7	8.0	9.2	-1.2	5.5	14.8	30.8	-16.0	20.2	2.4	2.2	0.2
Taiwan	16.3	3.4	6.3	-2.9	2.2	21.5	47.8	-26.3	10.4	1.0	0.4	0.5
ROE	2,634.7	1.8	2.5	-0.7	3.2	171.9	31.2	140.7	1,095.9	3.8	3.6	0.2
ROW	1,151.3	7.7	2.4	5.2	158.1	20.7	31.5	-10.8	4,432.2	5.7	5.7	0.0
	7 Wool				8 Other natural fibers				9 Crude wood			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3.4	-2.9	0.4	-3.3	17.3	0.0	0.0	0.0	9,070.2	1.3	1.1	0.2
USA	59.1	5.3	5.6	-0.3	2.2	3.0	1.9	1.1	6,081.5	1.7	2.5	-0.8
Mexico	3.5	2.8	2.8	0.0	0.7	9.7	9.7	0.0	178.5	-0.2	0.0	-0.2
Austria	1.0	0.1	0.2	-0.1	2.9	-0.2	0.1	-0.2	1,314.3	4.6	5.2	-0.6
Belgium	107.4	0.5	0.9	-0.4	190.8	2.4	2.6	-0.2	389.1	-1.3	2.0	-3.3
France	138.2	5.4	5.6	-0.2	139.9	3.8	4.0	-0.2	921.4	1.2	2.1	-0.9
Germany	102.8	3.2	3.2	0.0	5.5	0.0	0.1	0.0	995.2	0.7	2.7	-2.0
Italy	57.0	5.2	4.8	0.5	8.4	9.3	9.3	0.0	313.8	3.4	1.7	1.6
Spain	40.8	5.0	4.0	1.1	1.9	0.1	0.1	0.0	175.1	2.0	0.7	1.3
UK	283.4	7.0	7.3	-0.3	8.5	1.4	1.4	-0.1	67.9	-0.2	0.7	-0.8
Japan	2.7	21.1	18.3	2.8	0.3	6.4	6.5	-0.1	21.0	9.0	10.2	-1.3
China	267.4	8.6	9.1	-0.4	21.5	4.9	4.8	0.1	481.1	6.8	3.2	3.6
Korea	2.5	30.0	25.2	4.8	0.5	11.1	11.5	-0.4	16.5	7.7	5.2	2.5
Taiwan	25.4	9.8	11.1	-1.3	2.9	9.6	8.2	1.4	115.2	2.9	2.2	0.6
ROE	3,255.7	5.0	6.3	-1.3	21.0	0.3	0.5	-0.3	8,601.5	0.2	1.7	-1.5
ROW	1,019.1	10.2	11.1	-0.9	234.3	4.6	5.0	-0.4	11,539.0	5.0	5.2	-0.1
	10 Fishery				11 Iron ore				12 Coal			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	802.4	8.8	7.6	1.3	731.1	0.6	0.0	0.6	1,918.2	0.8	0.5	0.3
USA	595.9	26.7	24.0	2.6	195.4	2.5	2.5	0.0	3,852.1	4.0	4.1	-0.2
Mexico	404.1	14.9	11.2	3.7	0.0	3.4	3.4	0.0	0.1	0.0	0.0	0.0
Austria	0.0	17.7	19.2	-1.5	0.0	4.1	4.1	0.0	1.4	0.0	0.0	-0.1
Belgium	78.8	20.2	25.6	-5.4	1.8	0.0	0.0	0.0	108.0	-0.1	0.0	-0.1
France	159.9	22.4	23.0	-0.6	22.6	0.0	0.0	0.0	69.5	0.0	0.0	0.0
Germany	35.8	30.7	33.1	-2.4	1.3	0.0	0.0	0.0	414.8	0.6	0.4	0.2
Italy	78.2	12.8	18.1	-5.3	0.0	4.1	4.1	0.0	2.6	10.3	10.3	0.0
Spain	236.9	14.6	14.4	0.1	12.8	0.6	0.6	0.0	0.1	-4.1	0.1	-4.2
UK	271.1	11.9	14.6	-2.7	0.2	1.4	1.4	0.0	79.1	0.4	0.5	-0.1
Japan	66.4	3.9	14.0	-10.2	0.0	3.8	3.8	0.0	1.2	10.4	10.4	0.0
China	705.6	13.6	12.7	0.9	0.0	1.1	1.3	-0.2	1,011.4	0.6	1.3	-0.7
Korea	277.2	7.4	9.2	-1.8	0.0	0.0	0.0	0.0	0.1	9.2	9.2	0.0
Taiwan	87.6	8.3	9.6	-1.3	2.1	4.1	4.1	0.0	0.3	9.2	9.2	0.0
ROE	1,290.3	19.4	20.6	-1.2	2,761.0	0.4	0.6	-0.2	7,449.1	2.9	3.0	0.0
ROW	6,984.6	16.1	16.4	-0.3	4,352.4	1.0	1.1	-0.1	3,818.4	2.6	2.8	-0.3

	13 Non-ferrous metal ore				14 Crude petroleum				15 Natural gas			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	2,141.6	3.5	4.8	-1.3	7,537.2	0.6	0.6	0.0	5,859.2	0.0	0.0	0.0
USA	2,040.4	-1.0	1.1	-2.1	1.3	0.0	0.0	0.0	794.7	6.4	2.3	4.1
Mexico	241.4	0.3	1.9	-1.5	7,934.4	8.8	8.8	0.0	159.7	1.3	1.3	0.0
Austria	115.0	4.7	4.7	0.1	0.0	0.0	0.0	0.0	4.6	2.9	5.2	-2.3
Belgium	262.6	-0.8	2.7	-3.5	10.5	-1.6	1.5	-3.1	172.3	0.3	0.6	-0.3
France	154.5	3.7	1.7	2.0	7.1	-2.0	1.2	-3.2	316.5	0.3	0.4	-0.1
Germany	199.5	7.0	3.5	3.5	57.3	-2.0	1.2	-3.2	638.4	-1.0	1.7	-2.6
Italy	107.8	10.8	2.0	8.7	45.8	0.0	0.0	0.0	58.7	6.9	6.9	0.0
Spain	104.5	0.6	0.7	0.0	2.3	0.0	0.0	0.0	38.3	12.7	12.4	0.3
UK	91.5	0.4	1.6	-1.2	10,718.3	1.1	1.0	0.1	761.2	0.3	0.7	-0.4
Japan	104.9	11.2	3.7	7.5	0.0	0.0	0.0	0.0	6.2	7.6	11.9	-4.3
China	89.2	5.0	3.1	1.9	2,321.0	5.0	4.2	0.8	11.1	14.1	14.1	0.0
Korea	4.4	15.9	1.1	14.7	0.0	0.0	0.0	0.0	52.4	5.1	0.2	4.9
Taiwan	16.0	6.5	2.9	3.6	29.3	18.0	18.0	0.0	20.5	16.0	14.4	1.7
ROE	4,740.1	-0.2	0.4	-0.6	18,506.0	1.5	1.5	0.1	8,201.7	0.0	0.5	-0.5
ROW	10,406.2	2.1	3.1	-1.0	144,248.6	5.6	5.8	-0.1	16,902.7	0.3	1.1	-0.9
	16 Non-metallic ore				17 Electrical energy				18 Meat			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	915.2	2.1	2.3	-0.2	914.6	0.0	0.0	0.0	1,442.7	4.6	8.5	-3.9
USA	1,627.5	3.1	3.1	0.0	49.5	0.0	0.0	0.0	7,401.1	25.5	22.4	3.0
Mexico	285.6	1.6	1.6	0.0	82.5	0.0	0.0	0.0	87.6	37.0	30.8	6.2
Austria	261.1	3.5	2.8	0.7	287.5	0.1	0.0	0.0	363.4	30.8	28.4	2.4
Belgium	660.8	1.3	0.9	0.4	155.1	-0.1	0.0	-0.1	3,172.9	9.6	14.4	-4.8
France	740.1	1.0	1.0	0.0	4,068.8	0.0	0.0	0.0	5,081.6	10.9	7.6	3.3
Germany	1,113.7	-0.1	0.9	-1.0	445.7	0.1	0.1	-0.1	2,600.0	31.7	29.2	2.5
Italy	480.9	6.4	6.4	0.0	36.6	0.0	0.0	0.0	1,021.2	8.2	8.9	-0.7
Spain	372.5	2.3	0.2	2.0	59.9	-0.1	0.0	-0.1	816.9	35.3	26.0	9.3
UK	805.7	0.5	1.0	-0.5	2.8	-0.1	0.0	-0.1	2,468.4	19.9	17.3	2.5
Japan	231.1	5.4	4.5	0.9	0.0	0.0	0.0	0.0	40.0	32.2	29.3	2.9
China	952.2	3.9	4.2	-0.3	386.3	0.6	0.6	0.0	2,061.6	10.3	30.1	-19.8
Korea	94.2	0.5	0.5	-0.1	0.0	0.0	0.0	0.0	133.1	32.3	31.0	1.3
Taiwan	75.0	7.8	7.9	-0.1	0.0	0.0	0.0	0.0	2,049.6	24.8	23.7	1.1
ROE	2,321.0	0.5	1.2	-0.8	1,118.9	0.1	0.1	0.1	18,892.6	9.5	8.3	1.2
ROW	3,159.6	3.6	3.6	-0.1	402.2	1.4	1.5	0.0	5,750.7	19.1	18.7	0.4
	19 Dairy and eggs				20 Preserved fruits,vegetables				21 Preserved seafood			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	227.5	35.9	29.8	6.1	404.5	19.5	14.1	5.4	1,668.1	20.8	17.2	3.6
USA	796.6	34.1	31.7	2.4	3,627.4	21.2	17.3	3.9	2,958.5	22.1	18.5	3.6
Mexico	20.3	30.7	33.2	-2.5	753.2	16.9	13.7	3.3	330.6	10.4	4.7	5.7
Austria	261.0	7.1	6.3	0.8	277.6	9.6	15.5	-6.0	15.0	46.9	29.9	17.0
Belgium	2,654.5	20.6	19.4	1.2	1,583.2	15.4	22.3	-6.9	218.0	9.2	20.8	-11.6
France	5,014.7	15.2	14.1	1.2	1,716.0	18.3	18.2	0.0	874.8	10.4	15.2	-4.8
Germany	5,304.6	26.4	27.8	-1.4	1,418.3	19.2	20.2	-1.0	704.4	20.1	21.1	-1.1
Italy	939.8	15.5	14.7	0.7	2,848.4	13.3	18.4	-5.1	280.0	8.9	14.5	-5.6
Spain	340.0	11.7	11.6	0.1	2,902.4	14.2	17.8	-3.6	1,016.5	19.0	21.4	-2.4
UK	1,273.8	6.0	5.5	0.5	354.7	20.0	20.5	-0.5	884.8	17.7	21.7	-4.0
Japan	4.7	34.8	34.4	0.3	69.7	30.0	31.5	-1.5	622.3	25.5	21.9	3.6
China	63.7	36.0	35.2	0.8	1,806.9	41.2	40.1	1.1	2,148.1	12.8	11.0	1.8
Korea	5.0	30.3	30.5	-0.2	92.3	28.7	26.8	2.0	1,273.3	21.3	16.8	4.5
Taiwan	9.6	28.6	32.5	-3.9	277.6	27.6	23.2	4.5	1,515.0	3.7	8.0	-4.3
ROE	13,529.2	6.3	6.1	0.2	7,222.1	22.4	22.7	-0.3	10,254.5	21.6	21.2	0.4
ROW	1,730.1	17.4	18.6	-1.2	9,732.0	20.6	19.5	1.1	13,214.8	18.8	17.1	1.7
	22 Vegetable&animal oils,fats				23 Grain mill products				24 Bakery products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	708.4	4.2	3.5	0.7	328.0	29.1	34.5	-5.4	340.9	22.0	24.0	-1.9
USA	3,887.4	51.9	25.8	26.1	1,590.1	16.7	26.6	-9.9	577.3	7.6	7.4	0.1
Mexico	51.7	3.8	3.3	0.5	32.5	9.6	9.1	0.5	92.6	8.9	10.3	-1.4
Austria	74.1	5.1	7.0	-2.0	26.6	9.4	19.6	-10.2	130.2	15.4	15.2	0.2
Belgium	1,340.0	-9.5	41.3	-50.8	681.4	3.5	19.9	-16.4	852.9	2.3	2.2	0.1
France	906.8	15.4	8.1	7.4	1,094.2	27.5	29.3	-1.8	890.2	8.2	8.0	0.2
Germany	2,090.2	15.5	19.0	-3.6	673.2	3.8	9.7	-5.9	1,029.9	4.9	4.8	0.1
Italy	1,083.5	13.2	8.4	4.7	653.5	62.5	11.9	50.6	1,788.6	8.2	8.4	-0.1
Spain	1,043.8	25.6	25.0	0.6	315.9	12.8	20.5	-7.7	220.8	16.2	16.2	0.0
UK	483.1	10.7	9.7	1.0	605.6	1.8	7.2	-5.5	676.9	14.6	14.4	0.2
Japan	69.9	-28.5	16.0	-44.6	87.6	38.2	58.0	-19.7	131.1	20.7	20.9	-0.1
China	652.1	21.2	19.3	1.9	102.4	27.1	27.4	-0.3	184.1	27.4	27.5	-0.1
Korea	19.7	31.8	21.6	10.1	16.2	36.5	24.8	11.8	159.4	12.9	12.9	0.0
Taiwan	34.2	16.4	68.4	-52.1	34.8	184.1	95.9	88.2	64.8	20.5	20.4	0.1
ROE	5,413.4	29.9	37.5	-7.6	1,430.1	29.5	30.0	-0.6	2,207.8	16.8	16.9	0.0
ROW	18,179.7	27.1	27.5	-0.3	5,668.8	26.6	30.5	-3.9	867.4	15.4	15.6	-0.2

	25 Sugar				26 Cocoa, chocolate,etc				27 Food products n.e.c.			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	14.2	15.8	20.7	-4.9	369.3	9.0	8.1	0.9	732.7	20.2	19.2	1.0
USA	162.2	20.9	21.0	-0.1	1,158.3	18.1	16.4	1.7	4,548.5	16.8	15.1	1.7
Mexico	80.8	15.7	20.6	-4.9	149.5	25.3	9.4	15.9	1,093.6	9.4	11.6	-2.1
Austria	34.2	10.5	10.4	0.1	214.0	22.2	22.8	-0.5	273.1	2.9	8.7	-5.9
Belgium	570.7	20.7	21.0	-0.3	1,313.3	13.4	13.1	0.4	1,949.5	7.2	10.6	-3.4
France	1,872.1	8.4	7.7	0.7	1,629.0	9.3	11.4	-2.1	3,841.2	18.0	17.8	0.3
Germany	702.9	2.9	3.2	-0.4	1,836.1	5.7	6.5	-0.8	3,852.1	6.6	9.7	-3.1
Italy	44.0	20.1	20.2	-0.1	573.3	23.9	23.0	1.0	1,244.5	18.2	21.2	-3.0
Spain	165.4	25.9	24.8	1.1	484.5	18.2	16.5	1.7	891.5	30.4	28.6	1.8
UK	295.0	28.7	28.7	0.0	1,049.5	13.2	13.5	-0.3	1,574.1	13.7	14.8	-1.0
Japan	2.0	33.8	15.9	17.9	80.2	14.0	14.5	-0.5	417.6	21.7	15.4	6.3
China	172.8	28.8	28.6	0.2	94.6	23.6	24.2	-0.6	1,011.2	23.1	24.9	-1.8
Korea	102.3	34.4	34.0	0.4	149.5	14.0	10.7	3.4	279.0	20.8	19.1	1.7
Taiwan	10.2	20.9	25.0	-4.1	35.9	26.4	21.6	4.8	188.2	18.5	14.7	3.8
ROE	1,735.9	23.2	23.6	-0.4	4,409.8	12.2	9.8	2.4	10,574.2	12.0	13.1	-1.1
ROW	6,433.4	18.5	20.1	-1.6	4,030.2	15.8	15.2	0.6	19,209.2	23.6	24.3	-0.7
	28 Prepared animal feeds				29 Alcoholic beverage				30 Non-alcoholic beverage			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	77.8	12.2	7.9	4.2	657.0	33.9	38.3	-4.4	188.0	24.5	18.2	6.3
USA	699.4	4.8	5.5	-0.7	1,731.3	10.6	10.4	0.2	356.8	33.2	33.0	0.2
Mexico	5.5	1.5	3.3	-1.8	526.5	7.9	7.4	0.5	37.9	27.9	28.2	-0.3
Austria	31.5	2.4	3.4	-1.0	157.1	12.1	16.1	-4.0	221.7	16.1	17.2	-1.1
Belgium	159.2	1.6	4.2	-2.6	751.4	8.3	17.5	-9.2	376.8	7.4	12.2	-4.9
France	359.6	6.2	6.3	0.0	7,956.7	17.7	15.4	2.3	927.3	16.2	16.1	0.1
Germany	390.8	2.3	3.2	-0.9	2,028.8	11.1	13.0	-1.9	274.1	25.3	25.2	0.0
Italy	89.5	6.6	9.0	-2.4	2,789.5	4.6	7.2	-2.6	149.6	14.9	17.2	-2.4
Spain	35.4	3.8	5.9	-2.0	1,240.8	13.3	11.7	1.6	112.2	6.9	8.3	-1.4
UK	167.5	6.3	6.1	0.2	4,901.6	19.8	18.7	1.1	249.5	26.0	25.2	0.8
Japan	34.2	7.9	6.9	1.0	132.5	14.5	17.0	-2.5	15.7	24.6	23.5	1.0
China	30.0	4.8	3.7	1.0	169.2	11.9	16.0	-4.1	229.3	32.9	32.5	0.3
Korea	16.1	11.4	11.1	0.3	60.5	11.0	15.3	-4.3	41.8	25.4	25.2	0.3
Taiwan	29.5	4.5	3.4	1.1	29.4	20.9	26.1	-5.2	52.4	30.3	28.3	2.0
ROE	1,211.1	6.4	6.0	0.4	5,036.9	41.2	39.7	1.6	797.6	11.6	8.6	3.1
ROW	1,739.3	4.0	5.3	-1.3	2,834.3	14.7	14.9	-0.2	635.8	18.5	16.8	1.7
	31 Tobacco products				32 Yarns and threads				33 Cotton fabric			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	137.3	43.2	47.7	-4.6	450.1	19.3	16.8	2.5	116.2	16.1	16.0	0.1
USA	6,937.6	46.2	55.7	-9.5	1,667.6	22.1	20.1	2.0	892.5	37.8	36.6	1.2
Mexico	48.6	73.3	60.5	12.8	371.9	14.8	12.3	2.5	228.3	40.6	39.6	1.0
Austria	58.3	12.9	34.2	-21.3	419.3	4.3	8.0	-3.7	322.2	16.5	17.1	-0.6
Belgium	378.5	64.4	52.5	11.9	1,452.2	9.2	10.4	-1.3	775.0	9.9	14.4	-4.5
France	275.4	42.0	45.8	-3.8	1,962.2	0.3	7.9	-7.6	1,263.7	15.0	18.6	-3.6
Germany	1,530.1	69.0	60.5	8.4	3,887.2	11.7	10.1	1.6	1,735.2	18.9	20.3	-1.4
Italy	142.8	2.8	37.3	-34.5	2,757.9	17.0	16.7	0.3	1,687.4	29.2	29.6	-0.4
Spain	98.6	17.2	37.2	-20.0	834.6	11.8	13.6	-1.7	358.3	22.2	21.3	1.0
UK	1,899.2	54.1	46.0	8.1	1,684.3	5.4	6.7	-1.2	484.5	16.3	17.4	-1.1
Japan	369.9	156.2	54.3	101.9	1,144.2	17.1	15.9	1.2	864.8	21.1	20.1	1.1
China	983.0	65.1	49.7	15.5	2,111.6	16.5	15.6	0.8	3,406.4	27.8	26.2	1.5
Korea	47.8	99.2	58.5	40.8	1,339.2	21.5	19.9	1.6	522.3	21.6	20.3	1.3
Taiwan	19.6	-3.6	60.4	-64.0	2,705.4	27.9	26.5	1.5	737.2	30.6	29.0	1.5
ROE	4,236.4	58.7	52.7	6.0	3,916.5	22.0	21.6	0.3	2,239.8	23.2	23.0	0.1
ROW	5,962.4	63.0	61.5	1.5	10,948.3	15.4	14.8	0.5	7,212.8	27.0	27.5	-0.5
	34 Other textile products				35 Floor coverings				36 Wearing apparel			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,214.4	14.8	14.3	0.5	158.6	14.2	12.6	1.6	1,171.7	20.5	20.8	-0.3
USA	4,953.4	32.5	31.5	0.9	785.6	22.0	20.6	1.4	7,454.0	30.0	29.0	0.9
Mexico	849.0	-13.3	10.0	-23.3	77.5	23.5	21.9	1.7	2,890.5	20.9	15.9	5.0
Austria	1,237.9	19.5	21.1	-1.6	79.6	11.1	12.2	-1.1	1,595.8	21.3	22.3	-0.9
Belgium	3,365.2	15.5	16.8	-1.2	2,823.1	7.4	9.3	-1.8	2,822.2	8.8	16.2	-7.4
France	4,684.4	14.7	15.8	-1.1	421.4	7.6	12.0	-4.4	6,434.3	26.6	27.3	-0.6
Germany	9,251.4	14.7	16.4	-1.6	574.4	10.2	10.4	-0.1	8,830.0	19.3	21.5	-2.2
Italy	9,953.3	35.7	35.7	0.0	154.8	11.1	13.5	-2.4	15,842.9	23.4	24.9	-1.5
Spain	1,542.0	24.8	24.5	0.3	70.4	19.3	19.5	-0.2	1,367.2	27.4	29.7	-2.3
UK	2,945.8	12.4	13.5	-1.1	455.0	14.3	14.3	-0.1	5,009.4	20.5	21.6	-1.1
Japan	4,803.5	23.7	22.4	1.3	19.6	22.6	20.3	2.3	982.1	21.9	23.5	-1.6
China	7,232.3	21.9	20.7	1.2	749.9	11.6	11.8	-0.2	24,875.1	23.8	24.1	-0.3
Korea	9,241.2	39.1	35.6	3.5	33.1	12.4	10.8	1.6	6,195.3	22.9	18.8	4.1
Taiwan	6,511.0	19.8	17.9	1.9	24.1	16.1	14.1	2.1	5,540.6	24.2	22.0	2.2
ROE	10,963.3	35.0	35.3	-0.4	1,608.5	11.1	11.2	0.0	24,312.9	23.2	23.8	-0.5
ROW	16,925.4	21.4	22.6	-1.2	2,118.1	11.3	10.5	0.8	64,622.7	21.5	22.2	-0.8

	37 Leather and hides				38 Leather products				39 Footwear			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	376.2	8.6	7.5	1.1	61.3	12.4	17.6	-5.2	118.7	31.5	29.4	2.0
USA	2,723.5	11.0	9.7	1.3	635.6	15.8	15.3	0.5	624.2	24.2	21.4	2.8
Mexico	210.0	10.8	11.8	-1.1	198.2	20.1	19.7	0.5	203.9	22.8	21.5	1.3
Austria	308.1	9.1	8.7	0.4	131.9	24.3	27.3	-3.0	573.0	15.9	18.9	-2.9
Belgium	263.8	-2.3	4.0	-6.4	349.4	9.5	11.5	-2.0	174.9	10.5	18.0	-7.5
France	908.0	12.6	11.9	0.7	1,417.7	18.0	18.4	-0.4	1,092.5	21.3	22.3	-0.9
Germany	1,316.4	5.3	6.5	-1.2	756.9	17.0	17.2	-0.3	1,284.7	20.5	24.1	-3.6
Italy	3,438.3	7.6	8.1	-0.4	2,565.4	11.8	12.7	-0.9	7,749.7	18.1	20.2	-2.1
Spain	749.9	7.8	8.5	-0.7	262.1	16.7	17.0	-0.3	1,989.5	18.0	19.5	-1.5
UK	930.2	10.9	11.8	-0.9	296.3	20.5	20.4	0.0	794.9	16.9	19.0	-2.0
Japan	278.3	9.4	9.4	0.0	72.2	31.9	31.4	0.5	78.2	32.8	33.1	-0.3
China	490.6	5.3	9.3	-3.9	3,358.6	29.0	27.7	1.2	6,278.6	28.3	27.9	0.4
Korea	1,563.4	12.4	12.3	0.1	951.5	17.4	16.5	0.9	1,246.3	21.6	17.8	3.8
Taiwan	1,012.9	12.8	13.5	-0.7	976.0	18.1	17.6	0.5	918.4	19.9	16.5	3.4
ROE	3,769.5	7.1	5.2	1.8	1,173.5	17.6	17.3	0.3	4,120.1	20.6	20.8	-0.1
ROW	7,334.8	10.9	10.8	0.1	8,300.6	20.1	20.7	-0.7	15,834.7	20.6	20.7	-0.1
	40 Plywood and veneer				41 Other wood products				42 Furnitures and fixtures			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	395.0	13.0	12.4	0.5	2,078.2	1.6	9.5	-7.9	1,119.7	3.5	3.0	0.5
USA	629.0	15.4	12.2	3.2	1,716.2	10.1	6.6	3.5	1,626.4	10.1	9.7	0.3
Mexico	12.7	9.3	9.3	0.0	226.3	4.0	3.1	0.9	383.0	2.9	2.5	0.4
Austria	191.3	8.2	12.4	-4.2	873.8	15.8	13.1	2.6	366.6	4.4	5.4	-1.0
Belgium	158.9	12.5	13.8	-1.3	1,101.5	8.3	8.0	0.3	685.6	3.5	4.5	-1.0
France	324.1	10.6	12.4	-1.7	1,221.6	13.7	8.6	5.1	882.5	4.5	5.0	-0.4
Germany	337.8	15.2	15.1	0.1	1,918.3	16.8	7.0	9.8	2,080.9	2.4	3.7	-1.3
Italy	264.5	15.4	15.1	0.3	953.6	10.5	9.7	0.8	3,547.6	7.2	7.6	-0.3
Spain	172.3	11.5	12.1	-0.6	440.5	6.7	5.3	1.4	440.9	1.5	2.9	-1.4
UK	41.9	7.5	10.8	-3.3	457.2	15.3	13.9	1.4	567.5	17.2	17.8	-0.6
Japan	21.9	22.0	20.5	1.6	116.4	-20.6	10.7	-31.3	223.9	10.4	9.4	1.0
China	51.9	13.5	11.2	2.3	1,270.0	11.9	9.9	2.0	706.4	13.1	12.9	0.2
Korea	57.8	17.4	17.3	0.2	145.0	10.6	5.4	5.2	85.4	8.5	8.1	0.4
Taiwan	138.0	18.7	21.6	-2.9	508.5	8.4	7.2	1.3	841.0	9.5	9.1	0.4
ROE	1,562.4	15.6	15.4	0.2	6,065.0	11.9	7.5	4.4	3,652.6	3.3	3.2	0.1
ROW	6,635.9	23.3	23.8	-0.5	4,519.4	9.9	7.3	2.6	2,669.0	4.6	4.8	-0.2
	43 Pulp and waste paper				44 Newsprint				45 Paper products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	8,724.1	1.0	1.5	-0.5	6,491.7	6.0	6.4	-0.4	5,699.7	15.1	13.8	1.3
USA	6,784.0	1.9	2.0	-0.1	646.9	3.2	3.4	-0.1	9,718.6	11.7	11.1	0.6
Mexico	25.8	-0.9	0.1	-1.0	19.0	-0.8	0.2	-1.0	651.5	7.8	6.9	1.0
Austria	145.4	3.0	2.9	0.1	6.0	7.7	8.1	-0.3	3,900.6	6.8	9.4	-2.6
Belgium	255.9	0.3	0.3	0.0	32.5	7.3	7.7	-0.4	3,333.6	8.9	9.9	-1.0
France	576.4	0.0	0.0	0.0	405.9	5.8	6.4	-0.6	6,231.8	9.0	10.6	-1.5
Germany	871.6	0.0	0.2	-0.2	448.7	5.4	6.0	-0.6	12,726.4	11.3	11.1	0.2
Italy	26.4	1.6	1.6	0.0	8.4	11.4	9.2	2.1	3,996.9	7.3	6.9	0.4
Spain	572.4	1.6	0.4	1.2	8.8	5.4	6.1	-0.7	1,508.1	8.9	10.2	-1.2
UK	174.7	0.7	0.7	0.0	134.4	8.1	8.3	-0.3	3,716.9	5.0	7.4	-2.4
Japan	69.6	5.9	5.6	0.3	78.5	12.1	13.9	-1.7	2,319.5	16.1	14.0	2.1
China	29.2	6.6	6.6	-0.1	57.5	11.6	11.7	-0.2	846.8	14.2	9.5	4.7
Korea	13.9	4.4	4.7	-0.3	8.3	6.2	7.3	-1.1	1,162.3	23.9	23.9	-0.1
Taiwan	13.9	2.0	1.9	0.1	7.1	1.9	2.1	-0.2	1,063.2	23.2	21.9	1.4
ROE	5,765.4	0.3	0.3	0.0	2,504.4	3.3	3.8	-0.5	26,540.4	7.9	7.7	0.3
ROW	4,576.1	1.5	1.6	-0.1	547.7	4.4	2.1	2.3	7,904.4	12.5	10.1	2.4
	46 Printing,publishing				47 Basic chemicals				48 Fertilizers			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	870.4	8.0	7.2	0.8	4,473.0	8.9	9.0	-0.1	1,913.2	6.3	9.3	-3.0
USA	4,661.9	1.4	1.6	-0.2	24,034.8	10.9	11.0	-0.1	4,909.5	9.7	6.9	2.7
Mexico	215.4	5.5	3.4	2.0	1,937.7	9.5	9.2	0.4	294.3	16.2	15.5	0.7
Austria	480.9	7.4	2.6	4.8	945.8	8.8	10.3	-1.5	160.4	9.3	10.8	-1.5
Belgium	1,160.8	2.8	3.9	-1.1	6,942.2	7.3	8.5	-1.2	1,806.4	12.6	12.7	-0.1
France	2,119.4	2.3	2.6	-0.3	9,604.4	7.5	7.9	-0.4	1,906.0	4.9	6.4	-1.5
Germany	3,930.7	2.3	2.3	0.0	25,264.9	7.5	8.2	-0.7	3,371.2	12.8	12.2	0.6
Italy	1,613.9	1.6	2.6	-1.0	4,487.6	11.8	12.1	-0.4	333.1	18.3	17.1	1.2
Spain	858.2	9.5	10.8	-1.3	2,287.1	5.9	7.1	-1.2	352.0	9.5	12.0	-2.5
UK	3,350.6	1.4	2.2	-0.8	12,407.7	11.1	10.9	0.1	1,374.8	3.3	5.6	-2.3
Japan	566.0	3.2	3.2	0.0	13,762.8	11.4	11.6	-0.3	424.2	13.2	11.0	2.2
China	175.1	7.6	5.0	2.6	5,255.2	11.8	10.6	1.2	353.2	12.7	10.6	2.1
Korea	173.3	4.3	1.4	2.9	3,192.5	14.0	14.2	-0.2	271.0	14.4	14.7	-0.3
Taiwan	194.8	11.9	10.7	1.2	1,851.6	11.8	10.2	1.6	55.0	16.6	16.3	0.3
ROE	3,585.0	1.9	2.0	-0.1	29,827.6	8.6	8.4	0.3	3,836.4	9.5	8.8	0.7
ROW	2,614.0	2.5	3.0	-0.4	23,086.6	8.8	8.8	0.0	6,534.7	10.5	10.1	0.5

	49 Synthetic resins,man-made fibers				50 Paints,varnishes,lacquers				51 Drugs and medicines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,671.0	17.6	17.2	0.4	183.5	19.7	19.6	0.1	561.6	4.7	4.7	0.0
USA	17,397.9	10.8	10.2	0.6	1,305.9	15.6	14.9	0.6	6,298.6	1.7	2.0	-0.2
Mexico	1,384.8	16.1	12.4	3.7	37.3	16.5	16.4	0.1	337.2	3.2	4.3	-1.1
Austria	2,393.3	11.5	14.0	-2.5	209.8	18.1	18.0	0.1	1,239.4	6.1	6.2	-0.1
Belgium	10,345.2	7.3	9.9	-2.6	637.9	8.1	9.2	-1.1	4,010.8	5.9	5.8	0.2
France	7,247.8	17.8	18.2	-0.4	822.2	7.3	6.8	0.5	6,975.6	3.4	3.0	0.4
Germany	19,245.5	6.5	8.8	-2.3	2,605.0	8.9	9.3	-0.4	9,524.9	7.1	7.1	0.0
Italy	5,837.4	13.9	15.1	-1.2	754.2	12.9	12.1	0.8	3,755.6	0.8	2.0	-1.2
Spain	2,351.4	6.4	7.8	-1.4	497.4	5.2	5.8	-0.7	1,190.0	1.4	1.6	-0.2
UK	5,917.9	16.6	17.5	-0.9	1,043.5	8.4	8.3	0.1	7,669.1	5.6	5.7	-0.1
Japan	10,025.2	14.8	12.9	1.9	740.7	22.1	21.7	0.4	1,766.2	3.2	3.3	0.0
China	802.8	19.7	19.4	0.3	133.5	17.8	17.9	-0.1	1,311.3	3.4	3.6	-0.2
Korea	5,552.8	25.8	25.0	0.7	158.3	-10.9	4.6	-15.5	230.3	1.3	1.3	0.0
Taiwan	6,801.0	14.2	11.8	2.4	235.7	6.5	11.3	-4.8	81.2	8.5	6.2	2.3
ROE	17,206.5	9.7	8.9	0.8	2,325.6	9.2	7.5	1.7	20,347.1	1.9	2.0	-0.1
ROW	15,933.2	15.5	14.4	1.1	1,358.7	19.9	18.9	1.0	4,556.5	7.7	7.2	0.5
	52 Soap,other toilet preparations				53 Chemical products n.e.c.				54 Petroleum refineries			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	579.7	11.7	11.5	0.2	874.1	7.7	6.2	1.5	2,134.1	6.3	6.2	0.2
USA	3,371.1	6.5	9.2	-2.7	11,185.5	11.1	10.8	0.4	3,617.9	6.1	6.4	-0.3
Mexico	261.9	9.3	9.1	0.3	486.7	14.2	10.4	3.8	287.8	9.6	3.1	6.5
Austria	215.7	11.6	8.1	3.6	601.4	14.8	15.3	-0.5	52.1	7.1	8.8	-1.6
Belgium	1,752.3	9.4	13.0	-3.6	4,124.3	12.9	13.1	-0.2	1,588.8	3.0	4.1	-1.1
France	7,241.9	5.2	7.0	-1.9	5,576.4	4.4	6.4	-2.0	1,407.6	8.6	8.8	-0.2
Germany	4,117.0	7.9	11.2	-3.3	11,691.6	7.3	8.4	-1.1	1,799.2	4.8	5.0	-0.1
Italy	1,508.0	10.4	11.6	-1.2	2,488.4	9.8	10.8	-1.0	945.3	11.6	11.6	-0.1
Spain	774.6	6.3	12.3	-5.9	666.6	3.0	6.1	-3.1	647.7	2.7	4.3	-1.6
UK	2,978.1	4.3	8.4	-4.1	5,892.0	8.5	9.0	-0.5	2,405.4	2.0	3.6	-1.6
Japan	727.0	19.0	18.6	0.3	6,328.7	17.4	17.2	0.2	847.9	11.6	9.9	1.7
China	256.0	16.6	17.4	-0.8	695.9	11.8	11.2	0.6	224.6	6.2	6.0	0.2
Korea	136.1	10.5	10.1	0.4	465.6	14.1	13.1	1.0	467.8	6.6	7.2	-0.6
Taiwan	243.1	47.1	14.7	32.4	1,357.2	17.6	15.8	1.8	44.9	8.3	8.3	0.0
ROE	4,360.2	13.4	15.2	-1.8	10,283.5	9.7	8.6	1.1	6,001.3	10.0	9.7	0.3
ROW	2,799.3	-3.9	9.2	-13.1	6,160.9	10.2	10.3	-0.1	10,099.9	9.9	9.4	0.4
	55 Fuel oils				56 Product of petroleum				57 Product of coal			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	0.0	0.0	0.0	0.0	57.3	8.1	8.1	0.0	24.7	0.0	0.0	0.0
USA	1,709.9	10.1	10.2	0.0	1,345.1	8.9	8.8	0.1	148.4	1.0	1.0	0.0
Mexico	0.0	15.5	15.5	0.0	291.1	6.4	4.8	1.6	0.3	6.2	6.2	0.0
Austria	170.0	8.5	6.6	1.9	48.4	4.9	5.7	-0.8	0.0	0.6	1.0	-0.4
Belgium	2,118.6	10.9	10.9	0.0	548.4	4.4	4.3	0.1	59.5	1.4	1.4	0.0
France	818.4	4.4	4.8	-0.4	495.8	7.5	7.1	0.4	65.6	0.0	0.0	0.0
Germany	1,461.9	8.8	8.3	0.5	650.0	7.7	7.9	-0.2	117.8	-0.1	0.1	-0.1
Italy	1,808.5	13.1	13.2	-0.1	235.0	12.1	11.0	1.1	23.8	4.1	3.9	0.2
Spain	744.3	9.9	9.8	0.0	183.5	12.0	12.1	-0.1	14.8	2.2	2.2	0.0
UK	1,714.8	8.9	9.1	-0.2	432.8	6.7	6.2	0.4	43.0	0.7	0.6	0.1
Japan	1,215.2	14.9	14.7	0.2	324.1	8.1	7.4	0.7	336.1	0.9	0.8	0.1
China	638.3	12.3	12.4	-0.1	61.3	5.8	7.7	-1.9	677.3	6.0	6.0	0.0
Korea	1,850.5	13.1	13.5	-0.4	115.0	9.4	11.8	-2.4	0.7	10.0	10.0	0.0
Taiwan	118.4	12.6	12.6	0.0	42.8	6.5	6.5	0.0	2.4	12.4	12.4	0.0
ROE	9,725.5	5.8	5.6	0.2	1,405.1	5.8	5.5	0.3	839.8	1.2	1.1	0.1
ROW	26,020.4	8.9	9.2	-0.3	1,277.5	11.1	10.6	0.6	122.4	0.9	1.3	-0.4
	58 Tyre and tube				59 Rubber products,n.e.c.				60 Plastic products,n.e.c.			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,008.9	4.0	3.9	0.1	697.5	9.5	8.4	1.2	1,624.7	14.7	13.4	1.3
USA	2,032.4	19.3	18.8	0.5	1,911.6	8.4	9.4	-1.0	6,662.7	10.1	9.9	0.3
Mexico	149.6	5.4	5.5	-0.1	181.2	5.3	5.1	0.2	1,066.8	6.4	6.4	0.0
Austria	0.0	0.0	0.0	0.0	308.3	4.4	4.8	-0.4	1,037.3	11.5	11.7	-0.2
Belgium	787.9	4.4	5.8	-1.4	658.1	5.5	6.2	-0.6	2,431.8	11.1	13.3	-2.2
France	2,801.2	7.5	8.1	-0.6	1,348.8	20.7	20.6	0.1	3,695.3	15.2	15.6	-0.4
Germany	2,147.9	8.8	9.2	-0.5	2,729.7	5.1	5.4	-0.3	7,610.9	11.2	11.9	-0.8
Italy	1,276.1	7.0	8.0	-1.0	1,337.9	6.5	6.6	-0.2	3,926.2	12.0	12.9	-0.9
Spain	1,311.2	4.0	5.2	-1.2	478.9	4.5	4.6	-0.1	827.0	7.7	7.9	-0.2
UK	1,350.0	4.6	5.7	-1.2	892.1	15.6	16.3	-0.7	2,824.5	8.9	10.5	-1.6
Japan	3,191.5	11.2	12.0	-0.8	2,102.9	7.7	8.9	-1.2	2,230.5	9.9	9.1	0.7
China	482.1	0.4	13.3	-12.9	362.2	23.6	23.1	0.6	4,097.2	14.6	13.9	0.7
Korea	1,330.2	7.9	5.9	1.9	197.5	19.1	16.2	2.9	833.5	15.7	15.9	-0.2
Taiwan	441.0	6.8	5.1	1.7	459.7	4.8	3.8	1.0	2,738.6	12.7	11.0	1.7
ROE	2,602.0	19.7	19.5	0.2	2,020.1	4.8	4.7	0.1	8,372.2	13.4	13.2	0.2
ROW	2,440.7	6.4	5.6	0.9	2,395.0	9.4	8.3	1.1	11,520.2	18.9	18.7	0.2

	61 Glass				62 Cement				63 Ceramics			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	810.9	1.8	6.8	-5.0	243.4	0.2	0.0	0.2	201.2	29.9	23.5	6.4
USA	4,347.5	16.5	16.5	0.0	63.3	13.5	13.8	-0.3	1,627.4	25.8	27.7	-1.9
Mexico	1,755.0	9.5	6.2	3.3	132.9	30.3	30.4	-0.1	1,261.7	9.7	9.1	0.7
Austria	868.4	5.9	5.3	0.6	9.3	13.9	4.5	9.4	220.9	7.1	11.6	-4.6
Belgium	2,200.2	8.6	9.4	-0.8	240.0	2.9	3.4	-0.5	434.5	5.5	8.9	-3.4
France	3,526.0	10.1	8.9	1.2	280.3	19.6	19.6	0.0	890.3	18.8	20.6	-1.8
Germany	4,525.4	17.4	16.6	0.8	293.8	5.4	5.1	0.3	1,719.4	11.8	12.2	-0.4
Italy	2,605.5	19.7	19.7	0.0	90.0	13.8	14.4	-0.6	1,180.8	17.0	17.1	-0.1
Spain	990.1	10.0	11.4	-1.5	214.5	24.7	25.0	-0.3	566.5	10.7	11.4	-0.7
UK	1,349.9	11.5	11.9	-0.3	66.1	6.3	6.9	-0.6	1,020.6	7.1	9.9	-2.8
Japan	3,309.9	11.4	11.7	-0.3	532.2	24.5	25.4	-0.9	946.0	15.8	15.9	-0.1
China	1,143.0	14.0	13.4	0.6	302.0	21.6	20.9	0.7	1,219.6	21.0	18.1	2.9
Korea	385.7	13.8	11.6	2.1	137.7	25.8	26.1	-0.3	217.5	13.0	13.3	-0.3
Taiwan	1,196.2	8.3	7.9	0.4	47.2	30.6	30.8	-0.2	680.1	12.9	9.8	3.2
ROE	5,627.2	8.2	7.1	1.1	1,070.9	6.9	6.4	0.6	2,920.0	12.6	12.8	-0.2
ROW	4,288.7	15.9	15.3	0.6	1,041.7	10.6	10.0	0.6	2,865.5	13.0	12.4	0.6
	64 Non-metallic products n.e.c.				65 Basic iron and steel				66 Copper			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	633.4	-18.5	9.5	-28.0	3,357.5	10.8	11.8	-1.0	1,854.3	2.5	5.3	-2.9
USA	1,998.1	8.6	9.0	-0.3	6,610.3	15.7	13.2	2.4	1,878.2	6.9	7.3	-0.3
Mexico	364.6	12.7	7.3	5.4	2,474.8	7.9	6.9	1.0	820.7	2.0	1.3	0.7
Austria	1,036.7	3.4	6.0	-2.7	3,707.4	4.4	6.2	-1.7	510.4	1.7	4.0	-2.3
Belgium	1,136.5	4.7	5.3	-0.6	10,824.2	11.2	11.4	-0.2	1,968.1	1.6	2.4	-0.8
France	1,969.6	15.2	16.4	-1.1	11,252.8	4.4	5.3	-0.9	1,831.7	10.5	9.5	1.0
Germany	3,713.6	11.8	11.7	0.1	19,173.3	5.4	6.3	-0.9	3,805.9	3.3	3.7	-0.4
Italy	6,890.1	9.5	9.4	0.2	9,014.6	6.7	7.7	-1.0	1,035.7	8.7	7.9	0.8
Spain	2,378.5	22.5	19.9	2.6	4,091.2	5.7	6.2	-0.5	459.8	8.9	8.9	0.1
UK	1,322.6	5.8	6.5	-0.7	7,551.0	5.6	6.8	-1.1	1,074.4	9.8	10.8	-1.0
Japan	2,260.0	13.4	11.8	1.6	17,619.6	8.0	7.4	0.5	2,311.6	8.7	6.3	2.4
China	957.9	10.8	8.0	2.7	5,458.7	12.7	13.2	-0.6	414.7	10.3	11.0	-0.7
Korea	312.6	14.4	13.9	0.5	5,562.8	15.5	15.1	0.4	428.0	6.6	5.2	1.4
Taiwan	272.9	13.4	13.3	0.0	2,523.3	17.0	16.7	0.3	1,152.2	9.8	9.6	0.2
ROE	3,650.0	8.5	7.8	0.7	24,755.5	11.5	11.4	0.1	4,321.0	4.5	3.7	0.9
ROW	2,511.0	8.1	6.5	1.6	22,968.8	5.6	5.6	0.0	12,241.5	5.7	5.9	-0.2
	67 Aluminum				68 Nickel				69 Lead and zinc			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	4,592.3	1.6	6.2	-4.6	884.6	1.8	1.9	0.0	795.8	3.2	3.3	-0.1
USA	4,098.9	18.6	14.2	4.4	314.7	5.8	4.8	1.0	118.9	12.5	11.2	1.3
Mexico	59.9	4.0	3.3	0.7	0.8	0.6	1.0	-0.4	226.2	8.1	6.5	1.6
Austria	759.5	11.8	10.4	1.4	27.3	1.2	1.6	-0.4	13.9	13.6	14.6	-1.0
Belgium	1,642.6	4.8	8.0	-3.3	109.9	1.1	1.8	-0.7	541.3	2.0	3.2	-1.2
France	2,327.9	10.2	9.9	0.2	171.4	1.5	2.0	-0.5	149.9	2.5	2.9	-0.4
Germany	4,618.1	7.5	6.5	1.1	371.6	7.8	7.8	0.0	431.7	7.8	7.5	0.3
Italy	1,409.1	6.0	5.1	0.9	55.0	1.4	2.3	-0.9	45.6	11.3	11.6	-0.3
Spain	825.7	3.8	7.5	-3.7	2.0	-0.4	0.7	-1.0	236.8	0.7	3.1	-2.3
UK	1,845.3	6.4	6.3	0.1	479.6	0.8	1.7	-0.9	181.1	9.5	9.4	0.1
Japan	1,262.9	18.5	15.5	3.0	110.8	6.2	4.7	1.5	50.4	6.8	4.7	2.1
China	453.9	6.7	11.4	-4.7	22.6	12.2	12.3	-0.1	326.3	2.7	4.5	-1.7
Korea	525.2	10.9	6.9	4.0	26.8	8.9	11.6	-2.7	68.8	10.2	9.2	1.0
Taiwan	533.1	19.1	20.1	-1.1	7.7	12.2	12.3	-0.1	36.8	9.9	9.8	0.0
ROE	10,837.7	10.1	7.9	2.2	1,141.8	2.8	3.3	-0.5	1,283.0	6.6	6.3	0.3
ROW	10,201.7	7.0	6.9	0.1	788.9	1.1	1.2	-0.2	1,060.9	7.1	7.1	0.0
	70 Other Non-ferrous metal				71 Metal furnitures and fixtures				72 Structural metal products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	670.7	8.4	6.7	1.7	608.9	8.5	7.1	1.4	368.4	10.9	10.5	0.4
USA	1,823.4	3.2	5.2	-1.9	1,114.2	9.7	9.3	0.4	627.7	9.7	8.4	1.3
Mexico	353.0	4.9	3.5	1.4	286.0	8.1	7.7	0.4	55.4	36.5	36.5	-0.1
Austria	226.5	10.1	9.1	1.0	325.2	5.1	6.9	-1.8	604.8	6.8	7.4	-0.6
Belgium	529.8	2.6	2.5	0.1	449.5	5.6	5.8	-0.2	666.5	6.2	7.0	-0.8
France	588.2	0.9	1.4	-0.5	674.8	10.4	9.8	0.6	840.4	8.7	8.7	0.1
Germany	1,120.4	4.2	3.8	0.4	1,502.9	6.9	7.4	-0.4	1,972.5	1.8	6.7	-4.9
Italy	176.6	3.5	1.7	1.8	2,269.9	5.2	6.2	-1.0	1,075.2	12.2	11.9	0.3
Spain	107.5	6.6	6.9	-0.3	342.2	2.7	5.0	-2.3	198.8	31.6	31.8	-0.1
UK	1,282.3	12.1	12.5	-0.4	429.8	15.6	15.7	-0.1	741.6	17.1	17.2	-0.1
Japan	325.1	19.2	19.2	-0.1	278.2	13.4	13.7	-0.4	260.1	35.0	34.9	0.1
China	732.6	10.0	8.6	1.4	711.0	18.0	18.5	-0.5	367.2	21.8	21.1	0.7
Korea	53.6	14.7	17.0	-2.3	78.6	8.4	8.7	-0.3	1,345.7	24.5	24.0	0.5
Taiwan	43.2	5.8	5.2	0.6	734.2	8.6	7.4	1.2	82.2	19.9	19.8	0.1
ROE	1,794.8	15.2	15.0	0.2	2,318.9	9.7	10.0	-0.3	3,783.5	5.1	4.5	0.6
ROW	3,851.8	4.4	4.1	0.3	1,984.9	8.0	7.9	0.2	1,124.4	16.5	15.4	1.1

	73 Metal containers				74 Wire products				75 Hardware			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	228.0	11.8	12.2	-0.4	92.5	12.2	13.6	-1.4	2,495.5	6.0	6.0	0.0
USA	864.8	22.7	22.7	0.0	354.5	20.7	20.4	0.2	10,054.4	18.2	18.6	-0.5
Mexico	75.2	2.5	3.3	-0.8	81.5	2.3	7.8	-5.5	1,720.0	7.4	5.6	1.8
Austria	192.1	10.5	10.5	0.1	94.2	7.0	9.5	-2.5	1,943.9	6.4	8.7	-2.3
Belgium	411.9	2.8	5.4	-2.6	323.4	13.5	6.9	6.5	1,721.2	9.2	9.3	-0.1
France	600.3	7.7	8.1	-0.4	408.4	2.1	5.2	-3.1	5,682.7	9.7	9.9	-0.2
Germany	1,100.7	8.2	9.3	-1.2	562.3	12.4	12.2	0.2	14,374.9	9.3	9.7	-0.4
Italy	572.6	10.2	10.9	-0.7	410.0	5.4	5.7	-0.3	9,363.9	10.7	11.1	-0.3
Spain	193.6	6.5	8.1	-1.6	196.0	14.1	13.9	0.2	1,942.3	8.9	9.9	-1.0
UK	486.0	15.4	15.7	-0.3	228.1	8.5	9.8	-1.3	4,039.7	9.2	11.3	-2.1
Japan	98.6	5.0	3.4	1.6	365.7	12.9	11.9	1.1	6,729.6	9.6	9.4	0.2
China	86.7	10.6	10.7	-0.1	192.7	15.8	13.7	2.1	3,793.2	10.4	9.0	1.4
Korea	188.7	15.9	15.1	0.8	271.9	2.3	7.7	-5.4	1,710.3	18.1	16.0	2.1
Taiwan	77.1	7.8	5.8	2.1	66.1	6.2	5.7	0.4	5,775.5	7.4	5.4	2.0
ROE	1,264.2	5.6	5.7	-0.1	663.3	7.7	6.8	0.9	12,223.4	10.9	11.1	-0.3
ROW	745.0	9.1	7.4	1.7	484.4	10.1	9.2	0.9	8,280.6	6.9	5.5	1.5
	76 Boilers and turbines				77 Aircraft engines				78 Internal combustion engines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,167.3	-0.2	4.9	-5.1	850.5	3.5	3.0	0.5	1,880.1	3.6	2.6	1.0
USA	6,582.0	5.7	3.5	2.2	5,087.7	2.5	2.5	0.0	9,035.6	5.8	5.8	0.0
Mexico	157.2	8.3	9.0	-0.7	137.9	6.3	6.2	0.1	2,989.9	3.4	2.4	1.0
Austria	274.8	6.3	5.7	0.6	90.0	1.0	2.5	-1.4	2,655.4	3.8	3.9	-0.1
Belgium	667.1	8.2	7.2	0.9	192.0	3.0	3.4	-0.3	605.0	18.2	18.6	-0.4
France	2,722.7	4.2	4.1	0.1	1,767.7	4.0	4.3	-0.4	3,854.6	8.2	8.1	0.1
Germany	2,921.7	4.9	3.7	1.2	1,335.9	4.9	5.0	0.0	7,730.4	7.3	7.9	-0.6
Italy	1,633.6	9.9	10.2	-0.4	564.6	7.0	6.8	0.2	2,122.3	0.3	3.5	-3.2
Spain	197.3	12.5	11.1	1.4	64.5	1.5	2.0	-0.6	1,282.1	3.9	4.6	-0.6
UK	3,030.6	7.4	7.1	0.4	2,612.4	2.0	2.6	-0.6	3,759.7	6.4	7.7	-1.2
Japan	1,488.8	2.7	5.8	-3.1	374.1	9.0	8.4	0.6	13,069.9	9.1	9.1	0.0
China	69.2	9.8	2.8	7.0	12.3	6.5	6.3	0.2	252.6	6.2	5.9	0.2
Korea	430.6	3.2	3.0	0.2	298.8	1.5	1.2	0.3	258.2	19.4	19.1	0.4
Taiwan	60.5	6.8	8.2	-1.4	15.9	7.9	7.5	0.4	349.8	11.3	9.1	2.2
ROE	3,021.1	6.8	5.3	1.5	1,495.0	3.0	3.0	0.0	4,222.2	13.6	12.8	0.9
ROW	899.0	8.8	10.1	-1.2	572.8	4.7	4.9	-0.2	2,545.8	11.2	10.6	0.6
	79 Other power machinery				80 Agricultural machinery				81 Construction,mining,oilfield eq			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	71.0	14.5	14.3	0.2	917.4	5.8	5.0	0.9	599.2	7.4	7.7	-0.3
USA	316.7	4.4	4.3	0.0	3,433.9	8.3	7.9	0.4	7,830.3	5.6	5.7	-0.2
Mexico	21.1	2.8	2.8	0.0	194.8	11.5	10.3	1.2	200.2	2.0	2.4	-0.4
Austria	117.3	6.2	6.3	-0.1	311.9	4.1	4.8	-0.7	868.5	11.4	9.6	1.8
Belgium	34.2	1.7	3.3	-1.6	512.0	2.8	4.2	-1.4	1,697.1	3.0	4.1	-1.1
France	204.3	4.0	4.1	-0.1	1,176.3	2.4	3.2	-0.8	1,916.3	6.3	6.7	-0.4
Germany	693.2	5.7	5.8	-0.1	3,486.4	5.0	5.7	-0.7	4,299.4	7.9	8.3	-0.4
Italy	124.3	12.7	12.9	-0.2	2,062.1	2.7	3.5	-0.9	2,909.9	4.2	4.5	-0.3
Spain	49.0	2.6	3.3	-0.7	95.2	12.9	13.9	-1.1	246.0	4.1	4.4	-0.3
UK	189.0	5.2	5.2	-0.1	1,896.4	3.4	4.1	-0.7	2,603.1	6.6	7.2	-0.6
Japan	468.1	17.4	17.6	-0.2	1,090.3	1.3	1.4	-0.2	4,519.4	5.0	4.7	0.3
China	29.5	12.1	12.5	-0.4	93.9	6.6	5.7	0.9	211.8	8.6	6.7	1.8
Korea	9.5	14.5	14.5	0.0	34.1	12.0	9.8	2.1	766.6	10.0	9.7	0.4
Taiwan	12.2	8.8	8.4	0.4	36.7	7.3	6.6	0.7	395.3	17.0	16.1	0.9
ROE	465.5	9.1	8.6	0.4	2,279.6	2.8	2.6	0.2	3,279.0	6.1	6.2	-0.1
ROW	96.5	9.2	9.0	0.2	533.3	6.4	5.7	0.7	2,317.2	15.5	15.9	-0.4
	82 Metal,woodworking machinery				83 Sewing and knitting machines				84 Textile machinery			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,686.8	5.9	5.4	0.5	10.5	25.1	24.5	0.6	51.1	5.7	6.2	-0.5
USA	10,200.2	6.8	6.9	-0.1	335.0	15.6	14.8	0.8	980.2	14.0	14.0	-0.1
Mexico	473.5	1.6	5.8	-4.2	13.4	28.8	28.8	0.0	17.3	4.8	3.4	1.3
Austria	1,657.1	6.3	6.7	-0.4	18.3	1.6	3.7	-2.2	191.6	6.2	7.0	-0.8
Belgium	1,622.6	5.8	6.3	-0.5	41.2	25.6	17.2	8.4	318.4	8.2	8.5	-0.3
France	2,971.4	4.7	5.2	-0.5	36.9	4.0	5.9	-1.9	965.9	4.2	4.7	-0.5
Germany	14,441.3	8.0	8.2	-0.2	701.6	10.7	11.1	-0.4	6,040.4	7.1	7.7	-0.6
Italy	7,053.6	5.9	6.3	-0.4	125.4	4.0	6.3	-2.3	2,642.5	6.9	7.3	-0.5
Spain	1,160.1	7.3	7.8	-0.4	8.2	0.9	6.4	-5.4	262.3	14.6	14.6	0.0
UK	3,481.7	3.9	4.9	-1.0	57.2	8.6	8.6	0.0	637.2	14.8	14.7	0.1
Japan	15,119.3	7.9	7.8	0.1	1,239.1	13.3	14.6	-1.3	3,451.9	7.3	7.3	0.0
China	1,101.6	7.4	6.4	1.0	254.0	7.4	7.1	0.4	155.7	10.9	10.5	0.3
Korea	1,060.4	14.3	14.0	0.3	110.1	8.4	9.8	-1.4	546.3	15.7	15.3	0.4
Taiwan	3,047.1	11.6	10.9	0.7	694.9	20.1	19.5	0.6	570.3	14.6	14.2	0.4
ROE	10,868.9	8.6	8.5	0.1	350.9	18.2	18.5	-0.2	3,084.5	13.1	13.1	0.0
ROW	4,702.4	16.2	16.1	0.1	690.1	25.8	25.5	0.2	762.3	5.4	5.0	0.3

	85 Paper mill machines				86 Printing machines				87 Food-processing machines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	242.1	3.3	3.2	0.1	162.8	1.9	1.8	0.2	69.6	9.4	9.2	0.2
USA	883.4	8.2	6.5	1.7	1,538.9	10.2	9.7	0.5	718.0	11.5	11.4	0.1
Mexico	9.4	1.3	1.5	-0.2	21.9	3.8	2.7	1.1	26.6	15.5	15.5	0.0
Austria	282.9	9.7	9.0	0.7	212.8	2.8	5.1	-2.3	184.3	14.4	14.6	-0.2
Belgium	52.0	7.0	6.2	0.8	355.9	3.8	4.5	-0.6	80.0	6.7	6.7	-0.1
France	364.8	3.2	3.7	-0.5	683.0	17.0	17.0	0.0	348.0	11.5	11.5	0.0
Germany	1,818.9	6.1	5.8	0.3	4,676.1	5.1	5.7	-0.6	1,318.4	7.8	8.0	-0.2
Italy	668.6	4.1	5.3	-1.2	764.1	2.3	2.7	-0.4	1,031.6	15.1	15.2	0.0
Spain	187.5	-18.0	8.6	-26.6	111.0	9.1	8.6	0.5	134.5	6.8	7.3	-0.5
UK	352.4	2.6	3.6	-1.0	971.1	5.1	5.6	-0.5	329.5	11.4	11.5	-0.1
Japan	553.1	9.2	7.8	1.4	1,699.5	11.5	11.5	0.1	206.7	15.6	15.6	0.0
China	25.1	1.5	1.3	0.2	28.3	3.9	3.2	0.7	44.5	5.9	5.8	0.2
Korea	52.1	5.9	4.9	1.0	51.8	19.4	19.1	0.3	26.4	11.5	11.4	0.0
Taiwan	209.9	11.4	10.2	1.2	161.6	18.5	18.2	0.4	130.7	15.3	15.0	0.3
ROE	2,610.4	8.1	8.0	0.1	2,253.9	7.1	6.6	0.6	1,859.4	5.7	5.6	0.1
ROW	250.5	8.7	7.7	1.1	900.9	9.5	9.4	0.1	277.1	10.6	10.6	0.1
	88 Other special machinery				89 Service industry machinery				90 Pumps,ex measuring pumps			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,281.6	4.7	4.7	0.0	1,024.8	15.2	13.5	1.7	405.2	5.9	5.4	0.5
USA	9,079.8	12.4	12.5	-0.1	9,641.5	16.3	19.1	-2.8	4,780.2	9.0	8.8	0.2
Mexico	455.0	3.4	2.8	0.6	717.5	3.4	3.0	0.4	220.6	4.0	3.1	0.9
Austria	1,224.6	3.6	4.0	-0.4	1,083.8	1.1	3.5	-2.3	440.4	2.7	5.2	-2.6
Belgium	1,058.9	7.0	7.4	-0.4	1,420.6	7.3	7.6	-0.3	362.6	1.5	2.9	-1.4
France	2,571.0	12.9	12.7	0.1	3,714.0	17.3	14.8	2.6	2,146.6	5.7	7.6	-1.9
Germany	8,739.0	7.6	8.0	-0.4	11,593.9	6.6	6.6	0.1	7,221.5	5.5	5.6	-0.1
Italy	5,138.5	4.9	5.2	-0.3	8,292.1	6.1	6.0	0.1	3,063.8	2.8	3.2	-0.4
Spain	383.2	8.9	9.4	-0.4	952.5	13.0	7.8	5.2	603.3	5.2	5.2	0.0
UK	2,259.1	4.9	5.3	-0.3	2,806.3	5.5	5.6	-0.1	1,856.5	3.5	4.0	-0.4
Japan	8,538.8	13.0	12.9	0.1	8,317.1	7.7	5.9	1.8	5,463.4	17.0	16.4	0.6
China	274.8	5.5	5.0	0.5	361.3	9.7	5.9	3.8	223.7	6.0	4.7	1.2
Korea	792.1	17.0	17.0	0.0	991.0	16.8	15.7	1.1	454.4	11.9	10.3	1.6
Taiwan	1,469.4	4.2	3.9	0.3	1,268.3	10.3	11.5	-1.2	450.7	9.6	10.3	-0.7
ROE	6,311.6	11.7	11.7	0.0	9,642.3	11.5	10.9	0.7	3,455.4	8.4	8.3	0.1
ROW	2,722.8	4.8	4.4	0.3	5,914.0	10.8	6.3	4.5	2,675.7	13.5	11.8	1.7
	91 Mechanical handling equipment				92 Other non-electrical machinery				93 Radio,TV,phonograph			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,075.6	3.0	2.8	0.2	1,521.8	3.5	5.1	-1.6	1,466.0	-2.4	6.8	-9.2
USA	4,960.8	12.3	12.4	0.0	3,435.2	13.7	13.1	0.6	14,155.2	9.4	12.7	-3.3
Mexico	205.4	1.4	1.4	0.0	334.3	5.8	3.9	1.9	5,948.4	19.2	17.1	2.1
Austria	870.7	2.7	3.1	-0.4	917.9	5.8	6.6	-0.8	692.0	2.4	9.6	-7.2
Belgium	858.0	7.2	5.4	1.8	840.8	5.6	7.3	-1.7	2,526.1	32.9	9.7	23.2
France	2,397.1	8.4	8.4	0.0	2,296.6	4.9	5.6	-0.7	3,876.9	10.9	14.4	-3.5
Germany	5,754.1	7.0	5.7	1.3	6,401.2	5.5	6.8	-1.3	6,648.7	2.5	7.9	-5.4
Italy	2,263.9	3.7	4.0	-0.2	2,399.7	7.1	7.8	-0.7	1,405.6	11.9	15.0	-3.1
Spain	557.0	-12.7	6.8	-19.5	467.5	6.6	7.4	-0.8	1,161.2	4.9	13.1	-8.3
UK	2,130.6	2.9	3.3	-0.4	1,595.2	5.6	6.9	-1.3	6,656.4	6.4	8.9	-2.5
Japan	4,854.6	5.4	4.1	1.2	5,799.5	8.9	8.6	0.3	14,661.2	17.5	15.7	1.7
China	356.3	6.6	4.8	1.8	931.2	14.8	11.2	3.6	5,151.6	19.1	14.8	4.2
Korea	825.4	8.6	8.2	0.5	644.2	5.8	5.3	0.5	5,601.2	7.0	9.0	-2.0
Taiwan	327.5	16.6	14.8	1.8	1,094.2	10.0	9.0	1.0	2,029.6	4.4	5.8	-1.4
ROE	5,908.9	5.7	5.5	0.2	3,329.7	16.4	16.2	0.2	14,355.0	13.3	16.2	-2.9
ROW	2,105.7	17.1	16.5	0.6	3,366.5	5.6	6.1	-0.5	30,673.4	16.4	11.0	5.4
	94 Other telecomm eq				95 Household electrical appliances				96 Computers			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	2,572.7	9.4	8.9	0.6	370.7	8.1	9.4	-1.2	2,074.6	6.2	6.1	0.1
USA	17,268.9	11.8	11.2	0.5	2,634.1	19.8	19.6	0.2	24,863.3	2.4	2.5	-0.1
Mexico	3,355.2	12.0	8.9	3.2	827.2	4.6	3.9	0.7	1,871.4	5.4	4.7	0.7
Austria	1,896.0	5.9	6.8	-0.9	357.7	6.8	8.5	-1.7	387.4	8.3	8.6	-0.3
Belgium	1,806.9	17.3	15.0	2.3	296.4	5.8	3.5	2.3	1,525.8	5.0	5.5	-0.4
France	4,983.8	17.6	17.8	-0.2	2,338.7	5.9	8.5	-2.6	6,068.1	1.9	3.6	-1.7
Germany	10,782.4	11.3	12.2	-0.9	5,049.9	7.3	6.4	0.9	7,655.6	3.4	4.3	-0.9
Italy	2,087.1	19.1	19.5	-0.4	5,436.8	6.8	7.1	-0.3	2,439.9	3.2	4.6	-1.5
Spain	1,233.0	15.4	16.6	-1.2	972.5	10.7	10.9	-0.2	1,235.2	6.0	6.0	0.0
UK	9,444.7	10.3	9.4	0.9	1,261.1	7.3	9.1	-1.8	12,220.3	4.1	4.1	0.0
Japan	19,063.7	11.9	11.2	0.7	1,016.3	8.1	8.0	0.1	17,197.6	3.6	3.6	0.0
China	4,141.0	8.8	8.9	-0.1	2,109.9	20.8	20.4	0.4	2,302.4	1.1	1.0	0.1
Korea	5,500.4	10.1	15.0	-4.9	1,780.7	4.3	3.7	0.7	3,949.2	6.3	5.6	0.7
Taiwan	3,796.0	10.3	9.1	1.2	849.7	5.8	5.6	0.3	10,557.7	6.0	5.4	0.6
ROE	14,712.1	13.6	13.0	0.7	4,312.9	9.0	9.1	0.0	17,334.1	5.3	5.1	0.2
ROW	24,209.4	10.3	10.3	0.0	5,735.2	9.2	9.7	-0.5	27,399.7	8.7	8.2	0.5

	97 Other office machinery				98 Semiconductors				99 Electric motors			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	4,167.9	2.3	2.3	0.0	2,573.2	5.6	4.1	1.5	541.0	-0.8	4.8	-5.5
USA	19,213.9	4.9	5.4	-0.5	38,608.4	6.3	6.1	0.2	3,288.0	13.1	12.9	0.2
Mexico	976.2	2.3	2.3	0.0	1,210.7	7.8	6.3	1.5	836.5	4.5	3.4	1.1
Austria	370.2	1.4	2.5	-1.1	1,033.4	8.1	9.0	-0.9	392.4	7.0	7.0	0.0
Belgium	565.5	5.7	5.8	-0.2	513.2	3.0	6.4	-3.4	177.5	11.4	12.4	-1.0
France	2,583.9	2.4	2.9	-0.4	6,083.8	3.8	5.7	-1.8	1,725.8	18.6	18.5	0.1
Germany	4,222.8	3.4	3.7	-0.3	8,251.6	7.4	8.4	-1.1	3,371.6	6.6	6.6	0.1
Italy	2,882.6	3.5	3.6	-0.1	2,837.4	3.4	6.5	-3.1	1,195.2	6.5	6.4	0.1
Spain	300.0	4.9	5.6	-0.7	314.9	14.8	13.1	1.7	316.5	11.5	12.1	-0.6
UK	6,154.8	6.8	7.3	-0.5	8,547.8	7.6	7.7	-0.1	1,307.1	10.5	9.4	1.1
Japan	15,775.1	6.0	4.8	1.2	40,917.8	8.9	8.9	-0.1	3,762.1	10.6	10.4	0.2
China	1,996.8	12.5	13.0	-0.5	1,295.6	7.2	6.5	0.7	1,087.5	15.6	15.4	0.2
Korea	917.9	5.7	5.3	0.4	19,276.7	11.4	11.1	0.4	235.6	10.1	8.4	1.7
Taiwan	8,798.0	4.8	5.2	-0.4	10,304.5	5.8	5.3	0.6	745.9	7.5	6.9	0.6
ROE	10,508.2	7.5	7.4	0.2	7,894.9	10.0	10.0	0.1	3,667.3	10.5	10.3	0.2
ROW	25,273.1	4.9	5.1	-0.2	45,810.3	8.4	8.5	-0.1	4,173.9	12.2	11.2	1.1
	100 Batteries				101 Electric bulbs,lighting eq.				102 Electrical indl appliance			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	74.8	10.6	9.7	1.0	232.1	12.6	12.7	-0.2	2,153.1	-4.1	7.0	-11.0
USA	1,382.0	13.8	13.1	0.8	1,641.3	9.7	10.1	-0.4	17,588.1	11.6	10.8	0.8
Mexico	415.1	5.4	5.6	-0.1	449.3	0.8	7.5	-6.7	6,461.4	4.4	4.1	0.3
Austria	157.7	7.8	9.0	-1.1	198.9	12.9	8.6	4.3	1,986.9	12.6	10.6	2.0
Belgium	677.2	7.0	7.6	-0.6	656.0	8.7	10.1	-1.4	2,081.9	11.3	9.4	2.0
France	811.5	12.2	12.3	-0.1	1,184.0	14.8	15.2	-0.4	8,083.9	13.1	12.3	0.8
Germany	1,010.5	7.0	7.3	-0.3	2,986.4	6.1	7.3	-1.2	19,852.2	10.2	9.8	0.4
Italy	322.9	6.9	9.2	-2.3	993.6	13.9	14.4	-0.5	4,175.1	16.0	13.2	2.8
Spain	206.1	4.3	6.6	-2.3	490.9	19.0	18.5	0.5	1,772.7	12.7	11.8	0.9
UK	428.8	18.5	18.6	-0.1	672.4	11.2	11.5	-0.3	6,068.8	11.6	10.9	0.6
Japan	2,647.7	9.2	10.1	-0.8	1,860.2	5.3	6.1	-0.8	21,049.1	7.8	7.9	0.0
China	452.6	27.5	27.4	0.1	681.3	10.6	8.3	2.3	4,144.5	14.2	13.4	0.7
Korea	358.3	19.3	17.6	1.7	232.9	6.8	7.8	-1.1	4,610.5	11.7	9.5	2.2
Taiwan	336.6	6.7	5.8	0.9	600.5	7.4	5.1	2.4	6,507.0	10.7	10.1	0.6
ROE	1,262.2	12.5	12.6	-0.1	2,237.9	7.9	8.1	-0.2	14,675.8	11.4	11.4	0.0
ROW	1,919.9	11.1	10.7	0.4	1,532.9	8.7	7.9	0.8	18,924.9	7.1	6.6	0.5
	103 Shipbuilding,repairing				104 Warships				105 Railroad equipment			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	350.7	10.9	10.8	0.1	233.8	0.1	0.0	0.1	1,042.6	4.9	4.8	0.1
USA	763.8	14.1	14.0	0.1	509.2	0.3	0.0	0.3	909.9	6.1	6.3	-0.2
Mexico	31.1	3.0	3.0	0.0	20.7	0.0	0.0	0.0	35.1	1.2	0.7	0.5
Austria	14.8	1.7	2.0	-0.3	9.9	-0.4	0.0	-0.4	528.9	5.0	6.1	-1.1
Belgium	71.2	1.6	2.3	-0.7	47.5	-0.8	0.0	-0.8	205.5	4.0	4.1	-0.1
France	1,033.8	5.2	5.4	-0.3	689.2	-0.2	0.0	-0.2	633.3	5.3	5.1	0.2
Germany	1,117.6	12.4	12.9	-0.5	745.1	-0.5	0.0	-0.5	1,345.0	11.7	11.9	-0.2
Italy	792.7	15.2	15.3	-0.1	528.5	0.0	0.0	0.0	207.0	3.0	3.2	-0.2
Spain	520.9	14.1	14.2	-0.1	347.3	-0.1	0.0	-0.1	222.6	2.5	3.8	-1.3
UK	443.3	10.1	10.1	0.0	295.6	0.0	0.0	0.0	179.1	6.3	6.7	-0.4
Japan	6,550.6	14.8	14.7	0.0	4,367.0	-0.2	0.0	-0.2	248.1	3.5	3.2	0.3
China	500.9	14.5	14.4	0.1	333.9	0.1	0.0	0.1	64.2	4.4	4.4	0.0
Korea	3,320.6	13.3	13.1	0.2	2,213.7	0.4	0.0	0.4	118.2	3.8	3.9	-0.1
Taiwan	84.2	13.7	13.6	0.1	56.1	0.2	0.0	0.2	5.0	2.5	2.5	0.0
ROE	3,988.6	9.8	9.9	-0.1	2,659.1	-0.1	0.0	-0.1	1,159.6	5.9	5.5	0.4
ROW	1,712.9	6.9	7.3	-0.4	1,141.9	-0.5	0.0	-0.5	172.1	8.6	8.1	0.6
	106 Motor vehicles				107 Motorcycles,bicycles				108 Motor vehicles parts			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	37,593.7	4.7	6.8	-2.2	45.8	11.6	10.9	0.7	8,491.4	20.1	18.9	1.3
USA	26,629.2	29.0	28.4	0.5	453.2	18.8	15.1	3.7	26,031.1	11.7	10.5	1.2
Mexico	10,435.4	3.6	3.7	-0.1	29.8	9.7	9.9	-0.2	2,555.8	3.0	1.9	1.1
Austria	2,902.9	11.9	19.6	-7.7	55.6	8.7	15.6	-6.9	1,697.0	2.2	4.6	-2.4
Belgium	22,289.8	2.0	6.0	-4.0	87.2	4.5	11.7	-7.2	3,471.4	4.9	5.6	-0.7
France	21,843.1	15.1	16.0	-0.9	304.2	14.6	16.1	-1.5	11,445.4	9.6	10.3	-0.6
Germany	64,426.2	7.3	8.3	-0.9	276.1	13.2	12.9	0.3	24,529.2	8.1	7.8	0.4
Italy	12,613.6	8.3	13.6	-5.3	1,098.6	12.2	12.6	-0.4	6,862.7	6.5	7.4	-0.9
Spain	18,270.7	8.2	11.7	-3.5	96.9	9.0	10.3	-1.4	4,557.1	9.9	10.4	-0.6
UK	13,838.4	2.7	6.4	-3.7	173.0	-18.8	13.0	-31.8	5,826.9	12.0	12.0	0.0
Japan	57,355.2	13.5	12.3	1.2	1,858.9	15.6	13.7	1.9	20,321.8	8.5	7.3	1.2
China	970.8	15.4	4.4	10.9	835.2	32.8	32.1	0.6	701.9	8.4	11.2	-2.9
Korea	9,052.7	16.6	10.1	6.5	48.6	15.0	13.4	1.6	873.2	4.2	3.7	0.6
Taiwan	798.0	3.7	5.7	-1.9	2,334.5	22.5	21.2	1.3	1,010.9	4.4	3.5	1.0
ROE	18,568.7	21.7	19.7	2.0	760.5	16.8	16.0	0.9	9,626.9	4.4	4.4	0.0
ROW	7,932.3	11.8	12.6	-0.9	2,113.0	14.3	11.8	2.5	5,049.6	9.3	9.3	0.0

	109 Aircraft				110 Other transport eq				111 Pro measurement instruments			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,223.1	2.5	2.0	0.4	0.0	0.0	0.0	0.0	2,247.5	3.1	3.8	-0.7
USA	27,648.3	4.1	4.2	-0.1	0.0	0.0	0.0	0.0	25,984.3	6.2	7.5	-1.3
Mexico	361.7	2.0	2.0	0.0	0.0	0.0	0.0	0.0	1,676.0	-0.4	3.6	-4.0
Austria	94.9	0.3	1.9	-1.7	0.0	0.0	0.0	0.0	1,379.2	2.5	6.1	-3.6
Belgium	371.1	3.4	3.9	-0.5	0.0	0.0	0.0	0.0	2,214.2	4.9	6.8	-1.9
France	14,485.7	5.8	5.9	-0.1	0.0	0.0	0.0	0.0	6,005.6	15.2	15.5	-0.3
Germany	9,426.0	3.4	3.7	-0.4	0.0	0.0	0.0	0.0	16,831.6	4.4	6.6	-2.1
Italy	1,696.0	3.4	3.3	0.0	0.0	0.0	0.0	0.0	6,413.8	8.9	9.6	-0.8
Spain	1,040.2	3.0	2.9	0.0	0.0	0.0	0.0	0.0	1,117.2	7.6	8.4	-0.8
UK	13,150.7	4.1	4.3	-0.1	0.0	0.0	0.0	0.0	8,806.1	3.8	5.4	-1.6
Japan	620.1	4.8	4.4	0.4	0.0	0.0	0.0	0.0	11,838.1	7.4	8.3	-0.9
China	184.6	6.6	6.5	0.1	0.0	0.0	0.0	0.0	1,870.4	10.3	7.6	2.7
Korea	282.1	2.4	2.3	0.0	0.0	0.0	0.0	0.0	1,420.7	9.8	8.8	1.0
Taiwan	11.2	3.5	2.8	0.7	4.7	6.0	6.0	0.0	1,529.0	8.1	7.2	0.9
ROE	5,299.1	2.1	1.7	0.4	59.3	29.1	29.1	0.0	18,654.2	8.3	9.3	-1.0
ROW	4,049.2	2.0	2.1	-0.1	0.4	6.3	6.3	0.0	9,743.3	9.1	4.6	4.5
	112 Photographic,optical goods				113 Watches and clocks				114 Jewellery			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	351.5	14.6	15.3	-0.7	38.2	21.6	22.5	-0.9	2,378.8	7.3	6.9	0.4
USA	5,145.4	11.0	11.9	-0.9	394.4	18.9	18.2	0.7	8,646.3	6.1	6.9	-0.8
Mexico	474.1	5.9	6.4	-0.4	36.5	26.6	26.4	0.3	226.4	3.0	0.8	2.2
Austria	359.5	10.0	7.9	2.1	34.7	2.8	8.6	-5.7	127.3	4.9	0.8	4.1
Belgium	748.7	7.1	10.2	-3.2	77.6	6.3	8.8	-2.5	12,031.5	-0.8	4.3	-5.1
France	2,020.8	11.1	9.3	1.8	614.0	14.9	15.0	-0.1	952.4	19.5	3.9	15.6
Germany	4,753.8	8.0	9.5	-1.4	905.5	21.9	21.0	0.9	1,713.0	9.3	6.8	2.5
Italy	1,677.5	17.1	14.0	3.1	270.1	18.3	19.2	-0.9	1,770.1	14.9	10.1	4.7
Spain	135.7	37.3	13.5	23.8	87.9	12.6	13.0	-0.4	273.0	1.4	1.9	-0.4
UK	2,405.0	7.3	9.2	-2.0	394.3	20.7	21.1	-0.4	5,891.8	-0.8	1.0	-1.8
Japan	14,314.8	11.6	11.5	0.1	2,196.8	17.4	17.8	-0.4	761.5	13.3	2.3	11.0
China	1,782.3	6.5	8.3	-1.8	1,905.8	7.4	6.7	0.7	988.9	14.7	4.9	9.8
Korea	845.6	10.7	7.6	3.1	260.1	23.7	22.6	1.1	2,576.2	3.9	2.1	1.8
Taiwan	1,662.6	8.6	7.7	0.9	475.8	11.6	13.5	-1.9	128.5	6.1	4.5	1.6
ROE	5,214.5	5.0	7.5	-2.5	7,048.6	12.5	12.0	0.5	8,543.4	-1.5	2.5	-4.1
ROW	6,419.2	9.8	9.7	0.1	7,733.4	19.7	20.1	-0.4	27,682.1	2.6	2.1	0.4
	115 Musical instruments				116 Sporting goods				117 Ordnance			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	31.1	12.7	11.7	1.0	212.2	7.2	6.7	0.5	375.2	13.0	13.1	-0.1
USA	487.8	14.6	14.2	0.4	1,138.6	7.0	6.6	0.4	4,248.9	8.1	9.1	-1.0
Mexico	103.0	7.5	6.9	0.6	125.2	4.2	4.4	-0.3	4.3	3.6	4.1	-0.6
Austria	22.0	3.2	7.7	-4.5	440.1	3.9	5.7	-1.8	9.6	8.2	8.4	-0.2
Belgium	19.8	5.2	6.6	-1.4	39.5	7.8	7.6	0.2	19.0	1.5	4.4	-2.9
France	114.5	8.8	9.8	-1.0	456.9	9.7	11.0	-1.3	117.3	13.1	12.9	0.3
Germany	356.3	14.2	14.4	-0.2	279.9	5.9	6.2	-0.3	146.5	9.4	9.3	0.1
Italy	206.3	5.5	7.2	-1.6	462.1	5.4	6.6	-1.2	106.3	12.7	12.4	0.3
Spain	25.8	6.4	8.0	-1.6	44.7	9.0	8.8	0.2	59.1	7.4	8.0	-0.6
UK	112.0	5.9	6.3	-0.3	189.9	15.2	15.7	-0.5	1,547.7	13.9	12.2	1.7
Japan	1,022.4	8.2	8.2	0.0	273.0	9.5	9.6	-0.1	39.5	4.8	4.2	0.7
China	190.4	10.2	9.6	0.7	413.8	10.8	10.0	0.8	10.5	14.6	14.2	0.4
Korea	383.5	13.6	12.6	1.0	334.3	7.0	6.7	0.3	40.5	12.3	11.5	0.9
Taiwan	264.2	10.1	9.2	0.9	886.8	4.8	4.5	0.3	7.5	6.2	4.4	1.8
ROE	190.2	6.7	5.8	0.9	449.9	9.9	9.9	0.0	530.9	7.8	7.6	0.2
ROW	343.6	6.4	5.5	0.8	1,202.2	6.9	7.7	-0.7	157.7	6.1	6.4	-0.3
	118 Works of art				119 Manufactured goods n.e.c.				120 Scraps,used,unclassified			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	110.7	0.1	0.0	0.1	476.5	6.5	6.1	0.4	9,662.0	21.8	21.6	0.2
USA	1,599.7	0.6	0.6	0.0	3,199.7	21.9	20.8	1.1	22,877.4	21.4	21.8	-0.5
Mexico	4.7	0.0	0.0	0.0	782.1	7.5	7.4	0.1	529.1	36.0	36.4	-0.4
Austria	46.5	1.1	1.0	0.1	465.9	11.6	11.9	-0.3	312.1	27.2	2.3	24.9
Belgium	98.7	0.3	0.3	0.0	651.2	15.9	17.6	-1.7	10,759.0	29.0	29.2	-0.2
France	460.6	0.2	0.3	0.0	1,781.4	14.4	13.6	0.8	9,409.0	7.1	6.6	0.5
Germany	720.1	3.0	3.1	0.0	3,050.8	20.2	20.5	-0.2	15,304.4	17.4	17.7	-0.3
Italy	651.9	5.4	5.4	0.0	3,722.2	11.3	11.4	-0.1	2,338.7	3.2	4.7	-1.5
Spain	20.9	1.8	1.1	0.7	543.6	9.8	10.2	-0.4	778.9	5.1	4.6	0.4
UK	2,163.4	1.8	1.7	0.0	2,078.2	11.1	17.6	-6.5	2,961.2	7.9	7.7	0.2
Japan	29.2	1.5	1.8	-0.3	2,803.7	9.7	10.1	-0.4	9,358.0	29.1	29.3	-0.1
China	42.6	3.6	3.6	0.0	6,814.1	14.4	13.9	0.6	560.3	32.2	31.9	0.2
Korea	21.8	1.0	0.0	1.0	1,058.0	12.7	10.6	2.1	154.4	1.0	1.2	-0.2
Taiwan	18.2	0.6	0.7	0.0	2,814.9	10.4	8.2	2.2	4,629.4	25.0	24.9	0.1
ROE	1,041.6	0.2	0.3	-0.1	4,034.4	22.8	22.0	0.8	29,364.0	21.8	21.8	0.0
ROW	361.1	0.8	0.9	-0.1	15,867.2	11.0	10.9	0.1	54,845.2	19.3	19.4	-0.1

Table 5.8: Import Increase -- Top Ten Contributing Commodity Groups

Canada		USA		Mexico		Austria	
31	Tobacco products	36	Wearing apparel	36	Wearing apparel	36	Wearing apparel
106	Motor vehicles	39	Footwear	108	Motor vehicles parts	106	Motor vehicles
34	Other textile products	106	Motor vehicles	94	Other telecomm eq	49	Synthetic resins,man-made fibers
39	Footwear	47	Basic chemicals	93	Radio,TV,phonograph	93	Radio,TV,phonograph
94	Other telecomm eq	94	Other telecomm eq	75	Hardware	20	Preserved fruits,vegetables
65	Basic iron and steel	34	Other textile products	98	Semiconductors	34	Other textile products
108	Motor vehicles parts	102	Electrical indl appliance	34	Other textile products	108	Motor vehicles parts
120	Scraps,used,unclassified	38	Leather products	65	Basic iron and steel	100	Batteries
75	Hardware	65	Basic iron and steel	47	Basic chemicals	45	Paper products
47	Basic chemicals	111	Pro measurement instruments	82	Metal,woodworking machinery	67	Aluminum

Belgium		France		Germany		Italy	
31	Tobacco products	36	Wearing apparel	36	Wearing apparel	33	Cotton fabric
36	Wearing apparel	31	Tobacco products	106	Motor vehicles	36	Wearing apparel
106	Motor vehicles	47	Basic chemicals	20	Preserved fruits,vegetables	47	Basic chemicals
47	Basic chemicals	106	Motor vehicles	93	Radio,TV,phonograph	106	Motor vehicles
49	Synthetic resins,man-made fibers	20	Preserved fruits,vegetables	98	Semiconductors	49	Synthetic resins,man-made fibers
108	Motor vehicles parts	21	Preserved seafood	49	Synthetic resins,man-made fibers	21	Preserved seafood
45	Paper products	49	Synthetic resins,man-made fibers	34	Other textile products	34	Other textile products
20	Preserved fruits,vegetables	93	Radio,TV,phonograph	47	Basic chemicals	65	Basic iron and steel
93	Radio,TV,phonograph	98	Semiconductors	94	Other telecomm eq	98	Semiconductors
34	Other textile products	45	Paper products	45	Paper products	93	Radio,TV,phonograph

Spain		UK		Japan		China	
36	Wearing apparel	36	Wearing apparel	36	Wearing apparel	34	Other textile products
21	Preserved seafood	106	Motor vehicles	18	Meat	49	Synthetic resins,man-made fibers
106	Motor vehicles	98	Semiconductors	21	Preserved seafood	1	Unmilled cereals
31	Tobacco products	93	Radio,TV,phonograph	39	Footwear	22	Vegetable&animal oils,fats
47	Basic chemicals	94	Other telecomm eq	20	Preserved fruits,vegetables	94	Other telecomm eq
93	Radio,TV,phonograph	47	Basic chemicals	38	Leather products	36	Wearing apparel
45	Paper products	45	Paper products	34	Other textile products	106	Motor vehicles
10	Fishery	20	Preserved fruits,vegetables	47	Basic chemicals	82	Metal,woodworking machinery
34	Other textile products	49	Synthetic resins,man-made fibers	27	Food products n.e.c.	93	Radio,TV,phonograph
49	Synthetic resins,man-made fibers	34	Other textile products	31	Tobacco products	89	Service industry machinery

Korea		Taiwan		ROE		ROW	
1	Unmilled cereals	98	Semiconductors	106	Motor vehicles	120	Scraps,used,unclassified
3	Other crops	3	Other crops	36	Wearing apparel	106	Motor vehicles
98	Semiconductors	1	Unmilled cereals	49	Synthetic resins,man-made fibers	34	Other textile products
14	Crude petroleum	47	Basic chemicals	47	Basic chemicals	36	Wearing apparel
47	Basic chemicals	65	Basic iron and steel	34	Other textile products	49	Synthetic resins,man-made fibers
65	Basic iron and steel	106	Motor vehicles	19	Dairy and eggs	93	Radio,TV,phonograph
53	Chemical products n.e.c.	27	Food products n.e.c.	18	Meat	94	Other telecomm eq
82	Metal,woodworking machinery	102	Electrical indl appliance	65	Basic iron and steel	102	Electrical indl appliance
111	Pro measurement instruments	49	Synthetic resins,man-made fibers	45	Paper products	65	Basic iron and steel
88	Other special machinery	82	Metal,woodworking machinery	31	Tobacco products	98	Semiconductors

Table 5.9: Exports Increase -- Top Ten Contributing Commodity Groups

Canada		USA		Mexico		Austria	
1	Unmilled cereals	106	Motor vehicles	93	Radio,TV,phonograph	106	Motor vehicles
120	Scraps,used,unclassified	1	Unmilled cereals	14	Crude petroleum	36	Wearing apparel
106	Motor vehicles	120	Scraps,used,unclassified	36	Wearing apparel	49	Synthetic resins,man-made fibers
108	Motor vehicles parts	31	Tobacco products	94	Other telecomm eq	45	Paper products
45	Paper products	108	Motor vehicles parts	106	Motor vehicles	102	Electrical indl appliance
49	Synthetic resins,man-made fibers	47	Basic chemicals	102	Electrical indl appliance	34	Other textile products
3	Other crops	98	Semiconductors	2	Fresh fruits,vegetables	65	Basic iron and steel
47	Basic chemicals	36	Wearing apparel	49	Synthetic resins,man-made fibers	41	Other wood products
44	Newsprint	102	Electrical indl appliance	65	Basic iron and steel	75	Hardware
21	Preserved seafood	22	Vegetable&animal oils,fats	120	Scraps,used,unclassified	60	Plastic products,n.e.c.
Belgium		France		Germany		Italy	
120	Scraps,used,unclassified	106	Motor vehicles	106	Motor vehicles	36	Wearing apparel
65	Basic iron and steel	36	Wearing apparel	120	Scraps,used,unclassified	34	Other textile products
93	Radio,TV,phonograph	29	Alcoholic beverage	102	Electrical indl appliance	39	Footwear
49	Synthetic resins,man-made fibers	49	Synthetic resins,man-made fibers	108	Motor vehicles parts	106	Motor vehicles
19	Dairy and eggs	1	Unmilled cereals	47	Basic chemicals	75	Hardware
53	Chemical products n.e.c.	108	Motor vehicles parts	36	Wearing apparel	49	Synthetic resins,man-made fibers
34	Other textile products	102	Electrical indl appliance	45	Paper products	102	Electrical indl appliance
47	Basic chemicals	111	Pro measurement instruments	19	Dairy and eggs	64	Non-metallic products n.e.c.
106	Motor vehicles	94	Other telecomm eq	34	Other textile products	65	Basic iron and steel
94	Other telecomm eq	109	Aircraft	75	Hardware	111	Pro measurement instruments
Spain		UK		Japan		China	
106	Motor vehicles	47	Basic chemicals	106	Motor vehicles	36	Wearing apparel
64	Non-metallic products n.e.c.	31	Tobacco products	98	Semiconductors	39	Footwear
108	Motor vehicles parts	36	Wearing apparel	120	Scraps,used,unclassified	34	Other textile products
20	Preserved fruits,vegetables	49	Synthetic resins,man-made fibers	93	Radio,TV,phonograph	93	Radio,TV,phonograph
34	Other textile products	94	Other telecomm eq	94	Other telecomm eq	119	Manufactured goods n.e.c.
36	Wearing apparel	29	Alcoholic beverage	108	Motor vehicles parts	38	Leather products
2	Fresh fruits,vegetables	102	Electrical indl appliance	112	Photographic,optical goods	33	Cotton fabric
39	Footwear	108	Motor vehicles parts	102	Electrical indl appliance	20	Preserved fruits,vegetables
18	Meat	98	Semiconductors	47	Basic chemicals	65	Basic iron and steel
22	Vegetable&animal oils,fats	109	Aircraft	49	Synthetic resins,man-made fibers	31	Tobacco products
Korea		Taiwan		ROE		ROW	
34	Other textile products	36	Wearing apparel	120	Scraps,used,unclassified	36	Wearing apparel
98	Semiconductors	34	Other textile products	36	Wearing apparel	120	Scraps,used,unclassified
106	Motor vehicles	120	Scraps,used,unclassified	106	Motor vehicles	14	Crude petroleum
49	Synthetic resins,man-made fibers	49	Synthetic resins,man-made fibers	34	Other textile products	93	Radio,TV,phonograph
36	Wearing apparel	32	Yarns and threads	65	Basic iron and steel	22	Vegetable&animal oils,fats
65	Basic iron and steel	102	Electrical indl appliance	47	Basic chemicals	27	Food products n.e.c.
94	Other telecomm eq	96	Computers	31	Tobacco products	96	Computers
112	Photographic,optical goods	98	Semiconductors	21	Preserved seafood	31	Tobacco products
47	Basic chemicals	18	Meat	29	Alcoholic beverage	34	Other textile products
103	Shipbuilding,repairing	65	Basic iron and steel	94	Other telecomm eq	39	Footwear

on the lists of a majority of the countries. China, Korea and Taiwan share a common feature – Unmilled cereals (Sector 1) ranks high on their respective lists. On the exports side, the major motor vehicle producers all benefit tremendously – Motor vehicles is on the top of the top-ten list for the US, Japan, Germany, Austria, and Spain. Wearing apparel, on the other hand, contributes to the largest export increase in three counties and regions: China, Taiwan, Italy and the Rest of the World. Canada and the US are the two primary sources of export increases for Unmilled cereals. Crude petroleum (Sector 14) is a major contributor in Mexico and the Rest of the World in which all the other major oil producers are included.

Table 5.7 also presents breakdown of the overall effects into 'level' effects and 'share' effects. Based on the sectoral details, it can be shown that 'share' effects are very significant in determining the overall effects in a number of commodity categories. In particular, the 'share' effects in some cases are so (negatively) strong as to reverse the 'level' effects – a situation in which the net effect of trade liberalization on a country's exports is negative or trade diversion occurs. We choose to examine several selected commodity groups whose results appear more illustrative.

Case 1: Taiwan's exports of Other crops (Sector 3). The simulation shows that removal of tariffs will lead to an increase of exports by 6.4 percent, as a result of a combination of level effects of 16.9 percent and share effects of -10.5 percent. In 1995, Taiwan exported US$ 205 million of Other crops, of which more than one-third was to the Rest of OECD where an average tariff rate of about 30 percent was in place. However, the effective bilateral tariff rate applied to imports from Taiwan was only 11 percent. In another word, Taiwan was *de facto* treated favorably by the Rest of OECD. Although Taiwan was able to increase its exports to most of its trading partners after the removal of tariffs, its exports to the Rest of OECD suffered on account of loss of the preferential treatment, which was the major reason behind the large negative 'share' effects.

Case 2: Japan's exports of Vegetable & animal oils and fats (Sector 22). The simulation showed that removal of tariffs caused Japan's exports to drop by 28.5 percent. This setback was mainly on account of Japan's losing its market share in Korea, its largest exporting market, from 18.9 percent to 5.7 percent. France and the US, which were Japan's major rivals in this market and had already taken a large chunk of the market, gained grounds further after the trade liberalization. In particular, prior to the liberalization, France's exports faced twice as high effective tariff rate as Japan's.

Case 3: France's exports of Yarns and threads (Sector 32). In 1995, France exported 1.96 billion of Yarns and threads, of which 68 percent was within the EU. The EU countries imposed a common tariff rate of about 6 percent on imports from non-EU countries. Removal of tariffs placed France on an equal footing with other non-EU countries, and, as a consequence, its share in each of its fellow EU countries declined. Although the magnitudes of the decline of France's share were moderate across its EU trading partners, they together

were so significant that the share effects almost completely offset the level effects, leaving France's total exports of Yarns and threads almost unchanged.

Case 4: China's exports of Boilers and turbines (Sector 76). China's exports of Boilers and turbine were estimated to increase by 9.8 percent, which is mainly attributable to its enhanced competitiveness resulting from eliminating the bilateral discriminations. More specifically, several China's major trading partners including Canada, Korea, and Taiwan have imposed disproportionately high tariff rates against exports from China. For instance, Korea imposed an effective bilateral tariff rate of 41 percent on exports from China and a relatively modest rate of less than 16 percent on exports from other countries. Similarly, Canada's tariff rates against exports from China have been more than double the rates against exports from other countries. Hence, China was able to capture more market shares from its competitors when being put on a level playground with them.

4.2 Simulations with Country- and Commodity Group-specific Parameters of Sensitivity

In the previous simulation, we used a uniform parameter of sensitivity which was derived based on an econometric estimation of cross-country and cross-commodity group data. The uniform parameter of sensitivity indicates a cross-country and cross-commodity group average tendency of how imports would react to change in tariffs. In order to model the reality as closely as possible, it is desirable to have country-specific as well as commodity group-specific parameters. Since the limitation of our dataset makes it impossible to estimate such specific parameters, we need to borrow the results from previous studies conducted by other authors.

Over the past many years, INFORUM, in collaboration with its foreign partners, has put tremendous efforts in building large-scale multi-sectoral macro models for many different countries. Estimation of import demand function has been an integral part of the model building activities. In each country model and for each commodity group, the price elasticities of import demand were determined by estimation of time series data. We can use the estimated price elasticities of import demand for each country as approximates for that particular country's sensitivies of imports with respect to tariffs. Our purpose in conducting this exercise is to provide an alternative way in examining the issue, which, however, may not be necessarily comparable with the study we presented in previous sections.

The sensitivity parameters we used are listed in Table 5.10.[20] Table 5.11

[20] The estimated elasticities are not available for France, Taiwan, the Rest of OECD and the Rest of the World. The elasticities for France and Taiwan were assumed to be the same as those of Germany and Korea, respectively. The elasticities of the Rest of the OECD were assumed to be an average of the OECD countries for which estimates were available. The elasticities of the Rest of the World were assumed to be average of China, Korea and Taiwan.

Table 5.10: Price Elasticities of Import Demand by Country and Sector

Sec #	AU	BE	CA	CN	FR	GE	IT	JA	MX	SK	SP	TW	UK	US	RO	RW
1	-0.30	-0.25	-1.51	-2.00	-0.30	-0.30	-0.50	-0.63	-0.50	-0.50	-0.95	-0.50	-0.25	-0.25	-0.52	-1.00
2	-0.30	-0.25	-0.57	-2.00	-0.30	-0.30	-0.50	-0.61	-0.50	-2.00	-0.95	-2.00	-0.25	-0.25	-0.57	-2.00
3	-0.30	-0.25	-0.57	-1.50	-0.30	-0.30	-0.50	-0.70	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.42	-0.67
4	-0.30	-0.25	-0.10	-0.05	-0.30	-0.30	-0.50	-0.59	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.37	-0.18
5	-0.30	-0.25	-0.10	-0.05	-0.30	-0.30	-0.50	-0.59	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.37	-0.18
6	-0.30	-0.25	-0.57	-1.50	-0.30	-0.30	-0.50	-0.70	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.42	-0.67
7	-0.30	-0.25	-0.10	-0.05	-0.30	-0.30	-0.50	-0.59	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.37	-0.18
8	-0.30	-0.25	-0.57	-1.50	-0.30	-0.30	-0.50	-0.70	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.42	-0.67
9	-1.10	-0.25	-0.10	-1.00	-1.10	-1.10	-0.50	-1.42	-0.50	-0.25	-0.95	-0.25	-0.25	-0.25	-0.66	-0.50
10	-0.75	-0.25	-0.10	-1.50	-0.75	-0.75	-0.50	-0.64	-0.50	-1.50	-0.95	-1.50	-0.25	-0.25	-0.61	-1.50
11	-0.25	-0.10	-0.43	-0.25	-0.25	-0.25	-0.60	-0.64	-0.50	-0.25	-1.50	-0.25	-1.50	-0.50	-0.57	-0.25
12	-0.50	-1.00	-0.10	-1.00	-0.50	-0.50	-0.60	-0.64	-1.00	-0.10	-0.25	-0.10	-1.00	-1.00	-0.56	-0.40
13	-0.10	-0.50	-0.10	-0.75	-0.10	-0.10	-0.60	-0.64	-0.80	-0.25	-1.50	-0.25	-1.50	0.00	-0.49	-0.42
14	-0.08	-0.25	-0.47	-0.25	-0.08	-0.08	-0.15	-0.41	-0.50	-0.25	-0.05	-0.25	-0.34	0.00	-0.20	-0.25
15	-0.75	-0.25	-0.07	-0.25	-0.75	-0.75	-0.15	-0.41	-0.50	-0.25	-0.05	-0.25	-0.34	-1.00	-0.43	-0.25
16	-1.25	-0.75	-0.50	-0.75	-1.25	-1.25	-0.20	-0.64	-0.50	-0.25	-1.30	-0.25	-0.50	-1.40	-0.84	-0.42
17	-0.10	-2.00	-1.00	-1.00	-0.10	-0.10	-0.70	-0.80	-1.50	-0.50	-1.50	-0.50	-0.10	-1.00	-0.72	-0.67
18	-1.00	-2.00	-2.15	-1.00	-1.00	-1.00	-0.50	-0.60	-1.00	-2.00	-1.60	-2.00	-1.00	-0.80	-1.24	-1.67
19	-1.25	-0.25	-0.67	-1.00	-1.25	-1.25	-0.50	-0.60	-1.00	-2.00	-0.50	-2.00	-1.00	-0.80	-0.92	-1.67
20	-1.75	-0.25	-0.10	-1.00	-1.75	-1.75	-0.75	-1.25	-1.40	-2.00	-1.00	-2.00	-1.00	-0.80	-1.13	-1.67
21	-1.75	-0.25	-0.10	-1.00	-1.75	-1.75	-0.75	-0.83	-1.50	-0.25	-1.00	-0.25	-1.00	-0.80	-0.93	-0.50
22	-1.25	-0.25	-0.61	-1.00	-1.25	-1.25	-0.75	-1.25	-1.00	-0.25	-1.00	-0.25	-1.00	-0.80	-0.88	-0.50
23	-1.25	-0.25	-0.10	-1.00	-1.25	-1.25	-0.75	-1.25	-1.00	-1.50	-1.00	-1.50	-1.00	-0.80	-0.95	-1.33
24	-1.60	-0.25	-0.52	-1.00	-1.60	-1.60	-0.75	-1.25	-1.50	-1.00	-1.00	-1.00	-1.00	-0.80	-1.03	-1.00
25	-0.05	-0.25	-2.50	-1.00	-0.05	-0.05	-0.75	-1.25	-1.00	-0.25	-1.00	-0.25	-1.00	-0.80	-0.72	-0.50
26	-1.00	-0.25	-0.61	-1.00	-1.00	-1.00	-0.75	-1.25	-1.00	-1.00	-1.00	-1.00	-1.00	-0.80	-0.88	-1.00
27	-1.00	-0.25	-0.61	-1.00	-1.00	-1.00	-0.75	-1.25	-1.50	-0.25	-1.00	-0.25	-1.00	-0.80	-0.81	-0.50
28	-1.00	-0.25	-0.10	-0.25	-1.00	-1.00	-0.75	-0.86	-1.50	-0.25	-1.00	-0.25	-1.00	-0.80	-0.73	-0.25
29	-1.00	-1.50	-0.40	-1.50	-1.00	-1.00	-0.60	-0.82	-0.80	-0.75	-1.00	-0.75	-0.50	-0.80	-0.85	-1.00
30	-1.00	-1.50	-2.00	-1.50	-1.00	-1.00	-0.60	-0.77	-1.00	-0.75	-1.00	-0.75	-0.50	-0.80	-0.99	-1.00
31	-0.25	-0.10	-0.10	-0.25	-0.25	-0.25	0.00	-0.91	-1.00	-2.00	-0.75	-2.00	-0.10	-0.80	-0.50	-1.42
32	-1.25	-1.50	-1.15	-0.75	-1.25	-1.25	-1.50	-1.13	-1.50	-0.50	-2.85	-0.50	-0.75	-1.50	-1.33	-0.58
33	-2.50	-1.50	-1.79	-0.75	-2.50	-2.50	-1.50	-1.13	-1.50	-1.00	-2.85	-1.00	-1.00	-1.50	-1.80	-0.92
34	-2.50	-1.50	-0.15	-0.75	-2.50	-2.50	-1.50	-0.97	-1.90	-1.00	-2.85	-1.00	-1.00	-1.50	-1.63	-0.92
35	-2.50	-1.50	-0.15	-0.75	-2.50	-2.50	-1.50	-0.97	-1.90	-2.00	-2.85	-2.00	-1.00	-1.00	-1.68	-1.58
36	-2.50	-0.25	-1.31	-0.10	-2.50	-2.50	-1.50	-0.81	-1.00	-2.00	-2.85	-2.00	-1.10	-1.00	-1.67	-1.37
37	-1.00	-1.50	-0.10	-0.10	-1.00	-1.00	-1.50	-0.83	-1.00	-0.75	-2.35	-0.75	-0.10	-0.40	-0.96	-0.53
38	-1.00	-1.50	-0.10	-0.10	-1.00	-1.00	-1.50	-0.83	-1.00	-0.75	-2.35	-0.75	-0.10	-0.40	-0.96	-0.53
39	-2.50	-1.50	-0.10	-0.10	-2.50	-2.50	-1.50	-0.83	-1.00	-0.75	-2.35	-0.75	-0.10	-0.40	-1.37	-0.53
40	-2.00	-2.00	-0.44	-2.00	-2.00	-2.00	-1.00	-0.93	-1.00	-1.50	-2.80	-1.50	-0.25	-1.00	-1.45	-1.67
41	-2.00	-2.00	-0.10	-2.00	-2.00	-2.00	-1.00	-0.93	-1.00	-1.50	-2.80	-1.50	-0.25	-1.00	-1.42	-1.67
42	-1.00	-2.00	-1.20	-1.00	-1.00	-1.00	-1.00	-1.44	-1.00	-1.50	-2.80	-1.50	-0.25	-1.00	-1.29	-1.33
43	-1.25	-0.25	-1.09	-0.10	-1.25	-1.25	-0.90	-0.79	-0.60	-0.50	-1.80	-0.50	-0.50	-0.60	-0.93	-0.37
44	-1.25	-0.25	-2.00	-0.10	-1.25	-1.25	-0.90	-0.79	-0.60	-0.50	-1.80	-0.50	-0.50	-0.60	-1.01	-0.37
45	-1.25	-0.25	-2.14	-0.10	-1.25	-1.25	-0.90	-0.79	-0.60	-0.50	-1.80	-0.50	-0.50	-0.60	-1.02	-0.37
46	-1.25	-2.00	-1.20	-0.75	-1.25	-1.25	-0.90	-0.78	-1.50	-0.15	-1.80	-0.15	-1.00	-1.60	-1.20	-0.35
47	-1.25	-0.75	-0.10	-2.00	-1.25	-1.25	-0.80	-0.75	-1.20	-0.05	-0.25	-0.05	-0.75	-1.00	-0.75	-0.70
48	-1.25	-0.75	-2.00	-2.00	-1.25	-1.25	-0.80	-0.86	-1.00	-1.00	-0.25	-1.00	-1.10	-1.00	-1.05	-1.33
49	-1.25	-0.75	-0.10	-1.00	-1.25	-1.25	-0.80	-0.76	-1.20	-0.25	-0.25	-0.25	-0.25	-1.20	-0.74	-0.50
50	-1.25	-0.75	-0.10	-2.00	-1.25	-1.25	-0.80	-0.74	-1.50	-0.15	-0.25	-0.15	-0.25	-1.20	-0.73	-0.77
51	-1.50	-0.75	-0.10	-1.00	-1.50	-1.50	-0.80	-0.72	-1.20	-0.25	-0.25	-0.25	-1.10	-1.00	-0.86	-0.50
52	-2.00	-0.75	-0.10	-2.00	-2.00	-2.00	-0.80	-0.74	-1.50	-0.15	-0.25	-0.15	-1.00	-1.20	-1.00	-0.77
53	-1.25	-0.75	-0.10	-2.00	-1.25	-1.25	-0.80	-0.74	-1.50	-0.15	-0.25	-0.15	-0.25	-1.20	-0.73	-0.77
54	-0.99	-0.25	-1.89	-2.00	-0.99	-0.99	-0.15	-1.09	-0.60	-0.25	-0.05	-0.25	-1.00	-0.60	-0.75	-0.83
55	-0.99	-0.25	-1.89	-2.00	-0.99	-0.99	-0.15	-1.09	-0.60	-0.25	-0.05	-0.25	-1.00	-1.00	-0.79	-0.83
56	-0.99	-0.25	-0.10	-2.00	-0.99	-0.99	-0.15	-1.09	-0.60	-0.25	-0.05	-0.25	-1.00	-0.60	-0.59	-0.83
57	-0.99	-0.25	-0.10	-0.10	-0.99	-0.99	-0.75	-1.09	-0.60	-0.50	-0.05	-0.50	-1.00	-0.60	-0.66	-0.37
58	-1.25	-0.25	-2.00	-1.00	-1.25	-1.25	-1.00	-0.91	-1.90	-0.15	-1.15	-0.15	-1.00	-0.50	-0.97	-0.43
59	-1.25	-0.25	-2.00	-1.00	-1.25	-1.25	-1.00	-0.91	-1.90	-0.15	-1.15	-0.15	-1.00	-0.50	-0.97	-0.43
60	-1.25	-1.00	-1.17	-1.50	-1.25	-1.25	-1.00	-0.87	-2.00	-0.15	-1.15	-0.15	-0.50	-1.80	-1.04	-0.60

Table 5.10: Price Elasticities of Import Demand by Country and Sector (continued)

Sec #	AU	BE	CA	CN	FR	GE	IT	JA	MX	SK	SP	TW	UK	US	RO	RW
61	-1.25	-0.75	-0.48	-1.00	-1.25	-1.25	-0.20	-0.34	-2.00	-1.50	-1.30	-1.50	-1.00	-2.40	-1.06	-1.33
62	-1.25	-0.75	-0.35	-1.00	-1.25	-1.25	-0.20	-1.00	-0.50	-1.50	-1.30	-1.50	-1.00	-2.40	-1.11	-1.33
63	-1.25	-0.75	-0.48	-1.00	-1.25	-1.25	-0.20	-0.69	-2.00	-1.50	-1.30	-1.50	-1.00	-2.40	-1.10	-1.33
64	-1.25	-1.50	-0.48	-1.00	-1.25	-1.25	-0.20	-1.10	-2.00	-1.50	-1.30	-1.50	-1.00	-2.40	-1.20	-1.33
65	-1.00	-0.50	-1.03	-1.50	-1.00	-1.00	-0.60	-0.92	-1.50	-0.25	-1.50	-0.25	-1.00	-1.40	-0.93	-0.67
66	-0.50	-0.50	-1.22	-1.00	-0.50	-0.50	-0.60	-0.90	-1.90	-1.50	-1.50	-1.50	-0.10	0.00	-0.71	-1.33
67	-0.50	-0.50	-1.13	-1.00	-0.50	-0.50	-0.60	-1.00	-1.90	-1.50	-1.50	-1.50	-0.10	-1.90	-0.88	-1.33
68	-0.50	-0.50	-1.54	-1.00	-0.50	-0.50	-0.60	-2.49	-1.90	-1.50	-1.50	-1.50	-0.10	-1.90	-1.06	-1.33
69	-0.50	-0.50	-2.01	-1.00	-0.50	-0.50	-0.60	-2.49	-1.90	-1.50	-1.50	-1.50	-0.10	-1.90	-1.10	-1.33
70	-0.50	-0.25	-2.01	-1.00	-0.50	-0.50	-0.60	-2.49	-1.90	-1.50	-1.50	-1.50	-0.10	-1.90	-1.08	-1.33
71	-1.00	-0.25	-1.51	-2.00	-1.00	-1.00	-1.00	-0.73	-2.00	-2.00	-0.05	-2.00	-1.00	-2.40	-1.09	-2.00
72	-1.00	-0.25	-1.17	-2.00	-1.00	-1.00	-1.00	-0.93	-1.00	-2.00	-0.05	-2.00	-1.00	-2.40	-1.07	-2.00
73	-1.00	-0.25	-1.51	-2.00	-1.00	-1.00	-1.00	-0.88	-2.00	-2.00	-0.05	-2.00	-1.00	-2.40	-1.10	-2.00
74	-1.00	-0.25	-1.51	-2.00	-1.00	-1.00	-1.00	-0.73	-2.00	-2.00	-0.05	-2.00	-1.00	-2.40	-1.09	-2.00
75	-1.00	-0.50	-1.51	-2.00	-1.00	-1.00	-1.00	-0.73	-2.00	-2.00	-0.05	-2.00	-1.00	-2.40	-1.11	-2.00
76	-1.25	-0.50	-0.16	-0.75	-1.25	-1.25	-2.00	-0.98	-2.00	-1.00	-0.05	-1.00	-1.00	-2.40	-1.08	-0.92
77	-1.25	-0.50	-0.16	-0.75	-1.25	-1.25	-2.00	-0.98	-2.00	-1.00	-0.05	-1.00	-1.00	-2.40	-1.08	-0.92
78	-1.25	-0.50	-0.16	-0.75	-1.25	-1.25	-2.00	-0.98	-2.00	-1.00	-0.05	-1.00	-1.00	-2.40	-1.08	-0.92
79	-1.25	-0.50	-0.16	-0.75	-1.25	-1.25	-2.00	-0.98	-2.00	-1.00	-0.05	-1.00	-1.00	-2.40	-1.08	-0.92
80	-1.00	-0.50	-0.36	-0.75	-1.00	-1.00	-2.00	-1.00	-2.00	-1.00	-0.05	-1.00	-1.50	-1.90	-1.03	-0.92
81	-1.50	-0.50	-0.36	-0.75	-1.50	-1.50	-2.00	-1.20	-2.00	-1.00	-0.05	-1.00	-1.50	-2.90	-1.27	-0.92
82	-1.00	-0.50	-0.36	-0.75	-1.00	-1.00	-2.00	-0.93	-2.00	-1.00	-0.05	-1.00	-1.50	-1.80	-1.01	-0.92
83	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-1.11	-2.00	-1.00	-0.05	-1.00	-1.50	-1.40	-1.06	-0.92
84	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-1.12	-2.00	-1.00	-0.05	-1.00	-1.50	-1.40	-1.06	-0.92
85	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-1.40	-1.00	-0.92
86	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-1.40	-1.00	-0.92
87	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-1.40	-1.00	-0.92
88	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-1.40	-1.00	-0.92
89	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-1.60	-1.02	-0.92
90	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-3.40	-1.18	-0.92
91	-1.25	-0.50	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-3.40	-1.18	-0.92
92	-1.25	-0.10	-0.36	-0.75	-1.25	-1.25	-2.00	-0.94	-2.00	-1.00	-0.05	-1.00	-1.00	-3.40	-1.15	-0.92
93	-0.75	-1.50	-0.60	-1.00	-0.75	-0.75	-2.00	-0.74	-2.00	-0.25	-1.40	-0.25	-1.00	-1.00	-0.98	-0.50
94	-1.00	-1.50	-0.60	-1.00	-1.00	-1.00	-2.00	-1.07	-2.00	-0.50	-1.40	-0.50	-1.00	-2.00	-1.19	-0.67
95	-1.00	-0.10	-0.60	-1.00	-1.00	-1.00	-2.00	-0.91	-2.00	-0.25	-1.40	-0.25	-1.00	-1.50	-0.98	-0.50
96	-0.50	-0.10	-0.77	-1.00	-0.50	-0.50	-0.20	-0.97	-2.00	-0.15	-1.10	-0.15	-0.75	-1.00	-0.59	-0.43
97	-0.50	-1.50	-0.77	-1.00	-0.50	-0.50	-0.20	-0.88	-2.00	-0.15	-1.10	-0.15	-0.75	-0.90	-0.70	-0.43
98	-1.00	-1.50	-0.77	-1.00	-1.00	-1.00	-2.00	-0.87	-2.00	-0.50	-1.40	-0.50	-1.00	-2.00	-1.19	-0.67
99	-1.00	-1.50	-0.77	-1.00	-1.00	-1.00	-2.00	-0.34	-1.50	-0.15	-1.40	-0.15	-1.00	-2.00	-1.11	-0.43
100	-1.00	-1.50	-0.77	-1.00	-1.00	-1.00	-2.00	-0.68	-1.50	-0.15	-1.40	-0.15	-1.00	-2.00	-1.14	-0.43
101	-1.00	-1.50	-0.77	-1.00	-1.00	-1.00	-2.00	-1.01	-1.50	-0.15	-1.40	-0.15	-1.00	-2.00	-1.17	-0.43
102	-1.00	-0.75	-0.77	-1.00	-1.00	-1.00	-2.00	-1.00	-1.50	-0.15	-1.40	-0.15	-1.00	-1.60	-1.06	-0.43
103	-0.25	-0.75	-2.03	-1.00	-0.25	-0.25	-2.00	-1.11	-2.00	-0.25	-0.70	-0.25	-1.25	-2.60	-1.04	-0.50
104	-0.25	-0.75	-2.03	-1.00	-0.25	-0.25	-2.00	-1.11	-2.00	-0.25	-0.70	-0.25	-1.25	-2.60	-1.04	-0.50
105	-0.50	-1.50	-2.03	-1.00	-0.50	-0.50	-2.00	-1.11	-2.00	-1.00	-0.70	-1.00	-0.50	-1.60	-1.09	-1.00
106	-1.25	-1.50	-1.83	-1.50	-1.25	-1.25	-1.00	-1.12	-1.20	-1.00	-0.05	-1.00	-1.50	-1.10	-1.17	-1.17
107	-1.25	-1.50	-1.83	-1.50	-1.25	-1.25	-1.00	-1.12	-1.20	-1.00	-0.05	-1.00	-1.50	-1.10	-1.17	-1.17
108	-1.25	-0.75	-0.10	-1.50	-1.25	-1.25	-1.00	-1.11	-1.20	-1.00	-0.05	-1.00	-1.50	-1.10	-0.94	-1.17
109	-1.00	-0.75	-2.03	-0.05	-1.00	-1.00	-2.00	-1.11	-2.00	-1.00	-0.70	-1.00	-1.00	-2.80	-1.31	-0.68
110	-1.25	-0.05	-2.03	-0.05	-1.25	-1.25	-2.00	-1.11	-2.00	-1.00	-0.70	-1.00	-0.50	-1.60	-1.16	-0.68
111	-1.25	-0.05	-0.29	-1.00	-1.25	-1.25	-0.20	-0.61	-1.50	-0.75	-1.10	-0.75	-1.00	-1.00	-0.80	-0.83
112	-1.25	-0.05	-0.29	-1.00	-1.25	-1.25	-0.20	-1.10	-1.50	-0.75	-1.10	-0.75	-1.00	-1.00	-0.84	-0.83
113	-1.00	-0.05	-0.29	-1.00	-1.00	-1.00	-1.70	-1.10	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.79	-0.67
114	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-0.70	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.74	-0.67
115	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-0.78	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.75	-0.67
116	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-0.78	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.75	-0.67
117	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-0.70	-1.50	-0.50	-0.60	-0.50	-1.50	-1.00	-0.83	-0.67
118	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-1.39	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.80	-0.67
119	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-0.78	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.75	-0.67
120	-1.00	-0.05	-0.10	-1.00	-1.00	-1.00	-1.70	-1.39	-1.50	-0.50	-0.60	-0.50	-0.50	-1.00	-0.80	-0.67

Table 5.11: The Responses of Aggregate Imports to the Removal of Tariffs

	1	2
Canada	170,678.5	1.0
USA	782,122.0	2.9
Mexico	72,673.5	4.6
Austria	67,277.4	2.4
Belgium	154,024.7	1.4
France	286,488.5	2.5
Germany	468,758.9	3.8
Italy	199,064.6	1.9
Spain	118,241.7	1.9
UK	275,697.2	2.2
Japan	310,795.5	2.3
China	163,829.6	14.8
Korea	125,332.5	5.6
Taiwan	95,084.4	5.9
ROE	720,791.8	5.4
ROW	1,217,635.0	11.3

Table 5.12: The Responses of Aggregate Exports to the Removal of Tariffs

	1	2	3	4
Canada	205,701.0	5.0	5.6	-0.5
USA	626,932.6	7.9	7.4	0.4
Mexico	84,563.5	4.8	4.1	0.7
Austria	60,473.5	4.0	5.1	-1.0
Belgium	175,121.3	3.7	5.1	-1.4
France	301,489.1	4.7	5.2	-0.4
Germany	539,121.6	4.6	5.2	-0.6
Italy	245,457.7	5.3	6.3	-1.0
Spain	95,056.8	5.1	5.8	-0.7
UK	265,886.9	3.6	4.5	-0.9
Japan	443,015.1	5.6	5.1	0.5
China	148,719.7	6.8	6.1	0.7
Korea	125,045.4	8.8	7.2	1.6
Taiwan	125,503.6	5.7	5.0	0.7
ROE	739,283.1	5.1	5.0	0.1
ROW	1,047,125.0	5.0	4.7	0.3

Table 5.13: Import Increase -- Top Ten Contributing Commodity Groups

Canada		USA		Mexico		Austria	
36	Wearing apparel	36	Wearing apparel	94	Other telecomm eq	36	Wearing apparel
106	Motor vehicles	106	Motor vehicles	112	Photographic,optical goods	106	Motor vehicles
75	Hardware	94	Other telecomm eq	93	Radio,TV,phonograph	34	Other textile products
65	Basic iron and steel	34	Other textile products	108	Motor vehicles parts	20	Preserved fruits,vegetables
18	Meat	75	Hardware	36	Wearing apparel	39	Footwear
60	Plastic products,n.e.c.	47	Basic chemicals	98	Semiconductors	49	Synthetic resins,man-made fibers
94	Other telecomm eq	102	Electrical indl appliance	34	Other textile products	108	Motor vehicles parts
58	Tyre and tube	39	Footwear	82	Metal,woodworking machinery	45	Paper products
33	Cotton fabric	65	Basic iron and steel	65	Basic iron and steel	60	Plastic products,n.e.c.
54	Petroleum refineries	82	Metal,woodworking machinery	19	Dairy and eggs	47	Basic chemicals
Belgium		France		Germany		Italy	
106	Motor vehicles	36	Wearing apparel	36	Wearing apparel	36	Wearing apparel
108	Motor vehicles parts	20	Preserved fruits,vegetables	106	Motor vehicles	106	Motor vehicles
34	Other textile products	21	Preserved seafood	34	Other textile products	98	Semiconductors
47	Basic chemicals	34	Other textile products	20	Preserved fruits,vegetables	93	Radio,TV,phonograph
49	Synthetic resins,man-made fibers	47	Basic chemicals	39	Footwear	34	Other textile products
31	Tobacco products	106	Motor vehicles	49	Synthetic resins,man-made fibers	47	Basic chemicals
65	Basic iron and steel	39	Footwear	47	Basic chemicals	39	Footwear
94	Other telecomm eq	49	Synthetic resins,man-made fibers	98	Semiconductors	49	Synthetic resins,man-made fibers
32	Yarns and threads	98	Semiconductors	21	Preserved seafood	32	Yarns and threads
39	Footwear	93	Radio,TV,phonograph	45	Paper products	21	Preserved seafood
Spain		UK		Japan		China	
36	Wearing apparel	36	Wearing apparel	36	Wearing apparel	1	Unmilled cereals
34	Other textile products	106	Motor vehicles	18	Meat	49	Synthetic resins,man-made fibers
21	Preserved seafood	98	Semiconductors	21	Preserved seafood	34	Other textile products
45	Paper products	93	Radio,TV,phonograph	20	Preserved fruits,vegetables	22	Vegetable&animal oils,fats
93	Radio,TV,phonograph	94	Other telecomm eq	39	Footwear	106	Motor vehicles
31	Tobacco products	20	Preserved fruits,vegetables	27	Food products n.e.c.	65	Basic iron and steel
10	Fishery	34	Other textile products	34	Other textile products	94	Other telecomm eq
32	Yarns and threads	47	Basic chemicals	38	Leather products	47	Basic chemicals
39	Footwear	27	Food products n.e.c.	29	Alcoholic beverage	93	Radio,TV,phonograph
94	Other telecomm eq	108	Motor vehicles parts	47	Basic chemicals	108	Motor vehicles parts
Korea		Taiwan		ROE		ROW	
1	Unmilled cereals	98	Semiconductors	106	Motor vehicles	106	Motor vehicles
18	Meat	1	Unmilled cereals	36	Wearing apparel	120	Scraps,used,unclassified
31	Tobacco products	106	Motor vehicles	34	Other textile products	36	Wearing apparel
20	Preserved fruits,vegetables	20	Preserved fruits,vegetables	18	Meat	34	Other textile products
98	Semiconductors	2	Fresh fruits,vegetables	47	Basic chemicals	75	Hardware
82	Metal,woodworking machinery	19	Dairy and eggs	49	Synthetic resins,man-made fibers	108	Motor vehicles parts
88	Other special machinery	3	Other crops	65	Basic iron and steel	31	Tobacco products
111	Pro measurement instruments	82	Metal,woodworking machinery	45	Paper products	94	Other telecomm eq
3	Other crops	75	Hardware	94	Other telecomm eq	65	Basic iron and steel
2	Fresh fruits,vegetables	88	Other special machinery	19	Dairy and eggs	1	Unmilled cereals

Table 5.14: Exports Increase -- Top Ten Contributing Commodity Groups

Canada		USA		Mexico		Austria	
1	Unmilled cereals	106	Motor vehicles	36	Wearing apparel	36	Wearing apparel
108	Motor vehicles parts	1	Unmilled cereals	93	Radio,TV,phonograph	34	Other textile products
106	Motor vehicles	108	Motor vehicles parts	106	Motor vehicles	106	Motor vehicles
120	Scraps,used,unclassified	75	Hardware	94	Other telecomm eq	41	Other wood products
49	Synthetic resins,man-made fibers	36	Wearing apparel	102	Electrical indl appliance	102	Electrical indl appliance
21	Preserved seafood	120	Scraps,used,unclassified	2	Fresh fruits,vegetables	18	Meat
47	Basic chemicals	18	Meat	61	Glass	120	Scraps,used,unclassified
75	Hardware	22	Vegetable&animal oils,fats	63	Ceramics	75	Hardware
94	Other telecomm eq	98	Semiconductors	49	Synthetic resins,man-made fibers	78	Internal combustion engines
34	Other textile products	94	Other telecomm eq	64	Non-metallic products n.e.c.	82	Metal,woodworking machinery
Belgium		France		Germany		Italy	
120	Scraps,used,unclassified	106	Motor vehicles	106	Motor vehicles	36	Wearing apparel
93	Radio,TV,phonograph	36	Wearing apparel	108	Motor vehicles parts	34	Other textile products
65	Basic iron and steel	29	Alcoholic beverage	75	Hardware	75	Hardware
19	Dairy and eggs	108	Motor vehicles parts	36	Wearing apparel	39	Footwear
34	Other textile products	1	Unmilled cereals	34	Other textile products	106	Motor vehicles
53	Chemical products n.e.c.	19	Dairy and eggs	120	Scraps,used,unclassified	64	Non-metallic products n.e.c.
37	Leather and hides	34	Other textile products	19	Dairy and eggs	61	Glass
38	Leather products	75	Hardware	102	Electrical indl appliance	23	Grain mill products
94	Other telecomm eq	49	Synthetic resins,man-made fibers	47	Basic chemicals	20	Preserved fruits,vegetables
48	Fertilizers	18	Meat	82	Metal,woodworking machinery	33	Cotton fabric
Spain		UK		Japan		China	
106	Motor vehicles	36	Wearing apparel	106	Motor vehicles	36	Wearing apparel
64	Non-metallic products n.e.c.	94	Other telecomm eq	94	Other telecomm eq	34	Other textile products
36	Wearing apparel	31	Tobacco products	98	Semiconductors	20	Preserved fruits,vegetables
20	Preserved fruits,vegetables	29	Alcoholic beverage	93	Radio,TV,phonograph	33	Cotton fabric
108	Motor vehicles parts	47	Basic chemicals	108	Motor vehicles parts	39	Footwear
18	Meat	108	Motor vehicles parts	120	Scraps,used,unclassified	93	Radio,TV,phonograph
34	Other textile products	75	Hardware	65	Basic iron and steel	119	Manufactured goods n.e.c.
2	Fresh fruits,vegetables	18	Meat	112	Photographic,optical goods	75	Hardware
39	Footwear	49	Synthetic resins,man-made fibers	78	Internal combustion engines	38	Leather products
65	Basic iron and steel	109	Aircraft	34	Other textile products	47	Basic chemicals
Korea		Taiwan		ROE		ROW	
34	Other textile products	36	Wearing apparel	36	Wearing apparel	36	Wearing apparel
36	Wearing apparel	34	Other textile products	106	Motor vehicles	120	Scraps,used,unclassified
106	Motor vehicles	49	Synthetic resins,man-made fibers	120	Scraps,used,unclassified	93	Radio,TV,phonograph
49	Synthetic resins,man-made fibers	120	Scraps,used,unclassified	34	Other textile products	34	Other textile products
65	Basic iron and steel	107	Motorcycles,bicycles	65	Basic iron and steel	31	Tobacco products
72	Structural metal products	102	Electrical indl appliance	75	Hardware	2	Fresh fruits,vegetables
102	Electrical indl appliance	98	Semiconductors	6	Cotton	39	Footwear
75	Hardware	32	Yarns and threads	47	Basic chemicals	94	Other telecomm eq
47	Basic chemicals	75	Hardware	9	Crude wood	98	Semiconductors
21	Preserved seafood	94	Other telecomm eq	94	Other telecomm eq	22	Vegetable&animal oils,fats

and 5.12 reported the simulation results for aggregate imports and exports. The magnitudes of the responses of imports and exports, which also reflect the variations of sensitivity parameters, are different from those of the previous simulation. Detailed presentations by commodity categories are shown in the appendix to this chapter. Top ten contributing sectors for imports and exports are presented in Table 5.13 and 5.14. It can be shown that the rankings in Table 5.13 and 5.14 share similar pattern with the ones on the previous simulation with uniform sensitivity parameter, and in fact, the rank correlation between those two pairs of tables are quite high.[21]

5. Concluding remarks

In this chapter, we simulated the impact on trade flows of a "Final Round", a hypothesized situation in which all countries in the world remove their tariff barriers. Our investigation covered 16 counties and regions, which, together, cover the global trade flows. With continued emphasis on sectoral details, the simulations were made at a disaggregation level of 120-commodity category details This study of extensive scope was made possible by employing a Bilateral Trade Model (BTM). The estimated impact reflected the combination of at least three factors: 1) countries' level of tariff rates prior to the liberalization; 2) the effective bilateral discriminations among the countries and regions involved; and 3) the sensitivity parameters of imports with respect to tariff rates. Our simulation methodology was designed to identify the trade creation effect caused by lowering overall level of tariff barriers and the trade diversion effect caused by eliminating bilateral effective discriminations. Two different sets of sensitivity parameters are used in two alternative studies. The first study used a uniform sensitivity parameter, which was the result from a cross-section estimation and therefore reflected a cross- country and commodity category average tendency of how imports would respond to tariff changes. Consequently, the relative variations of estimated impact among countries and commodity groups reflect the level as well as structure of tariff rates. The second study used country- and commodity group- specific sensitivity parameters which are borrowed from studies made by other authors. Consequently, the relative variations of estimated impact among countries and commodity groups reflect the characteristics of both tariff rates and sensitivity parameters.

[21] The Spearman rank correlation is above 90 percent.

CHAPTER SIX:

CONCLUDING REMARKS

This study carried out a multi-country and multi-sectoral investigation of the impact of trade barriers on trade flows. It has several distinguished features that contribute to a better understanding of the situation on global trade barriers and their impact on trade flows: 1) quality and comprehensive data, 2) econometric estimation of key sensitivity parameters, 3) emphasis on sectoral details and 4) simulation with a Bilateral Trade Model.

The bilateral trade flow data from WTDB and trade barriers data from TRAINS were combined, resulting in a bilateral trade protection database, which describes in very detail the situation on global trade barriers including both tariffs and NTBs. One of the important features of bilateral trade protection database is that it reveals the effective bilateral discrimination in a country's trade protection regime. Analysis based on the bilateral trade protection database showed that despite many years' multilateral trade negotiation and unilateral cuts in trade barriers, the current level of overall trade barriers is still high. Trade barriers also vary considerably across countries and industries. Moreover, we also showed that the bilateral effective discrimination of trade barriers attributable to the commodity compositional difference of a country's trade structure was quite significant. We presented our analysis on the global trade protection regime from two perspectives: country and industry. Our findings are:

- Countries of lower income tend to impose higher tariffs and more discriminatory tariff structure against imports from their trading partners.
- Counties of higher income tend to impose higher NTBs and more discriminatory NTBs structure against imports from their trading partners.
- Exports coming out of higher income countries tend to be more protected but less discriminated against in the form of tariffs by the rest of the world.
- Exports coming out of lower income countries tend to be more protected and discriminated against in the form of NTBs by the rest of the world.
- If an industry is highly protected and discriminated against by one type of trade barrier, it tends to be highly protected and discriminated against by the other type as well.
- High level of protection tends to be given to large trade sectors.

An econometric estimation helped determine the marginal import-reducing impact of trade barriers. We used a model that is based on the monopolistic competition trade model and 1994 cross-country and cross-industry data on trade barriers, trade flows, and production to estimate the import-reducing effect of trade barriers. The estimation results are in general well reconciled with the predictions of the model. Output share, relative demand share, distance and tariffs are correctly signed and statistically significant. The more a country produces a kind of goods domestically, the less it will import

from abroad. The stronger a country's preference for a particular kind of goods, the less it will import from abroad since, other things being equal, a country tends to have preference for goods made domestically. Trade flow-weighted distance as a proxy of transaction cost does effectively impede the potential trade flows between countries. The presence of tariffs significantly reduces a country's imports. More specifically, our estimation showed that, assuming that domestic demand does not change, one percent of increase in tariff rate will lead to two percent of decrease in a country's imports. Whether introducing instrumental variables for output share and NTBs, while having little impact on the estimates of tariff effect, does make a difference on the estimation of NTBs. Using instrumental variables for NTBs helps to get correct sign for the estimated effect of NTBs, and the estimation is also statistically significant, whereas using instrumental variables for output share leads to an enhanced effect of NTBs. The different impact of various types of NTBs was also explored. The results are mixed however: among the five types of NTBs, quantity control measures, monopolistic measures and technical measures reduce a country's imports and the magnitudes of their estimated sensitivities all fall into a range between –0.4 and –0.6. Not controlling for the NTBs' simultaneity problem may explain the fact that we have positive estimates on tariff measures and price control measures.

A counter-factual analysis was made for the US aimed at estimating the impact of trade barriers under a scenario – the Final Round, a hypothetical situation where all the countries in the world remove their tariff and non-tariff trade barriers. Our study showed that, as a result of the final round and with 1997 being the base year, the U.S. total commodity exports would increase by $34 billion, while imports would increase $40 billion. In several industries, increased exports are approximately offset by increased imports. These sectors include Lumber, Fabricated metal products, Computing equipment, Household appliances, and Medical instruments. But this pattern is not typical for most industries. In terms of net exports, 27 out of 51 sectors enjoy gains. Such industries as Food & tobacco, Agriculture, Chemicals, Communications equipment, semiconductors and electronic components, and aerospace, where the U.S. have traditionally been competitive in the global market, are among the winners, with gains form exports exceeding increases in imports. Significant losers are Apparel and Shoes. Indeed, the aggregate decline in net exports is due mainly to their large import increase: $11.7 billion in Apparel and $3.6 billion in Shoes. Other net losers, where increased imports exceed the gain from exports, are Instruments (including cameras, watches, and photocopiers), Steel, and Motor vehicles and parts.

The scope of our investigation was then expanded to 16 counties and regions, which, together, cover the global trade flows. The simulations were carried out at a disaggregation level of 120-commodity category details This study of enlarged scope is made possible by employing a Bilateral Trade Model (BTM). Our simulation methodology was designed to identify the trade creation effect caused by lowering overall level of tariff barriers and the trade diversion

effect caused by eliminating bilateral effective discriminations. Two different sets of sensitivity parameters were used in two alternative studies. The first study used a uniform sensitivity parameter, which was the result from a cross-section estimation and therefore reflected a cross- country and commodity category average tendency of how imports would respond to tariff changes. The second study used country- and commodity group- specific sensitivity parameters which are borrowed from studies done by other authors.

It was shown by the simulation results that removal of existing tariff barriers could overall create tremendous new trade opportunities, and the distribution of the newly created trade among the countries and regions were largely influenced by the elimination of associated bilateral discriminations. On the imports side, China and the Rest of the World, who have the highest pre-liberalization trade barriers, are estimated to increase their imports by the largest amount in percentage. The EU countries, the bulk of whose trade has been conducted within the EU and already been liberalized, all see their imports increase by a relatively moderate amount. On the exports side, exports from the US, Korea and China enjoy an enormous boost. The export increases of Taiwan, the Rest of OECD and the Rest of the World are also impressive. However, the magnitudes of increases for EU countries are relatively on the low side.

The simulations also demonstrated that South Korea, China, and Mexico, were the major beneficiaries of eliminating bilateral discriminations, which, on the other hand, had only marginal impact on the U.S. and Japan, the two giants in the world trade market, reflecting the fact that their pre-liberalization exports are already geographically diversified. Not surprisingly, the EU countries, to a varied extent, suffered from eliminating the bilateral discrimination since they lose preferential treatment from their fellow member countries.

As far as specific commodity group is concerned, Wearing apparel (Sector 36) appeared on the top-ten list of contributing sectors to import increases in 12 of 16 countries and regions. Basic chemicals (Sector 47) and Motor vehicles (Sector 106) are also well represented on the lists of a majority of the countries. On the exports side, the major motor vehicle producers all benefited tremendously – Motor vehicles is on the top of the top-ten list for the US, Japan, Germany, Austria, and Spain. Wearing apparel, on the other hand, contributes to the largest export increase in four counties and regions: China, Taiwan, Italy and the Rest of the World. Canada and the US were the two primary sources of export increases for Unmilled cereals.

This study distinguishes itself from others in the literature by both its extensive country as well as commodity category coverage and its unique methodology in dealing with such comprehensiveness. However, a more in-depth and sophisticated study requires further research in several areas. First, the tariff data used in this study are countries' MFN rates which usually constitute the ceilings of the tariff rates being actually applied. It is desirable to compile a data set for the actual tariff rates in order to obtain more accurate estimation of the import-reducing effect of tariff rates. Second, the way in which the NTBs are quantified in this study is somewhat crude. More sophisticated approach should

be explored in this regard. Third, our study focused on the direct impact of trade barriers on trade flows and was static by nature. For a full assessment of the impact of trade liberalization, it is desirable to incorporate the linkage between trade and other parts of the economy and model the dynamic interactions. To this end, an enhanced INFORUM international model system could be very helpful.

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Appendix A to Chapter Two: Bilateral Tariff Rate Matrix in 1994, upper left panel

(In percentage)

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
USA	0.0	0.0	0.0	0.0	2.7	2.9	6.1	0.0	3.0	4.1	4.3	3.0	34.3	10.4	4.9	2.9	9.7	11.1	26.7	6.0	10.4	9.6	0.0	4.9	11.3	10.5	13.2	11.6	10.1	10.3	6.1
SIN	2.0	0.0	0.0	0.0	1.6	4.4	0.0	2.6	1.9	4.4	2.5	3.3	11.5	8.1	1.9	6.8	11.8	15.5	19.9	5.0	8.6	9.9	10.2	5.5	11.9	4.8	13.4	14.3	8.9	7.3	13.5
SWI	3.6	0.0	0.0	0.0	1.7	4.1	5.1	4.2	2.5	4.0	3.7	3.8	8.6	10.9	5.4	3.0	10.4	10.9	19.6	5.2	8.2	10.6	8.8	2.6	13.0	5.1	11.0	17.8	8.2	6.9	5.9
HK	6.4	0.0	0.0	0.0	6.0	12.4	10.4	8.9	8.2	7.1	9.3	7.3	10.3	10.5	5.7	7.7	12.0	18.8	11.9	4.8	16.7	15.6	17.5	12.3	17.7	13.7	19.6	27.4	10.1	15.4	11.8
JAP	2.4	0.0	0.0	0.0	0.0	2.6	0.6	4.0	6.0	4.8	4.2	9.4	7.8	10.3	8.1	8.3	11.8	14.9	33.6	5.0	22.8	12.0	9.9	11.8	18.9	2.6	19.6	19.4	11.3	12.0	16.5
NOR	1.5	0.0	0.0	0.0	3.3	0.0	2.0	0.5	2.0	2.3	1.7	4.0	7.2	9.4	3.6	4.3	10.8	13.1	24.6	2.9	5.4	5.4	10.3	4.8	9.0	2.1	6.2	10.3	6.9	6.5	2.2
ICE	0.8	0.0	0.0	0.0	3.9	1.7	0.0	1.1	2.0	10.5	0.3	4.0	7.5	10.8	1.1	7.6	12.1	19.5	17.7	0.0	13.7	0.0	12.1	7.4	40.3	0.0	3.4	0.0	24.5	14.4	0.0
CAN	0.0	0.0	0.0	0.0	1.7	0.6	3.5	0.0	2.8	2.3	2.4	3.1	8.4	10.8	5.6	4.2	6.5	11.6	23.3	6.8	13.9	7.2	0.0	3.2	11.8	6.5	8.5	13.9	27.3	7.8	7.6
AUS	2.8	0.0	0.0	0.0	5.6	0.6	0.1	2.4	0.0	1.5	4.3	5.1	5.8	10.9	1.8	3.7	10.0	6.1	9.8	3.6	8.2	5.3	20.9	6.7	9.3	3.6	3.7	10.4	10.2	7.9	5.1
EU	3.0	0.0	0.0	0.0	2.9	4.3	4.1	4.3	4.5	0.0	5.9	5.4	8.8	10.5	6.4	7.3	11.0	13.7	21.5	5.5	11.0	11.5	10.9	7.1	14.4	5.5	19.8	16.1	10.3	9.5	6.1
ISR	2.7	0.0	0.0	0.0	0.6	3.9	4.6	3.4	3.2	5.0	0.0	3.5	7.9	6.4	6.2	0.6	0.0	10.9	18.2	0.0	7.6	8.2	9.8	6.2	5.9	5.1	8.4	12.6	12.3	7.3	9.3
NEW	4.5	0.0	0.0	0.0	6.1	1.6	0.8	6.7	4.5	2.7	4.9	0.0	11.3	9.2	1.3	2.4	6.9	13.7	5.0	2.5	19.8	6.9	42.2	6.5	14.3	1.2	15.7	0.0	16.7	13.0	4.8
KOR	3.6	0.0	0.0	0.0	3.7	3.3	1.9	5.3	7.5	5.7	6.1	6.0	0.0	9.7	11.1	4.6	12.1	16.0	25.9	5.0	23.2	13.9	11.8	17.2	16.1	11.6	22.6	16.1	15.9	18.9	16.2
CHI	2.3	0.0	0.0	0.0	1.8	0.8	0.6	1.9	1.8	1.9	6.1	3.9	4.4	0.0	4.7	1.2	12.0	11.3	3.8	5.0	9.4	12.9	13.7	1.3	7.6	13.6	7.7	0.0	35.9	13.5	21.9
CZE	4.3	0.0	0.0	0.0	3.8	4.7	1.7	6.8	5.3	4.6	4.3	4.5	7.5	10.9	0.0	5.0	12.3	13.7	36.8	5.4	12.2	5.5	10.9	5.7	8.9	3.9	12.3	5.9	0.9	22.7	7.8
MAL	2.3	0.0	0.0	0.0	1.3	8.7	5.1	5.3	3.6	5.5	0.0	3.2	6.2	10.3	3.3	0.0	12.3	13.3	21.5	2.7	11.4	11.1	12.1	4.5	8.2	7.9	13.3	22.5	8.7	7.6	15.2
SAU	0.8	0.0	0.0	0.0	0.4	6.8	0.0	0.1	0.2	0.9	0.0	0.3	5.1	11.0	5.7	7.2	0.0	3.7	24.4	4.9	12.0	0.0	4.9	0.3	6.5	0.0	5.7	0.0	0.0	14.8	6.8
ARG	5.1	0.0	0.0	0.0	4.3	0.5	0.0	3.8	3.2	3.4	1.5	1.0	19.6	10.9	1.6	0.9	5.5	0.0	9.9	0.1	15.5	10.1	9.5	2.3	7.0	4.4	16.1	22.2	12.3	12.5	24.0
MAU	0.0	0.0	0.0	0.0	3.2	16.1	14.9	22.0	1.9	8.3	0.4	5.7	7.2	11.0	12.6	17.2	1.8	19.8	0.0	0.0	0.0	22.6	35.0	5.4	7.8	0.0	19.0	30.0	15.1	0.0	0.0
OMA	5.5	0.0	0.0	0.0	0.0	2.1	0.0	12.9	0.2	4.1	0.0	0.0	5.0	0.0	0.0	13.4	9.2	0.0	0.0	0.0	10.1	0.0	10.7	0.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0
VEN	1.2	0.0	0.0	0.0	0.3	3.5	0.0	1.8	5.0	2.3	0.6	0.0	3.1	11.0	0.0	0.1	15.2	6.7	0.0	0.0	0.0	3.4	7.8	8.5	12.2	2.9	6.0	0.0	0.0	15.8	6.7
URU	6.1	0.0	0.0	0.0	4.4	0.2	0.0	6.0	6.1	3.2	0.2	7.9	4.2	10.5	1.7	0.0	8.1	16.2	0.0	0.0	18.3	0.0	16.7	5.4	14.2	12.0	13.7	20.0	6.3	10.7	9.8
MEX	0.0	0.0	0.0	0.0	1.4	0.6	14.4	0.0	3.7	3.5	7.5	4.8	8.5	10.1	5.6	24.6	12.4	12.7	38.0	5.0	11.0	10.6	0.0	8.8	13.8	8.8	21.3	0.0	8.2	12.1	6.5
SOU	2.1	0.0	0.0	0.0	2.0	0.2	2.0	3.4	3.6	2.7	3.4	4.1	12.9	10.9	2.4	2.7	11.9	11.6	26.8	4.5	4.9	9.3	8.0	0.0	8.2	8.4	9.6	18.4	17.9	7.6	5.6
HUN	5.0	0.0	0.0	0.0	3.1	7.9	5.9	6.9	5.0	6.6	4.3	5.0	13.5	9.6	9.0	5.2	11.5	16.1	34.1	4.3	12.2	11.6	13.4	6.2	0.0	10.9	15.7	16.7	25.3	13.3	12.2
COL	3.6	0.0	0.0	0.0	4.6	0.5	0.6	2.6	0.3	7.6	8.4	4.2	5.7	10.9	3.1	8.5	14.3	13.5	0.0	4.9	10.8	0.0	12.7	0.0	36.8	0.0	13.3	0.0	28.7	13.4	9.8
THA	4.9	0.0	0.0	0.0	2.5	1.4	0.9	5.1	4.7	5.1	6.3	6.6	13.0	10.9	2.9	6.4	15.6	13.8	16.9	2.0	12.5	11.6	9.7	7.2	8.2	6.1	0.0	20.5	7.0	11.5	8.2
COS	0.4	0.0	0.0	0.0	0.2	0.0	0.0	7.0	0.0	0.5	2.2	0.0	4.9	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	10.1	3.6	1.0	0.0	5.5	0.0	0.0	5.0	0.0
BRA	5.1	0.0	0.0	0.0	4.4	5.4	7.9	5.6	5.9	5.8	5.3	5.4	7.3	11.0	8.6	6.6	19.2	11.4	19.3	3.1	9.2	13.9	9.6	9.9	17.1	0.0	12.1	0.0	0.0	8.0	9.3
GAB	3.3	0.0	0.0	0.0	2.4	0.1	0.0	2.5	3.2	4.3	1.9	2.3	3.9	10.9	4.5	7.9	11.6	11.7	53.1	0.0	15.5	14.4	8.8	3.1	8.0	6.2	9.1	22.7	25.2	0.0	11.1
TRI	1.8	0.0	0.0	0.0	8.0	0.0	0.0	5.5	4.5	5.1	0.0	0.3	8.0	11.0	9.6	0.0	12.4	6.9	0.0	0.0	9.5	10.0	9.3	6.8	60.0	2.4	8.0	0.0	0.0	8.9	0.0

Appendix A to Chapter Two

Bilateral Tariff Rate Matrix in 1994, lower left panel
(In percentage)

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
TUR	11.9	0.0	0.0	0.0	4.0	8.4	8.5	8.6	4.4	8.8	6.8	3.5	14.7	10.7	6.8	10.8	10.1	13.6	5.8	6.0	10.5	15.5	15.7	21.4	8.5	9.8	12.4	25.0	13.2	11.5	16.7
POL	5.1	0.0	0.0	0.0	4.4	4.0	0.9	4.4	5.8	5.5	2.3	4.3	7.1	11.0	4.3	6.2	12.3	14.6	33.2	5.0	9.5	11.7	1.5	9.3	5.4	12.4	2.1	2.0	6.8	8.3	6.6
ECU	1.5	0.0	0.0	0.0	6.2	0.2	0.0	2.0	2.2	9.2	0.4	0.3	5.6	11.0	2.4	4.6	0.0	10.5	32.2	0.0	15.9	6.5	12.1	8.5	36.3	0.0	9.9	0.0	0.0	18.7	17.1
ALG	1.0	0.0	0.0	0.0	3.4	0.0	0.0	0.1	0.0	0.8	0.0	0.0	6.8	0.0	7.6	21.1	7.4	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0
TUN	5.1	0.0	0.0	0.0	2.8	6.2	4.8	9.3	0.5	8.9	0.0	5.4	3.7	0.0	6.3	3.6	12.1	14.5	40.0	5.0	6.4	2.0	14.9	3.3	0.0	0.0	4.3	26.8	11.3	15.0	0.0
PER	4.5	0.0	0.0	0.0	1.8	1.1	14.9	2.1	1.6	2.9	1.7	3.3	4.2	10.9	7.7	0.0	12.0	8.4	3.8	0.0	8.5	15.2	10.3	1.1	7.2	9.3	5.6	0.0	3.7	11.5	12.6
DOM	10.1	0.0	0.0	0.0	3.3	1.5	11.5	7.2	4.5	6.0	7.9	2.2	5.4	11.0	3.0	0.0	0.0	12.9	0.0	0.0	10.0	0.0	25.4	10.8	0.0	0.0	12.7	0.0	0.0	7.0	10.1
GUA	3.3	0.0	0.0	0.0	0.5	0.7	0.0	1.7	1.5	4.2	17.5	1.0	3.3	10.9	4.9	0.0	6.2	14.9	0.0	0.0	19.7	14.7	6.1	0.1	10.8	13.8	9.8	0.0	7.3	6.8	12.2
PHI	3.0	0.0	0.0	0.0	2.4	8.5	14.3	8.7	5.0	4.7	9.4	6.3	14.3	10.9	4.7	2.2	13.3	14.3	3.4	3.5	16.6	15.7	11.2	9.4	5.7	8.0	9.2	0.0	7.8	12.9	18.7
PAR	6.8	0.0	0.0	0.0	1.3	0.0	0.0	10.6	4.3	0.8	0.0	9.5	3.5	11.0	4.5	0.0	8.8	4.0	0.0	0.0	12.7	8.1	11.7	3.6	5.0	0.0	5.7	0.0	0.0	10.4	16.0
JAM	5.8	0.0	0.0	0.0	6.1	10.7	8.9	9.6	13.1	6.1	10.2	9.1	16.6	10.4	7.9	10.1	11.4	17.0	16.5	5.0	12.9	15.7	11.4	13.1	12.9	13.8	13.0	24.2	10.2	11.6	8.9
CHN	4.9	0.0	0.0	0.0	4.4	0.8	10.0	3.3	0.9	8.5	21.4	0.0	3.2	11.0	5.4	0.7	12.1	6.8	3.9	5.0	16.6	3.2	5.2	12.6	58.0	20.0	6.1	26.1	23.7	15.6	0.0
MOR	7.1	0.0	0.0	0.0	2.4	9.6	14.9	9.7	4.3	7.5	0.0	3.9	8.1	10.7	5.3	15.9	12.1	15.0	18.0	4.9	7.6	16.6	12.2	10.6	16.3	9.6	14.6	28.2	10.2	9.6	8.4
INE	3.6	0.0	0.0	0.0	2.7	0.0	0.0	0.8	6.0	0.6	0.0	17.7	8.3	11.0	4.4	0.0	1.4	3.3	0.0	5.0	9.9	7.8	9.8	1.6	1.2	0.0	13.0	0.0	3.5	13.1	0.0
BOL	10.7	0.0	0.0	0.0	3.7	0.0	6.1	1.7	4.5	4.4	0.0	2.8	4.4	11.0	8.3	41.2	0.0	21.8	0.0	5.0	8.3	19.7	16.2	9.9	58.4	0.0	2.3	0.0	0.0	7.9	14.4
EGY	5.5	0.0	0.0	0.0	2.4	8.4	15.0	14.1	7.2	5.5	1.8	0.8	4.9	11.0	3.6	11.0	11.5	13.2	13.2	4.9	10.0	12.2	20.7	12.6	12.4	20.0	4.8	29.4	6.1	5.3	17.2
SAL	11.7	0.0	0.0	0.0	3.3	0.1	0.0	3.9	1.9	3.6	0.0	0.0	11.7	10.6	5.0	1.7	0.0	18.5	0.0	0.0	19.8	10.3	12.6	1.2	10.6	0.0	5.2	0.0	0.0	12.9	11.2
SRI	12.2	0.0	0.0	0.0	3.7	11.5	9.4	16.6	8.0	7.5	2.4	4.8	7.7	11.0	4.0	6.3	9.2	8.6	31.4	35.6	0.0	11.0	7.0	7.6	3.5	12.3	10.8	0.0	34.0	9.9	7.8
HON	3.2	0.0	0.0	0.0	0.6	0.0	0.0	0.3	0.0	3.7	0.0	0.0	3.3	11.0	5.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	9.9	0.0	0.0	14.1	0.0	0.0	20.2	5.4	2.5
CAM	0.4	0.0	0.0	0.0	0.5	9.1	0.0	0.0	5.0	2.3	0.0	3.6	4.9	0.0	0.0	0.0	12.1	0.0	0.6	0.0	11.1	0.0	6.9	5.6	4.1	0.0	3.0	22.7	0.0	0.0	0.0
NIC	4.0	0.0	0.0	0.0	1.5	0.0	0.0	0.2	5.6	3.9	0.0	0.0	5.0	8.1	5.8	0.0	0.0	14.1	0.0	0.0	20.0	0.0	9.0	0.0	1.1	11.5	11.1	0.0	0.0	15.3	0.0
COT	2.2	0.0	0.0	0.0	8.2	0.2	0.0	3.8	1.9	5.0	2.7	4.6	5.7	11.0	9.6	1.3	0.0	0.1	5.3	0.0	0.0	0.0	9.5	3.4	4.6	0.0	9.8	0.0	0.0	23.6	0.0
INA	5.4	0.0	0.0	0.0	2.7	13.3	6.5	12.3	10.3	6.5	5.8	9.0	6.3	10.8	6.0	4.8	0.0	14.1	10.3	4.9	9.5	15.8	15.4	8.2	10.0	0.0	13.3	0.0	9.5	11.4	10.3
CER	1.9	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CON	0.7	0.0	0.0	0.0	0.1	0.0	0.0	1.6	5.0	0.2	4.4	0.0	5.0	0.0	0.3	0.0	0.0	2.0	5.2	0.0	8.5	0.0	13.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
KEN	5.6	0.0	0.0	0.0	2.9	4.8	0.0	3.6	0.2	6.9	0.5	2.6	5.1	11.0	7.1	1.2	0.0	9.6	3.6	5.0	0.0	0.0	7.9	1.3	20.2	0.0	3.8	0.0	0.0	20.0	23.2
BAN	11.5	0.0	0.0	0.0	6.0	17.5	14.4	20.3	4.5	11.6	0.0	7.7	7.1	11.0	8.8	4.0	0.0	17.9	21.5	2.4	0.0	13.4	27.1	9.0	26.0	0.0	10.3	0.0	0.0	18.6	2.5
MAD	2.7	0.0	0.0	0.0	4.1	0.0	0.0	4.3	1.8	4.9	2.1	0.0	9.5	11.0	4.4	0.0	5.7	0.0	16.1	0.0	10.3	0.0	4.8	6.1	0.2	0.0	8.2	0.0	0.0	0.0	0.0
CHA	0.1	0.0	0.0	0.0	0.0	15.2	0.0	4.6	0.0	0.1	0.0	0.0	3.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	10.7	7.5	5.0	0.0	0.0	0.0	0.0	0.0	0.0
MAL	47.8	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	1.0	0.0	1.7	0.0	11.0	9.7	0.0	0.0	14.0	5.3	5.0	0.0	9.2	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	13.6
ROW	3.1	0.0	0.0	0.0	1.1	2.1	1.6	3.3	2.7	3.8	4.3	3.2	6.2	11.0	5.5	4.4	10.2	5.6	9.7	11.6	13.0	2.6	11.8	1.9	6.2	9.6	6.5	16.8	9.2	10.0	15.5
AVE	3.3	0.0	0.0	0.0	3.0	4.2	3.8	4.5	4.7	1.5	5.3	5.3	14.6	10.5	6.2	6.5	10.8	12.9	19.5	6.8	12.0	10.8	11.7	7.1	14.1	9.0	15.2	16.6	10.3	11.2	7.3

Appendix A to Chapter Two

Bilateral Tariff Rate Matrix in 1994, upper right panel
(In percentage)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW	AVE
USA	6.3	18.6	11.5	10.6	21.6	12.4	14.4	9.3	22.6	8.9	24.9	11.5	6.7	8.8	15.4	12.2	9.4	17.3	12.0	11.8	15.2	15.5	24.1	10.7	12.6	21.2	50.4	22.4	15.8	11.9	18.6	8.0
SIN	7.4	14.0	16.5	50.3	23.7	12.0	11.9	9.3	24.0	6.6	13.9	6.8	7.3	0.0	8.9	21.1	3.3	19.4	6.6	12.4	0.0	19.6	31.1	0.0	0.0	31.8	87.3	21.0	0.0	0.0	20.3	6.8
SWI	6.7	13.9	8.7	17.1	29.7	12.2	13.9	6.0	22.6	9.3	13.3	15.4	6.4	9.1	19.2	16.7	2.8	13.3	3.7	12.0	12.9	16.1	28.4	9.6	13.1	22.3	81.7	18.7	19.0	18.6	14.4	5.0
HK	10.8	18.1	20.7	31.2	33.4	12.6	13.4	14.6	33.9	10.4	17.1	21.5	18.4	9.1	10.2	51.8	15.0	24.9	14.3	24.3	27.1	26.2	22.7	24.7	28.5	43.0	97.7	23.9	21.7	34.6	21.5	12.0
JAP	6.8	12.6	25.6	23.7	25.1	11.6	18.7	8.6	21.9	11.2	14.6	19.0	11.2	8.9	24.8	25.2	10.2	21.1	9.5	18.9	13.3	15.1	29.2	14.0	22.6	25.3	85.9	19.6	16.9	24.6	16.1	6.5
NOR	4.7	7.8	6.5	24.8	20.8	12.0	6.9	5.6	25.0	0.8	9.5	6.7	4.0	8.9	13.7	15.2	10.3	11.5	12.0	18.2	0.0	10.7	16.0	10.0	17.6	32.7	73.1	9.3	10.2	10.3	14.7	2.8
ICE	21.4	14.4	0.0	0.0	0.0	12.0	0.0	0.0	19.0	0.0	23.1	0.0	6.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	12.6	21.9	0.0	0.0	31.0	85.0	0.0	0.0	33.6	10.5	7.7
CAN	4.5	15.0	9.7	3.0	18.3	13.6	9.9	6.1	21.3	6.2	48.0	8.9	5.0	9.0	10.5	13.0	2.3	17.9	8.2	10.0	11.7	9.6	18.8	11.6	10.6	26.9	58.3	20.7	4.2	7.5	19.5	3.7
AUS	2.1	16.2	8.9	3.1	3.5	14.8	4.0	8.9	26.5	5.1	15.5	10.6	6.0	8.0	6.3	9.1	8.9	20.8	5.9	19.2	0.0	23.1	16.8	7.2	22.2	33.5	70.5	18.2	12.0	27.4	18.6	6.4
EU	7.2	14.0	11.4	18.2	29.3	12.4	12.9	7.6	23.8	12.7	18.6	20.8	9.7	9.1	13.1	21.7	6.0	16.0	3.3	14.6	14.9	14.3	20.7	14.8	18.4	25.4	76.2	20.0	16.2	21.4	18.0	3.6
ISR	7.8	14.5	12.6	0.0	19.4	12.0	9.1	6.6	20.2	7.5	9.6	12.8	7.5	9.4	11.9	21.1	2.4	19.3	5.9	17.3	11.7	17.0	10.0	5.0	0.0	24.7	84.6	19.9	10.2	10.0	17.1	4.8
NEW	0.7	26.5	14.1	5.2	27.5	24.7	5.3	18.2	26.0	3.6	13.8	14.1	7.9	10.0	7.6	13.3	15.6	24.9	1.2	0.0	26.7	12.0	15.3	0.0	0.0	31.1	69.0	0.0	0.0	13.4	18.4	7.1
KOR	10.6	17.5	27.4	30.8	28.2	13.3	10.7	15.8	25.3	8.7	16.8	22.9	11.2	8.9	17.3	40.4	14.4	25.8	16.5	21.0	16.7	14.2	30.7	17.3	25.3	31.5	94.4	23.7	18.8	28.8	19.4	8.3
CHI	0.4	6.3	12.6	32.1	37.3	14.0	8.3	12.7	19.7	12.1	1.6	18.5	1.3	9.3	14.7	9.0	10.8	10.1	10.1	25.5	15.9	25.9	32.7	0.0	22.0	0.0	0.0	25.4	0.0	40.0	16.2	4.9
CZE	8.7	12.2	33.6	14.0	23.1	11.8	29.7	9.5	22.2	0.0	33.1	34.0	6.3	7.8	6.6	32.3	7.1	13.3	12.5	20.1	8.4	20.4	29.5	0.0	20.8	23.2	31.2	10.0	29.9	0.0	18.0	6.9
MAL	4.8	9.9	10.9	25.3	20.3	12.0	18.4	9.6	25.8	8.1	19.9	10.6	5.0	7.7	9.5	17.2	10.4	27.1	4.9	12.1	18.1	17.7	29.5	10.0	17.8	33.6	83.6	15.1	14.7	22.8	19.0	4.5
SAU	8.9	11.2	7.5	16.4	19.4	12.0	0.0	14.6	19.0	0.0	9.6	1.9	3.7	0.0	0.0	20.4	0.0	14.3	8.1	13.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0	1.4	2.4
ARG	3.6	12.7	12.6	8.5	16.8	14.1	28.1	6.9	28.8	9.7	64.5	8.9	1.7	9.6	11.1	9.6	5.4	29.6	5.5	20.9	12.1	15.6	29.3	0.0	28.2	9.7	64.1	30.0	10.2	0.0	24.6	11.4
MAU	12.3	26.6	0.0	0.0	27.9	0.0	0.0	0.0	19.0	9.8	19.3	0.0	22.6	0.0	0.0	19.3	0.0	21.7	0.0	0.0	0.0	12.6	30.5	0.0	0.0	20.0	105.0	25.0	0.0	10.8	17.5	9.2
OMA	3.7	27.4	0.0	34.0	18.4	0.0	0.0	0.0	19.0	0.0	0.0	3.9	5.3	0.0	0.0	38.3	0.0	2.7	0.0	23.0	0.0	7.6	36.3	0.0	26.5	27.8	26.2	0.0	0.0	0.0	22.6	6.3
VEN	5.0	15.0	16.7	30.1	0.0	12.2	7.2	7.5	31.3	10.8	0.0	36.9	8.0	9.0	3.8	0.0	4.5	0.0	12.5	0.0	8.6	28.6	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	4.6
URU	3.9	9.5	9.3	40.0	29.6	22.0	0.6	10.1	19.2	12.4	18.0	7.8	3.2	9.1	20.0	30.5	9.7	0.0	9.7	0.0	10.0	0.0	13.2	0.0	22.0	0.0	65.7	0.0	0.0	0.0	22.1	10.6
MEX	9.9	11.5	16.2	7.7	17.4	11.6	7.3	9.8	33.4	12.3	15.2	15.9	2.0	8.6	3.0	16.3	7.7	24.5	8.6	17.6	18.4	15.8	21.1	0.0	0.0	30.9	35.2	0.0	17.8	23.1	14.9	4.3
SOU	4.0	2.8	9.0	19.9	22.2	11.9	8.5	6.3	18.6	15.2	23.7	3.6	1.3	8.4	12.1	22.6	6.6	16.6	5.6	12.4	0.0	15.9	26.1	18.0	19.2	23.6	87.7	15.7	23.8	19.0	28.5	12.9
HUN	6.8	18.1	15.7	32.0	33.9	21.4	10.5	21.5	36.4	8.9	40.0	17.2	5.5	9.7	13.9	41.3	9.2	19.9	13.6	18.0	21.6	22.5	28.1	28.3	23.5	38.2	81.4	25.8	27.1	28.4	18.6	7.6
COL	29.9	21.2	13.1	40.1	43.0	12.0	13.8	12.2	24.0	10.9	29.8	29.3	0.0	9.7	16.0	0.0	10.1	12.9	10.1	16.5	19.0	28.5	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	6.9
THA	5.1	16.4	16.8	11.5	20.3	12.0	14.9	6.8	24.4	12.7	65.4	12.7	4.7	9.2	13.2	13.2	6.4	34.1	8.3	14.5	15.2	13.9	17.9	10.6	21.1	15.8	66.1	21.1	10.2	20.9	21.3	9.7
COS	0.0	5.9	0.0	7.0	17.0	0.0	0.0	5.0	14.0	0.0	1.1	3.7	0.1	0.0	0.0	7.4	0.0	0.0	0.0	12.3	0.0	0.0	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.9
BRA	6.3	16.6	8.3	4.2	25.7	12.0	0.0	0.0	31.3	0.0	15.4	16.2	3.4	10.0	25.0	16.1	0.0	15.4	5.1	10.5	0.0	0.0	30.4	0.0	0.0	44.7	0.0	16.7	0.0	0.0	14.7	6.8
GAB	11.6	14.5	15.1	19.2	15.6	12.2	16.3	8.3	26.5	11.0	24.7	5.9	9.3	9.0	21.1	16.4	8.0	12.8	6.8	20.4	15.2	10.1	27.7	20.0	26.7	27.1	0.0	10.0	0.0	0.0	14.0	6.6
TRI	2.5	10.9	8.6	0.0	35.6	12.0	5.0	6.0	0.0	9.0	0.0	0.0	8.4	10.0	15.0	0.0	2.2	0.0	5.9	0.0	11.2	0.0	35.0	0.0	0.0	45.7	78.9	20.0	0.0	20.0	12.6	6.8

Appendix A to Chapter Two

Bilateral Tariff Rate Matrix in 1994, lower right panel

(In percentage)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW	AVE
TUR	0.0	23.5	9.1	22.4	30.9	12.0	13.9	11.2	30.6	7.6	11.7	12.0	7.8	9.7	16.5	36.1	4.8	33.5	10.1	19.2	0.0	25.2	29.7	12.5	27.7	35.2	97.7	16.4	0.0	17.7	19.1	12.0
POL	7.9	0.0	5.7	13.1	20.4	11.4	4.5	8.6	20.1	15.6	12.7	4.6	10.4	9.8	14.2	20.0	5.2	11.6	6.9	11.7	6.1	16.9	24.7	22.9	23.1	19.3	68.0	28.2	0.0	0.0	15.5	7.0
ECU	37.8	19.6	0.0	41.3	40.4	13.7	0.0	9.2	17.9	0.0	26.8	42.5	10.0	8.5	0.0	56.7	0.0	0.0	13.1	0.0	17.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2	7.3
ALG	5.4	0.0	7.5	0.0	2.0	12.0	0.0	0.0	0.0	0.0	0.0	4.3	0.2	0.0	0.0	16.9	0.0	0.0	0.0	0.0	0.0	0.0	15.5	0.0	0.0	0.0	65.0	10.0	10.2	0.0	13.3	1.8
TUN	7.6	5.8	17.8	25.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	19.1	5.3	0.0	25.0	15.9	0.0	0.0	0.0	12.4	0.0	14.9	35.0	30.0	19.8	0.0	0.0	29.0	10.6	0.0	17.4	10.4
PER	2.4	8.4	12.5	3.8	33.6	0.0	5.9	7.3	12.1	13.4	3.4	3.3	0.8	9.6	22.6	0.0	6.3	10.4	9.6	27.1	17.8	21.2	6.7	0.0	32.0	49.8	39.9	23.9	29.9	0.0	8.0	4.3
DOM	9.4	11.5	8.5	0.0	43.0	14.1	0.0	9.1	20.9	0.0	9.4	2.9	16.7	10.0	0.0	0.0	0.0	0.0	8.8	5.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	9.0
GUA	8.9	9.8	8.6	3.0	0.0	14.3	18.1	0.0	0.0	0.0	30.0	14.1	4.4	0.0	16.9	9.3	11.8	35.0	11.4	0.0	19.7	0.0	35.0	0.0	0.0	50.0	105.0	0.0	0.0	0.0	16.3	8.0
PHI	7.3	14.0	11.3	13.3	43.0	12.3	9.8	8.4	0.0	9.3	10.1	4.8	7.3	0.2	24.4	6.3	10.4	11.1	5.0	0.0	0.0	22.9	34.4	11.1	0.0	25.0	66.9	10.0	0.0	15.1	19.7	4.0
PAR	0.0	8.4	6.5	0.0	27.0	12.0	0.0	5.0	19.2	0.0	3.7	2.5	0.1	10.0	15.6	0.0	1.1	0.0	1.2	0.0	10.0	22.6	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	27.6	5.5
JAM	9.6	16.3	16.7	30.8	27.1	12.5	5.9	9.2	31.2	11.9	0.0	21.3	9.7	8.8	9.2	21.8	15.4	10.5	9.2	22.4	18.7	23.2	28.9	27.4	28.3	40.1	85.2	23.2	20.2	38.3	19.7	6.7
CHN	6.6	3.9	1.5	18.4	23.8	16.6	37.2	0.0	21.4	0.0	3.5	0.0	0.6	10.0	0.0	32.2	20.0	0.0	20.0	22.1	0.0	21.5	33.0	26.0	22.5	38.7	0.0	22.4	30.2	0.0	17.2	10.5
MOR	7.0	11.0	13.2	52.8	29.6	13.3	0.0	12.6	23.4	12.6	10.9	20.3	0.0	9.2	0.0	29.2	25.0	16.7	13.6	23.2	35.2	13.7	21.0	25.9	30.0	37.8	94.6	24.5	27.9	31.8	19.5	7.1
INE	0.1	9.8	14.4	27.1	0.0	12.9	11.7	5.0	0.0	7.7	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7	5.1
BOL	19.6	17.0	14.2	40.1	42.3	16.5	0.0	8.9	0.0	0.0	17.0	0.0	73.1	0.0	0.0	0.0	0.0	29.7	5.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	6.4
EGY	7.1	5.4	0.0	21.8	20.7	12.0	15.0	0.0	22.8	21.1	4.4	16.3	6.3	0.0	0.0	0.0	0.0	1.4	0.0	25.1	0.0	12.9	13.5	0.0	12.1	26.3	64.1	30.0	30.2	20.0	15.0	7.5
SAL	0.0	12.7	10.7	54.9	0.0	13.8	0.0	13.3	27.5	0.0	30.0	0.0	0.0	10.0	0.0	0.0	0.0	13.2	11.9	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	8.4
SRI	10.5	14.7	13.1	40.0	15.2	12.2	23.0	10.1	20.6	10.9	21.1	24.9	5.5	10.0	0.0	33.3	9.0	0.0	10.0	0.0	17.0	27.6	30.1	0.0	0.0	37.6	84.1	0.0	0.0	22.9	22.5	11.3
HON	0.0	10.4	7.5	0.0	0.0	12.0	13.7	12.9	0.0	0.0	0.0	25.1	0.0	0.0	25.8	0.0	12.1	0.0	0.0	0.0	24.3	0.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0	4.7
CAM	0.0	9.8	0.0	52.5	17.3	0.0	0.0	0.0	14.0	0.0	2.2	12.7	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	18.9	0.7	21.8	29.8	19.4	105.0	10.0	19.9	0.0	17.9	4.1
NIC	0.0	0.0	13.9	0.0	0.0	23.2	16.9	11.1	0.0	0.0	0.0	25.1	0.0	8.3	30.0	0.0	15.4	0.0	13.1	0.0	0.0	0.0	33.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6	5.8
COT	5.4	15.5	24.2	58.8	25.8	0.0	0.0	0.0	18.5	0.0	6.4	12.4	0.2	0.0	0.0	24.7	0.0	0.0	0.0	16.6	0.0	0.0	0.0	15.6	0.0	0.0	0.0	23.7	0.0	0.0	0.1	3.9
INA	6.8	14.8	10.1	18.6	26.0	12.4	0.0	8.2	26.5	0.0	9.3	17.6	4.2	9.5	0.0	19.1	0.0	19.3	6.0	18.6	13.2	0.0	0.0	15.4	0.0	0.0	0.0	20.2	0.0	0.0	1.3	5.0
CER	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	27.2	0.0	17.2	2.0
CON	0.2	10.8	0.0	0.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.3	0.0	0.0	0.0	29.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
KEN	5.5	10.8	10.6	60.0	15.1	0.0	0.0	0.0	17.5	0.0	11.8	3.5	5.0	5.0	0.0	31.4	0.0	16.8	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	0.0	0.0	3.9	6.3
BAN	6.0	14.4	0.0	40.5	34.3	16.3	0.0	24.6	11.7	0.0	9.7	7.0	3.4	10.0	0.0	29.7	0.0	27.5	25.0	10.1	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	10.4
MAD	14.1	9.3	0.0	59.8	17.6	12.0	40.0	0.0	0.0	0.0	4.5	13.7	0.0	0.0	0.0	8.1	0.0	25.3	0.0	0.0	0.0	0.0	43.3	0.0	0.0	31.0	105.0	0.0	0.0	19.2	22.0	8.0
CHA	0.1	0.7	0.0	3.0	27.8	0.0	0.0	0.0	0.0	0.0	1.0	2.5	0.0	0.0	0.0	40.8	0.0	0.0	0.0	8.6	0.0	0.0	0.0	23.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7
MAL	25.0	31.0	0.0	15.0	39.1	12.0	0.0	0.0	59.0	0.0	0.0	18.5	10.0	0.0	0.0	0.2	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	8.1	7.9
ROW	7.5	10.6	9.9	18.9	18.2	13.6	6.7	9.0	20.8	11.7	13.0	7.7	3.6	9.4	18.4	18.6	16.5	23.7	13.5	12.8	19.4	19.3	25.1	17.0	17.9	25.4	76.2	13.8	26.2	14.4	0.0	4.2
AVE	7.2	14.0	14.1	17.8	27.4	12.7	13.7	9.5	24.3	10.8	18.5	17.4	9.3	9.1	14.7	20.9	9.4	20.1	10.2	14.7	15.6	15.0	23.8	15.7	18.7	26.4	81.7	19.6	16.6	19.5	17.3	5.4

Appendix A to Chapter Two

Bilateral NTB Coverage Ratio in 1994, upper left panel

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
USA	0.0	0.7	0.0	0.0	1.7	0.3	2.5	0.0	0.5	2.9	0.0	0.2	0.0	1.3	0.0	3.1	0.0	4.4	0.0	3.6	9.1	3.8	0.0	0.0	0.0	0.0	9.5	0.0	9.2	0.0	0.0
SIN	21.2	0.0	0.0	0.0	1.2	1.0	0.0	5.0	0.4	3.4	0.0	0.5	0.0	0.1	0.0	4.9	0.0	8.5	0.0	23.4	2.3	0.0	11.3	0.0	0.0	0.0	20.0	0.0	12.5	0.0	0.0
SWI	6.4	0.2	0.0	0.0	1.8	0.8	0.5	2.0	0.2	4.6	0.0	0.2	0.0	0.1	0.1	5.4	0.0	0.9	0.0	2.6	0.1	0.1	3.1	0.0	0.0	0.0	0.5	0.0	12.8	0.0	0.0
HK	32.6	0.4	0.0	0.0	0.8	25.2	1.0	19.8	0.6	22.6	0.0	2.1	1.3	0.0	0.0	4.4	0.0	4.3	0.0	5.7	4.1	0.3	51.9	0.0	0.0	0.0	1.5	0.0	17.9	0.0	0.0
JAP	14.5	0.7	0.0	0.0	0.0	0.0	2.6	0.7	0.2	1.4	0.0	0.1	0.0	0.1	0.0	10.0	0.0	22.8	0.0	1.9	54.5	21.9	9.8	0.0	0.0	0.0	7.2	0.0	14.4	0.0	0.0
NOR	4.0	0.0	0.0	0.0	8.7	0.0	1.0	0.1	0.6	5.8	0.0	0.1	0.0	0.0	0.0	3.4	0.0	0.3	0.0	14.0	1.1	0.0	2.4	0.0	0.0	0.0	0.0	0.0	27.7	0.0	0.0
ICE	5.7	0.0	0.0	0.0	15.0	1.6	0.0	0.4	0.3	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAN	0.0	0.7	0.0	0.0	1.9	0.1	6.4	0.0	1.2	4.5	0.0	0.1	0.3	5.1	1.1	3.6	0.0	3.2	0.0	18.3	22.6	0.6	0.0	0.0	0.0	0.0	12.6	0.0	6.3	0.0	0.0
AUS	9.2	0.5	0.0	0.0	1.4	0.0	0.0	2.4	0.0	10.8	0.0	2.2	0.5	0.0	0.0	12.6	0.2	0.1	0.0	1.3	0.4	0.8	9.7	0.0	0.0	0.0	0.4	0.0	18.4	0.0	0.0
EU	11.3	0.9	0.0	0.0	3.3	2.5	2.2	3.6	0.6	0.0	0.0	0.3	0.1	0.1	0.5	9.6	0.2	11.4	0.0	15.1	5.0	7.6	10.0	0.0	0.0	0.0	9.9	0.0	9.9	0.0	0.0
ISR	12.1	0.0	0.0	0.0	0.1	1.6	0.9	4.1	2.0	11.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.5	0.0	9.5	0.0	0.0	0.0	19.6	0.0	12.5	0.0	0.0
NEW	6.9	0.4	0.0	0.0	2.6	0.1	19.9	12.3	1.2	10.2	0.0	0.0	0.0	0.0	0.0	1.4	1.8	0.7	0.0	1.0	1.5	0.0	25.0	0.0	0.0	0.0	5.6	0.0	0.1	0.0	0.0
KOR	33.6	0.3	0.0	0.0	2.8	1.5	3.1	10.0	0.5	7.9	0.0	1.1	0.0	0.0	0.0	3.4	0.0	15.3	0.0	6.8	46.1	15.7	26.7	0.0	0.0	0.0	6.1	0.0	29.2	0.0	0.0
CHI	5.1	0.0	0.0	0.0	11.0	0.0	0.0	1.3	0.8	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.7	0.9	5.0	0.0	0.0	0.0	3.7	0.0	19.1	0.0	0.0
CZE	16.6	0.3	0.0	0.0	1.5	3.7	0.4	11.3	0.9	10.9	0.0	0.4	0.0	0.0	0.0	5.8	0.0	12.0	0.0	0.0	0.5	0.2	4.9	0.0	0.0	0.0	4.2	0.0	3.2	0.0	0.0
MAL	30.5	0.5	0.0	0.0	0.4	10.4	0.0	8.4	0.4	5.8	0.0	0.5	0.0	0.1	0.0	0.0	0.0	4.9	0.0	11.9	14.5	0.1	31.2	0.0	0.0	0.0	9.8	0.0	6.6	0.0	0.0
SAU	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.6	0.8	0.0	10.0	0.0	0.0	0.0	99.3	0.0	0.0	0.0	0.0
ARG	16.1	0.0	0.0	0.0	3.5	0.0	0.0	1.6	19.5	8.1	0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	61.4	5.1	3.5	0.0	0.0	0.0	36.5	0.0	0.2	0.0	0.0
MAU	0.0	0.0	0.0	0.0	5.6	38.5	0.0	97.7	0.0	58.7	0.0	34.1	0.0	25.6	0.0	2.8	0.0	64.1	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	43.7	0.0	0.0
OMA	34.7	0.0	0.0	0.0	0.2	0.0	0.0	33.6	0.0	9.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VEN	1.8	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	91.4	0.0	0.0	0.0	0.0
URU	32.8	0.0	0.0	0.0	7.9	0.0	0.0	17.2	0.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	2.4	0.0	6.2	0.0	0.0	0.0	19.1	0.0	8.8	0.0	0.0
MEX	0.0	0.5	0.0	0.0	0.9	0.6	0.0	0.0	0.6	6.3	0.0	0.1	0.0	0.0	0.0	0.3	0.0	12.1	0.0	0.0	5.3	7.6	0.0	0.0	0.0	0.0	15.0	0.0	22.3	0.0	0.0
SOU	13.6	0.5	0.0	0.0	3.6	0.0	0.0	1.5	0.3	13.8	0.0	0.1	0.5	0.0	0.0	3.0	0.0	2.5	0.0	1.9	1.1	0.0	7.5	0.0	0.0	0.0	11.5	0.0	14.7	0.0	0.0
HUN	30.9	2.2	0.0	0.0	2.4	18.8	0.3	14.4	0.8	15.9	0.0	1.6	0.0	0.2	0.0	10.8	0.0	3.4	0.0	1.3	0.7	1.3	38.3	0.0	0.0	0.0	10.1	0.0	27.9	0.0	0.0
COL	10.3	4.7	0.0	0.0	1.2	0.0	0.1	2.8	0.0	48.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THA	17.3	2.5	0.0	0.0	1.1	2.4	0.0	6.1	2.0	18.4	0.0	2.2	0.0	0.5	0.0	21.4	0.0	12.0	0.0	0.3	13.2	8.1	16.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
COS	0.0	0.0	0.0	0.0	0.2	0.0	0.0	10.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	98.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
BRA	30.6	0.0	0.0	0.0	2.4	3.0	0.0	8.0	1.0	17.3	0.0	0.0	0.0	0.0	0.0	6.5	0.0	11.1	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
GAB	17.6	4.3	0.0	0.0	0.5	0.0	0.0	2.1	0.2	60.3	0.0	0.0	0.0	0.1	0.0	31.1	0.0	9.8	0.0	0.0	10.5	0.3	15.2	0.0	0.0	0.0	2.7	0.0	1.1	0.0	0.0
TRI	9.2	0.0	0.0	0.0	1.9	0.0	0.0	4.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	4.7	0.0	0.0	0.0	59.8	0.0	0.0	0.0	0.0

Appendix A to Chapter Two

Bilateral NTB Coverage Ratio in 1994, lower left panel
(In percentage)

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
TUR	54.5	0.2	0.0	0.0	1.0	18.0	1.4	35.0	10.8	48.8	0.0	0.0	0.0	0.0	1.2	39.6	0.0	2.1	0.0	0.0	0.1	0.3	26.1	0.0	0.0	0.0	5.3	0.0	17.8	0.0	0.0
POL	24.6	0.0	0.0	0.0	5.2	5.4	0.0	5.7	1.4	19.7	0.0	0.0	0.0	0.0	1.1	3.0	0.0	1.9	0.0	0.0	0.4	6.7	0.9	0.0	0.0	0.0	0.1	0.0	5.1	0.0	0.0
ECU	4.1	79.8	0.0	0.0	3.3	0.0	0.0	2.7	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9	0.0	22.9	0.0	0.0	0.0	54.9	0.0	0.0	0.0	0.0
ALG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0
TUN	35.3	0.0	0.0	0.0	5.6	11.5	0.0	49.2	0.0	53.5	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2.3	0.0	0.0	0.0	0.0	84.1	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0
PER	18.7	0.0	0.0	0.0	22.0	0.0	0.0	8.4	0.0	14.3	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.0	2.1	0.0	9.7	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0
DOM	53.1	0.0	0.0	0.0	6.7	10.9	0.0	17.7	4.8	21.2	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.1	0.0	0.0	11.1	0.0	59.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
GUA	11.6	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	76.6	0.0	0.0	0.0	95.5	0.0	0.0	0.0	0.2	0.0	0.0	65.3	0.0	3.8	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
PHI	20.9	0.5	0.0	0.0	2.9	18.6	0.5	13.6	1.1	9.4	0.0	0.6	0.1	0.0	0.0	0.9	0.0	1.2	0.0	0.2	55.0	6.7	12.5	0.0	0.0	0.0	0.3	0.0	62.2	0.0	0.0
PAR	22.7	15.2	0.0	0.0	0.4	0.0	0.0	9.7	0.0	1.7	0.0	0.0	0.0	0.4	0.0	0.0	0.0	8.4	0.0	0.0	53.3	0.0	0.0	0.0	0.0	0.0	46.5	0.0	0.0	0.0	0.0
JAM	26.7	0.8	0.0	0.0	3.0	20.7	0.2	20.0	0.6	18.2	0.0	1.9	1.0	0.0	0.0	3.4	0.0	8.3	0.0	1.7	0.0	4.5	25.5	0.0	0.0	0.0	3.6	0.0	31.4	0.0	0.0
CHN	15.7	0.0	0.0	0.0	5.2	0.6	0.0	4.3	0.3	31.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.0	65.1	0.0	0.0
MOR	35.3	0.2	0.0	0.0	1.3	33.9	0.0	26.9	0.9	33.9	0.0	1.8	0.0	0.0	0.0	4.4	0.0	1.4	0.0	0.7	0.0	2.5	30.9	0.0	0.0	0.0	1.7	0.0	10.3	0.0	0.0
INE	11.0	0.0	0.0	0.0	0.1	0.0	0.0	2.2	0.0	4.4	0.0	0.0	0.0	17.1	0.0	0.0	0.0	2.4	0.0	0.0	49.2	0.9	4.2	0.0	0.0	0.0	10.2	0.0	100.0	0.0	0.0
BOL	59.3	0.0	0.0	0.0	2.2	0.0	0.0	4.1	0.0	16.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.4	0.0	47.8	0.3	0.0	5.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
EGY	41.6	0.0	0.0	0.0	0.5	0.2	0.0	60.6	0.2	32.5	0.0	0.0	0.0	0.0	16.3	0.0	0.0	0.4	0.0	4.4	0.0	0.0	30.6	0.0	0.0	0.0	21.5	0.0	25.6	0.0	0.0
SAL	76.4	50.8	0.0	0.0	0.0	0.1	0.0	14.2	0.0	95.5	0.0	0.0	0.0	42.8	0.0	13.8	0.0	1.4	0.0	0.0	94.7	0.0	22.7	0.0	0.0	0.0	55.2	0.0	0.0	0.0	0.0
SRI	78.9	6.2	0.0	0.0	1.5	34.6	0.0	58.9	0.2	49.7	0.0	1.8	0.9	0.0	0.0	0.1	0.0	0.0	0.0	1.3	0.0	0.0	3.5	0.0	0.0	0.0	16.0	0.0	1.0	0.0	0.0
HON	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	86.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CAM	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.8	0.0	0.0	0.0	99.1	0.0	0.0	0.0	0.0
NIC	3.8	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	66.4	0.0	0.0	0.0	14.9	0.0	0.0	0.0	0.0	0.0	0.0	49.7	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COT	0.7	16.7	0.0	0.0	0.8	0.0	0.0	0.3	0.0	14.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INA	35.3	0.8	0.0	0.0	2.9	18.6	0.8	43.1	0.2	36.1	0.0	1.2	0.1	0.0	0.0	4.0	0.0	20.8	0.0	3.2	0.9	27.7	29.4	0.0	0.0	0.0	14.1	0.0	56.0	0.0	0.0
CER	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KEN	35.2	2.1	0.0	0.0	4.3	0.5	0.0	14.0	0.0	39.4	0.0	0.2	0.2	0.0	0.0	9.8	0.0	0.0	0.0	3.3	0.0	0.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BAN	82.4	0.0	0.0	0.0	7.2	54.4	0.0	89.3	0.0	79.3	0.0	0.0	4.7	0.0	0.0	0.0	0.0	20.0	0.0	2.5	0.0	0.0	81.6	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
MAD	14.7	0.1	0.0	0.0	4.5	0.0	0.0	2.8	0.0	42.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CHA	0.0	0.0	0.0	0.0	0.0	62.3	0.0	4.9	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAL	5.9	0.0	0.0	0.0	0.0	0.0	0.0	35.7	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROW	15.8	2.3	0.0	0.0	1.3	3.5	0.4	10.2	0.2	16.5	0.0	1.6	0.0	0.0	0.5	10.5	0.0	2.9	0.0	1.8	5.0	1.1	32.6	0.0	0.0	0.0	78.9	0.0	12.4	0.0	0.0
AVE	15.9	0.8	0.0	0.0	2.1	2.9	2.0	2.8	0.6	3.7	0.0	0.9	0.1	1.6	0.4	6.8	0.1	9.3	0.0	7.4	12.7	6.4	12.0	0.0	0.0	0.0	19.6	0.0	10.7	0.0	0.0

Appendix A to Chapter Two

Bilateral NTB Coverage Ratio in 1994, upper right panel
(In percentage)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW	AVE
USA	0.7	0.0	0.0	16.9	1.8	4.7	0.0	0.0	0.0	0.0	39.1	1.7	3.3	0.0	0.0	0.0	23.5	0.0	0.0	0.0	2.4	0.0	13.7	0.0	0.0	0.0	0.7	0.0	0.0	0.0	10.9	4.1
SIN	0.3	0.0	0.0	0.5	3.4	0.1	0.0	0.0	0.0	0.0	15.9	1.2	0.7	0.0	0.0	0.0	22.1	0.1	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	4.5	0.0	0.0	0.0	11.3	7.3
SWI	0.4	0.0	0.0	1.0	4.7	0.3	0.0	0.0	0.0	0.0	15.0	2.8	0.5	0.0	0.0	0.0	47.9	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	1.3	0.0	0.0	0.0	3.4	4.0
HK	1.6	0.0	0.0	8.2	19.8	1.9	0.0	0.0	0.0	0.0	16.1	5.6	7.1	0.0	0.0	0.0	13.9	0.1	0.0	0.0	0.0	0.0	36.0	0.0	0.0	0.0	27.9	0.0	0.0	0.0	7.8	17.6
JAP	0.6	0.0	0.0	0.1	6.6	0.0	0.0	0.0	0.0	0.0	16.9	33.7	2.3	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	10.6	6.8
NOR	0.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	16.4	0.6	3.1	0.0	0.0	0.0	19.2	0.0	0.0	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	8.5	5.3
ICE	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	11.5
CAN	0.1	0.0	0.0	5.1	0.4	8.0	0.0	0.0	0.0	0.0	49.4	0.4	1.2	0.0	0.0	0.0	67.9	0.0	0.0	0.0	0.1	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	7.4
AUS	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	30.5	0.0	4.9	0.0	0.0	0.0	29.4	0.1	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.4	0.0	0.0	0.0	13.0	5.5
EU	1.1	0.0	0.0	6.6	27.0	2.4	0.0	0.0	0.0	0.0	20.9	5.6	5.5	0.0	0.0	0.0	36.8	0.0	0.0	0.0	0.6	0.0	33.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0	12.0	2.8
ISR	2.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	21.6	0.5	3.4	0.0	0.0	0.0	61.7	0.0	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	9.5
NEW	0.2	0.0	0.0	8.5	92.3	77.9	0.0	0.0	0.0	0.0	60.3	0.0	21.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9	6.8
KOR	1.3	0.0	0.0	0.1	16.5	1.0	0.0	0.0	0.0	0.0	18.5	22.6	2.2	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	0.0	13.5	0.0	0.0	0.0	15.2	0.0	0.0	0.0	10.9	11.6
CHI	0.0	0.0	0.0	100.0	0.0	1.7	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	5.5
CZE	4.2	0.0	0.0	0.2	10.2	0.0	0.0	0.0	0.0	0.0	36.0	7.3	2.6	0.0	0.0	0.0	35.8	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.0	1.0	0.0	0.0	0.0	7.5	9.4
MAL	0.1	0.0	0.0	0.7	0.8	0.0	0.0	0.0	0.0	0.0	56.6	0.1	1.1	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	12.4	0.0	0.0	0.0	3.1	0.0	0.0	0.0	19.3	10.4
SAU	0.1	0.0	0.0	5.4	0.8	0.0	0.0	0.0	0.0	0.0	24.8	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.8
ARG	0.4	0.0	0.0	72.7	0.0	16.1	0.0	0.0	0.0	0.0	66.6	0.0	1.3	0.0	0.0	0.0	34.6	0.0	0.0	0.0	0.0	0.0	23.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	18.2
MAU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	0.0	0.0	0.0	50.0	0.0	0.0	0.0	12.5	52.9
OMA	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0	5.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	12.5	0.0	0.0	0.0	11.3	3.7
VEN	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	15.1	0.0	0.0	0.0	96.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6	10.5
URU	0.0	0.0	0.0	100.0	0.0	72.1	0.0	0.0	0.0	0.0	28.8	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.6	17.5
MEX	4.6	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	54.9	1.0	0.0	0.0	0.0	0.0	27.6	0.0	0.0	0.0	2.5	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	15.8
SOU	0.3	0.0	0.0	10.8	0.0	0.0	0.0	0.0	0.0	0.0	27.2	0.0	2.0	0.0	0.0	0.0	4.7	0.3	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.3	0.0	0.0	0.0	27.8	15.7
HUN	1.0	0.0	0.0	8.9	23.0	70.6	0.0	0.0	0.0	0.0	60.1	4.1	0.4	0.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0	0.0	23.4	0.0	0.0	0.0	4.3	0.0	0.0	0.0	9.7	12.5
COL	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	98.3	0.5	0.0	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.1	0.0	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	19.7
THA	0.4	0.0	0.0	0.2	0.0	0.5	0.0	0.0	0.0	0.0	63.5	1.3	0.8	0.0	0.0	0.0	29.5	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0	0.0	3.0	0.0	0.0	0.0	19.5	13.3
COS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	2.6
BRA	1.5	0.0	0.0	7.5	4.1	0.8	0.0	0.0	0.0	0.0	18.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9	15.5
GAB	7.3	0.0	0.0	37.2	0.0	2.2	0.0	0.0	0.0	0.0	66.6	0.0	0.1	0.0	0.0	0.0	33.9	0.0	0.0	0.0	0.2	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	23.2
TRI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	64.6	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.6	11.1

Appendix A to Chapter Two

Bilateral NTB Coverage Ratio in 1994, lower right panel
(In percentage)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW	AVE
TUR	0.0	0.0	0.0	8.5	9.8	0.0	0.0	0.0	0.0	0.0	34.2	2.1	0.2	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	32.7
POL	0.8	0.0	0.0	0.2	8.9	0.0	0.0	0.0	0.0	0.0	11.9	1.0	22.9	0.0	0.0	0.0	48.6	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	15.4
ECU	0.0	0.0	0.0	93.9	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	8.7
ALG	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	2.9
TUN	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	38.1	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0	44.8
PER	0.0	0.0	0.0	36.7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	28.7	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	10.8
DOM	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	45.6
GUA	0.0	0.0	0.0	0.0	0.0	45.5	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0	0.0	0.0	1.5	0.0	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	22.4
PHI	0.6	0.0	0.0	73.2	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	2.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	32.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	26.3	11.0
PAR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.3	0.0	0.0	0.0	0.0	0.0	18.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	29.1
JAM	1.1	0.0	0.0	13.5	6.0	1.5	0.0	0.0	0.0	0.0	0.0	2.2	0.5	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	15.3	0.0	0.0	0.0	6.3	8.8
CHN	0.0	0.0	0.0	2.2	0.5	3.3	0.0	0.0	0.0	0.0	60.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	21.7
MOR	1.5	0.0	0.0	1.1	15.0	1.6	0.0	0.0	0.0	0.0	22.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.0	0.0	0.0	0.0	12.5	0.0	0.0	0.0	11.7	14.1
INE	0.0	0.0	0.0	23.5	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	6.7
BOL	0.0	0.0	0.0	100.0	97.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	29.6
EGY	1.0	0.0	0.0	6.8	3.6	0.0	0.0	0.0	0.0	0.0	71.7	7.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	24.2
SAL	0.0	0.0	0.0	0.0	0.0	26.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	52.6
SRI	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	31.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8	0.0	0.0	0.0	1.4	0.0	0.0	0.0	10.8	47.7
HON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	30.6
CAM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	8.2	18.6
NIC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	22.8
COT	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	46.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
INA	0.2	0.0	0.0	0.4	7.3	0.3	0.0	0.0	0.0	0.0	10.8	6.6	0.3	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	17.9
CER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6	3.4
CON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
KEN	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	18.1
BAN	0.0	0.0	0.0	0.0	47.3	0.9	0.0	0.0	0.0	0.0	27.2	9.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	64.7
MAD	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3	29.2
CHA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4
MAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	6.2
ROW	0.7	0.0	0.0	4.6	3.9	9.2	0.0	0.0	0.0	0.0	45.3	0.4	0.9	0.0	0.0	0.0	6.4	0.0	0.0	0.0	78.4	0.0	3.0	0.4	0.0	0.0	22.3	0.0	0.0	0.0	0.0	12.0
AVE	0.9	0.0	0.0	7.7	22.0	4.4	0.0	0.0	0.0	0.0	22.3	4.7	3.3	0.0	0.0	0.0	22.2	0.1	0.0	0.0	16.8	0.0	22.7	0.5	0.0	0.0	9.5	0.0	0.0	0.0	11.1	6.4

Appendix A to Chapter Two Bilateral Trade Flow Matrix in 1994, upper left panel
(In ten thousands US dollars)

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
USA	0	165,336	67,730	146,271	694,954	18,130	1,696	1,297,266	121,915	1,358,695	53,717	23,126	285,276	45,232	6,099	112,168	66,115	49,684	62	2,762	56,283	3,862	585,594	31,368	75,210	18,799	142,817	590	4,271	53,229	9,966
SIN	211,220	0	3,520	105,967	91,022	1,836	0	10,472	22,860	158,346	3,000	3,799	29,438	759	721	207,875	3,348	1,664	864	510	237	287	3,132	4,771	66,759	78	5,873	98	430	185	33
SWI	76,631	14,249	0	23,325	35,893	4,871	255	6,565	7,988	560,519	13,928	1,344	10,737	1,332	5,862	6,856	10,934	2,438	367	520	1,059	364	4,029	6,532	9,028	306	9,265	21	4,259	1,989	106
HK	387,322	52,970	10,805	0	107,056	4,194	104	27,133	24,688	265,109	3,871	3,429	27,961	6,257	1,330	18,355	5,303	3,688	1,275	310	1,217	738	4,408	8,617	16,571	393	13,327	170	957	656	129
JAP	1,296,870	246,397	25,121	284,491	0	10,033	617	74,839	86,380	733,262	10,180	17,933	314,462	8,784	3,028	180,646	27,398	5,669	863	6,049	4,500	769	27,150	27,550	211,802	1,019	26,391	411	3,275	6,496	518
NOR	28,740	4,899	2,533	1,605	8,149	0	1,887	16,746	1,065	349,627	1,500	349	2,017	358	858	590	1,421	672	5	30	192	16	214	347	1,710	50	2,663	19	239	233	31
ICE	2,381	2	464	7	2,237	633	0	363	9	12,166	4	77	74	7	10	1	4	0	0	0	0	0	2	35	14	0	84	0	1	3	0
CAN	1,644,230	4,213	4,637	13,459	95,589	6,353	130	0	9,550	130,815	2,152	1,976	22,409	3,694	589	4,103	4,125	3,039	27	148	8,558	224	15,062	2,584	4,440	365	11,974	15	381	5,501	1,017
AUS	35,048	27,707	2,766	19,809	119,816	577	540	9,301	0	57,273	385	37,025	47,317	1,238	183	17,754	2,130	1,203	612	767	91	33	719	5,096	13,024	4	2,371	0	34	160	49
EU	1,471,595	170,672	726,483	221,529	473,480	257,292	12,332	167,435	149,018	13,381,628	156,818	30,155	179,991	31,775	198,500	113,559	108,736	67,245	8,398	16,595	22,303	8,014	72,798	126,794	118,740	4,616	164,876	6,084	96,747	27,223	3,825
ISR	64,699	2,393	3,492	10,321	14,358	439	5	1,769	2,848	71,471	0	314	3,311	1,131	419	48	0	855	53	0	211	139	502	2,190	2,634	89	1,466	4	509	741	13
NEW	14,094	1,942	505	4,335	22,732	96	2	2,291	27,991	21,340	20	0	7,196	587	43	2,952	1,071	272	203	91	515	12	739	395	1,950	41	465	0	13	24	73
KOR	243,750	65,098	4,332	106,313	172,784	6,254	192	23,686	16,733	166,477	4,235	2,343	0	6,024	1,598	32,503	11,172	4,143	273	1,123	1,090	567	8,852	6,043	24,912	611	14,695	80	1,654	2,619	330
CHI	24,358	1,477	698	918	30,357	492	2	1,317	672	39,940	42	173	9,897	0	21	1,193	604	5,810	10	120	1,296	555	2,382	1,042	1,722	152	11,977	0	10	2,008	11
CZE	4,754	1,278	3,570	669	1,530	799	58	614	462	155,941	455	62	562	54	0	128	195	236	3	5	13	40	132	258	623	37	193	3	511	333	19
MAL	155,839	162,960	1,352	37,384	88,381	633	13	6,488	10,801	103,598	0	2,094	21,774	716	342	0	3,381	731	393	455	181	63	2,667	2,575	29,544	8	2,305	6	253	150	28
SAU	88,980	30,621	2,354	3,641	97,303	59	0	3,657	3,273	97,114	0	1,807	48,763	50	13	2,270	0	165	42	1,518	7	236	39	2,088	5,771	0	12,667	0	0	11	1
ARG	20,352	911	1,877	2,954	4,939	313	0	1,074	436	47,377	577	127	1,482	14,790	94	2,427	102	0	161	58	3,207	6,784	1,859	3,104	1,379	290	60,941	10	99	2,525	53
MAU	0	50	183	115	98	12	1	97	29	13,548	1	3	5	2	1	6	1	2	0	0	0	0	1	64	12	0	0	1	3	0	0
OMA	2,180	2,266	10	1,276	18,532	1	0	5	64	637	0	470	9,388	0	0	23	634	0	0	0	2	0	0	77	6,879	0	0	0	0	0	0
VEN	100,600	6	12	67	3,205	87	0	4,401	4	18,100	15	0	375	1,661	0	11	2	390	0	0	0	133	1,972	11	24	993	14,712	0	0	14,832	271
URU	1,372	60	102	597	239	70	1	210	46	4,871	587	0	117	413	48	74	120	2,774	0	0	112	0	172	42	60	8	8,328	1	6	274	1
MEX	718,162	1,019	3,283	2,242	9,895	189	5	40,147	803	39,913	88	80	1,855	6,628	55	161	158	4,326	1	15	3,738	733	0	151	994	1,460	9,683	0	13	5,511	118
SOU	18,107	2,356	7,824	5,289	16,033	1,446	22	1,825	3,720	81,682	1,932	524	5,516	622	183	1,901	879	1,183	1,758	44	201	77	332	0	1,909	9	2,289	67	66	128	20
HUN	103,039	80,537	4,767	29,075	98,876	890	46	6,162	8,225	89,248	1,541	1,157	9,062	421	767	19,373	5,747	452	241	244	59	29	936	2,208	0	44	1,071	360	291	142	32
COL	14,030	40	408	205	314	98	6	456	15	8,375	61	1	22	167	120	2	2	40	0	7	121	0	152	8	6	0	77	0	21	93	11
THA	98,597	3,380	4,311	4,067	34,349	1,511	21	6,699	3,329	138,473	373	554	9,571	13,301	704	2,913	3,881	45,429	189	157	4,743	8,417	6,105	2,676	4,702	916	0	27	1,407	4,890	697
COS	15,575	157	3	105	1,147	69	0	4	93	5,699	136	0	1,147	0	0	26	0	0	0	0	0	0	7	15	53	0	162	0	0	1	0
BRA	4,603	105	1,859	153	860	371	11	258	224	74,770	424	15	106	30	52	89	1	83	6	10	13	14	46	176	104	0	294	0	0	19	1
GAB	39,492	76	629	951	3,982	412	7	2,125	120	27,266	110	19	542	1,818	134	25	53	606	2	0	9,622	101	1,125	18	103	1,010	1,546	1	15	0	108
TRI	11,166	22	1	8	22	17	0	237	6	2,687	0	12	83	201	0	0	1	30	0	0	297	0	590	2	0	46	490	0	0	594	0

Bilateral Trade Flow Matrix in 1994, lower left panel

	USA	SIN	SWI	HK	JAP	NOR	ICE	CAN	AUS	EU	ISR	NEW	KOR	CHI	CZE	MAL	SAU	ARG	MAU	OMA	VEN	URU	MEX	SOU	HUN	COL	THA	COS	BRA	GAB	TRI
TRI	11,166	22	1	8	22	17	0	237	6	2,687	0	12	83	201	0	0	1	30	0	0	297	0	590	2	0	46	490	0	0	594	0
TUR	17,220	1,759	2,421	2,383	2,156	680	26	1,339	486	126,984	2,691	118	1,129	89	952	1,167	5,088	78	43	188	188	27	96	700	623	7	313	15	1,500	42	13
POL	6,671	714	1,997	472	494	1,876	213	799	182	176,030	202	44	716	67	10,248	360	419	217	1	10	84	44	291	159	987	58	1,391	1	2,767	202	10
ECU	21,586	15	177	44	1,948	64	3	1,005	17	10,561	33	218	3,119	2,095	223	23	0	1,010	1	0	298	184	743	18	10	0	526	0	0	2,750	2
ALG	15,566	214	542	0	717	159	0	2,351	0	59,300	0	0	1,337	0	1	0	1	185	0	1	0	0	0	0	0	0	2,237	0	0	0	0
TUN	751	12	496	4	178	48	8	27	27	47,409	0	1	42	0	11	37	169	6	0	9	53	22	3	45	0	0	164	6	13	0	0
PER	10,901	147	1,832	347	4,998	325	0	849	117	17,322	84	23	1,197	1,572	152	882	33	356	1	0	1,676	32	1,015	208	172	103	2,210	0	179	1,322	6
DOM	35,512	5	43	15	375	6	1	532	8	3,287	0	2	62	3	27	0	0	10	0	0	33	0	25	2	3	0	16	0	0	26	32
GUA	7,303	48	121	3	609	28	0	288	15	3,291	8	5	17	212	11	4	213	11	0	0	418	0	480	44	1	1,101	9	0	2	75	15
PHI	63,249	9,724	363	7,570	28,150	114	1	2,031	1,498	30,262	90	246	4,540	226	17	3,269	647	67	35	38	21	10	338	240	7,982	2	177	0	31	17	2
PAR	378	4	25	54	44	0	0	4	0	1,837	26	0	18	354	1	10	2	1,184	0	0	384	104	11	22	35	0	4,337	0	0	79	1
JAM	264,247	31,601	4,411	377,460	286,966	2,705	78	17,197	17,450	203,139	1,439	2,584	63,796	3,559	1,243	13,039	7,417	3,051	543	259	49	345	2,118	5,910	18,210	227	3,823	28	1,097	643	122
CHN	1,515	9	403	16	3,874	163	0	367	82	33,216	2	206	167	12	26	2	659	59	21	1	4	14	650	16	58	1	553	78	10	5	0
MOR	74,298	21,406	694	19,150	130,551	413	7	3,881	9,987	75,350	0	1,661	30,214	781	300	12,757	4,507	509	132	147	148	24	1,125	863	7,742	0	1,292	17	206	227	16
INE	3,460	0	509	1	42	0	0	64	6	3,168	1	0	13	275	4	30	15	1,495	0	2	104	20	25	1	0	0	286	0	0	657	0
BOL	8,947	6	23	9	361	1,471	1	1,458	4	4,495	0	39	6	8	0	1	0	1	0	0	18	0	45	51	2	0	118	0	0	40	207
EGY	5,661	834	80	27	563	51	0	96	28	17,816	1,748	1	742	13	63	102	1,234	11	3	25	1	1	1	125	45	0	83	2	35	8	1
SAL	8,443	3	15	8	164	44	0	318	7	3,444	0	0	1	11	27	1	0	0	0	0	104	1	81	1	3	0	4	0	0	11	0
SRI	8,710	386	104	234	1,430	63	3	300	198	7,760	43	33	245	52	5	136	124	25	4	26	0	7	121	117	153	1	9	0	24	17	3
HON	3,818	0	66	1	478	2	0	130	4	2,558	0	0	120	0	37	0	0	0	0	0	3	0	12	0	0	62	0	0	6	16	25
CAM	181	35	1	82	124	0	0	69	2	11,656	0	1	513	0	0	11	10	0	49	0	2	0	44	36	163	0	95	244	0	0	0
NIC	2,472	1	79	9	81	15	0	61	0	1,716	0	0	37	1	1	0	0	7	0	0	25	0	95	1	3	187	0	0	0	13	0
COT	2,313	46	189	47	163	2	0	207	41	28,129	53	1	32	4	111	221	0	219	4	0	0	0	12	383	477	0	14	0	0	1	0
INA	61,188	9,131	2,851	18,801	29,253	1,092	51	4,020	4,120	99,951	1,868	760	5,902	345	610	5,530	0	626	1,698	1,422	129	165	1,280	1,981	6,380	0	1,404	0	41	355	64
CER	2	0	2	5	9	0	0	3	0	897	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
CON	2,235	0	1	10	145	86	0	7	1	9,528	1	0	150	0	3	8	0	1	7	0	0	0	0	9	30	0	0	0	0	0	0
KEN	1,082	89	191	188	312	62	0	139	87	7,956	132	16	49	1	1	66	0	6	169	7	0	0	12	311	141	0	16	0	0	1	0
BAN	13,453	178	105	997	1,457	217	7	735	183	16,867	0	46	86	11	14	91	0	35	0	12	0	15	73	65	200	0	108	0	0	1	0
MAD	237	85	46	25	226	0	0	3	3	2,145	1	0	2	1	4	0	1	0	92	0	0	0	1	22	5	0	0	0	0	0	0
CHA	34	0	6	0	36	0	0	1	0	1,045	0	0	0	0	10	3	0	0	0	0	0	0	0	31	24	0	0	0	0	0	0
MAL	436	0	94	0	516	6	0	18	67	1,661	0	22	0	1	47	2	0	15	1	1	0	0	0	569	3	0	0	0	0	0	1
ROW	177,058	42,063	14,574	17,521	238,267	10,771	370	16,924	19,882	734,328	2,657	2,111	57,631	3,336	6,470	7,320	5,134	1,699	599	11,261	849	794	3,481	22,832	27,936	808	20,703	9	4,101	1,680	440

Appendix to A Chapter Two

Bilateral Trade Flow Matrix in 1994, upper right panel
(In ten thousands of US dollars)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW
USA	34,169	9,279	15,785	9,454	3,236	21,655	32,538	18,291	38,281	10,704	135,589	5,395	37,921	3,190	15,345	26,771	12,124	936	12,107	613	3,334	1,853	36,100	51	566	1,246	3,577	134	117	196	217,689
SIN	1,112	1,492	29	236	226	221	45	33	19,578	279	25,415	244	12,811	0	70	917	31	3,221	178	72	0	66	16,710	0	0	494	3,522	246	0	0	72,217
SWI	8,914	5,537	465	949	1,084	665	108	172	1,915	279	7,902	1,104	4,401	91	108	2,697	137	472	130	54	37	381	6,067	3	13	337	290	55	4	10	33,811
HK	4,049	2,514	541	134	279	681	492	526	20,873	4,303	592,824	453	28,448	32	370	3,283	269	3,749	184	91	92	310	8,079	7	111	784	5,203	265	77	156	56,888
JAP	13,536	3,655	3,493	2,678	1,010	4,985	1,327	1,239	47,298	2,091	232,649	1,146	93,230	1,500	1,244	5,367	1,354	3,002	709	421	448	960	25,773	332	87	2,739	3,544	299	42	132	198,077
NOR	915	4,229	22	270	66	117	134	35	134	3	2,236	168	761	22	191	141	8	45	6	13	21	144	1,098	0	49	60	26	3	1	5	12,148
ICE	11	24	0	0	0	5	0	0	2	0	15	0	0	0	0	1	0	0	0	0	0	1	9	0	0	0	0	0	0	0	383
CAN	2,452	1,024	866	3,970	680	1,648	621	510	2,198	112	25,630	1,477	5,498	235	807	851	177	80	164	176	159	109	3,430	1	7	150	597	8	12	52	19,354
AUS	2,127	242	19	144	57	172	2	8	7,651	14	23,385	16	19,594	16	30	1,212	1	634	1	1	0	3	7,992	0	9	110	774	14	1	2	34,968
EU	194,490	222,311	8,545	70,985	65,948	14,909	4,837	4,022	29,335	3,892	211,518	67,898	85,824	3,549	3,247	66,452	2,821	6,514	4,008	7,492	1,237	16,724	126,640	1,218	6,628	12,253	6,755	3,474	1,074	877	1,868,199
ISR	1,930	736	264	0	3	233	44	109	1,710	24	1,248	69	17	22	32	310	20	252	24	17	16	38	3,460	1	0	268	2	3	1	1	12,560
NEW	1,045	38	5	688	43	548	71	89	1,396	2	3,559	256	1,819	24	129	263	73	353	0	0	10	35	800	0	0	19	149	0	0	9	10,376
KOR	6,548	4,304	1,080	458	354	2,293	1,167	927	12,449	1,755	97,282	502	25,924	180	324	4,349	545	2,206	646	103	204	339	11,317	3	14	436	5,842	61	1	26	109,116
CHI	135	201	1,250	1	31	4,095	129	125	551	824	2,520	63	2,197	1,656	30	91	84	137	51	8	7	5	965	0	1	0	0	0	0	2	8,908
CZE	1,245	13,103	95	251	536	47	41	28	59	0	1,162	119	373	14	3	675	16	20	11	4	3	5	832	0	2	39	77	2	2	0	22,156
MAL	2,603	1,035	44	105	173	143	14	21	4,614	214	18,274	189	8,389	6	108	2,616	115	1,269	3	28	0	70	8,305	1	3	159	572	83	1	5	31,389
SAU	13,830	23	81	146	450	11	0	1	17,187	0	5,509	4,500	9,528	0	0	2,493	0	153	1	9	0	0	0	0	0	0	0	69	0	0	122,520
ARG	1,933	168	670	640	234	3,473	613	214	196	6,757	3,148	459	1,665	2,070	131	1,582	171	69	38	7	16	64	1,542	0	10	560	1,066	0	0	0	12,533
MAU	1	0	0	0	0	0	0	0	0	0	3	0	8	0	2	4	0	2	0	0	0	1	72	0	0	17	4	375	0	5	707
OMA	2	0	0	1	21	0	0	0	900	0	4,972	2	14	0	0	48	0	23	0	1	0	0	298	0	1	312	1	0	0	0	12,050
VEN	62	0	2,499	0	0	3,258	1,131	1,634	7	5	0	1	19	92	488	0	363	0	220	0	1,285	74	63	0	0	0	0	0	0	0	16,938
URU	118	33	26	1	1	293	18	80	10	271	1,284	25	18	26	3	6	12	0	5	0	0	0	62	0	0	0	3	0	0	0	456
MEX	447	88	1,622	72	34	2,615	1,752	3,647	365	222	539	115	463	272	531	51	1,637	1	831	0	390	7	262	0	0	4	18	0	2	0	12,826
SOU	1,065	574	131	17	8	174	34	26	443	96	2,737	210	760	17	8	171	70	215	2	105	0	274	1,900	6	85	2,010	19	249	1	1,812	93,238
HUN	637	4,284	14	189	117	217	93	29	4,184	76	17,027	74	7,852	3	59	706	20	2,025	9	156	5	130	3,008	3	206	507	2,214	40	0	78	58,066
COL	8	105	66	8	9	71	134	1,023	2	1	243	18	0	4	98	0	1,005	2	522	10	889	1	6	0	0	0	0	0	0	0	1,336
THA	2,682	1,443	2,047	1,160	359	4,707	714	596	2,354	14,108	12,180	2,238	4,063	3,703	507	3,092	370	546	308	151	55	311	3,458	4	8	346	1,188	11	1	3	34,957
COS	204	3	0	101	19	0	0	2	3	0	1,233	534	4	0	0	12	0	0	0	22	0	0	0	0	0	0	0	0	0	0	248
BRA	692	3,712	6	287	79	80	0	0	22	0	251	264	279	1	0	253	0	8	1	3	0	0	3	0	0	0	0	1	0	0	6,435
GAB	106	246	4,561	97	10	6,277	516	387	4	34	227	200	21	265	85	5	187	5	232	4	70	7	45	0	1	6	0	1	0	0	4,396
TRI	1	2	105	0	1	91	587	13	0	1	0	0	0	0	2,228	0	28	0	20	0	19	0	8	0	0	0	0	0	0	0	6,819

Appendix A to Chapter Two

Bilateral Trade Flow Matrix in 1994, lower right
(In thousands of US dollars)

	TUR	POL	ECU	ALG	TUN	PER	DOM	GUA	PHI	PAR	JAM	CHN	MOR	INE	BOL	EGY	SAL	SRI	HON	CAM	NIC	COT	INA	CER	CON	KEN	BAN	MAD	CHA	MAL	ROW
TUR	0	2,423	20	3,426	1,204	163	49	8	191	4	1,072	866	357	1	247	2,457	5	159	2	24	0	39	460	0	2	41	58	9	0	1	53,255
POL	840	0	91	397	321	22	21	5	125	5	347	1,298	307	5	23	587	2	7	9	22	26	57	981	0	2	53	115	2	0	0	35,537
ECU	285	811	0	108	131	714	0	298	14	0	288	8	6	46	0	16	0	0	39	0	71	0	0	0	0	0	0	0	0	0	11,558
ALG	4,302	715	106	0	1,770	6	0	0	0	131	0	1,087	18	0	0	59	0	0	0	0	0	0	29	0	0	0	27	0	27	0	3,246
TUN	449	196	0	1,725	0	0	0	0	0	0	362	346	191	0	0	235	0	0	0	98	0	63	1,076	1	1	0	0	1	0	0	4,876
PER	125	332	473	8	2	0	25	91	459	14	3,804	5	288	876	3	0	22	4	16	1	1	5	26	0	2	0	9	6	1	0	1,331
DOM	1	12	10	0	6	6	0	6	7	0	0	24	0	0	0	0	0	0	48	19	2	0	0	0	0	0	0	0	0	0	3,029
GUA	1	53	19	57	0	316	180	0	0	0	349	60	0	0	21	10	2,908	75	1,239	0	790	0	1	0	0	0	6	0	0	0	581
PHI	65	38	1	44	4	19	11	3	0	15	2,376	1	1,065	4	2	61	1	58	0	0	0	2	217	0	0	3	53	0	0	2	3,276
PAR	0	9	15	0	8	77	0	2	9	0	362	4	34	7	0	0	0	0	1	0	1	0	3	0	0	0	0	1	0	0	188
JAM	4,935	3,177	280	1,316	361	1,500	384	43	6,568	1,074	0	1,172	18,363	64	215	3,106	365	1,753	78	109	7	517	7,654	8	59	1,041	6,820	161	24	7	79,619
CHN	509	317	2	548	623	1	6	0	7	0	415	0	63	0	0	36	4	0	1	46	0	215	3,396	4	34	8	0	5	0	0	4,185
MOR	1,326	939	21	980	77	124	0	17	6,289	131	22,249	261	0	5	0	864	1	781	6	31	0	46	3,970	1	28	173	917	5	4	4	19,540
INE	6	3	53	0	0	1,370	3	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	224
BOL	0	8	3	1	1	7	0	1	0	0	43	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3,350
EGY	1,098	35	0	409	294	0	0	0	4	0	74	178	33	0	0	0	0	59	0	4	0	78	581	0	39	37	135	1	0	0	5,316
SAL	2	24	14	8	0	9	0	1,638	0	0	50	0	0	10	0	0	0	2	690	0	412	0	0	0	0	0	0	0	0	0	3,401
SRI	41	128	8	3	42	19	1	7	43	0	10	3	87	1	0	219	2	0	0	0	2	0	167	0	0	11	85	0	0	0	2,486
HON	0	37	0	0	0	6	12	121	0	0	0	3	0	0	1	0	98	0	0	0	181	0	0	0	0	0	0	0	0	0	325
CAM	51	69	0	4	16	0	0	0	20	0	246	57	9	0	0	0	0	5	0	0	0	91	26	126	175	5	1	3	57	0	598
NIC	0	0	12	0	0	8	33	97	0	0	0	1	0	2	9	0	441	0	150	0	0	0	1	0	0	0	0	0	0	0	64
COT	168	899	0	106	266	0	0	0	19	0	4	328	364	0	0	7	0	0	0	142	0	0	0	5	0	0	0	4	0	0	13,631
INA	2,443	1,083	66	148	142	228	0	31	1,767	0	3,892	309	4,872	16	0	1,692	0	2,653	15	91	8	0	0	2	0	0	0	71	0	0	68,336
CER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	14	0	0	0	5	0	41
CON	9	1	0	0	3	0	0	0	0	0	34	77	0	0	0	0	0	0	0	10	0	0	0	47	0	0	0	0	0	0	2,420
KEN	18	32	2	0	23	0	0	0	43	0	14	2	31	0	0	787	0	13	0	6	0	0	0	0	0	0	0	8	0	0	7,834
BAN	222	170	0	17	2	6	0	5	93	0	451	31	91	0	0	99	0	3	1	34	5	0	0	0	0	0	0	0	0	0	3,278
MAD	0	30	0	53	18	1	0	0	0	0	17	4	0	0	0	1	0	1	0	0	0	2	29	0	0	1	0	0	0	1	381
CHA	2	9	0	0	1	0	0	0	0	0	12	2	6	0	0	3	0	0	0	0	0	0	0	14	0	0	0	0	0	0	307
MAL	4	62	0	5	4	2	0	0	1	0	0	2	1	0	0	99	0	0	0	1	0	0	0	0	0	0	0	1	0	0	423
ROW	38,256	14,148	699	2,787	4,049	448	64	1,296	6,901	27	33,033	6,261	12,940	30	225	8,076	153	1,924	1,146	909	386	42	3,848	64	1	268	1,641	752	1	529	0

Appendix B to Chapter two: UNCTAD Coding System of Trade Control Measures

The trade control measures are classified under broad categories according to their nature. Within the broad categories, the measures are further subdivided according to their characteristics.

1000 Tariff Measures
- 1100 Statutory Customs Duties
- 1200 MFN Duties
- 1300 GATT Ceiling Duties
- 1400 Tariff Quota Duties
  - 1410 Low duties
  - 1420 High duties
- 1500 Seasonal Duties
  - 1510 Low Duties
  - 1520 High Duties
- 1600 Temporary Reduced Duties
- 1700 Temporary Increased Duties
  - 1710 Retaliatory Duties
  - 1720 Urgency and Safeguard Duties
- 1800 Preferential Duties Under Trade Agreements
  - 1810 Customs Union
  - 1820 Free Trade Agreement
  - 1830 GSP
    - 1831 GSP to Developing Countries
    - 1832 GSP to LDCs
  - 1840 Other Specific Preferential Agreements
    - 1841 From developed to developed countries
    - 1842 From developed to developing countries
    - 1843 From developed to LDCs
    - 1844 From developing to developed countries
    - 1845 From developing to developing countries
    - 1846 From developing to LDCs
  - 1890 Preferential agreements n.e.s.
- 1900 Tariff Measures N.E.S.

2000 Para-Tariff Measures
- 2100 Customs surcharges
- 2200 Additional Charges
  - 2220 Stamp tax
  - 2230 Import license fee
  - 2240 Consumer invoice fee
  - 2250 Statistical tax
  - 2260 Tax on transport facilities
  - 2270 Charges for sensitive product categories

2290 Additional charges n.e.s.
2300 Internal taxes and charges leveled on imports
2310 General sales taxes
2320 Excise taxes
2370 Charges for sensitive product categories
2390 Internal taxes and charges levied on imports n.e.s.
2400 Decreed customs valuation
2900 Para-Tariff Measures n.e.s.
3000 Price control measures
3100 Administrative measures
3190 Administrative pricing n.e.s.
3200 Voluntary export price restraint
3300 Variable charges
3310 Variable levies
3320 Variable components
3330 Compensatory elements
3340 Flexible import fees
3390 Variable charges n.e.s.
3400 Antidumping measures
3410 Antidumping investigation
3420 Antidumping duties
3430 Price undertakings
3500 Countervailing measures
3510 Countervailing investigations
3520 Countervailing duties
3530 Price undertakings
3900 Price control measures n.e.s.
4000 Finance measures
4100 Advance payment requirement
4110 Advance import deposit
4120 Cash margin requirement
4130 Advance payment of custom duties
4170 Refundable deposits for sensitive product categories
4190 Advance payment requirement n.e.s.
4200 Multiple exchange rates
4300 Restrictive official foreign exchange allocation
4310 Prohibition of foreign exchange allocation
4320 Bank authorization
4390 Restrictive official foreign exchange allocation n.e.s.
4500 Regulations concerning terms of payment for imports
4600 Transfer delays, queuing
4900 Finance measures n.e.s.
5000 Automatic licensing measures

5100 Automatic license
5200 Import monitoring
5210 Retrospective surveillance
5220 Prior surveillance
5270 Prior surveillance for sensitive product categories
5700 Surrender requirement
5900 Automatic licensing measures n.e.s.
6000 Quantity control measures
6100 Non-automatic licensing
6110 License with no specific ex-ante criteria
6120 License for selected purchase
6130 License for specified use
6131 Linked with export trade
6132 For purpose other than exports
6140 License with local production
6141 Purchase of local goods
6142 Local content requirement
6143 Barter or counter trade
6150 License linked with non-official foreign exchange
6151 External foreign exchange
6152 Importers' own foreign exchange
6160 License combined with or replaced by special import authorization
6170 Prior authorization for sensitive product categories
6180 License for political reasons
6190 Non-automatic licensing n.e.s.
6200 Quotas
6210 Global quotas
6211 Unallocated
6212 Allocated to exporting countries
6220 Bilateral quotas
6230 Seasonal quotas
6240 Quotas linked with export performance
6250 Quotas linked with purchase of local goods
6270 Quotas for sensitive product categories
6280 Quotas for political reasons
6290 Quotas n.e.s.
6300 Prohibitions
6310 Total prohibition
6320 Suspension of issuance of license
6330 Seasonal prohibition
6340 Temporary prohibition
6350 Import diversification
6360 Prohibition on the basis of origin (embargo)

6370 Prohibition for sensitive product categories
6390 Prohibitions n.e.s.
6600 Export restraint arrangements
6610 Voluntary export restraint arrangements
6620 Orderly marketing arrangements
6630 Multifibre arrangement (MFA)
6631 Quota agreement
6632 Consultation agreement
6633 Administrative co-operation agreement
6640 Export restraint arrangement on textiles outside MFA
6641 Quota agreement
6642 Consultation agreement
6643 Administrative co-operation agreement
6690 Export restraint arrangements n.e.s.
6700 Enterprise-specific restrictions
6710 Selective approval of importers
6720 Enterprise-specific quota
6790 Enterprise-specific restrictions n.e.s.
6900 Quantity control measures n.e.s.
7000 Monopolistic measures
7100 Single channel for imports
7120 Sole importing agency
7170 Single channel for imports for sensitive product categories
7200 Compulsory national services
7210 Compulsory national insurance
7220 Compulsory national transport
7900 Monopolistic measures n.e.s.
8000 Technical measures
8100 Technical regulations
8110 Product characteristics requirement
8120 Marking requirements
8130 Labeling requirements
8140 Packaging requirements
8150 Testing, inspection and quarantine requirements
8160 Information requirements
8190 Technical regulations n.e.s.
8200 Pre-shipment inspection
8300 Special customs formalities
8400 Obligation to return used products
8500 Obligation to recycling or reuse
8900 Technical measures n.e.s.
9000 Miscellaneous Measures
9100 Marketable permits for sensitive product categories

9200 Public procurement for sensitive product categories
9300 Voluntary instruments for sensitive product categories
9310 Product standards
9311 Eco-labelling
9320 Voluntary agreements or covenants
9400 Product liability for sensitive product categories
9500 Subsidies for sensitive product categories

APPENDIX TO CHAPTER THREE

Table A2.1: Alternative Estimations of Trade Protection Effects on Trade Flows with Industry Fixed Effects

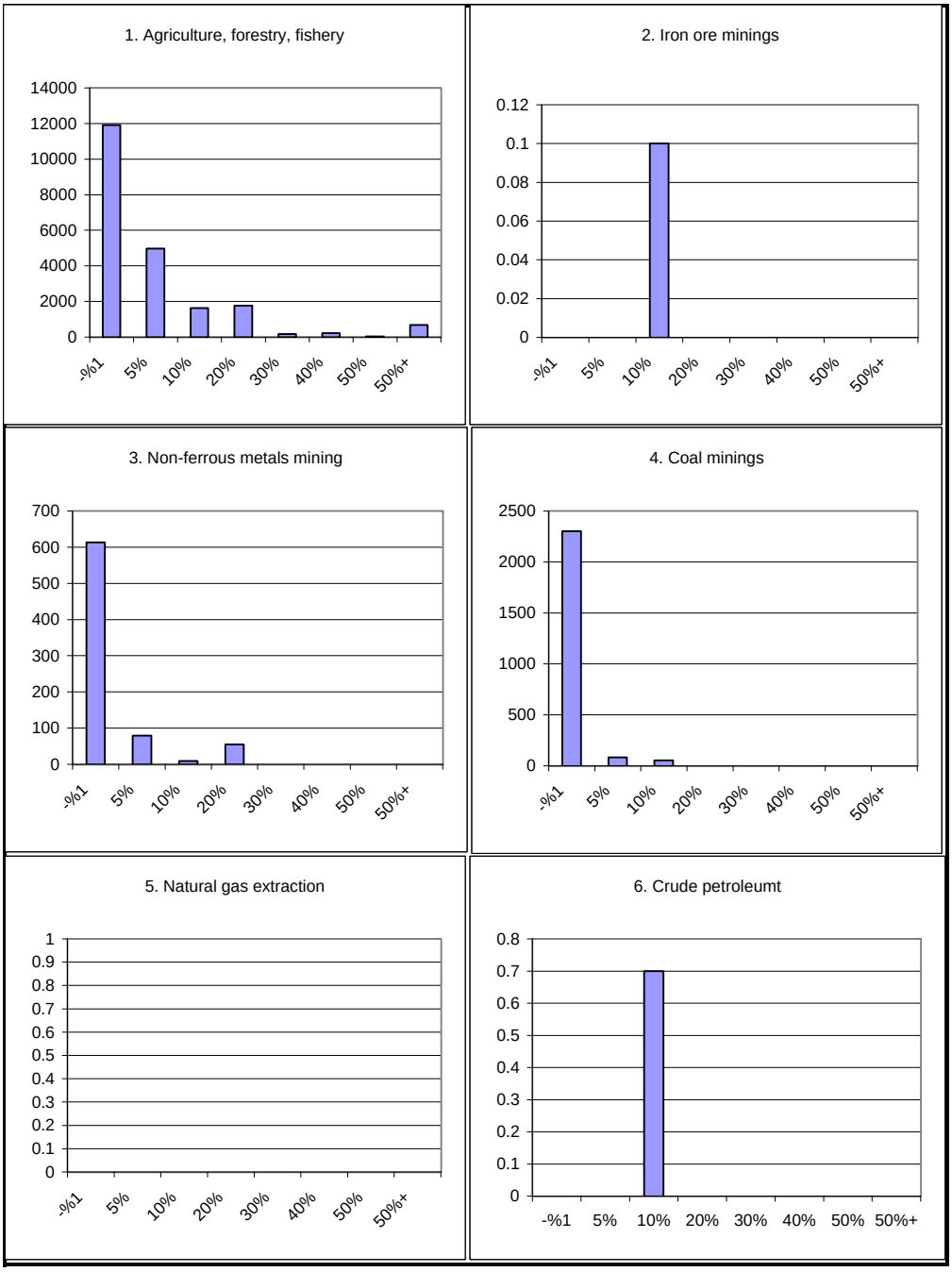
Independent Variable: Import Penetration Ratio	Equation (1)	Equation (2)
Output Share	-0.10 (-12.6)	…
GDP Share	…	0.13 (5.4)
Demand Share	…	-0.28 (-13.5)
Distance	-0.71 (-3.7)	-0.20 (-3.6)
Tariff	-1.87 (-10.7)	-2.20 (-12.3)
NTBs	-0.94 (2.3)	-1.16 (-2.0)
Adjusted R^2	0.46	0.49
No. of Observations	1675	1675

Two alternative equations were estimated:

$$\log(\frac{m_i^n}{du_i^n}) = a_n + b*\log(\frac{y_i^n}{y^n}) + d*\log(Dis\tan ce^i) + e*\log(1+TAR_i^n) + f*\log(1+NTB_i^n) + u_i^n \quad (1)$$

$$\log(\frac{m_i^n}{du_i^n}) = a_n + b*\log(\frac{du_i^n}{du^n}) + c*\log(\frac{gdp^i}{gdp^w}) + d*\log(Dis\tan ce^i) + e*\log(1+TAR_i^n) + f*\log(1+NTB_i^n) + u_i^n \quad (2)$$

Appendix A to Chapter Four:
The Distribution of the U.S. Exports in 1994
According to Tariff Rates.
(Millions of US $)



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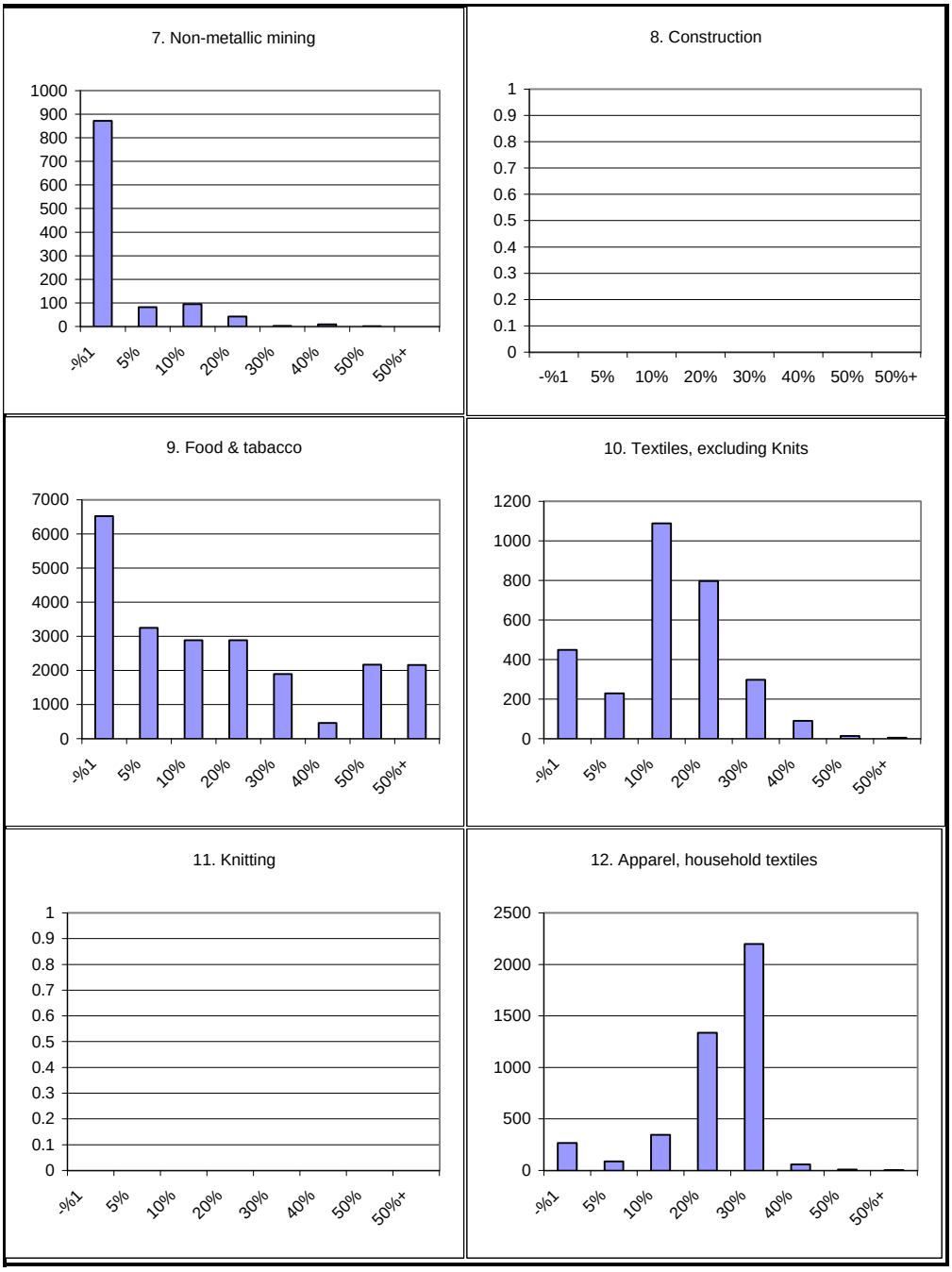

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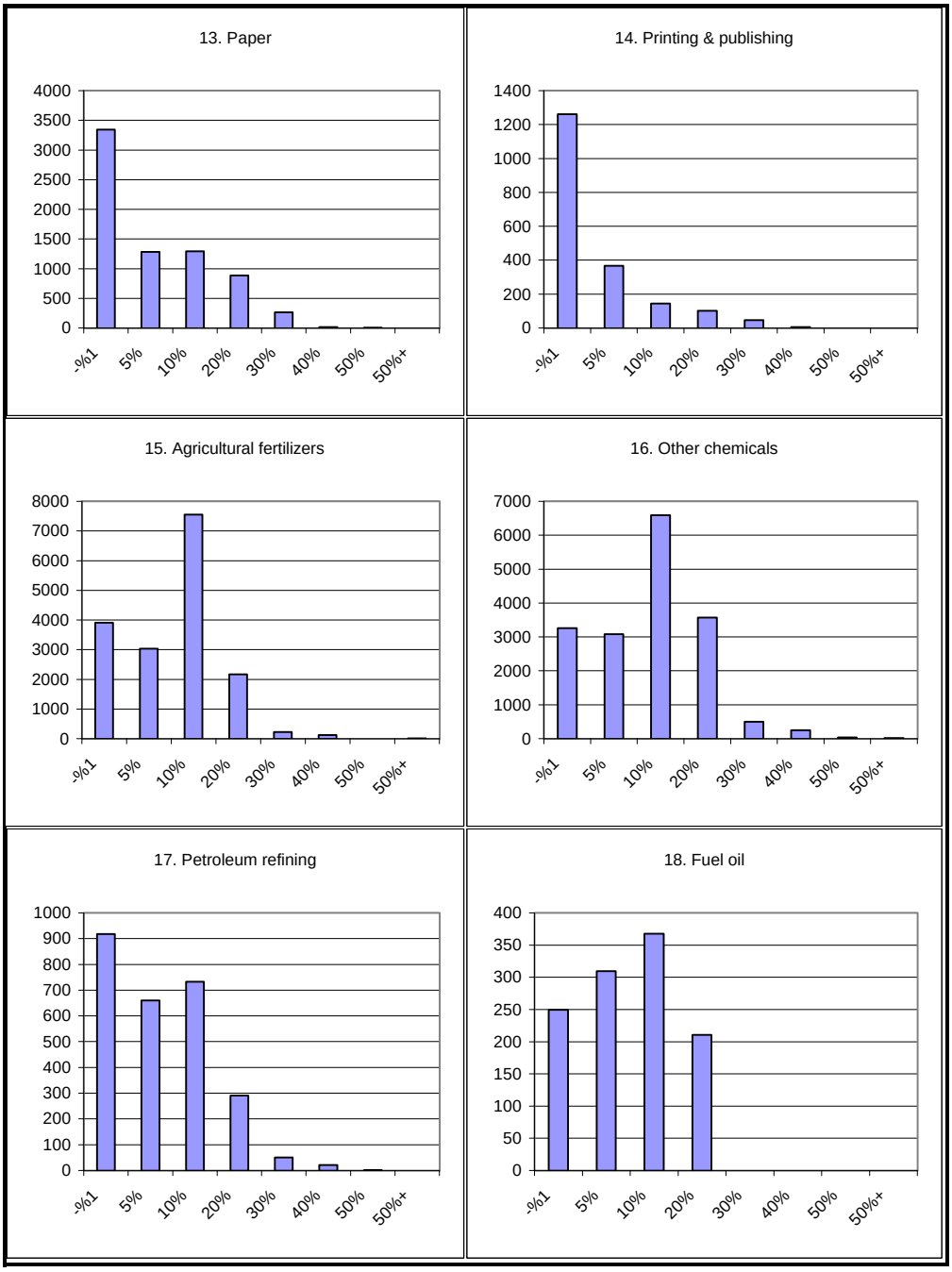

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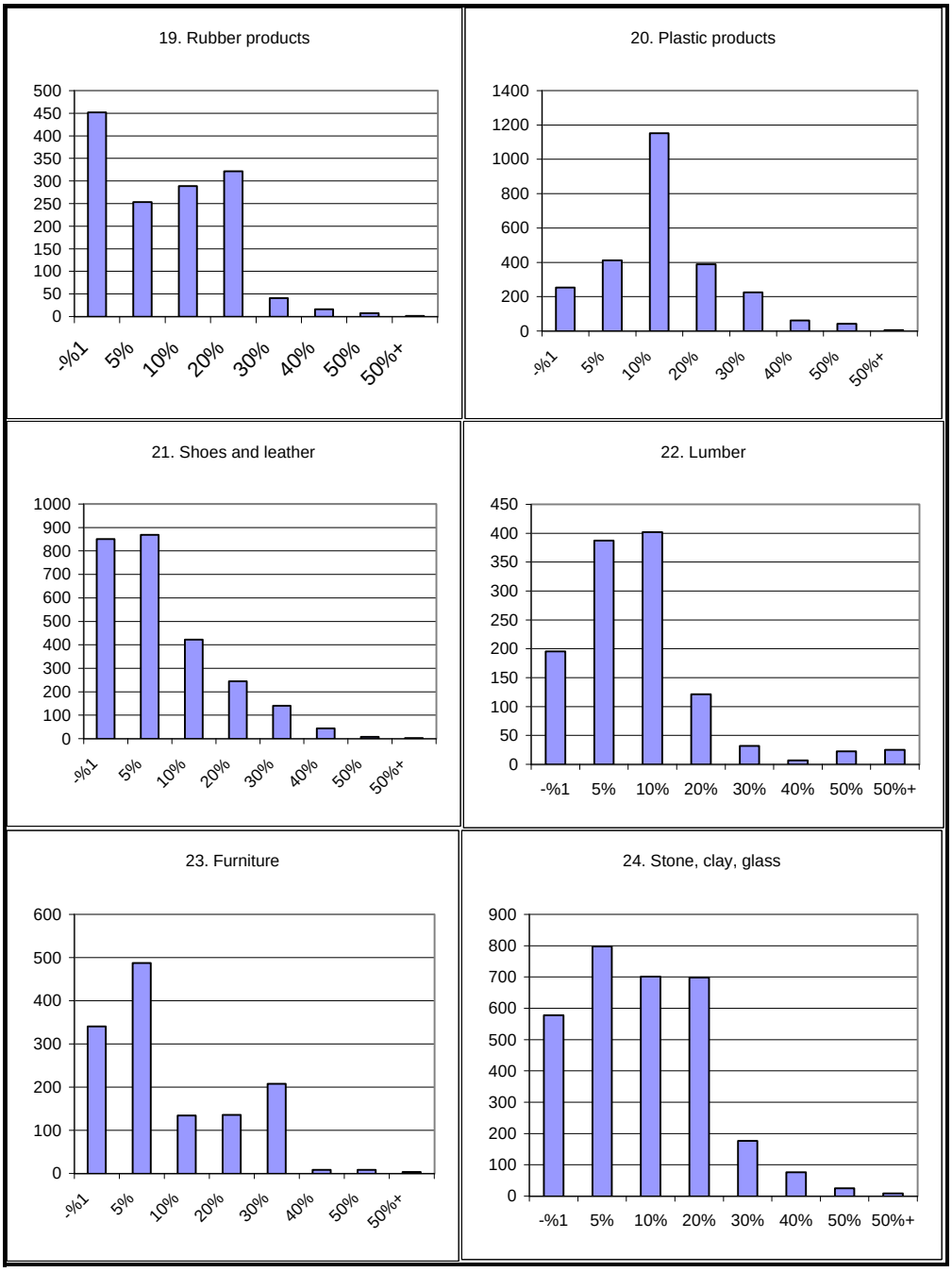

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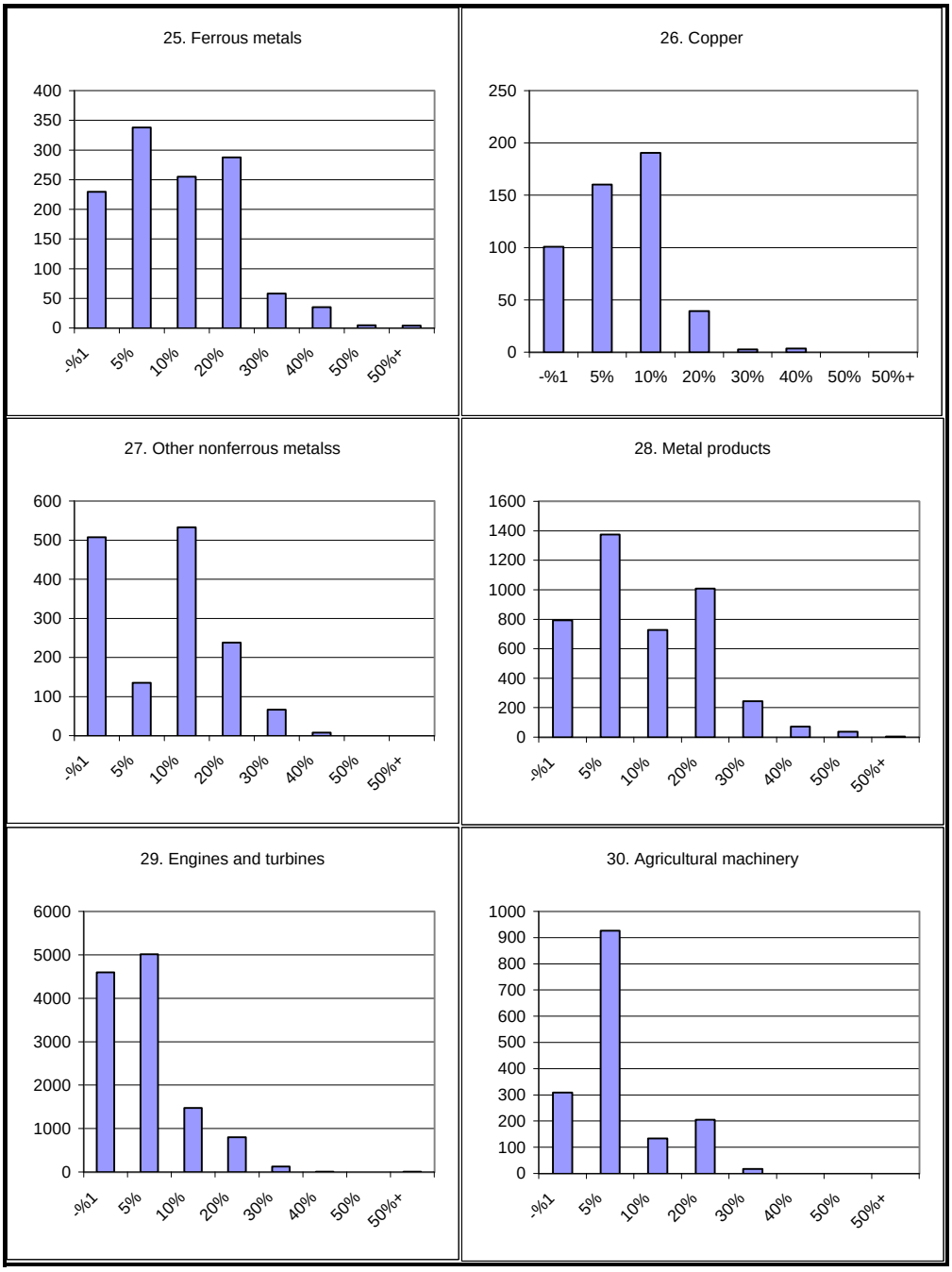

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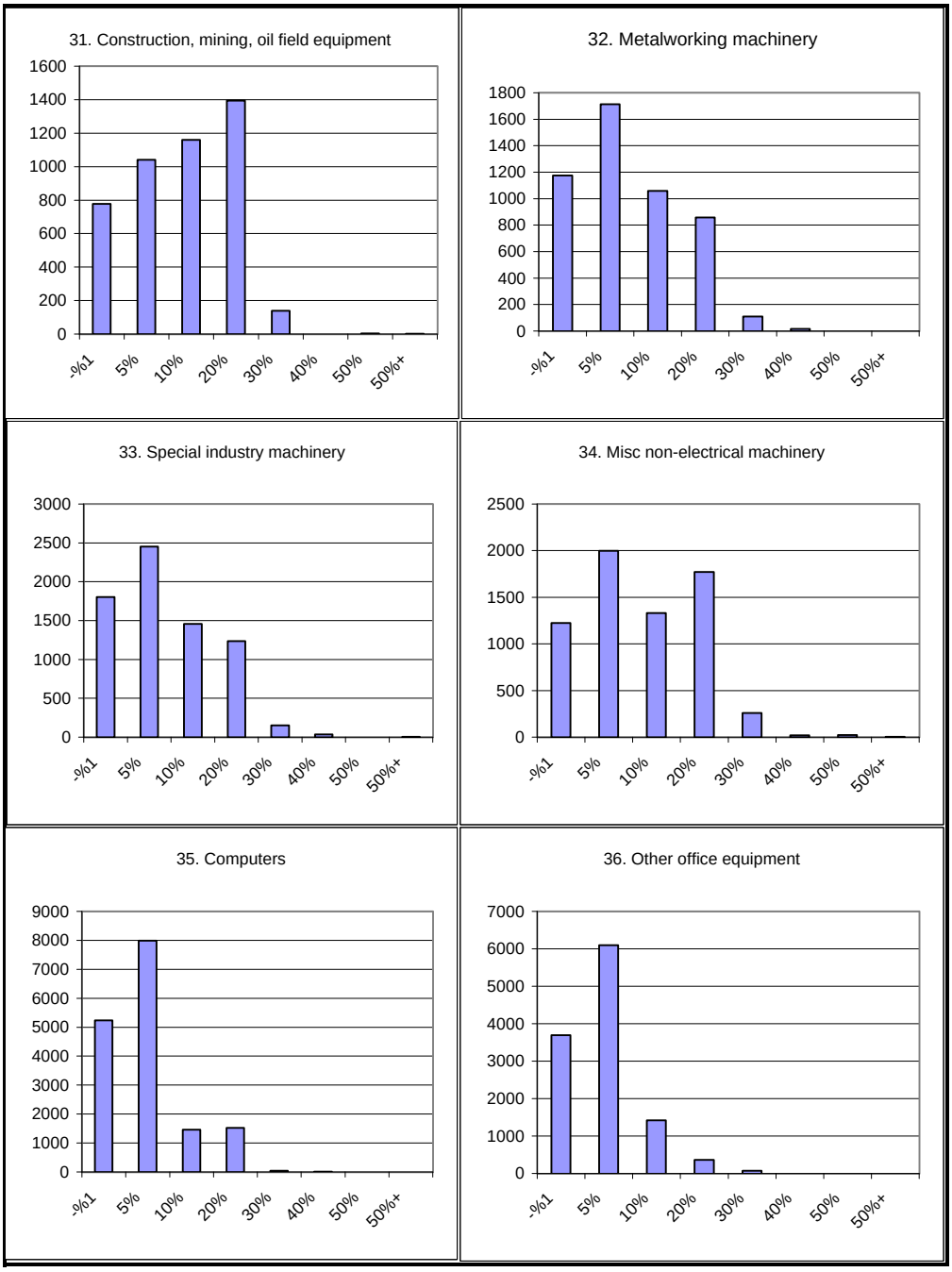

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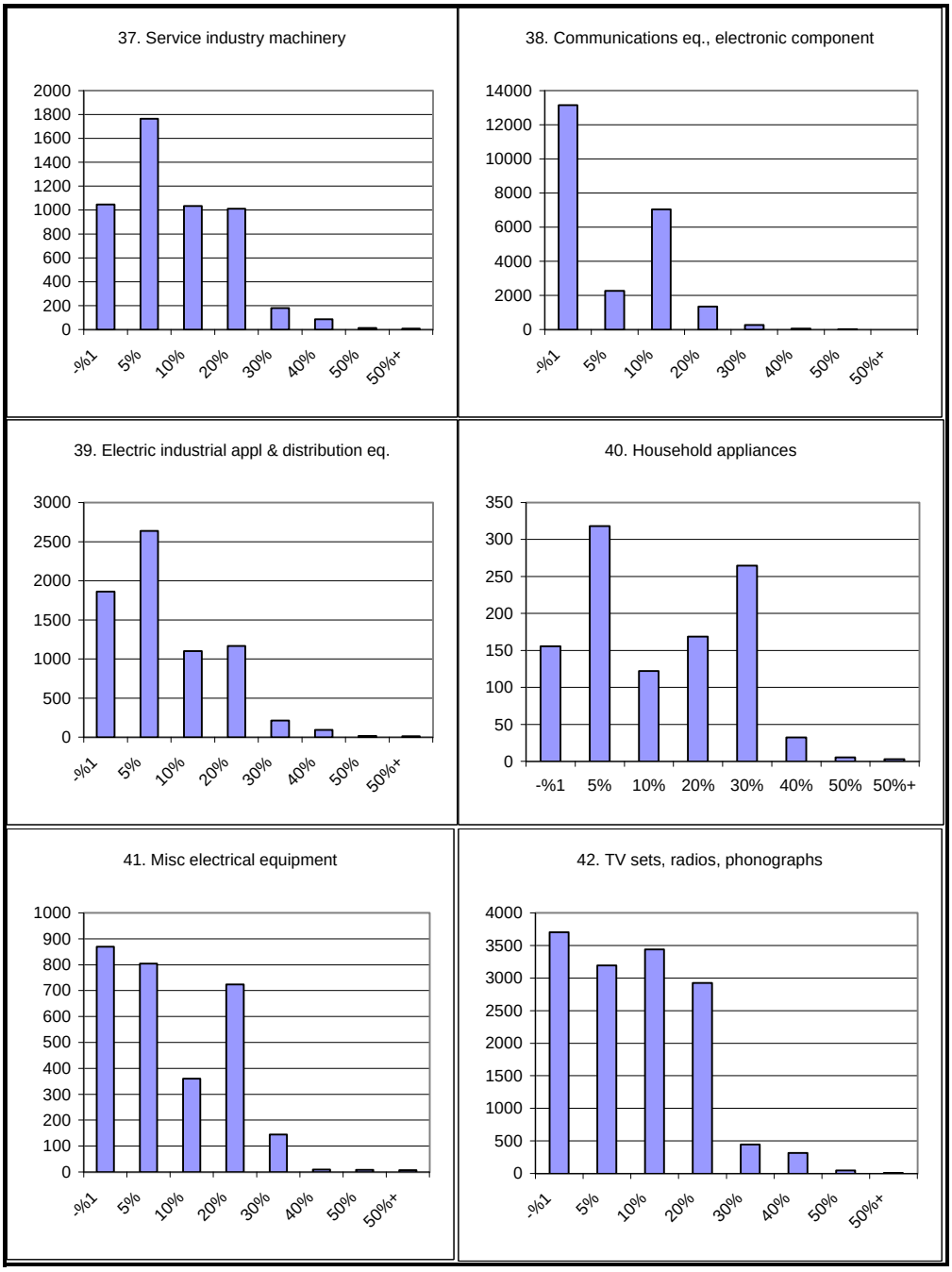

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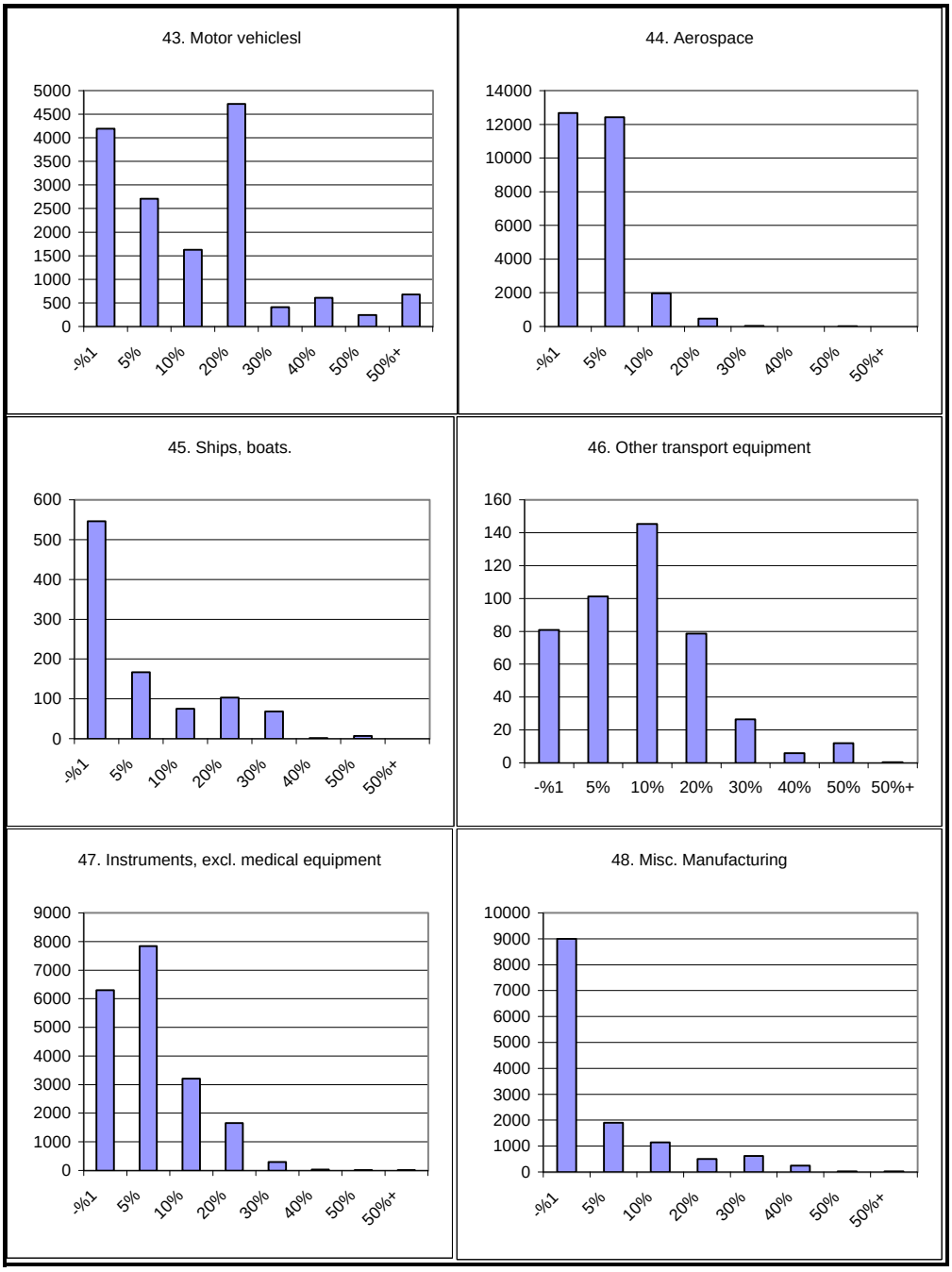

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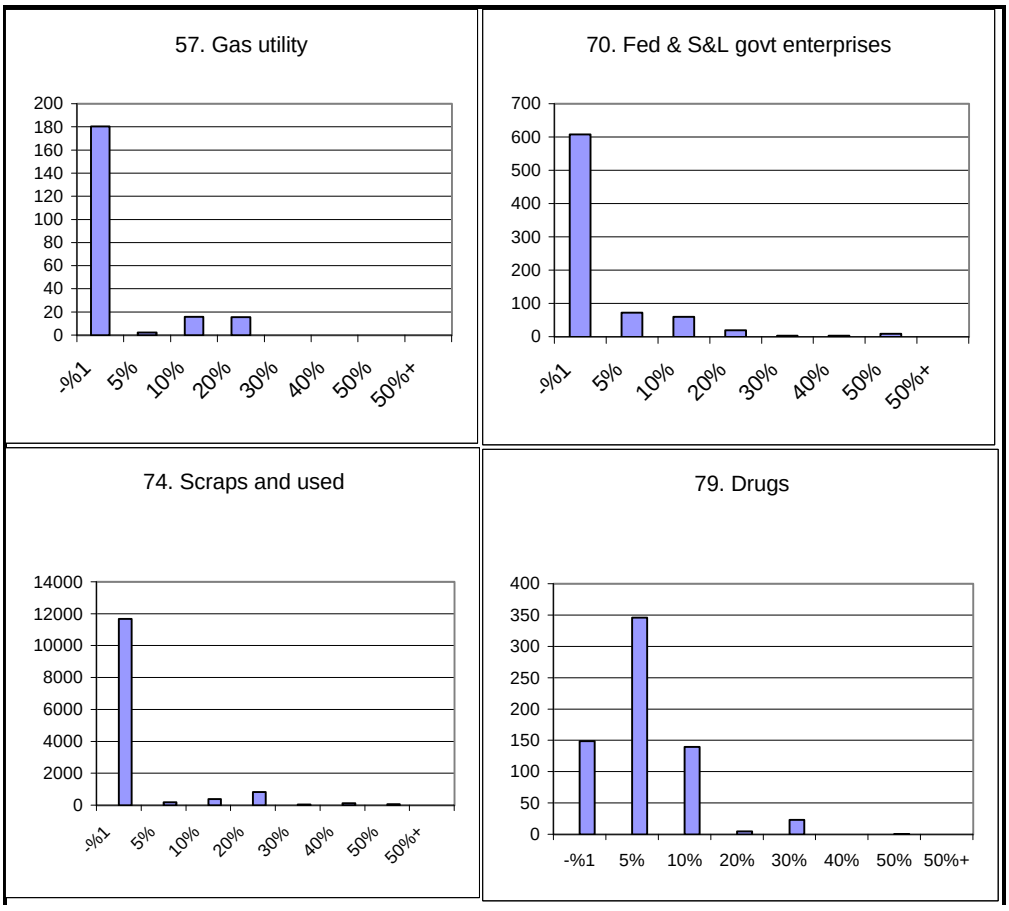

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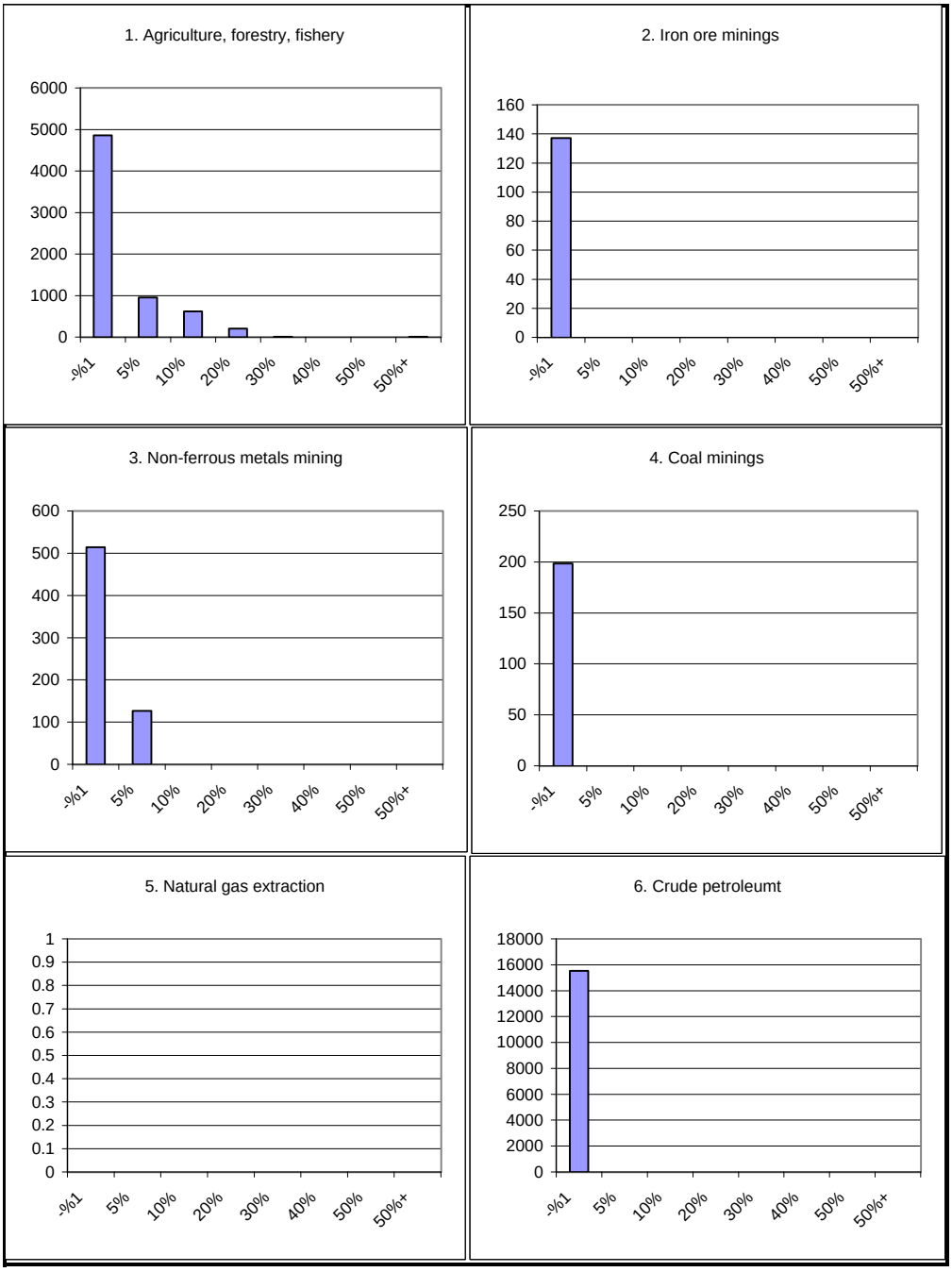

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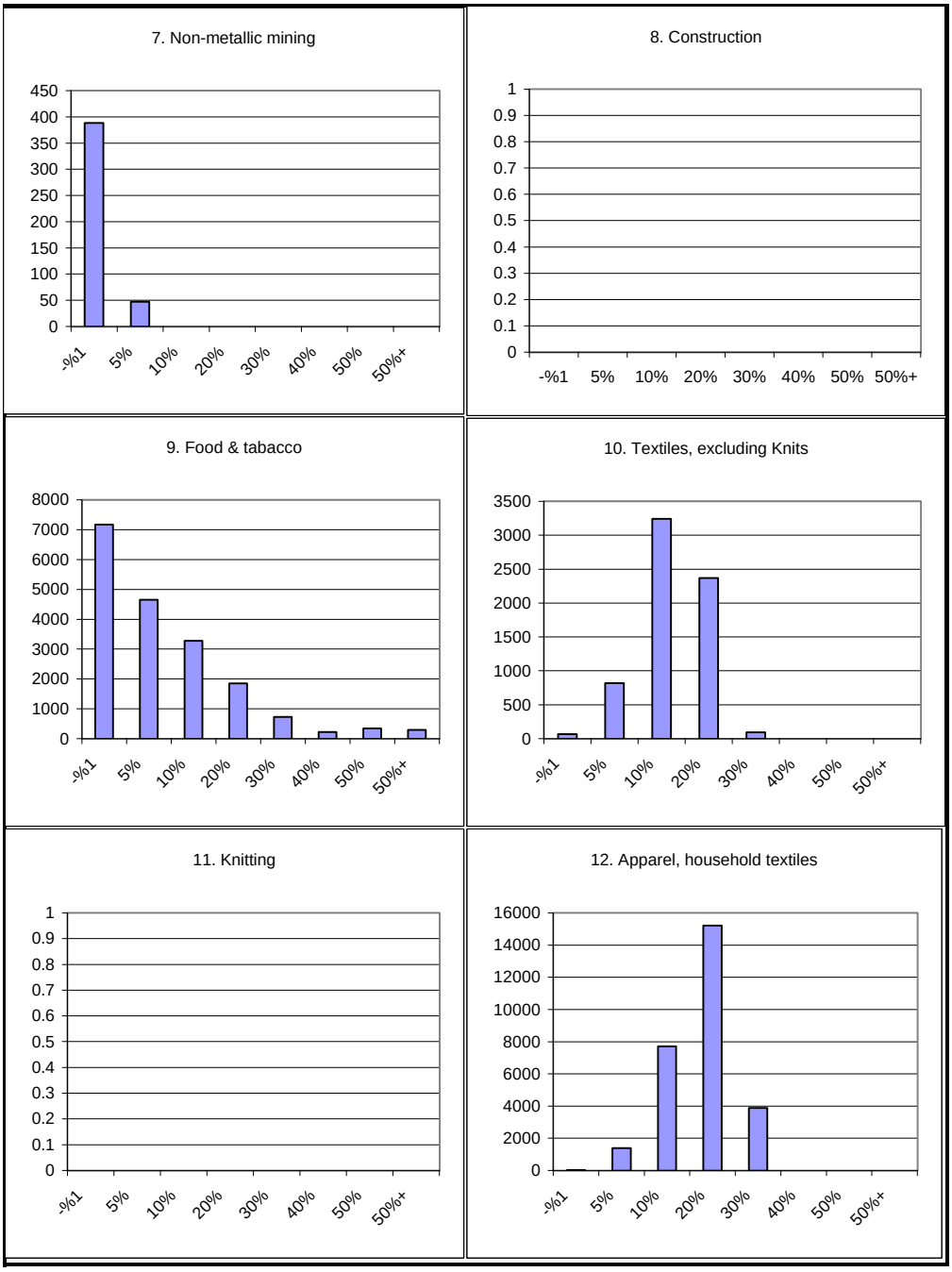

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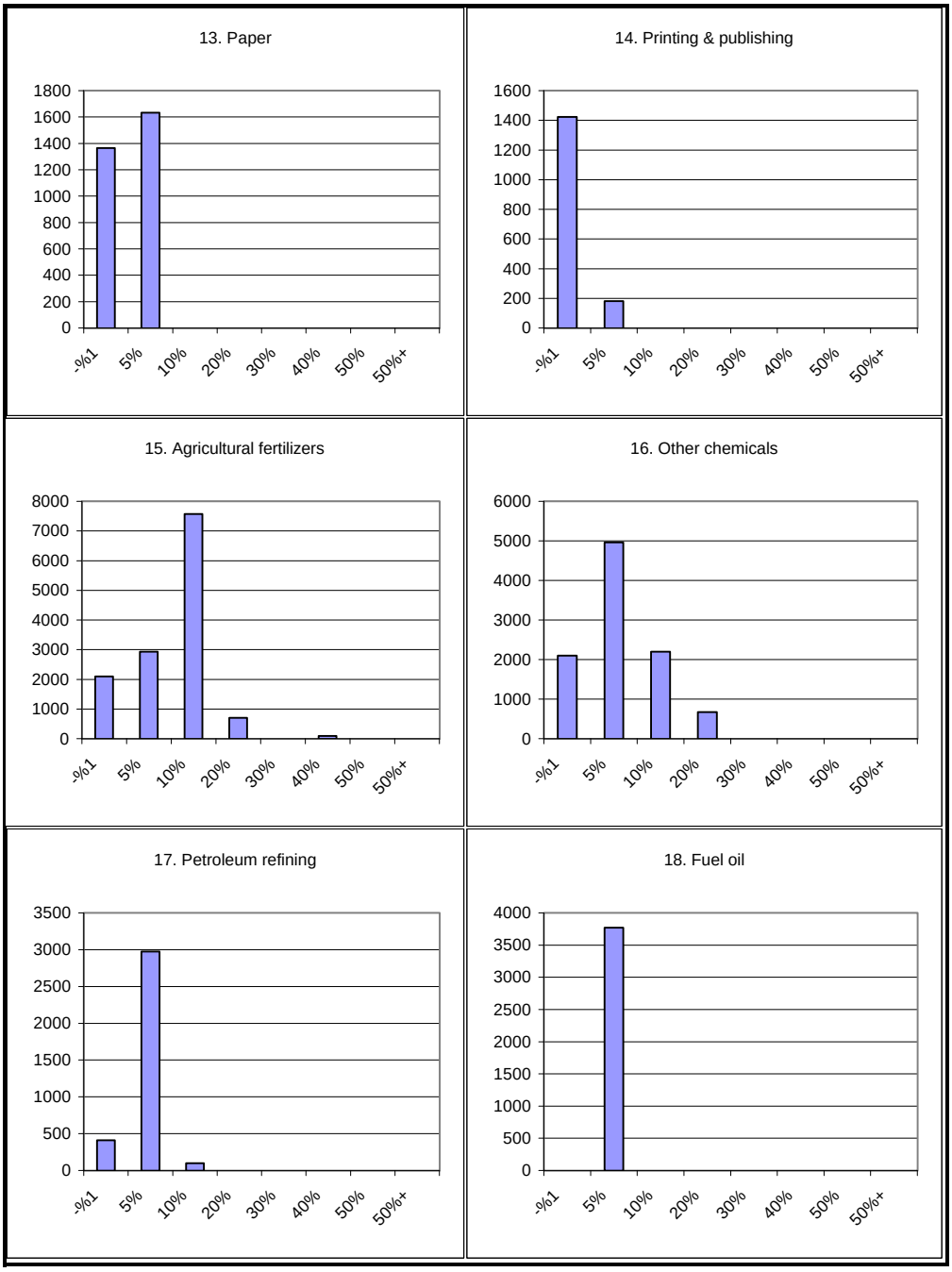

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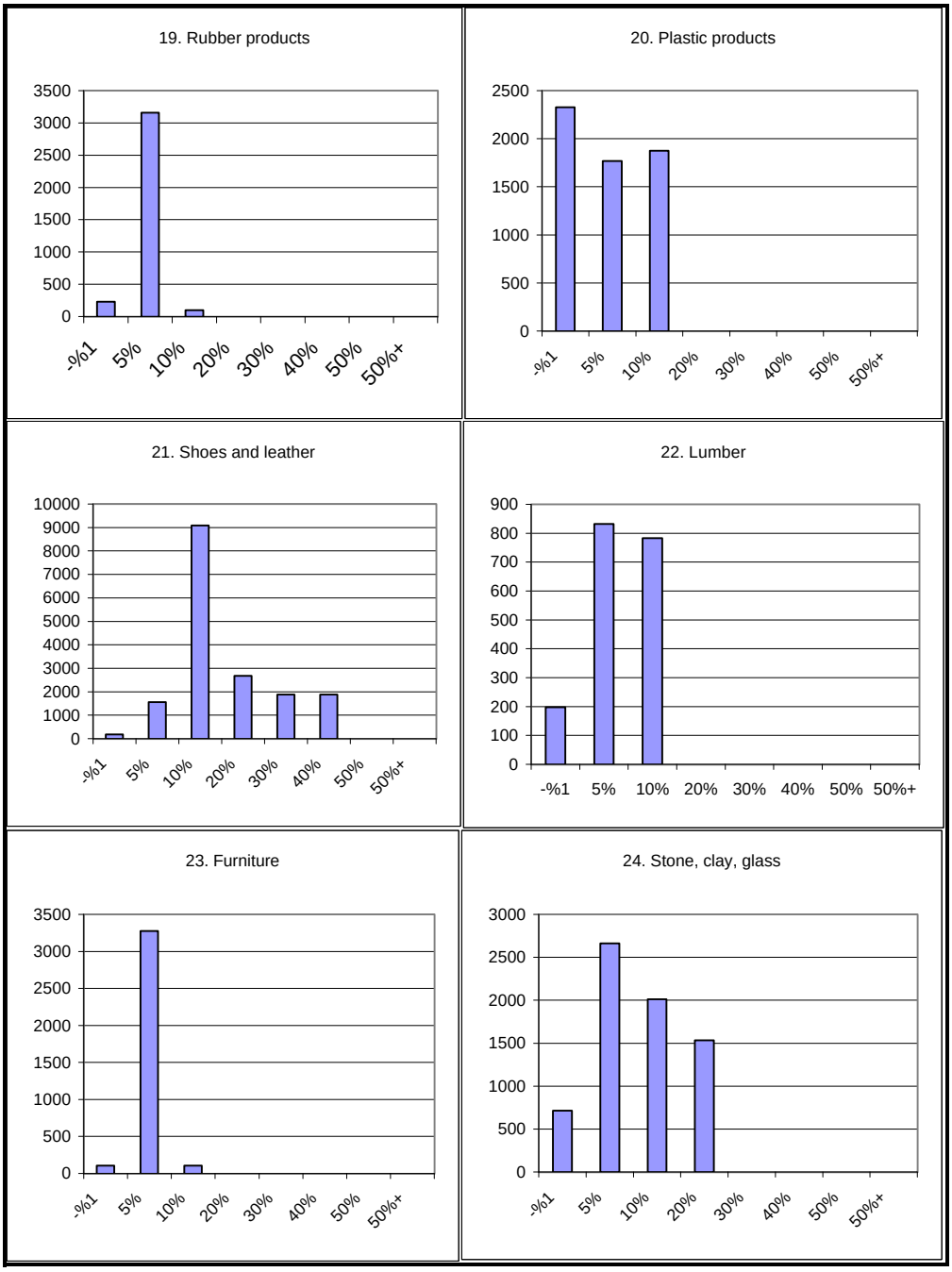

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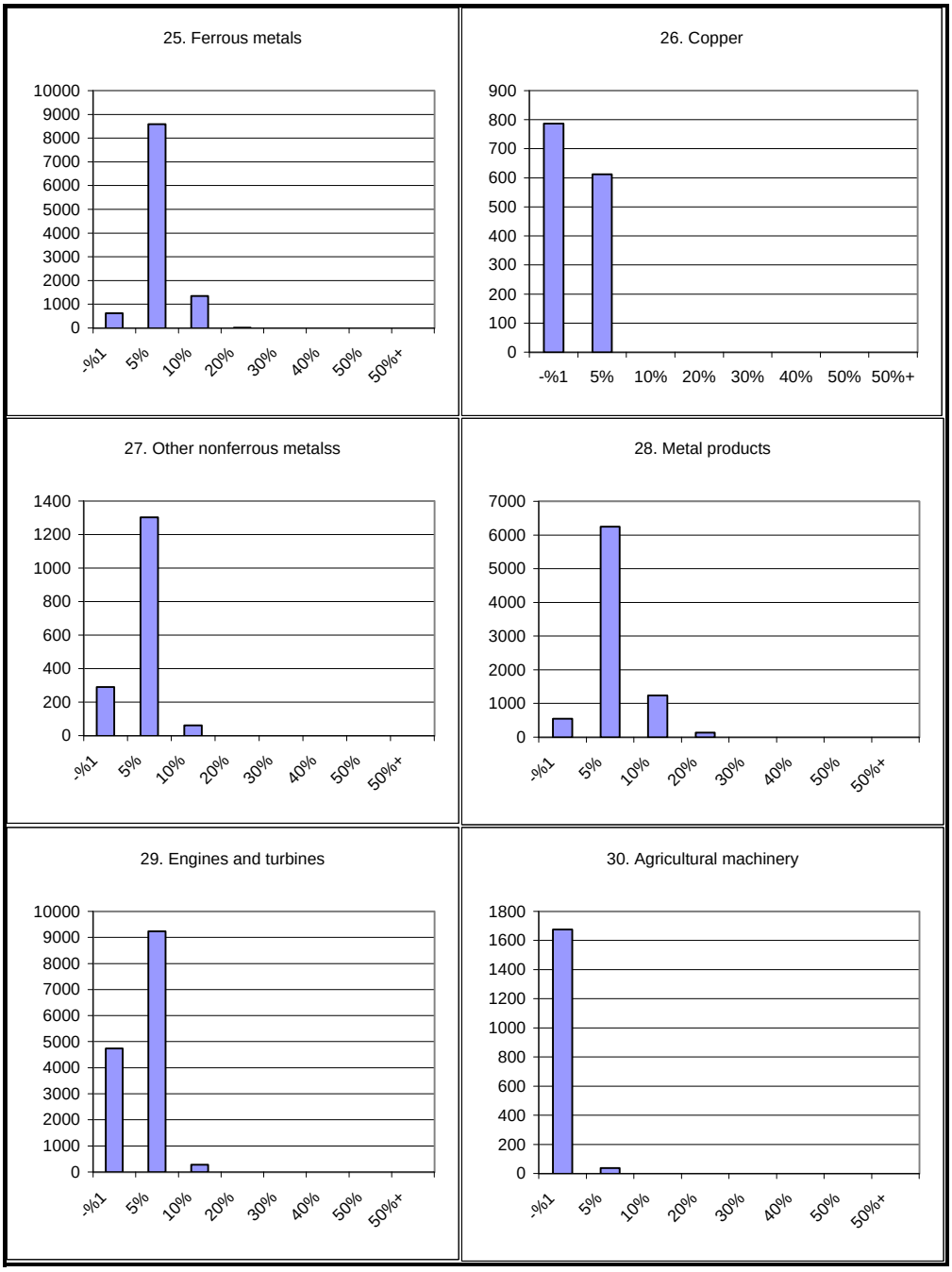

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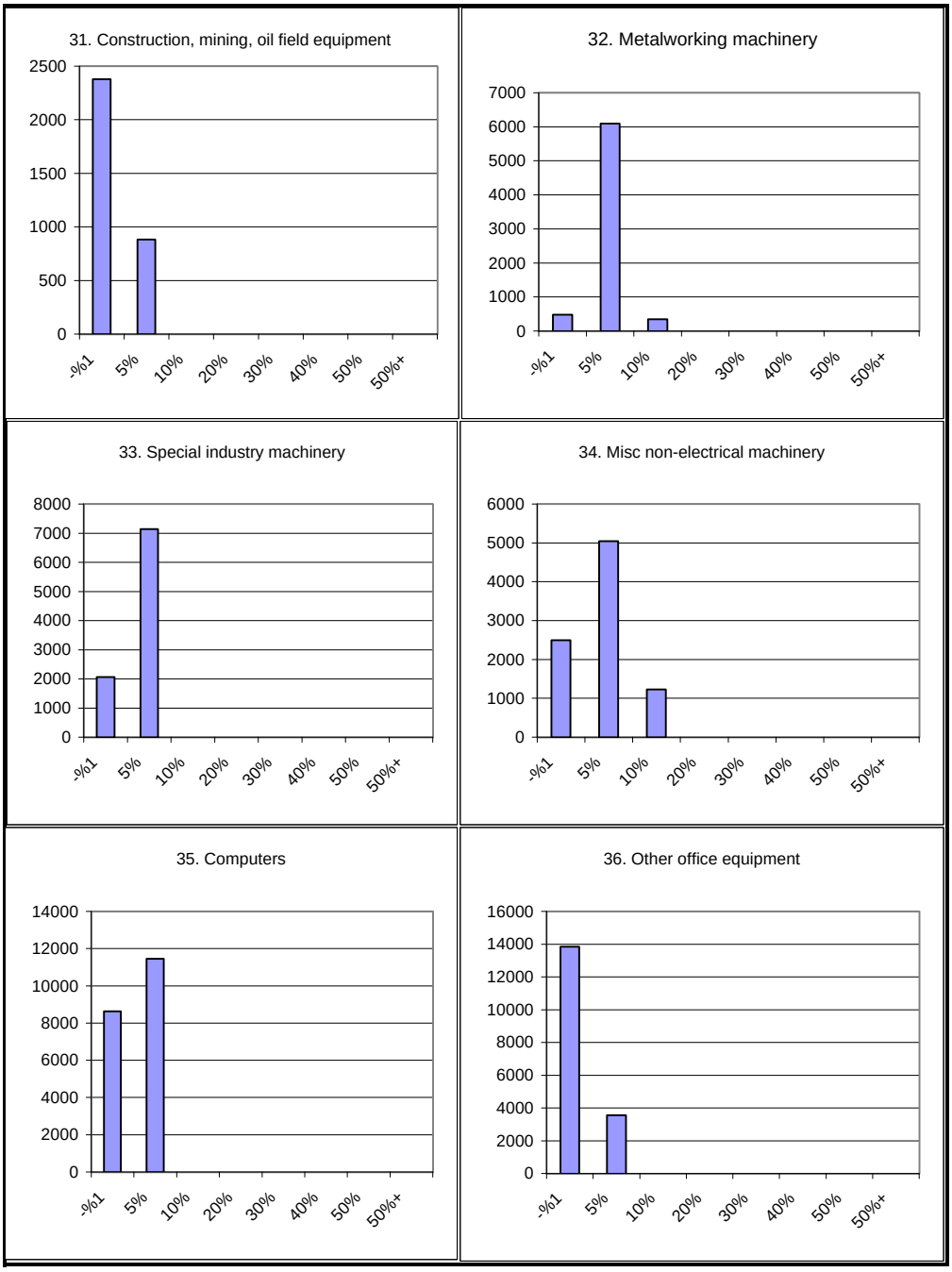

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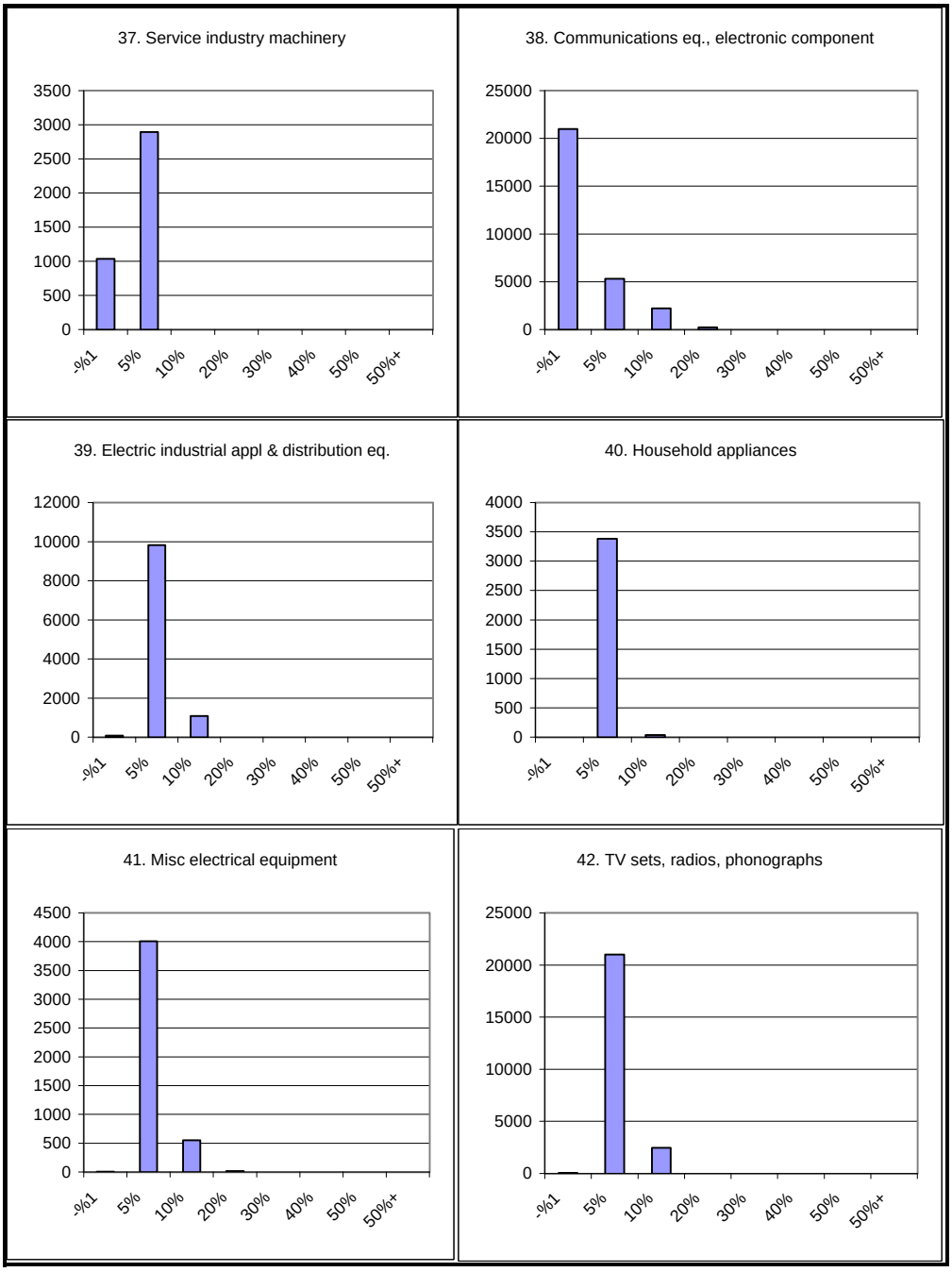

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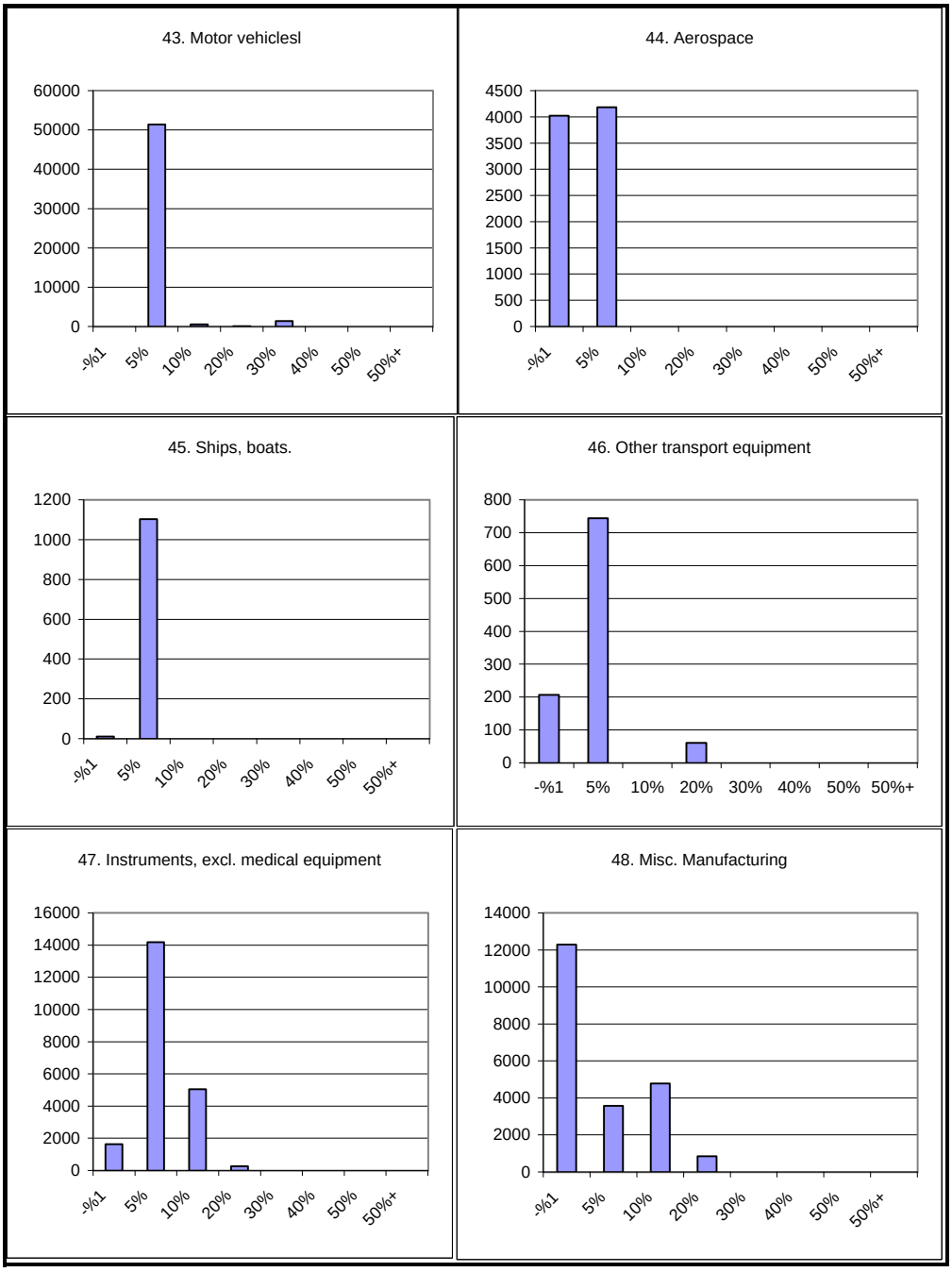

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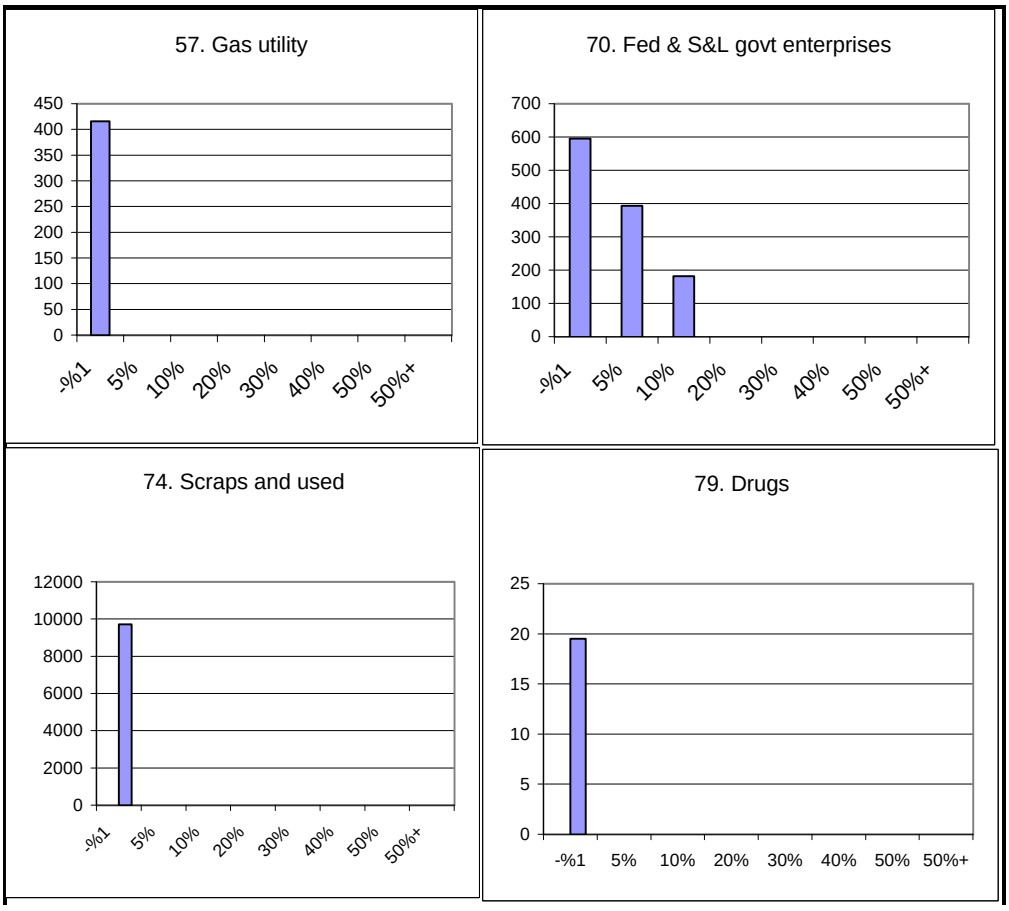

Appendix C to Chapter Four
The U.S. Imports and the Associated Trade Protection in 1994

SITC	Title	Imports ($1000's)	Tariff Rate(%)	NTB Ratio(%)
0011	ANIMALS OF THE BOVINE SPECIES,INCL.B	1,229,476	0.7	0
0012	SHEEP AND GOATS, LIVE	16,370	0	0
0013	SWINE, LIVE	77,722	0	99.9
0014	POULTRY, LIVE (I.E., FOWLS, DUCKS, G	12,674	1.5	0
0015	HORSES, ASSES, MULES AND HINNIES, LI	107,087	0	0
0019	LIVE ANIMALS OF A KIND MAINLY USED F	-	3	0
0111	MEAT OF BOVINE ANIMALS, FRESH, CHILL	1,545,864	9	0
0112	MEAT OF SHEEP AND GOATS, FRESH, CHIL	63,557	0.9	0
0113	MEAT OF SWINE, FRESH, CHILLED OR FRO	490,534	0.5	0
0114	POULTRY,DEAD & EDIBLE OFFALS EX.LIVE	6,330	5.9	0
0115	MEAT OF HORSES,ASSES,ETC.,FRESH,CHIL	4,680	0	0
0116	EDIBLE OFFALS OF ANIMALS IN HEADINGS	48,956	0	0
0118	OTHER FRESH,CHILLED,FROZEN MEAT OR E	15,927	2.6	0
0121	BACON,HAM & OTHER DRIED,SALTED,SMOKE	55,463	0.4	0
0129	MEAT & EDIB.OFFALS,N.E.S.SALT.IN BRI	3,799	4.6	0
0142	SAUSAGES & THE LIKE,OF MEAT,MEAT OFF	17,907	3.3	0
0149	OTHER PREPARED OR PRESERVED MEAT OR	512,282	3.4	0
0223	MILK & CREAM,FRESH,NOT CONCENTRATED	10,698	35.4	0.2
0224	MILK & CREAM,PRESERVED,CONCENTRATED	40,649	15.8	0.1
0230	BUTTER	3,797	31.8	0
0240	CHEESE AND CURD	530,587	22.7	0
0251	EGGS IN SHELL	26,846	0.7	0
0252	EGGS NOT IN SHELL	1,720	7.8	0
0341	FISH,FRESH(LIVE/DEAD)OR CHILLED,EXCL	628,756	0.4	37.2
0342	FISH,FROZEN (EXCLUDIND FILLETS)	495,479	0.4	0
0343	FISH FILLETS,FRESH OR CHILLED	205,251	0.3	0
0344	FISH FILLETS,FROZEN	929,411	0.3	0
0350	FISH,DRIED,SALTED OR IN BRINE ; SMOK	134,811	2.9	0
0360	CRUSTACEANS AND MOLLUSCS,FRESH,CHILL	3,392,291	0.2	0
0371	FISH,PREPARED OR PRESERVED,N.E.S. IN	496,535	8.4	0
0372	CRUSTACEANS AND MOLLUSCS,PREPARED OR	581,687	3.8	34.4
0411	DURUM WHEAT,UNMILLED	61,765	3.2	0
0412	OTHER WHEAT (INCLUDING SPELT) AND ME	255,694	3.9	0
0421	RICE IN THE HUSK OR HUSKED,BUT NOT F	854	2.9	100
0422	RICE SEMI-MILLED OR WHOLLY MILLED, B	155,126	8.7	100
0430	BARLEY,UNMILLED	199,269	1.3	0
0440	MAIZE (CORN),UNMILLED	97,605	0.6	0
0451	RYE,UNMILLED	15,836	0	0
0452	OATS,UNMILLED	167,489	0	0
0459	BUCKWHEAT,MILLET,CANARY SEED,GRAIN S	12,555	0.7	0
0460	MEAL AND FLOUR OF WHEAT AND FLOUR OF	49,198	2.6	0
0470	OTHER CEREAL MEALS AND FLOURS	35,058	2.3	0
0481	CEREAL GRAINS,WORKED/PREPARED,(BREAK	91,439	5.9	0
0483	MACARONI,SPAGHETTI AND SIMILAR PRODU	283,517	4.1	0
0484	BAKERY PRODUCTS (E.G.,BREAD,BISCUITS	591,541	2.5	0
0488	MALT EXTRACT;PREP.OF FLOUR ETC,FOR I	89,849	17.5	0
0541	POTATOES,FRESH OR CHILLED,EXCL.SWEET	67,223	2.9	0

Continued

0542	BEANS,PEAS,LENTILS & OTHER LEGUMINOU	55,204	2.5	0
0544	TOMATOES,FRESH OR CHILLED	425,783	4.4	0
0545	OTHER FRESH OR CHILLED VEGETABLES	1,056,620	8.7	2.7
0546	VEGETABLES,FROZEN OR IN TEMPORARY PR	400,676	9.1	0
0561	VEGETABLES,DRIED,DEHYDRATED OR EVAPO	86,039	6.4	0
0565	VEGETABLES,PREPARED OR PRESERVED,N.E	640,533	7.7	0
0571	ORANGES,MANDARINS,CLEMENTINES AND OT	28,889	2	0
0572	OTHER CITRUS FRUIT,FRESH OR DRIED	43,611	2.7	0
0574	APPLES,FRESH	67,488	0	0
0575	GRAPES,FRESH OR DRIED	274,745	0.4	0
0577	EDIBLE NUTS(EXCL.NUTS USED FOR THE E	411,763	0.7	0.3
0579	FRUIT,FRESH OR DRIED, N.E.S.	1,759,143	3	3.5
0583	JAMS,FRUIT JELLIES, MARMALADES,FRUIT	62,993	6.6	0
0585	JUICES;FRUIT & VEGET.(INCL.GRAPE MUS	750,150	12.8	29.7
0586	FRUIT,TEMPORARILY PRESERVED	78,382	8.5	5.1
0589	FRUIT OTHERWISE PREPARED OR PRESERVE	418,813	7.6	0.6
0611	SUGARS,BEET AND CANE,RAW,SOLID	380,580	13.7	100
0612	REFINED SUGARS AND OTHER PROD. OF RE	181,414	18.4	100
0616	NATURAL HONEY	49,384	1.3	0
0619	OTHER SUGARS;SUGAR SYRUPS;ARTIFICIAL	210,087	9.6	29.8
0620	SUGAR CONFECTIONERY AND OTHER SUGAR	445,579	12.9	0
0711	COFFEE,WHETHER OR NOT ROASTED OR FRE	2,319,757	0	0
0712	EXTRACTS,ESSENCES/CONCENT.OF COFFEE	172,715	0.1	0
0730	CHOCOLATE & OTHER FOOD PREPTNS. CONT	1,089,359	2.8	0
0741	TEA	142,268	0.4	0
0742	MATE	797	0	0
075A	SPICES	293,715	0.7	0
0811	HAY AND FODDER,GREEN OR DRY	38,651	0.9	0
0812	BRAN,SHARPS & OTHER RESIDUES DERIVED	35,287	0.1	0
0813	OIL-CAKE & OTHER RESIDUES (EXCEPT DR	122,992	1.4	0
0814	FLOURS & MEALS,OF MEAT/FISH,UNFIT FO	97,289	0	0
0819	FOOD WASTES AND PREPARED ANIMAL FEED	301,917	9.7	0
091A	MARGARINE AND SHORTENING	6,387	9.8	8.5
0980	EDIBLE PRODUCTS AND PREPARATIONS N.E	763,792	10.3	0
1110	NON ALCOHOLIC BEVERAGES,N.E.S.	365,626	3.1	0
1121	WINE OF FRESH GRAPES (INCLUDING GRAP	1,186,078	2.4	0
1123	BEER MADE FROM MALT (INCLUD.ALE,STOU	1,133,210	1.1	0
1124	SPIRITS;LIQUEURS, OTHER SPIRITUOUS B	1,952,378	5.3	0
1211	TOBACCO,NOT STRIPPED	341,369	42.5	0
1212	TOBACCO,WHOLLY OR PARTLY STRIPPED	343,938	59.3	0
1213	TOBACCO REFUSE	26,800	39.5	0
1222	CIGARETTES	111,160	15.6	0
1223	TOBACCO,MANUFACTURED (INC.SMOKING,CH	80,288	20.4	0
2111	BOVINE & EQUINE HIDES (OTHER THAN CA	98,938	0	0
2112	CALF SKINS,RAW (FRESH,SALTED,DRIED,P	1,932	0	0
2117	SHEEP & LAMB SKINS WITHOUT THE WOOL,	17,657	0	0
2119	HIDES AND SKINS,N.E.S WASTE AND USED	29,085	0	0
2120	FURSKINS,RAW (INCLUD.ASTRAKHAN,CARAC	86,122	0.3	0

Continued

2222	SOYA BEANS	70,188	0	0
2223	COTTON SEEDS	213	2.3	0
2224	SUNFLOWER SEEDS	10,316	0	0
2225	SESAME (SESAMUM)SEEDS	45,140	0	0
2226	RAPE AND COLZA SEEDS	116,733	2.3	0
2232	PALM NUTS AND PALM KERNELS	3,016	0	0
2234	LINSEED	34,003	2.3	0
2235	CASTOR OIL SEEDS	10	0	0
2238	OIL SEEDS AND OLEAGINOUS FRUIT. N.E.	48,310	22.6	0
2320	NATURAL RUBBER LATEX; NAT.RUBBER & S	1,038,676	0	0
2331	SYNTH.RUBB.LAT.;SYNTH.RUBB.FACTICE D	627,582	1.1	6.9
2332	RECLAIMED RUBBER;WASTE & SCRAP OF UN	22,281	0	0
2440	CORK,NATURAL,RAW & WASTE (INCLUD.IN	3,692	0.3	0
2450	FUEL WOOD (EXCLUDING WOOD WASTE) AND	26,080	0	0
2460	PULPWOOD (INCLUDING CHIPS AND WOOD W	51,460	0.4	0
2471	SAWLOGS AND VENEER LOGS,OF CONIFEROU	89,738	0	0
2472	SAWLOGS AND VENEER LOGS,OF NON CONIF	15,971	0	0
2479	PITPROPS,POLES,PILING,POSTS & OTHER	-	0	0
2481	RAILWAY OR TRAMWAY SLEEPERS (TIES)OF	6,917	0	0
2482	WOOD OF CONIFEROUS SPECIES,SAWN,PLAN	6,688,997	0.1	0
2483	WOOD OF NON-CONIFEROUS SPECIES,SAWN,	455,360	0.3	0
2511	WASTE PAPER,PAPERBOARD;ONLY FOR USE	54,252	0	0
2512	MECHANICAL WOOD PULP	187,687	0	0
2516	CHEMICAL WOOD PULP,DISSOLVING GRADES	49,630	0	0
2517	CHEMICAL WOOD PULP,SODA OR SULPHATE	2,148,576	0	0
2518	CHEMICAL WOOD PULP,SULPHITE	126,806	0	0
2613	RAW SILK (NOT THROWN)	2,001	0	0
2614	SILK WORM COCOONS SUITABL.FOR REELIN	981	1.2	0
263A	COTTON	51,160	12.7	0
2640	JUTE & OTHER TEXTILE BAST FIBRES,NES	3,107	0	0
265A	VEGETABLE TEXTILE FIBRES AND WASTE O	48,972	0	0
266A	SYNTHETIC FIBRES SUITABLE FOR SPINNI	558,546	4.6	6.2
2681	SEEP'S OR LAMBS' WOOL,GREASY OR FLEE	105,897	0.8	20
2682	SHEEP'S OR LAMBS'WOOL,DEGREASED,IN T	50,555	1.6	13.7
2683	FINE ANIMAL HAIR,NOT CARDED OR COMBE	31,955	3.1	30.6
2685	HORSEHAIR & OTHER COARSE ANIMAL HAIR	3,407	0	0
2686	WASTE OF SHEEP'S/LAMB'S WOOL OR OF O	12,736	1.4	0
2690	OLD CLOTHING AND OTHER OLD TEXTILE A	92,070	1.3	0
271A	FERTILIZERS,CRUDE	61,810	0	0
2731	BUILDING AND MONUMENTAL STONE NOT FU	36,220	2.3	0
2732	GYPSUM,PLASTERS,LIMESTONE FLUX & CAL	140,500	0	0
2733	SANDS,NATURAL,OF ALL KINDS,WHETHER O	4,268	0	0
274A	SULPHUR AND UNROASTED IRON PYRITES	76,252	0	49.8
2771	INDUSTRIAL DIAMONDS,SORTED,WHETHER O	83,187	0.4	0
2772	NATURAL ABRASIVES,N.E.S.	40,219	0	0
2782	CLAY AND OTHER REFRACTORY MINERALS,	119,541	0.5	0
2783	COMMON SALT;ROCK SAT,SEA SALT;PUR.SO	216,746	0	0
2784	ASBESTOS	6,062	0	0

Continued

2785	QUARTZ,MICA,FELSPAR,FLUORSPAR,CRYOLI	88,444	0.4	0
2786	SLAG,DROSS,SCALINGS AND SIMILAR WAST	52,124	0.1	0
2789	MINERALS,CRUDE, N.E.S.	150,696	0.7	0
2814	ROASTED IRON PYRITES,WHETHER OR NOT	2,493	0	0
2815	IRON ORE AND CONCENTRATES,NOT AGGLOM	131,568	0	0
2816	IRON ORE AGGLOMERATES (SINTERS,PELLE	349,322	0	0
2820	WASTE AND SCRAP METAL OF IRON OR STE	242,649	0	0.1
2860	ORES AND CONCENTRATES OF URANIUM AND	4,548	0	0
2871	COPPER ORES & CONCENTRATES;COPPER MA	179,052	1.2	0
2872	NICKEL ORES AND CONCENTRATES;NICKEL	36,506	0	0
2873	ALUMINIUM ORES AND CONCENTRATES (INC	551,166	0	0
2874	LEAD ORES AND CONCENTRATES	34,096	1.4	0
2875	ZINC ORES AND CONCENTRATES	41,207	0.4	0
2876	TIN ORES AND CONCENTRATES	36	0	0
2879	ORES & CONCENTRAT.OF OTHER NON-FERRO	184,000	0.5	2.8
2881	ASH & RESIDUES,CONTAIN.METALS/METALL	77,941	0.5	0
2882	OTHER NON-FERROUS BASE METAL WASTE A	762,267	0	0.1
2890	ORES & CONCENTRATES OF PRECIOUS META	48,108	0	0
2911	BONES,HORNS,IVORY,HOOVES,CLAWS,CORAL	11,462	0	0
2919	OTHER MATERIALS OF ANIMAL ORIGIN, N.	211,927	0.3	16.2
2922	SHELLAC,SEED LAC,STICK LAC,RESINS,GU	85,251	0.1	0
2924	PLANTS,SEEDS,FRUIT USED IN PERFUMERY	112,421	1.1	0
2925	SEEDS,FRUIT & SPORES,NES,OF A KIND U	166,950	0.2	0
2926	BULBS,TUBERS & RHIZOMES OF FLOWERING	272,609	2	0
2927	CUT FLOWERS AND FOLIAGE	575,721	5.9	44.2
2929	OTHER MATERIALS OF VEGETABLE ORIGIN,	287,817	0.9	0
3221	ANTHRACITE,WHETHER/NOT PULVERIZED,NO	241,561	0	0
3224	PEAT,WHETHER/NOT COMPRES.INTO BALES	140,559	0	0
3231	BRIQUET.OVOIDS & SIM.SOLID FUELS,OF	6,750	0	0
3232	COKE AND SEMI-COKE OF COAL OF LIGNIT	282,524	0	0
3330	PETROL.OILS & CRUDE OILS OBT.FROM BI	33,640,390	0.4	0
3341	MOTOR SPIRIT AND OTHER LIGHT OILS	4,746,091	2.4	0
3343	GAS OILS	1,715,748	2.4	0
3344	FUEL OILS,N.E.S.	3,200,342	2.4	0
3345	LUBRICATING PETROL.OILS & OTHER HEAV	505,244	4.7	0
3351	PETROLEUM JELLY AND MINERAL WAXES	101,654	0	0
3352	MINERAL TARS AND PRODUCTS OF THEIR D	79,451	0.3	0
3353	PITCH & PITCH COKE OBTAIN.FROM COAL	23,063	0	0
3354	PETROLEUM BITUMEN,PETROL.COKE & BITU	130,980	0.1	0
341A	GAS,NATURAL AND MANUFACTURED	6,899,980	0	0
3510	ELECTRIC CURRENT	1,105,448	0	0
4111	FATS AND OILS OF FISH AND MARINE MAM	17,927	2.2	0
4113	ANIMAL OILS,FATS AND GREASES,N.E.S	19,282	2.6	0
4232	SOYA BEAN OIL	31,916	17.5	0
4239	OTHER SOFT FIXED VEGETABLE OILS	278,382	3.1	0
4241	LINSEED OIL	611	11.4	0
4243	COCONUT (COPRA) OIL	228,072	0	0
4249	FIXED VEGETABLE OILS,N.E.S	514,474	1.2	2

Continued

4313	FATTY ACIDS,ACID OILS,AND RESIDUES	172,637	6.5	23.6
4314	WAXES OF ANIMAL OR VEGETABLE ORIGIN	13,508	1.1	0
511A	HYDROCARBONS NES,& THEIR HALOGEN.& E	1,432,817	2.3	0.1
5121	ACYCLIC ALCOHOLS & THEIR HALOGENATED	1,032,276	9.6	0.3
5123	PHENOLS & PHEN.-ALCO.& THEIR HALOGEN	173,702	6	0
513A	CARBOXYLIC ACIDS,& THEIR ANHYDRIDES,	1,228,342	6.8	2.4
514A	NITROGEN-FUNCTION COMPOUNDS	2,990,011	6.5	1
515A	ORGANO-INORGANIC AND HETEROCYCLIC CO	2,937,260	6.2	0.4
5161	ETHERS,ALCOHOL PEROXIDES,ETHER PEROX	525,915	5.8	0
5162	ALDEHYDE-,KETONE-,& QUINONE-FUNCTION	480,383	5	0
5169	ORGANIC CHEMICALS,N.E.S	259,140	1.8	0
5221	CHEMICAL ELEMENTS	348,256	2.4	25.7
5222	INORGANIC ACIDS AND OXYGEN COMPOUNDS	302,780	0.9	6.1
5224	METALLIC OXIDES OF ZINC,CHROMIUM,MAN	418,417	3	6.7
5225	OTH.INORG.BASES & METALLIC OXID.,HYD	898,967	0.5	0.7
5231	METALLIC SALTS AND PEROXYSALTS OF IN	883,297	2.4	3.4
5239	INORGANIC CHEMICAL PRODUCTS,N.E.S	238,453	3.2	0
524A	RADIO-ACTIVE AND ASSOCIATED MATERIAL	981,078	1.7	54.8
5331	OTHER COLOURING MATTER	1,427,686	7.9	0
5334	VARNISHES AND LACQUERS;DISTEMPERS,WA	444,986	4.1	0
5411	PROVITAMINS & VITAMINS,NARURAL/REPRO	420,742	0	0
5413	ANTIBIOTICS N.E.S.,NOT INCL. IN 541.	660,576	0	0
5414	VEGETAB.ALKALOIDS,NATURAL/REPRODUCED	174,892	0	0
5415	HORMONES,NATURAL OR REPRODUCED BY SY	144,862	0	0
5416	GLYCOSIDES;GLANDS OR OTHER ORGANS &	570,498	0.1	0
5417	MEDICAMENTS(INCLUDING VETERINARY MED	2,705,768	0	0
5419	PHARMACEUTICAL GOODS,OTHER THAN MEDI	397,059	0	0
5513	ESSENTIAL OILS,CONCRETES & ABSOLUTES	399,610	1.8	0
5530	PERFUMERY,COSMETICS AND TOILET PREPA	1,393,613	2	0
5542	ORGANIC SURFACE-ACTIVE AGENTS,N.E.S.	435,178	3.2	0
5543	POLISHES & CREAMS,FOR FOOTWEAR,FURNI	38,837	1.1	0
5621	MINERAL OR CHEMICAL FERTILIZERS,NITR	632,378	0	59.3
5622	MINERAL OR CHEMICAL FERTILIZERS,PHOS	16,348	0	0
5623	MINERAL OR CHEMICAL FERTILIZERS,POTA	702,383	0	0
5629	FERTILIZERS,N.E.S.	86,547	0	0
582A	CONDENSATION,POLYCONDENSATION & POLY	1,264,143	5.2	14.8
583A	POLYMERIZATION AND COPOLYMERIZATION	4,170,882	6.5	3
584A	REGENERATED CELLULOSE;CELLULOSE NITR	143,597	5.1	14.8
591A	DISINFECTANTS,INSECTICIDES,FUNGICIDE	366,377	4.1	0
5921	STARCHES,INULIN AND WHEAT GLUTEN	101,670	3.8	0
5922	ALBUMINOIDAL SUBSTANCES;GLUES	715,280	2.2	13.7
5981	WOOD- AND RESIN-BASED CHEMICAL PRODU	43,245	2.9	0
5989	CHEMICAL PRODUCTS AND PREPARATIONS,N	2,720,844	3.1	0
611A	LEATHER	947,016	3.5	47.5
612A	MANUFACTURES OF LEATHER/OF COMPOSITI	731,572	9.3	14.8
6130	FURSKINS,TANNED/DRESSED,PIECES/CUTTI	41,950	3.3	0
6210	MATERIALS OF RUBBER(E.G.,PASTES,PLAT	547,206	2.2	4.2
625A	RUBBER TYRES,TYRE CASES,ETC.FOR WHEE	3,249,767	3.3	0

6282	TRANSMISSION,CONVEYOR/ELEVATOR BELTS	189,355	4.7	50
6289	OTHER ARTICLES OF RUBBER,N.E.S.	1,051,469	3	54.5
6341	WOOD SAWN LENGTHWISE,SLICED/PEELED,B	285,265	0	0
6342	PLYWOOD CONSISTING OF SHEETS OF WOOD	767,087	6.4	0
6343	IMPROVED WOOD AND RECONSTITUTED WOOD	797,971	1.6	0
6351	WOODEN PACKING CASES,BOXES,CRATES,DR	86,834	5	0
6353	BUILDERS' CARPENTRY AND JOINERY	534,393	4.9	0
6359	MANUFACTURED ARTICLES OF WOOD,N.E.S.	1,308,521	2.7	0
6411	NEWSPRINT	3,676,686	0	0
6412	PRINTING PAPER & WRITING PAPER,IN RO	1,315,171	1.6	0
6413	KRAFT PAPER AND PAPERBOARD,IN ROLLS	363,781	0.9	0
6415	PAPER AND PAPERBOARD,IN ROLLS OR SHE	2,040,762	0.6	0
6416	BUILDING BOARD OF WOOD PULP OR OF VE	138,986	1.6	0
6417	PAPER & PAPERBOARD,CORRUGATED,CREPED	128,552	1.3	0
6418	PAPER & PAPERBOARD,IMPREGNAT.COAT.SU	666,401	1.1	0
6419	CONVERTED PAPER AND PAPERBOARD,N.E.S	347,474	0	0
6421	BOXES,BAGS & OTH.PACKING CONTAINERS,	536,739	2.6	0.8
6424	PAPER AND PAPERBOARD,CUT TO SIZE OR	479,133	2.6	2.4
6428	ART.OF PAPER PULP,PAPER,PAPERBOARD,C	486,695	2.7	3.6
6512	YARN OF WOOL OR ANIMAL HAIR (INCLUDI	77,652	7.4	99.9
6514	YARN CONTAIN.85% BY WGT.OF SYNTH.FIB	765,326	7.5	70.5
6517	YARN OF REGENERATED FIBRES,NOT FOR R	162,350	10	99.2
6519	YARN OF TEXT.FIBRES,N.E.S.,INCL.YARN	461,684	7.7	95
6521	COTTON FABRICS,WOVEN,UNBLEACHED,NOT	631,091	8.4	100
6522	COTTON FABRICS,WOVEN,BLEACH.MERCERIZ	1,067,311	9.9	92.9
6531	FABRICS,WOVEN OF CONTINUOUS SYNTH.TE	853,243	17.8	96.6
6539	PILE & CHENILLE FABRICS,WOVEN OF MAN	710,420	16	95.7
6542	FABRICS,WOVEN,CONTAIN.85% OF WOOL/FI	253,623	18	95
6549	FABRICS,WOVEN,N.E.S.	529,053	3.6	37.3
655A	KNITTED OR CROCHETED FABRICS	409,513	13.6	92.7
6560	TULLE,LACE,EMBROIDERY,RIBBONS,& OTHE	323,714	8.1	75
6571	FELT & ARTICL.OF FELT,NES,WHETHER/NO	54,425	13.1	100
6573	COATED/IMPREGNATED TEXTILE FABRICS &	396,019	5.9	43.2
6575	TWINE,CORDAGE,ROPES & CABLES.& MANUF	196,006	5.7	25.2
6577	WADDING.TEXTIL.FABRICS FOR USE IN MA	222,770	6.6	29.3
6581	SACKS AND BAGS,OF TEXTILE MATERIALS	68,106	8.2	90.1
6583	TRAVELLING RUGS AND BLANKETS,NOT KNI	66,389	10.9	100
6584	BED LINEN,TABLE LINEN,TOILET & KITCH	1,056,724	10.9	92.2
6589	OTHER MADE-UP ARTICLES OF TEXTILE MA	1,197,318	6.6	58.5
6591	LINOLEUM AND SIMILAR FLOOR COVERINGS	2,172	2.9	0
6592	CARPETS,CARPETING AND RUGS,KNOTTED	882,662	5.3	74.4
6611	QUICKLIME,SLAKED LIME AND HYDRAULIC	15,445	0	0
6612	PORTLAND CEMENT,CIMENT FONDU,SLAG CE	510,562	0	93
6613	BUILDING & MONUMENTAL STONE,WORKED,&	493,721	4.6	0
6618	CONSTRUCTN.MATER.OF ASBESTOS-CEMENT	90,577	2.4	0
6623	REFRACTORY BRICKS & OTHER REFRACT.CO	148,019	1.3	0
6624	NON-REFRACT.CERAMIC BRICKS,TILES,PIP	642,711	15.8	44.9
6631	HAND POLISHING STONES,WHETSTONES,OIL	136,481	2.3	0

Continued

6632	NATURAL OR ARTIFICIAL ABRASIVE POWDE	246,899	0.8	100
6633	MANUFACTURES OF MINERAL MATERIALS,N.	850,960	2.5	0
6638	MANUFACTURES OF ASBESTOS; FRICTION M	139,175	0	0
665A	GLASSWARE	2,866,145	6.8	0
6664	TABLEWARE & OTHER ARTICLES OF PORCEL	583,354	14.1	0
6665	TABLEWARE & OTHER ARTICLES OF OTH.KI	492,058	9.7	0
6666	STATUETTES & OTH.ORNAMENTS,& ARTICLE	742,666	2.2	0
6672	DIAMONDS,UNWORK.CUT/OTHERWISE WORK.N	6,204,701	0	0
6674	SYNTHETIC/RECONSTRUCTED PRECIOUS/SEM	751,434	1.9	0
6712	PIG IRON,CAST IRON AND SPIEGELEISEN,	243,569	0	50
6713	IRON OR STEEL POWDERS,SHOT OR SPONGE	198,953	0.2	0
6716	FERRO-ALLOYS	812,543	2.8	39.1
6724	PUDDLED BARS AND PILINGS;INGOTS,BLOC	52,566	2.4	18.6
6725	BLOOMS,BILLETS,SLABS & SHEET BARS OF	1,615,763	3	0
6731	WIRE ROD OF IRON OR STEEL	871,927	1.8	84.9
6732	BARS & RODS,OF IRON/STEEL;HOLLOW MIN	906,556	3.9	53.8
6733	ANGLES,SHAPES & SECTIONS & SHEET PIL	437,312	2.8	30.1
674A	UNIVERSALS,PLATES AND SHEETS,OF IRON	7,147,800	4.4	39.6
6760	RAILS AND RAILWAY TRACK CONSTRUCTION	151,211	1.6	79.7
6770	IRON/STEEL WIRE/WHETH/NOT COATED,BUT	566,790	3.6	44.8
6781	TUBES AND PIPES,OF CAST IRON	15,258	2.6	0
6782	SEAMLESS TUBES AND PIPES;BLANKS FOR	679,995	5	77.3
6783	OTHER TUBES AND PIPES,OF IRON OR STE	1,032,958	3.6	76.2
6785	TUBE & PIPE FITTINGS(JOINTS,ELBOWS)O	388,430	5	33.5
6793	STEEL & IRON FORGINGS & STAMPINGS,IN	108,434	3.9	0
6794	CASTINGS OR IRON OR STEEL,IN THE ROU	234,283	1.3	51.7
6811	SILVER,UNWROUGHT,UNWORKED OR SEMI-MA	497,077	2.1	0
6812	PLATINUM AND OTHER METALS OF THE PLA	730,547	0	0
6821	COPPER AND COPPER ALLOYS,REFINED OR	1,541,962	0.9	0
6822	COPPER AND COPPER ALLOYS,WORKED	1,049,532	2.5	16.8
6831	NICKEL & NICKEL ALLOYS,UNWROUGHT (IN	458,288	0	0
6832	NICKEL AND NICKEL ALLOYS,WORKED	153,006	1.8	0
6841	ALUMINIUM AND ALUMINIUM ALLOYS,UNWRO	2,654,524	1.4	0
6842	ALUMINIUM AND ALUMINIUM ALLOYS,WORKE	1,570,270	4	0
6851	LEAD AND LEAD ALLOYS,UNWROUGHT	145,037	2.8	0
6852	LEAD AND LEAD ALLOYS,WORKED	5,705	1.9	0
6861	ZINC AND ZINC ALLOYS,UNWROUGHT	769,992	2.4	0
6863	ZINC AND ZINC ALLOYS,WORKED	58,583	2.6	0
689A	MISCELL.NON-FERROUS BASE METALS EMPL	897,259	3	20.3
691A	STRUCTURES & PARTS OF STRUC.;IRON,ST	382,113	3.5	0
692A	METAL CONTAINERS FOR STORAGE AND TRA	445,638	1.3	0
6931	STRANDED WIRE,CABLES,CORDAGES AND TH	398,458	3.7	15.1
6935	GAUZE,CLOTH,GRILL OF IRON STEEL OR C	208,167	3	7.4
6940	NAILS,SCREWS,NUTS,BOLTS ETC.OF IRON,	2,089,615	3.1	17.1
6951	HAND TOOLS OF A KIND USED IN AGRICUL	86,820	2.2	27
6953	OTHER TOOLS FOR USE IN THE HAND	907,412	4.5	3
6954	INTERCHANGEABLE TOOLS FOR HAND & MAC	1,097,870	4.7	0
6960	CUTLERY	752,823	7.1	0

Continued

6973	DOMESTIC-TYPE,NON-ELECTRIC HEATING,C	521,743	2.4	0
6974	ART.COMMONLY USED FOR DOM.PURPOSES,P	911,415	3.3	38.1
6991	LOCKSMITHS WARES,SAFES,STRONG ROOMS	1,877,083	4.2	0
6992	CHAIN AND PARTS THEREOF,OF IRON OR S	347,356	1.5	70.5
6996	MISCELLANEOUS ARTICLES OF BASE METAL	203,566	3.2	9.7
6997	ARTICLES OF IRON OR STEEL, N.E.S.	1,664,463	3.6	3.3
6998	ART.,NES.OF COPPER,NICKEL,ALUMINIUM,	663,365	2.6	63.2
6999	SEMI-MANUFACTURES OF TUNGSTEN,MOLYBD	388,385	4.5	0.9
711A	STEAM & OTHER VAPOUR GENERATING BOIL	100,968	5.9	0
712A	STEAM & OTHER VAPOUR POWER UNITS,STE	177,915	5	0
7133	INT.COMBUSTION PISTON ENGINES FOR MA	353,332	0.6	0
7139	PARTS OF INT.COMB.PISTON ENGINES OF	10,462,580	1.5	0
714A	ENGINES & MOTORS,NON-ELECTRIC	7,866,086	1.6	0
716A	ROTATING ELECTRIC PLANT AND PARTS	3,107,112	3.8	4.4
7188	ENGINES & MOTORS,N.E.S.SUCH AS WATER	322,978	1.7	0
7211	AGRICULTURAL & HORTICUL.MACH. FOR SO	310,934	0	74
7212	HARVESTING & TRESHING MACHINERY AND	447,755	0.5	0
7213	DAIRY MACHINERY AND PARTS	34,125	0	0
7219	AGRIC.MACH.& APPLIANCES,N.E.S.AND PA	185,156	0.1	0
722A	TRACTORS FITTED OR NOT WITH POWER TA	1,694,946	0.5	0
723A	CIVIL ENGINEERING & CONTRACTORS PLAN	3,034,516	1	0
7243	SEWING MACHINES,FURNITURE FOR SEWING	730,153	1	0
7247	MACH.FOR WASHING,CLEANING,DRYING,BLE	2,047,718	2.3	2.8
7248	MACH.FOR PREPARING,TANNING OR WORKIN	42,079	1	0
7251	MACH. FOR MAK./FINIS. CELLUL. PULP,P	235,127	0.5	0
7252	PAPER & PAPERBOARD CUTTING MACH.OF A	327,992	0.8	0
7259	PARTS OF THE MACH. OF 725--	330,471	0.8	0
726A	PRINTING & BOOKBINDING MACH.AND PART	1,791,748	1.4	0
727A	FOOD PROCESSING MACHINES AND PARTS	452,897	1.7	0
7281	MACH.TOOLS FOR SPECIALIZED PARTICULA	836,059	2.2	9.8
7283	MACH.FOR SORTING,SCREENING,SEPARATIN	309,191	1.2	0
7284	MACH.& APPLIANCES FOR SPEZIALIZED PA	6,617,684	2.1	6.9
7361	METAL CUTTING MACHINE-TOOLS	3,157,808	3.7	1.8
7369	PARTS OF THE MACHINE-TOOLS OF 736--	782,946	3.8	10
7371	CONVERTERS,LADLES,INGOT MOULDS AND C	169,836	0	0
7413	IND.& LAB.FURNACES AND OVENS AND PAR	844,512	1.5	0
7414	REFRIGERATORS & REFR.EQUIPMENT,EX.HO	1,196,485	1.4	0
7416	MACH.PLANT & SIM.LAB.EQUIP.INVOLV.A	991,742	2	0
742A	PUMPS FOR LIQUIDS,LIQ.ELEVATORS AND	1,815,794	1.6	0
743A	PUMPS & COMPRESSORS,FANS & BLOWERS,C	1,791,418	2.1	31.8
7441	WORK TRUCKS,MECHANICALLY PROPELLED,F	680,375	0	49.1
7442	LIFTING,HANDLING,LOADING MACH.CONVEY	2,692,903	0.8	7.6
7451	TOOLS FOR WORKING IN THE HAND,PNEUMA	589,603	1.9	0
7452	OTHER NON-ELECTRICAL MACH.AMP PARTS	1,752,280	1.5	0
7491	BALL,ROLLER OR NEEDLE ROLLER BEARING	1,252,046	6.5	94.3
7492	TAPS,COCKS,VALVES ETC.FOR PIPES,TANK	2,370,760	4.1	12.9
7493	TRANSMISSION SHAFTS,CRANKS,BEARING H	2,344,715	3.5	44.8
7499	OTHER NON-ELECTRIC PARTS & ACCESSORI	2,458,212	2.3	4.1

Continued

7511	TYPEWRITTERS;CHEQUE-WRITTING MACHINE	304,409	0.8	0
7512	CALCULATING MACHINES,CASH REGISTERS,	21,768,794	0.7	0
752A	AUTOMATIC DATA PROCESSING MACHINES &	26,014,954	1.3	11.6
7591	PARTS OF AND ACCESSORIES SUITABLE FO	2,042,336	1.3	0
761A	TELEVISION RECEIVERS	4,447,905	4.1	100
762A	RADIO-BROADCAST RECEIVERS	6,602,190	2.6	0
7641	ELECT.LINE TELEPHONIC & TELEGRAPHIC	4,715,189	4.7	77.5
7642	MICROPHONES,LOUDSPEAKERS,AMPLIFIERS	1,496,434	5.3	0
7649	PARTS OF APPARATUS OF DIVISION 76---	17,958,451	3.1	38
771A	ELECTRIC POWER MACHINERY AND PARTS T	3,187,478	2.2	48.3
772A	ELECT.APP.SUCH AS SWITCHES,RELAYS,FU	9,117,975	3.8	17
7731	INSULATED,ELECT.WIRE,CABLE,BARS,STRI	4,727,384	4.6	19
7732	ELECTRIC INSULATING EQUIPMENT	158,220	3.2	0
7742	APP.BASED ON THE USE OF X-RAYS OR OF	1,240,309	1.2	0
7751	HOUSEHOLD TYPE LAUNDRY EQUIPMENT	71,850	3.3	0
7752	REFRIG HH,FD FRZ,E/O	334,291	1.2	0
7754	SHAVERS & HAIR CLIPPERS WITH MOTOR A	243,605	2.3	0
7757	ELEC.-MECH.,DOMESTIC APPLIANCES AND	1,781,964	3.5	0
7758	ELECTRO-THERMIC APPLIANCES,N.E.S.	2,291,640	2.9	28.7
776A	THERMIONIC,COLD & PHOTO-CATHODE VALV	26,489,066	0.4	55.4
7781	BATTERIES AND ACCUMULATORS AND PARTS	1,563,151	3.8	0
7782	ELECT.FILAMENT LAMPS AND DISCHARGE L	853,362	3.1	3.8
7783	ELECTR.EQUIP.FOR INTERNAL COMBUSTION	1,864,320	2.4	0
7784	TOOLS FOR WORKING IN THE HAND WITH E	475,016	1.4	22
7788	OTHER ELECT.MACHINERY AND EQUIPMENT	6,675,164	3.7	24
7810	PASSENGER MOTOR CARS,FOR TRANSPORT O	64,603,465	2.5	0
7821	MOTOR VEHICLES FOR TRANSPORT OF GOOD	11,677,998	16.4	0
7822	SPECIAL PURPOSE MOTOR LORRIES AND VA	916,121	2.1	0
7831	PUBLIC-SERVICE TYPE PASSENGER MOTOR	689,318	2.4	0
7849	OTHER PARTS & ACCESSORIES OF MOTOR V	21,767,015	1.7	43.9
7852	CYLES,NOT MOTORIZED	1,335,341	5.2	0
786A	TRAILERS & OTHER VEHICLES,NOT MOTORI	1,112,023	1.4	0
791A	RAILWAY VEHICLES & ASSOCIATED EQUIPM	1,086,067	6.4	8
792A	AIRCRAFT & ASSOCIATED EQUIPMENT AND	10,138,697	1.1	0
793A	SHIPS,BOATS AND FLOATING STRUCTURES	1,473,265	1.5	0
8121	BOILERS & RADIATORS FOR CENTRAL HEAT	90,883	1.7	0
8122	SINKS,WASH BASINS,BIDETS,WATER CLOSE	283,727	4.8	0
8124	LIGHTING FIXTURES AND FITTINGS AND P	1,864,807	5	7.2
821A	FURNITURE AND PARTS THEREOF	7,955,514	1.8	0.9
8310	TRAVEL GOODS,HANDBAGS,BRIEF-CASES,PU	3,651,643	10.5	48.6
8421	OVERCOATS AND OTHER COATS, MEN,S	1,092,067	18.8	100
8422	SUITS,MEN'S,OF TEXTILE FABRICS	560,858	15.1	100
8423	TROUSERS,BREECHES ETC.OF TEXTILE FAB	1,977,053	11.3	72.2
8429	OTHER OUTER GARMENTS OF TEXTILE FABR	5,549,879	11.7	91
8431	COATS AND JACKETS OF TEXTILE FABRICS	1,288,817	14.7	99.8
8432	SUITS & COSTUMES,WOMEN'S,OF TEXTILE	360,187	16.9	100
8433	DRESSES,WOMEN'S,OF TEXTILE FABRICS	968,595	12	100
8434	SKIRTS,WOMEN'S,OF TEXTILE FABRICS	626,966	12.3	100

Continued

8441	SHIRTS,MEN'S,OF TEXTILE FABRICS	5,208,447	13.5	100
8442	UNDER GARMENTS,EXCL.SHIRTS,OF TEXTIL	279,579	7.7	94.9
8451	JERSEYS,PULL-OVERS,TWINSETS,CARDIGAN	3,311,757	12.5	100
8452	DRESSES,SKIRTS,SUITS ETC,KNITTED OR	478,800	15.3	99.1
8459	OTHER OUTER GARMENTS & CLOTHING,KNIT	3,809,475	18.6	99.1
8461	UNDER GARMENTS,KNITTED OR CROCHETED	3,683,800	16.8	98
8465	CORSETS,BRASSIERES,SUSPENDRES AND TH	391,590	18.3	100
8471	CLOTHING ACCESSORIES OF TEXTILE FABR	538,389	8.9	91.8
8472	CLOTHING ACCESSORIES,KNITTED OR CROC	348,901	11.5	64.3
8481	ART.OF APPAREL & CLOTHING ACCESSORIE	1,914,368	6.3	27.8
8482	ART.OF APPAREL & CLOTHING ACCESSORIE	916,222	2.9	0
8483	FUR CLOTHING,ARTICLES MADE OF FURSKI	229,254	4.4	0
8484	HEADGEAR AND FITTINGS THEREOF,N.E.S.	730,715	7.8	79.3
8510	FOOTWEAR	13,247,502	14.2	42.1
8710	OPTICAL INSTRUMENTS AND APPARATUS	1,415,220	5.8	0
8720	MEDICAL INSTRUMENTS AND APPLIANCES	2,890,559	2.3	0.9
8741	SURVEYING,HYDROGRAPHIC,COMPASSES ETC	562,589	2.4	2.2
8745	MEASURING,CONTROLLING & SCIENTIFIC I	312,014	2.2	0
8748	ELECTRICAL MEASURING,CHECKING,ANALYS	5,212,618	3.3	7.2
8749	PARTS,N.E.S.ACCESSORIES FOR 873--,87	867,130	3.8	4.1
8811	PHOTOGRAPHIC,CAMERAS,PARTS & ACCESSO	1,353,742	2.3	0
8813	PHOTOGRAPHIC & CINEMATOGRAPHIC APPAR	4,191,172	2.6	0
8822	PHOTOGRAPHIC FILM,PLATES,PAPER	1,749,989	3.4	0
8830	CINEMATOGRAPH FILM,EXPOSED-DEVELOPED	126,901	0.7	0
8841	LENSES,PRISMS,MIRRORS,OTHER OPTICAL	523,341	4.2	0
8842	SPECTACLES AND SPECTACLE FRAMES	1,060,739	3.6	0
8851	WATCHES,WATCH MOVEMENTS AND CASES	2,361,973	5.6	0
8852	CLOCKS,CLOCK MOVEMENTS AND PARTS	514,694	6.7	2.4
8921	BOOKS,PAMPHLETS,MAPS AND GLOBES,PRIN	1,198,624	0	0
8922	NEWSPAPERS JOURNALS,PERIODICALS	258,671	0.7	0
8925	MAPS, GREETING CARDS MUSIC, PRINTED	-	0	0
8928	PRINTED MATTER,N.E.S.	887,564	1	0
8931	ART.FOR THE CONVEYANCE OR PACKING OF	1,369,635	3.3	0
8939	MISCELLANEOUS ART.OF MATERIALS OF DI	4,820,009	5	0
8942	CHILDREN S TOYS,INDOOR GAMES,ETC.	9,495,606	0.3	0
8946	NON-MILITARY ARMS AND AMMUNITION THE	294,952	3.5	0
8947	OTHER SPORTING GOODS AND FAIRGROUND	2,223,840	3.6	0
895A	OFFICE AND STATIONERY SUPPLIES,N.E.S	1,281,210	5.4	12.7
8960	WORKS OF ART,COLLECTORS PIECES & ANT	2,181,271	0	0
897A	JEWELLERY,GOLDSMITHS AND OTHER ART.	4,961,450	6.2	0
8981	PIANOS AND OTHER STRING MUSICAL INST	396,891	4.5	2.9
8982	OTHER MUSICAL INSTRUMENTS OF 898.1-	495,649	4.5	0
8983	GRAMOPHONE RECORDS AND SIM.SOUND REC	3,137,439	1.8	13.8
8991	ART.& MANUF.OF CARVING OR MOULDING M	79,236	4.7	0
8996	ORTHOPAEDIC APPLIANCES,SURGICAL BELT	328,397	2.2	0
8997	BASKETWORK,WICKERWORK ETC. OF PLAITI	720,487	4.6	2.6
8998	SMALL-WARES AND TOILET ART.,FEATHER	1,380,176	4.7	20.6
8999	MANUFACTURED GOODS,N.E.S.	932,378	7.2	0

Continued

9310	SPECIAL TRANSACTIONS & COMMOD.,NOT C	15,426,951	0	0
9410	ANIMALS,LIVE,N.E.S.,INCL. ZOO-ANIMAL	50,971	3	0
9510	ARMOURED FIGHTING VEHICLES,ARMS OF W	487,354	2.3	0
9710	GOLD,NON-MONETARY	2,067,656	2.8	0
9999	NON-IDENTIFIED PRODUCTS	-	0	0

Appendix D to Chapter Four
The U.S. Exports and the Associated Trade Protection in 1994

SITC	Title	Exports ($1000's)	Tariff Rate(%)	NTB Ratio(%)
0011	ANIMALS OF THE BOVINE SPECIES,INCL.B	14,139	12.6	0
0012	SHEEP AND GOATS, LIVE	55	8.8	0
0013	SWINE, LIVE	3,831	10.8	0
0014	POULTRY, LIVE (I.E., FOWLS, DUCKS, G	77,413	7.6	2
0015	HORSES, ASSES, MULES AND HINNIES, LI	180,026	0.3	0
0019	LIVE ANIMALS OF A KIND MAINLY USED F	0	0	0
0111	MEAT OF BOVINE ANIMALS, FRESH, CHILL	1,758,375	42.2	0
0112	MEAT OF SHEEP AND GOATS, FRESH, CHIL	3,221	2.6	0
0113	MEAT OF SWINE, FRESH, CHILLED OR FRO	396,909	3	47.4
0114	POULTRY,DEAD & EDIBLE OFFALS EX.LIVE	708,441	9.6	3.1
0115	MEAT OF HORSES,ASSES,ETC.,FRESH,CHIL	78,593	5.7	0
0116	EDIBLE OFFALS OF ANIMALS IN HEADINGS	427,687	16.9	1.5
0118	OTHER FRESH,CHILLED,FROZEN MEAT OR E	8,156	10.6	2.5
0121	BACON,HAM & OTHER DRIED,SALTED,SMOKE	24,857	4	0
0129	MEAT & EDIB.OFFALS,N.E.S.SALT.IN BRI	11,058	7.9	47.6
0142	SAUSAGES & THE LIKE,OF MEAT,MEAT OFF	31,640	12	31
0149	OTHER PREPARED OR PRESERVED MEAT OR	65,195	12.3	27
0223	MILK & CREAM,FRESH,NOT CONCENTRATED	10,383	5.7	1
0224	MILK & CREAM,PRESERVED,CONCENTRATED	155,447	9.1	5
0230	BUTTER	46,608	14.1	36.5
0240	CHEESE AND CURD	36,735	16.6	0.6
0251	EGGS IN SHELL	59,364	6.5	1.2
0252	EGGS NOT IN SHELL	31,997	20.3	0
0341	FISH,FRESH(LIVE/DEAD)OR CHILLED,EXCL	164,068	6.2	5.4
0342	FISH,FROZEN (EXCLUDIND FILLETS)	1,357,223	5.6	20.3
0343	FISH FILLETS,FRESH OR CHILLED	6,412	12	57.4
0344	FISH FILLETS,FROZEN	207,502	5.8	12.2
0350	FISH,DRIED,SALTED OR IN BRINE ; SMOK	102,005	7.3	16.3
0360	CRUSTACEANS AND MOLLUSCS,FRESH,CHILL	712,865	7.1	4.3
0371	FISH,PREPARED OR PRESERVED,N.E.S. IN	137,268	15.4	0
0372	CRUSTACEANS AND MOLLUSCS,PREPARED OR	49,977	8.3	0
0411	DURUM WHEAT,UNMILLED	240,801	10	8
0412	OTHER WHEAT (INCLUDING SPELT) AND ME	2,913,221	13.7	8.7
0421	RICE IN THE HUSK OR HUSKED,BUT NOT F	179,345	5.4	49.6
0422	RICE SEMI-MILLED OR WHOLLY MILLED, B	632,946	4.7	43.2
0430	BARLEY,UNMILLED	100,858	0.9	0
0440	MAIZE (CORN),UNMILLED	3,187,720	29.6	3.6
0451	RYE,UNMILLED	33	3.3	0
0452	OATS,UNMILLED	2,848	7.6	0
0459	BUCKWHEAT,MILLET,CANARY SEED,GRAIN S	280,765	2.2	0
0460	MEAL AND FLOUR OF WHEAT AND FLOUR OF	67,822	13.3	18.3
0470	OTHER CEREAL MEALS AND FLOURS	58,027	15.5	0.4
0481	CEREAL GRAINS,WORKED/PREPARED,(BREAK	57,230	11.3	2.8
0483	MACARONI,SPAGHETTI AND SIMILAR PRODU	15,988	5.1	0.2
0484	BAKERY PRODUCTS (E.G.,BREAD,BISCUITS	138,022	12	0.1
0488	MALT EXTRACT;PREP.OF FLOUR ETC,FOR I	143,259	19.8	3.6
0541	POTATOES,FRESH OR CHILLED,EXCL.SWEET	1,836	6.1	0

Continued

0542	BEANS,PEAS,LENTILS & OTHER LEGUMINOU	230,908	7.2	8.6
0544	TOMATOES,FRESH OR CHILLED	1,058	3.1	0
0545	OTHER FRESH OR CHILLED VEGETABLES	369,429	32.6	4.6
0546	VEGETABLES,FROZEN OR IN TEMPORARY PR	293,423	13.4	1.7
0561	VEGETABLES,DRIED,DEHYDRATED OR EVAPO	120,751	12.4	3.7
0565	VEGETABLES,PREPARED OR PRESERVED,N.E	194,343	14.6	3.7
0571	ORANGES,MANDARINS,CLEMENTINES AND OT	213,546	11.6	0
0572	OTHER CITRUS FRUIT,FRESH OR DRIED	303,576	1.9	0
0574	APPLES,FRESH	192,594	11.3	13.5
0575	GRAPES,FRESH OR DRIED	284,217	9.1	18.1
0577	EDIBLE NUTS(EXCL.NUTS USED FOR THE E	771,636	6.2	0.1
0579	FRUIT,FRESH OR DRIED, N.E.S.	456,439	8.4	7.5
0583	JAMS,FRUIT JELLIES, MARMALADES,FRUIT	19,835	16.5	5.3
0585	JUICES;FRUIT & VEGET.(INCL.GRAPE MUS	327,793	25.9	23.4
0586	FRUIT,TEMPORARILY PRESERVED	59,411	14.2	29.9
0589	FRUIT OTHERWISE PREPARED OR PRESERVE	410,351	29.6	31.7
0611	SUGARS,BEET AND CANE,RAW,SOLID	166	18.6	7.2
0612	REFINED SUGARS AND OTHER PROD. OF RE	68,903	21.5	24.5
0616	NATURAL HONEY	4,786	26.7	0
0619	OTHER SUGARS;SUGAR SYRUPS;ARTIFICIAL	59,175	11.5	2.3
0620	SUGAR CONFECTIONERY AND OTHER SUGAR	96,343	14.3	0
0711	COFFEE,WHETHER OR NOT ROASTED OR FRE	120,688	2.6	69.7
0712	EXTRACTS,ESSENCES/CONCENT.OF COFFEE	32,739	8.3	17.9
0730	CHOCOLATE & OTHER FOOD PREPTNS. CONT	152,289	12.8	0
0741	TEA	6,742	13	0
0742	MATE	129	8.4	0
075A	SPICES	24,596	14	0.8
0811	HAY AND FODDER,GREEN OR DRY	396,772	0.4	4.7
0812	BRAN,SHARPS & OTHER RESIDUES DERIVED	63,538	6.5	0
0813	OIL-CAKE & OTHER RESIDUES (EXCEPT DR	578,707	6.5	10
0814	FLOURS & MEALS,OF MEAT/FISH,UNFIT FO	52,151	1.7	0
0819	FOOD WASTES AND PREPARED ANIMAL FEED	1,529,019	5.8	8.2
091A	MARGARINE AND SHORTENING	71,900	13.6	22.5
0980	EDIBLE PRODUCTS AND PREPARATIONS N.E	1,250,707	13.7	8.3
1110	NON ALCOHOLIC BEVERAGES,N.E.S.	164,846	11.4	0
1121	WINE OF FRESH GRAPES (INCLUDING GRAP	128,341	8.1	0.2
1123	BEER MADE FROM MALT (INCLUD.ALE,STOU	264,059	10.6	0
1124	SPIRITS;LIQUEURS, OTHER SPIRITUOUS B	328,141	10.9	50.9
1211	TOBACCO,NOT STRIPPED	135,038	1.2	0
1212	TOBACCO,WHOLLY OR PARTLY STRIPPED	1,247,663	10	2.1
1213	TOBACCO REFUSE	13,683	1	0
1222	CIGARETTES	4,173,749	32.9	0
1223	TOBACCO,MANUFACTURED (INC.SMOKING,CH	444,845	49.4	0
2111	BOVINE & EQUINE HIDES (OTHER THAN CA	981,522	2	0
2112	CALF SKINS,RAW (FRESH,SALTED,DRIED,P	44,769	1.4	0
2117	SHEEP & LAMB SKINS WITHOUT THE WOOL,	9,898	0.9	0
2119	HIDES AND SKINS,N.E.S WASTE AND USED	72,737	1.8	0.1
2120	FURSKINS,RAW (INCLUD.ASTRAKHAN,CARAC	120,061	2.3	0

Continued

2222	SOYA BEANS	3,550,662	39.6	0.7
2223	COTTON SEEDS	12,226	1.3	0
2224	SUNFLOWER SEEDS	89,246	0.2	0
2225	SESAME (SESAMUM)SEEDS	651	0.7	0
2226	RAPE AND COLZA SEEDS	25,477	0	0
2232	PALM NUTS AND PALM KERNELS	906	2.2	0
2234	LINSEED	367	0.1	0
2235	CASTOR OIL SEEDS	0	0	0
2238	OIL SEEDS AND OLEAGINOUS FRUIT. N.E.	133,753	2	2.8
2320	NATURAL RUBBER LATEX; NAT.RUBBER & S	24,958	4.4	15.2
2331	SYNTH.RUBB.LAT.;SYNTH.RUBB.FACTICE D	792,399	3.6	9.1
2332	RECLAIMED RUBBER;WASTE & SCRAP OF UN	9,968	3.3	1.5
2440	CORK,NATURAL,RAW & WASTE (INCLUD.IN	778	5	0
2450	FUEL WOOD (EXCLUDING WOOD WASTE) AND	7,817	1	0
2460	PULPWOOD (INCLUDING CHIPS AND WOOD W	453,986	0.1	0
2471	SAWLOGS AND VENEER LOGS,OF CONIFEROU	2,090,121	0.7	2.9
2472	SAWLOGS AND VENEER LOGS,OF NON CONIF	198,567	0.4	1.2
2479	PITPROPS,POLES,PILING,POSTS & OTHER	0	0	0
2481	RAILWAY OR TRAMWAY SLEEPERS (TIES)OF	6,272	7.8	0
2482	WOOD OF CONIFEROUS SPECIES,SAWN,PLAN	1,097,037	1.5	0.1
2483	WOOD OF NON-CONIFEROUS SPECIES,SAWN,	787,919	2.2	0.2
2511	WASTE PAPER,PAPERBOARD;ONLY FOR USE	450,152	3.7	8.1
2512	MECHANICAL WOOD PULP	97,367	0.6	1.8
2516	CHEMICAL WOOD PULP,DISSOLVING GRADES	407,378	0.8	0
2517	CHEMICAL WOOD PULP,SODA OR SULPHATE	1,881,693	0.9	0
2518	CHEMICAL WOOD PULP,SULPHITE	183,042	0.6	0
2613	RAW SILK (NOT THROWN)	204	0.5	0
2614	SILK WORM COCOONS SUITABL.FOR REELIN	876	13.7	0
263A	COTTON	2,433,740	2.7	31.6
2640	JUTE & OTHER TEXTILE BAST FIBRES,NES	440	1.7	0
265A	VEGETABLE TEXTILE FIBRES AND WASTE O	636	5.8	0
266A	SYNTHETIC FIBRES SUITABLE FOR SPINNI	684,978	8.7	23.1
2681	SEEP'S OR LAMBS' WOOL,GREASY OR FLEE	780	0	0
2682	SHEEP'S OR LAMBS'WOOL,DEGREASED,IN T	1,963	9	54.7
2683	FINE ANIMAL HAIR,NOT CARDED OR COMBE	38,279	8.4	26.4
2685	HORSEHAIR & OTHER COARSE ANIMAL HAIR	3,326	1.8	0
2686	WASTE OF SHEEP'S/LAMB'S WOOL OR OF O	3,911	1.3	0
2690	OLD CLOTHING AND OTHER OLD TEXTILE A	169,886	11.4	3.6
271A	FERTILIZERS,CRUDE	0	0	0
2731	BUILDING AND MONUMENTAL STONE NOT FU	31,546	2.6	0
2732	GYPSUM,PLASTERS,LIMESTONE FLUX & CAL	28,897	3.4	0
2733	SANDS,NATURAL,OF ALL KINDS,WHETHER O	81,962	1.2	0.1
274A	SULPHUR AND UNROASTED IRON PYRITES	28,663	9.8	0.9
2771	INDUSTRIAL DIAMONDS,SORTED,WHETHER O	82,847	0	0
2772	NATURAL ABRASIVES,N.E.S.	180,264	1.2	0
2782	CLAY AND OTHER REFRACTORY MINERALS,	597,903	1.3	0
2783	COMMON SALT;ROCK SAT,SEA SALT;PUR.SO	5,543	9.2	7
2784	ASBESTOS	6,744	1	0

Continued

2785	QUARTZ,MICA,FELSPAR,FLUORSPAR,CRYOLI	14,832	0.8	0
2786	SLAG,DROSS,SCALINGS AND SIMILAR WAST	3,273	2	0
2789	MINERALS,CRUDE, N.E.S.	133,560	1.7	0.2
2814	ROASTED IRON PYRITES,WHETHER OR NOT	53	0	0
2815	IRON ORE AND CONCENTRATES,NOT AGGLOM	88	4.5	0
2816	IRON ORE AGGLOMERATES (SINTERS,PELLE	13	5	0
2820	WASTE AND SCRAP METAL OF IRON OR STE	1,015,486	2.9	0.5
2860	ORES AND CONCENTRATES OF URANIUM AND	1,513	0	0
2871	COPPER ORES & CONCENTRATES;COPPER MA	201,709	3.2	0
2872	NICKEL ORES AND CONCENTRATES;NICKEL	3,112	0.5	0
2873	ALUMINIUM ORES AND CONCENTRATES (INC	117,964	2.5	0
2874	LEAD ORES AND CONCENTRATES	5,767	0.4	0
2875	ZINC ORES AND CONCENTRATES	89,279	0.1	0
2876	TIN ORES AND CONCENTRATES	1,817	0	0
2879	ORES & CONCENTRAT.OF OTHER NON-FERRO	218,923	1.1	0
2881	ASH & RESIDUES,CONTAIN.METALS/METALL	64,158	1.4	0
2882	OTHER NON-FERROUS BASE METAL WASTE A	522,375	4	0.4
2890	ORES & CONCENTRATES OF PRECIOUS META	234,543	0	0
2911	BONES,HORNS,IVORY,HOOVES,CLAWS,CORAL	56,604	1.2	23.6
2919	OTHER MATERIALS OF ANIMAL ORIGIN, N.	186,441	3.8	2.2
2922	SHELLAC,SEED LAC,STICK LAC,RESINS,GU	16,540	3.8	1.2
2924	PLANTS,SEEDS,FRUIT USED IN PERFUMERY	93,865	1.7	3.2
2925	SEEDS,FRUIT & SPORES,NES,OF A KIND U	233,445	3.1	0.2
2926	BULBS,TUBERS & RHIZOMES OF FLOWERING	24,523	5.5	0
2927	CUT FLOWERS AND FOLIAGE	76,103	11.4	0.1
2929	OTHER MATERIALS OF VEGETABLE ORIGIN,	138,514	8.8	0.3
3221	ANTHRACITE,WHETHER/NOT PULVERIZED,NO	2,435,056	0.3	34.2
3224	PEAT,WHETHER/NOT COMPRES.INTO BALES	1,220	7.9	0
3231	BRIQUET.OVOIDS & SIM.SOLID FUELS,OF	1,328	4.2	0
3232	COKE AND SEMI-COKE OF COAL OF LIGNIT	15,868	1.2	0
3330	PETROL.OILS & CRUDE OILS OBT.FROM BI	736	5	0
3341	MOTOR SPIRIT AND OTHER LIGHT OILS	849,332	6.1	14.8
3343	GAS OILS	697,017	5.1	3.2
3344	FUEL OILS,N.E.S.	440,157	5.6	3.1
3345	LUBRICATING PETROL.OILS & OTHER HEAV	698,422	5.7	7.2
3351	PETROLEUM JELLY AND MINERAL WAXES	106,819	3	6.8
3352	MINERAL TARS AND PRODUCTS OF THEIR D	379,496	4.6	2.3
3353	PITCH & PITCH COKE OBTAIN.FROM COAL	3,997	7.8	0
3354	PETROLEUM BITUMEN,PETROL.COKE & BITU	620,236	1.2	15.1
341A	GAS,NATURAL AND MANUFACTURED	213,683	1.4	3.6
3510	ELECTRIC CURRENT	0	0	0
4111	FATS AND OILS OF FISH AND MARINE MAM	32,895	8	0
4113	ANIMAL OILS,FATS AND GREASES,N.E.S	338,047	6.6	6.2
4232	SOYA BEAN OIL	329,104	37.8	54.2
4239	OTHER SOFT FIXED VEGETABLE OILS	21,523	90.6	90.3
4241	LINSEED OIL	1,297	8.8	0
4243	COCONUT (COPRA) OIL	5,504	11.7	18.1
4249	FIXED VEGETABLE OILS,N.E.S	411,407	6.9	8.2

Continued

4313	FATTY ACIDS,ACID OILS,AND RESIDUES	65,079	8.7	3.9
4314	WAXES OF ANIMAL OR VEGETABLE ORIGIN	3,160	5.4	0.4
511A	HYDROCARBONS NES,& THEIR HALOGEN.& E	1,751,403	5	1.3
5121	ACYCLIC ALCOHOLS & THEIR HALOGENATED	771,661	10.1	5.7
5123	PHENOLS & PHEN.-ALCO.& THEIR HALOGEN	306,845	4.6	0
513A	CARBOXYLIC ACIDS,& THEIR ANHYDRIDES,	1,482,227	6.9	0.4
514A	NITROGEN-FUNCTION COMPOUNDS	2,833,372	6.1	0.9
515A	ORGANO-INORGANIC AND HETEROCYCLIC CO	1,808,093	5.2	0.6
5161	ETHERS,ALCOHOL PEROXIDES,ETHER PEROX	379,017	5.8	1.1
5162	ALDEHYDE-,KETONE-,& QUINONE-FUNCTION	230,551	6.7	0.3
5169	ORGANIC CHEMICALS,N.E.S	263,413	5.9	0.1
5221	CHEMICAL ELEMENTS	362,408	2.8	8.6
5222	INORGANIC ACIDS AND OXYGEN COMPOUNDS	126,628	6.7	0
5224	METALLIC OXIDES OF ZINC,CHROMIUM,MAN	135,717	5.6	0
5225	OTH.INORG.BASES & METALLIC OXID.,HYD	280,607	6.2	3.5
5231	METALLIC SALTS AND PEROXYSALTS OF IN	955,147	6.1	1
5239	INORGANIC CHEMICAL PRODUCTS,N.E.S	133,350	6	26.5
524A	RADIO-ACTIVE AND ASSOCIATED MATERIAL	1,243,509	0.4	0
5331	OTHER COLOURING MATTER	732,058	6.6	0.1
5334	VARNISHES AND LACQUERS;DISTEMPERS,WA	494,934	7.6	0.2
5411	PROVITAMINS & VITAMINS,NARURAL/REPRO	141,689	1.2	0.3
5413	ANTIBIOTICS N.E.S.,NOT INCL. IN 541.	922,674	1.4	0.1
5414	VEGETAB.ALKALOIDS,NATURAL/REPRODUCED	21,417	10.1	0
5415	HORMONES,NATURAL OR REPRODUCED BY SY	389,812	1.1	0
5416	GLYCOSIDES;GLANDS OR OTHER ORGANS &	1,509,010	0.7	0.5
5417	MEDICAMENTS(INCLUDING VETERINARY MED	1,696,353	1.4	0.6
5419	PHARMACEUTICAL GOODS,OTHER THAN MEDI	495,833	1.8	0.1
5513	ESSENTIAL OILS,CONCRETES & ABSOLUTES	627,038	6.2	5.5
5530	PERFUMERY,COSMETICS AND TOILET PREPA	1,026,563	8	0
5542	ORGANIC SURFACE-ACTIVE AGENTS,N.E.S.	529,395	7.8	0.3
5543	POLISHES & CREAMS,FOR FOOTWEAR,FURNI	50,425	7.8	0.2
5621	MINERAL OR CHEMICAL FERTILIZERS,NITR	0	0	0
5622	MINERAL OR CHEMICAL FERTILIZERS,PHOS	0	0	0
5623	MINERAL OR CHEMICAL FERTILIZERS,POTA	0	0	0
5629	FERTILIZERS,N.E.S.	2,362,673	4.6	48.7
582A	CONDENSATION,POLYCONDENSATION & POLY	2,413,473	7	0.7
583A	POLYMERIZATION AND COPOLYMERIZATION	4,088,743	9	2.5
584A	REGENERATED CELLULOSE;CELLULOSE NITR	537,997	7.5	0.3
591A	DISINFECTANTS,INSECTICIDES,FUNGICIDE	738,828	8.1	0
5921	STARCHES,INULIN AND WHEAT GLUTEN	48,789	31.6	0.1
5922	ALBUMINOIDAL SUBSTANCES;GLUES	369,958	11.8	0.2
5981	WOOD- AND RESIN-BASED CHEMICAL PRODU	122,121	4.3	0
5989	CHEMICAL PRODUCTS AND PREPARATIONS,N	4,389,020	5.8	0.8
611A	LEATHER	569,358	3.8	0
612A	MANUFACTURES OF LEATHER/OF COMPOSITI	153,431	12.5	0.4
6130	FURSKINS,TANNED/DRESSED,PIECES/CUTTI	31,147	3.6	0
6210	MATERIALS OF RUBBER(E.G.,PASTES,PLAT	254,300	6.6	1.8
625A	RUBBER TYRES,TYRE CASES,ETC.FOR WHEE	756,426	6.4	0.3

Continued

6282	TRANSMISSION,CONVEYOR/ELEVATOR BELTS	83,780	6.3	0.6
6289	OTHER ARTICLES OF RUBBER,N.E.S.	219,687	6.5	4.4
6341	WOOD SAWN LENGTHWISE,SLICED/PEELED,B	260,192	4.1	0
6342	PLYWOOD CONSISTING OF SHEETS OF WOOD	246,028	8.4	0.1
6343	IMPROVED WOOD AND RECONSTITUTED WOOD	21,652	7.8	0
6351	WOODEN PACKING CASES,BOXES,CRATES,DR	18,229	7.2	0
6353	BUILDERS' CARPENTRY AND JOINERY	396,289	11.1	0
6359	MANUFACTURED ARTICLES OF WOOD,N.E.S.	160,706	6.8	0
6411	NEWSPRINT	395,051	2.2	1.1
6412	PRINTING PAPER & WRITING PAPER,IN RO	276,345	9.2	0.8
6413	KRAFT PAPER AND PAPERBOARD,IN ROLLS	1,198,995	7.5	1
6415	PAPER AND PAPERBOARD,IN ROLLS OR SHE	385,503	6.5	1.8
6416	BUILDING BOARD OF WOOD PULP OR OF VE	89,893	7.4	0
6417	PAPER & PAPERBOARD,CORRUGATED,CREPED	77,061	7.1	0
6418	PAPER & PAPERBOARD,IMPREGNAT.COAT.SU	1,050,044	5	1.5
6419	CONVERTED PAPER AND PAPERBOARD,N.E.S	27,505	7.7	0.1
6421	BOXES,BAGS & OTH.PACKING CONTAINERS,	125,366	12.1	0
6424	PAPER AND PAPERBOARD,CUT TO SIZE OR	193,905	10.7	2.1
6428	ART.OF PAPER PULP,PAPER,PAPERBOARD,C	341,148	8.1	1.1
6512	YARN OF WOOL OR ANIMAL HAIR (INCLUDI	44,922	10.1	14.7
6514	YARN CONTAIN.85% BY WGT.OF SYNTH.FIB	830,266	4.4	14.4
6517	YARN OF REGENERATED FIBRES,NOT FOR R	75,394	8.2	15.8
6519	YARN OF TEXT.FIBRES,N.E.S.,INCL.YARN	242,463	7.2	44.5
6521	COTTON FABRICS,WOVEN,UNBLEACHED,NOT	56,982	11.7	27.7
6522	COTTON FABRICS,WOVEN,BLEACH.MERCERIZ	376,730	11.4	46.7
6531	FABRICS,WOVEN OF CONTINUOUS SYNTH.TE	348,277	12.5	38
6539	PILE & CHENILLE FABRICS,WOVEN OF MAN	91,310	13.3	41.9
6542	FABRICS,WOVEN,CONTAIN.85% OF WOOL/FI	46,856	5.3	14.3
6549	FABRICS,WOVEN,N.E.S.	134,762	7.9	5.3
655A	KNITTED OR CROCHETED FABRICS	174,335	9.6	24.7
6560	TULLE,LACE,EMBROIDERY,RIBBONS,& OTHE	140,673	10.4	22.1
6571	FELT & ARTICL.OF FELT,NES,WHETHER/NO	34,391	9.8	23.8
6573	COATED/IMPREGNATED TEXTILE FABRICS &	325,095	10	37.1
6575	TWINE,CORDAGE,ROPES & CABLES.& MANUF	20,736	11.7	30.7
6577	WADDING.TEXTIL.FABRICS FOR USE IN MA	191,049	7.2	43.8
6581	SACKS AND BAGS,OF TEXTILE MATERIALS	16,107	6.9	18.8
6583	TRAVELLING RUGS AND BLANKETS,NOT KNI	9,069	14.2	49
6584	BED LINEN,TABLE LINEN,TOILET & KITCH	86,158	13.2	31.3
6589	OTHER MADE-UP ARTICLES OF TEXTILE MA	337,974	10.1	50.9
6591	LINOLEUM AND SIMILAR FLOOR COVERINGS	2,337	8.9	38.6
6592	CARPETS,CARPETING AND RUGS,KNOTTED	358,733	10.6	20.5
6611	QUICKLIME,SLAKED LIME AND HYDRAULIC	446	3	0
6612	PORTLAND CEMENT,CIMENT FONDU,SLAG CE	6,677	7.7	1.5
6613	BUILDING & MONUMENTAL STONE,WORKED,&	15,234	5.8	0.1
6618	CONSTRUCTN.MATER.OF ASBESTOS-CEMENT	36,668	9.3	0
6623	REFRACTORY BRICKS & OTHER REFRACT.CO	153,519	7.4	0.1
6624	NON-REFRACT.CERAMIC BRICKS,TILES,PIP	17,037	16.7	0
6631	HAND POLISHING STONES,WHETSTONES,OIL	47,363	4	0

Continued

6632	NATURAL OR ARTIFICIAL ABRASIVE POWDE	84,777	5.9	0
6633	MANUFACTURES OF MINERAL MATERIALS,N.	544,534	6.3	0.3
6638	MANUFACTURES OF ASBESTOS; FRICTION M	49,198	4.7	1.2
665A	GLASSWARE	1,150,565	7.1	0.3
6664	TABLEWARE & OTHER ARTICLES OF PORCEL	30,387	12.9	0.7
6665	TABLEWARE & OTHER ARTICLES OF OTH.KI	18,147	13.3	0
6666	STATUETTES & OTH.ORNAMENTS,& ARTICLE	17,002	7.7	0.1
6672	DIAMONDS,UNWORK.CUT/OTHERWISE WORK.N	1,850,179	0.1	1.4
6674	SYNTHETIC/RECONSTRUCTED PRECIOUS/SEM	249,872	1	6
6712	PIG IRON,CAST IRON AND SPIEGELEISEN,	749	0.6	0
6713	IRON OR STEEL POWDERS,SHOT OR SPONGE	50,444	1.2	0.1
6716	FERRO-ALLOYS	32,248	4.4	12.6
6724	PUDDLED BARS AND PILINGS;INGOTS,BLOC	16,110	3	1.2
6725	BLOOMS,BILLETS,SLABS & SHEET BARS OF	62,319	4.6	1.6
6731	WIRE ROD OF IRON OR STEEL	19,255	8.5	12.7
6732	BARS & RODS,OF IRON/STEEL;HOLLOW MIN	48,104	8.1	1
6733	ANGLES,SHAPES & SECTIONS & SHEET PIL	96,632	8.6	9.8
674A	UNIVERSALS,PLATES AND SHEETS,OF IRON	262,927	7.7	4.2
6760	RAILS AND RAILWAY TRACK CONSTRUCTION	12,132	7.1	0
6770	IRON/STEEL WIRE/WHETH/NOT COATED,BUT	35,987	7.4	2.8
6781	TUBES AND PIPES,OF CAST IRON	37,104	12.8	0
6782	SEAMLESS TUBES AND PIPES;BLANKS FOR	139,144	15.1	3.2
6783	OTHER TUBES AND PIPES,OF IRON OR STE	258,758	6.8	1.7
6785	TUBE & PIPE FITTINGS(JOINTS,ELBOWS)O	88,449	6.3	0.1
6793	STEEL & IRON FORGINGS & STAMPINGS,IN	49,465	7.7	0.9
6794	CASTINGS OR IRON OR STEEL,IN THE ROU	245,599	2.8	0
6811	SILVER,UNWROUGHT,UNWORKED OR SEMI-MA	268,830	0.4	0
6812	PLATINUM AND OTHER METALS OF THE PLA	203,310	3.3	30.1
6821	COPPER AND COPPER ALLOYS,REFINED OR	294,092	5.5	0.5
6822	COPPER AND COPPER ALLOYS,WORKED	22,428	1.1	0
6831	NICKEL & NICKEL ALLOYS,UNWROUGHT (IN	157,865	3	0
6832	NICKEL AND NICKEL ALLOYS,WORKED	337,588	0.9	1
6841	ALUMINIUM AND ALUMINIUM ALLOYS,UNWRO	863,399	9.4	0.6
6842	ALUMINIUM AND ALUMINIUM ALLOYS,WORKE	23,698	4.7	3.7
6851	LEAD AND LEAD ALLOYS,UNWROUGHT	4,058	5.1	0.1
6852	LEAD AND LEAD ALLOYS,WORKED	373	5.7	0
6861	ZINC AND ZINC ALLOYS,UNWROUGHT	13,212	5.1	2
6863	ZINC AND ZINC ALLOYS,WORKED	257,113	2.3	2.6
689A	MISCELL.NON-FERROUS BASE METALS EMPL	280,027	12.3	0
691A	STRUCTURES & PARTS OF STRUC.;IRON,ST	369,666	10.7	1
692A	METAL CONTAINERS FOR STORAGE AND TRA	72,303	9.9	2.6
6931	STRANDED WIRE,CABLES,CORDAGES AND TH	21,036	10.1	0.2
6935	GAUZE,CLOTH,GRILL OF IRON STEEL OR C	247,528	7.6	0
6940	NAILS,SCREWS,NUTS,BOLTS ETC.OF IRON,	14,931	6.5	0.5
6951	HAND TOOLS OF A KIND USED IN AGRICUL	421,715	6.4	1.2
6953	OTHER TOOLS FOR USE IN THE HAND	491,104	5.5	0.3
6954	INTERCHANGEABLE TOOLS FOR HAND & MAC	227,398	8.3	0.4
6960	CUTLERY	752,823	7.1	0

6973	DOMESTIC-TYPE,NON-ELECTRIC HEATING,C	79,671	5.1	0
6974	ART.COMMONLY USED FOR DOM.PURPOSES,P	127,400	6.7	0
6991	LOCKSMITHS WARES,SAFES,STRONG ROOMS	327,429	7	1.7
6992	CHAIN AND PARTS THEREOF,OF IRON OR S	31,941	8	1.2
6996	MISCELLANEOUS ARTICLES OF BASE METAL	179,716	8.8	0.2
6997	ARTICLES OF IRON OR STEEL, N.E.S.	230,692	11.4	0.3
6998	ART.,NES.OF COPPER,NICKEL,ALUMINIUM,	254,930	7.2	0.5
6999	SEMI-MANUFACTURES OF TUNGSTEN,MOLYBD	308,603	4.3	0
711A	STEAM & OTHER VAPOUR GENERATING BOIL	282,861	9.7	0.1
712A	STEAM & OTHER VAPOUR POWER UNITS,STE	482,778	4.2	0.1
7133	INT.COMBUSTION PISTON ENGINES FOR MA	327,685	4.9	1
7139	PARTS OF INT.COMB.PISTON ENGINES OF	4,772,142	3.2	0.2
714A	ENGINES & MOTORS,NON-ELECTRIC	8,367,756	1.8	0.3
716A	ROTATING ELECTRIC PLANT AND PARTS	1,692,704	6.9	1.6
7188	ENGINES & MOTORS,N.E.S.SUCH AS WATER	141,880	7.6	0.5
7211	AGRICULTURAL & HORTICUL.MACH. FOR SO	102,202	4.3	4
7212	HARVESTING & TRESHING MACHINERY AND	725,128	2.9	0.2
7213	DAIRY MACHINERY AND PARTS	46,026	5.4	1.6
7219	AGRIC.MACH.& APPLIANCES,N.E.S.AND PA	263,877	5.1	0.4
722A	TRACTORS FITTED OR NOT WITH POWER TA	616,292	4.9	2.9
723A	CIVIL ENGINEERING & CONTRACTORS PLAN	3,968,909	6.5	1.2
7243	SEWING MACHINES,FURNITURE FOR SEWING	188,980	4.2	5.8
7247	MACH.FOR WASHING,CLEANING,DRYING,BLE	638,090	6	5.4
7248	MACH.FOR PREPARING,TANNING OR WORKIN	51,372	4.9	0.5
7251	MACH. FOR MAK./FINIS. CELLUL. PULP,P	86,211	7.3	13.1
7252	PAPER & PAPERBOARD CUTTING MACH.OF A	164,683	4.6	1.5
7259	PARTS OF THE MACH. OF 725--	191,628	5.9	0.4
726A	PRINTING & BOOKBINDING MACH.AND PART	925,770	4.7	2.4
727A	FOOD PROCESSING MACHINES AND PARTS	457,772	6.6	2.1
7281	MACH.TOOLS FOR SPECIALIZED PARTICULA	288,530	5.9	0.8
7283	MACH.FOR SORTING,SCREENING,SEPARATIN	404,759	8.3	3.5
7284	MACH.& APPLIANCES FOR SPEZIALIZED PA	6,022,179	5.3	1.5
7361	METAL CUTTING MACHINE-TOOLS	1,388,855	6.3	1.4
7369	PARTS OF THE MACHINE-TOOLS OF 736--	714,951	3.9	0.2
7371	CONVERTERS,LADLES,INGOT MOULDS AND C	108,285	9.3	12.7
7413	IND.& LAB.FURNACES AND OVENS AND PAR	838,052	5.7	0.1
7414	REFRIGERATORS & REFR.EQUIPMENT,EX.HO	1,651,509	9	3
7416	MACH.PLANT & SIM.LAB.EQUIP.INVOLV.A	878,142	6	0.3
742A	PUMPS FOR LIQUIDS,LIQ.ELEVATORS AND	1,435,439	5.9	0.4
743A	PUMPS & COMPRESSORS,FANS & BLOWERS,C	1,201,240	9.3	2.2
7441	WORK TRUCKS,MECHANICALLY PROPELLED,F	253,477	7.2	0.7
7442	LIFTING,HANDLING,LOADING MACH.CONVEY	2,342,943	6.3	1.7
7451	TOOLS FOR WORKING IN THE HAND,PNEUMA	348,772	3.4	0.4
7452	OTHER NON-ELECTRICAL MACH.AMP PARTS	1,420,924	4.9	0.1
7491	BALL,ROLLER OR NEEDLE ROLLER BEARING	403,151	8.4	0.3
7492	TAPS,COCKS,VALVES ETC.FOR PIPES,TANK	979,905	7.1	0.3
7493	TRANSMISSION SHAFTS,CRANKS,BEARING H	510,759	8.2	0.3
7499	OTHER NON-ELECTRIC PARTS & ACCESSORI	422,134	6.1	2.3

7511	TYPEWRITTERS;CHEQUE-WRITTING MACHINE	64,655	1.7	1.6
7512	CALCULATING MACHINES,CASH REGISTERS,	11,172,819	2.4	1.9
752A	AUTOMATIC DATA PROCESSING MACHINES &	16,263,972	3.2	0.2
7591	PARTS OF AND ACCESSORIES SUITABLE FO	1,116,312	3.4	0.2
761A	TELEVISION RECEIVERS	296,153	8.1	8.1
762A	RADIO-BROADCAST RECEIVERS	202,964	14	2
7641	ELECT.LINE TELEPHONIC & TELEGRAPHIC	1,899,379	7.1	2.6
7642	MICROPHONES,LOUDSPEAKERS,AMPLIFIERS	650,723	4	0.1
7649	PARTS OF APPARATUS OF DIVISION 76---	9,150,882	8	2.9
771A	ELECTRIC POWER MACHINERY AND PARTS T	907,955	6.1	1
772A	ELECT.APP.SUCH AS SWITCHES,RELAYS,FU	3,652,273	5.6	0.7
7731	INSULATED,ELECT.WIRE,CABLE,BARS,STRI	1,044,156	11.2	0.9
7732	ELECTRIC INSULATING EQUIPMENT	160,801	7.5	0.4
7742	APP.BASED ON THE USE OF X-RAYS OR OF	1,020,883	3.1	1.4
7751	HOUSEHOLD TYPE LAUNDRY EQUIPMENT	110,956	16.3	0.1
7752	REFRIG HH,FD FRZ,E/O	339,111	11.5	0.3
7754	SHAVERS & HAIR CLIPPERS WITH MOTOR A	26,428	4.7	0
7757	ELEC.-MECH.,DOMESTIC APPLIANCES AND	387,842	8.4	0.9
7758	ELECTRO-THERMIC APPLIANCES,N.E.S.	205,126	10	2.4
776A	THERMIONIC,COLD & PHOTO-CATHODE VALV	19,796,288	3.3	0.1
7781	BATTERIES AND ACCUMULATORS AND PARTS	712,880	6.5	0.8
7782	ELECT.FILAMENT LAMPS AND DISCHARGE L	255,493	6.3	0.8
7783	ELECTR.EQUIP.FOR INTERNAL COMBUSTION	355,581	5.2	0.4
7784	TOOLS FOR WORKING IN THE HAND WITH E	201,605	5.7	0.3
7788	OTHER ELECT.MACHINERY AND EQUIPMENT	3,020,790	5.1	1
7810	PASSENGER MOTOR CARS,FOR TRANSPORT O	7,052,509	13.1	10.1
7821	MOTOR VEHICLES FOR TRANSPORT OF GOOD	1,780,151	18.1	12.6
7822	SPECIAL PURPOSE MOTOR LORRIES AND VA	769,166	10.3	9.6
7831	PUBLIC-SERVICE TYPE PASSENGER MOTOR	54,043	24.7	30.3
7849	OTHER PARTS & ACCESSORIES OF MOTOR V	5,017,080	6.5	1.2
7852	CYLES,NOT MOTORIZED	259,723	7	17.5
786A	TRAILERS & OTHER VEHICLES,NOT MOTORI	179,807	8.2	0.1
791A	RAILWAY VEHICLES & ASSOCIATED EQUIPM	270,668	7	0.1
792A	AIRCRAFT & ASSOCIATED EQUIPMENT AND	27,588,648	1.6	0
793A	SHIPS,BOATS AND FLOATING STRUCTURES	969,321	4.1	0.6
8121	BOILERS & RADIATORS FOR CENTRAL HEAT	36,640	8.2	0.4
8122	SINKS,WASH BASINS,BIDETS,WATER CLOSE	83,759	9.4	0
8124	LIGHTING FIXTURES AND FITTINGS AND P	253,675	8.4	0.5
821A	FURNITURE AND PARTS THEREOF	1,325,735	7.1	0
8310	TRAVEL GOODS,HANDBAGS,BRIEF-CASES,PU	197,088	10.3	0
8421	OVERCOATS AND OTHER COATS, MEN,S	100,151	19	8.2
8422	SUITS,MEN'S,OF TEXTILE FABRICS	17,090	16.3	27.7
8423	TROUSERS,BREECHES ETC.OF TEXTILE FAB	608,487	21.1	22.5
8429	OTHER OUTER GARMENTS OF TEXTILE FABR	340,370	19	15
8431	COATS AND JACKETS OF TEXTILE FABRICS	56,148	22.5	4.9
8432	SUITS & COSTUMES,WOMEN'S,OF TEXTILE	28,734	20.3	16.5
8433	DRESSES,WOMEN'S,OF TEXTILE FABRICS	31,145	17.8	15
8434	SKIRTS,WOMEN'S,OF TEXTILE FABRICS	24,346	22.9	4.2

Continued

8441	SHIRTS,MEN'S,OF TEXTILE FABRICS	469,343	22.1	3.1
8442	UNDER GARMENTS,EXCL.SHIRTS,OF TEXTIL	53,535	17.8	3.3
8451	JERSEYS,PULL-OVERS,TWINSETS,CARDIGAN	175,106	15	13.7
8452	DRESSES,SKIRTS,SUITS ETC,KNITTED OR	51,083	16	17.3
8459	OTHER OUTER GARMENTS & CLOTHING,KNIT	352,722	18.9	13.3
8461	UNDER GARMENTS,KNITTED OR CROCHETED	792,551	18.8	9.1
8465	CORSETS,BRASSIERES,SUSPENDRES AND TH	255,380	23.2	6.3
8471	CLOTHING ACCESSORIES OF TEXTILE FABR	44,850	17.4	10.9
8472	CLOTHING ACCESSORIES,KNITTED OR CROC	107,381	12.3	43.6
8481	ART.OF APPAREL & CLOTHING ACCESSORIE	84,795	11.9	0
8482	ART.OF APPAREL & CLOTHING ACCESSORIE	111,982	6.5	0.2
8483	FUR CLOTHING,ARTICLES MADE OF FURSKI	48,324	8.1	0.1
8484	HEADGEAR AND FITTINGS THEREOF,N.E.S.	73,118	6.9	0
8510	FOOTWEAR	400,837	14.6	1.1
8710	OPTICAL INSTRUMENTS AND APPARATUS	885,248	4.5	0.2
8720	MEDICAL INSTRUMENTS AND APPLIANCES	5,006,771	3	0.4
8741	SURVEYING,HYDROGRAPHIC,COMPASSES ETC	841,701	3.8	2.7
8745	MEASURING,CONTROLLING & SCIENTIFIC I	460,555	4.8	0.1
8748	ELECTRICAL MEASURING,CHECKING,ANALYS	6,113,397	3.9	0.7
8749	PARTS,N.E.S.ACCESSORIES FOR 873--,87	1,331,350	3.9	0.1
8811	PHOTOGRAPHIC,CAMERAS,PARTS & ACCESSO	464,843	5.4	0
8813	PHOTOGRAPHIC & CINEMATOGRAPHIC APPAR	1,140,101	5.3	1
8822	PHOTOGRAPHIC FILM,PLATES,PAPER	1,296,817	4.1	0.1
8830	CINEMATOGRAPH FILM,EXPOSED-DEVELOPED	35,350	0.9	0
8841	LENSES,PRISMS,MIRRORS,OTHER OPTICAL	285,185	4.8	0.3
8842	SPECTACLES AND SPECTACLE FRAMES	167,380	5.8	0
8851	WATCHES,WATCH MOVEMENTS AND CASES	150,317	5.1	0.5
8852	CLOCKS,CLOCK MOVEMENTS AND PARTS	82,956	7.8	0.3
8921	BOOKS,PAMPHLETS,MAPS AND GLOBES,PRIN	991,741	1.9	0.2
8922	NEWSPAPERS JOURNALS,PERIODICALS	188,011	0.6	0.2
8925	MAPS, GREETING CARDS MUSIC, PRINTED	0	0	0
8928	PRINTED MATTER,N.E.S.	749,273	3.9	0.1
8931	ART.FOR THE CONVEYANCE OR PACKING OF	427,578	10.8	0.1
8939	MISCELLANEOUS ART.OF MATERIALS OF DI	3,480,356	4.7	0.9
8942	CHILDREN S TOYS,INDOOR GAMES,ETC.	1,219,600	7.9	0.2
8946	NON-MILITARY ARMS AND AMMUNITION THE	154,068	8.6	0.7
8947	OTHER SPORTING GOODS AND FAIRGROUND	907,124	3.3	0.1
895A	OFFICE AND STATIONERY SUPPLIES,N.E.S	335,538	6	3.1
8960	WORKS OF ART,COLLECTORS PIECES & ANT	1,700,561	0.1	0
897A	JEWELLERY,GOLDSMITHS AND OTHER ART.	766,402	7.7	0.7
8981	PIANOS AND OTHER STRING MUSICAL INST	147,075	3.8	0
8982	OTHER MUSICAL INSTRUMENTS OF 898.1-	429,812	2	0.1
8983	GRAMOPHONE RECORDS AND SIM.SOUND REC	4,425,122	4.4	2.5
8991	ART.& MANUF.OF CARVING OR MOULDING M	63,049	4.3	0.4
8996	ORTHOPAEDIC APPLIANCES,SURGICAL BELT	1,138,608	1.6	0
8997	BASKETWORK,WICKERWORK ETC. OF PLAITI	65,762	9.5	0.2
8998	SMALL-WARES AND TOILET ART.,FEATHER	232,992	9.1	1.4
8999	MANUFACTURED GOODS,N.E.S.	46,685	12.6	0.4

Continued

9310	SPECIAL TRANSACTIONS & COMMOD.,NOT C	9,872,731	1.5	0.5
9410	ANIMALS,LIVE,N.E.S.,INCL. ZOO-ANIMAL	17,285	2.9	0.1
9510	ARMOURED FIGHTING VEHICLES,ARMS OF W	3,095,087	7.4	0.1
9710	GOLD,NON-MONETARY	4,940,584	0.1	0
9999	NON-IDENTIFIED PRODUCTS	-	0	0

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	1 Unmilled cereals		2 Fresh fruits,vegetab		3 Other crops	
	1	2	1	2	1	2
Canada	152.3	0.0	1,612.6	0.1	690.2	0.4
USA	684.7	0.0	3,542.3	0.4	4,245.4	0.3
Mexico	1,015.4	0.0	138.5	2.2	1,103.1	0.4
Austria	45.3	0.0	517.0	1.1	412.6	1.5
Belgium	1,385.6	0.0	1,127.7	1.0	1,287.2	0.5
France	252.1	0.0	2,470.8	1.1	2,249.9	1.1
Germany	1,035.7	0.0	6,515.3	1.3	5,339.9	1.5
Italy	1,605.2	0.0	1,151.7	1.9	1,341.6	1.3
Spain	1,468.0	0.0	948.8	3.8	1,597.1	0.9
UK	617.8	0.0	2,837.4	1.1	1,715.9	0.8
Japan	3,918.0	1.0	1,828.2	3.2	5,123.9	0.8
China	2,857.6	106.3	171.0	40.1	830.3	29.7
Korea	1,768.4	34.8	115.9	155.0	1,219.1	17.0
Taiwan	1,037.5	39.4	215.3	124.5	1,161.1	19.0
ROE	3,195.6	5.5	5,033.0	3.6	6,627.2	1.4
ROW	13,200.1	19.7	5,505.6	25.9	6,425.1	10.4
	4 Livestock		5 Silk		6 Cotton	
	1	2	1	2	1	2
Canada	139.5	0.0	0.3	0.0	117.3	0.0
USA	1,932.7	0.0	1.9	0.1	130.4	1.2
Mexico	45.1	0.1	0.3	0.0	231.8	0.2
Austria	33.7	2.1	4.3	0.0	55.9	0.0
Belgium	413.9	0.1	1.1	0.2	102.6	0.0
France	617.8	0.1	5.4	0.5	299.9	0.0
Germany	798.8	0.9	30.1	0.5	390.4	0.0
Italy	1,965.4	0.1	87.5	0.5	788.0	0.0
Spain	578.1	0.5	0.4	0.0	160.7	0.0
UK	274.9	0.4	5.5	0.1	120.3	0.0
Japan	279.6	2.8	90.0	0.0	739.6	0.0
China	42.7	0.3	5.1	0.4	1,459.9	4.4
Korea	27.4	2.6	70.0	6.6	541.5	0.5
Taiwan	10.9	7.2	2.4	6.7	343.8	0.5
ROE	1,531.2	1.1	6.9	0.7	1,029.8	0.0
ROW	2,581.1	0.6	260.7	4.4	3,685.1	2.6
	7 Wool		8 Other natural fibers		9 Crude wood	
	1	2	1	2	1	2
Canada	12.7	0.0	1.2	0.0	954.9	0.0
USA	224.3	0.3	40.7	0.0	6,813.3	0.0
Mexico	20.9	0.2	0.7	2.1	167.5	1.0
Austria	10.6	0.0	10.2	0.0	656.8	0.4
Belgium	144.8	0.1	91.1	0.0	864.9	0.2
France	327.9	0.0	57.7	0.0	1,216.7	0.8
Germany	376.9	0.0	15.3	0.0	2,482.5	0.9
Italy	802.9	0.1	47.1	0.0	2,602.5	0.2
Spain	61.8	0.1	21.3	0.0	842.4	0.7
UK	382.6	0.1	60.3	0.0	1,963.4	0.2
Japan	491.0	0.0	33.9	0.0	9,244.2	1.1
China	916.3	0.6	46.3	8.6	634.9	3.1
Korea	293.4	0.5	10.6	0.5	1,292.2	0.8
Taiwan	167.3	0.5	10.6	0.5	718.4	1.0
ROE	348.5	0.0	79.7	0.0	5,418.2	0.6
ROW	787.5	2.1	132.0	3.6	4,408.5	3.4

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	10 Fishery		11 Iron ore		12 Coal	
	1	2	1	2	1	2
Canada	223.1	0.0	212.0	0.0	346.5	0.0
USA	2238.6	0.0	433.7	0.0	373.6	0.0
Mexico	20.3	0.7	51.0	4.1	62.2	0.0
Austria	9.6	6.8	32.4	0.0	219.0	0.0
Belgium	225.1	2.2	338.2	0.0	774.9	0.0
France	592.3	6.1	346.1	0.0	747.5	0.0
Germany	157.7	6.4	963.4	0.0	840.4	0.0
Italy	503.3	3.9	394.0	0.0	952.8	0.0
Spain	883.4	7.8	150.1	0.0	579.1	0.0
UK	173.6	2.3	321.2	0.0	807.7	0.0
Japan	4537.6	2.8	1949.6	0.0	4902.8	0.0
China	222.7	32.4	843.2	0.0	59.2	4.6
Korea	156.3	23.7	622.1	0.2	1686.2	0.1
Taiwan	326.5	23.7	154.1	0.2	926.6	0.1
ROE	743.4	5.4	408.8	0.0	2553.9	0.1
ROW	1061.4	38.6	860.7	0.5	2893.9	2.1
	13 Non-ferrous metal		14 Crude petroleum		15 Natural gas	
	1	2	1	2	1	2
Canada	1,510.3	0.0	3,936.2	0.0	143.7	0.0
USA	1,823.3	0.0	47,698.3	0.0	6,164.2	0.0
Mexico	126.2	2.0	0.0	0.0	329.5	0.2
Austria	39.5	0.1	818.5	0.0	36.9	0.1
Belgium	704.7	0.1	632.5	0.0	1,532.2	0.1
France	751.8	0.1	8,964.8	0.0	2,437.8	0.2
Germany	1,350.6	0.0	10,324.6	0.0	3,763.0	0.2
Italy	467.5	0.2	7,513.8	0.0	1,110.0	0.0
Spain	718.9	0.6	5,718.2	0.0	1,044.8	0.0
UK	990.6	0.8	5,115.2	0.0	306.9	0.1
Japan	4,650.4	0.0	29,927.2	0.0	8,993.4	0.0
China	960.5	0.4	2,348.2	0.0	398.0	1.9
Korea	880.2	0.3	10,718.2	1.2	1,845.3	0.6
Taiwan	117.7	0.3	973.9	1.2	393.0	0.6
ROE	2,808.6	0.4	21,629.8	0.1	3,285.7	0.1
ROW	2,918.7	2.3	35,099.9	2.2	2,213.9	1.8
	16 Non-metallic ore		17 Electrical energy		18 Meat	
	1	2	1	2	1	2
Canada	355.5	0.0	49.5	0.0	883.5	7.1
USA	1,134.4	0.3	997.1	0.0	2,741.6	3.2
Mexico	225.5	0.8	0.0	0.0	536.7	1.4
Austria	220.1	0.1	155.0	0.0	434.6	2.3
Belgium	767.9	0.0	354.4	0.0	1,168.8	3.3
France	656.6	0.0	244.4	0.0	4,799.2	0.7
Germany	1,200.7	0.0	982.8	0.0	7,377.1	1.5
Italy	905.5	0.0	867.0	0.0	4,165.7	0.2
Spain	354.4	0.1	297.7	0.0	959.4	1.3
UK	431.3	0.1	709.5	0.0	3,923.2	2.5
Japan	1,242.7	0.0	0.0	0.0	9,718.7	9.5
China	148.6	3.1	93.3	2.9	514.3	16.9
Korea	377.1	0.8	0.0	0.0	861.8	52.1
Taiwan	342.6	0.8	0.0	0.0	439.3	42.3
ROE	2,613.1	0.2	2,398.7	0.0	5,912.6	21.9
ROW	3,120.3	1.9	860.9	0.2	8,946.6	24.1

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	19 Dairy and e		20 Preserved fruits,vegetable		21 Preserved seafood	
	1	2	1	2	1	2
Canada	174.0	0.0	1,387.8	0.1	801.5	0.1
USA	699.1	13.8	3,344.8	4.2	4,507.5	1.1
Mexico	401.6	24.1	155.0	9.5	46.9	12.3
Austria	269.7	0.0	496.7	15.0	169.0	16.8
Belgium	2,868.0	0.0	1,304.7	1.8	693.5	2.2
France	2,341.5	0.0	3,251.8	12.1	2,456.4	14.7
Germany	4,283.3	0.0	5,740.3	14.6	2,134.7	18.2
Italy	3,155.4	0.0	1,317.8	5.3	1,791.8	6.1
Spain	919.9	0.0	642.9	7.9	1,854.0	7.8
UK	1,768.1	0.0	3,058.5	7.6	1,533.1	12.0
Japan	808.2	9.8	3,013.2	14.8	10,925.3	4.3
China	151.2	15.8	127.6	20.8	381.3	17.2
Korea	134.1	68.7	330.2	109.8	597.9	2.9
Taiwan	304.3	74.8	295.6	93.2	551.3	3.4
ROE	5,606.5	16.2	5,613.9	14.5	4,620.5	11.1
ROW	8,290.0	23.4	5,005.5	25.2	4,913.9	8.8
	22 Vegetable&animal oils,fat		23 Grain mill products		24 Bakery products	
	1	2	1	2	1	2
Canada	383.5	0.7	188.6	0.0	436.7	0.8
USA	1,598.3	0.9	375.3	3.2	984.0	1.6
Mexico	686.0	3.9	110.0	3.4	39.4	3.9
Austria	233.3	1.7	43.2	0.0	260.0	0.0
Belgium	985.8	0.8	278.3	0.0	467.6	0.0
France	2,193.4	1.6	553.1	0.1	1,097.8	0.0
Germany	1,994.7	4.3	521.2	0.2	1,296.2	0.0
Italy	1,832.0	2.3	129.4	0.3	268.9	0.0
Spain	1,185.6	2.7	123.8	0.2	246.0	0.0
UK	1,449.7	3.4	379.6	0.6	748.8	0.0
Japan	933.8	3.2	395.1	7.4	292.2	14.5
China	2,747.9	41.4	519.7	51.3	54.1	20.0
Korea	693.3	1.6	111.5	63.9	56.5	7.4
Taiwan	225.8	1.6	26.0	66.7	79.0	7.4
ROE	5,832.4	5.0	1,472.0	12.7	1,589.0	10.8
ROW	13,062.6	11.0	8,114.2	21.9	2,298.8	18.0
	25 Sugar		26 Cocoa, chocolate,etc		27 Food products n.e.c.	
	1	2	1	2	1	2
Canada	291.3	0.8	531.0	1.4	1,586.9	0.6
USA	783.4	8.2	1,523.0	3.2	5,298.2	1.6
Mexico	13.4	0.2	104.6	5.1	376.0	5.2
Austria	58.3	0.0	282.7	1.1	688.8	3.6
Belgium	600.0	0.0	753.7	0.5	1,830.1	0.9
France	312.4	0.0	1,523.0	1.2	3,296.7	3.5
Germany	334.1	0.0	2,365.9	1.9	6,859.0	5.0
Italy	285.4	0.0	609.5	1.1	2,299.7	2.3
Spain	253.6	0.0	400.0	1.4	1,837.2	2.9
UK	937.2	0.0	1,095.1	2.2	3,294.4	5.1
Japan	582.2	2.2	580.2	13.2	3,246.8	10.2
China	974.4	23.1	209.6	11.3	300.3	23.3
Korea	406.9	1.5	111.2	8.7	541.8	9.1
Taiwan	61.9	2.5	113.1	10.0	597.0	11.3
ROE	939.6	10.9	3,703.1	5.7	9,132.3	7.4
ROW	5,564.2	7.6	3,671.6	15.0	10,495.1	8.4

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	28 Prepared animal feeds		29 Alcoholic beverage		30 Non-alcoholic beverage	
	1	2	1	2	1	2
Canada	123.6	0.1	716.2	0.9	103.7	8.1
USA	147.7	1.3	4,628.2	2.1	373.0	1.3
Mexico	53.6	6.6	150.1	8.0	28.5	0.7
Austria	34.9	1.0	188.4	2.0	33.5	1.9
Belgium	226.3	0.7	1,246.1	2.1	429.2	5.3
France	196.9	1.7	1,552.3	1.3	295.5	3.2
Germany	365.1	2.8	3,210.8	1.9	473.8	2.4
Italy	244.2	1.3	918.5	1.8	51.2	1.6
Spain	132.7	2.4	1,147.6	2.6	60.5	3.4
UK	248.9	2.2	3,049.6	1.0	249.4	2.3
Japan	566.6	0.3	2,110.9	10.2	281.4	7.3
China	317.2	1.0	392.3	43.5	64.9	52.1
Korea	33.3	2.6	174.7	21.6	9.3	5.8
Taiwan	254.1	1.6	591.8	21.2	27.9	5.8
ROE	1,075.8	2.6	4,834.2	8.7	692.2	10.5
ROW	1,055.6	1.5	6,091.7	27.3	1,492.6	18.1
	31 Tobacco products		32 Yarns and threads		33 Cotton fabric	
	1	2	1	2	1	2
Canada	53.6	0.2	645.6	3.9	335.8	11.5
USA	513.4	22.7	1,508.7	7.9	1,799.3	12.0
Mexico	27.5	11.5	203.2	4.1	213.0	7.4
Austria	85.8	3.9	509.0	2.2	219.0	8.9
Belgium	2,150.5	3.7	1,595.4	3.7	567.4	8.5
France	1,645.5	7.2	2,230.3	1.9	916.0	9.1
Germany	1,343.8	3.5	2,831.6	2.9	1,388.3	9.9
Italy	1,117.4	0.0	2,953.5	3.9	988.6	7.4
Spain	667.6	12.2	889.6	7.5	293.5	11.0
UK	712.6	1.0	1,838.8	1.9	1,082.0	5.8
Japan	2,191.3	0.1	1,589.9	4.2	557.9	5.7
China	818.6	9.5	3,996.3	11.3	2,025.9	12.2
Korea	771.9	55.8	1,690.9	3.6	350.6	7.4
Taiwan	345.8	53.7	729.8	3.6	151.4	7.4
ROE	2,702.1	10.9	5,080.1	8.2	2,849.4	17.4
ROW	7,978.3	44.9	9,359.6	8.9	9,108.4	20.5
	34 Other textile products		35 Floor coverings		36 Wearing apparel	
	1	2	1	2	1	2
Canada	2,126.1	1.0	330.4	0.6	2,915.9	18.3
USA	7,829.5	12.1	1,022.7	4.3	36,187.6	11.0
Mexico	1,391.9	9.9	82.9	3.2	1,976.8	7.7
Austria	1,315.5	7.3	224.3	10.5	3,234.7	12.8
Belgium	2,152.5	6.1	319.1	5.6	4,877.6	1.5
France	4,722.2	7.5	559.8	6.6	10,729.9	17.2
Germany	9,490.5	10.5	2,344.4	11.0	26,304.8	20.9
Italy	2,642.4	6.6	268.8	7.9	4,685.3	10.9
Spain	1,761.7	11.2	109.4	11.0	3,022.7	15.4
UK	4,534.3	4.8	832.2	3.5	8,658.5	9.5
Japan	3,808.9	6.9	611.2	5.8	17,702.8	9.2
China	8,709.9	17.9	73.4	17.6	3,267.1	2.3
Korea	1,917.3	7.4	70.6	14.8	1,230.6	14.8
Taiwan	973.7	7.4	37.7	14.8	1,174.9	14.8
ROE	14,002.8	15.1	1,812.8	13.2	23,809.5	17.8
ROW	28,294.2	20.4	1,454.0	26.5	30,168.2	27.7

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	37 Leather and hides		38 Leather products		39 Footwear	
	1	2	1	2	1	2
Canada	346.8	0.2	371.0	0.6	876.1	1.3
USA	1,371.1	1.0	4,731.0	3.6	13,697.7	4.9
Mexico	268.5	1.8	146.9	9.8	84.7	17.0
Austria	209.2	0.6	295.2	2.1	711.9	9.6
Belgium	244.5	1.0	364.9	4.2	973.6	6.1
France	805.9	0.9	1,136.5	3.0	2,603.8	11.9
Germany	1,375.9	1.0	1,944.1	3.6	5,318.6	13.3
Italy	3,563.3	2.4	925.9	5.3	1,121.5	11.6
Spain	831.7	3.2	252.1	6.4	406.9	16.0
UK	565.7	0.1	960.2	0.4	2,351.3	0.6
Japan	695.3	4.6	2,891.0	8.6	2,611.0	12.8
China	3,584.7	1.0	483.4	2.0	61.4	1.7
Korea	1,882.9	2.8	331.3	5.6	191.2	5.6
Taiwan	668.7	2.8	311.8	5.6	221.7	5.6
ROE	3,385.1	2.5	2,322.0	4.8	5,389.6	14.8
ROW	5,874.6	4.9	4,039.6	10.1	6,461.3	10.0

	40 Plywood and veneer		41 Other wood products		42 Furnitures and fixtures	
	1	2	1	2	1	2
Canada	151.5	0.5	468.7	0.1	854.3	1.9
USA	885.3	4.7	3,668.1	1.3	3,547.5	1.1
Mexico	41.8	4.7	163.6	2.1	278.2	1.8
Austria	131.5	6.9	629.1	3.3	604.1	0.6
Belgium	257.6	11.5	664.3	3.5	790.5	2.0
France	289.0	9.3	1,323.6	3.0	1,458.7	0.8
Germany	976.0	10.4	4,770.7	4.7	3,577.4	1.5
Italy	252.3	4.8	771.9	2.2	284.5	1.2
Spain	85.9	15.4	479.1	6.6	258.6	2.2
UK	663.7	1.7	1,162.5	0.6	854.9	0.3
Japan	2,106.5	7.2	1,960.2	3.1	1,165.0	1.1
China	1,189.9	26.1	331.6	23.8	69.5	17.8
Korea	546.3	11.1	441.7	10.5	116.0	11.1
Taiwan	423.8	11.1	354.3	9.9	139.2	11.1
ROE	1,300.2	11.3	3,719.2	5.6	3,410.4	3.6
ROW	1,694.3	25.4	2,703.0	24.2	2,470.2	23.9

	43 Pulp and waste paper		44 Newsprint		45 Paper products	
	1	2	1	2	1	2
Canada	672.4	0.0	8.5	0.0	2,709.7	0.9
USA	4,171.3	0.0	4,815.7	0.0	8,947.5	0.4
Mexico	729.4	0.1	54.4	0.3	1,758.7	0.8
Austria	545.5	0.0	65.0	1.1	1,527.6	2.5
Belgium	606.1	0.0	134.7	0.8	4,141.0	0.6
France	1,802.2	0.0	296.4	4.0	7,432.1	2.6
Germany	3,655.8	0.0	788.9	4.1	10,121.1	3.6
Italy	2,264.5	0.0	308.8	1.9	3,837.6	2.0
Spain	540.0	0.0	210.2	4.9	2,833.3	4.7
UK	1,633.7	0.0	757.4	2.0	7,355.0	1.6
Japan	2,946.8	0.0	598.0	0.0	1,434.5	1.2
China	723.2	0.1	30.2	0.0	2,841.9	1.4
Korea	1,671.8	1.0	120.1	3.7	740.8	3.7
Taiwan	852.0	1.0	212.8	3.7	986.6	3.7
ROE	2,809.6	0.0	1,119.1	4.2	17,167.9	6.3
ROW	3,000.6	1.4	1,885.6	2.5	17,485.1	5.0

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	46 Printing,publishing		47 Basic chemicals		48 Fertilizers	
	1	2	1	2	1	2
Canada	1,996.3	0.2	3,490.8	0.2	773.2	0.8
USA	2,719.0	0.3	19,297.0	4.1	2,038.7	0.7
Mexico	640.0	0.6	2,556.8	2.8	240.7	0.8
Austria	965.6	0.2	1,274.4	2.7	169.6	2.9
Belgium	1,128.4	0.6	8,129.2	1.6	904.0	2.0
France	2,266.8	0.4	10,932.0	3.2	2,832.9	2.5
Germany	2,137.3	0.8	12,838.0	3.4	1,827.5	4.8
Italy	537.7	0.3	8,555.8	2.0	1,075.2	2.0
Spain	463.2	0.4	4,780.0	0.5	693.9	0.7
UK	1,867.3	0.6	9,075.3	2.2	1,107.4	3.4
Japan	772.8	0.0	10,143.5	2.0	741.7	1.4
China	345.8	6.0	4,828.6	18.2	2,457.6	10.2
Korea	173.0	0.2	6,762.7	0.4	231.1	6.0
Taiwan	217.9	0.2	6,315.7	0.3	155.4	6.6
ROE	5,966.4	1.7	26,501.6	4.5	4,033.1	5.6
ROW	4,373.1	3.1	33,879.9	6.2	8,613.8	12.1

	49 Synthetic resins,man-made		50 Paints,varnishes,lacquers		51 Drugs and medicines	
	1	2	1	2	1	2
Canada	3,839.5	0.1	515.9	0.1	1,693.5	0.0
USA	7,950.7	3.7	520.7	3.3	5,703.1	0.0
Mexico	2,135.8	1.4	197.3	3.4	522.8	7.0
Austria	1,965.9	2.8	290.4	1.5	1,533.5	0.0
Belgium	5,874.5	2.2	535.2	1.2	2,951.2	0.0
France	8,677.1	2.6	884.1	2.0	4,986.1	0.0
Germany	12,258.9	4.3	1,028.2	3.2	6,056.0	0.0
Italy	8,207.0	1.6	548.7	1.1	3,635.2	0.0
Spain	3,316.1	0.5	361.6	0.3	2,119.2	0.0
UK	7,255.5	0.8	530.0	0.7	4,043.7	0.0
Japan	2,173.6	2.6	206.6	2.6	3,947.9	0.0
China	12,993.5	13.9	555.4	24.2	956.5	9.3
Korea	2,304.7	1.9	249.3	1.1	615.9	1.7
Taiwan	2,494.0	1.9	263.2	1.1	628.9	1.7
ROE	19,839.5	6.0	2,789.3	4.7	15,521.9	0.2
ROW	30,827.3	6.9	3,573.3	9.6	14,940.0	4.0

	52 Soap,other toilet preparati		53 Chemical products n.e.c.		54 Petroleum refineries	
	1	2	1	2	1	2
Canada	1,065.8	0.2	2,192.2	0.1	615.3	6.4
USA	2,041.7	1.9	6,563.9	2.9	5,218.7	0.9
Mexico	309.0	5.8	978.1	5.6	716.7	0.6
Austria	649.4	1.6	1,022.3	1.6	289.8	1.5
Belgium	1,265.5	0.7	2,350.3	1.3	1,494.6	0.5
France	1,989.7	1.8	4,760.8	2.6	1,399.5	1.0
Germany	2,902.8	2.2	5,902.9	3.4	2,916.3	2.0
Italy	1,390.6	0.6	3,392.9	1.5	876.5	0.2
Spain	914.0	0.1	1,829.6	0.4	483.2	0.1
UK	1,947.0	1.2	3,614.4	0.6	755.9	2.2
Japan	1,059.0	1.7	3,436.3	1.7	3,104.0	3.3
China	277.0	34.2	1,840.2	28.2	335.9	15.7
Korea	427.4	1.1	2,214.5	1.9	895.1	1.6
Taiwan	603.5	1.1	1,551.3	1.6	353.6	1.6
ROE	6,528.2	5.0	11,521.8	4.2	4,896.9	2.4
ROW	7,951.7	11.6	15,707.6	8.3	8,220.2	6.4

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	55 Fuel oils		56 Product of petroleum		57 Product of coal	
	1	2	1	2	1	2
Canada	225.0	2.0	295.3	0.0	112.2	0.0
USA	4,236.8	2.2	419.0	1.3	348.7	0.0
Mexico	177.4	2.5	182.7	0.6	44.6	0.9
Austria	450.2	1.1	89.6	2.3	110.3	0.0
Belgium	2,034.2	0.8	326.4	0.5	215.0	0.0
France	1,836.3	1.6	382.1	1.2	139.5	0.0
Germany	3,100.7	2.5	618.1	1.2	349.7	0.0
Italy	2,699.7	0.3	294.9	0.1	117.8	0.0
Spain	822.3	0.1	146.7	0.1	75.2	0.0
UK	1,444.2	2.4	237.7	1.4	51.2	0.0
Japan	1,644.7	3.6	315.9	1.4	56.9	1.7
China	2,459.6	15.5	199.7	16.9	0.2	0.5
Korea	2,525.9	1.6	291.0	1.4	22.2	2.3
Taiwan	720.3	1.6	184.5	1.5	29.4	2.1
ROE	5,022.7	2.8	1,354.4	1.8	379.0	0.1
ROW	20,714.9	6.3	2,175.1	7.3	424.8	2.3
	58 Tyre and tube		59 Rubber products,n.e.c.		60 Plastic products,n.e.c.	
	1	2	1	2	1	2
Canada	1,090.4	4.5	913.1	3.5	1,888.4	2.9
USA	3,316.5	1.1	2,604.8	1.0	10,025.7	4.1
Mexico	313.7	12.1	485.1	5.3	2,239.3	3.9
Austria	474.3	1.4	364.2	0.8	1,736.7	2.1
Belgium	949.2	0.4	641.5	0.3	2,139.7	2.6
France	1,302.1	1.4	1,089.1	1.1	4,289.2	2.6
Germany	2,661.7	2.1	2,076.9	1.6	6,385.9	4.2
Italy	1,258.2	1.3	654.8	1.2	1,579.7	2.7
Spain	856.3	0.9	668.5	0.6	1,404.0	2.1
UK	1,391.9	2.0	981.0	1.4	3,622.4	1.9
Japan	580.6	0.0	447.1	1.2	2,233.6	3.4
China	61.6	20.7	307.5	12.1	1,249.3	25.3
Korea	85.4	1.1	255.0	1.1	547.7	1.1
Taiwan	176.7	1.1	248.1	1.1	558.9	1.1
ROE	3,992.4	5.1	3,057.0	3.8	10,682.7	7.6
ROW	4,841.6	7.4	3,287.6	7.0	10,916.5	10.4
	61 Glass		62 Cement		63 Ceramics	
	1	2	1	2	1	2
Canada	1,640.2	0.3	44.4	0.0	632.9	1.1
USA	5,559.8	8.6	602.5	0.0	3,783.1	11.2
Mexico	1,001.9	3.7	6.3	0.1	645.0	4.3
Austria	659.0	1.6	77.5	2.2	312.7	2.5
Belgium	1,200.2	1.7	70.4	0.8	470.2	2.0
France	2,613.2	1.6	158.8	0.4	974.8	3.5
Germany	4,096.3	3.2	572.1	2.1	1,923.2	4.2
Italy	1,402.6	0.3	99.3	0.4	460.2	0.7
Spain	936.7	2.5	128.0	2.8	385.8	4.3
UK	1,919.7	2.5	81.2	1.7	820.1	3.9
Japan	1,383.7	0.7	37.1	2.5	631.6	2.1
China	1,118.0	14.3	21.2	7.4	459.1	18.9
Korea	944.4	11.1	91.5	7.3	157.8	11.1
Taiwan	597.5	11.1	186.5	7.3	208.8	11.1
ROE	5,780.0	6.0	499.8	2.4	2,533.2	6.6
ROW	8,076.6	20.1	2,088.6	20.7	3,573.5	24.3

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	64 Non-metallic produ		65 Basic iron and steel		66 Copper	
	1	2	1	2	1	2
Canada	691.9	1.1	3,445.2	2.2	561.8	0.4
USA	3,110.9	10.6	15,362.3	4.0	3,556.4	0.0
Mexico	317.8	14.3	1,875.3	5.1	290.9	4.3
Austria	737.2	0.6	2,041.9	1.0	525.5	0.3
Belgium	1,196.8	0.7	5,142.5	1.5	1,054.8	0.2
France	2,235.1	0.8	9,543.1	0.6	2,462.2	0.3
Germany	4,904.5	1.4	17,172.6	1.5	3,894.1	0.4
Italy	974.2	0.1	9,135.6	0.7	2,541.0	0.3
Spain	497.2	0.8	3,809.3	1.2	852.9	0.8
UK	1,136.4	1.2	6,005.3	1.5	1,955.2	0.1
Japan	1,356.8	0.7	5,545.2	2.2	1,555.4	2.5
China	639.2	17.0	6,824.6	13.5	1,818.0	5.3
Korea	576.6	11.1	5,680.5	1.6	1,477.8	8.1
Taiwan	572.2	11.1	4,851.0	1.7	1,875.9	7.9
ROE	5,171.1	4.1	25,283.6	4.4	4,143.8	2.4
ROW	7,290.5	18.7	35,227.9	7.8	7,542.6	11.0

	67 Aluminum		68 Nickel		69 Lead and zinc	
	1	2	1	2	1	2
Canada	1,545.3	0.2	124.8	0.5	31.3	2.6
USA	6,268.7	1.7	902.5	0.6	1,132.2	0.9
Mexico	686.0	3.9	20.9	2.1	15.6	0.2
Austria	832.0	1.8	34.3	0.2	111.2	0.3
Belgium	1,606.3	1.9	154.6	0.1	170.9	0.3
France	2,599.3	1.6	315.1	0.2	283.9	0.3
Germany	5,561.8	2.0	766.7	0.2	538.7	0.7
Italy	2,639.0	2.0	222.2	0.1	204.5	0.6
Spain	665.5	4.1	71.4	0.4	59.5	1.0
UK	2,274.3	0.4	308.7	0.1	307.6	0.2
Japan	4,620.2	0.3	407.3	6.5	210.8	2.2
China	1,320.3	10.7	66.0	5.7	158.0	5.1
Korea	1,661.1	8.5	139.6	8.9	150.6	7.3
Taiwan	986.9	9.1	119.7	7.9	313.7	7.3
ROE	6,587.6	5.7	486.9	0.9	699.3	3.1
ROW	6,139.5	15.2	374.8	8.7	1,179.9	11.4

	70 Other Non-ferrous metal		71 Metal furnitures and fixtur		72 Structural metal products	
	1	2	1	2	1	2
Canada	418.4	0.6	562.7	4.2	606.3	0.7
USA	2,750.4	2.2	2,549.2	9.4	521.8	3.5
Mexico	43.6	1.3	199.4	4.9	77.5	5.3
Austria	89.0	0.3	396.0	1.2	421.1	1.1
Belgium	486.2	0.2	523.3	0.5	442.2	0.4
France	789.9	0.2	973.0	1.4	742.8	0.7
Germany	1,123.6	0.3	2,277.1	2.3	2,385.9	2.1
Italy	497.5	0.2	244.8	1.9	153.3	1.3
Spain	213.8	0.4	209.4	0.1	146.7	0.1
UK	1,781.3	0.1	626.1	2.5	701.7	2.2
Japan	1,429.7	0.7	713.9	1.5	409.4	1.3
China	104.9	6.5	93.1	29.5	411.6	28.3
Korea	259.3	5.8	89.5	14.8	91.6	14.8
Taiwan	164.8	5.6	103.1	14.8	114.2	14.8
ROE	1,547.4	0.8	2,471.5	5.1	2,943.5	3.9
ROW	1,980.0	22.6	2,077.1	30.2	3,944.7	38.6

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	73 Metal containers		74 Wire products		75 Hardware	
	1	2	1	2	1	2
Canada	252.8	0.8	186.5	1.9	4,220.2	2.2
USA	497.7	1.4	695.2	6.5	14,133.6	6.5
Mexico	109.5	3.0	75.9	5.4	2,776.3	5.4
Austria	168.6	0.9	111.4	0.5	2,193.3	0.9
Belgium	338.1	0.4	199.1	0.3	2,800.7	0.3
France	476.4	0.5	357.5	0.5	5,888.7	1.1
Germany	666.6	1.9	459.7	2.2	10,247.8	2.2
Italy	97.4	0.8	138.6	1.0	2,804.5	1.5
Spain	157.0	0.1	132.7	0.1	2,383.2	0.0
UK	413.0	2.0	238.3	1.3	4,779.9	2.0
Japan	238.2	3.2	73.0	2.6	2,546.7	0.8
China	149.0	28.0	62.4	16.9	1,585.2	24.3
Korea	89.9	14.8	83.3	14.8	1,544.7	14.6
Taiwan	45.5	14.8	43.2	14.8	1,011.2	14.6
ROE	1,667.7	4.4	775.1	4.1	15,561.5	4.0
ROW	1,818.3	28.6	1,163.1	31.5	17,373.7	28.9

	76 Boilers and turbines		77 Aircraft engin		78 Internal combustion engines	
	1	2	1	2	1	2
Canada	984.0	0.0	744.1	0.0	6,059.4	0.1
USA	3,964.5	3.5	3,507.2	3.3	12,403.2	2.4
Mexico	157.9	9.2	108.1	2.6	1,546.4	6.9
Austria	301.0	0.8	36.6	0.9	1,003.8	0.8
Belgium	529.6	0.5	168.6	0.4	2,598.0	0.8
France	1,921.0	1.2	1,520.8	1.4	2,676.9	1.9
Germany	2,450.3	1.7	1,268.5	1.4	4,475.6	1.4
Italy	569.3	1.6	307.5	1.8	1,457.8	2.4
Spain	558.7	0.0	206.6	0.0	3,116.0	0.0
UK	1,824.2	1.2	1,376.2	1.2	2,770.1	2.0
Japan	977.7	0.0	750.3	0.0	553.0	0.0
China	726.8	6.8	116.2	5.0	1,264.7	8.0
Korea	921.6	5.5	552.9	4.7	1,198.5	6.9
Taiwan	368.6	6.3	173.5	4.7	707.8	7.0
ROE	3,468.0	3.1	1,866.0	1.7	5,456.4	4.6
ROW	5,600.4	6.2	2,768.9	4.3	9,326.0	12.4

	79 Other power machinery		80 Agricultural machinery		81 Construction,mining,oilfield	
	1	2	1	2	1	2
Canada	178.1	0.1	1,368.2	0.1	1,638.0	0.1
USA	390.1	3.3	2,685.1	0.6	3,867.5	2.9
Mexico	28.2	13.4	84.1	1.4	330.3	3.7
Austria	95.4	1.0	374.1	0.4	483.1	0.8
Belgium	55.5	0.4	497.3	0.3	734.1	0.5
France	157.7	1.2	2,191.4	0.6	1,285.5	0.9
Germany	227.5	2.2	1,447.0	1.0	2,029.9	1.0
Italy	100.9	1.6	447.8	1.4	684.9	1.0
Spain	37.3	0.0	581.9	0.0	615.8	0.0
UK	146.8	1.4	1,127.2	1.2	1,278.9	1.5
Japan	54.7	0.0	275.2	0.0	358.7	0.0
China	105.6	8.4	107.4	8.4	1,681.6	8.7
Korea	163.6	6.6	209.0	7.4	479.1	7.4
Taiwan	38.0	6.6	118.4	7.4	467.6	7.4
ROE	491.9	3.8	3,735.4	2.9	4,848.7	2.9
ROW	630.2	9.4	2,904.6	8.8	13,875.7	7.9

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	82 Metal,woodworking mach		83 Sewing and knitting machi		84 Textile machinery	
	1	2	1	2	1	2
Canada	2,847.4	0.4	77.5	0.4	267.1	0.9
USA	11,070.2	4.6	718.6	1.4	1,974.2	3.2
Mexico	1,536.2	7.3	110.8	3.5	335.0	1.6
Austria	1,329.0	0.8	28.4	3.3	140.5	0.8
Belgium	1,752.8	0.4	42.6	1.3	404.6	0.3
France	4,018.7	1.0	101.9	4.2	599.6	0.8
Germany	7,073.8	1.7	245.9	6.1	793.4	2.0
Italy	2,942.1	2.4	141.7	5.1	1,110.6	2.2
Spain	1,396.8	0.0	54.4	0.1	328.9	0.0
UK	3,291.0	2.2	105.6	5.2	500.4	1.5
Japan	2,010.1	0.0	213.9	0.0	345.2	0.0
China	6,154.2	8.7	433.2	13.6	2,652.3	7.2
Korea	3,764.3	7.4	70.5	7.4	994.6	6.4
Taiwan	2,210.5	7.4	83.3	7.4	733.2	6.4
ROE	10,676.7	3.0	555.0	5.5	3,155.3	3.1
ROW	18,574.3	8.9	1,703.8	13.4	6,343.1	8.9

	85 Paper mill machines		86 Printing machines		87 Food-processing machines	
	1	2	1	2	1	2
Canada	414.5	0.3	310.3	0.3	152.0	0.5
USA	1,016.0	0.8	2,184.9	1.8	560.0	2.1
Mexico	207.0	1.4	119.4	2.0	85.9	7.3
Austria	116.4	1.1	176.1	0.6	89.7	1.0
Belgium	173.4	0.3	401.0	0.6	155.9	0.5
France	340.9	1.1	726.0	1.0	304.2	1.1
Germany	475.0	2.1	1,060.0	1.7	375.4	1.7
Italy	290.3	2.0	563.0	1.8	135.5	2.6
Spain	147.5	0.0	274.2	0.0	134.5	0.0
UK	444.2	1.4	1,105.2	1.0	282.4	1.6
Japan	152.1	0.0	471.4	0.0	142.5	0.0
China	455.9	8.3	687.5	11.3	525.6	8.4
Korea	409.1	7.4	506.6	7.4	126.6	7.4
Taiwan	153.2	7.4	229.1	7.4	70.6	7.4
ROE	1,528.3	2.8	2,639.4	2.3	1,239.8	3.3
ROW	2,239.2	5.8	3,139.8	9.1	2,404.8	8.9

	88 Other special machinery		89 Service industry machiner		90 Pumps,ex measuring pumps	
	1	2	1	2	1	2
Canada	1,859.4	0.4	2,528.1	0.2	1,411.7	0.1
USA	6,012.4	2.2	5,971.8	2.0	3,852.4	5.0
Mexico	1,242.3	7.3	1,282.9	6.2	462.8	6.8
Austria	620.3	0.8	1,142.3	0.6	633.7	0.5
Belgium	987.2	0.3	1,647.6	0.3	570.4	0.3
France	2,196.8	0.9	3,626.3	0.9	2,256.1	0.6
Germany	3,169.8	1.4	4,624.4	1.4	2,739.5	1.2
Italy	1,291.2	1.6	1,974.3	2.0	1,642.7	1.0
Spain	997.3	0.0	1,813.2	0.0	1,048.4	0.0
UK	2,140.5	1.0	2,951.7	1.1	1,902.0	0.7
Japan	1,492.1	0.0	1,732.0	0.0	689.9	0.0
China	4,400.3	9.0	3,891.3	12.2	1,169.6	9.6
Korea	3,301.3	7.4	2,704.5	7.4	1,366.0	7.4
Taiwan	1,718.8	7.4	1,344.3	7.4	741.2	7.4
ROE	6,765.0	2.3	10,755.0	2.6	4,763.0	2.6
ROW	14,105.6	9.1	19,751.2	10.8	8,574.6	10.5

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	91 Mechanical handling equip		92 Other non-electrical machi		93 Radio,TV,phonograph	
	1	2	1	2	1	2
Canada	1,367.1	0.2	1,558.5	0.4	3,466.3	0.5
USA	3,904.7	2.0	5,833.1	8.3	22,054.5	1.1
Mexico	433.5	6.8	576.3	8.2	1,943.2	9.9
Austria	645.0	0.8	739.7	1.2	1,205.0	2.8
Belgium	1,297.3	0.5	930.7	0.9	2,137.0	0.4
France	2,090.8	0.8	1,977.5	1.7	5,157.9	2.6
Germany	2,994.3	1.2	3,393.1	3.0	9,586.4	3.6
Italy	881.5	1.6	1,517.8	3.2	2,987.0	6.6
Spain	727.7	0.0	782.6	0.1	2,275.6	5.8
UK	1,914.0	1.2	1,576.0	2.4	6,246.3	4.8
Japan	489.4	0.0	1,374.8	0.6	6,334.5	0.0
China	1,811.7	9.6	953.5	7.3	4,470.0	16.2
Korea	1,144.4	7.4	1,007.9	7.1	1,532.7	1.8
Taiwan	564.5	7.4	652.8	7.2	1,210.2	1.8
ROE	5,273.8	3.2	5,254.1	5.8	15,038.7	6.0
ROW	9,911.8	8.7	7,247.2	9.8	31,363.2	6.8

	94 Other telecomm eq		95 Household electrica		96 Computers	
	1	2	1	2	1	2
Canada	3,372.2	1.6	1,251.8	0.9	6,084.1	0.2
USA	22,235.0	6.6	4,988.4	3.7	30,343.9	1.2
Mexico	2,358.2	11.0	414.3	7.5	1,115.0	6.9
Austria	1,040.7	1.9	876.9	0.6	1,350.6	0.5
Belgium	1,828.5	3.2	983.3	1.5	2,370.0	0.1
France	4,587.1	2.1	2,649.2	0.9	8,336.1	0.7
Germany	9,243.0	3.4	3,966.3	1.2	14,227.8	0.8
Italy	2,924.5	4.1	935.9	2.4	3,859.6	0.2
Spain	2,044.4	3.0	1,087.1	1.2	2,090.9	1.2
UK	7,064.8	3.9	2,068.3	1.2	11,757.3	1.2
Japan	5,951.6	0.0	1,318.7	0.0	9,686.5	0.0
China	7,732.8	11.6	632.4	19.9	1,338.7	11.1
Korea	2,254.3	3.7	314.6	1.9	2,140.9	1.1
Taiwan	1,506.7	3.7	384.2	1.9	1,654.8	1.1
ROE	15,723.8	6.2	6,560.3	4.4	26,249.3	1.4
ROW	36,985.8	7.7	6,918.0	8.6	16,476.9	3.2

	97 Other office machinery		98 Semiconductors		99 Electric motors	
	1	2	1	2	1	2
Canada	3,601.7	0.1	6,304.0	0.0	883.1	0.9
USA	27,277.7	0.5	37,948.6	0.8	3,389.0	4.7
Mexico	1,298.1	1.0	4,493.4	3.3	575.8	3.7
Austria	700.8	0.7	919.2	3.8	261.8	1.1
Belgium	955.1	0.1	868.5	3.9	351.6	1.5
France	4,679.3	0.8	5,316.5	3.2	1,046.6	1.0
Germany	8,474.0	0.9	11,608.1	3.8	2,232.7	1.7
Italy	2,607.6	0.2	4,372.5	4.9	867.1	2.4
Spain	1,454.2	1.4	854.5	3.0	596.3	0.8
UK	7,255.8	1.3	8,022.5	4.6	1,052.1	1.6
Japan	5,479.4	0.0	12,435.7	0.0	1,238.6	0.0
China	2,813.7	8.7	4,026.7	7.5	1,680.5	12.4
Korea	1,197.3	1.1	9,610.1	3.7	732.6	0.9
Taiwan	1,949.8	1.1	14,038.1	3.7	525.2	0.9
ROE	15,085.7	1.5	11,387.6	7.5	3,128.6	3.7
ROW	19,876.5	3.0	63,268.4	4.0	8,262.4	5.1

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	100 Batteries		101 Electric bulbs,lightin		102 Electrical indl appliance	
	1	2	1	2	1	2
Canada	354.5	1.2	872.2	0.8	4,977.6	0.6
USA	1,728.2	5.6	2,539.8	5.1	22,965.6	3.4
Mexico	301.2	4.5	449.0	3.5	5,563.0	3.7
Austria	117.7	1.0	269.9	0.9	1,752.6	1.0
Belgium	262.9	2.5	525.3	1.6	2,374.7	1.8
France	619.1	1.3	1,150.1	1.0	6,015.6	1.3
Germany	1,039.3	2.5	1,713.1	1.5	12,351.4	2.2
Italy	435.0	2.6	663.5	2.0	4,511.1	2.2
Spain	297.4	1.7	618.0	1.0	2,754.4	1.4
UK	804.4	2.5	991.7	1.8	7,488.6	2.0
Japan	357.7	0.0	371.1	0.5	4,605.0	0.3
China	403.5	14.5	249.0	12.4	5,381.9	11.0
Korea	206.9	1.1	155.7	1.1	3,101.2	1.1
Taiwan	372.7	1.1	192.5	1.1	3,487.9	1.1
ROE	2,053.3	5.1	2,629.4	5.1	17,661.8	4.4
ROW	3,110.0	6.7	3,260.5	6.2	35,143.5	5.2
	103 Shipbuilding,repairing		104 Warships		105 Railroad equipment	
	1	2	1	2	1	2
Canada	113.1	3.4	75.4	0.0	606.6	0.4
USA	1,400.8	3.1	933.9	0.0	1,251.5	2.0
Mexico	14.7	21.8	9.8	0.0	149.8	8.4
Austria	28.9	0.1	19.3	0.0	152.5	0.5
Belgium	79.9	0.7	53.3	0.0	130.3	0.5
France	358.4	0.2	239.0	0.0	185.2	0.1
Germany	871.7	0.2	581.2	0.0	474.4	0.7
Italy	192.9	1.6	128.6	0.0	109.6	2.6
Spain	177.7	0.5	118.5	0.0	85.7	0.5
UK	673.1	1.2	448.7	0.0	370.4	0.1
Japan	149.6	0.0	99.8	0.0	103.2	0.0
China	479.6	7.6	319.7	0.0	158.0	4.4
Korea	178.6	0.6	119.0	0.0	222.6	4.7
Taiwan	57.9	0.6	38.6	0.0	100.3	4.7
ROE	2,580.2	1.4	1,720.1	0.0	1,551.4	3.5
ROW	13,940.4	4.2	9,293.7	0.0	1,424.6	9.5
	106 Motor vehicles		107 Motorcycles,bicycles		108 Motor vehicles parts	
	1	2	1	2	1	2
Canada	15,477.5	2.0	210.3	9.2	15,965.5	0.0
USA	82,843.0	1.8	1,535.8	5.2	24,307.6	1.1
Mexico	682.6	5.6	43.4	12.3	5,322.5	3.2
Austria	5,651.5	2.5	173.5	5.7	2,533.0	1.7
Belgium	11,439.1	3.2	215.0	8.1	7,000.1	2.4
France	22,789.0	1.4	643.6	4.9	6,252.4	1.0
Germany	32,162.3	3.5	1,112.1	6.6	13,386.6	1.4
Italy	16,827.4	1.3	291.0	6.4	2,711.9	0.8
Spain	8,315.8	0.1	244.0	0.2	6,006.9	0.0
UK	19,937.4	3.5	416.5	9.6	9,344.4	1.8
Japan	10,566.4	0.0	558.0	0.0	2,114.3	0.0
China	2,027.1	55.8	670.3	32.0	2,074.5	32.7
Korea	566.0	8.8	55.3	7.4	1,836.9	7.2
Taiwan	3,045.8	9.1	384.4	7.4	1,601.9	7.3
ROE	42,268.9	11.1	1,456.8	9.5	14,717.2	4.7
ROW	50,921.1	30.1	2,561.1	24.6	17,876.7	21.7

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	109 Aircraft		110 Other transport eq		111 Pro measurement instruments	
	1	2	1	2	1	2
Canada	2,174.1	0.0	0.0	0.0	4,699.3	0.1
USA	11,337.2	2.5	0.0	0.0	16,360.0	2.6
Mexico	180.6	2.6	0.0	0.0	1,891.6	3.2
Austria	561.0	1.5	0.0	0.0	1,863.8	1.1
Belgium	735.8	0.9	0.0	0.0	3,050.5	0.8
France	8,103.1	0.3	0.0	0.0	7,228.3	1.5
Germany	4,941.8	0.7	0.0	0.0	12,015.0	2.1
Italy	1,667.4	2.0	0.0	0.0	4,224.1	0.2
Spain	1,184.8	1.0	0.0	0.0	2,626.1	1.0
UK	4,749.6	1.4	0.0	0.0	6,723.8	1.8
Japan	3,054.2	0.0	0.0	0.0	7,787.5	0.2
China	1,545.3	0.2	0.0	0.0	2,487.0	10.7
Korea	2,566.0	0.0	0.0	0.0	3,881.1	5.6
Taiwan	2,315.4	0.0	0.6	7.4	2,210.3	5.6
ROE	9,722.2	2.2	5.1	3.7	18,611.6	2.2
ROW	27,105.5	2.7	58.7	10.0	22,071.3	8.3
	112 Photographic,optic		113 Watches and clocks		114 Jewellery	
	1	2	1	2	1	2
Canada	1,415.7	0.4	212.2	1.2	824.8	0.0
USA	10,330.4	2.8	2,973.5	5.4	10,848.1	1.1
Mexico	453.1	6.6	89.6	14.9	97.3	1.3
Austria	531.4	2.7	261.5	4.2	464.9	0.5
Belgium	841.4	1.8	187.8	0.2	9,934.4	0.0
France	2,452.4	3.2	803.0	3.8	1,502.1	0.3
Germany	4,349.9	4.3	1,328.6	4.5	2,167.0	0.3
Italy	1,473.8	0.4	936.6	7.3	744.2	0.5
Spain	830.2	2.4	470.9	2.5	288.8	0.2
UK	2,826.4	3.1	809.6	2.1	7,467.2	0.1
Japan	2,368.6	0.6	2,024.9	0.0	5,794.6	0.3
China	1,348.4	11.5	1,290.3	16.1	285.2	7.4
Korea	1,922.1	5.5	272.3	3.7	1,430.6	1.7
Taiwan	1,424.4	5.6	402.7	3.7	926.3	1.7
ROE	7,005.8	3.9	2,066.1	3.9	8,015.2	0.3
ROW	8,737.0	8.8	8,344.0	8.9	23,900.6	3.5
	115 Musical instrument		116 Sporting goods		117 Ordnance	
	1	2	1	2	1	2
Canada	114.3	0.3	308.7	0.3	230.4	0.1
USA	1,009.9	3.8	1,691.7	2.9	371.2	2.0
Mexico	49.5	7.9	95.1	5.3	5.5	1.0
Austria	55.3	2.1	122.9	1.6	12.8	1.9
Belgium	54.5	0.1	80.2	0.1	64.1	0.1
France	220.7	2.9	303.0	1.9	97.0	1.6
Germany	379.5	3.4	491.7	2.2	292.4	2.4
Italy	105.9	5.1	204.1	2.5	42.2	3.8
Spain	67.5	1.7	111.7	1.1	83.2	0.9
UK	191.7	1.7	286.1	1.4	423.6	3.5
Japan	365.4	0.0	1,337.4	0.7	366.5	6.1
China	88.9	18.1	98.8	14.9	4.1	13.0
Korea	111.6	3.7	150.1	3.7	251.1	1.1
Taiwan	73.8	3.7	111.0	3.7	252.8	1.1
ROE	464.0	3.2	788.2	2.7	964.0	2.5
ROW	520.4	8.0	768.6	8.1	3,959.6	4.8

Appendix A to Chapter Five: The Responses of Imports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	118 Works of art		119 Manufactured goods n.e.c.		120 Scraps,used,unclassified	
	1	2	1	2	1	2
Canada	70.0	0.1	1,313.7	0.2	5,331.0	0.1
USA	2,241.8	0.0	12,862.5	2.6	19,827.0	0.0
Mexico	15.2	0.0	478.5	8.4	2,394.2	0.0
Austria	55.3	0.0	688.0	1.7	778.0	0.0
Belgium	72.6	0.0	1,006.1	0.1	3,241.2	0.0
France	199.9	0.0	2,500.4	2.2	2,819.9	0.0
Germany	318.8	0.0	4,076.2	3.2	7,117.0	0.0
Italy	64.4	0.0	1,303.5	5.1	5,214.5	0.0
Spain	106.4	0.0	903.6	1.4	2,313.0	0.0
UK	1,298.7	0.0	2,634.3	1.6	5,802.1	0.0
Japan	494.8	0.0	2,852.8	2.9	4,596.2	0.0
China	30.9	8.8	1,444.5	18.6	2,912.5	0.7
Korea	109.0	0.0	513.9	3.7	2,580.8	0.2
Taiwan	41.9	0.0	602.2	3.7	2,048.7	0.1
ROE	1,373.2	0.0	6,239.1	3.6	13,397.7	0.0
ROW	899.0	2.9	10,724.7	12.0	93,469.5	12.6

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	1 Unmilled cereals				2 Fresh fruits,vegetables				3 Other crops			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,727.4	66.4	59.4	7.0	701.0	9.2	11.9	-2.7	2,056.0	6.9	5.5	1.4
USA	15,228.5	16.1	16.9	-0.8	3,687.5	6.1	4.8	1.3	8,079.9	4.0	3.7	0.2
Mexico	44.0	-2.7	0.1	-2.8	2,044.0	7.7	4.5	3.2	152.2	5.3	3.6	1.7
Austria	129.0	6.7	6.7	0.0	78.4	7.9	4.6	3.3	94.1	1.5	1.6	0.0
Belgium	284.3	4.6	4.6	0.0	1,042.5	3.5	3.7	-0.2	543.4	2.3	1.5	0.8
France	5,582.1	9.4	11.1	-1.8	1,861.4	2.2	3.4	-1.2	1,340.2	2.8	2.1	0.7
Germany	1,583.7	2.2	2.5	-0.3	569.6	6.6	6.0	0.6	1,127.2	3.3	1.4	1.8
Italy	117.6	0.2	0.2	0.0	2,110.3	2.3	2.6	-0.2	769.0	6.0	4.0	2.0
Spain	195.2	2.6	4.1	-1.4	4,216.0	4.4	7.2	-2.7	465.2	6.8	5.2	1.6
UK	855.4	9.2	9.7	-0.5	308.3	-1.5	2.2	-3.6	258.9	2.7	2.8	-0.1
Japan	1.1	16.0	16.0	0.0	27.9	34.1	32.4	1.7	162.7	7.6	9.4	-1.8
China	59.8	23.8	23.4	0.5	1,171.2	18.6	18.9	-0.3	1,397.0	7.3	7.4	-0.1
Korea	1.6	5.5	5.6	-0.1	157.9	8.8	4.1	4.7	333.0	8.7	7.7	1.0
Taiwan	0.1	-0.3	0.0	-0.3	110.5	10.4	9.3	1.1	205.1	-7.3	2.8	-10.1
ROE	3,141.9	10.2	17.6	-7.4	7,431.3	5.7	3.8	1.8	8,578.8	2.8	2.2	0.5
ROW	3,287.6	3.8	4.0	-0.3	8,213.4	19.2	18.4	0.8	15,807.1	3.2	2.8	0.4
	4 Livestock				5 Silk				6 Cotton			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,213.7	6.0	0.4	5.6	0.0	0.1	0.1	0.0	1.6	2.0	1.2	0.7
USA	604.6	0.7	0.8	-0.1	0.4	-5.0	1.6	-6.6	4,103.8	2.7	2.8	-0.2
Mexico	610.2	-2.5	0.4	-2.9	0.0	0.0	0.0	0.0	186.7	-0.1	0.7	-0.8
Austria	107.4	-3.3	0.5	-3.8	3.6	0.5	0.5	0.0	5.9	0.1	0.0	0.1
Belgium	573.7	2.2	0.6	1.6	0.1	-1.3	0.8	-2.2	23.8	0.0	0.0	0.0
France	2,080.8	1.5	0.5	1.0	0.7	0.2	0.5	-0.3	53.7	0.2	0.1	0.1
Germany	755.7	-1.1	0.6	-1.6	31.3	0.4	0.5	-0.1	102.1	0.2	0.2	0.0
Italy	54.5	-3.9	0.5	-4.5	6.2	-10.2	3.9	-14.1	34.8	0.8	1.0	-0.2
Spain	266.9	11.9	0.6	11.3	0.9	0.5	0.5	0.0	29.8	0.0	0.0	0.0
UK	580.7	0.2	0.4	-0.2	2.4	0.1	0.9	-0.8	33.9	0.1	0.1	0.0
Japan	9.7	-3.5	0.1	-3.6	4.3	-8.9	4.6	-13.5	13.1	0.3	0.3	0.0
China	601.9	6.2	0.6	5.6	352.9	-1.5	2.4	-3.9	48.9	1.5	1.2	0.3
Korea	10.7	1.6	2.7	-1.1	5.5	-8.6	2.7	-11.3	20.2	1.0	0.9	0.1
Taiwan	16.3	-2.0	0.7	-2.8	2.2	-14.2	4.3	-18.5	10.4	0.8	0.2	0.5
ROE	2,634.7	-0.5	0.3	-0.8	3.2	102.2	3.0	99.3	1,095.9	1.5	1.3	0.2
ROW	1,151.3	5.5	0.3	5.2	158.1	-4.4	3.3	-7.7	4,432.2	1.8	1.8	0.0

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	7 Wool				8 Other natural fibers				9 Crude wood			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3.4	-3.2	0.1	-3.3	17.3	0.0	0.0	0.0	9,070.2	0.6	0.4	0.2
USA	59.1	-0.1	0.2	-0.3	2.2	1.7	0.6	1.1	6,081.5	0.1	0.9	-0.7
Mexico	3.5	0.3	0.3	0.0	0.7	3.2	3.2	0.0	178.5	-0.2	0.0	-0.2
Austria	1.0	-0.1	0.0	-0.1	2.9	-0.2	0.0	-0.2	1,314.3	0.8	1.4	-0.6
Belgium	107.4	-0.4	0.1	-0.4	190.8	1.0	1.2	-0.2	389.1	-2.6	0.6	-3.2
France	138.2	0.3	0.5	-0.2	139.9	2.3	2.5	-0.2	921.4	-0.3	0.6	-0.9
Germany	102.8	0.3	0.3	0.0	5.5	0.0	0.0	0.0	995.2	-1.2	0.7	-1.9
Italy	57.0	0.9	0.4	0.5	8.4	3.1	3.1	0.0	313.8	2.1	0.5	1.6
Spain	40.8	1.4	0.4	1.0	1.9	0.0	0.0	0.0	175.1	1.6	0.3	1.3
UK	283.4	0.1	0.3	-0.1	8.5	0.4	0.5	-0.1	67.9	-0.5	0.3	-0.8
Japan	2.7	3.5	1.1	2.4	0.3	2.2	2.3	0.0	21.0	1.0	2.2	-1.2
China	267.4	0.4	0.9	-0.4	21.5	1.5	1.4	0.1	481.1	4.3	0.7	3.6
Korea	2.5	4.8	1.0	3.8	0.5	8.2	8.6	-0.4	16.5	4.3	1.8	2.5
Taiwan	25.4	-0.6	0.5	-1.1	2.9	5.1	3.7	1.4	115.2	1.0	0.4	0.6
ROE	3,255.7	-0.8	0.3	-1.1	21.0	-0.1	0.1	-0.2	8,601.5	-0.7	0.8	-1.5
ROW	1,019.1	-0.2	0.6	-0.7	234.3	1.9	2.3	-0.4	11,539.0	1.6	1.7	-0.1
	10 Fishery				11 Iron ore				12 Coal			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	802.4	5.2	4.0	1.2	731.1	0.6	0.0	0.6	1,918.2	0.3	0.0	0.3
USA	595.9	16.7	14.2	2.4	195.4	0.3	0.3	0.0	3,852.1	0.7	0.8	-0.1
Mexico	404.1	9.4	6.1	3.3	0.0	0.4	0.4	0.0	0.1	0.0	0.0	0.0
Austria	0.0	4.6	5.8	-1.3	0.0	0.5	0.5	0.0	1.4	-0.1	0.0	-0.1
Belgium	78.8	8.5	13.5	-5.0	1.8	0.0	0.0	0.0	108.0	-0.1	0.0	-0.1
France	159.9	11.6	12.2	-0.5	22.6	0.0	0.0	0.0	69.5	0.0	0.0	0.0
Germany	35.8	17.7	19.8	-2.1	1.3	0.0	0.0	0.0	414.8	0.3	0.1	0.2
Italy	78.2	1.5	6.4	-4.8	0.0	0.5	0.5	0.0	2.6	2.0	2.1	0.0
Spain	236.9	7.2	7.0	0.2	12.8	0.1	0.1	0.0	0.1	-4.2	0.0	-4.2
UK	271.1	3.5	5.9	-2.5	0.2	0.2	0.2	0.0	79.1	0.0	0.1	-0.1
Japan	66.4	-1.9	6.9	-8.8	0.0	0.5	0.5	0.0	1.2	2.1	2.1	0.0
China	705.6	6.9	6.1	0.8	0.0	0.0	0.2	-0.2	1,011.4	-0.6	0.2	-0.7
Korea	277.2	1.6	3.3	-1.7	0.0	0.0	0.0	0.0	0.1	4.6	4.6	0.0
Taiwan	87.6	2.5	3.8	-1.3	2.1	0.5	0.5	0.0	0.3	4.4	4.4	0.0
ROE	1,290.3	8.3	9.5	-1.2	2,761.0	-0.1	0.1	-0.2	7,449.1	0.6	0.6	0.0
ROW	6,984.6	8.3	8.6	-0.3	4,352.4	0.1	0.2	-0.1	3,818.4	0.3	0.5	-0.3

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	13 Non-ferrous metal ore				14 Crude petroleum				15 Natural gas			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	2,141.6	-0.2	1.0	-1.2	7,537.2	0.0	0.0	0.0	5,859.2	0.0	0.0	0.0
USA	2,040.4	-1.6	0.4	-2.0	1.3	0.0	0.0	0.0	794.7	4.4	0.3	4.1
Mexico	241.4	-1.1	0.4	-1.5	7,934.4	1.0	1.1	0.0	159.7	0.2	0.2	0.0
Austria	115.0	1.0	0.9	0.1	0.0	0.0	0.0	0.0	4.6	-1.6	0.7	-2.3
Belgium	262.6	-2.9	0.6	-3.5	10.5	-2.9	0.2	-3.1	172.3	-0.2	0.2	-0.3
France	154.5	2.3	0.3	1.9	7.1	-3.1	0.1	-3.2	316.5	-0.1	0.1	-0.1
Germany	199.5	4.1	0.7	3.4	57.3	-3.1	0.1	-3.2	638.4	-2.4	0.3	-2.6
Italy	107.8	9.3	0.7	8.6	45.8	0.0	0.0	0.0	58.7	0.8	0.9	0.0
Spain	104.5	0.2	0.2	0.0	2.3	0.0	0.0	0.0	38.3	1.9	1.5	0.3
UK	91.5	-0.9	0.3	-1.2	10,718.3	0.2	0.1	0.1	761.2	-0.2	0.2	-0.4
Japan	104.9	8.1	0.7	7.4	0.0	0.0	0.0	0.0	6.2	-2.3	1.5	-3.8
China	89.2	2.5	0.6	1.9	2,321.0	1.3	0.5	0.8	11.1	1.8	1.8	0.0
Korea	4.4	15.1	0.5	14.6	0.0	0.0	0.0	0.0	52.4	4.9	0.0	4.9
Taiwan	16.0	4.2	0.7	3.5	29.3	2.2	2.2	0.0	20.5	3.3	1.8	1.5
ROE	4,740.1	-0.5	0.1	-0.6	18,506.0	0.2	0.2	0.1	8,201.7	-0.4	0.1	-0.5
ROW	10,406.2	-0.3	0.6	-1.0	144,248.6	0.6	0.7	-0.1	16,902.7	-0.7	0.2	-0.9
	16 Non-metallic ore				17 Electrical energy				18 Meat			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	915.2	0.3	0.5	-0.2	914.6	0.0	0.0	0.0	1,442.7	-0.4	3.5	-3.8
USA	1,627.5	0.6	0.6	0.0	49.5	0.0	0.0	0.0	7,401.1	18.5	15.5	3.0
Mexico	285.6	0.3	0.4	-0.1	82.5	0.0	0.0	0.0	87.6	14.4	9.4	5.1
Austria	261.1	1.3	0.6	0.7	287.5	0.0	0.0	0.0	363.4	22.1	19.8	2.3
Belgium	660.8	0.7	0.2	0.4	155.1	-0.1	0.0	-0.1	3,172.9	2.7	6.7	-4.0
France	740.1	0.2	0.3	0.0	4,068.8	0.0	0.0	0.0	5,081.6	7.9	4.7	3.2
Germany	1,113.7	-0.8	0.2	-1.0	445.7	0.0	0.0	0.0	2,600.0	19.7	17.5	2.2
Italy	480.9	1.4	1.4	0.0	36.6	0.0	0.0	0.0	1,021.2	5.0	5.7	-0.6
Spain	372.5	2.2	0.1	2.1	59.9	-0.1	0.0	-0.1	816.9	30.4	21.4	8.9
UK	805.7	-0.2	0.3	-0.5	2.8	-0.1	0.0	-0.1	2,468.4	12.8	10.6	2.2
Japan	231.1	1.9	1.0	0.9	0.0	0.0	0.0	0.0	40.0	26.0	23.2	2.7
China	952.2	0.6	0.9	-0.3	386.3	0.2	0.2	0.0	2,061.6	-2.0	16.5	-18.6
Korea	94.2	0.1	0.2	-0.1	0.0	0.0	0.0	0.0	133.1	15.3	14.1	1.2
Taiwan	75.0	1.6	1.7	-0.1	0.0	0.0	0.0	0.0	2,049.6	10.6	9.7	1.0
ROE	2,321.0	-0.5	0.3	-0.8	1,118.9	0.1	0.0	0.1	18,892.6	4.8	3.7	1.0
ROW	3,159.6	0.7	0.7	-0.1	402.2	0.6	0.7	0.0	5,750.7	13.6	13.2	0.3

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	19 Dairy and eggs				20 Preserved fruits,vegetables				21 Preserved seafood			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	227.5	21.0	15.9	5.1	404.5	14.4	9.1	5.2	1,668.1	11.6	8.4	3.3
USA	796.6	22.5	20.7	1.8	3,627.4	15.1	11.5	3.6	2,958.5	12.8	9.4	3.4
Mexico	20.3	11.7	13.8	-2.1	753.2	8.4	5.5	3.0	330.6	7.2	1.7	5.5
Austria	261.0	4.2	3.5	0.6	277.6	2.5	7.8	-5.3	15.0	24.0	9.7	14.3
Belgium	2,654.5	16.1	15.2	1.0	1,583.2	6.6	13.1	-6.4	218.0	2.0	13.1	-11.0
France	5,014.7	10.6	9.8	0.9	1,716.0	10.7	10.7	0.0	874.8	2.8	7.2	-4.4
Germany	5,304.6	14.7	15.8	-1.1	1,418.3	9.7	10.7	-1.0	704.4	6.5	7.7	-1.1
Italy	939.8	11.3	10.7	0.6	2,848.4	10.1	15.0	-5.0	280.0	2.9	8.2	-5.3
Spain	340.0	9.6	9.6	0.1	2,902.4	9.5	13.0	-3.5	1,016.5	4.8	6.9	-2.1
UK	1,273.8	3.8	3.4	0.4	354.7	11.1	11.5	-0.4	884.8	6.2	9.9	-3.7
Japan	4.7	21.0	20.6	0.4	69.7	25.0	26.4	-1.4	622.3	10.8	7.5	3.3
China	63.7	24.7	23.6	1.0	1,806.9	37.3	36.2	1.1	2,148.1	6.2	4.5	1.7
Korea	5.0	11.9	12.1	-0.2	92.3	22.8	21.0	1.8	1,273.3	11.6	7.1	4.5
Taiwan	9.6	9.8	13.1	-3.3	277.6	23.0	18.6	4.4	1,515.0	-1.1	3.1	-4.2
ROE	13,529.2	3.8	3.6	0.2	7,222.1	15.3	15.7	-0.3	10,254.5	9.6	9.2	0.4
ROW	1,730.1	10.2	11.4	-1.2	9,732.0	13.7	12.6	1.0	13,214.8	8.4	6.9	1.5
	22 Vegetable&animal oils,fats				23 Grain mill products				24 Bakery products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	708.4	2.2	1.5	0.8	328.0	16.0	19.9	-3.9	340.9	10.2	12.0	-1.8
USA	3,887.4	32.2	11.8	20.5	1,590.1	6.7	15.0	-8.2	577.3	3.9	3.8	0.1
Mexico	51.7	1.6	1.2	0.4	32.5	4.5	4.0	0.5	92.6	3.5	4.8	-1.4
Austria	74.1	2.4	4.3	-1.9	26.6	1.6	10.5	-8.9	130.2	7.8	7.7	0.2
Belgium	1,340.0	-19.6	19.6	-39.2	681.4	-5.2	9.3	-14.5	852.9	1.2	1.1	0.1
France	906.8	9.2	2.6	6.5	1,094.2	17.5	19.0	-1.5	890.2	4.1	4.0	0.1
Germany	2,090.2	5.2	8.2	-3.1	673.2	-0.2	5.0	-5.2	1,029.9	2.4	2.3	0.1
Italy	1,083.5	7.6	3.0	4.6	653.5	50.5	6.2	44.3	1,788.6	4.1	4.2	-0.1
Spain	1,043.8	7.5	7.3	0.3	315.9	5.0	11.8	-6.8	220.8	8.0	8.0	0.0
UK	483.1	4.3	3.4	0.9	605.6	-1.3	3.5	-4.8	676.9	7.3	7.1	0.2
Japan	69.9	-36.0	4.0	-40.0	87.6	16.8	31.4	-14.6	131.1	10.3	10.4	-0.1
China	652.1	7.4	5.6	1.8	102.4	17.6	17.8	-0.2	184.1	13.7	13.8	-0.1
Korea	19.7	15.7	6.5	9.1	16.2	21.8	11.4	10.5	159.4	6.8	6.7	0.1
Taiwan	34.2	-5.9	34.1	-40.1	34.8	114.0	48.0	66.0	64.8	10.4	10.3	0.1
ROE	5,413.4	12.2	18.2	-5.9	1,430.1	19.4	19.9	-0.5	2,207.8	8.6	8.7	0.0
ROW	18,179.7	7.5	7.8	-0.3	5,668.8	15.9	19.1	-3.1	867.4	7.7	7.9	-0.2

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	25 Sugar				26 Cocoa, chocolate,etc				27 Food products n.e.c.			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	14.2	3.8	8.2	-4.4	369.3	4.2	3.3	0.9	732.7	7.8	6.8	1.0
USA	162.2	5.4	5.4	-0.1	1,158.3	9.6	7.9	1.7	4,548.5	6.4	4.9	1.5
Mexico	80.8	3.8	8.2	-4.4	149.5	18.9	4.0	14.9	1,093.6	3.5	5.5	-1.9
Austria	34.2	3.8	3.7	0.1	214.0	10.8	11.3	-0.5	273.1	-1.9	3.8	-5.7
Belgium	570.7	5.1	5.4	-0.2	1,313.3	6.7	6.4	0.3	1,949.5	1.5	4.7	-3.2
France	1,872.1	3.6	3.0	0.6	1,629.0	3.3	5.3	-2.0	3,841.2	6.4	6.2	0.2
Germany	702.9	0.6	1.0	-0.3	1,836.1	1.9	2.8	-0.8	3,852.1	0.4	3.3	-2.9
Italy	44.0	5.2	5.3	-0.1	573.3	12.3	11.4	0.9	1,244.5	3.8	6.6	-2.8
Spain	165.4	10.6	9.6	1.0	484.5	9.6	7.9	1.7	891.5	9.1	7.7	1.4
UK	295.0	7.3	7.3	0.1	1,049.5	6.1	6.4	-0.3	1,574.1	4.4	5.3	-0.9
Japan	2.0	20.3	5.1	15.2	80.2	6.5	6.9	-0.4	417.6	11.6	5.8	5.9
China	172.8	7.7	7.5	0.2	94.6	11.6	12.1	-0.5	1,011.2	5.9	7.5	-1.6
Korea	102.3	16.9	16.4	0.5	149.5	8.2	4.9	3.3	279.0	12.2	10.5	1.7
Taiwan	10.2	7.4	11.2	-3.7	35.9	14.9	10.5	4.4	188.2	10.1	6.5	3.6
ROE	1,735.9	6.0	6.3	-0.3	4,409.8	6.8	4.5	2.3	10,574.2	4.0	5.1	-1.1
ROW	6,433.4	6.3	7.8	-1.5	4,030.2	8.7	8.1	0.6	19,209.2	6.0	6.7	-0.7
	28 Prepared animal feeds				29 Alcoholic beverage				30 Non-alcoholic beverage			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	77.8	5.6	1.6	4.1	657.0	15.5	18.9	-3.4	188.0	13.7	7.8	5.9
USA	699.4	0.8	1.4	-0.7	1,731.3	5.5	4.8	0.7	356.8	16.8	16.5	0.2
Mexico	5.5	-0.4	1.4	-1.8	526.5	3.7	3.1	0.6	37.9	13.7	14.0	-0.3
Austria	31.5	0.1	1.0	-0.9	157.1	4.0	7.6	-3.6	221.7	7.3	8.3	-1.1
Belgium	159.2	-0.8	1.7	-2.5	751.4	0.1	8.4	-8.3	376.8	0.8	5.5	-4.7
France	359.6	1.2	1.3	-0.1	7,956.7	8.5	6.5	2.0	927.3	8.3	8.3	0.0
Germany	390.8	0.2	1.0	-0.9	2,028.8	4.7	6.2	-1.5	274.1	12.9	12.8	0.0
Italy	89.5	-0.5	1.9	-2.4	2,789.5	1.0	3.5	-2.5	149.6	6.9	9.2	-2.3
Spain	35.4	-0.2	1.8	-2.0	1,240.8	6.1	4.8	1.3	112.2	2.5	3.8	-1.3
UK	167.5	1.2	1.0	0.1	4,901.6	9.3	8.3	1.0	249.5	13.6	12.8	0.7
Japan	34.2	3.1	2.1	1.0	132.5	6.6	8.5	-1.9	15.7	13.6	12.6	1.0
China	30.0	2.7	1.7	1.0	169.2	3.9	7.2	-3.4	229.3	16.1	15.8	0.3
Korea	16.1	1.8	1.5	0.3	60.5	3.1	7.1	-4.0	41.8	12.4	12.1	0.2
Taiwan	29.5	1.7	0.5	1.2	29.4	8.2	12.7	-4.5	52.4	16.5	14.7	1.9
ROE	1,211.1	2.7	2.4	0.4	5,036.9	21.0	19.7	1.3	797.6	7.4	4.5	3.0
ROW	1,739.3	0.0	1.2	-1.3	2,834.3	8.6	8.6	-0.1	635.8	12.0	10.3	1.7

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	31 Tobacco products				32 Yarns and threads				33 Cotton fabric			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	137.3	22.3	26.2	-3.9	450.1	8.4	6.0	2.4	116.2	11.3	11.2	0.1
USA	6,937.6	15.8	24.0	-8.2	1,667.6	8.5	6.7	1.9	892.5	18.6	17.4	1.2
Mexico	48.6	46.7	35.4	11.4	371.9	7.3	4.9	2.4	228.3	20.0	19.0	1.1
Austria	58.3	-9.7	7.8	-17.5	419.3	1.6	5.2	-3.6	322.2	12.2	12.8	-0.5
Belgium	378.5	21.0	13.0	8.1	1,452.2	3.8	5.1	-1.3	775.0	6.3	10.8	-4.5
France	275.4	14.7	17.2	-2.5	1,962.2	-3.3	4.1	-7.4	1,263.7	7.0	10.4	-3.4
Germany	1,530.1	39.0	30.7	8.3	3,887.2	8.6	7.1	1.6	1,735.2	11.6	13.0	-1.4
Italy	142.8	-16.7	7.0	-23.7	2,757.9	6.8	6.4	0.4	1,687.4	15.2	15.6	-0.4
Spain	98.6	-7.2	8.9	-16.1	834.6	3.3	5.0	-1.7	358.3	13.1	12.2	0.9
UK	1,899.2	28.4	21.4	7.0	1,684.3	3.2	4.4	-1.2	484.5	14.1	15.2	-1.1
Japan	369.9	101.9	25.7	76.2	1,144.2	7.3	6.0	1.3	864.8	14.3	13.3	1.1
China	983.0	24.1	14.6	9.5	2,111.6	7.4	6.5	0.9	3,406.4	16.5	14.9	1.5
Korea	47.8	79.6	38.8	40.8	1,339.2	8.9	7.3	1.6	522.3	13.8	12.5	1.3
Taiwan	19.6	-14.3	42.4	-56.7	2,705.4	11.4	10.0	1.3	737.2	13.4	12.0	1.4
ROE	4,236.4	20.9	14.4	6.5	3,916.5	7.7	7.2	0.4	2,239.8	14.4	14.3	0.1
ROW	5,962.4	29.1	27.3	1.8	10,948.3	6.4	5.8	0.6	7,212.8	14.3	14.7	-0.4
	34 Other textile products				35 Floor coverings				36 Wearing apparel			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,214.4	11.4	10.9	0.5	158.6	11.0	9.4	1.6	1,171.7	10.9	11.1	-0.2
USA	4,953.4	16.1	15.1	1.0	785.6	17.0	15.7	1.3	7,454.0	21.0	20.1	0.9
Mexico	849.0	-14.3	7.8	-22.1	77.5	18.7	17.0	1.6	2,890.5	19.1	14.1	5.0
Austria	1,237.9	13.1	14.6	-1.6	79.6	7.5	8.6	-1.1	1,595.8	14.7	15.6	-0.9
Belgium	3,365.2	10.0	11.2	-1.2	2,823.1	6.7	8.5	-1.8	2,822.2	6.7	14.0	-7.3
France	4,684.4	11.3	12.4	-1.1	421.4	5.2	9.5	-4.4	6,434.3	17.4	18.0	-0.6
Germany	9,251.4	9.7	11.4	-1.7	574.4	7.0	7.2	-0.1	8,830.0	12.9	15.0	-2.1
Italy	9,953.3	17.2	17.2	0.0	154.8	9.7	12.1	-2.4	15,842.9	14.7	16.3	-1.6
Spain	1,542.0	12.1	11.9	0.2	70.4	15.7	15.8	-0.1	1,367.2	19.2	21.5	-2.2
UK	2,945.8	8.1	9.2	-1.1	455.0	11.7	11.7	0.0	5,009.4	13.6	14.8	-1.2
Japan	4,803.5	14.1	12.7	1.4	19.6	17.9	15.5	2.3	982.1	10.4	11.9	-1.4
China	7,232.3	12.9	11.7	1.2	749.9	8.4	8.6	-0.2	24,875.1	15.7	16.0	-0.3
Korea	9,241.2	18.5	15.4	3.1	33.1	7.1	5.6	1.5	6,195.3	18.9	14.9	4.1
Taiwan	6,511.0	13.3	11.2	2.1	24.1	11.6	9.6	2.0	5,540.6	18.8	16.4	2.3
ROE	10,963.3	17.0	17.3	-0.3	1,608.5	7.9	7.9	0.0	24,312.9	18.1	18.6	-0.5
ROW	16,925.4	11.1	12.0	-0.9	2,118.1	11.7	10.8	0.9	64,622.7	13.9	14.6	-0.8

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	37 Leather and hides				38 Leather products				39 Footwear			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	376.2	3.8	2.8	1.0	61.3	2.0	6.7	-4.8	118.7	13.5	11.6	2.0
USA	2,723.5	4.6	3.3	1.2	635.6	5.6	5.2	0.5	624.2	11.6	8.8	2.8
Mexico	210.0	2.1	3.2	-1.1	198.2	7.2	6.7	0.5	203.9	14.1	12.8	1.3
Austria	308.1	3.0	2.6	0.4	131.9	5.4	8.1	-2.7	573.0	7.4	10.0	-2.5
Belgium	263.8	-4.6	1.7	-6.2	349.4	2.7	4.7	-2.0	174.9	4.4	11.9	-7.5
France	908.0	4.0	3.4	0.7	1,417.7	6.2	6.6	-0.4	1,092.5	9.7	10.6	-0.9
Germany	1,316.4	1.2	2.3	-1.1	756.9	6.4	6.7	-0.3	1,284.7	5.7	8.9	-3.3
Italy	3,438.3	1.3	1.6	-0.3	2,565.4	3.8	4.7	-0.9	7,749.7	6.1	8.2	-2.1
Spain	749.9	1.8	2.5	-0.7	262.1	5.9	6.2	-0.3	1,989.5	8.0	9.5	-1.5
UK	930.2	2.5	3.3	-0.8	296.3	3.9	4.0	-0.1	794.9	8.8	10.9	-2.1
Japan	278.3	2.6	2.5	0.0	72.2	8.7	8.3	0.4	78.2	8.9	9.2	-0.3
China	490.6	-0.9	3.0	-3.9	3,358.6	9.1	8.0	1.1	6,278.6	8.3	7.9	0.4
Korea	1,563.4	3.2	3.0	0.2	951.5	4.8	3.9	0.8	1,246.3	13.3	9.4	3.8
Taiwan	1,012.9	3.2	3.8	-0.6	976.0	5.1	4.5	0.6	918.4	12.3	9.1	3.2
ROE	3,769.5	4.4	2.6	1.8	1,173.5	6.4	6.1	0.3	4,120.1	10.6	10.7	-0.1
ROW	7,334.8	1.9	1.7	0.1	8,300.6	5.8	6.3	-0.6	15,834.7	10.3	10.3	0.0
	40 Plywood and veneer				41 Other wood products				42 Furnitures and fixtures			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	395.0	8.4	7.9	0.5	2,078.2	-1.1	6.8	-7.9	1,119.7	2.2	1.7	0.5
USA	629.0	11.5	8.3	3.2	1,716.2	8.4	5.0	3.4	1,626.4	6.5	6.2	0.3
Mexico	12.7	4.7	4.7	0.0	226.3	2.4	1.5	0.9	383.0	1.5	1.1	0.4
Austria	191.3	6.6	10.9	-4.2	873.8	13.2	10.6	2.6	366.6	2.5	3.5	-1.0
Belgium	158.9	8.7	9.9	-1.3	1,101.5	6.7	6.4	0.3	685.6	1.7	2.6	-1.0
France	324.1	7.7	9.4	-1.7	1,221.6	12.4	7.3	5.1	882.5	2.8	3.2	-0.4
Germany	337.8	10.5	10.4	0.1	1,918.3	14.7	5.1	9.6	2,080.9	1.0	2.3	-1.3
Italy	264.5	10.3	10.0	0.4	953.6	9.3	8.5	0.8	3,547.6	4.4	4.8	-0.3
Spain	172.3	7.7	8.4	-0.6	440.5	5.0	3.6	1.4	440.9	0.2	1.6	-1.4
UK	41.9	4.4	7.7	-3.3	457.2	12.6	11.2	1.3	567.5	11.2	11.8	-0.6
Japan	21.9	20.2	18.6	1.6	116.4	-22.5	8.1	-30.6	223.9	7.1	6.0	1.0
China	51.9	7.3	5.3	2.0	1,270.0	9.4	7.5	1.9	706.4	8.6	8.4	0.2
Korea	57.8	11.4	11.2	0.1	145.0	8.5	3.3	5.2	85.4	5.3	4.9	0.4
Taiwan	138.0	16.3	19.1	-2.8	508.5	7.3	6.0	1.2	841.0	6.0	5.6	0.4
ROE	1,562.4	9.9	9.8	0.2	6,065.0	10.5	6.2	4.3	3,652.6	1.9	1.9	0.1
ROW	6,635.9	18.7	19.1	-0.5	4,519.4	8.4	5.8	2.6	2,669.0	2.8	3.0	-0.2

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	43 Pulp and waste paper				44 Newsprint				45 Paper products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	8,724.1	-0.2	0.3	-0.5	6,491.7	1.2	1.5	-0.4	5,699.7	4.7	3.4	1.3
USA	6,784.0	0.3	0.4	-0.1	646.9	0.8	0.9	-0.1	9,718.6	4.7	4.1	0.6
Mexico	25.8	-1.0	0.0	-1.0	19.0	-0.9	0.1	-1.0	651.5	2.5	1.6	0.9
Austria	145.4	0.6	0.5	0.1	6.0	3.8	4.1	-0.3	3,900.6	0.9	3.5	-2.6
Belgium	255.9	0.1	0.1	0.0	32.5	3.0	3.3	-0.4	3,333.6	2.2	3.2	-1.0
France	576.4	0.0	0.0	0.0	405.9	1.7	2.3	-0.6	6,231.8	1.5	3.0	-1.5
Germany	871.6	-0.1	0.0	-0.2	448.7	1.8	2.4	-0.6	12,726.4	3.7	3.5	0.1
Italy	26.4	0.3	0.3	0.0	8.4	5.8	3.7	2.1	3,996.9	3.3	2.9	0.4
Spain	572.4	1.3	0.1	1.3	8.8	2.2	2.9	-0.7	1,508.1	1.2	2.4	-1.2
UK	174.7	0.1	0.1	0.0	134.4	3.5	3.7	-0.3	3,716.9	1.5	3.9	-2.4
Japan	69.6	1.3	1.0	0.3	78.5	1.1	2.7	-1.6	2,319.5	5.7	3.7	2.0
China	29.2	1.2	1.3	-0.1	57.5	3.0	3.1	-0.1	846.8	7.7	3.0	4.6
Korea	13.9	0.5	0.8	-0.3	8.3	2.2	3.2	-1.0	1,162.3	3.9	3.9	0.0
Taiwan	13.9	0.3	0.2	0.1	7.1	0.2	0.4	-0.2	1,063.2	2.8	1.7	1.2
ROE	5,765.4	0.0	0.1	0.0	2,504.4	1.3	1.8	-0.5	26,540.4	2.8	2.5	0.3
ROW	4,576.1	0.2	0.4	-0.1	547.7	2.9	0.6	2.3	7,904.4	5.6	3.1	2.4
	46 Printing,publishing				47 Basic chemicals				48 Fertilizers			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	870.4	2.2	1.4	0.8	4,473.0	4.4	4.5	-0.1	1,913.2	4.0	6.8	-2.9
USA	4,661.9	0.7	0.8	-0.1	24,034.8	3.6	3.7	-0.1	4,909.5	7.1	4.4	2.7
Mexico	215.4	2.8	0.8	2.0	1,937.7	4.7	4.3	0.3	294.3	10.9	10.3	0.7
Austria	480.9	6.4	1.6	4.8	945.8	2.3	3.8	-1.5	160.4	5.2	6.6	-1.5
Belgium	1,160.8	-0.1	1.1	-1.2	6,942.2	1.7	2.9	-1.1	1,806.4	8.1	8.2	-0.1
France	2,119.4	0.7	1.0	-0.3	9,604.4	2.6	3.0	-0.4	1,906.0	1.7	3.2	-1.5
Germany	3,930.7	0.9	0.9	0.0	25,264.9	2.5	3.1	-0.6	3,371.2	8.1	7.5	0.6
Italy	1,613.9	0.0	1.0	-1.0	4,487.6	4.2	4.6	-0.4	333.1	12.5	11.4	1.1
Spain	858.2	1.0	2.1	-1.1	2,287.1	2.5	3.7	-1.2	352.0	4.9	7.3	-2.4
UK	3,350.6	0.0	0.8	-0.8	12,407.7	3.6	3.5	0.1	1,374.8	0.9	3.2	-2.3
Japan	566.0	0.9	0.9	0.0	13,762.8	3.8	4.1	-0.3	424.2	9.7	7.5	2.2
China	175.1	3.6	1.0	2.6	5,255.2	5.0	3.9	1.2	353.2	8.8	6.8	2.0
Korea	173.3	3.5	0.6	2.9	3,192.5	8.1	8.2	-0.1	271.0	9.1	9.4	-0.3
Taiwan	194.8	3.8	2.6	1.1	1,851.6	5.2	3.7	1.5	55.0	11.6	11.3	0.3
ROE	3,585.0	0.9	1.0	-0.1	29,827.6	3.6	3.3	0.3	3,836.4	6.9	6.2	0.7
ROW	2,614.0	0.4	0.9	-0.5	23,086.6	3.5	3.5	0.0	6,534.7	6.5	6.1	0.4

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	49 Synthetic resins,man-made fibers				50 Paints,varnishes,lacquers				51 Drugs and medicines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,671.0	6.1	5.7	0.4	183.5	7.3	7.3	0.0	561.6	1.4	1.4	0.0
USA	17,397.9	4.2	3.6	0.6	1,305.9	6.2	5.5	0.6	6,298.6	0.3	0.6	-0.2
Mexico	1,384.8	8.6	5.1	3.5	37.3	6.8	6.8	0.0	337.2	0.0	1.1	-1.1
Austria	2,393.3	2.0	4.4	-2.4	209.8	7.0	6.9	0.1	1,239.4	1.5	1.6	-0.1
Belgium	10,345.2	1.0	3.6	-2.5	637.9	2.6	3.7	-1.1	4,010.8	1.6	1.4	0.2
France	7,247.8	4.8	5.2	-0.4	822.2	3.6	3.1	0.6	6,975.6	1.3	0.9	0.4
Germany	19,245.5	1.3	3.5	-2.2	2,605.0	3.1	3.5	-0.4	9,524.9	1.7	1.7	0.0
Italy	5,837.4	3.9	5.1	-1.2	754.2	5.5	4.7	0.8	3,755.6	-0.6	0.6	-1.1
Spain	2,351.4	2.2	3.6	-1.4	497.4	1.8	2.4	-0.7	1,190.0	0.3	0.5	-0.2
UK	5,917.9	5.0	5.8	-0.8	1,043.5	3.3	3.2	0.1	7,669.1	1.4	1.5	-0.1
Japan	10,025.2	5.4	3.5	1.9	740.7	8.8	8.3	0.4	1,766.2	0.8	0.8	0.0
China	802.8	5.3	5.0	0.3	133.5	6.7	6.8	-0.1	1,311.3	0.6	0.8	-0.2
Korea	5,552.8	10.4	9.7	0.7	158.3	-12.5	2.8	-15.3	230.3	0.5	0.5	0.0
Taiwan	6,801.0	6.9	4.6	2.3	235.7	0.1	4.7	-4.7	81.2	3.9	1.6	2.3
ROE	17,206.5	4.5	3.7	0.8	2,325.6	4.9	3.2	1.7	20,347.1	0.4	0.5	-0.1
ROW	15,933.2	6.0	4.9	1.1	1,358.7	17.1	16.1	1.0	4,556.5	3.0	2.5	0.5
	52 Soap,other toilet preparations				53 Chemical products n.e.c.				54 Petroleum refineries			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	579.7	5.1	4.8	0.3	874.1	4.7	3.2	1.4	2,134.1	2.8	2.6	0.2
USA	3,371.1	1.4	4.0	-2.6	11,185.5	3.8	3.4	0.4	3,617.9	3.2	3.5	-0.2
Mexico	261.9	3.8	3.5	0.3	486.7	7.7	4.1	3.6	287.8	7.3	1.0	6.4
Austria	215.7	4.8	1.5	3.4	601.4	5.5	6.0	-0.5	52.1	1.9	3.5	-1.6
Belgium	1,752.3	2.2	5.7	-3.5	4,124.3	4.9	5.1	-0.2	1,588.8	0.3	1.4	-1.1
France	7,241.9	1.4	3.2	-1.8	5,576.4	1.3	3.3	-2.0	1,407.6	3.2	3.5	-0.2
Germany	4,117.0	2.0	5.1	-3.1	11,691.6	2.1	3.2	-1.1	1,799.2	1.9	2.0	-0.1
Italy	1,508.0	4.1	5.2	-1.1	2,488.4	6.1	7.1	-1.0	945.3	4.8	4.9	-0.1
Spain	774.6	-0.2	5.5	-5.7	666.6	-0.2	2.8	-3.0	647.7	0.2	1.7	-1.6
UK	2,978.1	0.2	4.1	-3.9	5,892.0	3.0	3.5	-0.5	2,405.4	-0.3	1.2	-1.5
Japan	727.0	7.9	7.6	0.4	6,328.7	7.0	6.8	0.2	847.9	8.1	6.4	1.7
China	256.0	2.9	3.6	-0.7	695.9	4.7	4.0	0.7	224.6	1.6	1.5	0.2
Korea	136.1	7.6	7.2	0.4	465.6	11.8	10.8	1.0	467.8	3.5	4.1	-0.6
Taiwan	243.1	38.7	7.5	31.2	1,357.2	14.4	12.6	1.8	44.9	5.1	5.1	0.0
ROE	4,360.2	4.7	6.4	-1.7	10,283.5	4.7	3.6	1.1	6,001.3	4.4	4.2	0.3
ROW	2,799.3	-9.2	3.7	-12.9	6,160.9	3.1	3.2	-0.1	10,099.9	3.2	2.7	0.4

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	55 Fuel oils				56 Product of petroleum				57 Product of coal			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	0.0	0.0	0.0	0.0	57.3	2.8	2.8	0.0	24.7	0.0	0.0	0.0
USA	1,709.9	2.0	2.0	0.0	1,345.1	3.0	3.0	0.1	148.4	0.2	0.2	0.0
Mexico	0.0	15.5	15.5	0.0	291.1	3.1	1.5	1.6	0.3	1.1	1.1	0.0
Austria	170.0	4.6	2.8	1.8	48.4	1.0	1.8	-0.8	0.0	-0.2	0.2	-0.4
Belgium	2,118.6	4.6	4.5	0.0	548.4	1.8	1.8	0.1	59.5	0.2	0.3	0.0
France	818.4	1.4	1.8	-0.4	495.8	2.9	2.4	0.4	65.6	0.0	0.0	0.0
Germany	1,461.9	3.9	3.4	0.5	650.0	2.4	2.6	-0.2	117.8	-0.1	0.0	-0.1
Italy	1,808.5	6.7	6.8	-0.1	235.0	5.5	4.5	1.0	23.8	1.0	0.7	0.2
Spain	744.3	4.1	4.0	0.0	183.5	4.8	4.9	-0.1	14.8	0.4	0.4	0.0
UK	1,714.8	3.4	3.6	-0.2	432.8	2.5	2.1	0.4	43.0	0.2	0.1	0.1
Japan	1,215.2	7.4	7.2	0.2	324.1	2.7	2.0	0.7	336.1	0.3	0.2	0.1
China	638.3	1.8	1.9	-0.1	61.3	1.1	3.0	-1.8	677.3	1.1	1.2	0.0
Korea	1,850.5	5.6	6.0	-0.4	115.0	2.7	4.9	-2.2	0.7	0.8	0.8	0.0
Taiwan	118.4	6.2	6.2	0.0	42.8	2.3	2.3	0.0	2.4	2.3	2.3	0.0
ROE	9,725.5	2.2	1.9	0.2	1,405.1	1.9	1.6	0.3	839.8	0.4	0.3	0.1
ROW	26,020.4	3.5	3.8	-0.3	1,277.5	6.6	6.0	0.5	122.4	0.0	0.4	-0.4
	58 Tyre and tube				59 Rubber products,n.e.c.				60 Plastic products,n.e.c.			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,008.9	1.3	1.2	0.1	697.5	3.5	2.4	1.1	1,624.7	7.3	6.1	1.2
USA	2,032.4	6.2	5.8	0.5	1,911.6	3.1	4.0	-1.0	6,662.7	5.0	4.8	0.3
Mexico	149.6	1.4	1.5	-0.1	181.2	1.7	1.5	0.2	1,066.8	4.5	4.4	0.0
Austria	0.0	0.0	0.0	0.0	308.3	2.1	2.6	-0.5	1,037.3	5.4	5.6	-0.2
Belgium	787.9	1.3	2.7	-1.4	658.1	1.7	2.3	-0.6	2,431.8	3.8	6.0	-2.1
France	2,801.2	2.4	2.9	-0.6	1,348.8	4.9	4.8	0.1	3,695.3	5.8	6.3	-0.4
Germany	2,147.9	3.0	3.4	-0.5	2,729.7	2.1	2.3	-0.3	7,610.9	4.1	4.8	-0.7
Italy	1,276.1	2.5	3.5	-1.0	1,337.9	2.7	2.8	-0.2	3,926.2	5.0	5.8	-0.8
Spain	1,311.2	1.1	2.3	-1.2	478.9	1.4	1.5	-0.1	827.0	4.4	4.6	-0.2
UK	1,350.0	1.4	2.6	-1.1	892.1	3.3	4.0	-0.7	2,824.5	3.3	4.9	-1.6
Japan	3,191.5	3.5	4.3	-0.8	2,102.9	1.5	2.7	-1.1	2,230.5	5.2	4.5	0.7
China	482.1	-9.2	3.4	-12.5	362.2	5.9	5.3	0.6	4,097.2	6.2	5.4	0.8
Korea	1,330.2	4.6	2.6	1.9	197.5	7.9	5.0	2.8	833.5	8.0	8.1	-0.1
Taiwan	441.0	4.0	2.3	1.7	459.7	3.0	2.0	1.0	2,738.6	6.0	4.3	1.7
ROE	2,602.0	5.1	4.9	0.2	2,020.1	1.7	1.7	0.1	8,372.2	5.6	5.4	0.2
ROW	2,440.7	2.8	1.9	0.9	2,395.0	4.5	3.4	1.1	11,520.2	9.5	9.3	0.2

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	61 Glass				62 Cement				63 Ceramics			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	810.9	0.8	5.7	-4.9	243.4	0.2	0.0	0.2	201.2	20.3	14.6	5.7
USA	4,347.5	10.8	10.7	0.0	63.3	8.8	9.1	-0.3	1,627.4	16.3	18.1	-1.8
Mexico	1,755.0	8.5	5.3	3.2	132.9	20.2	20.2	-0.1	1,261.7	10.9	10.2	0.6
Austria	868.4	3.5	2.9	0.6	9.3	11.6	2.3	9.2	220.9	2.1	6.5	-4.3
Belgium	2,200.2	5.6	6.3	-0.8	240.0	1.6	2.1	-0.5	434.5	4.9	8.2	-3.3
France	3,526.0	6.5	5.4	1.1	280.3	12.8	12.8	0.0	890.3	12.2	13.9	-1.8
Germany	4,525.4	11.5	10.7	0.8	293.8	3.3	3.0	0.3	1,719.4	7.0	7.4	-0.4
Italy	2,605.5	13.3	13.3	0.0	90.0	9.0	9.5	-0.6	1,180.8	11.6	11.7	-0.1
Spain	990.1	5.6	7.1	-1.4	214.5	16.2	16.4	-0.2	566.5	7.1	7.8	-0.7
UK	1,349.9	9.1	9.4	-0.3	66.1	3.7	4.3	-0.6	1,020.6	2.9	5.6	-2.7
Japan	3,309.9	7.1	7.4	-0.3	532.2	16.1	17.0	-0.9	946.0	11.3	11.3	0.0
China	1,143.0	9.4	8.8	0.6	302.0	15.0	14.3	0.7	1,219.6	16.4	13.7	2.7
Korea	385.7	8.7	6.6	2.1	137.7	17.1	17.4	-0.3	217.5	7.9	8.2	-0.2
Taiwan	1,196.2	5.7	5.3	0.3	47.2	20.4	20.5	-0.1	680.1	9.2	6.2	3.1
ROE	5,627.2	5.2	4.1	1.1	1,070.9	4.6	4.0	0.6	2,920.0	9.0	9.1	-0.2
ROW	4,288.7	9.8	9.2	0.6	1,041.7	6.9	6.3	0.6	2,865.5	10.2	9.6	0.6
	64 Non-metallic products n.e.c.				65 Basic iron and steel				66 Copper			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	633.4	-19.2	7.9	-27.1	3,357.5	2.9	3.7	-0.8	1,854.3	0.7	3.6	-2.8
USA	1,998.1	5.3	5.6	-0.3	6,610.3	6.7	4.4	2.2	1,878.2	4.2	4.5	-0.3
Mexico	364.6	11.7	6.4	5.3	2,474.8	4.3	3.3	1.0	820.7	1.4	0.6	0.7
Austria	1,036.7	1.5	4.1	-2.6	3,707.4	0.8	2.4	-1.7	510.4	-0.4	1.8	-2.3
Belgium	1,136.5	3.2	3.7	-0.6	10,824.2	4.6	4.8	-0.2	1,968.1	0.2	0.9	-0.8
France	1,969.6	10.3	11.4	-1.1	11,252.8	1.8	2.7	-0.9	1,831.7	6.2	5.2	1.0
Germany	3,713.6	7.3	7.2	0.1	19,173.3	1.9	2.7	-0.9	3,805.9	1.0	1.4	-0.4
Italy	6,890.1	6.4	6.2	0.2	9,014.6	2.1	3.1	-1.0	1,035.7	5.6	4.9	0.8
Spain	2,378.5	15.8	13.3	2.5	4,091.2	2.2	2.7	-0.5	459.8	5.8	5.7	0.0
UK	1,322.6	4.8	5.6	-0.7	7,551.0	1.9	3.1	-1.1	1,074.4	5.6	6.6	-1.0
Japan	2,260.0	9.7	8.2	1.6	17,619.6	4.1	3.6	0.5	2,311.6	6.4	4.0	2.4
China	957.9	8.3	5.7	2.7	5,458.7	2.8	3.4	-0.5	414.7	7.1	7.8	-0.7
Korea	312.6	10.0	9.4	0.6	5,562.8	8.9	8.5	0.4	428.0	4.3	3.0	1.4
Taiwan	272.9	8.6	8.5	0.1	2,523.3	6.7	6.4	0.3	1,152.2	5.1	4.9	0.2
ROE	3,650.0	5.5	4.8	0.7	24,755.5	4.8	4.7	0.1	4,321.0	2.5	1.7	0.9
ROW	2,511.0	6.1	4.5	1.6	22,968.8	3.2	3.2	0.0	12,241.5	3.3	3.5	-0.2

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	67 Aluminum				68 Nickel				69 Lead and zinc			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	4,592.3	-1.4	2.9	-4.3	884.6	1.2	1.3	0.0	795.8	2.5	2.5	-0.1
USA	4,098.9	12.8	8.6	4.2	314.7	4.7	3.7	1.0	118.9	8.3	7.0	1.3
Mexico	59.9	3.2	2.5	0.7	0.8	0.5	0.8	-0.3	226.2	6.3	4.7	1.6
Austria	759.5	5.4	4.2	1.2	27.3	0.6	0.9	-0.4	13.9	8.6	9.6	-1.0
Belgium	1,642.6	-0.8	2.3	-3.1	109.9	0.9	1.6	-0.7	541.3	0.6	1.8	-1.2
France	2,327.9	5.1	4.8	0.3	171.4	1.3	1.8	-0.5	149.9	1.0	1.4	-0.4
Germany	4,618.1	3.2	2.2	1.0	371.6	5.1	5.2	0.0	431.7	5.0	4.8	0.3
Italy	1,409.1	3.1	2.2	0.9	55.0	0.8	1.7	-0.9	45.6	7.2	7.5	-0.3
Spain	825.7	-1.2	2.4	-3.6	2.0	-0.8	0.2	-1.0	236.8	-0.9	1.4	-2.3
UK	1,845.3	2.9	2.8	0.1	479.6	0.2	1.1	-0.9	181.1	6.3	6.2	0.1
Japan	1,262.9	12.3	9.4	2.8	110.8	4.8	3.3	1.5	50.4	5.3	3.2	2.1
China	453.9	3.5	8.0	-4.6	22.6	8.2	8.4	-0.1	326.3	1.7	3.4	-1.7
Korea	525.2	7.4	3.7	3.8	26.8	5.5	8.1	-2.6	68.8	7.1	6.1	1.0
Taiwan	533.1	12.4	13.4	-1.0	7.7	7.7	7.8	-0.1	36.8	7.2	7.1	0.1
ROE	10,837.7	5.3	3.2	2.1	1,141.8	1.4	1.9	-0.5	1,283.0	3.9	3.6	0.3
ROW	10,201.7	3.6	3.5	0.1	788.9	0.9	1.0	-0.2	1,060.9	3.9	3.9	0.0
	70 Other Non-ferrous metal				71 Metal furnitures and fixtures				72 Structural metal products			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	670.7	6.1	4.4	1.7	608.9	8.1	6.7	1.5	368.4	9.9	9.5	0.4
USA	1,823.4	1.4	3.3	-1.9	1,114.2	7.5	7.1	0.4	627.7	7.8	6.6	1.3
Mexico	353.0	3.8	2.5	1.4	286.0	9.4	9.0	0.4	55.4	36.5	36.6	-0.1
Austria	226.5	6.8	5.8	1.0	325.2	3.7	5.4	-1.7	604.8	5.2	5.8	-0.6
Belgium	529.8	2.3	2.2	0.1	449.5	3.5	3.6	-0.1	666.5	4.8	5.6	-0.8
France	588.2	0.0	0.5	-0.5	674.8	6.5	5.9	0.6	840.4	5.4	5.3	0.1
Germany	1,120.4	3.0	2.6	0.4	1,502.9	4.5	4.9	-0.4	1,972.5	0.2	5.0	-4.8
Italy	176.6	2.9	1.1	1.8	2,269.9	3.1	4.1	-1.0	1,075.2	10.8	10.5	0.3
Spain	107.5	4.1	4.4	-0.3	342.2	0.8	3.1	-2.3	198.8	31.2	31.4	-0.2
UK	1,282.3	7.9	8.2	-0.4	429.8	15.0	15.1	-0.1	741.6	14.9	14.9	-0.1
Japan	325.1	12.7	12.8	-0.1	278.2	13.2	13.6	-0.4	260.1	34.8	34.8	0.1
China	732.6	7.1	5.8	1.4	711.0	18.0	18.6	-0.5	367.2	21.2	20.5	0.7
Korea	53.6	9.3	11.6	-2.3	78.6	5.9	6.1	-0.3	1,345.7	23.7	23.2	0.5
Taiwan	43.2	3.7	3.2	0.5	734.2	6.5	5.3	1.1	82.2	18.8	18.7	0.1
ROE	1,794.8	10.2	10.0	0.2	2,318.9	7.7	8.0	-0.3	3,783.5	3.1	2.5	0.6
ROW	3,851.8	3.2	2.9	0.3	1,984.9	6.8	6.6	0.2	1,124.4	15.4	14.4	1.1

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	73 Metal containers				74 Wire products				75 Hardware			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	228.0	10.6	11.1	-0.4	92.5	12.5	13.8	-1.4	2,495.5	6.9	6.9	0.0
USA	864.8	21.9	21.9	0.0	354.5	19.9	19.6	0.2	10,054.4	17.2	17.7	-0.5
Mexico	75.2	2.7	3.5	-0.8	81.5	0.1	5.4	-5.3	1,720.0	5.8	4.1	1.7
Austria	192.1	7.8	7.7	0.1	94.2	5.5	8.0	-2.4	1,943.9	3.9	6.2	-2.3
Belgium	411.9	0.5	3.0	-2.5	323.4	11.0	4.7	6.3	1,721.2	7.2	7.2	-0.1
France	600.3	5.6	5.9	-0.4	408.4	1.0	4.1	-3.1	5,682.7	8.5	8.7	-0.2
Germany	1,100.7	6.1	7.2	-1.1	562.3	12.4	12.2	0.2	14,374.9	8.3	8.8	-0.4
Italy	572.6	8.8	9.5	-0.7	410.0	4.4	4.7	-0.3	9,363.9	9.5	9.9	-0.3
Spain	193.6	5.8	7.4	-1.6	196.0	13.5	13.2	0.2	1,942.3	7.7	8.7	-1.0
UK	486.0	14.2	14.5	-0.3	228.1	6.6	7.9	-1.3	4,039.7	7.9	10.0	-2.1
Japan	98.6	3.8	2.2	1.6	365.7	12.3	11.3	1.1	6,729.6	7.8	7.6	0.2
China	86.7	10.1	10.2	-0.1	192.7	14.8	12.8	2.1	3,793.2	9.0	7.6	1.4
Korea	188.7	14.9	14.2	0.7	271.9	-0.3	4.9	-5.2	1,710.3	17.3	15.2	2.0
Taiwan	77.1	5.3	3.3	2.0	66.1	6.0	5.6	0.4	5,775.5	5.0	3.1	1.9
ROE	1,264.2	4.4	4.5	0.0	663.3	6.6	5.7	0.9	12,223.4	9.6	9.9	-0.3
ROW	745.0	6.8	5.1	1.7	484.4	7.6	6.7	0.9	8,280.6	5.7	4.3	1.4
	76 Boilers and turbines				77 Aircraft engines				78 Internal combustion engines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,167.3	-2.2	2.7	-4.9	850.5	2.3	1.8	0.5	1,880.1	3.3	2.3	1.0
USA	6,582.0	4.0	1.8	2.2	5,087.7	1.4	1.4	0.0	9,035.6	2.7	2.7	0.0
Mexico	157.2	3.6	4.3	-0.7	137.9	3.2	3.1	0.1	2,989.9	2.8	1.9	1.0
Austria	274.8	4.0	3.4	0.6	90.0	0.1	1.6	-1.4	2,655.4	2.4	2.5	-0.1
Belgium	667.1	4.5	3.6	0.9	192.0	2.0	2.4	-0.3	605.0	8.4	8.8	-0.4
France	2,722.7	2.6	2.5	0.1	1,767.7	2.6	2.9	-0.3	3,854.6	4.5	4.4	0.1
Germany	2,921.7	4.3	3.2	1.1	1,335.9	3.3	3.4	-0.1	7,730.4	3.5	4.1	-0.6
Italy	1,633.6	4.4	4.8	-0.4	564.6	3.3	3.2	0.2	2,122.3	-1.3	1.9	-3.2
Spain	197.3	6.4	5.2	1.2	64.5	1.1	1.7	-0.6	1,282.1	1.8	2.5	-0.6
UK	3,030.6	3.9	3.5	0.4	2,612.4	1.2	1.8	-0.6	3,759.7	2.2	3.4	-1.2
Japan	1,488.8	0.0	3.1	-3.0	374.1	4.8	4.2	0.6	13,069.9	5.2	5.2	0.0
China	69.2	8.2	1.5	6.8	12.3	3.2	3.0	0.2	252.6	4.1	3.9	0.3
Korea	430.6	3.3	3.1	0.2	298.8	1.1	0.8	0.3	258.2	9.3	8.9	0.4
Taiwan	60.5	2.4	3.8	-1.4	15.9	4.0	3.6	0.4	349.8	6.6	4.4	2.1
ROE	3,021.1	4.3	2.8	1.4	1,495.0	1.8	1.8	0.0	4,222.2	7.0	6.1	0.9
ROW	899.0	3.9	5.1	-1.2	572.8	3.2	3.4	-0.1	2,545.8	5.6	5.0	0.6

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	79 Other power machinery				80 Agricultural machinery				81 Construction,mining,oilfield eq			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	71.0	7.1	6.9	0.2	917.4	3.3	2.4	0.9	599.2	4.2	4.5	-0.3
USA	316.7	2.1	2.1	0.0	3,433.9	4.0	3.7	0.4	7,830.3	2.6	2.7	-0.2
Mexico	21.1	3.3	3.2	0.0	194.8	6.0	4.9	1.1	200.2	2.1	2.4	-0.3
Austria	117.3	3.4	3.5	-0.1	311.9	1.8	2.5	-0.7	868.5	6.4	4.8	1.6
Belgium	34.2	1.1	2.7	-1.5	512.0	0.7	2.1	-1.4	1,697.1	1.5	2.5	-1.1
France	204.3	3.5	3.6	-0.1	1,176.3	0.8	1.6	-0.8	1,916.3	2.8	3.2	-0.4
Germany	693.2	3.2	3.3	-0.1	3,486.4	2.2	2.8	-0.7	4,299.4	3.8	4.2	-0.4
Italy	124.3	5.9	6.2	-0.2	2,062.1	0.9	1.7	-0.9	2,909.9	2.8	3.2	-0.3
Spain	49.0	1.4	2.1	-0.7	95.2	5.6	6.5	-1.0	246.0	2.8	3.2	-0.4
UK	189.0	2.7	2.8	-0.1	1,896.4	1.2	1.9	-0.6	2,603.1	3.0	3.6	-0.6
Japan	468.1	8.0	8.2	-0.2	1,090.3	0.8	0.9	-0.2	4,519.4	3.5	3.3	0.3
China	29.5	5.4	5.8	-0.4	93.9	3.7	2.8	0.9	211.8	5.4	3.6	1.8
Korea	9.5	5.6	5.6	0.0	34.1	6.1	4.2	2.0	766.6	5.0	4.6	0.4
Taiwan	12.2	4.8	4.4	0.4	36.7	3.8	3.1	0.7	395.3	7.7	6.9	0.8
ROE	465.5	4.6	4.1	0.4	2,279.6	1.5	1.3	0.2	3,279.0	3.2	3.3	-0.1
ROW	96.5	5.2	5.0	0.2	533.3	3.5	2.9	0.6	2,317.2	6.9	7.3	-0.3
	82 Metal,woodworking machinery				83 Sewing and knitting machines				84 Textile machinery			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,686.8	5.1	4.6	0.5	10.5	12.1	11.5	0.6	51.1	3.2	3.6	-0.5
USA	10,200.2	3.8	3.9	-0.1	335.0	8.1	7.3	0.7	980.2	6.6	6.6	-0.1
Mexico	473.5	-0.6	3.6	-4.1	13.4	13.2	13.2	0.0	17.3	3.2	1.9	1.3
Austria	1,657.1	3.2	3.5	-0.4	18.3	0.8	3.0	-2.1	191.6	2.6	3.4	-0.8
Belgium	1,622.6	2.7	3.2	-0.5	41.2	16.8	8.7	8.1	318.4	4.0	4.3	-0.3
France	2,971.4	2.3	2.8	-0.5	36.9	2.2	4.1	-1.9	965.9	2.2	2.7	-0.5
Germany	14,441.3	4.2	4.4	-0.2	701.6	5.3	5.7	-0.4	6,040.4	3.2	3.8	-0.6
Italy	7,053.6	3.3	3.7	-0.4	125.4	1.5	3.8	-2.2	2,642.5	3.3	3.7	-0.4
Spain	1,160.1	3.9	4.4	-0.5	8.2	-1.0	4.3	-5.3	262.3	5.9	5.9	0.0
UK	3,481.7	1.8	2.8	-1.0	57.2	4.6	4.6	0.0	637.2	6.9	6.9	0.1
Japan	15,119.3	4.4	4.3	0.0	1,239.1	5.8	6.9	-1.2	3,451.9	3.8	3.7	0.0
China	1,101.6	4.3	3.3	1.0	254.0	4.0	3.6	0.4	155.7	5.5	5.2	0.3
Korea	1,060.4	6.2	5.9	0.2	110.1	3.6	4.8	-1.1	546.3	6.8	6.5	0.4
Taiwan	3,047.1	6.1	5.5	0.7	694.9	8.6	8.0	0.6	570.3	7.0	6.6	0.4
ROE	10,868.9	4.4	4.3	0.1	350.9	8.6	8.9	-0.2	3,084.5	5.6	5.5	0.0
ROW	4,702.4	7.6	7.4	0.1	690.1	12.1	11.8	0.3	762.3	3.1	2.7	0.4

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	85 Paper mill machines				86 Printing machines				87 Food-processing machines			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	242.1	1.8	1.7	0.1	162.8	1.3	1.1	0.2	69.6	4.9	4.8	0.2
USA	883.4	4.8	3.2	1.6	1,538.9	5.1	4.7	0.5	718.0	5.6	5.5	0.1
Mexico	9.4	0.7	0.9	-0.2	21.9	2.8	1.8	1.1	26.6	7.2	7.3	0.0
Austria	282.9	4.8	4.2	0.6	212.8	0.3	2.6	-2.3	184.3	6.6	6.7	-0.2
Belgium	52.0	3.8	3.0	0.8	355.9	1.7	2.4	-0.6	80.0	3.3	3.4	-0.1
France	364.8	1.4	1.9	-0.5	683.0	7.7	7.7	0.0	348.0	5.0	5.1	0.0
Germany	1,818.9	3.1	2.8	0.3	4,676.1	2.3	2.9	-0.6	1,318.4	3.7	3.8	-0.2
Italy	668.6	1.2	2.4	-1.2	764.1	1.3	1.7	-0.4	1,031.6	6.3	6.4	0.0
Spain	187.5	-20.6	4.3	-24.9	111.0	4.8	4.2	0.5	134.5	3.4	3.9	-0.5
UK	352.4	0.7	1.7	-1.0	971.1	2.3	2.7	-0.5	329.5	4.7	4.8	-0.1
Japan	553.1	5.0	3.7	1.3	1,699.5	5.6	5.5	0.1	206.7	7.3	7.3	0.0
China	25.1	1.0	0.8	0.2	28.3	2.6	1.9	0.7	44.5	3.2	3.0	0.2
Korea	52.1	3.2	2.3	0.9	51.8	8.6	8.4	0.3	26.4	5.6	5.5	0.0
Taiwan	209.9	5.9	4.7	1.1	161.6	7.7	7.4	0.3	130.7	7.2	6.9	0.3
ROE	2,610.4	3.6	3.6	0.1	2,253.9	3.4	2.8	0.6	1,859.4	2.8	2.7	0.1
ROW	250.5	4.6	3.6	1.0	900.9	4.3	4.2	0.1	277.1	5.1	5.0	0.1
	88 Other special machinery				89 Service industry machinery				90 Pumps,ex measuring pumps			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,281.6	2.9	2.9	0.0	1,024.8	7.4	5.9	1.5	405.2	5.2	4.6	0.6
USA	9,079.8	5.9	6.0	-0.1	9,641.5	6.3	8.9	-2.6	4,780.2	4.8	4.6	0.2
Mexico	455.0	2.6	2.0	0.6	717.5	2.5	2.1	0.4	220.6	4.2	3.3	0.9
Austria	1,224.6	1.8	2.2	-0.4	1,083.8	-0.4	1.9	-2.3	440.4	0.3	2.8	-2.5
Belgium	1,058.9	3.0	3.3	-0.4	1,420.6	3.0	3.4	-0.3	362.6	0.4	1.7	-1.4
France	2,571.0	6.3	6.2	0.1	3,714.0	8.8	6.5	2.3	2,146.6	2.4	4.3	-1.9
Germany	8,739.0	3.7	4.1	-0.3	11,593.9	3.1	3.1	0.0	7,221.5	3.6	3.7	-0.1
Italy	5,138.5	2.2	2.5	-0.3	8,292.1	3.0	3.0	0.1	3,063.8	2.6	2.9	-0.4
Spain	383.2	4.2	4.6	-0.5	952.5	8.9	4.0	4.9	603.3	2.8	2.8	0.0
UK	2,259.1	2.5	2.9	-0.4	2,806.3	2.8	2.9	-0.1	1,856.5	2.1	2.6	-0.4
Japan	8,538.8	6.2	6.1	0.1	8,317.1	4.8	3.0	1.7	5,463.4	8.2	7.6	0.6
China	274.8	3.0	2.5	0.5	361.3	6.8	3.1	3.6	223.7	4.4	3.2	1.2
Korea	792.1	6.7	6.7	0.0	991.0	8.4	7.2	1.1	454.4	6.3	4.9	1.4
Taiwan	1,469.4	2.3	2.0	0.3	1,268.3	4.2	5.4	-1.1	450.7	3.6	4.4	-0.8
ROE	6,311.6	5.2	5.2	-0.1	9,642.3	5.3	4.7	0.6	3,455.4	5.0	4.9	0.1
ROW	2,722.8	2.4	2.1	0.3	5,914.0	7.4	3.0	4.4	2,675.7	7.4	5.7	1.7

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	91 Mechanical handling equipment				92 Other non-electrical machinery				93 Radio,TV,phonograph			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	1,075.6	2.4	2.2	0.2	1,521.8	6.2	7.9	-1.7	1,466.0	-5.6	3.0	-8.7
USA	4,960.8	5.8	5.8	0.0	3,435.2	7.1	6.5	0.6	14,155.2	1.1	4.2	-3.1
Mexico	205.4	2.1	2.1	0.0	334.3	6.0	4.1	1.9	5,948.4	6.1	4.4	1.7
Austria	870.7	1.2	1.7	-0.4	917.9	3.5	4.3	-0.8	692.0	-2.3	4.7	-7.0
Belgium	858.0	4.6	3.0	1.7	840.8	2.9	4.6	-1.7	2,526.1	28.9	5.4	23.4
France	2,397.1	4.1	4.1	0.0	2,296.6	2.5	3.2	-0.7	3,876.9	1.5	4.8	-3.2
Germany	5,754.1	4.2	3.0	1.2	6,401.2	3.3	4.6	-1.3	6,648.7	-1.9	3.4	-5.3
Italy	2,263.9	1.8	2.1	-0.3	2,399.7	3.8	4.5	-0.7	1,405.6	1.6	4.4	-2.8
Spain	557.0	-13.9	4.3	-18.2	467.5	5.3	6.0	-0.7	1,161.2	-1.9	6.1	-8.0
UK	2,130.6	1.7	2.1	-0.4	1,595.2	3.6	4.9	-1.3	6,656.4	1.2	3.5	-2.4
Japan	4,854.6	4.1	2.9	1.2	5,799.5	5.9	5.6	0.3	14,661.2	7.9	6.3	1.5
China	356.3	4.3	2.6	1.7	931.2	10.2	6.8	3.4	5,151.6	8.0	4.2	3.9
Korea	825.4	4.2	3.8	0.5	644.2	4.3	3.8	0.5	5,601.2	1.7	3.6	-1.9
Taiwan	327.5	7.8	6.1	1.7	1,094.2	7.6	6.5	1.1	2,029.6	0.8	2.2	-1.3
ROE	5,908.9	3.1	2.9	0.2	3,329.7	8.0	7.9	0.2	14,355.0	2.3	4.8	-2.6
ROW	2,105.7	8.2	7.7	0.5	3,366.5	3.6	4.1	-0.5	30,673.4	9.9	4.9	5.0
	94 Other telecomm eq				95 Household electrical appliances				96 Computers			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	2,572.7	6.8	6.2	0.6	370.7	3.8	4.7	-0.9	2,074.6	1.6	1.6	0.0
USA	17,268.9	5.4	4.9	0.5	2,634.1	5.5	5.3	0.2	24,863.3	0.6	0.8	-0.1
Mexico	3,355.2	8.1	5.1	3.1	827.2	2.0	1.3	0.7	1,871.4	1.8	1.1	0.6
Austria	1,896.0	2.8	3.7	-0.9	357.7	1.7	3.4	-1.7	387.4	1.6	1.9	-0.3
Belgium	1,806.9	10.1	8.1	2.1	296.4	4.1	1.8	2.3	1,525.8	0.9	1.4	-0.4
France	4,983.8	6.3	6.5	-0.2	2,338.7	0.7	3.2	-2.6	6,068.1	-0.6	1.1	-1.6
Germany	10,782.4	4.6	5.5	-0.9	5,049.9	4.6	3.8	0.8	7,655.6	0.5	1.4	-0.9
Italy	2,087.1	6.4	6.8	-0.4	5,436.8	2.3	2.7	-0.4	2,439.9	-0.2	1.2	-1.4
Spain	1,233.0	5.4	6.5	-1.1	972.5	3.7	4.0	-0.3	1,235.2	1.6	1.6	0.0
UK	9,444.7	6.0	5.1	0.9	1,261.1	1.1	2.9	-1.8	12,220.3	1.0	1.0	0.0
Japan	19,063.7	6.8	6.2	0.6	1,016.3	4.5	4.4	0.1	17,197.6	1.2	1.2	0.0
China	4,141.0	5.5	5.6	-0.1	2,109.9	6.0	5.6	0.4	2,302.4	0.4	0.2	0.1
Korea	5,500.4	3.0	7.9	-4.9	1,780.7	2.5	1.8	0.6	3,949.2	2.6	1.9	0.6
Taiwan	3,796.0	6.4	5.2	1.2	849.7	2.5	2.2	0.3	10,557.7	2.0	1.4	0.6
ROE	14,712.1	6.2	5.5	0.7	4,312.9	3.7	3.7	0.0	17,334.1	1.0	0.8	0.2
ROW	24,209.4	6.7	6.7	0.0	5,735.2	3.8	4.2	-0.5	27,399.7	2.9	2.4	0.5

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	97 Other office machinery				98 Semiconductors				99 Electric motors			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	4,167.9	0.8	0.8	0.0	2,573.2	3.7	2.2	1.5	541.0	-1.9	3.6	-5.5
USA	19,213.9	0.8	1.3	-0.5	38,608.4	2.7	2.5	0.2	3,288.0	3.4	3.2	0.2
Mexico	976.2	0.5	0.5	0.0	1,210.7	4.0	2.5	1.5	836.5	3.8	2.7	1.1
Austria	370.2	-0.4	0.6	-1.1	1,033.4	2.0	2.9	-0.9	392.4	2.6	2.6	0.0
Belgium	565.5	1.0	1.2	-0.2	513.2	0.2	3.4	-3.3	177.5	3.5	4.5	-1.0
France	2,583.9	0.2	0.6	-0.4	6,083.8	1.3	3.0	-1.8	1,725.8	4.6	4.5	0.1
Germany	4,222.8	0.7	1.0	-0.3	8,251.6	3.6	4.6	-1.0	3,371.6	3.2	3.2	0.1
Italy	2,882.6	0.7	0.8	-0.1	2,837.4	0.0	3.0	-3.0	1,195.2	2.3	2.2	0.1
Spain	300.0	0.6	1.2	-0.7	314.9	5.2	3.7	1.5	316.5	5.1	5.8	-0.7
UK	6,154.8	1.2	1.7	-0.5	8,547.8	2.6	2.7	-0.1	1,307.1	4.6	3.5	1.1
Japan	15,775.1	2.4	1.2	1.1	40,917.8	3.2	3.3	0.0	3,762.1	5.0	4.7	0.2
China	1,996.8	2.1	2.6	-0.5	1,295.6	2.9	2.2	0.7	1,087.5	4.5	4.3	0.2
Korea	917.9	1.6	1.3	0.4	19,276.7	4.1	3.8	0.4	235.6	5.9	4.2	1.7
Taiwan	8,798.0	1.9	2.3	-0.4	10,304.5	3.6	3.0	0.6	745.9	2.6	2.0	0.6
ROE	10,508.2	2.0	1.8	0.2	7,894.9	3.4	3.3	0.1	3,667.3	3.9	3.7	0.2
ROW	25,273.1	1.0	1.2	-0.2	45,810.3	3.2	3.3	-0.1	4,173.9	6.5	5.4	1.1
	100 Batteries				101 Electric bulbs,lighting eq.				102 Electrical indl appliance			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	74.8	6.0	5.0	1.0	232.1	5.6	5.8	-0.2	2,153.1	-7.6	3.2	-10.9
USA	1,382.0	4.6	3.9	0.8	1,641.3	3.3	3.7	-0.4	17,588.1	3.8	3.0	0.8
Mexico	415.1	3.8	4.0	-0.1	449.3	-1.6	4.9	-6.5	6,461.4	3.5	3.2	0.3
Austria	157.7	2.7	3.8	-1.1	198.9	8.7	4.5	4.2	1,986.9	5.5	3.6	2.0
Belgium	677.2	3.3	3.9	-0.6	656.0	2.3	3.7	-1.4	2,081.9	5.2	3.3	1.9
France	811.5	5.0	5.1	-0.1	1,184.0	4.3	4.7	-0.4	8,083.9	4.5	3.7	0.8
Germany	1,010.5	3.0	3.4	-0.4	2,986.4	1.7	2.9	-1.2	19,852.2	3.8	3.4	0.4
Italy	322.9	0.9	3.1	-2.2	993.6	4.1	4.5	-0.5	4,175.1	6.5	3.8	2.8
Spain	206.1	0.9	3.2	-2.2	490.9	5.2	4.9	0.3	1,772.7	5.1	4.2	0.9
UK	428.8	4.9	5.0	-0.1	672.4	3.9	4.2	-0.3	6,068.8	4.3	3.7	0.6
Japan	2,647.7	4.9	5.7	-0.8	1,860.2	2.2	3.0	-0.8	21,049.1	2.7	2.7	0.0
China	452.6	6.4	6.3	0.1	681.3	6.0	3.7	2.3	4,144.5	4.7	3.9	0.7
Korea	358.3	8.2	6.7	1.5	232.9	3.3	4.3	-1.0	4,610.5	6.6	4.5	2.1
Taiwan	336.6	4.5	3.7	0.9	600.5	4.8	2.5	2.3	6,507.0	5.8	5.2	0.6
ROE	1,262.2	4.2	4.3	-0.1	2,237.9	3.3	3.5	-0.2	14,675.8	3.4	3.4	0.0
ROW	1,919.9	4.4	3.9	0.4	1,532.9	3.8	3.0	0.8	18,924.9	3.8	3.2	0.5

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	103 Shipbuilding,repairing				104 Warships				105 Railroad equipment			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	350.7	3.6	3.5	0.1	233.8	0.1	0.0	0.1	1,042.6	2.9	2.8	0.1
USA	763.8	3.7	3.7	0.1	509.2	0.3	0.0	0.3	909.9	4.6	4.8	-0.2
Mexico	31.1	3.1	3.1	0.0	20.7	0.0	0.0	0.0	35.1	1.1	0.6	0.5
Austria	14.8	0.5	0.8	-0.3	9.9	-0.4	0.0	-0.4	528.9	1.7	2.7	-1.1
Belgium	71.2	0.3	1.0	-0.7	47.5	-0.8	0.0	-0.8	205.5	1.9	2.0	-0.1
France	1,033.8	1.6	1.9	-0.3	689.2	-0.2	0.0	-0.2	633.3	2.8	2.6	0.2
Germany	1,117.6	3.2	3.7	-0.5	745.1	-0.5	0.0	-0.5	1,345.0	5.9	6.1	-0.2
Italy	792.7	4.0	4.0	-0.1	528.5	0.0	0.0	0.0	207.0	1.6	1.8	-0.2
Spain	520.9	3.8	3.9	-0.1	347.3	-0.1	0.0	-0.1	222.6	1.2	2.5	-1.3
UK	443.3	2.9	2.9	0.0	295.6	0.0	0.0	0.0	179.1	3.0	3.4	-0.4
Japan	6,550.6	4.4	4.4	0.0	4,367.0	-0.2	0.0	-0.2	248.1	2.5	2.2	0.3
China	500.9	3.7	3.7	0.1	333.9	0.1	0.0	0.1	64.2	2.5	2.5	0.0
Korea	3,320.6	3.8	3.6	0.2	2,213.7	0.4	0.0	0.4	118.2	2.5	2.6	-0.1
Taiwan	84.2	3.5	3.4	0.1	56.1	0.2	0.0	0.2	5.0	2.0	2.0	0.0
ROE	3,988.6	2.8	2.8	-0.1	2,659.1	-0.1	0.0	-0.1	1,159.6	3.1	2.7	0.4
ROW	1,712.9	2.4	2.8	-0.4	1,141.9	-0.5	0.0	-0.5	172.1	4.6	4.0	0.6
	106 Motor vehicles				107 Motorcycles,bicycles				108 Motor vehicles parts			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	37,593.7	2.0	3.9	-1.8	45.8	6.8	6.2	0.7	8,491.4	12.7	11.5	1.2
USA	26,629.2	17.7	16.8	1.0	453.2	12.6	9.1	3.5	26,031.1	7.1	5.9	1.2
Mexico	10,435.4	2.7	2.8	-0.1	29.8	5.3	5.5	-0.2	2,555.8	2.1	1.0	1.1
Austria	2,902.9	5.6	12.6	-7.0	55.6	3.4	10.1	-6.7	1,697.0	0.6	2.9	-2.3
Belgium	22,289.8	-0.3	3.4	-3.7	87.2	-0.2	6.7	-6.9	3,471.4	2.4	3.2	-0.8
France	21,843.1	8.7	9.6	-0.9	304.2	8.2	9.6	-1.4	11,445.4	5.4	6.0	-0.6
Germany	64,426.2	3.8	4.9	-1.1	276.1	8.1	7.9	0.2	24,529.2	4.9	4.6	0.3
Italy	12,613.6	3.5	8.5	-5.0	1,098.6	7.4	7.8	-0.4	6,862.7	3.4	4.2	-0.9
Spain	18,270.7	3.9	7.0	-3.2	96.9	4.8	6.2	-1.3	4,557.1	5.6	6.1	-0.6
UK	13,838.4	0.0	3.5	-3.5	173.0	-22.5	7.4	-29.9	5,826.9	7.0	7.0	-0.1
Japan	57,355.2	8.4	7.1	1.3	1,858.9	9.5	7.7	1.8	20,321.8	5.4	4.2	1.2
China	970.8	10.0	2.7	7.3	835.2	19.3	18.7	0.6	701.9	3.7	6.4	-2.7
Korea	9,052.7	12.2	6.0	6.2	48.6	9.9	8.3	1.6	873.2	2.4	1.8	0.6
Taiwan	798.0	1.8	3.5	-1.7	2,334.5	16.0	14.8	1.2	1,010.9	3.1	2.2	1.0
ROE	18,568.7	13.9	11.8	2.0	760.5	9.9	9.1	0.8	9,626.9	2.7	2.7	-0.1
ROW	7,932.3	7.4	7.7	-0.3	2,113.0	9.5	7.1	2.4	5,049.6	5.4	5.4	0.0

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	109 Aircraft				110 Other transport eq				111 Pro measurement instruments			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	3,223.1	2.0	1.6	0.4	0.0	0.0	0.0	0.0	2,247.5	1.1	1.8	-0.7
USA	27,648.3	1.7	1.8	-0.1	0.0	0.0	0.0	0.0	25,984.3	1.9	3.1	-1.3
Mexico	361.7	2.5	2.5	0.0	0.0	0.0	0.0	0.0	1,676.0	-2.3	1.6	-3.9
Austria	94.9	-0.2	1.4	-1.6	0.0	0.0	0.0	0.0	1,379.2	-0.9	2.7	-3.6
Belgium	371.1	1.2	1.7	-0.5	0.0	0.0	0.0	0.0	2,214.2	1.0	2.9	-1.9
France	14,485.7	2.1	2.2	-0.1	0.0	0.0	0.0	0.0	6,005.6	6.2	6.6	-0.3
Germany	9,426.0	1.0	1.4	-0.4	0.0	0.0	0.0	0.0	16,831.6	0.7	2.8	-2.1
Italy	1,696.0	1.4	1.3	0.0	0.0	0.0	0.0	0.0	6,413.8	3.5	4.3	-0.8
Spain	1,040.2	2.0	1.9	0.1	0.0	0.0	0.0	0.0	1,117.2	3.0	3.7	-0.8
UK	13,150.7	1.8	1.9	-0.1	0.0	0.0	0.0	0.0	8,806.1	1.0	2.6	-1.6
Japan	620.1	2.2	1.8	0.4	0.0	0.0	0.0	0.0	11,838.1	2.8	3.7	-0.9
China	184.6	2.5	2.3	0.1	0.0	0.0	0.0	0.0	1,870.4	6.0	3.4	2.6
Korea	282.1	2.1	2.0	0.0	0.0	0.0	0.0	0.0	1,420.7	5.0	4.1	0.9
Taiwan	11.2	2.1	1.4	0.7	4.7	3.7	3.7	0.0	1,529.0	4.2	3.4	0.8
ROE	5,299.1	1.4	0.9	0.4	59.3	9.9	9.9	0.0	18,654.2	3.0	4.0	-1.0
ROW	4,049.2	1.7	1.7	-0.1	0.4	3.8	3.8	0.0	9,743.3	6.6	2.3	4.3
	112 Photographic,optical goods				113 Watches and clocks				114 Jewellery			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	351.5	5.8	6.5	-0.7	38.2	7.1	7.9	-0.8	2,378.8	2.8	2.3	0.5
USA	5,145.4	4.0	4.9	-0.9	394.4	7.0	6.3	0.7	8,646.3	1.5	2.3	-0.8
Mexico	474.1	3.2	3.7	-0.5	36.5	9.1	8.8	0.2	226.4	2.4	0.2	2.2
Austria	359.5	5.9	4.0	1.9	34.7	-0.7	4.9	-5.5	127.3	4.4	0.3	4.1
Belgium	748.7	1.5	4.6	-3.1	77.6	2.0	4.4	-2.4	12,031.5	-3.6	1.4	-5.0
France	2,020.8	6.2	4.5	1.8	614.0	5.9	6.0	-0.1	952.4	16.8	1.4	15.4
Germany	4,753.8	2.9	4.3	-1.4	905.5	10.4	9.6	0.8	1,713.0	4.8	2.3	2.5
Italy	1,677.5	8.8	5.9	2.8	270.1	6.5	7.3	-0.8	1,770.1	7.8	3.4	4.4
Spain	135.7	29.5	6.1	23.4	87.9	4.2	4.7	-0.4	273.0	0.2	0.7	-0.5
UK	2,405.0	2.7	4.7	-1.9	394.3	7.0	7.4	-0.4	5,891.8	-1.4	0.4	-1.8
Japan	14,314.8	5.1	5.0	0.1	2,196.8	6.6	7.0	-0.4	761.5	11.8	1.0	10.9
China	1,782.3	1.9	3.7	-1.8	1,905.8	3.2	2.6	0.6	988.9	11.0	1.6	9.4
Korea	845.6	6.8	3.8	3.0	260.1	9.7	8.7	1.0	2,576.2	2.5	0.8	1.8
Taiwan	1,662.6	4.3	3.4	0.9	475.8	4.2	6.0	-1.8	128.5	3.8	2.2	1.6
ROE	5,214.5	1.0	3.5	-2.4	7,048.6	5.5	5.0	0.5	8,543.4	-3.0	1.0	-4.1
ROW	6,419.2	4.6	4.4	0.1	7,733.4	7.0	7.3	-0.4	27,682.1	1.2	0.7	0.4

Appendix B to Chapter Five: The Responses of Exports to Removal of Tariff Barriers
(with country- and commodity group- specific sensitivity parameters)

	115 Musical instruments				116 Sporting goods				117 Ordnance			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	31.1	5.4	4.5	0.9	212.2	3.4	3.0	0.4	375.2	4.5	4.6	-0.1
USA	487.8	5.4	5.0	0.4	1,138.6	2.4	2.0	0.4	4,248.9	2.3	3.3	-1.0
Mexico	103.0	2.7	2.2	0.5	125.2	1.8	2.1	-0.2	4.3	1.5	2.0	-0.6
Austria	22.0	-1.0	3.3	-4.3	440.1	0.6	2.4	-1.8	9.6	2.8	3.0	-0.2
Belgium	19.8	1.7	3.1	-1.4	39.5	3.5	3.2	0.2	19.0	0.1	3.0	-2.9
France	114.5	3.3	4.3	-1.0	456.9	2.7	4.0	-1.2	117.3	4.6	4.3	0.3
Germany	356.3	5.1	5.3	-0.2	279.9	2.3	2.6	-0.3	146.5	3.8	3.6	0.1
Italy	206.3	1.5	3.1	-1.6	462.1	1.8	3.0	-1.2	106.3	4.6	4.3	0.3
Spain	25.8	2.3	3.8	-1.5	44.7	3.9	3.7	0.2	59.1	2.4	3.0	-0.6
UK	112.0	2.3	2.6	-0.3	189.9	5.1	5.6	-0.5	1,547.7	5.7	4.1	1.6
Japan	1,022.4	3.0	2.9	0.0	273.0	3.9	4.0	-0.1	39.5	2.6	2.0	0.6
China	190.4	4.7	4.0	0.7	413.8	3.9	3.2	0.7	10.5	5.1	4.8	0.4
Korea	383.5	7.2	6.2	1.0	334.3	2.7	2.4	0.3	40.5	5.2	4.4	0.8
Taiwan	264.2	5.1	4.2	0.9	886.8	2.2	1.9	0.3	7.5	4.6	2.9	1.7
ROE	190.2	3.0	2.1	0.8	449.9	3.7	3.7	0.0	530.9	2.8	2.7	0.2
ROW	343.6	3.4	2.6	0.8	1,202.2	2.6	3.3	-0.7	157.7	2.8	3.1	-0.3
	118 Works of art				119 Manufactured goods n.e.c.				120 Scraps,used,unclassified			
	1	2	3	4	1	2	3	4	1	2	3	4
Canada	110.7	0.1	0.0	0.1	476.5	3.3	3.0	0.3	9,662.0	7.4	7.2	0.2
USA	1,599.7	0.2	0.2	0.0	3,199.7	8.4	7.5	0.9	22,877.4	6.7	7.1	-0.4
Mexico	4.7	0.0	0.0	0.0	782.1	3.3	3.2	0.1	529.1	11.8	12.1	-0.3
Austria	46.5	0.4	0.3	0.1	465.9	4.4	4.8	-0.3	312.1	25.7	0.8	24.9
Belgium	98.7	0.1	0.1	0.0	651.2	4.7	6.3	-1.7	10,759.0	9.5	9.7	-0.2
France	460.6	0.1	0.1	0.0	1,781.4	5.8	5.1	0.7	9,409.0	2.7	2.2	0.5
Germany	720.1	1.0	1.0	0.0	3,050.8	6.9	7.2	-0.2	15,304.4	5.6	5.9	-0.3
Italy	651.9	1.8	1.8	0.0	3,722.2	4.1	4.3	-0.2	2,338.7	0.0	1.4	-1.5
Spain	20.9	1.0	0.4	0.7	543.6	3.6	4.0	-0.4	778.9	2.0	1.5	0.4
UK	2,163.4	0.7	0.6	0.0	2,078.2	0.8	6.6	-5.8	2,961.2	2.7	2.6	0.2
Japan	29.2	0.4	0.7	-0.3	2,803.7	3.8	4.1	-0.4	9,358.0	9.6	9.8	-0.1
China	42.6	1.2	1.2	0.0	6,814.1	5.2	4.7	0.5	560.3	10.9	10.6	0.2
Korea	21.8	0.9	0.0	0.9	1,058.0	6.5	4.6	1.9	154.4	0.2	0.4	-0.2
Taiwan	18.2	0.2	0.2	0.0	2,814.9	5.4	3.3	2.1	4,629.4	8.4	8.3	0.1
ROE	1,041.6	0.0	0.1	-0.1	4,034.4	8.7	8.0	0.7	29,364.0	7.3	7.3	0.0
ROW	361.1	0.2	0.3	-0.1	15,867.2	4.5	4.4	0.1	54,845.2	6.3	6.5	-0.1