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GRAVITY MODEL AND ECONOMIC INTEGRATION

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GRAVITY MODEL AND ECONOMIC INTEGRATION

by

Dongwook Han

A DISSERTATION

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ABSTRACT

Gravity Model and Economic Integration

By
Dongwook Han

Since the early 1980s there has been a proliferation of regional arrangements on a worldwide level. EC countries are moving to incorporate eastern Europe, while NAFTA contemplates inclusion of South America. And APEC, the loose form of free trade area, is very active now.

The objective of this dissertation is to identify a possible enlargement of NAFTA, to estimate trade creation and diversion of various trading blocs and to estimate the growth effect of exports expansion and regional integration. First, I examine the possible enlargement of NAFTA, and in which direction NAFTA should be enlarged so as to maximize welfare: south, incorporating Latin America (EAI, Enterprise for America Initiative); East, in a deal with Europe (TAFTA, Trans Atlantic Free Trade Area); or West, (APEC). Second, by using a gravity model, trade creation and diversion of ASEAN, EC, ANDEAN and MERCOSUR is estimated. Third, by using a growth accounting equation, I estimate the effect of exports expansion on growth. I find that a 1% growth in export causes a 0.22% increase in the real GDP. At a

second stage, I estimate the growth effect of economic blocs by grafting the cross-sectional results of gravity model onto the growth accounting equation. In that fashion, important questions of international commercial policy and the dynamic effect of economic integration can be addressed. While most of the previous studies of regionalism focused on the static effects and excluded dynamic effects, this thesis identifies and quantifies the growth effects of regional integration. It also constitutes a first attempt to determine the "best" direction of possible enlargement in a way which would maximize welfare.

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CHAPTER 1

INTRODUCTION

Since the early 1980s there has been a proliferation of regional arrangements in the world. According to Bhagwati (1992) regionalism is not only back, but it is here to stay. Lester Thurow (1992) proclaimed that "The GATT is dead" and argued that the world will shift to a tripolar system with three blocs centered on Europe, the United States, and Japan which will each have free trade internally and managed trade externally. In any event the regional movement is here to stay and it is expanding. EU countries are moving to incorporate eastern Europe, while NAFTA contemplates inclusion of South America.

There are two extreme views among economists concerning the regional movement. Those who favor the regional approach maintain that the world is likely to move toward global free trade far more rapidly if the number of negotiating countries is reduced via bloc formation, and that forming regional blocs is a quicker and more certain way of reaching multilateral agreements. They also maintain that regional blocs are more capable

of "deeper" integration than the multilateral system. But those who oppose regionalism argue that large blocks have greater market power and will impose higher tariffs on each other. So the blocks would tend to be more inward-looking and thus harmful for the multilateral trading system.

The objective of this dissertation is to identify a possible enlargement of NAFTA, to estimate trade creation and diversion of various trading blocs, and to estimate the growth effect of regional integration. First, by using the natural economic bloc concept and gravity model with new dummy variables which represents various combination of blocs, the possible enlargement of NAFTA is identified. I will examine which of the following alternatives to NAFTA enlargement will maximize welfare: a southward expansion incorporating Latin America (EAI, Enterprise for America Initiative); eastward in a deal with Europe (TAFTA, Trans Atlantic Free Trade Area); or westward (APEC).[1] Second, by using gravity model trade creation and diversion of ASEAN, EC, ANDEAN and MERCOSUR is estimated. Third, by using a gravity model with growth accounting equation the effect of economic bloc on growth is estimated. In that fashion, important questions of international commercial policy

[1] See the appendix A for the country grouping.

and the dynamic effect of economic integration can be addressed. While most of the previous studies of regionalism focused on the static effects and excluded dynamic effects, this thesis will identify and quantify the growth effects of regional integration. It also constitutes a first attempt to determine the "best" direction of possible enlargement in the way which would maximize welfare.

Chapter 2 develops the analytical framework of economic integration. Theoretical considerations needed to evaluate the economic effect of trading bloc are reviewed including the static and dynamic effects of custom union and natural economic bloc model.

The gravity model, which will be used in empirical analysis, will be reviewed in Chapter 3. Theoretical foundations and various applications of the model in international trade area are discussed.

The empirical analysis which is the center-piece of this dissertation is presented in Chapters 4, 5, 6 and 7. Chapter 4 attempts to identify the possible enlargement scenarios of regional grouping. Using a gravity model and natural bloc argument the direction of NAFTA is identified with the "best" partners of NAFTA to maximize welfare. While chapter 4 focuses on NAFTA and the broad continent-sized groupings that are under

discussion (the Americas, Europe and East Asia) Chapter 5 analyzes the effect of trade creation and trade diversion of ASEAN, EC, ANDEAN and MERCOSUR, trading blocs that are already in existence. While Chapters 4 and 5 is based on the static effects of regional integration, Chapter 6 and 7 focus on the dynamic effect of exports expansion and regional groupings. By using a gravity model with growth accounting equations, the effect of regional integration (ASEAN, ANDEAN, and EC) on the growth rate is estimated. In addition, the growth effect of the broad continent-sized groupings (the Americas, Europe, and East Asia) will be analyzed.

CHAPTER 2

The Welfare Economics of Trading Blocs

What are the motives for the current revival of regionalism? How is the regional movement likely to impact the welfare of the world, and individual participants? Section I reviews the motives for the formation of regional blocs. Section II analyzes the static effects of custom union while Section III focuses the welfare implications of natural economic blocs. The dynamic effect of economic integration is analyzed at section IV.

I. Revival of Regionalism, Why?

How do we explain the current revival of regionalism around the world? Jagdish Bhagwati (1993) argues that the single most important reason why regionalism is making a comeback is the conversion of the U.S. approach from multilateralism to regionalism or bilateralism. Disappointed by a lack of progress at the GATT(now the WTO)[1] negotiations, the United States has

[1] On January 1, 1995 GATT was expanded and made into a formal World Trade Organization (WTO).

decided to switch course and to conclude first the Canada-US Free Trade Agreement (CUSTA) and then NAFTA. The United States has also announced its intention to negotiate free-trade agreements with groups of other Latin American countries under the EAI(Enterprise for the Americas Initiative)[2]. Concurrently, the European Community has continued to widen and deepen its integration process. These developments have, in turn, led other countries to consider the regional option. East Asia, in particular, is coming to believe that a regional bloc may be the only way to meet the challenge posed by developments in the Americas and Europe.

A key reason for the United States' conversion to regionalism in the early 1990's was the slow progress at the GATT. Krugman (1991b) offers several reasons for the erosion of the GATT process. First, the decline in US leadership has made it more difficult to run the system. With the US accounting for a progressively smaller share of gross world product, and with US dominance in productivity and technology progressively declining, it has been losing both the means and the desire to serve as the global trade hegemon. Second, the number of players participating in the process has grown large, making negotiations difficult and the free rider problem harder to handle. Third, the character of

[2] See Appendix A for the countries involved in EAI.

protectionism has changed. The presence of VERs, anti-dumping(AD) mechanisms, and other forms of administered protection made the negotiations vastly more complicated than it had been in the past.

Factors beyond the Uruguay Round also appear to have played an important role in the trend toward regionalism. Regional trading arrangements are pursued for a variety of reasons that may differ across groupings and across participating countries within a given bloc. Kreinin (1998) outlines the motives for the formation of regional blocs. "These motives are many and varied and include the producers' anticipation of trade diversion benefits (with little resistance from consumers); the expectation that a larger market, which facilitates scale economies, will contribute to greater productivity and thus enhance their competitive position; a frustration with the slow progress of global trade liberalization, and perception by some countries that they fail to benefit from the WTO process; the desire to enhance the nations' bargaining power in the WTO, and for LDCs to reduce dependence on the markets of industrial countries; and the possible hope of moving toward greater political cohesion."

The prospect of enhanced economic growth (stemming from the opportunity to exploit scale

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economies and regional specialization, as well as attracting investment by expanding the regional market) is a motivation present in virtually every regional trading arrangement, in both industrial and developing countries. The realization of scale effects was a major consideration underlying the Unified Market Program in the EU. It is also an explicit goal of AFTA[3] and MERCOSUR[4]. They aim to exploit scale economies, deepen the division of labor within the region, and attract foreign direct investment (FDI) by presenting the region as a stable and prosperous single market. The dynamic growth effects expected by Mexico, especially the anticipated surge in FDI, were also a key motivation for Mexican interest in NAFTA.

Second, regional initiatives may be viewed as a means to promote a broad range of noneconomic objectives, from enhancing regional political cohesion to various foreign policy considerations, such as managing immigration flows and promoting regional security. The formation of the EU had strong political

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[3] ASEAN (Association of Southeast Asian Nations) was formed in 1967 to promote economic, social, and cultural cooperation among Indonesia, Malaysia, Philippines, Singapore, and Thailand. A series of talks beginning in 1992 led to the decision to create the AFTA. The FTA is to be achieved in 2003. The goal is to reach a zero to 5 percent preferential tariff on manufactured goods by 2003.

[4] MERCOSUR (Southern Cone Common Market) is a common market involving Argentina, Brazil, Paraguay and Uruguay. It is the most significant regional trade bloc in Latin America. Its goals are common market, coordination of fiscal and exchange rate policy, and accelerating economic development.

roots, as did the formation of the Association of South East Asian Nations (ASEAN). The desire of a number of EFTA countries to join the EU was also motivated, in part, by noneconomic objectives. MERCOSUR is perceived as a means of fostering cooperation between its member states. The promotion of political and economic stabilization and control of immigration flows were also important elements underlying both NAFTA and the association agreements of the EU with Eastern European countries.

Lastly, there may exist some kind of domino effects. According to Baldwin(1993), as new regional trading arrangements form, or existing ones expand or deepen, the opportunity cost of remaining outside an arrangement rises. Nonmember exporters could experience costly reductions in market shares if trade is diverted to members. This may be sufficient in some countries to tip the political balance in favor of accession, as exporting interests begin to dominate import-competing interests. In turn, as new members join the arrangement, trade diversion from other outsiders may lead to a second round of accessions. The domino effect, or the anticipation of such, appears to have been prominent in the initiative of EFTA countries to apply for accession to the EU. East European countries were similarly

interested in improving access to Western European markets and in not being left out of the emerging Unified Internal Market. The negotiations between Mexico and the United States to form a free trade area (FTA) may have started a comparable process in the Western Hemisphere. Canada's interest in NAFTA was strongly influenced by the potential erosion of the benefits expected from the CUSFTA were it not to join the newly emerging NAFTA. In a similar vein, the large number of bilateral trade arrangements between Mexico and several Latin American countries is viewed by Mexico's partners as a first step toward joining NAFTA. Access to NAFTA has become an important objective of many Latin American countries as a way to correct the expected trade and investment diversion toward Mexico.

II. Static Effects of Trading Blocs

There are two basic forms of economic integration. First, a customs union (CU) involves two or more countries that eliminate tariffs among member countries and impose a Common External Tariff (CET) against outsiders. The EU (European Union) is a customs union. Second, free-trade area (FTA) eliminates tariffs on imports from member countries. But there is no CET against nonmember countries; each country is free to

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impose its own tariffs. Examples of FTA are NAFTA, EFTA, or US-Israel. In any event, whatever the ultimate goal of a regional arrangement, increased intra-regional trade is given a high priority.

A. Pre-Vinerain View

Prior to the publication of the Customs Union Issue by J. Viner (1949) it was thought that since free trade is the optimal condition any movement towards it improves welfare. Hence preferential trading arrangements (PTA) necessarily constitute an improvement in global welfare.

B. Viner : Trade Creation vs. Trade Diversion

Jacob Viner identified two of the static welfare effects of economic integration, trade creation and trade diversion. Trade creation, the static welfare gain of economic integration, results from substitution of partner country imports for domestic output as the tariff declines to zero. It is favorable because it causes a more efficient allocation of resources. Trade diversion, the static welfare loss, is the substitution of non-partner country imports by imports from the partner country because of discrimination against the

former. It is unfavorable because it causes a less efficient allocation of economic resources.

In fact, this concept was debated over NAFTA. Suppose that starting with a non-discriminatory tariff on all trading partners, the United States forms an FTA with Mexico. Suppose further that shoes are produced under constant costs everywhere and that the FTA results in the United States importing shoes from Mexico. Is this a change for the better or worse? The answer, reasoned Viner, depends on who is the pre-FTA supplier of shoes. If the United States produced its own shoes in the initial equilibrium, it must have produced at a higher cost than Mexico. In this case, the FTA shifts shoe production from a higher to a lower-cost source and is trade creating: welfare of the union and of the world rises. If, on the other hand, the United States initially imported shoes from a third country, say, the Republic of Korea, that country must be a lower cost producer of shoes than Mexico. In this case, the FTA causes shoe production to shift from a lower to a higher-cost source. There is trade diversion and the welfare of the union and the world declines.

In this example, trade creation occurred by the replacement of some high-cost domestic production by imports from the partner country. It is favorable to

world welfare because it rationally reorganizes production within the FTA. By contrast, trade diversion occurred by increased trade within the FTA at the expense of trade with the rest of the world and it is unfavorable because it reorganizes world production less efficiently.

Figure 2.1, reproduced from Mordechai E. Kreinin, International Economics: A Policy Approach, is a partial equilibrium model of trade creation and trade diversion that occur with economic integration. Before economic integration, domestic producers satisfy demand if the price of producing the commodity domestically is less than the price of importing it and paying the exporting country's production cost plus the non-discriminatory tariff. This may result in a misallocation of resources if the exporting country is a lower resource cost producer. If the commodity is imported, the decision to purchase imports form Country B or country C is determined by relative prices. Before economic integration, when imports from countries B and C are subject to the same ad valorem tariff, the lowest resource cost producer supplies the domestic country A. After economic integration, the price of imports from the partner country falls relative to the price of domestic output and relative to the price of imports

from the non-partner. In the domestic country, there is substitution away from domestic output towards imports from the partner country (trade creation) or substitution away from imports from the non-partner country and towards imports from the partner country (trade diversion).

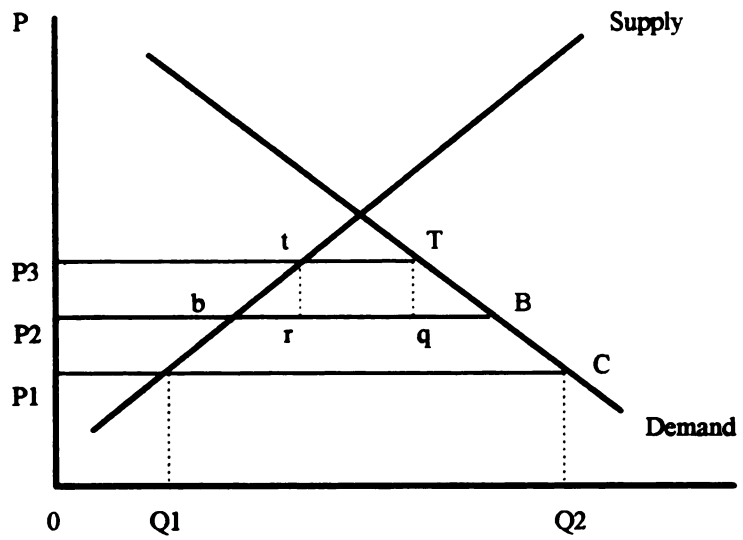
To illustrate Viner's concept of trade creation and trade diversion, let Q be a homogeneous commodity produced in countries A, B, C. Assume that Country A is the highest cost producer of Q, country B is the intermediate cost producer and country C is the lowest cost producer. Therefore, if the cost of producing Q domestically is greater than the price of importing Q from country C, and if countries B and C are subject to the same ad valorem tariff on Q imposed by country A, then country C will supply Q to the country A. Economic integration between countries A and B reduces the price of Q imported from country B below the price of Q imported from country C (the most efficient producer, who is still subject to the tariff). Consumers substitute Q produced by the partner country B, for Q produced by country C. Resources are allocated less efficiently. Trade diversion occurs—the static cost of economic integration. Also eliminating the tariff between country A and B lowers the price of Q in country

A; consumers substitute away from Q produced domestically and towards the commodity Q produced by, and imported from, country B. Trade creation occurs as producers in B increase production of Q, and producers in A reduce its production.

According to this analysis, economic integration is either trade-creating or trade diverting. If the value of trade created exceeds that of trade diverted, then economic integration is welfare improving. If the opposite is true, economic integration is welfare-decreasing. The welfare gain (loss) results form changes in economic efficiency as resources are reallocated away from less (more) efficient producer to more (less) efficient producers.

A customs union causes losses when it leads to net "trade diversion" that is, instead of specializing more and increasing efficiency, countries that form a trading bloc may substitute each others' more expensive goods for goods from outside the bloc, leading to a loss of efficiency. The essential message of the Vinerian approach was that PTA's, as distinct from nondiscriminatory trade liberalization, could harm both a member country and world welfare. Whether overall welfare rises or declines becomes empirical and depends on whether TC>TD or TD>TC.

Figure 2-1 Static Effect of Trade Union (From Kreinin (1998))



- under free trade: Q1Q2 imports from most efficient country C
- under uniform tariff (P1P3) : tT imports from most efficient C
- under a customs union: bB imports from country B
    - trade diversion(tT) : elimination of imports from C
    - trade creation (br): elimination of inefficient domestic production
    - favorable consumption effect (qB)

It is a standard result of international trade theory that free trade in commodities maximizes world welfare in distortion-free world. However a world ridden by multiple distortions (e.g. tariffs, quotas and exchange control) will not necessarily be moved closer to Pareto Optimality by the removal of one distortion. Counter-intuitively, we may move away from Pareto

Optimality. Regional integration which involves a partial movement toward free trade is not necessarily a Pareto improvement. This is the fundamental proposition of the General Theory of Second Best.

C. Partial Equilibrium Model of Trade Creation and Trade Diversion

Figure 2.2 Welfare Effects of Customs Union, reproduced from Mordechai E. Kreinin, International Economics: A Policy Approach, is a static, partial equilibrium model of trade creation and trade diversion that occur with economic integration. It is a one commodity, three country model. In figure 2.2 we assume that *Sa* and *Da* are the internal supply and demand curves in country A for a given product. *Sb* and *Sc* are the export-supply curves of countries B and C to country A, with C being a more efficient producer than B. *Sbt* and *Sct* are the same two supply curves subject to a 100 percent tariff imposed by country A. Curve *St* indicates total supply curve of the commodity in country A *(Sa+Sbt+Sct)*. Prior to integration Price P1 is established. Country A produces *Qa* domestically and imports *Qb* and *Qc* from countries B and C, respectively.

When countries A and B form a customs union to the exclusion of C, the relevant supply curve in country B becomes *Sb*, while *Sct* remains in effect in country C.

Total supply in country A's market becomes *Scu*, consisting of *Sa+Sb+Sct*. The price in country A drops to P2; domestic supply declines to *Qa1*; imports from country B rise to *Qb1*; and impodrts from country C diminish to *Qc1*. These changes can be quantified in terms of their effect on producers' surpluses in all three countries, and on consumers' surpluses and government tariff revenue of country A. The following observations relate to each panel of the diagram:

(a) Country A enjoys an increase of consumers' surplus of *BAP1P2* and suffers a reduction of producers' surpluses amounting to *BAYZ*. There is a gain of *ZYP1P2*.

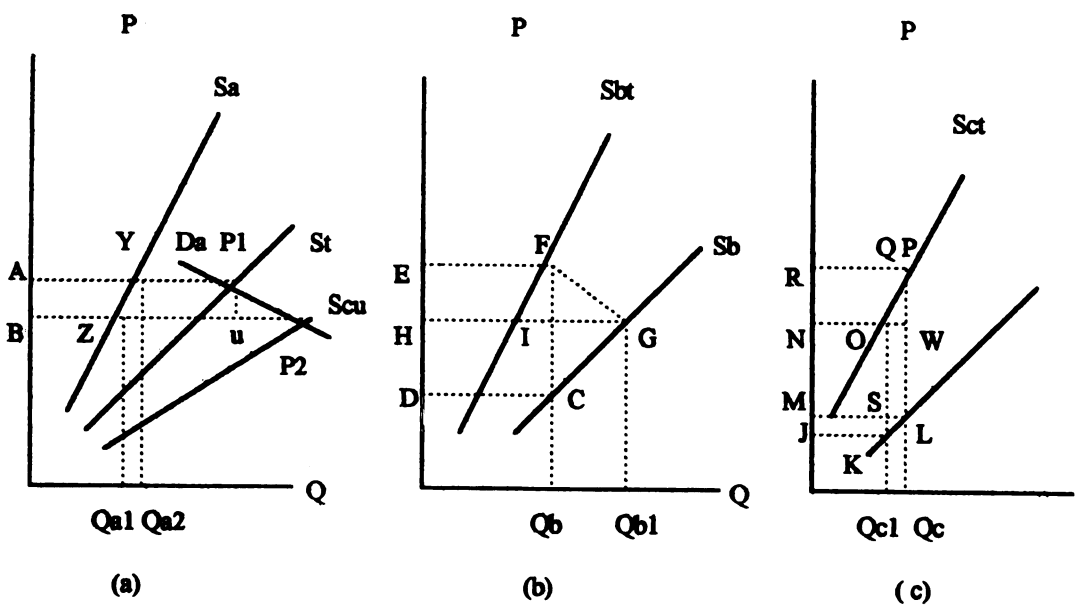
(b) Country B enjoys a gain in producers' surplus of *HGCD*. Country A faces a loss in government tariff revenue of *CDEF*. Since area *DCHI* is common to both, we obtain in part (b) a loss of *EHIF* and again of *ICG*.

(c) Tariff revenue of country A decline from *RPLM* to *NOKJ*. Subtracting the area *NOSM*, common to both, we get a loss of *RNOP+POSL* and a gain of *MJKS*. At the same time, producers' surpluses of country C decline by *MJKL*. This figure yield the following loss:

RNOP+POSL-MJKS+MJKL=RNOP+POSL+LSK=RNOP+POKL.

Area *ZYP1P2* [the gain in (a)] is equal by construction to areas *EFGH* in (b) plus *RNOP* in (c). Subtracting from this net gain in (a) the losses *EHIF* in (b) and *RNOP* in (c), we are left with a net gain *FIG* in (b). Adding it to the earlier gain *CIG*, we obtain a net gain of *CFG* in part (b), to be weighed against the net loss of *POKL* in part (c).

Figure 2-2 : Welfare Effects of Customs Union



The net effect on world welfare depends on the relative size of the two areas. A priori it cannot be determined whether the gain exceeds the loss or vice versa. Empirical estimates are necessary to determine the trade creation and trade diversion effects of economic integration and therefore, whether economic integration yields a net welfare gain.

III. Welfare Implications of Natural Economic Bloc

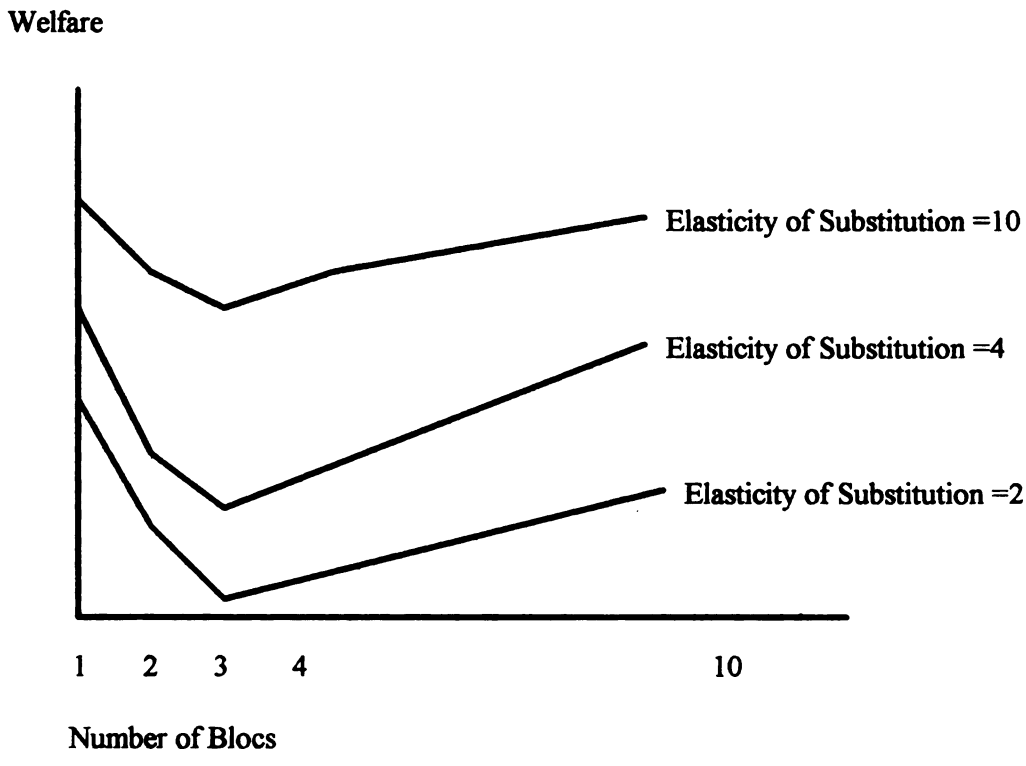
The welfare effect of a trade bloc is assessed in terms of trade creation and trade diversion. Because measuring trade creation and diversion is an arduous task, economists developed general economic criteria for assessing whether a regional grouping is likely to result in net trade creation. For example, the larger the economic area encompassed by a bloc, and the greater the share of intra-bloc trade in their total trade prior to integration, the more likely it is to be trade creating — the extreme case being an FTA that encompasses the entire world. Partly because of its simplicity, the most widely used rule of thumb is the share of intra-regional trade in the bloc's total trade prior to integration. Krugman and Summers (Economist 1991) have argued that if the share of intra-regional trade exceeds roughly one half of the region's total trade it can be regarded as a natural bloc. Kreinin and Plummer(1994) developed an alternative, more sophisticated, formulation: "In contrast with a measure which focuses on the volumes or value of trade, the alternative approach focuses on the pattern of trade. In terms of economic efficiency it is beneficial for a country to join a regional bloc if such a step would not

greatly distort its comparative advantage." They develop a method for assessing the extent to which comparative advantage would be preserved if and when a country integrates with others. If such preservation occurs in all member of a proposed FTA, then the grouping can be labeled a 'natural' bloc.

Krugman(1991a) analyzes the welfare consequences of the number of trading blocs in the world economy, whereby each block imposes its optimal tariff and maintains free trade within the bloc. The interesting result is that minimum welfare obtains when the number of blocks equals three. In the symmetric Nash equilibrium of his policy game, the result is necessarily Pareto efficient when the world consists of a single trade block because this situation amounts to free trade. Consequently, starting with one block, initial increases in the number of blocks reduce welfare. On the other hand, if the world consists of many blocks, the monopoly power of each one becomes smaller and so further increase in the number of blocks will raise welfare. Krugman uses a highly stylized model of differentiated products in which each bloc imposes optimal tariff. He finds, by simulation, that world welfare declines with customs union formation until the

number of blocs reaches three. Beyond this point CU formation is found to be welfare improving as in figure 2-3. This figure also shows a startling result: for the full range of elasticities considered, world welfare is minimized when there are three blocs. Why does he get this result and is it really plausible? Krugman argues that at one extreme, with as many blocs as there are countries, each bloc is too small to have any market power. Therefore, competitive behavior maximizes world welfare. At the other extreme, with one trading bloc, at the free trade welfare is maximized. In between, welfare is lower. Starting with one bloc, if we divide the world into two blocs of equal size, each bloc exercises monopoly power over its products and imposes a optimal tariff on imports from its rival. There is trade diversion and each bloc suffers a loss of welfare. Next suppose we divide the world into three equal blocs. This leads to only one-third rather than half of the goods being subject to free trade and there is further trade diversion. But the reduced size of each bloc also reduces its market power and the optimal tariff declines. This generates trade-creation effect. With both trade diversion and trade creation taking place simultaneously, welfare may rise or fall. As the number of blocs rises, the optimal tariff continues to

Figure 2-3 World Welfare and Number of Blocs
From Krugman (1991a).



decline and at some point must become sufficiently small to yield a larger trade-creation than the trade-diversion effect. The critical question is then the number of blocs at which this turning point obtains. Surprisingly, Krugman finds that for a variety of parameters, the number of blocs for which a declining welfare begins to rise again is three. He contends that the three-possible bloc world based on America, Europe and Asia will be harmful for the welfare of the world.

In reality, however, Krugman (1991b) claims that the sets of countries (Europe and CUSFTA among G7 countries) that are now engaging in free trade agreements are indeed natural trading partners, who would have done much of their trade with one another even in the absence of special arrangements. If trading arrangements follow the lines of natural trading regions, they will have a much better chance of improving welfare. Because intra-trade among countries of these regions is already substantial, the trade creation effects of regional integration are likely to dominate the trade diverting effect.

Summers (1991) claims that while global liberalization may be best, regional liberalization is very likely to improve welfare because given the existing structure of trade, plausible regional arrangements are likely to have trade creating effects that exceed their trade diverting effects. The issue of natural trading blocs is crucial because to the extent that blocs are created between countries that already trade disproportionately with each other, the risk of large amounts of trade diversion is reduced. Table 2-1 by Summmers shows the importance of natural trading blocs. By dividing the ratio (the trade volume of two trading countries/world trade) with the ratio (Partner's

GNP/world output) it compares the ratio of observed trade to the trade one would expect if it were equiproportional to GDP. For example, in the table 2-1, the number 6.06 between the US and Canada indicate that the US does 6 times more trade with Canada than is suggested by Canada's share of world output. Summers claims that existing trade arrangements link the nations that are already natural trading partners. From the disproportionate share of U.S. trade with Canada, of trade within developing Asian , and of trade within the industrialized Europe, he concludes that the CUSFTA, EC, and ASEAN can be regarded as a natural bloc.

Table 2-1: Trading Neighbors: Ratio of Share of Trade to Partner's Share of World Output,1989

Trader	With:					
	United States	Canada	Other Americas	Japan	Developing Asia	EC
United States	---	6.06	2.38	0.87	2.34	0.61
Canada	2.63		0.66	0.47	0.97	0.39
Other Americas	1.13	0.63	3.16	0.31	0.57	0.67
Japan	0.95	1.15	0.75	---	4.33	0.53
Developing Asia	0.73	0.62	0.43	1.26	4.83	0.54
EC	0.22	0.30	0.42	0.17	0.63	1.75

From: Summers (1991)

According to the above argument, a natural bloc is a welfare improving bloc. Using the natural bloc

concept, I will try to measure the degree or strength of natural trading blocs by the coefficient of dummies representing FTA or customs union in a gravity model instead of the intra-trade shares or the ratio of trade to GDP as done by Summers(1991). And by comparing these coefficients, I can identify what will be the desirable enlargement of NAFTA. This will be addressed in chapter 4.

IV.Dynamic Issues of Trade Blocs

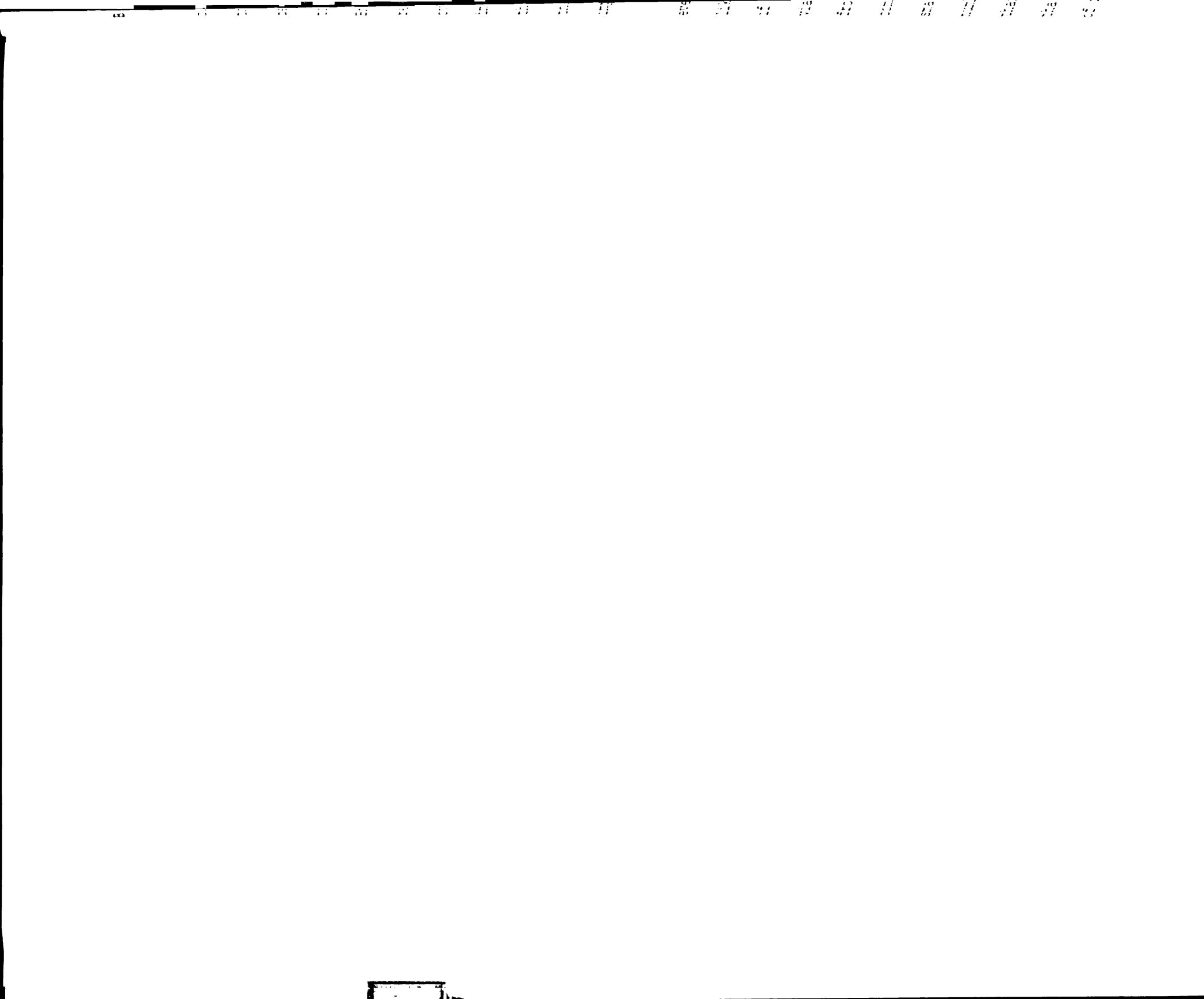
A.Dynamic or Growth Effects of Customs Union

In considering the implications of a customs union, the static effects concern mainly changes in resource allocation and consist of trade creation, trade diversion, and the terms of trade effects. By contrast the dynamic effects are the long-run consequences of increased market size for the growth rate of the integrating region. Trade liberalization may also give rise to effects that produce a sustained increase in economic growth through information transfers, increased competition, accelerated technological change and the perception of improved investment opportunities.

These effects are occasionally cited among the reasons for pursuing regional trading arrangements. To the extent that a grouping stimulates regional growth,

it may offset the static trade diversion effects on non-members and produce an expansion of trade both inside and outside the grouping. There is, however, the additional risk for outsiders that improved investment opportunities, combined with restrictive or nontransparent rules of origin, or both, may divert direct investment flows from non-members. This was the main concern in Asia over NAFTA. This effect is likely to be less significant from a worldwide perspective if a regional grouping maintains relatively low MFN tariffs or the grouping is economically small. Further, the stronger the conviction that multilateral trade liberalization will proceed apace, the less the incentive to alter longer-term investment plans in response to current regional trading arrangements.

The dynamic effects of economic integration are reflected in long run changes in the level of gross national income and output. However there are immense difficulties in assessing the impact of integration on growth, arising from the fact that a multitude of factors influence the growth rate, and it is not easy to isolate the effect of integration. They will be addressed in chapter 6.



B. Dynamic Time-Path Issue

Equally important to the dynamic effects of customs union is the dynamic time-path question: whether the effect of customs union is to accelerate or decelerate the continued reduction of trade barriers toward the goal of reducing them worldwide. Bhagwati(1992,1993) contends that even if a particular regional scheme moves the world towards freer trade, over time it may result in a more protectionist world by imposing higher tariffs with greater market power. From the viewpoint of the world trading system, more critical than static effects are the dynamic time-path implications of the regional approach.

Here the disagreements between economists are even deeper. Summers (1991) argues that the world is likely to move toward global free trade far more rapidly if the number of negotiating parties is reduced to three via bloc formation. Three parties with a lot to gain from a successful negotiation are more likely to complete it than are many parties, each with only a small amount to gain. It may well be that a smaller number of trade blocs are more likely to reach agreement than a larger number of separate countries. He doubts that the existence of the EC has complicated the process of reaching multilateral trade agreements. Instead, the

ability of Europe to speak with a more common voice would have helped, not hurt, over time.

The flip side of the argument, however, is that large blocs have greater market power and, in the absence of cooperation, may impose higher tariffs on each other. Taking this latter view, Bhagwati(1993) notes that larger countries often tend to be more inward-looking than smaller countries. Once a bloc is large enough, the need to be open to extra-bloc countries is reduced. Bhagwati is also skeptical of the argument, made by regionalists, that the regional approach is quicker and more certain. As for speed, even the best example of regionalism, the European Community, started four decades ago (1957) and is still incomplete. The transition has not been instantaneous any more than the negotiated reductions of trade barriers under GATT; and this despite the enormous political support for a united Europe. Observe agriculture. The record of regional trade blocs dealing with agricultural trade liberalization is dismal; the CAP is not exactly the European community's crowning achievement. In fact, if it were not for multilateralism (i.e., the Uruguay Round), it is difficult to imagine that the process of unraveling the CAP could even have begun.

Depending on the relative power of different interest groups, trading blocs may turn inward over time. Interest groups within the bloc may take the view that the bloc's markets belong to them and resist extra-bloc liberalization.

CHAPTER 3

Gravity Model Application: Review

I. What is the gravity model?

A gravity model is rooted in Newtonian physics that investigates the universal force of attraction which affects all matter. Issac Newton held that every particle of matter in the universe attracts every other particle with a force that is proportional to the product of their masses and inversely proportional to the square of the distance between them.

Mathematically this is expressed by the classical formula :

$$F = \frac{Gm_1m_2}{d^2}, \qquad (3.1)$$

where

F is the force of attraction,

m are the masses,

d is the distance,

and G is a universal gravitational constant.

It is interesting that this gravity model has been applied to a wide variety of goods and factors of production moving across regional and national boundaries

under different circumstances. The model has been successfully applied to flows of varying types, such as migration, flows of buyers to shopping centers, recreational traffic, commuting, patient flows to hospitals, telephone calls and interregional as well as international trade.[1] For the international trade flow, the gravity model states that the size of trade flows between two countries is determined by supply conditions at the origin, by demand conditions at the destination, and by stimulating or restraining forces relating to the specific flows between the two countries. So the size of trade flows between countries is positively related to GDP and negatively to the distance. The basic form of the gravity model in international trade flows is:

$$T_{ij} = c\frac{(GDP_i)^{\beta_1}(GDP_j)^{\beta_2}}{D_{ij}^{\gamma}}, \qquad (3.2)$$

where

Tij = value of trade (exports+imports) between country *i* and country *j*

c = constant

GDPi, GDPj = income in the exporting and importing

[1] Gravity models are much in use in geographical analysis and regional science. For the various applications of gravity model, see Hua and Porell (1979) and citations thereof.

countries

Dij = distance between countries *i* and *j*

β_1, β_n, f =parameters of gravity equation to be estimated.

In view of the similarity between this equation and the law of gravity in physics, models of this sort have come to be called "gravity models." Taking the log form to estimate and adding dummies to estimate trade bloc effect, we have

$$\log(T_{ij}) = \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) + \beta_4 \log(N_j) + \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) + \gamma_1 (NAFTA_{ij}) + \gamma_2 (EC_{ij}) + \gamma_3 (EA_{ij}) + u_{ij}. \quad (3.3)$$

where

Ni, Nj = population of exporting and importing countries

ADJACENCY = adjacent dummy variable which takes the value of 1 if both countries *i* and *j* are adjacent and 0 otherwise

NAFTA, EC, EA(East Asia)= Dummies for country grouping

II. Theoretical Foundation of Gravity Model

The gravity model has a long history of empirical success and has been justified theoretically by Linnemann(1964), Leamer and Stern (1970), Anderson (1979), and Bergastrand(1985). Early studies based on general equilibrium approach (Tinbergen, 1962) concluded that incomes of the trading partners and the distance between them are statistically significant and of the expected positive and negative signs, respectively. This gravity model was further developed by Linnemann (1966), who proposed it as a pragmatic way of combining three sets of determinants of the size of a bilateral international trade flow: the importer's demand, the exporter's supply and the costs of doing business. Linnemann(1966) asserts that the gravity model is reduced form from a four-equation quasi-Walraisan equilibrium model of export supply and import demand. Starting with a simple three country model, his four equations are

(3.4) $$X_{11}^{D} = D_{11}(Y_{1,}, p_{1,} p_{2,} p_{3,} t_{21,} t_{31})$$

(3.5) $$X_{12}^{D} = D_{12}(Y_{2,}, p_{1,} p_{2,} p_{3,} t_{12}, t_{32})$$

(3.6) $$X_{13}^{D} = D_{13}(Y_{3,}, p_{1,} p_{2,} p_{3,} t_{13,} t_{23})$$

(3.7) $$X_{1}^{S} = S_{1}(K_{1,}, p_{1})$$

where

X_{ij}^{D} = demand for the product of country i in country j

X_i^S = supply of the product of country i

Y_i = national product or, income, of country i

K_i = production capacity of country i

p_i = price of a product unit of country i in country j

t_{ij} = transport costs between countries i and j for a product unit of country i

Equality of supply and demand is given by

$$X_1^S = X_{11}^D + X_{12}^D + X_{13}^D \tag{3.8}$$

and prices are always excluded since they merely adjust to equate supply and demand.

Aggregate income proxied the level of demand in the importing country and the level of supply in the exporting country. Distance proxies transport costs which drive a wedge between demand and supply. The gravity model is viewed as a reduced-form equation for trade volume (proxied by value) in which prices do not appear because they are endogenous.

Its theoretical foundations have never been made entirely secure and yet it has great intuitive appeal. Despite its widespread empirical use, the gravity equation has been a model in search of a theory. Several

different theories have been developed in support of the model, and the differences in these theories help explain the many different forms of the gravity equations and differences in their results. Works by Anderson(1979) and Bergstrand (1985,1987) have produced increasingly complete derivations of gravity type equations from traditional neoclassical theory. Using the pure expenditure system model, Anderson(1979) derives the simplest gravity model as follows; the imports of goods from country *i* by country *j* can be written as

(3.9) $M_{ij} = b_j Y_j$

where

b_j = the share of importables in country j's total expenditure

Y_j = country j's total income

If it is assumed that income must equal sales, the trade balance equation for country *i* can be written as

(3.10) $Y_i = b_j \Sigma\ Y_j$

This trade balance equation state that the income of county i must sum to the total imports of country j

and it is assumed in equation (3.9) that non-traded goods have zero value. From equation (3.10) we have

$$(3.11) \qquad b_j = \frac{Y_i}{\sum Y_j}$$

If equation (3.11) is substituted into equation (3.9), the result becomes

$$(3.12) \qquad M_{ij} = \frac{Y_i Y_j}{\sum Y_j}$$

Equation (3.12) gives the simplest form of gravity equation.[2]

II. Variables of the gravity model

A. GNP and Population

The income variables *Yi* and *Yj* determine the potential export and import. Since greater productive capacity and incomes promote trade, the coefficients of *Yi* and *Yj* are expected to be positive.

Populations are generally used to proxy country size. The more populous countries are assumed to be endowed with a greater quantity and variety of natural resources. This greater self-sufficiency leads to less

[2] For more rigorous derivation of gravity equation, see Bergstrand (1985, 1987) and Deardorff (1998).

reliance on international trade with the expectation of negative values for the coefficient for *Ni* and *Nj*. On the other hand a large domestic market promotes the division of labor and thus creates opportunities for trade in a variety goods. Moreover a large market better compensates foreign suppliers for the fixed cost of entry. Thus the coefficient of *Ni* and *Nj* cannot be signed a-priori and there is some disagreement regarding the effect of *Ni* and *Nj* on trade.[3]

B. Distance [4]

The distance variable represents resistance to trade. *Dij* is a proxy variable for natural trade resistance which is a composite of transportation cost or transport time. It is commonly held that people are better informed about conditions prevailing in near-by countries: propinquity leads to better business

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[3] While most authors find that both countries' population has a negative effect on trade flows (Linnerman (1966), Aitken(1973), Hewett (1976),Bikker(1987)), Brada and Mendez (1983) found population sizes to have a positive impact on trade flows. Also Brada and Mendez (1985) found that the effect of Ni and Nj is negative and positive respectively.

[4] Most gravity model does not include the trade barriers (tariff and non-tariff barriers) in the model because of the difficulties of data measurement, such as what relative weights should be given to the import duties levied on the different commodities. Also most gravity model assumes that the trade barriers have equal trade-resisting impact on all the trade flows; possibly differences in impact on individual flows are supposed to be due to the random factors only such as political factors (all dealings with the Communist countries). However Oguledo and Macphee(1994) used import tariffs in the model and find negative effect on the trade volume.

information, greater familiarity with laws, institutions, habits, and language of the partner country, and greater similarity in the way of life and in preference patterns. Thus the coefficient of *Dij* should be negative.

C. Adjacency

Distance is supplemented by an adjacency dummy which is 1 if i and j share a common land border and 0 otherwise. This variable reflects reductions in both cultural and transportation friction between adjacent countries over and above the effect of distance. Neighboring countries (*Aij*) can be expected to have an additional stimulus to trade because of similarity of tastes and an awareness of common interests. So the coefficient of *Aij* should be positive.

D. Dummy: CU or FTA

The use of this model permits us to analyze the preference area effects through the use of dummy variables which are the 1 if both countries i and j belong to country group (FTA) and 0 otherwise. For example, if the estimate of the dummy coefficient is 1.5, it means that the countries belonging to the same country group trade with each other four and half times more [exp (1.5)=4.5 when we transform the log form to

exponential] than normal trade which is explained by the gravity variables (GNP, population and distance). So I use this estimate as the measurement of the degree or strength of natural bloc. The dummy variables which I use in this study are the formal trading arrangements that are already in effect such as NAFTA, EC, ASEAN and MERCOSUR and the broader continent-sized groupings that are under discussion such as EA(East Asia)[5], EAI(Enterprise for America Initiatives)[6], APEC and TAFTA (proposed Trans-Atlantic Free Trade Area=EC+NAFTA).

E. Price and Exchange Rate

Price and exchange rate variables were not included in the analysis. The gravity model analyzes imports or exports for many countries at a single point in time, and being based on cross-section data excludes price variables. This exclusion stems from the general equilibrium nature of the analysis, in which prices are endogenous and merely adjust to equate supply and demand. As Leamer and Stern (1970) observe, this does not imply that prices are not effective in allocating resources.

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[5] See Appendix A for country grouping. East Asia countries are the countries of APEC members which exclude USA, Canada, Mexico, Chile, Australia and New Zealand. Even though East Asia and APEC are not the trade bloc, gravity model make it possible to estimate the effect of these grouping.

[6] See Appendix A for country grouping. EAI includes most of the western hemisphere countries in both North and South America.

On the contrary, pries are assumed to adjust quickly, and demand and supply are assumed to be responsive enough to prices to bring about equilibrium rapidly. Bergstrand (1985) notes that the absence of these data is the only reason for their exclusion. A large percentage of the sample used in this study were developing countries: yearly price index figures for many of these countries are unavailable or, at best, unreliable. Official exchange rates figures are generally not market rates: thus they are of limited usefulness. Both price and exchange rate variables affect competitiveness and trade. This can be the main limitation of the model in spite of empirical success in its applications.

III. Past Use of the Gravity Model: A Review

The gravity model has been applied to a wide variety of goods and factors of production moving across regional and national boundaries under different circumstances. The model has been successfully applied to flows of varying types, such as migration, flows of buyers to shopping centers, recreational traffic, commuting, patient flows to hospitals, telephone calls and interregional as well as international trade. In this

section the past use of the gravity model in the international trade area is reviewed and the model estimates are reported in Table 3-1 with the list of variables used (Table 3-2).

A. Bloc effect

The gravity model has been used to quantify the effects of economic integration on trade flows. Tinbergen (1962) estimated the preferential effect of the British Commonwealth and Benelux CU. The purpose of his study was to determine the pattern of international trade that would prevail in the absence of discriminating trade impediments. Using a simplest form of gravity model (including only GNP of exporting and importing country, distance and bloc dummies as explanatory variables) he finds that both preferences have significant and positive effect on the size of international trade flows. Further he finds that there are deviations in actual trade from the normalized trade pattern of the gravity model. The negative deviations or negative error terms of the model are interpreted as the evidence of the existence of special barriers and obstacles to the optimum flow of international trade.[7] Linnemann(1966) estimated the

[7] See Tinbergen (1962) Appendix VI for the results of deviations from the model.

preference effect for the British Commonwealth of Nations, French Community group and Portuguese and Belgian colonies.[8]

Aitken(1973), estimated a gravity model that included dummy variables for common membership in a free trade area, and thus was able to estimate the trade creation and diversion effects of the EEC and EFTA. By regressing the gravity model without the bloc dummy variable he got the estimated trade values without preference and then this estimated values were subtracted from actual trade to estimate the trade creation and diversion effects of the EEC and EFTA. Hewett (1976) used a gravity model to explore the East-West trade. He finds that typical western trade volume lies above that of typical communist trade volume when he compares the western and eastern trade-volume to the normal trade volume from gravity model. The ratio of intra-CMEA(Council of Mutual Economic Assistance) trade to typical eastern trade turns out to be much higher than the ratio of intra-EEC or intra-EFTA trade to typical western trade. Pelzman(1977) also studied trade creation and diversion in the CMEA during 1954-70 using gravity model. The difference between the actual CMEA trade flows and the hypothetical CMEA trade flows from gravity

[8] See Linneman (1966) Table 4.5 for country grouing.

model is taken to be indicative of gross trade creation.[9] The difference between actual trade flows with nonmembers and the projected trade flows with nonmembers indicates the trade diversion effects. The resulting difference between the GTC and TD effects measure the TC effects. Instead of employing OLS he uses maximum likelihood technique and GLS. He finds that the CMEA countries have experienced the cumulative growth in trade creation over the integration period 1965-70. The estimates of gross trade creation ranged from $9.2 billion in 1965 to $13.2 billion in 1970. The estimates of trade creation ranged from $9.9 billion in 1965 to $13.1 billion in 1970. The estimates of trade diversion ranged from -$0.7 billion[10] in 1965 to 0.1 billion in 1970.

Brada and Mendez (1983) compared the economic integration of developed and developing countries by employing a gravity model. They find that economic integration among developing countries (Andean Pact, Central American Common Market, and Latin American Free Trade Area) can have the same positive effect on intra-

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[9] The TD and TC effects combined result in GTC, which signifies a growth in trade among the member countries, regardless of replacing domestic production (TC) or the replacement of nonpartner imports by partner country imports (TD). See Balassa (1967) for GTC.

[10] Negative trade diversion represents external trade creation which is possible in the case of a customs union when members reduce their tariff to the level of the common external tariff.

member trade as it does among developed countries (EEC and EFTA). They also find that the those bloc effects are influenced by the level of development of the integrating countries and by the distance between them. Brada and Mendez (1985) also examined economic integration among developed, developing and centrally planned economies. Using a gravity model they find that even though effective integration is possible for both developed and developing countries, such as those in Latin America, distances between members may severely limit the benefits of integration.

Thoumi(1989) used a gravity model to study economic integration among the LDCs of the Caribbean Basin. He finds that the integration systems of the region have had varying degrees of success in generating trade. Those that lowered trade barriers against outsiders appear to be relatively successful. The CACM (Central American Common Market) and CARICOM (Caribbean Community) appear to have had a substantial impact on intra-Basin exports, while LAFTA (Latin American Free Trade Association) has failed to promote trade significantly in this subregion. Wang and Winters(1992) studied the trading potential of Eastern Europe using a gravity model. They find that actual trade between

Eastern-bloc countries and market economies is just one-quarter of its potential as estimated by a gravity model.

Frankel(1993), Frankel and Wei(1993) and Frankel, Stein and Wei(1995) use gravity models to find the effect of various blocs on international trade flows. With recent interest on regionalism, they revitalized the gravity model to study bloc effects. Using the gravity model to examine bilateral trade patterns throughout the world, they find that the European Community, the Pacific, and the Western Hemisphere have trade bloc effects. Intra-regional trade turns out to be greater than could be explained by natural determinants: the proximity of a pair of countries, their sizes and GNP/capita ratios, and whether they share a common border or a common language. Frankel(1993) focuses on East Asia and the Pacific. He reaches several conclusions regarding the Yen Bloc that Japan is allegedly forming in East Asia and the Pacific. First, gravity-model estimates of bilateral trade show that the level of trade in East Asia is biased intra-regionally, to a greater extent than can be explained by distance. Second, there is no evidence of a special Japan effect because the estimates of bloc dummies between Japan and other East Asian countries are not significant. Third,

once one properly accounts for rapid growth in Asia, the statistics do not bear out a trend toward intra-regional bias of trade flows. So he concludes that beyond the evident fact that Japan and other Asian countries were growing rapidly, there is no evidence that Japan is concentrating its trade with other Asian countries in any special way. Frankel and Wei(1993) focus on the EC and EFTA. They find that in Europe, it is the EC that operates as a bloc, not EFTA. EC members trade an extra 55 percent more with each other, beyond what can be explained by proximity, size, and GNP/capita. They also find evidence of trade-diversion in 1990 by the negative sign in the bloc dummy. Second Enlargement of EC in 1986 caused much trade diversion.

Recently, McCallum (1995) used a gravity model and detailed Canadian data on interprovincial and international trade to demonstrate the effect of the US-Canada border in diminishing trade in goods. He finds that trade among 10 Canadian provinces is on average 22 times larger than trade between 10 Canadian provinces and 50 U.S. states. So he concludes that national borders in general continue to matter. McCallum(1996) also used a gravity model of the 1988-90 merchandise trade flows among Canadian provinces and between Canadian provinces and U.S. states. He shows that Quebec trades twenty

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times more with other provinces than it does with U.S. states of similar size and distance. The results imply that the fabric of national economies is far tighter than that of the global trading system, even for countries operating without substantial trade barriers such as U.S. and Canada.

B. Determinants of Trade Flows

Sattinger(1978) uses a gravity model to study whether trade between countries is motivated by differences or by similarities in agricultural land per capita, per capita income, the urban proportion of the population, and temperature. He finds that trade between countries is led predominantly by differences rather than similarities and that greater differences in agricultural land per capita, per capita income, the urban proportion of the population, and temperature, results in greater trade between countries. Using the basic variable of a gravity model (GDP, Distance and Adjacency) along with several other variables, Srivastava and Green (1986) studied the determinants of bilateral trade flows. They find that distance, product category, political stability, cultural similarity, colonial past, membership in an economic union, and standard demographic variables

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such as GDP and population are the important determinants of trade flows.

C. Exchange Rate Regime (Fixed or Float)

Gravity models were also used to study trade flows under flexible and fixed exchange rates. Abrams(1980) estimates the trade losses from exchange rate variability. Adding an exchange rate uncertainty variable to the basic gravity model, he estimates that the trade losses which may have occurred during the 1973-76 period as a result of exchange rate uncertainty were greater than in the pre-1973 fixed-rate period. The exchange rate uncertainty variable is defined by any bilateral exchange rate variability (VEX) and the variation of bilateral exchange rates from trend(VTREX).[11] Even though the study cannot be generalized to show the superiority of one exchange rate regime over another he maintains that other thing being equal, increased exchange volatility is detrimental to trade.

Thursby and Thursby(1987) also used a gravity model to study the effect of exchange risk on bilateral

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[11] If in year t, j's exchange in terms of i's currency is Exi,j,t, then $VEXi,j,t = \sum_{k=1}^{12}[(EXi,j,k - \bar{EX}i,j,t-1)-1]^2$ where k represents the months of t-1. If monthly changes in bilateral exchange rates are $\Delta EXij$, then $VTREXi,j,t = \sum_{k=1}^{12}[(\Delta EXi,j,k - \Delta\bar{EX}i,j,t-1)-1]^2$ where k represents the months of t-1.

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trade flows and to examine the Linder hypothesis that countries with similar and sufficiently high incomes will engage in much trade . Using a sample of seventeen countries for the period 1974-82, the authors find strong support for the hypothesis that increased exchange-rate variability affects bilateral trade flows negatively; and also overwhelming support for the Linder hypothesis.[12]

Brada and Mendez(1988) used a gravity model to study the effect of the exchange rate regime on the volume of international trade. By adding the dummies for the exchange rate regime to the basic gravity model they find that bilateral trade flows among countries with floating exchange rate are higher than those among countries with fixed rates. Also they find that while exchange rate uncertainty does lower the volume of trade among countries, regardless of the nature of their exchange rate regime, its effects are less than the trade-reducing effects of restrictive commercial policies imposed by fixed rate countries.

D. Political Economy

Summary(1989) attempts to identify and quantify the factors affecting bilateral trade flows between the

[12] They use a variable of the absolute difference in per capita income in the two countries and find the negative effect of this variable on the trade volume. So this result support the Linder Hypothesis that the similar countries trade more.

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United States and other countries by developing a gravity model. She adds semi economic variables and international political factors such as arms transfer, political rights, civilian employees and foreign agents to the basic gravity model and finds that these variables are important determinants of U.S. bilateral trade.

Pollins (1989) studies the effect of international interactions on bilateral trade flows by adding international corporation and conflict variable to the basic gravity model. He finds that the international conflict has a significant negative effect on the bilateral trade flows.

Recently Hufbauer, Elliot, Cyrus and Winston (1996) used a gravity model to study the effect of US economic sanctions (against countries such as Cuba, Iran and Libya) on trade, jobs and wages. By adding economic sanction dummies on the basic gravity variables, they find that US exports were $15 billion and $19 billion lower than they would have been if not for the effects of sanctions put in place in 1995.

E. Trade Disaggregated By Commodities

Some authors tried to estimate trade in disaggregated commodity group such as manufactured goods, agricultural products, fuels, and other raw materials

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instead of aggregated total bilateral trade data. The estimates of the gravity model changed little in most cases. Frankel(1992) finds that the Asian grouping coefficient has the highest estimates in the raw materials and has the highest significance in the manufactured goods if judged by t-statistics.

Christerson(1994) uses a gravity model to study world trade in apparel. He finds that for low value apparel products, which tend to compete in price, labor costs were a significant determinant of trade flows, causing production to concentrate in low-wage areas. On the other hand for high value products, which tend to compete in quality, fashion, and quick response to changing demand conditions, production for export tend to take place near fabric suppliers and final markets, which tend to be in higher-wage areas. He concludes that proximity to markets and suppliers often outweighs the importance of labor costs, particularly for high-end apparel production.

F. Direct Foreign Investment

Hufbauer, Lakdawalla and Malani(1994) use a gravity model to study determinants of direct foreign investment and its connection to trade. To analyze the determinants of direct foreign investment they use data

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on direct investment from Germany, Japan and the United States. Using investment stock and investment flows as dependent variables instead of bilateral trade flows, they find first that regionalism (regional dummies: EU, Asia Pacific rim and western Hemisphere) plays a significant and consistent role only in the investment stock placements of United states and Japan. Second, the size and openness of partner economies are important determinants of the distribution of investment stocks. Third, they find that Japanese firms are more conservative in the sense that new Japanese investment tends to follow established locations. To analyze trade and investment links they use basic gravity variables adding investment stock as independent variable. The empirical results show that DFI of Japan tends to promote imports more than exports of Japan while DFI of the United States seems to increase exports more than imports of the United States.

The estimates of the gravity model reviewed in this chapter are reported at the Table 3-1 with the list of variables used (Table 3-2).

Table 3-1 : Empirical Results of Previous Studies

List of Gravity Variable	Tinbergen (1962)	Linneman n (1966)	Aitken (1973)	Hewett (1976)	Pelzman (1977)	Brada and Mendez (1983)	Brada and Mendez (1985)
GDPi	0.84	0.86	0.911	0.97	0.954	0.357	1.092
GDPj	0.62	0.98	1.052	0.75	0.788	0.131	0.157
Ni		-0.14	-0.369	-0.11	-0.283	0.899	-0.291
Nj		-0.21	-0.331	-0.03	-0.177	0.680	0.574
Distance	-0.56	-0.77	-0.349	-0.78	-1.229	-0.760	-0.543
Adjacency	0.02		0.892				
EC			0.887	0.51		2.307	3.11
EFTA			0.572	1.23		2.095	2.46
NAFTA							
CMEA				4.30	2.788		
ANDP						0.346	1.51
CACM						1.916	2.50
LAFTA						-1.467	1.15
C	0.05	1.27					
PB	0.04						
NOB	306	3532	132	322		17921	789
Data Year	1958	1958-60	1967	1970	1954-70	1954-77	1970
R-Squared	0.84	0.63	0.87	0.86	0.58	0.56	0.651

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Independe. Variable	Thoumi (1989)	Wang and Winters (1992)	Frankel (1993)	Frankel, aand Wei (1993)	Frankel, Stein and Wei (1995)	McCallum (1983)
GDPi	1.009	1.02	0.787	0.75	0.75	1.21
GDPj	0.241	1.17	0.787	0.75	0.75	1.06
Ni		-0.22				
Nj		-0.38				
Distance	-0.898	-0.75	-0.589	-0.55	-0.56	-1.42
Adjacency	0.249	0.78	0.732	0.79		
PERGDPi	0.468		0.078	0.09	0.09	
PERGDPj	0.218		0.078	0.09	0.09	
EC			0.341	0.52	0.49	
EFTA				0.04	-0.05	
NAFTA					0.05	
EA				0.66		
WH			0.934	0.93		
APEC			1.597		1.32	
TAFTA						
ANDP					0.90	
CACM	3.805					
LAFTA	1.044					
CARICOM	4.261					
Interprov.						3.09
MERCO.					2.09	
NOB		5700	1953	1647	1573	683
Data Year	1971		1990	1990	1990	1988
R-Squared	0.618		0.75	0.77	0.77	0.81

Independ Variable
GDPi
GDPj
Ni
Nj
Distance
Adjacenc
PERGDP
PERGDP
EC
EFTA
NAFTA
PRF
FIXi
FIXj
FLOATij
VEX
EXR
XUV
Aij
Bij
Uij
Iij
Tij
NOB
Data Year
R-Squared

Independe. Variable	Sattinger (1978)	Srinivasta and Green (1986)	Abrams (1980)	Thursby and Thursby (1987)	Brada and Mendez (1988)
GDPi	0.91	0.218	0.76	2.03	0.479
GDPj	0.79	0.012	0.65	0.55	0.393
Ni		-0.004			0.291
Nj		0.089			0.277
Distance	-0.97	-0.449	-0.25	-2.389	-0.775
Adjacency				1.461	
PERGDPi	0.25				
PERGDPj	0.08				
EC	0.81		0.313		
EFTA	0.97		0.24		
NAFTA					
PRF					0.784
FIXi					-1.919
FIXj					-0.839
FLOATij					-0.851
VEX			-0.05	-0.95	
EXR				-4.126	
XUV				-3.891	
Aij	0.25				
Bij	-0.59				
Uij	0.42				
Iij	0.78				
Tij	0.09				
NOB	380	3690	76	144	
Data Year	1972	1977	1973-76	1974-82	1977
R-Squared	0.80	0.3095	0.80	0.64	0.6845

Independe. Variable	Summary (1989)	Pollins (1989)
GDPi		1.136
GDPj	0.42	1.386
Ni		
Nj	-0.13	
Distance	-0.43	-0.752
Adjacency		
PERGDPi		
PERGDPj		
EC		0.719
EFTA		
NAFTA		
Arms	0.22	
Political	-0.20	
Civil	0.04	
Foreign	0.85	
Wij:Corp		0.036
GATT		1.030
APEC		
TAFTA		
ANDP		
CACM		
LAFTA		2.409
CMEA		2.216
NOB	66	552
Data Year	1982	1973
R-Squared	0.62	0.567

Table

Model

GDPi
GDPj
Ni
Nj
Distance
Adjacenc
PERGDP
PERGDP
EC
EFTA
NAFTA
SO
LOME
EA
WH
APEC
TAFTA
ANDP
CACM
LAFTA
C
AA
TM
G
P
FA
F
B
PB

Table 3-2: List of variables used in previous gravity model studies

GDPi	Exporter GDP
GDPj	Importer GDP
Ni	Exporter Population
Nj	Importer Population
Distance	Distance Between Exporter and Importer
Adjacency	Adjacent Country Dummy
PERGDPi	Per Capita GDP of Exporter
PERGDPj	Per Capita GDP of Importer
EC	European Community
EFTA	European Free Trade Area
NAFTA	NAFTA preference
SO	Socialist Exporter
LOME	Lome preferences
EA	East Asia preference
WH	Western Hemisphere
APEC	Asia-Pacific Economic Corporation
TAFTA	Trans-Atlantic Free Trade Area
ANDP	Andean Pact
CACM	Central American Common Market
LAFTA	Latin American Free Trade Area
C	Commonwealth preferences
AA	Assoc. African EC preference
TM	Tunisia-Morocco-French preferences
G	GSP
P	Portugues preference
FA	Other French Africa preferences
F	French preferences
B	Belgian preferences
PB	Benelux Preferences

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CHPTER 4

POSSIBLE ENLARGEMENT OF NAFTA; What is the next step?

I. Introduction

A tripolar trade system centered on Europe, United States, and Japan has become a popular topic among media and popular writers. What's more, EU countries are moving to incorporate eastern Europe, while NAFTA contemplates inclusion of south America. Some authors worry that three is an unstable number and that parties of three tend to split into a two and a one. The proposal for a Trans-Atlantic Free Trade Area (TAFTA), a tariff-free common market uniting North America and Europe[1] may be motivated by these concerns. And APEC (Asian-Pacific Economic Corporation), the loose form of free trade area, is very active now.

This chapter attempts to identify a possible enlargement of NAFTA by using the natural economic bloc concept and gravity model with new dummy variables which represents various combination of regional grouping. I examined which of the following alternatives to NAFTA

[1] See Wall Street Journal (May, 2,1995; Sec C, p 20) and Chicago Tribune (May 21, 1995; Sec 7, p 1)

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enlargement will maximize welfare: A southward expansion incorporating Latin America (EAI, Enterprise for America Initiative); westward in a deal with Europe (TAFTA, Trans Atlantic Free Trade Area); or eastward (APEC, Asian-Pacific Economic Corporation).

II. Model Specification

The model to identify a possible enlargement of NAFTA is a gravity model with various combination of country group dummies. To see where the NAFTA "should" expand, the TAFTA, EAI and APEC dummy variables are added to gravity model specification.

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) \\ &+ \beta_4 \log(N_j) + \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (TAFTA_{ij}) + \gamma_2 (EAI_{ij}) + \gamma_3 (APEC_{ij}) + u_{ij}.\end{aligned} \tag{4.1}$$

where

Tij = value of trade (exports+imports) between country *i* and country *j*[2]

GDPi, GDPj = income in the exporting and importing countries

[2] See **Appendix A** for the countries involved in this study.

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DISTANCEij = distance between countries *i* and *j*

Ni, Nj = population of exporting and importing countries

ADJANCENCYij = adjacent dummy variable which takes the value of if both countries i and j are adjacent and 0 otherwise

TAFTA, EAI, APEC = dummies for country grouping

The coefficients of the dummy variables are compared to each other to see which grouping will maximize welfare. Also by combining NAFTA with individual countries, the "best" partners of NAFTA are identified. How these dummy variables are related to natural grouping is illustrated in figure 4-1. The gravity model offers a systematic framework for measuring what patterns of bilateral trade are "normal" around the world. In addition the coefficients of regional grouping dummies offers the measurement of the degree of strength of natural grouping. A positive coefficient of regional dummy (Case 1 and 2) shows that the regional grouping has a positive effect on the regional trade flow. The higher the coefficient of bloc dummy (Case 2) the closer is the grouping to the natural economic bloc which means a more welfare-improving group. The negative

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Case 1
Case 2

Case 3

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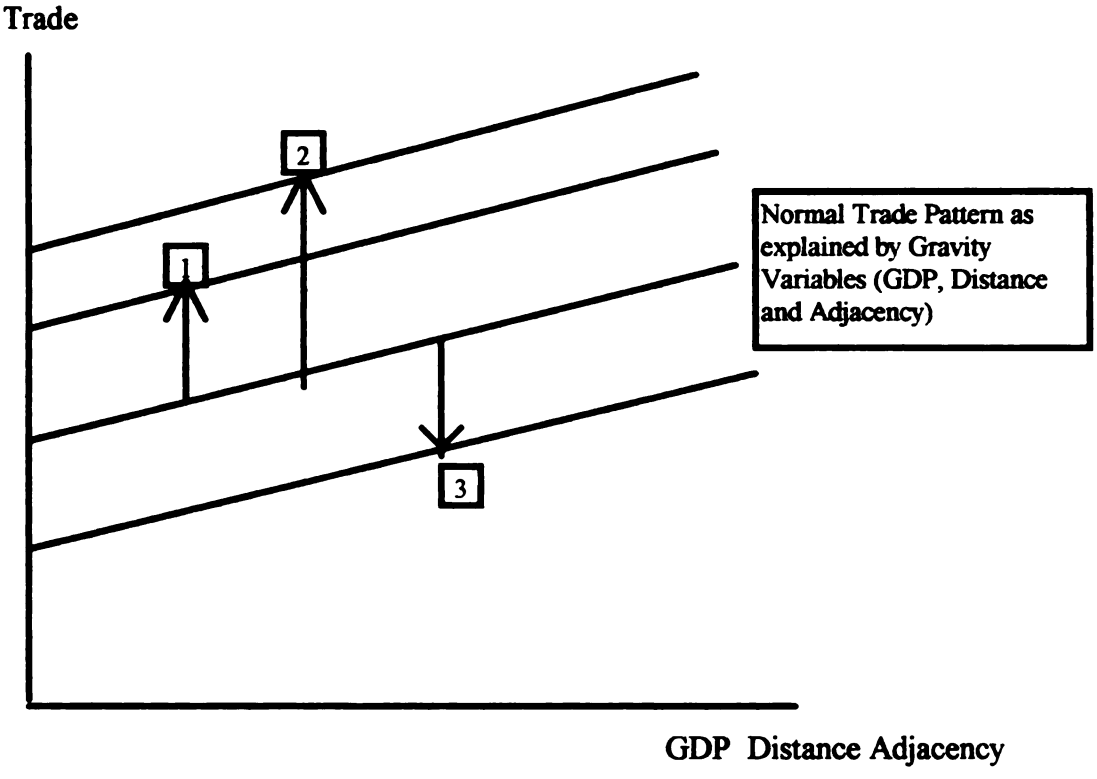
coefficient (Case 3) shows that the regional bloc is possibly a trade diverting grouping.

Figure 4-1: Natural Economic Bloc and Gravity Model



Case 1: Bloc Dummy Effect: Positive
Case 2: Bloc Dummy Effect: Positive : Effect bigger than Case 1
Case 3: Bloc Dummy Effect: Negative

III. Data

Included in this chapter are 122 countries: Western Hemisphere (28 countries), EU(12), EFTA(6), East Asia (10) Other Asia (10), Middle East(13), Africa(40), Oceanic(2) and USSR. Bilateral trade flows among those countries yield 2557 data points. These trade data in

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1993, measured in millions of U.S. dollars, were obtained from the International Monetary Fund, Directions of Trade(1993). GDP and population figures are derived from International Financial Statistics by International Monetary Fund. GDPs are measured in millions of US dollars and populations are measures in millions of persons. Distances (in miles) are the distances between the countries' major harbors and were obtained from the internet by Jon D. Haveman[3].

IV. Empirical Result

I've tried several different forms of the gravity model by using OLS method. Results are reported in Table 4-1. Except the model (4.3) which was regressed on bilateral exports, most of the model was regressed on bilateral trade (exports+imports).

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 (GDP_j) + \beta_3 \log(N_i) + \beta_4 \log(N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (NAFTA_{ij}) + \gamma_2 (EC_{ij}) + \gamma_3 (EA_{ij}) + u_{ij}.\end{aligned} \tag{4.2}$$

$$\begin{aligned}\log(X_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 (GDP_j) + \beta_3 \log(N_i) + \beta_4 \log(N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (NAFTA_{ij}) + \gamma_2 (EC_{ij}) + \gamma_3 (EA_{ij}) + u_{ij}.\end{aligned} \tag{4.3}$$

where *Xij* : Country *i*'s export to country *j*

[3] The internet address is http://intrepid.mgmg.purdue.edu/pub/Trade.Data/distance.txt. From this source I also obtained the adjacency of countries.

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To compare the effect of TAFTA, APEC, EAI (Enterprise for Americas Initiative: Western Hemispheres) and to find the significant effect, several forms of gravity model are regressed by combining TAFTA, APEC and EAI with existing bloc. Eq(4.4) combines TAFTA with EA while Eq.(4.5) APEC with EC. Eq(4.6) combines TAFTA with NAFTA, EC, and EA, while Eq(4.7) EAI with EC and EA. All those models are cross-section for 1993.

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) + \beta_4 (N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (TAFTA_{ij}) + \gamma_2 (EA_{ij}) + u_{ij}.\end{aligned} \tag{4.4}$$

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) + \beta_4 (N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (APEC_{ij}) + \gamma_2 (EC_{ij}) + u_{ij}.\end{aligned} \tag{4.5}$$

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) + \beta_4 (N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (NAFTA_{ij}) + \gamma_2 (EC_{ij}) + \gamma_3 (EA) + \gamma_4 (TAFTA) + u_{ij}.\end{aligned} \tag{4.6}$$

$$\begin{aligned}\log(T_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 (GDP_j) + \beta_3 \log(N_i) + \beta_4 (N_j) \\ &+ \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (EAI_{ij}) + \gamma_2 (EC_{ij}) + \gamma_3 (EA_{ij}) + u_{ij}.\end{aligned} \tag{4.7}$$

As expected, the GDPs of the trading countries has a positive effect on the trade volume. The population of the exporting and importing countries has negative and

Table 4-1 : Empirical Results of Gravity Model

Model	(4.2)	(4.3) Xij	(4.4)	(4.5)	(4.6)	(4.7)
Constant	3.77* (10.58)	3.02* (31.84)	3.81* (10.83)	4.10* (11.74)	3.75* (10.50)	3.67* (9.99)
GNPi	0.64* (30.82)	0.74* (31.84)	0.67* (31.12)	0.66* (31.63)	0.66* (30.82)	0.66* (31.35)
GNPj	0.61* (41.21)	0.59* (36.95)	0.60* (40.52)	0.58* (40.36)	0.60* (40.50)	0.60* (41.25)
Ni	-0.01 (-0.61)	-0.07* (-2.80)	-0.02 (-1.03)	-0.02 (-1.12)	-0.02 (-0.98)	-0.02 (-0.99)
Nj	0.01 (1.06)	0.02 (0.98)	0.02 (1.20)	0.02 (1.46)	0.02 (1.20)	0.02 (1.19)
Distance	-0.71* (-19.52)	-0.78** (-19.42)	-0.74* (-20.57)	-0.75* (-21.22)	-0.73* (-19.97)	-0.73* (-19.44)
Adjacency	0.48* (3.26)	0.63* (3.93)	0.48* (3.22)	0.44* (3.09)	0.47* (3.19)	0.48* (3.29)
NAFTA	1.28 (1.42)	0.52 (0.53)			1.07 (1.19)	
EAI						0.03 (0.26)
EC	0.61* (3.24)	0.61* (3.04)		0.67* (3.69)	0.33 (1.17)	0.62* (3.35)
E.ASIA	1.87* (8.41)	1.90* (7.91)	1.83 (0.52)		1.84* (8.33)	1.83* (8.26)
TAFTA			0.52* (3.51)		0.31 (1.34)	
APEC				1.89* (12.85)		
R-Squared	0.658	0.631	0.661	0.673	0.658	0.661

Parentheses are the t-statistic,
* denote 99% significance level

positive effect respectively on the trade. Also the coefficient on the log of distance is about -0.7, which means that when the distance between the trading countries is higher by 1%, the trade between them falls by 0.7%. The adjacency variable is positive and significant.

Most dummy variables for intra-regional trade are statistically significant as positive effect on trade flows, both in East Asia and elsewhere in the world. If two countries are both located in East Asia for example, they will trade with each other by an estimated six and half times more than they would otherwise, even after taking into account distance and the other gravity variables [exp (1.87) = 6.42]. Intra-regional trade goes beyond what can be explained by proximity. The coefficient on the Asian groupings appears to be the strongest and most significant of any in the world. When I broaden the bloc to APEC (Association of Pacific Economic Cooperation), which includes the United States and Canada with the others, it is still highly significant. The APEC coefficient is the strongest of any.

The low t-statistics among dummy variables in (4.6) are due to the correlation among NAFTA, EC, TAFTA dummies. However, according to A Guide to Econometrics by Peter Kennedy, " we don't worry about multicollinearity if the R-square from the regression exceeds the R-square of any independent variable regressed on the other independent variables." It turns out that the R-square (0.658) from the regression of Eq.(4.6) exceeds the R-

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square of the regression among dummy variables (0.617 the highest between EC and TAFTA dummies, 0.01 between NAFTA and TAFTA, and 0.00 between NAFTA and EC). So we don't have to worry about the multicollinearity.

Should the US should follow the TAFTA (Trans-Atlantic Free Trade Area) or EAI (Enterprise for America Initiative) or APEC? It turns out that the US should give priority for focusing on APEC if we follow the natural trade bloc argument. The regression the coefficient for APEC is the highest (1.89) and TAFTA(0.52) was a distant second while that of Western Hemisphere(EAI) was the lowest(0.03). As we've seen from Figure 4.1, APEC gives the highest jump in the level of intra-regional trade. Hence the APEC is the most significant natural grouping.

The next question is which countries of APEC will be the "best" partners of NAFTA in terms of welfare maximization. By adding each individual member of APEC to NAFTA dummy, the best candidates for natural bloc formation turns out to be Hong Kong (1.99) and Singapore (1.96). The rank of the coefficients are reported in the Table 4-2.

Table

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Table 4-2 : Who is the best partner of NAFTA?

Country Name	Coefficient
Hong Kong	1.99
Singapore	1.96
Malaysia	1.79
Korea	1.66
Japan	1.57
China	1.14
Thailand	1.04
Indonesia	0.9
New Zealand	0.8
Chile	0.78
Australia	0.74
Philippines	0.72
Papua New Genea	-1.05

V. Summary and Conclusion

In this chapter, I examined in which direction NAFTA should expand, to the south (EAI, Enterprise for America Initiative), east (TAFTA, Trans-Atlantic FTA) or west (APEC, Asian-Pacific Economic Corporation). To do this I have used the natural bloc concept combined with gravity model. It turns out that the most "natural" extension of NAFTA is towards APEC and within APEC the best candidates are Hong Kong, Singapore Malaysia and Korea. The US should focus more on Asia, than on TAFTA or EAI.

CHAPTER 5

Trade Creation and Trade Diversion of ASEAN, ANDEAN, EC and MERCOSUR: By Gravity Model

I. Introduction

While chapter 4 analyzes the regional groupings which do not have formal agreements, this chapter focuses the trade creation and diversion effects of ASEAN, EC, ANDEAN and MERCOSUR, trading blocs that are already in existence. While ASEAN (Association of Southeast Asian Nations) was formed in 1967 to promote economic, social, and cultural cooperation among Indonesia, Malaysia, Philippines, Singapore, and Thailand, ANDEAN (Andean Common Market) which involves Bolivia, Colombia, Ecuador, Peru and Venezuela was formed in 1969. MERCOSUR(Southern Cone Common Market) which includes Argentina, Brazil, Paraguay and Uruguay is relatively new, having been created in the spring of 1991. I included the EC to compare the size of trade creation and diversion with ASEAN, ANDEAN, and MERCOSUR. Also these blocs will be analyzed for the growth effects in Chapter 7.

The methodology for estimating trade creation and trade diversion in this chapter is ex-post gravitational

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approach. In this chapter I am estimating the values of trade creation and trade diversion, not measuring the welfare effects. In section II, the model specifications and methodologies will be discussed and the estimation of trade creation and trade diversion will be reported in section III.

II. Methodologies for Estimating Trade Creation and Trade Diversion

A modeler who intends to employ an ex-post estimation procedure possesses all relevant post-integration data, but needs to know what those data would have been in the absence of integration. Thus, the problem that manifests itself in ex-post estimation is in constructing the "antimonde." In ex-post models, trade creation estimates are obtained by first estimating what expected total imports would have been in the absence of integration. Once this is obtained , it is necessary to subtract the expected total imports from the actual value of total imports, in order to deduce the change in total imports due exclusively to integration. Trade diversion is estimated by subtracting the actual value of non-partner imports from the estimated value of external imports in the absence of integration.

The construction of the antimonde and its comparison to actual data are essential for the estimation of trade creation and trade diversion. As long as a realistic, unbiased, and consistent technique is used to formulate the antimonde, the possession of actual data will enhance the plausibility of the estimates. Thus, the construction of a realistic antimonde is of the essence. The gravity model offers alternative means for doing this.

First, estimate a gravity model that includes dummy variables for common membership in a free trade area and find the effect of the bloc by the significance of bloc dummy.

$$\begin{aligned}\log(M_{ij}) &= \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(N_i) \\ &+ \beta_4 \log(N_j) + \beta_5 \log(DISTANCE_{ij}) + \beta_6 (ADJACENCY_{ij}) \\ &+ \gamma_1 (BLOC) + u_{ij}.\end{aligned} \tag{5.1}$$

where

Mij = value of imports in country *i* from country *j*

GDPi, GDPj = income in the importing and exporting countries

DISTANCEij = distance between countries *i* and *j*

Ni, Nj = population of importing and exporting countries

ADJANCENCYij = adjacency dummy variable which takes the value of 1 if both countries i and j are adjacent and 0 otherwise

BLOC = dummy variable for ASEAN,EC, ANDEAN and MERCOSUR

Second, the gravity model without the bloc dummy variable will be used to get the projected imports values in the absence of integration. Lastly, these projected values will be subtracted from actual imports to estimate the trade creation and diversion effects. The trade creation (TC) effect refers to increase of imports from the partner countries replacing domestic production. The trade diversion(TD) refers to the replacement of nonpartner imports by partner country imports. As defined by Balassa (1967) gross trade creation (GTC) refers to the increase in intra-member trade, regardless of replacing domestic production (TC) or the replacement of nonpartner imports by partner country imports (TD). External trade creation (ETC) will refer to increase in imports from nonpartner countries. It is possible in the case of a customs union when members reduce their tariff to the level of the common external tariff.

III. Estimates of Trade Creation and Trade Diversion

A. TC and TD Estimates

The gravity equation(5.1) results are reported in Table 5-1. While the ANDEAN shows a negative bloc effect, ASEAN and EC show the positive effect on intra-bloc imports. The effect of ASEAN, EC, ANDEAN and MERCOSUR was variant depending on the year of beginning of the trade agreement. So the focus of trade creation and diversion is limited to 1970, 1975, 1980, 1985, 1990 and 1995.

To obtain the projected import values without integration, the gravity model without the bloc dummy variable is used. Thus projected imports are obtained by plugging the data of GDPi, GDPj, Ni, Nj, DISTANCEij, and ADJANCEij into the gravity model results without the bloc dummy. For the case of ASEAN 1995, the following gravity result without the bloc dummy

$$\begin{aligned}\log(M_{ij}) = {} & 11.22183 + 1.474437\log(GDP_i) + 1.275097\log(GDP_j) \\ & - 0.7287922\log(N_i) - 0.5358907\log(N_j) \\ & - 0.9471356\log(DISTANCE_{ij}) + 0.5008433(ADJACENCY_{ij})\end{aligned} \tag{5.2}$$

is used to get the projected imports.

The results of projected imports are reported in the Appendix B. Then these projected values were subtracted from actual imports to estimate the trade creation and diversion effects.

Table 5-1: Cross-Sectional Results (γ_i) form Model (5.1)

Year	ASEAN	EC	ANDEAN	MERCOSUR
1961	.	.	.	.
1962	.	0.767669	.	.
1963	.	0.773136	.	.
1964	.	0.717059	.	.
1965	.	0.730029	.	.
1966	.	0.696454	.	.
1967	.	0.643965	.	.
1968	1.314757	0.752288	.	.
1969	2.014907	.	.	.
1970	1.2672	.	.	.
1971	2.168632	.	-0.98439	.
1972	2.167735	.	-0.74398	.
1973	1.683634	.	-0.73991	.
1974	1.746115	.	-1.49944	
1975	1.528872	0.428787	-0.91525	.
1976	1.655361	0.488971	-0.94935	.
1977	1.614157	0.510943	-0.88977	.
1978	1.618101	0.535997	-0.97717	.
1979	1.722675	0.606116	-0.95377	.
1980	1.777118	0.534293	-0.98084	.
1981	1.418053	0.423394	-1.03618	.
1982	1.398816	0.371004	-0.82411	.
1983	1.361215	0.372246	-1.25841	.
1984	1.301678	0.35264	-1.5406	
1985	1.448796	0.457558	-1.44854	.
1986	1.487884	0.687565	-1.45581	.
1987	1.557849	0.674339	-1.18801	.
1988	1.490453	0.614078	-1.46756	.
1989	1.719471	.	-0.51665	.
1990	1.667796	.	.	.
1991	1.472287	.	.	.
1992	1.409535	.	.	.
1993	1.461568	.	.	.
1994	1.480809	.	.	.
1995	1.237432	.	.	1.070952

The difference between the actual intra-bloc imports and the projected intra-bloc imports is taken to be the indicative of the gross trade creation as defined by Balassa(1967). It is the increase in intra-trade regardless of whether domestic production (TC) or the imports from nonpartner countries are replaced by partner countries(TD). By adding those differences in intra-bloc imports, GTC of bloc is estimated. The GTC of ASEAN, EC, ANDEAN and MERCOSUR is reported in table 5-2. In 1985, the GTC of EC (increase in intra-EC imports) was $119 billion while the GTC of ASEAN (increase in intra-ASEAN imports) was $11 billion. While the GTC of ASEAN and EC show positive , ANDEAN shows negative GTC ($0.6 billion in 1985). Negative GTC means that the ANDEAN bloc causes the decrease in intra-ANDEAN imports. From this negative GTC of ANDEAN we can speculate external trade creation (increase in imports from nonpartner countries)of ANDEAN which is possible when members reduce their tariff to the level of the common external tariff. In 1995 the MERCOSUR's GTC was $9 million.

The negative difference between the actual imports from nonmember and the projected nonmember imports (Appendix B) indicates the trade diversion effects. By adding those differences the trade diversion of blocs is

estimated. The trade diversion of EC shows the highest trade diversion among the blocs ($12 billion) while ANDEAN shows the next highest ($4 billion) in 1985. The trade diversion of ASEAN was $1 billion in 1985, $1 billion in 1990 and $2 billion in 1995. In the case of MERCOSUR, the effect of bloc shows up only in 1995 and trade diversion was $13 billion in 1995.

Table 5-2: GTC, TD and TC of ASEAN, EC, ANDEAN, and MERCOSUR($ Million)

Year	ASEAN	EC	ANDEAN	MERCOSUR
1970				.
GTC	205	.	.	.
TD	156	.	.	.
TC	49		.	.
1975				
GTC	3,410	53,131	-165	.
TD	595	15,166	1872	.
TC	2,815	37,965	-2073	.
1980				
GTC	11,899	119,388	-531	.
TD	1,025	32,072	1,193	.
TC	10,874	87,316	-1,724	.
1985				
GTC	9,886	87,478	-599	.
TD	1,009	11,680	4,126	
TC	8,877	75,798	-4,725	.
1990				.
GTC	25,556	.	.	.
TD	1,136	.	.	.
TC	24,420	.	.	.
1995				
GTC	55,768	.	.	8,537
TD	2,127	.		13,202
TC	53,641	.		-4,665

The resulting difference between the GTC and TD effects will be indicative of the trade creation effects of blocs. Table 5-2 shows that the ASEAN and EC are trade creating blocs while ANDEAN is trade diverting bloc. In the case of MERCOSUR, and trade diversion ($13 billion) was bigger than the GTC ($8 billion). So MERCOSUR has negative trade creation which indicates trade diverting bloc and there was no trade creation.

The gravity model was useful for identifying the countries from which the trade diversion effect originates. From Appendix B, for ASEAN, the trade diversion effects originate from Europe (France, Italy, Spain, Switzerland and Denmark) and Latin America (Mexico, Brazil, and Venezuela). For ANDEAN, the trade diversion originates from Asia (China and Japan) and from North and South America (Brazil, Mexico, USA and Canada). In case the of EC, diversion comes from Latin America (Mexico and Brazil) and Asia (China, Japan, Korea, and Taiwan). For MERCOSUR, the trade diversion mostly affects North America (USA, Canada, Mexico), Asia (Japan, Korea, Indonesia, and Philippine) and Europe (United Kingdom, France).

B. Credibility of The Results

To check the credibility of the results against other relevant estimates, first of all, I did independent estimation of trade creation and diversion of ASEAN and EC by using import growth approach suggested by Kreinin (1981). Second, I compared the results of EC with the previous estimates of trade creation and diversion of EC.

The import growth approach formulate an antimonde based on what import growth rates would have been in the absence of integration. Once such growth rates in the antimonde are estimated, it is possible to perform pairwise comparison in order to derive trade creation and trade diversion. The standard normalized approach estimates an antimonde import growth rate by using a control country as a normalizer. Pioneered by Kreinin (1972), this approach posits a control country's growth rate in the antimonde. In other words, the growth rates in the integrating area are normalized by the growth rates of similar ratios in different countries over the same period. While Korea is used as normalizer To estimate the TC and Td of ASEAN, Unites States is used as normaizer for the estimation TC and TD of EC.

Table 5-3 presents the relevant import data for the ASEAN and Korea to estimate TC and TD of ASEAN in 1995.

Table 5-3 Imports of ASEAN and Korea

	(1) 1989/90 average	(2) 1995	(3)Ratio Col.2/Col.1
Total Imports of ASEAN	123	293	2.17
External Imports of ASEAN	97	221	2.27
Imports of Korea	55	106	1.92

Had total imports of ASEAN grown at the same rates as that of Korea(1.92 times) it would have been $236 billion in 1995. That figure represents hypothetical imports in the absence of integration. The difference between actual ($293 billion) and hypothetical imports - $57 billion - is the estimated annual trade creation of ASEAN. To estimate annual trade diversion, in the absence of integration the ratio of external to total imports would have remained at the base period level of 78%(=97/123). That yields hypothetical external imports of (293*78%) $228 billion. Trade diversion is the difference between this figure

and actual external imports in 1995 or (228-221) $7 billion. Compared to the gravitational results in Table 5-2, $53 billion TC and $2 billion TD in ASEAN 1995, these($57 billion TC and $7 billion TD) are very close figures. So the results of gravitational estimates are credible.

Table 5-4 presents the relevant import data for the EC and USA to estimate TC and TD of ASEAN in 1995.

Table 5-4 Imports of EC and USA

	(1) 1970/71 average	(2) 1985	(3)Ratio Col.2/Col.1
Total Imports of EC	101.5	527	5.27
External Imports of EC	38.5	199	5.16
Imports of USA	39.5	186	4.70

Had total imports of EC grown at the same rates as that of USA(4.70 times) it would have been $474 billion in 1985. That figure represents hypothetical imports in the absence of integration. The difference between actual ($527 billion) and hypothetical imports -

$53 billion - is the estimated annual trade creation of ASEAN. To estimate annual trade diversion, in the absence of integration the ratio of external to total imports would have remained at the base period level of 38%(=38.5/101.5). That yields hypothetical external imports of (527*38%) $205 billion. Trade diversion is the difference between this figure and actual external imports in 1995 or (205-199) $6 billion. Compared to the gravitational results in Table 5-2, $75 billion TC and $11 billion TD in EC 1985, these ($53 billion TC and $6 billion TD) are close figures.

The trade creation estimates of EC has consistency with other studies. Kreinin(1981) finds TC in EC $28 billion (in 1977/1978) and McConnel (1981) $27 to $37 billion (in 1977/1978) and Owen(1983) $40 to $96 billion (in 1980). My estimates of TC in EC (in 1980) is $87 billion which is in the range of Owen (1983). Previous estimates of trade creation and trade diversion of EC is summarized in the Table 5-5.

Table 5-5: Previous Estimates of Trade Creation and Diversion of EC ($ Bil.)

Author	Area	Year	TC	TD
Balassa (1967)	EEC	1965	1.9	0.1
Kreinin (1969)	EEC	1963 1964 1965	0.08 0.07 0.04	0.05 0.02 0.09
Truman (1969)	EEC	1968	9.2	-0.1
Willamson & Botrill (1971)	EEC	1969	8.3	3.5
EFTA Secretariat (1972)	EEC	1965 1966 1967	1.7 2.2 2.3	0.6 0.7 0.9
Kreinin (1972)	EEC	1969/19 70	7.2 to 20.5	-4.2 to 2.4
Verdoorn & Schwartz (1972)	EEC	1968	10.1	1.1
Aitken (1973)	EEC	1967	9.2	0.6
Kreinin (1973)	EEC	1970	5.3 1.7	3.9
Sellekaerts (1973)	EEC	1972		-24.6
Prewo (1974)	EEC	1970	19.8	-2.5
Balassa (1975)	EEC	1970	11.3	0.3
Rensick & Truman (1975)	EEC	1968	1.8	3.0
Truman (1975)	EEC	1968	3.0	2.0
Kreinin (1981)	EEC	1977/19 78	28.0	5.0
McConnel (1981)	EC	1977/19 78	27.0 to 36.8	7.9
Owen (1983)	EC	1980	40 to 96	

V. Summary and Conclusion

This chapter uses the gravity model to estimate trade creation and trade diversion of ASEAN, ANDEAN, EC and MERCSUR. By using the gravity model as antimonde the expected bilateral imports are estimated and these estimates are subtracted from actual imports to get trade creation and trade diversion. This gravity model shows that the ASEAN and EC are trade creating blocs while ANDEAN and MERCOSUR are trade diverting blocs. From these results we can conclude that while the export-promotion policy with low rates protection by ASEAN and EC has fostered trade creation the import-substitution policy with high rates of protection of ANDEAN and MERCOSUR has affected trade diverting negatively.

CHAPTER 6

GROWTH EFFECT OF EXPORTS EXPANSION

I. Introduction

There are strong logical and empirical grounds supporting the hypothesis that exports are a key factor in the growth process. The logical grounds can be documented in terms of both direct and secondary effects of exports on the economy. There are many direct benefits from a high export growth rate that help in promoting general economic growth.

Export development tends to concentrate investment in the most efficient sectors of the economy—those in which the country enjoys a comparative advantage. Specialization in the products in which the country has a comparative advantage increases productivity. These benefits follow the traditional line of emphasizing specialization and reallocation of existing resources. In addition to these static effects of reallocating an unchanged quantity of resources, there are dynamic effects which are the increases in economic well-being that accrue to an economy because trade expands the resources of a country and induces an increase in the

productivity of existing resources. An increasing level of exports generally means that the country has the wherewithal to step up its level of imports. These imports include capital goods which are especially important in contributing to economic growth. The country is enabled to take greater advantage of the international division of labor, procuring desired goods from abroad at considerable savings in terms of productive factors. This helps increase the efficiency of industry, which is a major factor in economic growth. The country also gains from economies of scale, since the international market added to the domestic market obviously permits larger-scale operations than does the domestic market alone. The necessity of remaining competitive in international markets tends to maintain pressure on the export industries to keep costs low and to constantly strive for more efficient operations. The competitive pressures also tend to lead to improvements in the quality of the export product, and in general to inhibit the establishment of the inefficient export industries.

In addition to direct benefits of providing part of wherewithal for economic development, and stimulating more efficient use of resources, a dynamic export sector also produces substantial secondary benefits. These include increased investments and technological

advancement elsewhere. Profitable export industries tend to stimulate additional investment, both domestic and foreign. Where exports of a primary product are profitable and expanding, there is a stimulus to domestic investment in both the existing industries and in the various processing industries associated with the product in its various stages of production. Expanding exports also encourage investment in ancillary industries set up to supply and service the operations of the main export industries. A rapid growth in exports also serves as an inducement to foreign investment in the country, particularly where the investment climate is propitious from the viewpoint of foreigners.

In addition to stimulating domestic and foreign investment, a growing export sectors also encourages an increased flow of technological and market innovations, as well as managerial skills. Under the pressure of competition and the desire to continue expanding foreign sales, foreign techniques and methods are imported to further improve productivity and quality. This is beneficial for both the domestic exporter and the foreign importer, the latter often pressing for the new techniques in order to improve his own sales and profit position.

All of these factors tend to reinforce each other, stimulating further expansion of exports and investment. The results is a substantial growth in real GDP. Such export-led growth is important in many countries. This chapter attempts to measure the effect of export expansion on the economic growth.

II. Model Specification

A model of the relation between export and growth will be based on the growth accounting equation. Assume the following Cobb-Douglas production function incorporating three factors:

(6.1) $$Y_i = A\ K_i^{\alpha} L_i^{\beta} E_i^{\gamma}$$

where Y_i = country i's real GDP

A = a technological constant

K_i = country i's capital stock

L_i = country i's labor force inputs

E_i = country i's exports

The third factor, exports, has been included to estimate the effect of export on the growth rate. As we mention in the introduction exports has been included on the grounds that there are scale effects and externalities associated with export production and

sales. Also following the international comparative advantage, *ceteris paribus,* exports can have independent effect on the output growth through the reallocation of existing resources. By differentiating equation (6.1) with respect to time and dividing through by (6.1) we obtain the following linearly estimable equation:

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{E}_i}{E_i} \qquad (6.2)$$

where superscript • represents the change in the variable with respect time.

This model was used in the development literature [Emery(1967), Syron and Walsh(1968), Balassa (1978,1985), Tyler(1981), Feder(1982), Kavoussi (1984), Chu(1988), Fosu(1990)] to study the relation between export and growth. Various exports-growth model formulations and estimations are summarized in table 6-1. The basic idea of this model is that the growth in export is an important factor for economic growth. It is also clear that capital formation, labor and technological growth contribute significantly to GDP growth.

Table 6-1: Summary of Various Exports-Growth Model Formulations and Estimations

Authors	Model Formulation	Estimation of Export Coefficient
Emery(1967)[1]	$y = a + bx$	0.3295 (IC and DC)
Syron and Walsh(1968)	$y = a + bx$	0.3327 (Low-income DC) 0.3871 (Middle-income DC)
Balassa(1978)[2]	$\Delta Y = ak_d + bk_f + c(\Delta L) + d(\Delta X)$	0.04 (Semi-industrialized DC)
Balassa(1985)[3]	$\Delta Y = ak_d + bk_f + c(\Delta L) + d(\Delta X) + eY + fmx$	0.182(DC)
Tyler(1981)[4]	$y_1 = a + bk + cl + dx$ $y_2 = a + bk + cl + dmx$	0.57 (Middle-income)
Feder(1982)[5]	$y = a + bl + c(I/Y) + dx(X/Y)$	0.422 (Semi-industrialized DC)
Kavoussi (1984)[6]	$y_1 = a + bk + cl + dx$ $y_2 = a + bk + cl + d_1mx + d_2mx$	0.105(all DC)
Fosu(1990)	$y = a + bk + cl + dx$	0.123(African DC)

Notes: ICs and DCs are industrialized and developing countries, respectively

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[1] y = GNP per capita growth rate, x = export growth rate

[2] $\Delta Y, \Delta L, \Delta X$ = changes in GNP, labor force, merchandise export , k_d =domestic capital growth, k_f = foreign capital growth

[3] $\Delta Y, \Delta L, \Delta X$ = changes in GNP, labor force, merchandise export , k_d =sum of gross domestic investments less current account balances from initial year terminal year, k_f = sum of current account balances from initial year terminal year.

[4] y, k, l, x = GNP, capital formation, labor, and export growth mx =manufactured export growth

[5] y = GDP growth, l = labor forth growth, I/Y = investment output ratio

[6] Similar to Tyler's except mx =product of the share of manufactured goods in total merchant exports

III. Data

Empirical work which test the impact of exports on the GDP growth uses mostly 1960s and 1970s cross country data sets with relatively limited number of countries. Recently compiled international data set, Penn World Table (PWT Mark 5.6) is more accurate, more comparable between countries, and covers more countries than used in previous studies. The countries (total 152 countries) included in this data covers Africa (50) Central and North America (22), South America(12), Asia (32), Europe (28), and Oceania (8). Data Years are from 1960 to 1992. The data used in this chapter are:

$\dot{Y}_i$ = country *i's* GDP growth rate

Penn World Table 5.6 by Summers and Heston (1994) RGDPL(Real GDP per capita, Column 3) growth rate

$\dot{K}_i$ = country *i's* capital stock growth rate

Penn World Table 5.6 by Summers and Heston (1994) KAPW(Non-residential capital stock per worker, column 20) growth rate

$\dot{L}_i$ = country *i's* labor force inputs growth rate

Penn World Table 5.6 by Summers and Heston (1994) Labor Force Participation growth rate

$\dot{E}_i$ = counttry *i's* export growth rate

IV. Empirical Results

First, I report the results of the export-growth formulation using Penn World Table data. By pooling the cross section and time series data, I have the following result:

$$(6.4) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{E}_i}{E_i}$$

Estimates:4.519 0.313 0.579 0.2194 R-square 0.3277

t-values :(0.03)(3.21)23.27)(21.82) # of obs. 1546

As expected exports have a positive effect on the growth rate as in the previous studies: a 1% growth in export causes a 0.2194% increase in the real GDP. This estimate is in the middle of previous results which ranged from 0.105 to 0.57. Second, if we look at the results by continents, the growth of export in African countries has the highest contribution to the GDP growth (0.32), followed by the Asian countries(0.22), Oceania (0.17), Europe(0.16) and America (0.13). The export-growth results for each countries will be given at appendix D.

Table 6-2: Export-Growth Regression by Continents

Contine -nts	Const.	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
Africa	3.39 (7.33)	0.22 (3.80)	-0.10 (-0.33)	0.32 (14.93)	0.50	291
America	4.03 (9.67)	0.50 (7.08)	1.07 (2.40)	0.13 (7.94)	0.23	400
Asia	5.94 (10.31)	0.10 (1.35)	2.00 (3.00)	0.22 (11.00)	0.33	295
Europe	5.75 (14.94)	0.21 (3.57)	0.77 (2.37)	0.16 (9.99)	0.19	510
Oceania	4.59 (2.37)	-0.51 (-1.70)	4.06 (1.58)	0.17 (3.14)	0.32	50

Parentheses are the t-statistic

V. Summary and Conclusion

The main conclusion to be drawn from this study is that export expansion is crucial factor to economic growth. It would appear that countries ought to aim at 2.5 percent expansion of exports to obtain a 1 percent expansion of per capita real GDP. The policy implication of the above conclusion is that countries eager to increase their growth rates should adopt the type of policies that will stimulate exports. This suggests that countries which neglect export sectors and adopt the policy of imports substitution are likely to have lower economic growth.

CHAPTER 7

GROWTH EFFECT OF ECONOMIC INTEGRATION

I. Introduction

It is customary to divide the effect of a customs union into static and dynamic. The static effect is concerned with allocative efficiency while dynamic or growth effect is concerned with the long-run growth consequences of increased market size. This makes possible production on a larger scale and infuses competition into markets. The fact that a multitude of factors influence the growth rate makes it difficult to assess the impact of integration on growth. Also most of the previous studies of regionalism focused on the static effects and ignored the dynamic effects. The objective of the research reported in this chapter is to identify and measure these growth effects.

Research on the growth effect of economic integration is rather recent and the literature regarding econometric evaluations on the growth effect are sparce. Coe and Moghadam (1993) analyze growth effect of EC integration on France. Using the ratio of intra-EC trade to total EC output as proxy for integration, hours worked

in the nornfarm business sector, the stock of capital and the stock of R&D capital are used to explain the growth of French GDP. They finds that 0.3 percentage points of the French annual growth rate can be attributed to EC integration. Italianer (1994) analyzes the growth effect of the EC, using growth of capital stock, labor force participation, and an EC proxy (defined as intra-EC trade as a share of total EC trade). He finds that the EC proxy is positively and significantly related to the growth rate of EC. In both studies, however, growth in intra-EC trade does not necessarily mean the effect of the EC bloc. It could be the result of natural factors, i.e., rapid growth in per capita GDPs or of the increase in economic size of the member countries. To investigate the extent to which regional policy initiatives influence trade flows and growth rate it is necessary to hold constant natural economic determinants. The gravity model offers a systematic framework for measuring the effect of bloc formation on trade flows. Hence, using the results from chapter 4 with a growth accounting equation, the growth effect of various economic blocs can be estimated. I will apply the cross-section results of the gravity model to a time-series model of a growth equation using the yearly results from 1960 to 1992.

This is a new and more correct approach to measuring the growth effect of economic integration.

II. Model Specification

A model of the relation between export and growth which was used in chapter 6 will be used basic model to measure the dynamic effects of economic integration.

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{E}_i}{E_i} \tag{7.1}$$

where Y_i = country i's real GDP

A = a technological constant

K_i = country i's capital stock

L_i = country i's labor force inputs

E_i = country i's exports

and superscript $\bullet$ represents the change in the variable with respect time.

By replacing the export growth rate in (7.1) with the cross-section results of the gravity model, we can identify the effect of economic integration on the growth rate. The following equations will be estimated:

$$(7.2) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{B}}{B}$$

where B= regional effect from the gravity model

The basic idea of this model is that the growth in export is a important factor for economic growth and the trade integration has effect on the export growth which results in the growth of GDP. Therefore the regional effect derived from the gravity model can be used to estimate the dynamic effect of block formation on the growth rate of the national economy.

III. Data

The countries included in the analysis of the growth effect are North and South America (Western Hemisphere), East Asia and Europe(total of 60 countries)[1], the broader continent-sized groupings that are under discussion. Even though the years covered by the gravity model were 1961- 1995, only data from 1961 to 1992 were used for analysis because data from the Penn

[1] See Appendix C for the countries involved in the analysis of chapter 5.

World Table (Mark 5.6) were only available up to 1992.

The data used in this chapter are:

$\dot{Y}_i$ = country *i's* GDP growth rate

Penn World Table 5.6 by Summers and Heston (1994) RGDPL(Real GDP per capita, Column 3) growth rate

$\dot{K}_i$ = country *i's* capital stock growth rate

Penn World Table 5.6 by Summers and Heston (1994) KAPW(Non-residential capital stock per worker, column 20) growth rate

$\dot{L}_i$ = country *i's* labor force inputs growth rate

Penn World Table 5.6 by Summers and Heston (1994) Labor Force Participation growth rate

$\dot{B}$ = regional effect growth rate from the gravity model

Gravity Model Estimation in chapter 4.

Data Years are from 1960 to1992. Bilateral export data were collected from the International Monetary Fund (IMF) Directions of Trade. IMF International Financial Statistics provided the GDP and populations of the world. Most of the growth equation data were collected from Penn World Table 5.6 by Summers and Heston (1994).[2]

[2] I got this Penn World Table 5.6 by Summers and Heston (1994) from internet.

IV. Empirical Results

A. Growth Effects of ASEAN, ANDEAN, and EC

As we discussed in chapter 4, the gravity model offers a systematic framework for measuring what patterns of bilateral trade are "normal" around the world. In addition the coefficients of regional dummies offer the effect of the bloc formation on trade flows. The results of these estimates will be grafted on to the growth accounting model to see how these blocs will affect of the growth of the region.

The gravity model used in this chapter is :

$$\log(X_{ij}) = \alpha + \beta_1 \log(GDP_i) + \beta_2 \log(GDP_j) + \beta_3 \log(DISTANCE_{ij}) + \beta_4 \log(ADJACENT_{ij}) + \beta_5 \log(Bloc) \quad (7.3)$$

where

Bloc: dummy variable for ASEAN, ANDEAN, EC

To get enough data points for the growth equation, I chose ASEAN, ANDEAN and EC as regional group and the estimates of these bloc are reported in the Table 7-1. MERCOSUR was excluded because it was significant only in one data year 1995. Because I report only the bloc effect which is significant at least at the 90% level there are some missing years. These results will be grafted onto the time-series data for growth analysis.

Table 7-1: Cross-Sectional Results (β_5) form Gravity Model

Year	ASEAN	ANDEAN	EC
1961	.	.	0.710227
1962	.	.	0.767669
1963	.	.	0.773136
1964	.	.	0.71706
1965	.	.	0.730029
1966	.	.	0.696455
1967	.	.	0.643965
1968	1.278732	.	0.752288
1969	1.805311	.	.
1970	0.903383	.	.
1971	2.215933	-0.9844	.
1972	2.154016	-0.74398	.
1973	1.866969	-0.73991	.
1974	1.945677	-1.49944	.
1975	1.607181	-0.91525	0.428787
1976	1.662562	-0.94935	0.488971
1977	1.62151	-0.88977	0.510943
1978	1.558911	-0.97717	0.535997
1979	1.741579	-0.95377	0.606116
1980	1.785182	-0.98084	0.534293
1981	1.371986	-1.03618	0.423394
1982	1.300219	-0.82411	0.371004
1983	1.310376	-1.25841	0.372246
1984	1.409654	-1.5406	0.35264
1985	1.56851	-1.44854	0.457558
1986	1.584085	-1.45581	0.687565
1987	1.636484	-1.18801	0.674339
1988	1.623224	-1.46756	0.614078
1989	1.825043	-0.51665	.
1990	1.783225	.	.
1991	1.581453	.	.
1992	1.556086	.	.

As seen in the table 7-1, while the EC and ASEAN have positive effect on the export, the ANDEAN has negative impact on trade flows. This negative regional effects from the ANDEAN represents significant trade diversion.

Next, I run the growth (time-series) regression using the regional integration results (cross-section) from the gravity model. Pooling the cross-section and time-series data yields Table 7-2 results.

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{B}}{B} \qquad (7.4)$$

Table 7-2 Bloc-Growth Regression Eq.(7.4)

Variable \Bloc	ASEAN	ANDEAN	EC
A	7.8163 (6.86)	4.7258 (4.91)	5.9067 (18.09)
K	0.4431 (2.08)	0.8621 (4.28)	0.5333 (10.59)
L	0.0619 (0.02)	1.93 (1.26)	1.75 (5.05)
B	-0.0237 (-1.33)	-0.0660 (-3.27)	0.0315 (2.89)
R-Square	0.11	0.27	0.16
# of Obs.	44	90	146

Parentheses are the t-statistic

As shown in Table 7-2, while the EC shows positive effect on the growth rate of their member countries, ANDEAN shows the negative effect. The ASEAN does not show any significant effect on the growth by the bloc formation. The positive estimate of EC suggest that 1% growth of intra-EC exports form bloc formation causes 0.0315% increase in real GDP. The negative estimate of ANDEAN indicates that 1% increase in the growth of intra-ANDEAN exports cause 0.066% decrease in the real GDP growth. From this result we can speculate that EC is trade-creating bloc which is favorable to growth and that ANDEAN is trade-diverting bloc which is unfavorable to growth. Because R-square was low compared to the export-growth regression of Chapter 6, I tried several other specification. While ASEAN does not show any significant effect, EC has significant positive effect and ANDEAN has significant negative effect on the member countries.

First, I added the growth rate in export of the individual countries.

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \delta\frac{\dot{E}_i}{E_i} + \gamma\frac{\dot{B}}{B} \tag{7.5}$$

Table 7-3 Bloc-Growth Regression Eq.(7.5)

Variable \Bloc	ASEAN	ANDEAN	EC
A	5.5753 (4.77)	3.6224 (4.06)	5.09 (2.25)
K	0.3773 (2.23)	0.7682 (4.23)	0.2628 (1.90)
L	0.0083 (0.01)	1.5347 (1.18)	0.5185 (0.83)
E	0.1788 (3.07)	0.1528 (4.73)	0.2001 (5.86)
B	-0.0253 (-1.12)	-0.034 (-1.77)	0.0292 (2.25)
R-Square	0.31	0.42	0.22
# of Obs.	46	90	146

Parentheses are the t-statistic

As expected, the export growth have a positive effect on the GDP growth rate. Both $\dot{B}$ and $\dot{E}$ can go into equation (7.2) because $\dot{B}$ is intra-regional export growth effect from the gravity model while $\dot{E}$ is individual country's export growth. For the problem of multicollinearity, as we discussed in Chapter 4, we don't have to worry because R-square from the regression (0.22 to 0.42) exceeds the R-square of these two variable regressed (0.0016 to 0.06).

While the EC shows positive effect on the growth rate of their member countries, ANDEAN shows the negative effect. The ASEAN does not show any significant effect on the growth by the bloc formation. Again, from this result we can speculate that EC is trade-creating bloc which is

favorable to growth and that ANDEAN is trade-diverting bloc which is unfavorable to growth.

Secondly, I added the growth rate of total trade (exports plus imports) of individual countries. Again the bloc effect of ANDEAN is negative while the effect of EC is positive and ASEAN is not significant. It might be concluded that regional bloc of ANDEAN is harmful to the GDP growth of their members.

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \delta\frac{\dot{T}_i}{T_i} + \gamma\frac{\dot{B}}{B} \qquad (7.6)$$

where T is trade (export +import)

Table 7-4 Bloc-Growth Regression Eq.(7.6)

Variable \Bloc	ASEAN	ANDEAN	EC
A	4.3748 (3.75)	2.8452 (3.12)	4.58 (7.56)
K	0.3824 (2.45)	0.7778 (4.48)	0.2458 (1.92)
L	0.2232 (4.30)	1.5607 (5.62)	0.6793 (1.18)
T	0.2232 (4.30)	0.1872 (5.62)	0.2452 (7.97)
B	-0.0252 (-1.25)	-0.034 (-1.65)	0.03437 (2.86)
R-Square	0.42	0.46	0.33
# of Obs.	46	90	146

Parentheses are the t-statistic

Lastly, I tried to use several other variables, like population growth rate and investment growth rate. While the R-square increases, the bloc effect of ANDEAN remains as negative and EC as positive. Still ASEAN does not show any significant effect. Further the investment growth has a positive effect.

$$(7.7) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \alpha'\frac{I_i}{I_i} + \beta\frac{\dot{L}_i}{L_i} + \beta\frac{\dot{P}_i}{P_i} + \delta\frac{\dot{T}_i}{T_i} + \gamma\frac{\dot{B}}{B}$$

where I is investment

and P is population

Table 7-5 Bloc-Growth Regression Eq.(7.7)

Variable \Bloc	ASEAN	ANDEAN	EC
A	5.6271 (1.33)	-0.8543 (-0.22)	4.9146 (8.51)
K	0.4772 (3.58)	0.7663 (4.42)	0.3052 (2.44)
I	0.2139 (4.55)	0.1158 (3.51)	0.1171 (4.76)
L	-.8583 (-0.35)	0.7726 (0.58)	0.6501 (1.19)
P	-.4011 (-0.24)	1.7348 (1.13)	-0.5102 (-0.88)
T	0.1632 (3.67)	0.1519 (4.63)	0.2213 (7.51)
B	-0.0252 (-1.67)	-0.034 (-2.08)	0.0221 (1.92)
R-Square	0.62	0.54	0.42
# of Obs.	46	90	146

Parentheses are the t-statistic

B. Growth Effects of 3 continent-Sized Grouping

While section A focuses on the regional blocs that are already in existence, this section analyzes the growth effect of the broad continent-sized groupings that are under discussion (the Americas, Europe and East Asia). In this section I use the broader continent-sized grouping which divides the 60 countries into 3 continent-sized grouping, the Americas, East Asia, and Europe. The cross-sectional results of the gravity model will be grafted on the growth accounting model as in section B to see how these 3 continent-sized grouping will affect on the growth of the 60 countries overall.

Because I report only the bloc effect which is significant at least at the 90% level there are some missing years. As seen in the table 7-5, while the European and East Asian have positive effect on the export, the Americas (Western Hemisphere) has negative impact on trade flows. This negative regional effects from the Western Hemisphere represents significant trade diversion.

Sixty countries are used to estimate for this gravity model involves in the Americas, East Asia, and Europe. So for each year, the results are based on 3422 bilateral trade flows between those 60 countries.

Table 7-6: Cross-Sectional Results (β_5) form Gravity Eq.(7.2)

Year	WH[3]	East Asia	Europe[4]
1961	-0.55894	0.599458	.
1962	-0.4243	0.332419	.
1963	-0.36684	0.263489	.
1964	-0.24903	.	.
1965	-0.32861	.	.
1966	-0.72137	0.331027	0.452826
1967	-0.67419	0.519714	0.316495
1968	-0.57849	0.373262	0.24313
1969	-1.05537	0.552019	0.634534
1970	-0.97916	0.561083	0.647863
1971	-1.05572	0.555645	0.489642
1972	-1.1299	0.468725	0.560499
1973	-1.02209	0.637404	0.581412
1974	-1.0556	0.592496	0.597018
1975	-1.05253	0.58355	0.704656
1976	-0.98131	0.601357	0.698752
1977	-0.90957	0.577845	0.650634
1978	-0.95115	0.529319	0.647793
1979	-1.08554	0.473935	0.857138
1980	-1.06426	0.383767	0.828112
1981	-1.00513	0.494312	0.705946
1982	-0.94917	0.463394	0.691483
1983	-0.87907	0.471411	0.596273
1984	-0.84129	0.450836	0.597431
1985	-0.99354	0.424192	0.710772
1986	-1.17258	0.318773	1.044629
1987	-1.20856	0.382472	1.100312
1988	-1.20645	0.388737	1.023031
1989	-0.2029	0.877039	-0.19738
1990	-0.13831	0.883637	-0.26512
1991	.	0.828377	-0.43284
1992	.	0.884387	-0.44559

[3] WH stands for Western Hemisphere including the North and South America.

[4] Europe consists of EC(12 countries) + EFTA(6 countries). See Appendix C for the countries involved in the gravity model.

Next, I run the growth (time series)regression using the regional grouping results(cross-section) from the gravity model. Pooling the cross section and time series data yield following result:

$$\frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \gamma\frac{\dot{B}}{B} \tag{7.8}$$

Estimates: 5.732 0.541 1.876 -0.0069 R-square 0.1660

t-values : (18.81)(10.91)(5.52)(-2.66)

# of observation :706

The most startling result is that the 3 continent-sized grouping has a significant negative effect on the growth rate in three continents (the countries analyzed here includes the North and South America, East Asia, Europe) over all. The estimate suggests that the 1% increase in the intra-exports among three continents-sized groupings has the negative effect on the growth rate of the real GDP by 0.0069%. I tried several other specification by adding several other variables. But all resulted in the same negative effect of regional integration on real GDP growth rate. This negative growth effect of three continent-sized groupings is consistent with to Krugman(1991a) where he finds that world welfare is minimized when there are three blocs.

First I added the growth rate in export of the individual countries. As expected, the export growth has a positive effect on the GDP growth rate but regional bloc still have a negative impact.

$$(7.9) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \delta\frac{\dot{E}_i}{E_i} + \gamma\frac{\dot{B}}{B}$$

Estimates: 3.927 0.473 1.434 0.144 -0.0064
R-square 0.2884
t-values : (15.17)(10.19)(4.54)(10.82)(-2.67)
# of observation :706

Secondly, I added the growth rate of total trade (exports plus imports) of individual countries. Again the bloc effect is negative while the trade growth has a positive effect on the Real GDP growth. It might be concluded that the regional groupings is harmful to the GDP growth and free trade is superior policy for growth.

$$(7.10) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \beta\frac{\dot{L}_i}{L_i} + \delta\frac{\dot{T}_i}{T_i} + \gamma\frac{\dot{B}}{B}$$

where T is trade (export +import)

Estimates: 3.927 0.451 1.402 0.183 -0.0058
R-square 0.3562
t-values: (13.03)(10.08)(4.55)(14.08)(-2.54)
# of observation :690

Thirdly, I tried to use several other variables, like population growth rate and investment growth rate. While the R-square increases, the bloc effect remains negative. Further the investment growth has a positive effect and population growth has negative effect on real GDP growth rate.

$$(7.11) \qquad \frac{\dot{Y}_i}{Y_i} = \frac{\dot{A}}{A} + \alpha\frac{\dot{K}_i}{K_i} + \alpha'\frac{\dot{I}_i}{I_i} + \beta\frac{\dot{L}_i}{L_i} + \beta\frac{\dot{P}_i}{P_i} + \delta\frac{\dot{T}_i}{T_i} + \gamma\frac{\dot{B}}{B}$$

where I is investment

and P is population

Estimates: 4.589 0.457 0.028 1.274 -0.036 0.180 -0.0055
R-square 0.3679
t-values: (10.91) (10.28) (2.86) (4.07) (-2.15) (13.60) (-2.41)
# of observation :690

Lastly, I ran growth regression by regional grouping. As shown in table 7-6, the European grouping has a positive effect on the growth of their member countries. The regional grouping of America (Western Hemisphere) has negative impact on the GDP growth within the region. East Asian has not significant effect on the growth of their region.

Table 7-7: Growth Effects of Regional Groupings

Model/ Continents	(7.7)	(7.8)	(7.9)
America	-0.0061 (-2.14)	-0.0053 (-1.96)	-0.0050 (-1.86)
East Asia	0.0155 (1.01)	0.0117 (0.77)	-0.0031 (-0.23)
Europe	0.0026 (2.16)	0.0026 (2.21)	0.0031 (2.63)

Parentheses are the t-statistic

V. Summary and Conclusion

The fact that a multitude of factors influence the growth rate makes it difficult to assess the impact of regional integration on growth. However gravity model offers a systematic framework for measuring the effect of regional bloc on trade flows. So the results of these estimates were grafted on to the growth accounting model.

The results of bloc-growth regression shows that effect of ANDEAN is negative. These negative results show that the ANDEAN bloc is harmful to the member country's growth. However, EC has positive effect on the growth of their members and EC integration has contributed to the EC's growth positively.

The most startling result is that the 3 coninent-sized grouping has a significant negative effect on the world growth rate(60 countries on America, Europe and

Asia) even though the effects of regional groupings on the intra-trade flows are positive. This suggests that the regional integration is not the best policy for world growth.

This empirical result supports the fundamental proposition of the General Theory of Second Best. Free trade in commodities maximizes world welfare in distortion-free world. However a world ridden by multiple distortions (e.g. tariffs, quotas and exchange control) will not necessarily be moved closer to Pareto Optimality by the removal of one distortion. Counter-intuitively, we may move away from Pareto Optimality. The regional integration which involves a partial movement toward free trade is not necessarily Pareto improvement.

Regarding the dynamic issue whether the regional movement is the building or stumbling bloc, this results shows that the world that divided into three blocs can be the stumbling bloc to world growth. Further, the result that the total trade growth has a positive effect on the world growth rate suggests that we have to focus more on free trade.

Appendix A : Countries involved in Gravity Model

NAFTA (3)

USA	Canada	Mexico

Western Hemisphere (WH 28) : EAI (Enterprise for American Initiative)

USA	Canada	Argentina
Bahamas	Barbados	Belize
Bolivia	Brazil	Chile
Colombia	Costa.Rica	Dominican Rp.
Ecuador	El Salvador	Guatemala
Guyana	Haiti	Honduras
Jamaica	Mexico	Nicaragua
Panama	Paraguay	Peru
Suriname	Trinidad.Tbg.	Uruguay
Venezuela		

EC(12)

Belgium-Luxembourg	Denmark	France
Germany	Ireland	Italy
Netherlands	Portugal	Spain
Sweden	United Kingdom	

EU(15) = EC(12) + Austria, Finland and Greece

TAFTA = NAFTA + EC

EFTA

Austria	Finland	Greece
Iceland	Norway	Switzerland

East Asia

Japan	China	Hong.Kong
Indonesia	Korea.RP	Malaysia
Myanmar	Philippines	Singapore
Thailand		

Other Pacific

Australia	New.Zealand

APEC = NAFTA + East Asia + Other Pacific + Chile

Other Asia

Bangladesh	Fiji	India
Laos	Mongolia	Nepal
Pakistan	Papua.N.Guinea	Solomon Islands
Sri.Lanka		

Middle East

Cyprus	Malta	Turkey
Bahrain	Egypt	Iran
Israel	Jordan	Kuwait
Qatar	Saudi.Arabia	Syrn.Arab.RP
United.Arab.Emir		

USSR

Africa

Algeria	Benin	Burkina.Faso
Burundi	Cameroon	Central.Afr.RP
Chad	Comoros	Congo
Cote.D'ivoire	Djibouti	Ethiopia
Gabon	Gambia	Ghana
Guinea	Guinea-Bissau	Kenya
Madagascar	Malawi	Mali
Mauritnia	Mauritius	Morocco
Mozambique	Niger	Nigrria
Rwanda	Senegal	Seychelles
Sierra Leone	South Africa	Sudan
Tanzania	Togo	Tunisia
Uganda	Zaire	Zambia
Zimbabwe		

Appendix B: Trade Creation and Diversion of Trading Blocs

ASEAN :1970 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Indones	Argenti	0.01	1.94	-1.93
Indones	Austral	38	7.33	30.67
Indones	Austria	1.8	1.39	0.41
Indones	Bahamas	0	.	.
Indones	Barbado	0	0.04	-0.04
Indones	Belgium	22	2.36	19.64
Indones	Belize	0	.	.
Indones	Bolivia	0	0.08	-0.08
Indones	Brazil	0	1.62	-1.62
Indones	Canada	0.5	3.94	-3.44
Indones	Chile	0	0.54	-0.54
Indones	China	0	3.45	-3.45
Indones	Colombi	0	0.35	-0.35
Indones	Costa.R	0.01	0.08	-0.07
Indones	DOMINIC	0	0.07	-0.07
Indones	Denmark	13.49	1.79	11.70
Indones	EL.SALV	0	0.08	-0.08
Indones	Ecuador	0	0.11	-0.11
Indones	Finland	1.13	1.32	-0.19
Indones	France	22	9.23	12.77
Indones	Germany	99	11.23	87.77
Indones	Greece	0.31	0.86	-0.55
Indones	Gustema	0	0.13	-0.13
Indones	Guyana	0	0.02	-0.02
Indones	Haiti	0	0.03	-0.03
Indones	Hondura	0	0.04	-0.04
Indones	Hong.Ko	26	1.21	24.79
Indones	Iceland	0.03	0.08	-0.05
Indones	Ireland	0.71	0.41	0.30
Indones	Italy	19	7.67	11.33
Indones	Jamaica	0	0.08	-0.08
Indones	Japan	636	21.18	614.82
Indones	Korea.R	19.84	1.04	18.80
Indones	Malaysi	0	2.18	-2.18
Indones	Mexico	0	2.00	-2.00
Indones	Myanmar	0	0.20	-0.20
Indones	Netherl	49	3.31	45.69
Indones	New.Zea	1.04	1.42	-0.38
Indones	Nicarag	0	0.07	-0.07
Indones	Norway	1.65	1.05	0.60
Indones	PAPUA.N	0	0.21	-0.21
Indones	Panama	0	0.06	-0.06
Indones	Paragua	0	0.04	-0.04
Indones	Peru	0.8	0.39	0.41
Indones	Phillip	31	1.60	29.40
Indones	Portuga	1.24	0.51	0.73
Indones	Singapo	0	1.43	-1.43
Indones	Spain	5.09	3.31	1.78
Indones	Surinam	0	0.04	-0.04
Indones	Sweden	2.82	3.10	-0.28
Indones	Switzer	10.72	2.88	7.84
Indones	TRINIDA	0	0.16	-0.16
Indones	Taiwan	11.86	1.12	10.74
Indones	Thailan	19.25	2.06	17.19
Indones	USA	182	33.09	148.91
Indones	United.	17	8.51	8.49

Indones	Uruguay	0.13	0.25	-0.12
Indones	Venezue	0	0.68	-0.68
Malaysi	Argenti	6.65	1.78	4.87
Malaysi	Austral	38	5.97	32.03
Malaysi	Austria	7.16	1.46	5.70
Malaysi	Bahamas	0	.	.
Malaysi	Barbado	0	0.04	-0.04
Malaysi	Belgium	13	2.47	10.53
Malaysi	Belize	0	.	.
Malaysi	Bolivia	0	0.07	-0.07
Malaysi	Brazil	3.28	1.55	1.73
Malaysi	Canada	32	3.99	28.01
Malaysi	Chile	0	0.49	-0.49
Malaysi	China	0	3.84	-3.84
Malaysi	Colombi	1.39	0.35	1.04
Malaysi	Costa.R	0.37	0.08	0.29
Malaysi	DOMINIC	0	0.07	-0.07
Malaysi	Denmark	5.6	1.88	3.72
Malaysi	EL.SALV	0	0.08	-0.08
Malaysi	Ecuador	0	0.10	-0.10
Malaysi	Finland	4.53	1.40	3.13
Malaysi	France	77	9.64	67.36
Malaysi	Germany	85	11.77	73.23
Malaysi	Greece	2.98	0.91	2.07
Malaysi	Gustema	0	0.13	-0.13
Malaysi	Guyana	0	0.02	-0.02
Malaysi	Haiti	0	0.03	-0.03
Malaysi	Hondura	0	0.04	-0.04
Malaysi	Hong.Ko	17	1.44	15.56
Malaysi	Iceland	0.01	0.08	-0.07
Malaysi	Indones	0	2.41	-2.41
Malaysi	Ireland	3.09	0.43	2.66
Malaysi	Italy	74	8.03	65.97
Malaysi	Jamaica	0	0.08	-0.08
Malaysi	Japan	418	21.73	396.27
Malaysi	Korea.R	62.72	1.12	61.60
Malaysi	Mexico	0.46	1.93	-1.47
Malaysi	Myanmar	2.22	0.30	1.92
Malaysi	Netherl	20	3.47	16.53
Malaysi	New.Zea	6.63	1.21	5.42
Malaysi	Nicarag	0	0.07	-0.07
Malaysi	Norway	1.79	1.10	0.69
Malaysi	PAPUA.N	0	0.17	-0.17
Malaysi	Panama	0.01	0.06	-0.05
Malaysi	Paragua	0	0.04	-0.04
Malaysi	Peru	1.74	0.35	1.39
Malaysi	Phillip	2.72	1.69	1.03
Malaysi	Portuga	3.81	0.53	3.28
Malaysi	Singapo	0	3.24	-3.24
Malaysi	Spain	30	3.43	26.57
Malaysi	Surinam	0	0.04	-0.04
Malaysi	Sweden	10.98	3.28	7.70
Malaysi	Switzer	5.66	3.01	2.65
Malaysi	TRINIDA	0	0.16	-0.16
Malaysi	Taiwan	29.46	1.24	28.22
Malaysi	Thailan	7	3.47	3.53
Malaysi	USA	279	33.39	245.61
Malaysi	United.	118	8.89	109.11
Malaysi	Uruguay	1.4	0.23	1.17
Malaysi	Venezue	5.96	0.68	5.28
Phillip	Argenti	0.1	2.41	-2.31
Phillip	Austral	4.56	9.14	-4.58
Phillip	Austria	1.35	2.08	-0.73
Phillip	Bahamas	0	.	.

Phillip	Barbado	0	0.06	-0.06
Phillip	Belgium	3.2	3.60	-0.40
Phillip	Belize	0	.	.
Phillip	Bolivia	0	0.11	-0.11
Phillip	Brazil	0.22	2.04	-1.82
Phillip	Canada	4.2	6.47	-2.27
Phillip	Chile	0	0.69	-0.69
Phillip	China	0	8.13	-8.13
Phillip	Colombi	0	0.56	-0.56
Phillip	Costa.R	0.01	0.13	-0.12
Phillip	DOMINIC	0	0.11	-0.11
Phillip	Denmark	3.11	2.77	0.34
Phillip	EL.SALV	0	0.13	-0.13
Phillip	Ecuador	0	0.17	-0.17
Phillip	Finland	0.66	2.08	-1.42
Phillip	France	7.5	13.95	-6.45
Phillip	Germany	43	17.05	25.95
Phillip	Greece	0.04	1.24	-1.20
Phillip	Guatema	0	0.21	-0.21
Phillip	Guyana	0	0.03	-0.03
Phillip	Haiti	0	0.05	-0.05
Phillip	Hondura	0	0.06	-0.06
Phillip	Hong.Ko	11.8	4.22	7.58
Phillip	Iceland	0.02	0.12	-0.10
Phillip	Indones	61.71	1.74	59.97
Phillip	Ireland	0.66	0.63	0.05
Phillip	Italy	5	11.25	-6.25
Phillip	Jamaica	0	0.12	-0.12
Phillip	Japan	533	52.26	480.74
Phillip	Korea.R	41	2.68	38.32
Phillip	Malaysi	0.44	1.66	-1.22
Phillip	Mexico	0.03	3.27	-3.24
Phillip	Myanmar	0	0.30	-0.30
Phillip	Netherl	15	5.06	9.94
Phillip	New.Zea	0.4	1.89	-1.49
Phillip	Nicarag	0	0.11	-0.11
Phillip	Norway	1.77	1.65	0.12
Phillip	PAPUA.N	0	0.33	-0.33
Phillip	Panama	4	0.10	3.90
Phillip	Paragua	0	0.05	-0.05
Phillip	Peru	0.22	0.55	-0.33
Phillip	Portuga	0.12	0.76	-0.64
Phillip	Singapo	0.44	0.88	-0.44
Phillip	Spain	10.49	4.87	5.62
Phillip	Surinam	0	0.06	-0.06
Phillip	Sweden	11.06	4.87	6.19
Phillip	Switzer	2.37	4.31	-1.94
Phillip	TRINIDA	0	0.24	-0.24
Phillip	Taiwan	20.66	4.33	16.33
Phillip	Thailan	3.32	3.05	0.27
Phillip	USA	475	54.23	420.77
Phillip	United.	18	12.99	5.01
Phillip	Uruguay	0.22	0.31	-0.09
Phillip	Venezue	0	1.06	-1.06
Singapo	Argenti	6.18	0.93	5.25
Singapo	Austral	16	3.24	12.76
Singapo	Austria	0.22	0.74	-0.52
Singapo	Bahamas	0	.	.
Singapo	Barbado	0	0.02	-0.02
Singapo	Belgium	4.6	1.26	3.34
Singapo	Belize	0	.	.
Singapo	Bolivia	0	0.04	-0.04
Singapo	Brazil	1.9	0.80	1.10
Singapo	Canada	19.4	2.05	17.35

Singapo	Chile	0	0.26	-0.26
Singapo	China	0	1.95	-1.95
Singapo	Colombi	0	0.18	-0.18
Singapo	Costa.R	0.01	0.04	-0.03
Singapo	DOMINIC	0	0.04	-0.04
Singapo	Denmark	1.38	0.95	0.43
Singapo	EL.SALV	0	0.04	-0.04
Singapo	Ecuador	0	0.05	-0.05
Singapo	Finland	0	0.71	-0.71
Singapo	France	5.8	4.89	0.91
Singapo	Germany	11.9	5.97	5.93
Singapo	Greece	0.23	0.46	-0.23
Singapo	Guatema	0	0.07	-0.07
Singapo	Guyana	0.31	0.01	0.30
Singapo	Haiti	0	0.02	-0.02
Singapo	Hondura	0	0.02	-0.02
Singapo	Hong.Ko	59	0.73	58.27
Singapo	Iceland	0.01	0.04	-0.03
Singapo	Indones	0	1.59	-1.59
Singapo	Ireland	0.23	0.22	0.01
Singapo	Italy	4.2	4.07	0.13
Singapo	Jamaica	0.34	0.04	0.30
Singapo	Japan	86	11.31	74.69
Singapo	Korea.R	12.27	0.58	11.69
Singapo	Malaysi	0	3.27	-3.27
Singapo	Mexico	5.38	1.00	4.38
Singapo	Myanmar	6.14	0.14	6.00
Singapo	Netherl	13	1.76	11.24
Singapo	New.Zea	0	0.65	-0.65
Singapo	Nicarag	0	0.03	-0.03
Singapo	Norway	0.3	0.56	-0.26
Singapo	PAPUA.N	0	0.09	-0.09
Singapo	Panama	0.01	0.03	-0.02
Singapo	Paragua	0	0.02	-0.02
Singapo	Peru	0.41	0.19	0.22
Singapo	Philip	2.63	0.90	1.73
Singapo	Portuga	0.08	0.27	-0.19
Singapo	Spain	0.92	1.74	-0.82
Singapo	Surinam	0	0.02	-0.02
Singapo	Sweden	1.83	1.66	0.17
Singapo	Switzer	0.99	1.53	-0.54
Singapo	TRINIDA	0	0.08	-0.08
Singapo	Taiwan	4.83	0.64	4.19
Singapo	Thailan	11	1.54	9.46
Singapo	USA	81	17.18	63.82
Singapo	United.	80	4.51	75.49
Singapo	Uruguay	0.35	0.12	0.23
Singapo	Venezue	0	0.35	-0.35
Thailan	Argenti	0.04	2.83	-2.79
Thailan	Austral	3.64	8.87	-5.23
Thailan	Austria	2.79	2.66	0.13
Thailan	Bahamas	0	.	.
Thailan	Barbado	0	0.07	-0.07
Thailan	Belgium	8.3	4.49	3.81
Thailan	Belize	0	.	.
Thailan	Bolivia	0	0.12	-0.12
Thailan	Brazil	0	2.55	-2.55
Thailan	Canada	1	7.13	-6.13
Thailan	Chile	0	0.78	-0.78
Thailan	China	0	8.07	-8.07
Thailan	Colombi	0	0.61	-0.61
Thailan	Costa.R	0	0.14	-0.14
Thailan	DOMINIC	0	0.12	-0.12
Thailan	Denmark	2.25	3.45	-1.20

Thailan	EL.SALV	0.05	0.13	-0.08
Thailan	Ecuador	0	0.18	-0.18
Thailan	Finland	0.27	2.59	-2.32
Thailan	France	12	17.44	-5.44
Thailan	Germany	44	21.38	22.62
Thailan	Greece	0.65	1.64	-0.99
Thailan	Guatema	0.04	0.22	-0.18
Thailan	Guyana	0.01	0.04	-0.03
Thailan	Haiti	0	0.05	-0.05
Thailan	Hondura	0	0.06	-0.06
Thailan	Hong.Ko	53	3.28	49.72
Thailan	Iceland	0.13	0.14	-0.01
Thailan	Indones	16	2.27	13.73
Thailan	Ireland	0.45	0.77	-0.32
Thailan	Italy	17	14.47	2.53
Thailan	Jamaica	0	0.13	-0.13
Thailan	Japan	189	40.85	148.15
Thailan	Korea.R	0	2.24	-2.24
Thailan	Malaysi	39	3.46	35.54
Thailan	Mexico	0.08	3.36	-3.28
Thailan	Myanmar	0.09	1.21	-1.12
Thailan	Netherl	42	6.31	35.69
Thailan	New.Zea	0.65	1.85	-1.20
Thailan	Nicarag	0.09	0.12	-0.03
Thailan	Norway	0.51	2.03	-1.52
Thailan	PAPUA.N	0.02	0.27	-0.25
Thailan	Panama	27	0.11	26.89
Thailan	Paragua	0	0.06	-0.06
Thailan	Peru	0.11	0.57	-0.46
Thailan	Phillip	0.75	3.09	-2.34
Thailan	Portuga	1.88	0.94	0.94
Thailan	Singapo	53	1.52	51.48
Thailan	Spain	8.31	6.13	2.18
Thailan	Surinam	0	0.07	-0.07
Thailan	Sweden	1.76	6.04	-4.28
Thailan	Switzer	3.68	5.45	-1.77
Thailan	TRINIDA	0	0.27	-0.27
Thailan	Taiwan	40	2.53	37.47
Thailan	USA	100	59.46	40.54
Thailan	United.	13	16.11	-3.11
Thailan	Uruguay	0	0.37	-0.37
Thailan	Venezue	0.02	1.19	-1.17

ASEAN :1975 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC	TD
Indones	Argenti	0	9		-9
Indones	Austral	21	32		-11
Indones	Austria	0	8		-8
Indones	Bahamas	0	.	.	
Indones	Barbado	0	0		0
Indones	Belgium	11	12		-1
Indones	Belize	0	.	.	
Indones	Bolivia	0	1		-1
Indones	Brazil	0	12		-12
Indones	Canada	9	20		-11
Indones	Chile	0	2		-2
Indones	China	0	19		-19
Indones	Colombi	0	2		-2
Indones	Costa.R	0	1		-1
Indones	DOMINIC	0	1		-1
Indones	Denmark	9	8		1
Indones	EL.SALV	0	1		-1
Indones	Ecuador	0	1		-1
Indones	Finland	0	7		-7
Indones	France	13	39		-26
Indones	Germany	135	44		91
Indones	Greece	1	5		-4
Indones	Guatema	0	1		-1
Indones	Guyana	0	0		0
Indones	Haiti	0	0		0
Indones	Hondura	0	0		0
Indones	Hong.Ko	26	8		18
Indones	Iceland	0	1		-1
Indones	Ireland	1	2		-1
Indones	Italy	24	31		-7
Indones	Jamaica	0	1		-1
Indones	Japan	3132	87		3045
Indones	Korea.R	102	8		94
Indones	Malaysi	64	14		50
Indones	Mexico	0	12		-12
Indones	Myanmar	6	1		5
Indones	Netherl	181	15		166
Indones	New.Zea	1	7		-6
Indones	Nicarag	0	0		0
Indones	Norway	2	6		-4
Indones	PAPUA.N	0	2		-2
Indones	Panama	0	0		0
Indones	Paragua	0	0		0
Indones	Peru	0	2		-2
Indones	Philip	32	10		22
Indones	Portuga	0	3		-3
Indones	Singapo	633	12		621
Indones	Spain	7	18		-11
Indones	Surinam	0	0		0
Indones	Sweden	2	14		-12
Indones	Switzer	1	12		-11
Indones	TRINIDA	464	1		463
Indones	Taiwan	0	8		-8
Indones	Thailan	3	11		-8
Indones	USA	1866	112		1754
Indones	United.	31	33		-2
Indones	Uruguay	0	1		-1
Indones	Venezue	0	5		-5

Malaysi	Argenti	8	7	1
Malaysi	Austral	74	22	52
Malaysi	Austria	14	7	7
Malaysi	Bahamas	0	.	
Malaysi	Barbado	0	0	0
Malaysi	Belgium	33	10	23
Malaysi	Belize	0	.	
Malaysi	Bolivia	0	0	0
Malaysi	Brazil	4	10	-6
Malaysi	Canada	56	17	39
Malaysi	Chile	0	2	-2
Malaysi	China	58	17	41
Malaysi	Colombi	2	2	0
Malaysi	Costa.R	0	0	0
Malaysi	DOMINIC	0	1	-1
Malaysi	Denmark	7	7	0
Malaysi	EL.SALV	0	0	0
Malaysi	Ecuador	0	1	-1
Malaysi	Finland	1	6	-5
Malaysi	France	139	33	106
Malaysi	Germany	225	38	187
Malaysi	Greece	5	4	1
Malaysi	Gustema	0	1	-1
Malaysi	Guyana	0	0	0
Malaysi	Haiti	0	0	0
Malaysi	Hondura	0	0	0
Malaysi	Hong.Ko	54	8	46
Malaysi	Iceland	0	1	-1
Malaysi	Indones	23	15	8
Malaysi	Ireland	2	2	0
Malaysi	Italy	110	27	83
Malaysi	Jamaica	0	0	0
Malaysi	Japan	691	73	618
Malaysi	Korea.R	123	7	116
Malaysi	Mexico	3	10	-7
Malaysi	Myanmar	7	2	5
Malaysi	Netherl	103	13	90
Malaysi	New.Zea	15	5	10
Malaysi	Nicarag	0	0	0
Malaysi	Norway	3	5	-2
Malaysi	PAPUA.N	0	1	-1
Malaysi	Panama	2	0	2
Malaysi	Paragua	0	0	0
Malaysi	Peru	1	2	-1
Malaysi	Phillip	66	8	58
Malaysi	Portuga	6	3	3
Malaysi	Singapo	942	34	908
Malaysi	Spain	57	15	42
Malaysi	Surinam	0	0	0
Malaysi	Sweden	29	12	17
Malaysi	Switzer	6	10	-4
Malaysi	TRINIDA	0	1	-1
Malaysi	Taiwan	58	8	50
Malaysi	Thailan	13.9	24	-10
Malaysi	USA	812	93	719
Malaysi	United.	257	29	228
Malaysi	Uruguay	1	1	0
Malaysi	Venezue	0	5	-5
Phillip	Argenti	0.5	9	-8
Phillip	Austral	30	29	1
Phillip	Austria	5	8	-3
Phillip	Bahamas	0	.	
Phillip	Barbado	0	0	0
Phillip	Belgium	12	13	-1

Phillip	Belize	0	.	.
Phillip	Bolivia	0	1	-1
Phillip	Brazil	1	11	-10
Phillip	Canada	22	24	-2
Phillip	Chile	0.3	2	-2
Phillip	China	25	31	-6
Phillip	Colombi	0	3	-3
Phillip	Costa.R	0	1	-1
Phillip	DOMINIC	0	1	-1
Phillip	Denmark	6	9	-3
Phillip	EL.SALV	0	1	-1
Phillip	Ecuador	0	1	-1
Phillip	Finland	31	8	23
Phillip	France	50	42	8
Phillip	Germany	189	49	140
Phillip	Greece	6.2	5	1
Phillip	Guatema	0	1	-1
Phillip	Guyana	0	0	0
Phillip	Haiti	0	0	0
Phillip	Hondura	0	0	0
Phillip	Hong.Ko	27	18	9
Phillip	Iceland	0	1	-1
Phillip	Indones	14	10	4
Phillip	Ireland	0	3	-3
Phillip	Italy	10	33	-23
Phillip	Jamaica	0	1	-1
Phillip	Japan	1120	150	970
Phillip	Korea.R	28	14	14
Phillip	Malaysi	17	8	9
Phillip	Mexico	0	14	-14
Phillip	Myanmar	3	1	2
Phillip	Netherl	77	17	60
Phillip	New.Zea	1.5	7	-5
Phillip	Nicarag	0	1	-1
Phillip	Norway	3	6	-3
Phillip	PAPUA.N	0	1	-1
Phillip	Panama	0.2	1	0
Phillip	Paragua	0	0	0
Phillip	Peru	0.1	3	-2
Phillip	Portuga	0.9	4	-3
Phillip	Singapo	29	6	23
Phillip	Spain	11	19	-8
Phillip	Surinam	0	0	0
Phillip	Sweden	11	16	-5
Phillip	Switzer	12	13	-1
Phillip	TRINIDA	0	1	-1
Phillip	Taiwan	33	22	11
Phillip	Thailan	4.9	12	-7
Phillip	USA	834	133	701
Phillip	United.	100	37	63
Phillip	Uruguay	0	1	-1
Phillip	Venezue	9	6	3
Singapo	Argenti	10	6	4
Singapo	Austral	268	17	251
Singapo	Austria	3	5	-2
Singapo	Bahamas	0	.	.
Singapo	Barbado	0	0	0
Singapo	Belgium	17	7	10
Singapo	Belize	0	.	.
Singapo	Bolivia	0	0	0
Singapo	Brazil	21	7	14
Singapo	Canada	46	13	33
Singapo	Chile	1	1	0
Singapo	China	45	13	32

Singapo	Colombi	10	1	9
Singapo	Costa.R	0	0	0
Singapo	DOMINIC	0	0	0
Singapo	Denmark	19	5	14
Singapo	EL.SALV	0	0	0
Singapo	Ecuador	1	1	0
Singapo	Finland	2	5	-3
Singapo	France	69	25	44
Singapo	Germany	165	28	137
Singapo	Greece	31	3	28
Singapo	Guatema	0	1	-1
Singapo	Guyana	0	0	0
Singapo	Haiti	0	0	0
Singapo	Hondura	0	0	0
Singapo	Hong.Ko	388	6	382
Singapo	Iceland	0	0	0
Singapo	Indones	343	14	329
Singapo	Ireland	1	2	-1
Singapo	Italy	24	20	4
Singapo	Jamaica	0	0	0
Singapo	Japan	399	56	343
Singapo	Korea.R	45	5	40
Singapo	Malaysi	924	36	888
Singapo	Mexico	14	7	7
Singapo	Myanmar	24	1	23
Singapo	Netherl	56	10	46
Singapo	New.Zea	91	4	87
Singapo	Nicarag	0	0	0
Singapo	Norway	26	4	22
Singapo	PAPUA.N	50	1	49
Singapo	Panama	52	0	52
Singapo	Paragua	0	0	0
Singapo	Peru	5	1	4
Singapo	Phillip	58	6	52
Singapo	Portuga	5	2	3
Singapo	Spain	21	11	10
Singapo	Surinam	0	0	0
Singapo	Sweden	22	9	13
Singapo	Switzer	13	8	5
Singapo	TRINIDA	0	1	-1
Singapo	Taiwan	36	6	30
Singapo	Thailan	187	10	177
Singapo	USA	564	70	494
Singapo	United.	142	21	121
Singapo	Uruguay	2	1	1
Singapo	Venezue	0	3	-3
Thailan	Argenti	0	9	-9
Thailan	Austral	20.9	26	-5
Thailan	Austria	8	10	-2
Thailan	Bahamas	0	.	.
Thailan	Barbado	0	0	0
Thailan	Belgium	30	15	15
Thailan	Belize	0	.	.
Thailan	Bolivia	0	1	-1
Thailan	Brazil	0.7	13	-12
Thailan	Canada	6	25	-19
Thailan	Chile	0	2	-2
Thailan	China	21	29	-8
Thailan	Colombi	0.1	3	-3
Thailan	Costa.R	1.6	1	1
Thailan	DOMINIC	0	1	-1
Thailan	Denmark	6.8	10	-3
Thailan	EL.SALV	0	1	-1
Thailan	Ecuador	0	1	-1

Thailan	Finland	0.5	9	-9
Thailan	France	41	49	-8
Thailan	Germany	134	56	78
Thailan	Greece	0.6	6	-6
Thailan	Guatema	0	1	-1
Thailan	Guyana	0	0	0
Thailan	Haiti	0	0	0
Thailan	Hondura	0	0	0
Thailan	Hong.Ko	147	14	133
Thailan	Iceland	0.1	1	-1
Thailan	Indones	35	12	23
Thailan	Ireland	0.8	3	-2
Thailan	Italy	16	39	-23
Thailan	Jamaica	0	1	-1
Thailan	Japan	723	111	612
Thailan	Korea.R	45	11	34
Thailan	Malaysi	103	23	80
Thailan	Mexico	0	14	-14
Thailan	Myanmar	1.7	8	-6
Thailan	Netherl	152	20	132
Thailan	New.Zea	1.6	6	-5
Thailan	Nicarag	0	1	-1
Thailan	Norway	8.1	7	1
Thailan	PAPUA.N	0.3	1	-1
Thailan	Panama	0.3	1	0
Thailan	Paragua	0	0	0
Thailan	Peru	8.1	2	6
Thailan	Phillip	35.1	12	23
Thailan	Portuga	0.9	4	-3
Thailan	Singapo	171	9	162
Thailan	Spain	6	22	-16
Thailan	Surinam	0	0	0
Thailan	Sweden	13	18	-5
Thailan	Switzer	15	15	0
Thailan	TRINIDA	0	2	-2
Thailan	Taiwan	70	12	58
Thailan	USA	240	135	105
Thailan	United.	30	42	-12
Thailan	Uruguay	0	1	-1
Thailan	Venezue	0	6	-6

ASEAN :1980 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC	TD
Indones	Argenti	0	23		-23
Indones	Austral	339	82		257
Indones	Austria	0	19		-19
Indones	Bahamas	33	1		32
Indones	Barbado	0	1		-1
Indones	Belgium	25	28		-3
Indones	Belize	0	0		0
Indones	Bolivia	0	1		-1
Indones	Brazil	138	37		101
Indones	Canada	28	60		-32
Indones	Chile	0	6		-6
Indones	China	0	56		-56
Indones	Colombi	0	6		-6
Indones	Costa.R	0	1		-1
Indones	DOMINIC	0	1		-1
Indones	Denmark	40	18		22
Indones	EL.SALV	0	1		-1
Indones	Ecuador	0	3		-3
Indones	Finland	0	17		-17
Indones	France	122	107		15
Indones	Germany	389	127		262
Indones	Greece	4	12		-8
Indones	Guatema	0	2		-2
Indones	Guyana	0	0		0
Indones	Haiti	0	0		0
Indones	Hondura	0	1		-1
Indones	Hong.Ko	152	31		121
Indones	Iceland	0	2		-2
Indones	Ireland	1	5		-4
Indones	Italy	255	96		159
Indones	Jamaica	0	1		-1
Indones	Japan	10793	276		10517
Indones	Korea.R	294	24		270
Indones	Malaysi	60	52		8
Indones	Mexico	15	38		-23
Indones	Myanmar	1	3		-2
Indones	Netherl	415	38		377
Indones	New.Zea	102	14		88
Indones	Nicarag	0	1		-1
Indones	Norway	5	17		-12
Indones	PAPUA.N	0	3		-3
Indones	Panama	1	1		0
Indones	Paragua	0	1		-1
Indones	Peru	0	5		-5
Indones	Philip	181	24		157
Indones	Portuga	8	8		0
Indones	Singapo	2484	36		2448
Indones	Spain	34	41		-7
Indones	Surinam	0	0		0
Indones	Sweden	8	30		-22
Indones	Switzer	2	27		-25
Indones	TRINIDA	735	4		731
Indones	Taiwan	0	29		-29
Indones	Thailan	35	34		1
Indones	USA	4303	355		3948
Indones	United.	142	92		50
Indones	Uruguay	0	3		-3
Indones	Venezue	0	14		-14
Malaysi	Argenti	13	20		-7

Malaysi	Austral	219	65	154
Malaysi	Austria	66	19	47
Malaysi	Bahamas	0	1	-1
Malaysi	Barbado	0	1	-1
Malaysi	Belgium	123	29	94
Malaysi	Belize	0	0	0
Malaysi	Bolivia	0	1	-1
Malaysi	Brazil	17	34	-17
Malaysi	Canada	71	58	13
Malaysi	Chile	3	5	-2
Malaysi	China	239	60	179
Malaysi	Colombi	3	6	-3
Malaysi	Costa.R	0	1	-1
Malaysi	DOMINIC	0	1	-1
Malaysi	Denmark	21	18	3
Malaysi	EL.SALV	0	1	-1
Malaysi	Ecuador	2	3	-1
Malaysi	Finland	2	17	-15
Malaysi	France	472	108	364
Malaysi	Germany	786	127	659
Malaysi	Greece	8	12	-4
Malaysi	Guatema	0	2	-2
Malaysi	Guyana	0	0	0
Malaysi	Haiti	0	0	0
Malaysi	Hondura	0	1	-1
Malaysi	Hong.Ko	212	35	177
Malaysi	Iceland	0	2	-2
Malaysi	Indones	36	63	-27
Malaysi	Ireland	10	5	5
Malaysi	Italy	286	97	189
Malaysi	Jamaica	0	1	-1
Malaysi	Japan	3504	272	3232
Malaysi	Korea.R	472	24	448
Malaysi	Mexico	12	35	-23
Malaysi	Myanmar	20	4	16
Malaysi	Netherl	269	38	231
Malaysi	New.Zea	52	12	40
Malaysi	Nicarag	0	1	-1
Malaysi	Norway	17	17	0
Malaysi	PAPUA.N	2	2	0
Malaysi	Panama	3	1	2
Malaysi	Paragua	0	1	-1
Malaysi	Peru	1	4	-3
Malaysi	Phillip	198	25	173
Malaysi	Portuga	12	8	4
Malaysi	Singapo	3323	134	3189
Malaysi	Spain	144	41	103
Malaysi	Surinam	0	0	0
Malaysi	Sweden	72	31	41
Malaysi	Switzer	31	27	4
Malaysi	TRINIDA	0	4	-4
Malaysi	Taiwan	0	31	-31
Malaysi	Thailan	165.9	96	70
Malaysi	USA	2688	344	2344
Malaysi	United.	435	92	343
Malaysi	Uruguay	1	3	-2
Malaysi	Venezue	0	14	-14
Phillip	Argenti	1.8	16	-14
Phillip	Austral	94	56	38
Phillip	Austria	28	15	13
Phillip	Bahamas	0.8	1	0
Phillip	Barbado	2	0	2
Phillip	Belgium	42	23	19
Phillip	Belize	0	0	0

Phillip	Bolivia	0	1	-1
Phillip	Brazil	16	25	-9
Phillip	Canada	87	53	34
Phillip	Chile	1.2	4	-3
Phillip	China	50	71	-21
Phillip	Colombi	0.3	5	-5
Phillip	Costa.R	0	1	-1
Phillip	DOMINIC	0.3	1	-1
Phillip	Denmark	26	15	11
Phillip	EL.SALV	0	1	-1
Phillip	Ecuador	0	2	-2
Phillip	Finland	12	14	-2
Phillip	France	207	88	119
Phillip	Germany	407	104	303
Phillip	Greece	3	10	-7
Phillip	Guateme	0.1	2	-2
Phillip	Guyana	0	0	0
Phillip	Haiti	0.1	0	0
Phillip	Hondura	0.1	1	0
Phillip	Hong.Ko	186	57	129
Phillip	Iceland	0.1	1	-1
Phillip	Indones	90	26	64
Phillip	Ireland	10	4	6
Phillip	Italy	88	76	12
Phillip	Jamaica	0	1	-1
Phillip	Japan	1964	362	1602
Phillip	Korea.R	272	32	240
Phillip	Malaysi	107	22	85
Phillip	Mexico	8	33	-25
Phillip	Myanmar	0	2	-2
Phillip	Netherl	142	31	111
Phillip	New.Zea	4.3	10	-6
Phillip	Nicarag	0	0	0
Phillip	Norway	14	15	-1
Phillip	PAPUA.N	2.9	2	1
Phillip	Panama	19.4	1	19
Phillip	Paragua	0	1	-1
Phillip	Peru	0.4	4	-3
Phillip	Portuga	12.4	6	6
Phillip	Singapo	75	12	63
Phillip	Spain	53	33	20
Phillip	Surinam	0.4	0	0
Phillip	Sweden	31	26	5
Phillip	Switzer	18	22	-4
Phillip	TRINIDA	0.1	3	-3
Phillip	Taiwan	0	59	-59
Phillip	Thailan	78.3	27	51
Phillip	USA	1913	314	1599
Phillip	United.	230	76	154
Phillip	Uruguay	0.1	2	-2
Phillip	Venezue	1	12	-11
Singapo	Argenti	47	13	34
Singapo	Austral	780	42	738
Singapo	Austria	13	11	2
Singapo	Bahamas	0	1	-1
Singapo	Barbado	0	0	0
Singapo	Belgium	73	17	56
Singapo	Belize	0	0	0
Singapo	Bolivia	0	1	-1
Singapo	Brazil	75	21	54
Singapo	Canada	128	36	92
Singapo	Chile	14	3	11
Singapo	China	338	36	302
Singapo	Colombi	19	3	16

Singapo	Costa.R	0	1	-1
Singapo	DOMINIC	1	1	0
Singapo	Denmark	32	11	21
Singapo	EL.SALV	0	1	-1
Singapo	Ecuador	4	2	2
Singapo	Finland	7	10	-3
Singapo	France	330	65	265
Singapo	Germany	658	77	581
Singapo	Greece	116	8	108
Singapo	Guatema	0	1	-1
Singapo	Guyana	0	0	0
Singapo	Haiti	0	0	0
Singapo	Hondura	0	0	0
Singapo	Hong.Ko	1481	22	1459
Singapo	Iceland	0	1	-1
Singapo	Indones	936	49	887
Singapo	Ireland	10	3	7
Singapo	Italy	144	59	85
Singapo	Jamaica	0	0	0
Singapo	Japan	1516	169	1347
Singapo	Korea.R	289	15	274
Singapo	Malaysi	2908	152	2756
Singapo	Mexico	43	22	21
Singapo	Myanmar	67	2	65
Singapo	Netherl	204	23	181
Singapo	New.Zea	351	8	343
Singapo	Nicarag	0	0	0
Singapo	Norway	73	11	62
Singapo	PAPUA.N	135	1	134
Singapo	Panama	246	1	245
Singapo	Paragua	0	1	-1
Singapo	Peru	10	3	7
Singapo	Phillip	273	16	257
Singapo	Portuga	20	5	15
Singapo	Spain	85	25	60
Singapo	Surinam	0	0	0
Singapo	Sweden	57	19	38
Singapo	Switzer	59	16	43
Singapo	TRINIDA	0	2	-2
Singapo	Taiwan	0	19	-19
Singapo	Thailan	844	29	815
Singapo	USA	1985	212	1773
Singapo	United.	535	56	479
Singapo	Uruguay	7	2	5
Singapo	Venezue	0	8	-8
Thailan	Argenti	0.2	20	-20
Thailan	Austral	69.8	60	10
Thailan	Austria	19	21	-2
Thailan	Bahamas	0.1	1	-1
Thailan	Barbado	0	1	-1
Thailan	Belgium	108	32	76
Thailan	Belize	0	0	0
Thailan	Bolivia	0	1	-1
Thailan	Brazil	23.8	35	-11
Thailan	Canada	21	65	-44
Thailan	Chile	2.8	5	-2
Thailan	China	136	78	58
Thailan	Colombi	0.1	6	-6
Thailan	Costa.R	0	1	-1
Thailan	DOMINIC	0	1	-1
Thailan	Denmark	21.8	21	1
Thailan	EL.SALV	0	1	-1
Thailan	Ecuador	0	3	-3
Thailan	Finland	5	19	-14

Thailan	France	232	121	111
Thailan	Germany	610	144	466
Thailan	Greece	3.9	14	-10
Thailan	Guatema	0.1	2	-2
Thailan	Guyana	0	0	0
Thailan	Haiti	0	0	0
Thailan	Hondura	0	1	-1
Thailan	Hong.Ko	317	50	267
Thailan	Iceland	0.2	2	-2
Thailan	Indones	288	38	250
Thailan	Ireland	0.9	6	-5
Thailan	Italy	151	108	43
Thailan	Jamaica	0	1	-1
Thailan	Japan	1125	316	809
Thailan	Korea.R	91	30	61
Thailan	Malaysi	292.4	86	206
Thailan	Mexico	0	38	-38
Thailan	Myanmar	3	18	-15
Thailan	Netherl	475	43	432
Thailan	New.Zea	4.5	11	-7
Thailan	Nicarag	0	1	-1
Thailan	Norway	8.5	20	-11
Thailan	PAPUA.N	1.7	2	0
Thailan	Panama	3	1	2
Thailan	Paragua	0	1	-1
Thailan	Peru	0	4	-4
Thailan	Phillip	23.5	28	-4
Thailan	Portuga	0.9	9	-8
Thailan	Singapo	475	23	452
Thailan	Spain	29	45	-16
Thailan	Surinam	0	0	0
Thailan	Sweden	30	35	-5
Thailan	Switzer	116	30	86
Thailan	TRINIDA	0	4	-4
Thailan	Taiwan	0	39	-39
Thailan	USA	866	380	486
Thailan	United.	121	103	18
Thailan	Uruguay	0	3	-3
Thailan	Venezue	0	15	-15

ASEAN :1985 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Indones	Argenti	0	23	-23
Indones	Austral	179	128	51
Indones	Austria	16	26	-10
Indones	Bahamas	0	2	-2
Indones	Barbado	0	1	-1
Indones	Belgium	54	38	16
Indones	Belize	0	0	0
Indones	Bolivia	0	1	-1
Indones	Brazil	8	46	-38
Indones	Canada	60	86	-26
Indones	Chile	0	6	-6
Indones	China	330	119	211
Indones	Colombi	0	8	-8
Indones	Costa.R	0	2	-2
Indones	DOMINIC	0	2	-2
Indones	Denmark	3	28	-25
Indones	EL.SALV	0	1	-1
Indones	Ecuador	0	3	-3
Indones	Finland	1	26	-25
Indones	France	176	144	32
Indones	Germany	383	166	217
Indones	Greece	3	18	-15
Indones	Guatema	0	2	-2
Indones	Guyana	0	0	0
Indones	Haiti	0	1	-1
Indones	Hondura	0	1	-1
Indones	Hong.Ko	151	64	87
Indones	Iceland	0	2	-2
Indones	Ireland	2	9	-7
Indones	Italy	247	133	114
Indones	Jamaica	0	1	-1
Indones	Japan	10192	455	9737
Indones	Korea.R	669	54	615
Indones	Malaysi	139	96	43
Indones	Mexico	10	45	-35
Indones	Myanmar	4	6	-2
Indones	Netherl	240	50	190
Indones	New.Zea	75	23	52
Indones	Nicarag	0	1	-1
Indones	Norway	2	27	-25
Indones	PAPUA.N	0	4	-4
Indones	Panama	0	1	-1
Indones	Paragua	0	1	-1
Indones	Peru	0	5	-5
Indones	Phillip	199	30	169
Indones	Portuga	2	11	-9
Indones	Singapo	0	84	-84
Indones	Spain	78	55	23
Indones	Surinam	0	0	0
Indones	Sweden	24	44	-20
Indones	Switzer	28	39	-11
Indones	TRINIDA	312	4	308
Indones	Taiwan	354	58	296
Indones	Thailan	60.8	64	-3
Indones	USA	4933	486	4447
Indones	United.	203	130	73
Indones	Uruguay	0	3	-3
Indones	Venezue	0	15	-15

Malaysi	Argenti	9	16	-7
Malaysi	Austral	237	76	161
Malaysi	Austria	43	20	23
Malaysi	Bahamas	0	1	-1
Malaysi	Barbado	0	0	0
Malaysi	Belgium	92	29	63
Malaysi	Belize	0	0	0
Malaysi	Bolivia	0	1	-1
Malaysi	Brazil	31	32	-1
Malaysi	Canada	107	64	43
Malaysi	Chile	2	4	-2
Malaysi	China	198	98	100
Malaysi	Colombi	4	6	-2
Malaysi	Costa.R	0	1	-1
Malaysi	DOMINIC	0	1	-1
Malaysi	Denmark	27	22	5
Malaysi	EL.SALV	0	1	-1
Malaysi	Ecuador	1	2	-1
Malaysi	Finland	5	20	-15
Malaysi	France	322	111	211
Malaysi	Germany	659	128	531
Malaysi	Greece	8	14	-6
Malaysi	Guatema	0	1	-1
Malaysi	Guyana	0	0	0
Malaysi	Haiti	0	0	0
Malaysi	Hondura	0	1	-1
Malaysi	Hong.Ko	173	56	117
Malaysi	Iceland	0	2	-2
Malaysi	Indones	66	110	-44
Malaysi	Ireland	9	7	2
Malaysi	Italy	194	102	92
Malaysi	Jamaica	1	1	0
Malaysi	Japan	4347	342	4005
Malaysi	Korea.R	1235	42	1193
Malaysi	Mexico	5	32	-27
Malaysi	Myanmar	12	7	5
Malaysi	Netherl	301	38	263
Malaysi	New.Zea	23	14	9
Malaysi	Nicarag	0	1	-1
Malaysi	Norway	12	21	-9
Malaysi	PAPUA.N	4	2	2
Malaysi	Panama	5	1	4
Malaysi	Paragua	0	1	-1
Malaysi	Peru	1	4	-3
Malaysi	Phillip	368	23	345
Malaysi	Portuga	12	9	3
Malaysi	Singapo	3736	197	3539
Malaysi	Spain	82	42	40
Malaysi	Surinam	0	0	0
Malaysi	Sweden	53	34	19
Malaysi	Switzer	30	30	0
Malaysi	TRINIDA	0	3	-3
Malaysi	Taiwan	347	47	300
Malaysi	Thailan	547	109	438
Malaysi	USA	2399	359	2040
Malaysi	United.	493	100	393
Malaysi	Uruguay	1	2	-1
Malaysi	Venezue	1	11	-10
Phillip	Argenti	0.7	8	-8
Phillip	Austral	86	46	40
Phillip	Austria	15	12	3
Phillip	Bahamas	0.2	1	-1
Phillip	Barbado	0.4	0	0
Phillip	Belgium	17	16	1

Phillip	Belize	0	0	0
Phillip	Bolivia	0	1	-1
Phillip	Brazil	2	17	-15
Phillip	Canada	80	41	39
Phillip	Chile	2.9	2	1
Phillip	China	97	83	14
Phillip	Colombi	0.2	4	-4
Phillip	Costa.R	0	1	-1
Phillip	DOMINIC	0.1	1	-1
Phillip	Denmark	19	13	6
Phillip	EL.SALV	0.2	1	0
Phillip	Ecuador	0.1	2	-1
Phillip	Finland	11	12	-1
Phillip	France	150	63	87
Phillip	Germany	342	73	269
Phillip	Greece	1.9	8	-6
Phillip	Guatema	0	1	-1
Phillip	Guyana	0	0	0
Phillip	Haiti	0	0	0
Phillip	Hondura	0	0	0
Phillip	Hong.Ko	209	68	141
Phillip	Iceland	0	1	-1
Phillip	Indones	23	30	-7
Phillip	Ireland	10	4	6
Phillip	Italy	43	57	-14
Phillip	Jamaica	0	0	0
Phillip	Japan	1252	332	920
Phillip	Korea.R	151	41	110
Phillip	Malaysi	230	21	209
Phillip	Mexico	1	21	-20
Phillip	Myanmar	0	3	-3
Phillip	Netherl	112	22	90
Phillip	New.Zea	16.2	9	7
Phillip	Nicarag	0	0	0
Phillip	Norway	9	12	-3
Phillip	PAPUA.N	2.5	1	1
Phillip	Panama	7.6	1	7
Phillip	Paragua	0.1	0	0
Phillip	Peru	0.2	2	-2
Phillip	Portuga	1.6	5	-3
Phillip	Singapo	198	14	184
Phillip	Spain	34	23	11
Phillip	Surinam	0.1	0	0
Phillip	Sweden	25	20	5
Phillip	Switzer	17	17	0
Phillip	TRINIDA	0.1	2	-2
Phillip	Taiwan	85.6	67	18
Phillip	Thailan	59.6	27	32
Phillip	USA	2334	231	2103
Phillip	United.	229	58	171
Phillip	Uruguay	0.1	1	-1
Phillip	Venezue	0.9	7	-6
Singapo	Argenti	20	12	8
Singapo	Austral	744	60	684
Singapo	Austria	21	15	6
Singapo	Bahamas	0	1	-1
Singapo	Barbado	0	0	0
Singapo	Belgium	53	21	32
Singapo	Belize	0	0	0
Singapo	Bolivia	0	1	-1
Singapo	Brazil	63	24	39
Singapo	Canada	156	48	108
Singapo	Chile	7	3	4
Singapo	China	241	72	169

Singapo	Colombi	14	4	10
Singapo	Costa.R	0	1	-1
Singapo	DOMINIC	0	1	-1
Singapo	Denmark	43	16	27
Singapo	EL.SALV	0	1	-1
Singapo	Ecuador	9	2	7
Singapo	Finland	11	15	-4
Singapo	France	241	82	159
Singapo	Germany	433	95	338
Singapo	Greece	147	11	136
Singapo	Guatema	0	1	-1
Singapo	Guyana	0	0	0
Singapo	Haiti	0	0	0
Singapo	Hondura	0	0	0
Singapo	Hong.Ko	1448	42	1406
Singapo	Iceland	1	1	0
Singapo	Indones	0	107	-107
Singapo	Ireland	22	5	17
Singapo	Italy	223	76	147
Singapo	Jamaica	0	0	0
Singapo	Japan	1607	260	1347
Singapo	Korea.R	281	32	249
Singapo	Malaysi	3539	219	3320
Singapo	Mexico	18	24	-6
Singapo	Myanmar	57	4	53
Singapo	Netherl	169	28	141
Singapo	New.Zea	271	11	260
Singapo	Nicarag	0	0	0
Singapo	Norway	64	15	49
Singapo	PAPUA.N	98	1	97
Singapo	Panama	251	1	250
Singapo	Paragua	0	1	-1
Singapo	Peru	4	3	1
Singapo	Phillip	218	18	200
Singapo	Portuga	7	6	1
Singapo	Spain	73	31	42
Singapo	Surinam	0	0	0
Singapo	Sweden	51	25	26
Singapo	Switzer	54	22	32
Singapo	TRINIDA	0	2	-2
Singapo	Taiwan	389	35	354
Singapo	Thailan	949	52	897
Singapo	USA	4412	270	4142
Singapo	United.	567	74	493
Singapo	Uruguay	2	1	1
Singapo	Venezue	12	8	4
Thailan	Argenti	0.2	17	-16
Thailan	Austral	124.2	75	49
Thailan	Austria	22	25	-3
Thailan	Bahamas	0.2	1	-1
Thailan	Barbado	0.5	1	0
Thailan	Belgium	93	35	58
Thailan	Belize	0	0	0
Thailan	Bolivia	0	1	-1
Thailan	Brazil	33.2	35	-2
Thailan	Canada	80	77	3
Thailan	Chile	1	4	-3
Thailan	China	263	139	124
Thailan	Colombi	0.2	7	-7
Thailan	Costa.R	0	1	-1
Thailan	DOMINIC	0.1	2	-1
Thailan	Denmark	32.8	27	6
Thailan	EL.SALV	0	1	-1
Thailan	Ecuador	0.1	3	-3

Thailan	Finland	7.9	25	-17
Thailan	France	206	134	72
Thailan	Germany	521	156	365
Thailan	Greece	2.5	17	-15
Thailan	Guatema	0.1	2	-2
Thailan	Guyana	0	0	0
Thailan	Haiti	0	0	0
Thailan	Hondura	0	1	-1
Thailan	Hong.Ko	295	88	207
Thailan	Iceland	0.1	2	-2
Thailan	Indones	43.3	68	-24
Thailan	Ireland	2	8	-6
Thailan	Italy	174	124	50
Thailan	Jamaica	0.4	1	0
Thailan	Japan	1035	433	602
Thailan	Korea.R	153	57	96
Thailan	Malaysi	354.8	101	254
Thailan	Mexico	9	37	-28
Thailan	Myanmar	11	26	-15
Thailan	Netherl	388	47	341
Thailan	New.Zea	8.7	14	-6
Thailan	Nicarag	0	1	-1
Thailan	Norway	8.1	26	-17
Thailan	PAPUA.N	0.6	2	-1
Thailan	Panama	5.7	1	4
Thailan	Paragua	0	1	-1
Thailan	Peru	0	4	-4
Thailan	Phillip	53.1	28	25
Thailan	Portuga	22.8	10	13
Thailan	Singapo	544	43	501
Thailan	Spain	42	50	-8
Thailan	Surinam	0	0	0
Thailan	Sweden	34	42	-8
Thailan	Switzer	64	36	28
Thailan	TRINIDA	0.8	3	-3
Thailan	Taiwan	115	65	50
Thailan	USA	1543	429	1114
Thailan	United.	169	121	48
Thailan	Uruguay	0	2	-2
Thailan	Venezue	0.2	13	-13

ASEAN : 1990 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Indones	Argenti	1	35	-34
Indones	Austral	449	175	274
Indones	Austria	47	62	-15
Indones	Bahamas	0	2	-2
Indones	Barbado	0	1	-1
Indones	Belgium	199	70	129
Indones	Belize	0	0	0
Indones	Bolivia	0	2	-2
Indones	Brazil	18	75	-57
Indones	Canada	191	113	78
Indones	Chile	5	10	-5
Indones	China	849	130	719
Indones	Colombi	4	9	-5
Indones	Costa.R	0	3	-3
Indones	DOMINIC	0	3	-3
Indones	Denmark	54	55	-1
Indones	EL.SALV	0	2	-2
Indones	Ecuador	1	4	-3
Indones	Finland	15	61	-46
Indones	France	539	250	289
Indones	Germany	921	307	614
Indones	Greece	9	31	-22
Indones	Guatema	1	3	-2
Indones	Guyana	0	0	0
Indones	Haiti	0	1	-1
Indones	Hondura	0	3	-3
Indones	Hong.Ko	579	97	482
Indones	Iceland	0	6	-6
Indones	Ireland	35	21	14
Indones	Italy	407	246	161
Indones	Jamaica	0	2	-2
Indones	Japan	12744	885	11859
Indones	Korea.R	1600	134	1466
Indones	Malaysi	316	126	190
Indones	Mexico	20	45	-25
Indones	Myanmar	4	32	-28
Indones	Netherl	518	90	428
Indones	New.Zea	78	31	47
Indones	Nicarag	0	1	-1
Indones	Norway	13	47	-34
Indones	PAPUA.N	8	8	0
Indones	Panama	19	2	17
Indones	Paragua	0	3	-3
Indones	Peru	0	10	-10
Indones	Phillip	161	52	109
Indones	Portuga	17	25	-8
Indones	Singapo	1902	182	1720
Indones	Spain	192	118	74
Indones	Surinam	0	1	-1
Indones	Sweden	53	86	-33
Indones	Switzer	48	83	-35
Indones	TRINIDA	0	3	-3
Indones	Taiwan	849	138	711
Indones	Thailan	198	109	89
Indones	USA	3681	550	3131
Indones	United.	583	208	375
Indones	Uruguay	0	4	-4
Indones	Venezue	1	12	-11
Malaysi	Argenti	12	21	-9

Malaysi	Austral	562	92	470
Malaysi	Austria	101	42	59
Malaysi	Bahamas	0	1	-1
Malaysi	Barbado	0	1	-1
Malaysi	Belgium	241	47	194
Malaysi	Belize	0	0	0
Malaysi	Bolivia	0	1	-1
Malaysi	Brazil	45	46	-1
Malaysi	Canada	358	74	284
Malaysi	Chile	9	6	3
Malaysi	China	852	94	758
Malaysi	Colombi	3	6	-3
Malaysi	Costa.R	1	2	-1
Malaysi	DOMINIC	0	2	-2
Malaysi	Denmark	60	38	22
Malaysi	EL.SALV	2	1	1
Malaysi	Ecuador	1	2	-1
Malaysi	Finland	17	42	-25
Malaysi	France	638	170	468
Malaysi	Germany	1437	209	1228
Malaysi	Greece	22	21	1
Malaysi	Guatema	5	2	3
Malaysi	Guyana	0	0	0
Malaysi	Haiti	16	1	15
Malaysi	Hondura	1	2	-1
Malaysi	Hong.Ko	1053	76	977
Malaysi	Iceland	0	4	-4
Malaysi	Indones	342	126	216
Malaysi	Ireland	27	14	13
Malaysi	Italy	353	167	186
Malaysi	Jamaica	11	1	10
Malaysi	Japan	5411	589	4822
Malaysi	Korea.R	1586	93	1493
Malaysi	Mexico	17	28	-11
Malaysi	Myanmar	51	32	19
Malaysi	Netherl	516	61	455
Malaysi	New.Zea	67	17	50
Malaysi	Nicarag	0	1	-1
Malaysi	Norway	21	32	-11
Malaysi	PAPUA.N	8	3	5
Malaysi	Panama	20	1	19
Malaysi	Paragua	1	2	-1
Malaysi	Peru	0	6	-6
Malaysi	Phillip	394	36	358
Malaysi	Portuga	24	17	7
Malaysi	Singapo	8257	414	7843
Malaysi	Spain	211	80	131
Malaysi	Surinam	0	1	-1
Malaysi	Sweden	106	59	47
Malaysi	Switzer	61	57	4
Malaysi	TRINIDA	0	2	-2
Malaysi	Taiwan	639	99	540
Malaysi	Thailan	1125	181	944
Malaysi	USA	5496	360	5136
Malaysi	United.	1387	141	1246
Malaysi	Uruguay	0	3	-3
Malaysi	Venezue	0	8	-8
Phillip	Argenti	0	16	-16
Phillip	Austral	112	82	30
Phillip	Austria	41	35	6
Phillip	Bahamas	0	1	-1
Phillip	Barbado	0	1	-1
Phillip	Belgium	58	40	18
Phillip	Belize	1	0	1

Philip	Bolivia	0	1	-1
Philip	Brazil	7	35	-28
Philip	Canada	190	71	119
Philip	Chile	5	5	0
Philip	China	90	118	-28
Philip	Colombi	0	6	-6
Philip	Costa.R	0	2	-2
Philip	DOMINIC	0	2	-2
Philip	Denmark	36	32	4
Philip	EL.SALV	0	1	-1
Philip	Ecuador	0	2	-2
Philip	Finland	22	36	-14
Philip	France	214	143	71
Philip	Germany	579	177	402
Philip	Greece	4	17	-13
Philip	Guatema	0	2	-2
Philip	Guyana	0	0	0
Philip	Haiti	0	1	-1
Philip	Hondura	0	2	-2
Philip	Hong.Ko	328	134	194
Philip	Iceland	0	3	-3
Philip	Indones	55	52	3
Philip	Ireland	16	12	4
Philip	Italy	103	137	-34
Philip	Jamaica	0	1	-1
Philip	Japan	2149	845	1304
Philip	Korea.R	270	133	137
Philip	Malaysi	156	36	120
Philip	Mexico	55	28	27
Philip	Myanmar	0	18	-18
Philip	Netherl	181	52	129
Philip	New.Zea	9	16	-7
Philip	Nicarag	0	1	-1
Philip	Norway	12	28	-16
Philip	PAPUA.N	3	3	0
Philip	Panama	38	1	37
Philip	Paragua	1	1	0
Philip	Peru	0	5	-5
Philip	Portuga	14	14	0
Philip	Singapo	313	41	272
Philip	Spain	66	66	0
Philip	Surinam	0	1	-1
Philip	Sweden	31	51	-20
Philip	Switzer	26	47	-21
Philip	TRINIDA	0	2	-2
Philip	Taiwan	209	209	0
Philip	Thailan	109	61	48
Philip	USA	3623	343	3280
Philip	United.	392	121	271
Philip	Uruguay	0	2	-2
Philip	Venezue	1	7	-6
Singapo	Argenti	38	24	14
Singapo	Austral	1311	110	1201
Singapo	Austria	104	47	57
Singapo	Bahamas	32	2	30
Singapo	Barbado	1	1	0
Singapo	Belgium	225	53	172
Singapo	Belize	0	0	0
Singapo	Bolivia	0	2	-2
Singapo	Brazil	72	53	19
Singapo	Canada	520	84	436
Singapo	Chile	40	7	33
Singapo	China	849	105	744
Singapo	Colombi	16	7	9

Singapo	Costa.R	0	2	-2
Singapo	DOMINIC	0	2	-2
Singapo	Denmark	124	42	82
Singapo	EL.SALV	0	2	-2
Singapo	Ecuador	3	3	0
Singapo	Finland	61	47	14
Singapo	France	968	190	778
Singapo	Germany	1852	234	1618
Singapo	Greece	135	24	111
Singapo	Guatema	3	2	1
Singapo	Guyana	0	0	0
Singapo	Haiti	0	1	-1
Singapo	Hondura	10	2	8
Singapo	Hong.Ko	3353	85	3268
Singapo	Iceland	1	4	-3
Singapo	Indones	1283	185	1098
Singapo	Ireland	122	16	106
Singapo	Italy	585	187	398
Singapo	Jamaica	6	2	4
Singapo	Japan	3581	677	2904
Singapo	Korea.R	1173	106	1067
Singapo	Malaysi	6873	422	6451
Singapo	Mexico	78	32	46
Singapo	Myanmar	221	31	190
Singapo	Netherl	566	68	498
Singapo	New.Zea	204	20	184
Singapo	Nicarag	0	1	-1
Singapo	Norway	186	36	150
Singapo	PAPUA.N	155	4	151
Singapo	Panama	308	2	306
Singapo	Paragua	2	2	0
Singapo	Peru	6	7	-1
Singapo	Philip	671	43	628
Singapo	Portuga	35	19	16
Singapo	Spain	271	89	182
Singapo	Surinam	0	1	-1
Singapo	Sweden	164	66	98
Singapo	Switzer	247	63	184
Singapo	TRINIDA	3	2	1
Singapo	Taiwan	1900	113	1787
Singapo	Thailan	3490	118	3372
Singapo	USA	10096	409	9687
Singapo	United.	1837	158	1679
Singapo	Uruguay	6	3	3
Singapo	Venezue	13	9	4
Thailan	Argenti	1	31	-30
Thailan	Austral	373	128	245
Thailan	Austria	106	73	33
Thailan	Bahamas	1	2	-1
Thailan	Barbado	1	1	0
Thailan	Belgium	368	82	286
Thailan	Belize	0	0	0
Thailan	Bolivia	0	2	-2
Thailan	Brazil	7	72	-65
Thailan	Canada	383	126	257
Thailan	Chile	7	9	-2
Thailan	China	386	189	197
Thailan	Colombi	1	10	-9
Thailan	Costa.R	0	3	-3
Thailan	DOMINIC	3	3	0
Thailan	Denmark	105	66	39
Thailan	EL.SALV	0	2	-2
Thailan	Ecuador	0	4	-4
Thailan	Finland	60	74	-14

Thailan	France	778	291	487
Thailan	Germany	1381	361	1020
Thailan	Greece	32	37	-5
Thailan	Guatema	2	3	-1
Thailan	Guyana	0	0	0
Thailan	Haiti	0	1	-1
Thailan	Hondura	0	3	-3
Thailan	Hong.Ko	1046	166	880
Thailan	Iceland	1	7	-6
Thailan	Indones	154	110	44
Thailan	Ireland	12	25	-13
Thailan	Italy	473	286	187
Thailan	Jamaica	3	2	1
Thailan	Japan	4164	1052	3112
Thailan	Korea.R	464	178	286
Thailan	Malaysi	575	183	392
Thailan	Mexico	34	46	-12
Thailan	Myanmar	42	184	-142
Thailan	Netherl	623	105	518
Thailan	New.Zea	40	25	15
Thailan	Nicarag	0	1	-1
Thailan	Norway	35	56	-21
Thailan	PAPUA.N	9	4	5
Thailan	Panama	152	2	150
Thailan	Paragua	0	2	-2
Thailan	Peru	17	9	8
Thailan	Phillip	167	63	104
Thailan	Portuga	51	29	22
Thailan	Singapo	1670	117	1553
Thailan	Spain	277	135	142
Thailan	Surinam	1	1	0
Thailan	Sweden	140	104	36
Thailan	Switzer	268	97	171
Thailan	TRINIDA	0	3	-3
Thailan	Taiwan	355	192	163
Thailan	USA	5589	608	4981
Thailan	United.	868	243	625
Thailan	Uruguay	0	4	-4
Thailan	Venezue	2	13	-11

ASEAN :1995 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Indones	Argenti	4	88	-84
Indones	Austral	1096	539	557
Indones	Austria	93	126	-33
Indones	Bahamas	0	6	-6
Indones	Barbado	1	2	-1
Indones	Belgium	389	151	238
Indones	Belize	0	0	0
Indones	Bolivia	1	6	-5
Indones	Brazil	197	183	14
Indones	Canada	479	300	179
Indones	Chile	75	44	31
Indones	China	2053	914	1139
Indones	Colombi	8	43	-35
Indones	Costa.R	0	8	-8
Indones	DOMINIC	0	8	-8
Indones	Denmark	141	106	35
Indones	EL.SALV	0	3	-3
Indones	Ecuador	2	12	-10
Indones	Finland	45	89	-44
Indones	France	909	542	367
Indones	Germany	1989	610	1379
Indones	Greece	77	70	7
Indones	Guatema	2	11	-9
Indones	Guyana	1	1	0
Indones	Haiti	0	1	-1
Indones	Hondura	1	3	-2
Indones	Hong.Ko	1633	442	1191
Indones	Iceland	3	9	-6
Indones	Ireland	52	46	6
Indones	Italy	977	529	448
Indones	Jamaica	0	3	-3
Indones	Japan	14199	1984	12215
Indones	Korea.R	3322	545	2777
Indones	Malaysi	1221	839	382
Indones	Mexico	167	161	6
Indones	Myanmar	47	39	8
Indones	Netherl	1028	199	829
Indones	New.Zea	153	84	69
Indones	Nicarag	0	2	-2
Indones	Norway	47	107	-60
Indones	PAPUA.N	28	21	7
Indones	Panama	43	6	37
Indones	Paragua	3	7	-4
Indones	Peru	12	21	-9
Indones	Phillip	560	173	387
Indones	Portuga	50	67	-17
Indones	Singapo	698	771	-73
Indones	Spain	702	251	451
Indones	Surinam	0	1	-1
Indones	Sweden	93	146	-53
Indones	Switzer	98	135	-37
Indones	TRINIDA	2	11	-9
Indones	Taiwan	1957	448	1509
Indones	Thailan	672	660	12
Indones	USA	7955	1774	6181
Indones	United.	1428	514	914
Indones	Uruguay	3	14	-11
Indones	Venezue	13	58	-45
Malaysi	Argenti	61	65	-4

Malaysi	Austral	1279	349	930
Malaysi	Austria	68	109	-41
Malaysi	Bahamas	1	5	-4
Malaysi	Barbado	0	2	-2
Malaysi	Belgium	875	129	746
Malaysi	Belize	0	0	0
Malaysi	Bolivia	1	5	-4
Malaysi	Brazil	375	141	234
Malaysi	Canada	1244	248	996
Malaysi	Chile	71	32	39
Malaysi	China	2065	842	1223
Malaysi	Colombi	13	34	-21
Malaysi	Costa.R	1	6	-5
Malaysi	DOMINIC	1	7	-6
Malaysi	Denmark	134	92	42
Malaysi	EL.SALV	12	3	9
Malaysi	Ecuador	6	9	-3
Malaysi	Finland	63	77	-14
Malaysi	France	1479	464	1015
Malaysi	Germany	3153	524	2629
Malaysi	Greece	55	61	-6
Malaysi	Guatema	3	8	-5
Malaysi	Guyana	1	1	0
Malaysi	Haiti	15	1	14
Malaysi	Hondura	0	2	-2
Malaysi	Hong.Ko	3723	439	3284
Malaysi	Iceland	1	7	-6
Malaysi	Indones	976	1005	-29
Malaysi	Ireland	327	40	287
Malaysi	Italy	693	454	239
Malaysi	Jamaica	11	3	8
Malaysi	Japan	10545	1664	8881
Malaysi	Korea.R	2515	481	2034
Malaysi	Mexico	437	126	311
Malaysi	Myanmar	232	50	182
Malaysi	Netherl	1150	171	979
Malaysi	New.Zea	190	57	133
Malaysi	Nicarag	0	2	-2
Malaysi	Norway	34	93	-59
Malaysi	PAPUA.N	37	8	29
Malaysi	Panama	154	5	149
Malaysi	Paragua	22	5	17
Malaysi	Peru	0	15	-15
Malaysi	Phillip	676	150	526
Malaysi	Portuga	56	57	-1
Malaysi	Singapo	19250	2612	16638
Malaysi	Spain	526	213	313
Malaysi	Surinam	0	1	-1
Malaysi	Sweden	190	127	63
Malaysi	Switzer	153	116	37
Malaysi	TRINIDA	0	9	-9
Malaysi	Taiwan	2321	407	1914
Malaysi	Thailan	3235	1596	1639
Malaysi	USA	17981	1461	16520
Malaysi	United.	2347	440	1907
Malaysi	Uruguay	0	11	-11
Malaysi	Venezue	0	47	-47
Phillip	Argenti	3	21	-18
Phillip	Austral	189	130	59
Phillip	Austria	23	37	-14
Phillip	Bahamas	0	2	-2
Phillip	Barbado	0	1	-1
Phillip	Belgium	117	45	72
Phillip	Belize	0	0	0

Phillip	Bolivia	0	2	-2
Phillip	Brazil	31	44	-13
Phillip	Canada	399	99	300
Phillip	Chile	31	11	20
Phillip	China	276	450	-174
Phillip	Colombi	3	13	-10
Phillip	Costa.R	0	3	-3
Phillip	DOMINIC	1	3	-2
Phillip	Denmark	29	32	-3
Phillip	EL.SALV	0	1	-1
Phillip	Ecuador	0	4	-4
Phillip	Finland	51	28	23
Phillip	France	330	162	168
Phillip	Germany	1056	183	873
Phillip	Greece	10	20	-10
Phillip	Gustema	0	3	-3
Phillip	Guyana	0	0	0
Phillip	Haiti	0	0	0
Phillip	Hondura	0	1	-1
Phillip	Hong.Ko	862	339	523
Phillip	Iceland	0	3	-3
Phillip	Indones	135	160	-25
Phillip	Ireland	47	14	33
Phillip	Italy	213	153	60
Phillip	Jamaica	0	1	-1
Phillip	Japan	3495	1027	2468
Phillip	Korea.R	611	295	316
Phillip	Malaysi	461	116	345
Phillip	Mexico	69	52	17
Phillip	Myanmar	0	11	-11
Phillip	Netherl	425	60	365
Phillip	New.Zea	24	22	2
Phillip	Nicarag	0	1	-1
Phillip	Norway	19	33	-14
Phillip	PAPUA.N	3	4	-1
Phillip	Panama	46	2	44
Phillip	Paragua	2	2	0
Phillip	Peru	4	6	-2
Phillip	Portuga	10	19	-9
Phillip	Singapo	1100	84	1016
Phillip	Spain	109	73	36
Phillip	Surinam	0	0	0
Phillip	Sweden	28	46	-18
Phillip	Switzer	50	40	10
Phillip	TRINIDA	0	3	-3
Phillip	Taiwan	575	383	192
Phillip	Thailan	580	192	388
Phillip	USA	7364	580	6784
Phillip	United.	556	155	401
Phillip	Uruguay	2	3	-1
Phillip	Venezue	2	18	-16
Singapo	Argenti	148	54	94
Singapo	Austral	2592	299	2293
Singapo	Austria	154	86	68
Singapo	Bahamas	68	4	64
Singapo	Barbado	0	2	-2
Singapo	Belgium	490	103	387
Singapo	Belize	0	0	0
Singapo	Bolivia	0	4	-4
Singapo	Brazil	436	114	322
Singapo	Canada	1041	200	841
Singapo	Chile	87	27	60
Singapo	China	3398	669	2729
Singapo	Colombi	16	28	-12

Singapo	Costa.R	8	5	3
Singapo	DOMINIC	5	5	0
Singapo	Denmark	116	73	43
Singapo	EL.SALV	3	2	1
Singapo	Ecuador	5	8	-3
Singapo	Finland	168	61	107
Singapo	France	1898	369	1529
Singapo	Germany	2968	416	2552
Singapo	Greece	170	48	122
Singapo	Guatema	3	7	-4
Singapo	Guyana	2	1	1
Singapo	Haiti	0	1	-1
Singapo	Hondura	19	2	17
Singapo	Hong.Ko	10089	349	9740
Singapo	Iceland	0	6	-6
Singapo	Indones	1851	1075	776
Singapo	Ireland	1204	32	1172
Singapo	Italy	614	360	254
Singapo	Jamaica	7	2	5
Singapo	Japan	6846	1361	5485
Singapo	Korea.R	3243	388	2855
Singapo	Malaysi	22665	3041	19624
Singapo	Mexico	187	103	84
Singapo	Myanmar	637	35	602
Singapo	Netherl	1538	136	1402
Singapo	New.Zea	384	48	336
Singapo	Nicarag	0	1	-1
Singapo	Norway	124	74	50
Singapo	PAPUA.N	172	7	165
Singapo	Panama	466	4	462
Singapo	Paragua	28	4	24
Singapo	Peru	21	13	8
Singapo	Phillip	1928	126	1802
Singapo	Portuga	60	45	15
Singapo	Spain	339	170	169
Singapo	Surinam	0	1	-1
Singapo	Sweden	171	101	70
Singapo	Switzer	400	92	308
Singapo	TRINIDA	3	8	-5
Singapo	Taiwan	4813	331	4482
Singapo	Thailan	6824	659	6165
Singapo	USA	18898	1179	17719
Singapo	United.	3379	350	3029
Singapo	Uruguay	32	9	23
Singapo	Venezue	16	38	-22
Thailan	Argenti	37	87	-50
Thailan	Austral	777	432	345
Thailan	Austria	89	170	-81
Thailan	Bahamas	1	7	-6
Thailan	Barbado	1	3	-2
Thailan	Belgium	819	201	618
Thailan	Belize	0	1	-1
Thailan	Bolivia	1	6	-5
Thailan	Brazil	161	196	-35
Thailan	Canada	812	379	433
Thailan	Chile	47	43	4
Thailan	China	1611	1541	70
Thailan	Colombi	15	51	-36
Thailan	Costa.R	14	9	5
Thailan	DOMINIC	9	10	-1
Thailan	Denmark	170	144	26
Thailan	EL.SALV	2	4	-2
Thailan	Ecuador	3	14	-11
Thailan	Finland	88	123	-35

Thailan	France	1357	717	640
Thailan	Germany	2261	815	1446
Thailan	Greece	72	94	-22
Thailan	Guatema	4	13	-9
Thailan	Guyana	0	1	-1
Thailan	Haiti	1	2	-1
Thailan	Hondura	2	4	-2
Thailan	Hong.Ko	2728	883	1845
Thailan	Iceland	6	11	-5
Thailan	Indones	811	747	64
Thailan	Ireland	78	61	17
Thailan	Italy	676	700	-24
Thailan	Jamaica	6	4	2
Thailan	Japan	10130	2687	7443
Thailan	Korea.R	935	830	105
Thailan	Malaysi	1554	1509	45
Thailan	Mexico	167	187	-20
Thailan	Myanmar	57	312	-255
Thailan	Netherl	997	265	732
Thailan	New.Zea	93	74	19
Thailan	Nicarag	53	2	51
Thailan	Norway	55	146	-91
Thailan	PAPUA.N	21	11	10
Thailan	Panama	117	7	110
Thailan	Paragua	7	7	0
Thailan	Peru	21	21	0
Thailan	Phillip	414	235	179
Thailan	Portuga	77	86	-9
Thailan	Singapo	6418	536	5882
Thailan	Spain	529	325	204
Thailan	Surinam	2	1	1
Thailan	Sweden	162	201	-39
Thailan	Switzer	405	179	226
Thailan	TRINIDA	3	14	-11
Thailan	Taiwan	1354	722	632
Thailan	USA	11854	2220	9634
Thailan	United.	1640	681	959
Thailan	Uruguay	9	14	-5
Thailan	Venezue	9	71	-62

EC :1975 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Belgium	Argenti	85	33	52
Belgium	Austral	79	24	55
Belgium	Austria	200	149	51
Belgium	Bahamas	1	.	
Belgium	Barbado	0	1	-1
Belgium	Belize	0	.	
Belgium	Bolivia	9	4	5
Belgium	Brazil	191	81	110
Belgium	Canada	140	93	47
Belgium	Chile	12	9	3
Belgium	China	52	142	-90
Belgium	Colombi	13	19	-6
Belgium	Costa.R	5	3	2
Belgium	DOMINIC	8	5	3
Belgium	Denmark	370	142	228
Belgium	EL.SALV	2	4	-2
Belgium	Ecuador	9	7	2
Belgium	Finland	141	64	77
Belgium	France	5143	2293	2850
Belgium	Germany	6447	3330	3117
Belgium	Greece	186	53	133
Belgium	Guatema	7	6	1
Belgium	Guyana	2	1	1
Belgium	Haiti	3	3	0
Belgium	Hondura	4	2	2
Belgium	Hong.Ko	82	9	73
Belgium	Iceland	12	4	8
Belgium	Indones	47	26	21
Belgium	Ireland	72	60	12
Belgium	Italy	1215	542	673
Belgium	Jamaica	6	3	3
Belgium	Japan	162	162	0
Belgium	Korea.R	22	24	-2
Belgium	Malaysi	21	10	11
Belgium	Mexico	58	63	-5
Belgium	Myanmar	3	6	-3
Belgium	Netherl	5299	1123	4176
Belgium	New.Zea	16	6	10
Belgium	Nicarag	3	3	0
Belgium	Norway	259	79	180
Belgium	PAPUA.N	1	2	-1
Belgium	Panama	7	3	4
Belgium	Paragua	4	2	2
Belgium	Peru	38	13	25
Belgium	Phillip	19	18	1
Belgium	Portuga	96	55	41
Belgium	Singapo	28	4	24
Belgium	Spain	342	311	31
Belgium	Surinam	3	1	2
Belgium	Sweden	619	153	466
Belgium	Switzer	472	296	176
Belgium	TRINIDA	3	5	-2
Belgium	Taiwan	16	15	1
Belgium	Thailan	23	21	2
Belgium	USA	1273	571	702
Belgium	United.	2114	1813	301
Belgium	Uruguay	6	4	2
Belgium	Venezue	166	28	138

France	Argenti	141	133	8
France	Austral	156	95	61
France	Austria	385	527	-142
France	Bahamas	5	.	.
France	Barbado	3	5	-2
France	Belgium	5325	2351	2974
France	Belize	0	.	.
France	Bolivia	12	15	-3
France	Brazil	355	327	28
France	Canada	469	369	100
France	Chile	36	35	1
France	China	373	546	-173
France	Colombi	57	76	-19
France	Costa.R	8	13	-5
France	DOMINIC	9	22	-13
France	Denmark	365	436	-71
France	EL.SALV	7	16	-9
France	Ecuador	18	28	-10
France	Finland	267	224	43
France	Germany	9018	7084	1934
France	Greece	400	208	192
France	Guatema	10	23	-13
France	Guyana	4	6	-2
France	Haiti	12	11	1
France	Hondura	4	9	-5
France	Hong.Ko	88	33	55
France	Iceland	7	16	-9
France	Indones	89	101	-12
France	Ireland	165	237	-72
France	Italy	5041	2246	2795
France	Jamaica	7	13	-6
France	Japan	501	625	-124
France	Korea.R	199	94	105
France	Malaysi	63	39	24
France	Mexico	233	251	-18
France	Myanmar	3	22	-19
France	Netherl	2741	2042	699
France	New.Zea	23	24	-1
France	Nicarag	3	12	-9
France	Norway	385	259	126
France	PAPUA.N	1	7	-6
France	Panama	86	11	75
France	Paragua	4	8	-4
France	Peru	65	54	11
France	Philip	72	72	0
France	Portuga	346	250	96
France	Singapo	87	16	71
France	Spain	1418	1481	-63
France	Surinam	4	4	0
France	Sweden	732	514	218
France	Switzer	2486	1284	1202
France	TRINIDA	6	19	-13
France	Taiwan	57	58	-1
France	Thailan	59	80	-21
France	USA	2288	2269	19
France	United.	3617	6760	-3143
France	Uruguay	9	18	-9
France	Venezue	159	112	47
Germany	Argenti	325	146	179
Germany	Austral	600	110	490
Germany	Austria	3994	811	3183
Germany	Bahamas	5	.	.
Germany	Barbado	2	5	-3
Germany	Belgium	6867	3423	3444

Germany	Belize	0	.	.
Germany	Bolivia	47	16	31
Germany	Brazil	1207	357	850
Germany	Canada	777	406	371
Germany	Chile	114	39	75
Germany	China	523	646	-123
Germany	Colombi	183	83	100
Germany	Costa.R	29	14	15
Germany	DOMINIC	26	24	2
Germany	Denmark	1881	723	1158
Germany	EL.SALV	31	17	14
Germany	Ecuador	77	31	46
Germany	Finland	985	307	678
Germany	France	10589	7100	3489
Germany	Greece	1095	254	841
Germany	Guatema	47	25	22
Germany	Guyana	4	7	-3
Germany	Haiti	1	11	-10
Germany	Hondura	13	10	3
Germany	Hong.Ko	205	39	166
Germany	Iceland	40	17	23
Germany	Indones	363	118	245
Germany	Ireland	244	225	19
Germany	Italy	6578	2633	3945
Germany	Jamaica	28	14	14
Germany	Japan	956	733	223
Germany	Korea.R	201	110	91
Germany	Malaysi	130	45	85
Germany	Mexico	457	279	178
Germany	Myanmar	17	26	-9
Germany	Netherl	9029	3877	5152
Germany	New.Zea	95	27	68
Germany	Nicarag	21	13	8
Germany	Norway	1429	363	1066
Germany	PAPUA.N	2	8	-6
Germany	Panama	124	12	112
Germany	Paragua	14	9	5
Germany	Peru	280	59	221
Germany	Philip	136	84	52
Germany	Portuga	414	231	183
Germany	Singapo	215	19	196
Germany	Spain	1586	1300	286
Germany	Surinam	11	4	7
Germany	Sweden	3299	733	2566
Germany	Switzer	3897	1502	2395
Germany	TRINIDA	17	21	-4
Germany	Taiwan	372	69	303
Germany	Thailan	125	95	30
Germany	USA	5755	2490	3265
Germany	United.	4116	5405	-1289
Germany	Uruguay	39	20	19
Germany	Venezue	429	122	307
Ireland	Argenti	2	9	-7
Ireland	Austral	17	6	11
Ireland	Austria	8	22	-14
Ireland	Bahamas	1	.	.
Ireland	Barbado	1	0	1
Ireland	Belgium	88	59	29
Ireland	Belize	0	.	.
Ireland	Bolivia	1	1	0
Ireland	Brazil	6	21	-15
Ireland	Canada	30	27	3
Ireland	Chile	0	2	-2
Ireland	China	0	35	-35

Ireland	Colombi	1	5	-4
Ireland	Costa.R	0	1	-1
Ireland	DOMINIC	0	1	-1
Ireland	Denmark	12	24	-12
Ireland	EL.SALV	0	1	-1
Ireland	Ecuador	0	2	-2
Ireland	Finland	10	14	-4
Ireland	France	152	226	-74
Ireland	Germany	273	214	59
Ireland	Greece	4	10	-6
Ireland	Guatema	3	2	1
Ireland	Guyana	0	0	0
Ireland	Haiti	0	1	-1
Ireland	Hondura	0	1	-1
Ireland	Hong.Ko	1	2	-1
Ireland	Iceland	0	1	-1
Ireland	Indones	1	6	-5
Ireland	Italy	89	91	-2
Ireland	Jamaica	2	1	1
Ireland	Japan	34	40	-6
Ireland	Korea.R	0	6	-6
Ireland	Malaysi	2	2	0
Ireland	Mexico	1	17	-16
Ireland	Myanmar	0	1	-1
Ireland	Netherl	87	80	7
Ireland	New.Zea	3	2	1
Ireland	Nicarag	0	1	-1
Ireland	Norway	8	17	-9
Ireland	PAPUA.N	0	0	0
Ireland	Panama	0	1	-1
Ireland	Paragua	0	1	-1
Ireland	Peru	3	4	-1
Ireland	Philip	3	4	-1
Ireland	Portuga	2	14	-12
Ireland	Singapo	3	1	2
Ireland	Spain	42	72	-30
Ireland	Surinam	0	0	0
Ireland	Sweden	35	31	4
Ireland	Switzer	24	34	-10
Ireland	TRINIDA	2	1	1
Ireland	Taiwan	1	4	-3
Ireland	Thailan	31.6	5	27
Ireland	USA	189	161	28
Ireland	United.	2035	331	1704
Ireland	Uruguay	1	1	0
Ireland	Venezue	0	8	-8
Italy	Argenti	178	113	65
Italy	Austral	207	85	122
Italy	Austria	732	588	144
Italy	Bahamas	6	.	.
Italy	Barbado	1	4	-3
Italy	Belgium	1180	555	625
Italy	Belize	0	.	.
Italy	Bolivia	13	12	1
Italy	Brazil	538	276	262
Italy	Canada	350	272	78
Italy	Chile	23	30	-7
Italy	China	145	474	-329
Italy	Colombi	43	60	-17
Italy	Costa.R	7	10	-3
Italy	DOMINIC	15	17	-2
Italy	Denmark	255	265	-10
Italy	EL.SALV	11	12	-1
Italy	Ecuador	30	23	7

Italy	Finland	148	170	-22
Italy	France	4750	2240	2510
Italy	Germany	7006	2620	4386
Italy	Greece	523	324	199
Italy	Guatema	13	18	-5
Italy	Guyana	2	5	-3
Italy	Haiti	2	8	-6
Italy	Hondura	4	7	-3
Italy	Hong.Ko	64	30	34
Italy	Iceland	6	10	-4
Italy	Indones	76	92	-16
Italy	Ireland	79	95	-16
Italy	Jamaica	6	10	-4
Italy	Japan	365	530	-165
Italy	Korea.R	28	81	-53
Italy	Malaysi	39	35	4
Italy	Mexico	134	197	-63
Italy	Myanmar	2	20	-18
Italy	Netherl	1471	677	794
Italy	New.Zea	37	21	16
Italy	Nicarag	12	9	3
Italy	Norway	121	157	-36
Italy	PAPUA.N	2	6	-4
Italy	Panama	34	9	25
Italy	Paragua	5	7	-2
Italy	Peru	70	44	26
Italy	Phillip	30	63	-33
Italy	Portuga	174	173	1
Italy	Singapo	62	15	47
Italy	Spain	743	1020	-277
Italy	Surinam	2	3	-1
Italy	Sweden	398	357	41
Italy	Switzer	1315	753	562
Italy	TRINIDA	4	15	-11
Italy	Taiwan	44	51	-7
Italy	Thailan	49	73	-24
Italy	USA	2645	1701	944
Italy	United.	1791	1687	104
Italy	Uruguay	21	15	6
Italy	Venezue	304	89	215
Netherl	Argenti	103	44	59
Netherl	Austral	138	33	105
Netherl	Austria	305	195	110
Netherl	Bahamas	21	.	.
Netherl	Barbado	2	2	0
Netherl	Belgium	4807	1129	3678
Netherl	Belize	3	.	.
Netherl	Bolivia	5	5	0
Netherl	Brazil	185	107	78
Netherl	Canada	155	125	30
Netherl	Chile	10	12	-2
Netherl	China	147	193	-46
Netherl	Colombi	19	25	-6
Netherl	Costa.R	4	4	0
Netherl	DOMINIC	7	7	0
Netherl	Denmark	589	227	362
Netherl	EL.SALV	11	5	6
Netherl	Ecuador	13	9	4
Netherl	Finland	181	93	88
Netherl	France	3420	2001	1419
Netherl	Germany	10459	3792	6667
Netherl	Greece	190	69	121
Netherl	Guatema	8	8	0
Netherl	Guyana	9	2	7

Netherl	Haiti	4	3	1
Netherl	Hondura	4	3	1
Netherl	Hong.Ko	50	12	38
Netherl	Iceland	28	6	22
Netherl	Indones	133	35	98
Netherl	Ireland	121	82	39
Netherl	Italy	1799	665	1134
Netherl	Jamaica	8	4	4
Netherl	Japan	215	220	-5
Netherl	Korea.R	11	33	-22
Netherl	Malaysi	45	13	32
Netherl	Mexico	63	85	-22
Netherl	Myanmar	12	8	4
Netherl	New.Zea	35	8	27
Netherl	Nicarag	3	4	-1
Netherl	Norway	429	122	307
Netherl	PAPUA.N	2	2	0
Netherl	Panama	18	4	14
Netherl	Paragua	1	3	-2
Netherl	Peru	53	18	35
Netherl	Phillip	19	25	-6
Netherl	Portuga	114	68	46
Netherl	Singapo	79	6	73
Netherl	Spain	440	374	66
Netherl	Surinam	34	1	33
Netherl	Sweden	749	228	521
Netherl	Switzer	459	319	140
Netherl	TRINIDA	10	6	4
Netherl	Taiwan	53	20	33
Netherl	Thailan	36	28	8
Netherl	USA	1165	765	400
Netherl	United.	4138	2192	1946
Netherl	Uruguay	8	6	2
Netherl	Venezue	110	37	73
United.	Argenti	153	124	29
United.	Austral	1402	89	1313
United.	Austria	365	425	-60
United.	Bahamas	17	.	.
United.	Barbado	38	5	33
United.	Belgium	2038	1857	181
United.	Belize	14	.	.
United.	Bolivia	12	14	-2
United.	Brazil	358	305	53
United.	Canada	1198	362	836
United.	Chile	82	33	49
United.	China	178	517	-339
United.	Colombi	64	72	-8
United.	Costa.R	20	12	8
United.	DOMINIC	17	21	-4
United.	Denmark	978	435	543
United.	EL.SALV	18	15	3
United.	Ecuador	39	27	12
United.	Finland	588	219	369
United.	France	2578	6752	-4174
United.	Germany	2819	5387	-2568
United.	Greece	262	175	87
United.	Guatema	22	22	0
United.	Guyana	65	6	59
United.	Haiti	5	10	-5
United.	Hondura	9	8	1
United.	Hong.Ko	349	31	318
United.	Iceland	55	17	38
United.	Indones	165	94	71
United.	Ireland	2006	348	1658

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United.	Italy	1248	1690	-442
United.	Jamaica	136	13	123
United.	Japan	810	595	215
United.	Korea.R	116	89	27
United.	Malaysi	254	36	218
United.	Mexico	264	242	22
United.	Myanmar	14	20	-6
United.	Netherl	2469	2234	235
United.	New.Zea	562	22	540
United.	Nicarag	12	11	1
United.	Norway	869	277	592
United.	PAPUA.N	13	7	6
United.	Panama	27	10	17
United.	Paragua	15	8	7
United.	Peru	113	51	62
United.	Phillip	121	67	54
United.	Portuga	353	218	135
United.	Singapo	349	15	334
United.	Spain	742	1189	-447
United.	Surinam	13	4	9
United.	Sweden	1834	514	1320
United.	Switzer	1753	762	991
United.	TRINIDA	116	18	98
United.	Taiwan	128	55	73
United.	Thailan	123	75	48
United.	USA	4052	2212	1840
United.	Uruguay	21	17	4
United.	Venezue	188	107	81

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EC :1980 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Belgium	Argenti	125	62	63
Belgium	Austral	146	44	102
Belgium	Austria	494	306	188
Belgium	Bahamas	2	2	0
Belgium	Barbado	2	2	0
Belgium	Belize	1	1	0
Belgium	Bolivia	11	6	5
Belgium	Brazil	148	187	-39
Belgium	Canada	213	201	12
Belgium	Chile	46	18	28
Belgium	China	115	343	-228
Belgium	Colombi	37	38	-1
Belgium	Costa.R	6	5	1
Belgium	DOMINIC	8	10	-2
Belgium	Denmark	768	278	490
Belgium	EL.SALV	3	6	-3
Belgium	Ecuador	12	14	-2
Belgium	Finland	232	123	109
Belgium	France	11270	5763	5507
Belgium	Germany	13489	8643	4846
Belgium	Greece	274	107	167
Belgium	Guatema	9	10	-1
Belgium	Guyana	3	1	2
Belgium	Haiti	2	5	-3
Belgium	Hondura	7	4	3
Belgium	Hong.Ko	252	21	231
Belgium	Iceland	19	8	11
Belgium	Indones	56	64	-8
Belgium	Ireland	197	118	79
Belgium	Italy	3547	1327	2220
Belgium	Jamaica	7	4	3
Belgium	Japan	377	358	19
Belgium	Korea.R	216	53	163
Belgium	Malaysi	56	24	32
Belgium	Mexico	266	149	117
Belgium	Myanmar	2	10	-8
Belgium	Netherl	10345	2605	7740
Belgium	New.Zea	20	9	11
Belgium	Nicarag	3	4	-1
Belgium	Norway	517	180	337
Belgium	PAPUA.N	2	3	-1
Belgium	Panama	12	5	7
Belgium	Paragua	3	5	-2
Belgium	Peru	45	22	23
Belgium	Phillip	42	36	6
Belgium	Portuga	294	111	183
Belgium	Singapo	127	8	119
Belgium	Spain	621	640	-19
Belgium	Surinam	5	2	3
Belgium	Sweden	1049	283	766
Belgium	Switzer	2461	590	1871
Belgium	TRINIDA	11	10	1
Belgium	Taiwan	0	35	-35
Belgium	Thailan	49	45	4
Belgium	USA	2006	1338	668
Belgium	United.	5546	4452	1094
Belgium	Uruguay	17	7	10
Belgium	Venezue	145	57	88

Denmark	Argenti	42	33	9
Denmark	Austral	73	26	47
Denmark	Austria	167	183	-16
Denmark	Bahamas	10	1	9
Denmark	Barbado	1	1	0
Denmark	Belgium	332	281	51
Denmark	Belize	2	0	2
Denmark	Bolivia	3	3	0
Denmark	Brazil	32	99	-67
Denmark	Canada	102	110	-8
Denmark	Chile	19	9	10
Denmark	China	54	214	-160
Denmark	Colombi	14	20	-6
Denmark	Costa.R	4	3	1
Denmark	DOMINIC	2	5	-3
Denmark	EL.SALV	4	3	1
Denmark	Ecuador	8	8	0
Denmark	Finland	361	125	236
Denmark	France	863	930	-67
Denmark	Germany	3156	1605	1551
Denmark	Greece	95	60	35
Denmark	Guatema	4	6	-2
Denmark	Guyana	1	1	0
Denmark	Haiti	2	2	0
Denmark	Hondura	12	2	10
Denmark	Hong.Ko	50	13	37
Denmark	Iceland	93	4	89
Denmark	Indones	12	38	-26
Denmark	Ireland	88	44	44
Denmark	Italy	876	592	284
Denmark	Jamaica	1	2	-1
Denmark	Japan	322	221	101
Denmark	Korea.R	23	33	-10
Denmark	Malaysi	40	14	26
Denmark	Mexico	30	83	-53
Denmark	Myanmar	16	6	10
Denmark	Netherl	668	459	209
Denmark	New.Zea	17	5	12
Denmark	Nicarag	3	2	1
Denmark	Norway	1062	217	845
Denmark	PAPUA.N	1	2	-1
Denmark	Panama	42	2	40
Denmark	Paragua	1	3	-2
Denmark	Peru	10	12	-2
Denmark	Phillip	27	22	5
Denmark	Portuga	58	45	13
Denmark	Singapo	57	5	52
Denmark	Spain	177	240	-63
Denmark	Surinam	2	1	1
Denmark	Sweden	2046	370	1676
Denmark	Switzer	304	169	135
Denmark	TRINIDA	7	5	2
Denmark	Taiwan	0	22	-22
Denmark	Thailan	48.1	28	20
Denmark	USA	769	731	38
Denmark	United.	2565	924	1641
Denmark	Uruguay	13	4	9
Denmark	Venezue	48	30	18
France	Argenti	431	266	165
France	Austral	302	181	121
France	Austria	930	1142	-212
France	Bahamas	11	9	2
France	Barbado	4	7	-3
France	Belgium	10410	5579	4831

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France	Belize	0	3	-3
France	Bolivia	15	27	-12
France	Brazil	699	805	-106
France	Canada	681	844	-163
France	Chile	190	75	115
France	China	303	1393	-1090
France	Colombi	169	161	8
France	Costa.R	18	23	-5
France	DOMINIC	28	42	-14
France	Denmark	776	889	-113
France	EL.SALV	7	25	-18
France	Ecuador	46	60	-14
France	Finland	438	449	-11
France	Germany	20147	18662	1485
France	Greece	1172	445	727
France	Guatema	27	44	-17
France	Guyana	6	6	0
France	Haiti	18	19	-1
France	Hondura	10	17	-7
France	Hong.Ko	275	86	189
France	Iceland	18	31	-13
France	Indones	236	263	-27
France	Ireland	537	493	44
France	Italy	13910	5854	8056
France	Jamaica	10	17	-7
France	Japan	1306	1463	-157
France	Korea.R	134	217	-83
France	Malaysi	187	98	89
France	Mexico	545	626	-81
France	Myanmar	6	42	-36
France	Netherl	5425	4753	672
France	New.Zea	39	37	2
France	Nicarag	10	15	-5
France	Norway	512	622	-110
France	PAPUA.N	1	11	-10
France	Panama	100	19	81
France	Paragua	25	20	5
France	Peru	67	95	-28
France	Phillip	92	148	-56
France	Portuga	779	540	239
France	Singapo	315	33	282
France	Spain	3184	3280	-96
France	Surinam	4	7	-3
France	Sweden	1444	998	446
France	Switzer	5216	2731	2485
France	TRINIDA	26	42	-16
France	Taiwan	0	143	-143
France	Thailan	102	186	-84
France	USA	5549	5641	-92
France	United.	8959	17545	-8586
France	Uruguay	61	31	30
France	Venezue	334	242	92
Germany	Argenti	1255	294	961
Germany	Austral	1151	212	939
Germany	Austria	10608	1811	8797
Germany	Bahamas	10	10	0
Germany	Barbado	7	8	-1
Germany	Belgium	15141	8342	6799
Germany	Belize	0	3	-3
Germany	Bolivia	40	30	10
Germany	Brazil	1541	884	657
Germany	Canada	1200	934	266
Germany	Chile	277	83	194
Germany	China	1145	1668	-523

Germany	Colombi	290	178	112
Germany	Costa.R	50	25	25
Germany	DOMINIC	32	46	-14
Germany	Denmark	3676	1529	2147
Germany	EL.SALV	23	28	-5
Germany	Ecuador	136	67	69
Germany	Finland	1821	630	1191
Germany	France	25659	18606	7053
Germany	Greece	2080	549	1531
Germany	Guatema	77	49	28
Germany	Guyana	4	7	-3
Germany	Haiti	10	21	-11
Germany	Hondura	20	19	1
Germany	Hong.Ko	587	103	484
Germany	Iceland	103	35	68
Germany	Indones	685	310	375
Germany	Ireland	731	465	266
Germany	Italy	16494	6941	9553
Germany	Jamaica	16	19	-3
Germany	Japan	2186	1733	453
Germany	Korea.R	529	259	270
Germany	Malaysi	458	115	343
Germany	Mexico	1217	700	517
Germany	Myanmar	64	50	14
Germany	Netherl	18333	9450	8883
Germany	New.Zea	160	43	117
Germany	Nicarag	16	17	-1
Germany	Norway	2211	894	1317
Germany	PAPUA.N	12	12	0
Germany	Panama	89	21	68
Germany	Paragua	63	22	41
Germany	Peru	192	106	86
Germany	Philip	274	176	98
Germany	Portuga	1152	496	656
Germany	Singapo	714	39	675
Germany	Spain	2901	2853	48
Germany	Surinam	13	8	5
Germany	Sweden	5572	1461	4111
Germany	Switzer	11014	3230	7784
Germany	TRINIDA	31	46	-15
Germany	Taiwan	0	170	-170
Germany	Thailan	365	221	144
Germany	USA	12257	6232	6025
Germany	United.	12639	13806	-1167
Germany	Uruguay	117	34	83
Germany	Venezue	758	265	493
Ireland	Argenti	11	16	-5
Ireland	Austral	55	11	44
Ireland	Austria	45	43	2
Ireland	Bahamas	1	1	0
Ireland	Barbado	2	0	2
Ireland	Belgium	268	122	146
Ireland	Belize	0	0	0
Ireland	Bolivia	2	2	0
Ireland	Brazil	13	48	-35
Ireland	Canada	85	57	28
Ireland	Chile	4	5	-1
Ireland	China	3	82	-79
Ireland	Colombi	3	10	-7
Ireland	Costa.R	4	1	3
Ireland	DOMINIC	2	3	-1
Ireland	Denmark	59	44	15
Ireland	EL.SALV	6	2	4
Ireland	Ecuador	1	4	-3

Ireland	Finland	38	25	13
Ireland	France	756	525	231
Ireland	Germany	837	498	339
Ireland	Greece	32	20	12
Ireland	Guatema	2	3	-1
Ireland	Guyana	0	0	0
Ireland	Haiti	0	1	-1
Ireland	Hondura	1	1	0
Ireland	Hong.Ko	1	5	-4
Ireland	Iceland	2	3	-1
Ireland	Indones	3	15	-12
Ireland	Italy	262	214	48
Ireland	Jamaica	1	1	0
Ireland	Japan	79	88	-9
Ireland	Korea.R	4	13	-9
Ireland	Malaysi	12	6	6
Ireland	Mexico	68	40	28
Ireland	Myanmar	0	2	-2
Ireland	Netherl	397	167	230
Ireland	New.Zea	4	2	2
Ireland	Nicarag	1	1	0
Ireland	Norway	43	39	4
Ireland	PAPUA.N	0	1	-1
Ireland	Panama	3	1	2
Ireland	Paragua	2	1	1
Ireland	Peru	14	6	8
Ireland	Phillip	8	9	-1
Ireland	Portuga	16.9	29	-12
Ireland	Singapo	11	2	9
Ireland	Spain	123	146	-23
Ireland	Surinam	0	0	0
Ireland	Sweden	105	57	48
Ireland	Switzer	90	64	26
Ireland	TRINIDA	3	3	0
Ireland	Taiwan	0	8	-8
Ireland	Thailan	5.7	11	-5
Ireland	USA	435	377	58
Ireland	United.	4124	788	3336
Ireland	Uruguay	1	2	-1
Ireland	Venezue	10	15	-5
Italy	Argenti	628	243	385
Italy	Austral	455	174	281
Italy	Austria	2085	1392	693
Italy	Bahamas	2	7	-5
Italy	Barbado	3	6	-3
Italy	Belgium	2595	1287	1308
Italy	Belize	0	2	-2
Italy	Bolivia	10	24	-14
Italy	Brazil	392	728	-336
Italy	Canada	485	662	-177
Italy	Chile	109	68	41
Italy	China	254	1297	-1043
Italy	Colombi	141	138	3
Italy	Costa.R	19	19	0
Italy	DOMINIC	0	35	-35
Italy	Denmark	540	567	-27
Italy	EL.SALV	17	21	-4
Italy	Ecuador	119	52	67
Italy	Finland	305	363	-58
Italy	France	12684	5865	6819
Italy	Germany	14940	6975	7965
Italy	Greece	1188	774	414
Italy	Guatema	19	37	-18
Italy	Guyana	2	5	-3

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Italy	Haiti	3	16	-13
Italy	Hondura	9	14	-5
Italy	Hong.Ko	267	82	185
Italy	Iceland	23	20	3
Italy	Indones	76	258	-182
Italy	Ireland	211	201	10
Italy	Jamaica	3	14	-11
Italy	Japan	943	1330	-387
Italy	Korea.R	100	200	-100
Italy	Malaysi	112	96	16
Italy	Mexico	354	523	-169
Italy	Myanmar	14	42	-28
Italy	Netherl	2872	1580	1292
Italy	New.Zea	54	35	19
Italy	Nicarag	6	13	-7
Italy	Norway	314	395	-81
Italy	PAPUA.N	2	10	-8
Italy	Panama	138	16	122
Italy	Paragua	10	18	-8
Italy	Peru	183	83	100
Italy	Phillip	109	141	-32
Italy	Portuga	506	396	110
Italy	Singapo	203	32	171
Italy	Spain	1559	2388	-829
Italy	Surinam	4	6	-2
Italy	Sweden	828	732	96
Italy	Switzer	3426	1674	1752
Italy	TRINIDA	8	35	-27
Italy	Taiwan	0	134	-134
Italy	Thailan	128	182	-54
Italy	USA	4688	4494	194
Italy	United.	5357	4302	1055
Italy	Uruguay	46	28	18
Italy	Venezue	471	204	267
Netherl	Argenti	183	82	101
Netherl	Austral	209	59	150
Netherl	Austria	707	401	306
Netherl	Bahamas	12	3	9
Netherl	Barbado	3	2	1
Netherl	Belgium	11106	2588	8518
Netherl	Belize	5	1	4
Netherl	Bolivia	15	8	7
Netherl	Brazil	203	247	-44
Netherl	Canada	225	270	-45
Netherl	Chile	51	23	28
Netherl	China	162	465	-303
Netherl	Colombi	27	50	-23
Netherl	Costa.R	8	7	1
Netherl	DOMINIC	11	13	-2
Netherl	Denmark	1385	451	934
Netherl	EL.SALV	13	8	5
Netherl	Ecuador	21	19	2
Netherl	Finland	390	179	211
Netherl	France	7303	4878	2425
Netherl	Germany	21547	9727	11820
Netherl	Greece	490	138	352
Netherl	Guatema	10	14	-4
Netherl	Guyana	10	2	8
Netherl	Haiti	10	6	4
Netherl	Hondura	13	5	8
Netherl	Hong.Ko	135	29	106
Netherl	Iceland	85	11	74
Netherl	Indones	115	86	29
Netherl	Ireland	307	161	146

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Netherl	Italy	4165	1619	2546
Netherl	Jamaica	17	5	12
Netherl	Japan	382	486	-104
Netherl	Korea.R	63	72	-9
Netherl	Malaysi	62	32	30
Netherl	Mexico	104	199	-95
Netherl	Myanmar	14	14	0
Netherl	New.Zea	63	12	51
Netherl	Nicarag	6	5	1
Netherl	Norway	642	282	360
Netherl	PAPUA.N	2	3	-1
Netherl	Panama	40	6	34
Netherl	Paragua	12	6	6
Netherl	Peru	49	30	19
Netherl	Phillip	66	49	17
Netherl	Portuga	311	137	174
Netherl	Singapo	201	11	190
Netherl	Spain	773	765	8
Netherl	Surinam	51	2	49
Netherl	Sweden	1299	426	873
Netherl	Switzer	1641	626	1015
Netherl	TRINIDA	18	13	5
Netherl	Taiwan	0	47	-47
Netherl	Thailan	79	61	18
Netherl	USA	2044	1793	251
Netherl	United.	7918	5344	2574
Netherl	Uruguay	14	10	4
Netherl	Venezue	196	75	121
United.	Argenti	402	246	156
United.	Austral	1896	168	1728
United.	Austria	650	904	-254
United.	Bahamas	180	9	171
United.	Barbado	69	7	62
United.	Belgium	6098	4317	1781
United.	Belize	28	2	26
United.	Bolivia	20	25	-5
United.	Brazil	507	745	-238
United.	Canada	1762	824	938
United.	Chile	130	70	60
United.	China	394	1309	-915
United.	Colombi	97	153	-56
United.	Costa.R	19	22	-3
United.	DOMINIC	27	40	-13
United.	Denmark	2400	884	1516
United.	EL.SALV	11	24	-13
United.	Ecuador	72	57	15
United.	Finland	1221	437	784
United.	France	8342	17573	-9231
United.	Germany	12572	13870	-1298
United.	Greece	522	367	155
United.	Guatema	32	42	-10
United.	Guyana	70	6	64
United.	Haiti	7	18	-11
United.	Hondura	28	16	12
United.	Hong.Ko	1300	81	1219
United.	Iceland	110	34	76
United.	Indones	261	243	18
United.	Ireland	6182	740	5442
United.	Italy	4414	4301	113
United.	Jamaica	77	16	61
United.	Japan	1963	1383	580
United.	Korea.R	235	205	30
United.	Malaysi	519	90	429
United.	Mexico	437	599	-162

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United.	Myanmar	48	39	9
United.	Netherl	8937	5216	3721
United.	New.Zea	582	34	548
United.	Nicarag	6	14	-8
United.	Norway	1840	665	1175
United.	PAPUA.N	26	10	16
United.	Panama	81	18	63
United.	Paragua	31	19	12
United.	Peru	108	90	18
United.	Phillip	207	138	69
United.	Portuga	906	464	442
United.	Singapo	763	30	733
United.	Spain	1771	2585	-814
United.	Surinam	19	7	12
United.	Sweden	3773	996	2777
United.	Switzer	2906	1557	1349
United.	TRINIDA	280	39	241
United.	Taiwan	0	134	-134
United.	Thailan	225	172	53
United.	USA	10273	5472	4801
United.	Uruguay	62	29	33
United.	Venezue	320	228	92

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EC :1985 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Belgium	Argenti	34	47	-13
Belgium	Austral	181	41	140
Belgium	Austria	449	287	162
Belgium	Bahamas	0	2	-2
Belgium	Barbado	2	1	1
Belgium	Belize	0	0	0
Belgium	Bolivia	6	5	1
Belgium	Brazil	68	163	-95
Belgium	Canada	388	190	198
Belgium	Chile	35	14	21
Belgium	China	313	390	-77
Belgium	Colombi	29	35	-6
Belgium	Costa.R	6	5	1
Belgium	DOMINIC	6	9	-3
Belgium	Denmark	586	277	309
Belgium	EL.SALV	4	5	-1
Belgium	Ecuador	10	12	-2
Belgium	Finland	252	122	130
Belgium	France	9232	5520	3712
Belgium	Germany	9972	8099	1873
Belgium	Greece	318	101	217
Belgium	Gustema	5	8	-3
Belgium	Guyana	6	1	5
Belgium	Haiti	3	4	-1
Belgium	Hondura	4	4	0
Belgium	Hong.Ko	228	23	205
Belgium	Iceland	19	7	12
Belgium	Indones	92	71	21
Belgium	Ireland	190	123	67
Belgium	Italy	3383	1242	2141
Belgium	Jamaica	5	3	2
Belgium	Japan	488	352	136
Belgium	Korea.R	125	63	62
Belgium	Malaysi	90	24	66
Belgium	Mexico	104	127	-23
Belgium	Myanmar	4	11	-7
Belgium	Netherl	8009	2472	5537
Belgium	New.Zea	38	8	30
Belgium	Nicarag	1	3	-2
Belgium	Norway	402	180	222
Belgium	PAPUA.N	6	2	4
Belgium	Panama	17	4	13
Belgium	Paragua	3	4	-1
Belgium	Peru	30	18	12
Belgium	Phillip	17	29	-12
Belgium	Portuga	166	105	61
Belgium	Singapo	104	9	95
Belgium	Spain	552	587	-35
Belgium	Surinam	5	1	4
Belgium	Sweden	779	267	512
Belgium	Switzer	1294	579	715
Belgium	TRINIDA	9	7	2
Belgium	Taiwan	162	38	124
Belgium	Thailan	91	46	45
Belgium	USA	3567	1253	2314
Belgium	United.	5193	4349	844
Belgium	Uruguay	4	5	-1
Belgium	Venezue	63	46	17

Denmark	Argenti	12	27	-15
Denmark	Austral	109	26	83
Denmark	Austria	134	187	-53
Denmark	Bahamas	6	1	5
Denmark	Barbado	1	1	0
Denmark	Belgium	289	277	12
Denmark	Belize	2	0	2
Denmark	Bolivia	1	3	-2
Denmark	Brazil	18	94	-76
Denmark	Canada	168	114	54
Denmark	Chile	12	8	4
Denmark	China	107	266	-159
Denmark	Colombi	9	20	-11
Denmark	Costa.R	2	3	-1
Denmark	DOMINIC	1	5	-4
Denmark	EL.SALV	2	3	-1
Denmark	Ecuador	6	7	-1
Denmark	Finland	351	136	215
Denmark	France	746	940	-194
Denmark	Germany	2749	1592	1157
Denmark	Greece	139	62	77
Denmark	Guatema	2	5	-3
Denmark	Guyana	0	1	-1
Denmark	Haiti	1	2	-1
Denmark	Hondura	3	2	1
Denmark	Hong.Ko	89	15	74
Denmark	Iceland	98	5	93
Denmark	Indones	18	47	-29
Denmark	Ireland	123	49	74
Denmark	Italy	776	599	177
Denmark	Jamaica	1	2	-1
Denmark	Japan	584	236	348
Denmark	Korea.R	84	43	41
Denmark	Malaysi	45	15	30
Denmark	Mexico	16	77	-61
Denmark	Myanmar	3	7	-4
Denmark	Netherl	608	461	147
Denmark	New.Zea	24	5	19
Denmark	Nicarag	2	2	0
Denmark	Norway	1154	239	915
Denmark	PAPUA.N	1	1	0
Denmark	Panama	159	3	156
Denmark	Paragua	1	2	-1
Denmark	Peru	3	11	-8
Denmark	Phillip	10	19	-9
Denmark	Portuga	42	46	-4
Denmark	Singapo	64	6	58
Denmark	Spain	159	237	-78
Denmark	Surinam	1	1	0
Denmark	Sweden	1922	387	1535
Denmark	Switzer	279	178	101
Denmark	TRINIDA	11	4	7
Denmark	Taiwan	46	25	21
Denmark	Thailan	49.6	31	19
Denmark	USA	1796	744	1052
Denmark	United.	2224	958	1266
Denmark	Uruguay	4	3	1
Denmark	Venezue	57	27	30
France	Argenti	239	214	25
France	Austral	477	182	295
France	Austria	713	1146	-433
France	Bahamas	14	10	4
France	Barbado	4	6	-2
France	Belgium	8315	5535	2780

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France	Belize	0	2	-2
France	Bolivia	12	24	-12
France	Brazil	401	752	-351
France	Canada	1067	857	210
France	Chile	77	65	12
France	China	781	1699	-918
France	Colombi	135	160	-25
France	Costa.R	14	21	-7
France	DOMINIC	14	39	-25
France	Denmark	808	943	-135
France	EL.SALV	7	22	-15
France	Ecuador	27	55	-28
France	Finland	431	476	-45
France	Germany	16822	18436	-1614
France	Greece	766	452	314
France	Guatema	16	37	-21
France	Guyana	2	4	-2
France	Haiti	25	17	8
France	Hondura	17	16	1
France	Hong.Ko	416	101	315
France	Iceland	23	32	-9
France	Indones	414	316	98
France	Ireland	452	548	-96
France	Italy	10680	5875	4805
France	Jamaica	14	16	-2
France	Japan	1335	1538	-203
France	Korea.R	467	275	192
France	Malaysi	128	104	24
France	Mexico	297	574	-277
France	Myanmar	11	48	-37
France	Netherl	4749	4735	14
France	New.Zea	71	37	34
France	Nicarag	36	15	21
France	Norway	562	661	-99
France	PAPUA.N	2	9	-7
France	Panama	89	20	69
France	Paragua	23	17	6
France	Peru	64	84	-20
France	Phillip	70	126	-56
France	Portuga	697	548	149
France	Singapo	481	39	442
France	Spain	3348	3238	110
France	Surinam	2	5	-3
France	Sweden	1446	1006	440
France	Switzer	4113	2878	1235
France	TRINIDA	10	33	-23
France	Taiwan	207	165	42
France	Thailan	314	202	112
France	USA	9960	5662	4298
France	United.	8577	18332	-9755
France	Uruguay	21	23	-2
France	Venezue	316	213	103
Germany	Argenti	515	231	284
Germany	Austral	1576	207	1369
Germany	Austria	9386	1786	7600
Germany	Bahamas	26	11	15
Germany	Barbado	11	7	4
Germany	Belgium	12641	8123	4518
Germany	Belize	1	2	-1
Germany	Bolivia	29	26	3
Germany	Brazil	826	804	22
Germany	Canada	1877	925	952
Germany	Chile	210	70	140
Germany	China	2230	1985	245

Germany	Colombi	244	172	72
Germany	Costa.R	50	23	27
Germany	DOMINIC	43	42	1
Germany	Denmark	4063	1598	2465
Germany	EL.SALV	34	23	11
Germany	Ecuador	134	59	75
Germany	Finland	1901	654	1247
Germany	France	21840	18439	3401
Germany	Greece	1874	546	1328
Germany	Guatema	59	40	19
Germany	Guyana	2	4	-2
Germany	Haiti	12	18	-6
Germany	Hondura	24	18	6
Germany	Hong.Ko	739	118	621
Germany	Iceland	104	35	69
Germany	Indones	589	363	226
Germany	Ireland	895	503	392
Germany	Italy	14270	6798	7472
Germany	Jamaica	14	17	-3
Germany	Japan	2707	1779	928
Germany	Korea.R	689	319	370
Germany	Malaysi	357	120	237
Germany	Mexico	813	625	188
Germany	Myanmar	75	56	19
Germany	Netherl	15819	9302	6517
Germany	New.Zea	250	42	208
Germany	Nicarag	16	17	-1
Germany	Norway	2345	931	1414
Germany	PAPUA.N	12	11	1
Germany	Panama	83	21	62
Germany	Paragua	26	19	7
Germany	Peru	122	91	31
Germany	Philip	169	146	23
Germany	Portuga	904	488	416
Germany	Singapo	778	45	733
Germany	Spain	3432	2727	705
Germany	Surinam	8	6	2
Germany	Sweden	5040	1444	3596
Germany	Switzer	9896	3322	6574
Germany	TRINIDA	29	35	-6
Germany	Taiwan	716	192	524
Germany	Thailan	402	235	167
Germany	USA	21232	6094	15138
Germany	United.	15748	13939	1809
Germany	Uruguay	55	25	30
Germany	Venezue	358	227	131
Greece	Argenti	0.1	26	-26
Greece	Austral	30	26	4
Greece	Austria	77	122	-45
Greece	Bahamas	1	1	0
Greece	Barbado	0	1	-1
Greece	Belgium	95	101	-6
Greece	Belize	0	0	0
Greece	Bolivia	0	3	-3
Greece	Brazil	0	90	-90
Greece	Canada	35	83	-48
Greece	Chile	0	8	-8
Greece	China	66	238	-172
Greece	Colombi	0	18	-18
Greece	Costa.R	0	2	-2
Greece	DOMINIC	0	4	-4
Greece	Denmark	40	62	-22
Greece	EL.SALV	0	2	-2
Greece	Ecuador	0	6	-6

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Greece	Finland	24	49	-25
Greece	France	495	451	44
Greece	Germany	1119	544	575
Greece	Guatema	0	4	-4
Greece	Guyana	0	0	0
Greece	Haiti	0	2	-2
Greece	Hondura	0	2	-2
Greece	Hong.Ko	7	15	-8
Greece	Iceland	0	2	-2
Greece	Indones	0	48	-48
Greece	Ireland	16	21	-5
Greece	Italy	744	803	-59
Greece	Jamaica	0	2	-2
Greece	Japan	64	205	-141
Greece	Korea.R	213	38	175
Greece	Malaysi	1	16	-15
Greece	Mexico	3	62	-59
Greece	Myanmar	0	8	-8
Greece	Netherl	176	134	42
Greece	New.Zea	7	5	2
Greece	Nicarag	0	2	-2
Greece	Norway	20	46	-26
Greece	PAPUA.N	0	1	-1
Greece	Panama	2	2	0
Greece	Paragua	1	2	-1
Greece	Peru	0	10	-10
Greece	Philip	1.8	18	-16
Greece	Portuga	5.5	38	-32
Greece	Singapo	3	6	-3
Greece	Spain	59	197	-138
Greece	Surinam	0	1	-1
Greece	Sweden	47	86	-39
Greece	Switzer	56	107	-51
Greece	TRINIDA	0	4	-4
Greece	Taiwan	2	24	-22
Greece	Thailan	5	31	-26
Greece	USA	428	560	-132
Greece	United.	411	380	31
Greece	Uruguay	0	3	-3
Greece	Venezue	1	23	-22
Ireland	Argenti	5	13	-8
Ireland	Austral	107	11	96
Ireland	Austria	47	45	2
Ireland	Bahamas	8	1	7
Ireland	Barbado	2	0	2
Ireland	Belgium	305	123	182
Ireland	Belize	0	0	0
Ireland	Bolivia	0	2	-2
Ireland	Brazil	11	47	-36
Ireland	Canada	158	61	97
Ireland	Chile	2	4	-2
Ireland	China	7	104	-97
Ireland	Colombi	5	10	-5
Ireland	Costa.R	4	1	3
Ireland	DOMINIC	1	3	-2
Ireland	Denmark	91	49	42
Ireland	EL.SALV	2	1	1
Ireland	Ecuador	3	4	-1
Ireland	Finland	59	28	31
Ireland	France	769	545	224
Ireland	Germany	1071	500	571
Ireland	Greece	50	21	29
Ireland	Guatema	3	2	1
Ireland	Guyana	0	0	0

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Ireland	Haiti	0	1	-1
Ireland	Hondura	3	1	2
Ireland	Hong.Ko	13	6	7
Ireland	Iceland	3	3	0
Ireland	Indones	9	19	-10
Ireland	Italy	374	220	154
Ireland	Jamaica	1	1	0
Ireland	Japan	211	96	115
Ireland	Korea.R	10	17	-7
Ireland	Malaysi	9	6	3
Ireland	Mexico	41	38	3
Ireland	Myanmar	0	3	-3
Ireland	Netherl	525	171	354
Ireland	New.Zea	20	2	18
Ireland	Nicarag	3	1	2
Ireland	Norway	88	43	45
Ireland	PAPUA.N	1	1	0
Ireland	Panama	4	1	3
Ireland	Paragua	0	1	-1
Ireland	Peru	3	5	-2
Ireland	Phillip	5	8	-3
Ireland	Portuga	26	30	-4
Ireland	Singapo	11	2	9
Ireland	Spain	156	148	8
Ireland	Surinam	0	0	0
Ireland	Sweden	143	59	84
Ireland	Switzer	147	69	78
Ireland	TRINIDA	5	2	3
Ireland	Taiwan	10	10	0
Ireland	Thailan	14.3	12	2
Ireland	USA	942	393	549
Ireland	United.	3657	847	2810
Ireland	Uruguay	1	1	0
Ireland	Venezue	29	14	15
Italy	Argenti	226	197	29
Italy	Austral	780	176	604
Italy	Austria	1739	1417	322
Italy	Bahamas	7	9	-2
Italy	Barbado	3	5	-2
Italy	Belgium	2343	1245	1098
Italy	Belize	1	1	0
Italy	Bolivia	4	21	-17
Italy	Brazil	217	685	-468
Italy	Canada	986	675	311
Italy	Chile	49	59	-10
Italy	China	797	1594	-797
Italy	Colombi	94	137	-43
Italy	Costa.R	29	18	11
Italy	DOMINIC	0	32	-32
Italy	Denmark	654	601	53
Italy	EL.SALV	14	18	-4
Italy	Ecuador	48	47	1
Italy	Finland	411	386	25
Italy	France	10861	5874	4987
Italy	Germany	12731	6796	5935
Italy	Greece	1382	806	576
Italy	Guatema	10	31	-21
Italy	Guyana	1	4	-3
Italy	Haiti	14	14	0
Italy	Hondura	13	14	-1
Italy	Hong.Ko	464	98	366
Italy	Iceland	22	20	2
Italy	Indones	128	313	-185
Italy	Ireland	190	221	-31

Italy	Jamaica	10	13	-3
Italy	Japan	1058	1409	-351
Italy	Korea.R	207	255	-48
Italy	Malaysi	113	103	10
Italy	Mexico	241	481	-240
Italy	Myanmar	9	48	-39
Italy	Netherl	2445	1548	897
Italy	New.Zea	90	35	55
Italy	Nicarag	16	13	3
Italy	Norway	434	420	14
Italy	PAPUA.N	2	9	-7
Italy	Panama	182	17	165
Italy	Paragua	8	16	-8
Italy	Peru	45	74	-29
Italy	Phillip	32	121	-89
Italy	Portuga	434	403	31
Italy	Singapo	376	39	337
Italy	Spain	1347	2363	-1016
Italy	Surinam	6	5	1
Italy	Sweden	869	740	129
Italy	Switzer	3211	1761	1450
Italy	TRINIDA	8	28	-20
Italy	Taiwan	170	157	13
Italy	Thailan	88	200	-112
Italy	USA	10381	4531	5850
Italy	United.	5570	4388	1182
Italy	Uruguay	18	22	-4
Italy	Venezue	435	181	254
Netherl	Argenti	50	63	-13
Netherl	Austral	286	56	230
Netherl	Austria	623	385	238
Netherl	Bahamas	8	3	5
Netherl	Barbado	6	2	4
Netherl	Belgium	9544	2473	7071
Netherl	Belize	6	1	5
Netherl	Bolivia	9	7	2
Netherl	Brazil	121	220	-99
Netherl	Canada	455	262	193
Netherl	Chile	24	19	5
Netherl	China	274	542	-268
Netherl	Colombi	45	48	-3
Netherl	Costa.R	9	6	3
Netherl	DOMINIC	10	12	-2
Netherl	Denmark	1030	462	568
Netherl	EL.SALV	7	6	1
Netherl	Ecuador	35	16	19
Netherl	Finland	411	182	229
Netherl	France	6522	4725	1797
Netherl	Germany	19940	9280	10660
Netherl	Greece	595	134	461
Netherl	Guatema	12	11	1
Netherl	Guyana	4	1	3
Netherl	Haiti	12	5	7
Netherl	Hondura	16	5	11
Netherl	Hong.Ko	164	32	132
Netherl	Iceland	68	11	57
Netherl	Indones	162	98	64
Netherl	Ireland	334	171	163
Netherl	Italy	4639	1545	3094
Netherl	Jamaica	9	5	4
Netherl	Japan	442	489	-47
Netherl	Korea.R	166	87	79
Netherl	Malaysi	74	32	42
Netherl	Mexico	71	174	-103

Netherl	Myanmar	17	15	2
Netherl	New.Zea	74	11	63
Netherl	Nicarag	8	5	3
Netherl	Norway	574	289	285
Netherl	PAPUA.N	4	3	1
Netherl	Panama	21	6	15
Netherl	Paragua	3	5	-2
Netherl	Peru	23	25	-2
Netherl	Phillip	44	40	4
Netherl	Portuga	267	132	135
Netherl	Singapo	215	12	203
Netherl	Spain	745	716	29
Netherl	Surinam	33	2	31
Netherl	Sweden	1138	413	725
Netherl	Switzer	1139	624	515
Netherl	TRINIDA	20	10	10
Netherl	Taiwan	174	52	122
Netherl	Thailan	73	63	10
Netherl	USA	4368	1717	2651
Netherl	United.	8432	5324	3108
Netherl	Uruguay	7	7	0
Netherl	Venezue	94	63	31
United.	Argenti	5	202	-197
United.	Austral	1786	172	1614
United.	Austria	497	924	-427
United.	Bahamas	88	10	78
United.	Barbado	48	6	42
United.	Belgium	4348	4361	-13
United.	Belize	11	2	9
United.	Bolivia	13	23	-10
United.	Brazil	273	711	-438
United.	Canada	2232	858	1374
United.	Chile	96	61	35
United.	China	515	1633	-1118
United.	Colombi	108	155	-47
United.	Costa.R	19	21	-2
United.	DOMINIC	19	38	-19
United.	Denmark	1770	961	809
United.	EL.SALV	11	21	-10
United.	Ecuador	76	53	23
United.	Finland	907	474	433
United.	France	9974	18330	-8356
United.	Germany	12641	13935	-1294
United.	Greece	435	381	54
United.	Guatema	18	36	-18
United.	Guyana	24	4	20
United.	Haiti	7	17	-10
United.	Hondura	12	16	-4
United.	Hong.Ko	1221	97	1124
United.	Iceland	99	36	63
United.	Indones	229	298	-69
United.	Ireland	4732	852	3880
United.	Italy	4469	4388	81
United.	Jamaica	57	15	42
United.	Japan	1833	1488	345
United.	Korea.R	318	265	53
United.	Malaysi	362	98	264
United.	Mexico	269	562	-293
United.	Myanmar	25	46	-21
United.	Netherl	9431	5335	4096
United.	New.Zea	517	35	482
United.	Nicarag	8	15	-7
United.	Norway	1472	725	747
United.	PAPUA.N	16	9	7

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United.	Panama	74	19	55
United.	Paragua	21	16	5
United.	Peru	52	81	-29
United.	Phillip	121	120	1
United.	Portuga	560	481	79
United.	Singapo	796	37	759
United.	Spain	2067	2599	-532
United.	Surinam	12	5	7
United.	Sweden	3873	1028	2845
United.	Switzer	1705	1658	47
United.	TRINIDA	122	32	90
United.	Taiwan	212	158	54
United.	Thailan	204	191	13
United.	USA	15573	5622	9951
United.	Uruguay	20	22	-2
United.	Venezue	217	206	11

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ANDEAN : 1975 ($ Million)

Importer	Exporter	Actual Imports	Projected Importst	GTC	TD
Bolivia	Argenti	130.7	19.4		111.3
Bolivia	Austral	0	4.1		-4.1
Bolivia	Austria	0	2.4		-2.4
Bolivia	Bahamas	0	.	.	
Bolivia	Barbado	0	0.3		-0.3
Bolivia	Belgium	31	3.5		27.5
Bolivia	Belize	0	.	.	
Bolivia	Brazil	17	40.2		-23.2
Bolivia	Canada	5	11.0		-6.0
Bolivia	Chile	10.9	6.2		4.7
Bolivia	China	0	9.9		-9.9
Bolivia	Colombi	1.1	8.2		-7.1
Bolivia	Costa.R	0	1.0		-1.0
Bolivia	DOMINIC	0	1.3		-1.3
Bolivia	Denmark	0	2.0		-2.0
Bolivia	EL.SALV	0	1.1		-1.1
Bolivia	Ecuador	0	3.6		-3.6
Bolivia	Finland	0	1.6		-1.6
Bolivia	France	10	13.8		-3.8
Bolivia	Germany	20	15.1		4.9
Bolivia	Greece	0	1.7		-1.7
Bolivia	Guatema	0	1.6		-1.6
Bolivia	Guyana	0	0.5		-0.5
Bolivia	Haiti	0	0.6		-0.6
Bolivia	Hondura	0	0.6		-0.6
Bolivia	Hong.Ko	2	0.6		1.4
Bolivia	Iceland	0	0.1		-0.1
Bolivia	Indones	0	2.4		-2.4
Bolivia	Ireland	0	0.9		-0.9
Bolivia	Italy	2	11.4		-9.4
Bolivia	Jamaica	0.1	0.8		-0.7
Bolivia	Japan	21	13.7		7.3
Bolivia	Korea.R	0	1.8		-1.8
Bolivia	Malaysi	0	0.8		-0.8
Bolivia	Mexico	1	14.6		-13.6
Bolivia	Myanmar	0	0.4		-0.4
Bolivia	Netherl	1	4.6		-3.6
Bolivia	New.Zea	0.1	1.3		-1.2
Bolivia	Nicarag	0	0.9		-0.9
Bolivia	Norway	0	1.5		-1.5
Bolivia	PAPUA.N	0	0.2		-0.2
Bolivia	Panama	0	0.9		-0.9
Bolivia	Paragua	0.33	1.6		-1.3
Bolivia	Peru	5.4	14.1		-8.7
Bolivia	Phillip	0	1.5		-1.5
Bolivia	Portuga	0	1.9		-1.9
Bolivia	Singapo	0	0.3		-0.3
Bolivia	Spain	22	8.1		13.9
Bolivia	Surinam	0	0.3		-0.3
Bolivia	Sweden	0	3.2		-3.2
Bolivia	Switzer	0	3.0		-3.0
Bolivia	TRINIDA	0	1.4		-1.4
Bolivia	Taiwan	0	1.1		-1.1
Bolivia	Thailan	0.8	1.5		-0.7
Bolivia	USA	93	81.1		11.9
Bolivia	United.	42	13.0		29.0
Bolivia	Uruguay	0.2	2.4		-2.2

Bolivia	Venezue	0	9.1	-9.1
Colombi	Argenti	27.2	46.8	-19.6
Colombi	Austral	0	17.6	-17.6
Colombi	Austria	10	12.6	-2.6
Colombi	Bahamas	0	.	.
Colombi	Barbado	1	2.6	-1.6
Colombi	Belgium	19	18.6	0.4
Colombi	Belize	0.2	.	.
Colombi	Bolivia	6.5	8.4	-1.9
Colombi	Brazil	13	117.1	-104.1
Colombi	Canada	31	74.9	-43.9
Colombi	Chile	99	14.0	85.0
Colombi	China	0	52.9	-52.9
Colombi	Costa.R	5.6	11.7	-6.1
Colombi	DOMINIC	20.9	13.5	7.4
Colombi	Denmark	14	10.6	3.4
Colombi	EL.SALV	3.8	9.9	-6.1
Colombi	Ecuador	36.1	44.7	-8.6
Colombi	Finland	37	8.7	28.3
Colombi	France	36	73.6	-37.6
Colombi	Germany	228	80.3	147.7
Colombi	Greece	2	8.5	-6.5
Colombi	Guatema	10.7	13.9	-3.2
Colombi	Guyana	0.1	3.5	-3.4
Colombi	Haiti	1.3	6.8	-5.5
Colombi	Hondura	1.1	5.8	-4.7
Colombi	Hong.Ko	1	3.3	-2.3
Colombi	Iceland	0	0.8	-0.8
Colombi	Indones	0	10.1	-10.1
Colombi	Ireland	7	5.1	1.9
Colombi	Italy	41	58.7	-17.7
Colombi	Jamaica	0.9	9.1	-8.2
Colombi	Japan	36	72.9	-36.9
Colombi	Korea.R	0	9.7	-9.7
Colombi	Malaysi	0	3.6	-3.6
Colombi	Mexico	7	107.0	-100.0
Colombi	Myanmar	0	1.9	-1.9
Colombi	Netherl	93	24.7	68.3
Colombi	New.Zea	0	5.6	-5.6
Colombi	Nicarag	2.3	8.8	-6.5
Colombi	Norway	9	8.0	1.0
Colombi	PAPUA.N	0	1.1	-1.1
Colombi	Panama	13.6	15.3	-1.7
Colombi	Paragua	0.3	3.3	-3.0
Colombi	Peru	33.7	40.0	-6.3
Colombi	Philip	0	7.6	-7.6
Colombi	Portuga	0.4	9.9	-9.5
Colombi	Singapo	1	1.5	-0.5
Colombi	Spain	43	42.6	0.4
Colombi	Surinam	0.3	1.9	-1.6
Colombi	Sweden	56	17.2	38.8
Colombi	Switzer	22	15.6	6.4
Colombi	TRINIDA	1.5	12.4	-10.9
Colombi	Taiwan	0	6.0	-6.0
Colombi	Thailan	0.1	7.4	-7.3
Colombi	USA	636	586.5	49.5
Colombi	United.	55	70.1	-15.1
Colombi	Uruguay	0.6	6.0	-5.4
Colombi	Venezue	83	111.1	-28.1
Ecuador	Argenti	11.1	19.3	-8.2
Ecuador	Austral	0	7.1	-7.1
Ecuador	Austria	7	4.6	2.4
Ecuador	Bahamas	0	.	.
Ecuador	Barbado	0	0.8	-0.8

Ecuador	Belgium	8	6.7	1.3
Ecuador	Belize	0	.	.
Ecuador	Bolivia	0.3	3.7	-3.4
Ecuador	Brazil	6	44.3	-38.3
Ecuador	Canada	20	26.3	-6.3
Ecuador	Chile	91.3	6.0	85.3
Ecuador	China	1	20.1	-19.1
Ecuador	Colombi	21.4	44.0	-22.6
Ecuador	Costa.R	1	4.4	-3.4
Ecuador	DOMINIC	0	3.8	-3.8
Ecuador	Denmark	2	3.8	-1.8
Ecuador	EL.SALV	0.2	3.8	-3.6
Ecuador	Finland	6	3.2	2.8
Ecuador	France	16	26.6	-10.6
Ecuador	Germany	63	29.1	33.9
Ecuador	Greece	9	3.1	5.9
Ecuador	Guatema	0.1	5.5	-5.4
Ecuador	Guyana	0	1.0	-1.0
Ecuador	Haiti	0	2.0	-2.0
Ecuador	Hondura	0	2.2	-2.2
Ecuador	Hong.Ko	0	1.2	-1.2
Ecuador	Iceland	0	0.3	-0.3
Ecuador	Indones	0	4.1	-4.1
Ecuador	Ireland	5	1.8	3.2
Ecuador	Italy	34	21.3	12.7
Ecuador	Jamaica	0.1	2.7	-2.6
Ecuador	Japan	14	28.1	-14.1
Ecuador	Korea.R	0	3.7	-3.7
Ecuador	Malaysi	0	1.4	-1.4
Ecuador	Mexico	8	42.0	-34.0
Ecuador	Myanmar	0	0.7	-0.7
Ecuador	Netherl	7	8.9	-1.9
Ecuador	New.Zea	6.8	2.3	4.5
Ecuador	Nicarag	0	3.4	-3.4
Ecuador	Norway	3	2.9	0.1
Ecuador	PAPUA.N	0	0.4	-0.4
Ecuador	Panama	129.8	4.6	125.2
Ecuador	Paragua	0.1	1.3	-1.2
Ecuador	Peru	118.2	21.3	96.9
Ecuador	Phillip	0	2.9	-2.9
Ecuador	Portuga	0	3.5	-3.5
Ecuador	Singapo	0	0.6	-0.6
Ecuador	Spain	2	15.3	-13.3
Ecuador	Surinam	0	0.6	-0.6
Ecuador	Sweden	9	6.3	2.7
Ecuador	Switzer	7	5.7	1.3
Ecuador	TRINIDA	0	3.4	-3.4
Ecuador	Taiwan	0	2.3	-2.3
Ecuador	Thailan	0	2.8	-2.8
Ecuador	USA	515	202.9	312.1
Ecuador	United.	5	25.3	-20.3
Ecuador	Uruguay	0.1	2.5	-2.4
Ecuador	Venezue	1	26.7	-25.7
Peru	Argenti	41.5	55.0	-13.5
Peru	Austral	1	16.0	-15.0
Peru	Austria	5	9.0	-4.0
Peru	Bahamas	0	.	.
Peru	Barbado	0	1.2	-1.2
Peru	Belgium	23	13.2	9.8
Peru	Belize	0	.	.
Peru	Bolivia	5.5	14.4	-8.9
Peru	Brazil	47	110.0	-63.0
Peru	Canada	11	45.4	-34.4
Peru	Chile	46.3	18.8	27.5

Peru	China	50	39.6	10.4
Peru	Colombi	18	39.9	-21.9
Peru	Costa.R	0.7	5.1	-4.4
Peru	DOMINIC	0.2	5.6	-5.4
Peru	Denmark	3	7.5	-4.5
Peru	EL.SALV	1.2	5.3	-4.1
Peru	Ecuador	10.1	21.5	-11.4
Peru	Finland	10	6.2	3.8
Peru	France	53	52.0	1.0
Peru	Germany	110	57.0	53.0
Peru	Greece	0	6.3	-6.3
Peru	Guatema	0.3	7.7	-7.4
Peru	Guyana	0	1.8	-1.8
Peru	Haiti	0	2.8	-2.8
Peru	Hondura	0	2.9	-2.9
Peru	Hong.Ko	0	2.5	-2.5
Peru	Iceland	0	0.6	-0.6
Peru	Indones	0	9.1	-9.1
Peru	Ireland	0	3.5	-3.5
Peru	Italy	41	42.5	-1.5
Peru	Jamaica	0.3	3.7	-3.4
Peru	Japan	206	56.0	150.0
Peru	Korea.R	0	7.4	-7.4
Peru	Malaysi	0	3.0	-3.0
Peru	Mexico	9	67.9	-58.9
Peru	Myanmar	0	1.5	-1.5
Peru	Netherl	30	17.4	12.6
Peru	New.Zea	0.1	5.2	-5.1
Peru	Nicarag	0.1	4.3	-4.2
Peru	Norway	1	5.6	-4.6
Peru	PAPUA.N	0	0.9	-0.9
Peru	Panama	0.6	4.7	-4.1
Peru	Paragua	0	3.9	-3.9
Peru	Phillip	7.9	6.0	1.9
Peru	Portuga	0.9	7.0	-6.1
Peru	Singapo	1	1.3	-0.3
Peru	Spain	14	30.1	-16.1
Peru	Surinam	0	1.1	-1.1
Peru	Sweden	3	12.2	-9.2
Peru	Switzer	16	11.1	4.9
Peru	TRINIDA	0.5	5.5	-5.0
Peru	Taiwan	3	4.6	-1.6
Peru	Thailan	0	5.6	-5.6
Peru	USA	431	340.0	91.0
Peru	United.	64	49.2	14.8
Peru	Uruguay	1.4	6.9	-5.5
Peru	Venezue	12	37.9	-25.9
Venezue	Argenti	48	58.0	-10.0
Venezue	Austral	0	22.2	-22.2
Venezue	Austria	0	18.6	-18.6
Venezue	Bahamas	42		
Venezue	Barbado	18	7.0	11.0
Venezue	Belgium	22	27.9	-5.9
Venezue	Belize	0		
Venezue	Bolivia	0	9.4	-9.4
Venezue	Brazil	95	159.9	-64.9
Venezue	Canada	1094	113.3	980.7
Venezue	Chile	30	16.5	13.5
Venezue	China	0	73.4	-73.4
Venezue	Colombi	22	111.7	-89.7
Venezue	Costa.R	49	10.9	38.1
Venezue	DOMINIC	109	29.3	79.7
Venezue	Denmark	1	15.7	-14.7
Venezue	EL.SALV	63	10.8	52.2

Venezue	Ecuador	8	27.3	-19.3
Venezue	Finland	1	12.8	-11.8
Venezue	France	70	110.5	-40.5
Venezue	Germany	122	119.9	2.1
Venezue	Greece	0	12.5	-12.5
Venezue	Guatema	53	15.3	37.7
Venezue	Guyana	0	7.4	-7.4
Venezue	Haiti	0	12.9	-12.9
Venezue	Hondura	56	6.4	49.6
Venezue	Hong.Ko	1	4.5	-3.5
Venezue	Iceland	0	1.3	-1.3
Venezue	Indones	0	14.0	-14.0
Venezue	Ireland	0	7.7	-7.7
Venezue	Italy	126	87.4	38.6
Venezue	Jamaica	141	13.6	127.4
Venezue	Japan	27	98.7	-71.7
Venezue	Korea.R	0	13.4	-13.4
Venezue	Malaysi	0	5.1	-5.1
Venezue	Mexico	65	128.5	-63.5
Venezue	Myanmar	0	2.7	-2.7
Venezue	Netherl	145	36.9	108.1
Venezue	New.Zea	0	7.0	-7.0
Venezue	Nicarag	53	9.1	43.9
Venezue	Norway	0	11.8	-11.8
Venezue	PAPUA.N	0	1.4	-1.4
Venezue	Panama	112	12.1	99.9
Venezue	Paragua	0	4.1	-4.1
Venezue	Peru	87	38.2	48.8
Venezue	Phillip	0	10.3	-10.3
Venezue	Portuga	0	15.2	-15.2
Venezue	Singapo	0	2.1	-2.1
Venezue	Spain	101	64.6	36.4
Venezue	Surinam	0	3.7	-3.7
Venezue	Sweden	66	25.4	40.6
Venezue	Switzer	2	23.4	-21.4
Venezue	TRINIDA	15	39.2	-24.2
Venezue	Taiwan	0	8.2	-8.2
Venezue	Thailan	0	10.4	-10.4
Venezue	USA	3477	895.2	2581.8
Venezue	United.	338	105.3	232.7
Venezue	Uruguay	16	7.5	8.5

ANDEAN :1980 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC
			TD	
Bolivia	Argenti	252.4	42.5	209.9
Bolivia	Austral	0	7.8	-7.8
Bolivia	Austria	1	4.4	-3.4
Bolivia	Bahamas	0	0.5	-0.5
Bolivia	Barbado	0	0.5	-0.5
Bolivia	Belgium	56	6.5	49.5
Bolivia	Belize	0	0.2	-0.2
Bolivia	Brazil	47	107.5	-60.5
Bolivia	Canada	14	24.5	-10.5
Bolivia	Chile	56	14.6	41.4
Bolivia	China	0	23.7	-23.7
Bolivia	Colombi	5.8	18.8	-13.0
Bolivia	Costa.R	0	2.0	-2.0
Bolivia	DOMINIC	0	2.6	-2.6
Bolivia	Denmark	0	3.4	-3.4
Bolivia	EL.SALV	0	1.8	-1.8
Bolivia	Ecuador	1.7	8.5	-6.8
Bolivia	Finland	0	2.8	-2.8
Bolivia	France	44	28.9	15.1
Bolivia	Germany	28	32.0	-4.0
Bolivia	Greece	0	3.2	-3.2
Bolivia	Guatema	0	3.2	-3.2
Bolivia	Guyana	0	0.5	-0.5
Bolivia	Haiti	0	1.2	-1.2
Bolivia	Hondura	0	1.2	-1.2
Bolivia	Hong.Ko	0	1.5	-1.5
Bolivia	Iceland	0	0.3	-0.3
Bolivia	Indones	0	6.1	-6.1
Bolivia	Ireland	0	1.6	-1.6
Bolivia	Italy	5	25.5	-20.5
Bolivia	Jamaica	0	1.1	-1.1
Bolivia	Japan	29	30.5	-1.5
Bolivia	Korea.R	0	4.0	-4.0
Bolivia	Malaysi	0	1.9	-1.9
Bolivia	Mexico	0	37.4	-37.4
Bolivia	Myanmar	0	0.7	-0.7
Bolivia	Netherl	18	8.6	9.4
Bolivia	New.Zea	0	2.1	-2.1
Bolivia	Nicarag	0	1.2	-1.2
Bolivia	Norway	0	3.0	-3.0
Bolivia	PAPUA.N	0	0.3	-0.3
Bolivia	Panama	0.1	1.8	-1.7
Bolivia	Paragua	0.07	4.4	-4.3
Bolivia	Peru	10.8	28.5	-17.7
Bolivia	Philip	0	2.9	-2.9
Bolivia	Portuga	0.9	3.6	-2.7
Bolivia	Singapo	0	0.7	-0.7
Bolivia	Spain	2	15.4	-13.4
Bolivia	Surinam	0	0.6	-0.6
Bolivia	Sweden	1	5.4	-4.4
Bolivia	Switzer	2	5.1	-3.1
Bolivia	TRINIDA	0	3.2	-3.2
Bolivia	Taiwan	0	2.6	-2.6
Bolivia	Thailan	0.1	3.3	-3.2
Bolivia	USA	189	199.4	-10.4
Bolivia	United.	77	26.9	50.1
Bolivia	Uruguay	1.1	4.6	-3.5
Bolivia	Venezue	3	20.5	-17.5

Colombi	Argenti	52.1	107.1	-55.0
Colombi	Austral	3	36.4	-33.4
Colombi	Austria	42	25.6	16.4
Colombi	Bahamas	0	4.7	-4.7
Colombi	Barbado	0.6	4.4	-3.8
Colombi	Belgium	58	38.4	19.6
Colombi	Belize	0.4	1.7	-1.3
Colombi	Bolivia	2	18.1	-16.1
Colombi	Brazil	10	331.2	-321.2
Colombi	Canada	86	188.4	-102.4
Colombi	Chile	79.5	34.4	45.1
Colombi	China	8	140.2	-132.2
Colombi	Costa.R	5.2	26.4	-21.2
Colombi	DOMINIC	5.4	31.0	-25.6
Colombi	Denmark	52	20.3	31.7
Colombi	EL.SALV	4.1	19.4	-15.3
Colombi	Ecuador	58.1	123.5	-65.4
Colombi	Finland	119	17.0	102.0
Colombi	France	146	171.1	-25.1
Colombi	Germany	690	188.9	501.1
Colombi	Greece	1	17.8	-16.8
Colombi	Guatema	3.9	31.8	-27.9
Colombi	Guyana	0	4.3	-4.3
Colombi	Haiti	0.6	15.0	-14.4
Colombi	Hondura	4	13.7	-9.7
Colombi	Hong.Ko	1	8.8	-7.8
Colombi	Iceland	0.3	1.7	-1.4
Colombi	Indones	0	27.4	-27.4
Colombi	Ireland	10	9.9	0.1
Colombi	Italy	184	145.1	38.9
Colombi	Jamaica	0.9	14.2	-13.3
Colombi	Japan	175	179.3	-4.3
Colombi	Korea.R	5	23.5	-18.5
Colombi	Malaysi	0	9.5	-9.5
Colombi	Mexico	17	309.9	-292.9
Colombi	Myanmar	0	3.8	-3.8
Colombi	Netherl	240	51.5	188.5
Colombi	New.Zea	0.2	9.6	-9.4
Colombi	Nicarag	0	13.9	-13.9
Colombi	Norway	54	18.3	35.7
Colombi	PAPUA.N	0	1.7	-1.7
Colombi	Panama	10.1	34.5	-24.4
Colombi	Paragua	0.2	9.1	-8.9
Colombi	Peru	13.8	85.4	-71.6
Colombi	Phillip	0.7	16.4	-15.7
Colombi	Portuga	13.4	20.9	-7.5
Colombi	Singapo	4	3.2	0.8
Colombi	Spain	166	90.0	76.0
Colombi	Surinam	0.4	4.0	-3.6
Colombi	Sweden	151	32.2	118.8
Colombi	Switzer	69	29.8	39.2
Colombi	TRINIDA	14.5	32.6	-18.1
Colombi	Taiwan	0	15.3	-15.3
Colombi	Thailan	0.1	17.7	-17.6
Colombi	USA	1327	1634.8	-307.8
Colombi	United.	80	161.4	-81.4
Colombi	Uruguay	1.3	11.9	-10.6
Colombi	Venezue	183	296.3	-113.3
Ecuador	Argenti	61.1	46.6	14.5
Ecuador	Austral	2	15.6	-13.6
Ecuador	Austria	19	9.7	9.3
Ecuador	Bahamas	0	1.6	-1.6
Ecuador	Barbado	0	1.3	-1.3
Ecuador	Belgium	12	14.5	-2.5

Ecuador	Belize	0	0.7	-0.7
Ecuador	Bolivia	0.6	8.4	-7.8
Ecuador	Brazil	36	131.1	-95.1
Ecuador	Canada	35	68.9	-33.9
Ecuador	Chile	270.6	15.6	255.0
Ecuador	China	0	55.7	-55.7
Ecuador	Colombi	75.4	126.0	-50.6
Ecuador	Costa.R	1.9	10.5	-8.6
Ecuador	DOMINIC	0	9.0	-9.0
Ecuador	Denmark	6	7.7	-1.7
Ecuador	EL.SALV	0.2	7.9	-7.7
Ecuador	Finland	4	6.5	-2.5
Ecuador	France	46	64.5	-18.5
Ecuador	Germany	73	71.4	1.6
Ecuador	Greece	4	6.8	-2.8
Ecuador	Guatema	0.5	13.1	-12.6
Ecuador	Guyana	0	1.3	-1.3
Ecuador	Haiti	0	4.4	-4.4
Ecuador	Hondura	0	5.4	-5.4
Ecuador	Hong.Ko	1	3.5	-2.5
Ecuador	Iceland	0	0.6	-0.6
Ecuador	Indones	0	11.6	-11.6
Ecuador	Ireland	11	3.7	7.3
Ecuador	Italy	37	55.0	-18.0
Ecuador	Jamaica	0	4.4	-4.4
Ecuador	Japan	257	72.5	184.5
Ecuador	Korea.R	1	9.4	-8.4
Ecuador	Malaysi	0	3.8	-3.8
Ecuador	Mexico	15	127.9	-112.9
Ecuador	Myanmar	0	1.5	-1.5
Ecuador	Netherl	52	19.4	32.6
Ecuador	New.Zea	7.7	4.1	3.6
Ecuador	Nicarag	0	5.5	-5.5
Ecuador	Norway	1	7.0	-6.0
Ecuador	PAPUA.N	0	0.7	-0.7
Ecuador	Panama	34.9	10.7	24.2
Ecuador	Paragua	0.3	3.9	-3.6
Ecuador	Peru	13.9	48.8	-34.9
Ecuador	Phillip	0.1	6.7	-6.6
Ecuador	Portuga	1.9	7.8	-5.9
Ecuador	Singapo	1	1.3	-0.3
Ecuador	Spain	23	33.7	-10.7
Ecuador	Surinam	0	1.3	-1.3
Ecuador	Sweden	26	12.3	13.7
Ecuador	Switzer	9	11.3	-2.3
Ecuador	TRINIDA	0	9.3	-9.3
Ecuador	Taiwan	0	6.2	-6.2
Ecuador	Thailan	0	7.0	-7.0
Ecuador	USA	953	588.2	364.8
Ecuador	United.	21	60.8	-39.8
Ecuador	Uruguay	5.1	5.1	0.0
Ecuador	Venezue	38	72.2	-34.2
Peru	Argenti	69.6	109.4	-39.8
Peru	Austral	2	28.3	-26.3
Peru	Austria	20	15.4	4.6
Peru	Bahamas	0	1.9	-1.9
Peru	Barbado	0.1	1.7	-1.6
Peru	Belgium	89	22.7	66.3
Peru	Belize	0	0.7	-0.7
Peru	Bolivia	48.3	27.7	20.6
Peru	Brazil	130	265.5	-135.5
Peru	Canada	80	94.4	-14.4
Peru	Chile	67.6	40.4	27.2
Peru	China	40	88.1	-48.1

Peru	Colombi	129.3	86.1	43.2
Peru	Costa.R	5.4	9.2	-3.8
Peru	DOMINIC	0.5	10.2	-9.7
Peru	Denmark	7	12.0	-5.0
Peru	EL.SALV	11.7	8.4	3.3
Peru	Ecuador	71.9	48.2	23.7
Peru	Finland	2	10.1	-8.1
Peru	France	84	101.0	-17.0
Peru	Germany	170	111.9	58.1
Peru	Greece	0	11.0	-11.0
Peru	Guatema	0.6	14.4	-13.8
Peru	Guyana	0	1.8	-1.8
Peru	Haiti	0	4.9	-4.9
Peru	Hondura	0	5.6	-5.6
Peru	Hong.Ko	3	5.6	-2.6
Peru	Iceland	0	1.0	-1.0
Peru	Indones	0	21.0	-21.0
Peru	Ireland	1	5.7	-4.7
Peru	Italy	169	87.8	81.2
Peru	Jamaica	0.1	4.6	-4.5
Peru	Japan	477	115.8	361.2
Peru	Korea.R	54	15.0	39.0
Peru	Malaysi	1	6.6	-5.6
Peru	Mexico	24	163.0	-139.0
Peru	Myanmar	0	2.4	-2.4
Peru	Netherl	28	30.4	-2.4
Peru	New.Zea	0.8	7.6	-6.8
Peru	Nicarag	0	5.4	-5.4
Peru	Norway	2	10.8	-8.8
Peru	PAPUA.N	1.2	1.2	0.0
Peru	Panama	3.4	8.2	-4.8
Peru	Paragua	0.1	9.3	-9.2
Peru	Phillip	1.9	11.0	-9.1
Peru	Portuga	7.9	12.3	-4.4
Peru	Singapo	1	2.3	-1.3
Peru	Spain	22	53.2	-31.2
Peru	Surinam	0	1.9	-1.9
Peru	Sweden	43	19.1	23.9
Peru	Switzer	27	17.8	9.2
Peru	TRINIDA	3.3	11.7	-8.4
Peru	Taiwan	0	9.9	-9.9
Peru	Thailan	0.8	11.2	-10.4
Peru	USA	1443	780.0	663.0
Peru	United.	180	94.6	85.4
Peru	Uruguay	9.8	11.8	-2.0
Peru	Venezue	57	79.9	-22.9
Venezue	Argenti	56	130.4	-74.4
Venezue	Austral	0	45.2	-45.2
Venezue	Austria	4	37.8	-33.8
Venezue	Bahamas	0	7.3	-7.3
Venezue	Barbado	0	12.4	-12.4
Venezue	Belgium	208	57.4	150.6
Venezue	Belize	0	2.0	-2.0
Venezue	Bolivia	0	19.6	-19.6
Venezue	Brazil	678	447.9	230.1
Venezue	Canada	1772	284.7	1487.3
Venezue	Chile	242	39.7	202.3
Venezue	China	0	193.0	-193.0
Venezue	Colombi	273	294.4	-21.4
Venezue	Costa.R	82	23.7	58.3
Venezue	DOMINIC	0	68.9	-68.9
Venezue	Denmark	23	30.0	-7.0
Venezue	EL.SALV	106	20.6	85.4
Venezue	Ecuador	17	70.2	-53.2

Venezue	Finland	0	24.8	-24.8
Venezue	France	343	256.2	86.8
Venezue	Germany	203	281.3	-78.3
Venezue	Greece	0	26.1	-26.1
Venezue	Guatema	132	33.9	98.1
Venezue	Guyana	0	9.5	-9.5
Venezue	Haiti	0	28.8	-28.8
Venezue	Hondura	86	14.6	71.4
Venezue	Hong.Ko	19	12.0	7.0
Venezue	Iceland	0	2.5	-2.5
Venezue	Indones	0	37.6	-37.6
Venezue	Ireland	0	14.9	-14.9
Venezue	Italy	1123	215.4	907.6
Venezue	Jamaica	0	21.1	-21.1
Venezue	Japan	682	240.5	441.5
Venezue	Korea.R	0	32.0	-32.0
Venezue	Malaysi	0	13.3	-13.3
Venezue	Mexico	24	365.3	-341.3
Venezue	Myanmar	0	5.4	-5.4
Venezue	Netherl	301	76.7	224.3
Venezue	New.Zea	0	11.8	-11.8
Venezue	Nicarag	85	13.9	71.1
Venezue	Norway	13	27.0	-14.0
Venezue	PAPUA.N	0	2.1	-2.1
Venezue	Panama	0	26.0	-26.0
Venezue	Paragua	0	11.1	-11.1
Venezue	Peru	26	78.7	-52.7
Venezue	Phillip	0	22.0	-22.0
Venezue	Portuga	0	32.0	-32.0
Venezue	Singapo	0	4.5	-4.5
Venezue	Spain	699	136.3	562.7
Venezue	Surinam	0	7.8	-7.8
Venezue	Sweden	281	47.4	233.6
Venezue	Switzer	0	44.4	-44.4
Venezue	TRINIDA	0	108.9	-108.9
Venezue	Taiwan	0	20.8	-20.8
Venezue	Thailan	0	24.7	-24.7
Venezue	USA	5338	2492.9	2845.1
Venezue	United.	225	241.8	-16.8
Venezue	Uruguay	80	14.6	65.4

ANDEAN: 1985 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Bolivia	Argenti	382.9	31.0	351.9
Bolivia	Austral	0	6.9	-6.9
Bolivia	Austria	4	3.7	0.3
Bolivia	Bahamas	0	0.5	-0.5
Bolivia	Barbado	0	0.4	-0.4
Bolivia	Belgium	3	5.2	-2.2
Bolivia	Belize	0	0.1	-0.1
Bolivia	Brazil	10	90.9	-80.9
Bolivia	Canada	6	21.7	-15.7
Bolivia	Chile	4.5	11.5	-7.0
Bolivia	China	0	24.8	-24.8
Bolivia	Colombi	5.2	16.8	-11.6
Bolivia	Costa.R	0	1.6	-1.6
Bolivia	DOMINIC	0	2.1	-2.1
Bolivia	Denmark	1	3.0	-2.0
Bolivia	EL.SALV	0	1.4	-1.4
Bolivia	Ecuador	0.1	7.0	-6.9
Bolivia	Finland	0	2.5	-2.5
Bolivia	France	23	23.9	-0.9
Bolivia	Germany	34	25.7	8.3
Bolivia	Greece	1	2.7	-1.7
Bolivia	Guatema	0	2.4	-2.4
Bolivia	Guyana	0	0.3	-0.3
Bolivia	Haiti	0	1.0	-1.0
Bolivia	Hondura	0	1.0	-1.0
Bolivia	Hong.Ko	0	1.5	-1.5
Bolivia	Iceland	0	0.2	-0.2
Bolivia	Indones	0	6.3	-6.3
Bolivia	Ireland	0	1.5	-1.5
Bolivia	Italy	9	21.2	-12.2
Bolivia	Jamaica	0	0.9	-0.9
Bolivia	Japan	9	27.7	-18.7
Bolivia	Korea.R	0	4.3	-4.3
Bolivia	Malaysi	0	1.8	-1.8
Bolivia	Mexico	4	30.3	-26.3
Bolivia	Myanmar	0	0.7	-0.7
Bolivia	Netherl	1	7.0	-6.0
Bolivia	New.Zea	0	1.8	-1.8
Bolivia	Nicarag	0	1.1	-1.1
Bolivia	Norway	0	2.7	-2.7
Bolivia	PAPUA.N	0	0.3	-0.3
Bolivia	Panama	0	1.6	-1.6
Bolivia	Paragua	0.09	3.5	-3.4
Bolivia	Peru	10	23.2	-13.2
Bolivia	Phillip	0	2.1	-2.1
Bolivia	Portuga	0	3.0	-3.0
Bolivia	Singapo	0	0.7	-0.7
Bolivia	Spain	5	12.7	-7.7
Bolivia	Surinam	0	0.4	-0.4
Bolivia	Sweden	0	4.5	-4.5
Bolivia	Switzer	1	4.4	-3.4
Bolivia	TRINIDA	0	2.3	-2.3
Bolivia	Taiwan	0	2.6	-2.6
Bolivia	Thailan	0	3.1	-3.1
Bolivia	USA	101	175.0	-74.0
Bolivia	United.	18	22.8	-4.8
Bolivia	Uruguay	0.2	3.1	-2.9
Bolivia	Venezue	0	16.2	-16.2
Colombi	Argenti	23.2	88.2	-65.0
Colombi	Austral	2	36.7	-34.7

Colombi	Austria	28	24.5	3.5
Colombi	Bahamas	36	5.6	30.4
Colombi	Barbado	0.6	4.1	-3.5
Colombi	Belgium	66	35.4	30.6
Colombi	Belize	0	1.2	-1.2
Colombi	Bolivia	0.7	16.9	-16.2
Colombi	Brazil	5	317.0	-312.0
Colombi	Canada	67	193.5	-126.5
Colombi	Chile	21.9	30.5	-8.6
Colombi	China	0	169.3	-169.3
Colombi	Costa.R	8.2	25.7	-17.5
Colombi	DOMINIC	19.8	30.1	-10.3
Colombi	Denmark	42	20.6	21.4
Colombi	EL.SALV	10.4	17.1	-6.7
Colombi	Ecuador	56.3	119.9	-63.6
Colombi	Finland	77	17.4	59.6
Colombi	France	96	163.0	-67.0
Colombi	Germany	532	174.7	357.3
Colombi	Greece	3	17.5	-14.5
Colombi	Guatema	5.2	28.1	-22.9
Colombi	Guyana	0	2.9	-2.9
Colombi	Haiti	1.9	14.0	-12.1
Colombi	Hondura	5.3	13.7	-8.4
Colombi	Hong.Ko	0	10.2	-10.2
Colombi	Iceland	0.5	1.7	-1.2
Colombi	Indones	0	32.6	-32.6
Colombi	Ireland	5	10.5	-5.5
Colombi	Italy	116	139.3	-23.3
Colombi	Jamaica	0.5	13.6	-13.1
Colombi	Japan	152	187.5	-35.5
Colombi	Korea.R	13	29.6	-16.6
Colombi	Malaysi	0	10.0	-10.0
Colombi	Mexico	6	292.4	-286.4
Colombi	Myanmar	0	4.4	-4.4
Colombi	Netherl	134	48.1	85.9
Colombi	New.Zea	0.1	9.8	-9.7
Colombi	Nicarag	3.6	14.8	-11.2
Colombi	Norway	37	18.7	18.3
Colombi	PAPUA.N	0	1.5	-1.5
Colombi	Panama	12.6	38.0	-25.4
Colombi	Paragua	0.1	8.0	-7.9
Colombi	Peru	31.9	78.8	-46.9
Colombi	Phillip	0	13.8	-13.8
Colombi	Portuga	7.1	20.6	-13.5
Colombi	Singapo	1	3.8	-2.8
Colombi	Spain	93	85.2	7.8
Colombi	Surinam	3.1	3.2	-0.1
Colombi	Sweden	108	31.3	76.7
Colombi	Switzer	58	29.5	28.5
Colombi	TRINIDA	3.1	26.9	-23.8
Colombi	Taiwan	0	17.6	-17.6
Colombi	Thailan	6.7	19.0	-12.3
Colombi	USA	1456	1666.9	-210.9
Colombi	United.	143	157.6	-14.6
Colombi	Uruguay	0.3	9.2	-8.9
Colombi	Venezue	111	275.1	-164.1
Ecuador	Argenti	11.5	34.5	-23.0
Ecuador	Austral	3	14.1	-11.1
Ecuador	Austria	5	8.3	-3.3
Ecuador	Bahamas	0	1.7	-1.7
Ecuador	Barbado	0	1.1	-1.1
Ecuador	Belgium	9	12.0	-3.0
Ecuador	Belize	0	0.4	-0.4
Ecuador	Bolivia	0.1	7.0	-6.9

Ecuador	Brazil	6	112.5	-106.5
Ecuador	Canada	52	63.3	-11.3
Ecuador	Chile	48.1	12.5	35.6
Ecuador	China	5	60.3	-55.3
Ecuador	Colombi	81.4	119.7	-38.3
Ecuador	Costa.R	0.6	9.1	-8.5
Ecuador	DOMINIC	0.1	7.8	-7.7
Ecuador	Denmark	1	7.0	-6.0
Ecuador	EL.SALV	0.6	6.2	-5.6
Ecuador	Finland	5	5.9	-0.9
Ecuador	France	17	55.0	-38.0
Ecuador	Germany	93	59.1	33.9
Ecuador	Greece	1	6.0	-5.0
Ecuador	Guatema	0.2	10.4	-10.2
Ecuador	Guyana	0	0.8	-0.8
Ecuador	Haiti	0	3.7	-3.7
Ecuador	Hondura	0.6	4.8	-4.2
Ecuador	Hong.Ko	1	3.7	-2.7
Ecuador	Iceland	0	0.6	-0.6
Ecuador	Indones	1	12.4	-11.4
Ecuador	Ireland	9	3.5	5.5
Ecuador	Italy	34	47.3	-13.3
Ecuador	Jamaica	0	3.7	-3.7
Ecuador	Japan	48	68.0	-20.0
Ecuador	Korea.R	653	10.6	642.4
Ecuador	Malaysi	1	3.5	-2.5
Ecuador	Mexico	2	108.3	-106.3
Ecuador	Myanmar	0	1.5	-1.5
Ecuador	Netherl	16	16.3	-0.3
Ecuador	New.Zea	11.1	3.8	7.3
Ecuador	Nicarag	0.4	5.3	-4.9
Ecuador	Norway	0	6.4	-6.4
Ecuador	PAPUA.N	0	0.6	-0.6
Ecuador	Panama	81.4	10.5	70.9
Ecuador	Paragua	0.1	3.1	-3.0
Ecuador	Peru	6.8	40.7	-33.9
Ecuador	Philip	0	5.0	-5.0
Ecuador	Portuga	1.2	6.9	-5.7
Ecuador	Singapo	0	1.4	-1.4
Ecuador	Spain	7	28.6	-21.6
Ecuador	Surinam	0	0.9	-0.9
Ecuador	Sweden	1	10.7	-9.7
Ecuador	Switzer	9	10.0	-1.0
Ecuador	TRINIDA	0	6.8	-6.8
Ecuador	Taiwan	129.5	6.4	123.1
Ecuador	Thailan	0	6.7	-6.7
Ecuador	USA	1975	536.3	1438.7
Ecuador	United.	24	53.1	-29.1
Ecuador	Uruguay	0.2	3.6	-3.4
Ecuador	Venezue	2	59.3	-57.3
Peru	Argenti	36.5	80.3	-43.8
Peru	Austral	3	25.3	-22.3
Peru	Austria	7	13.0	-6.0
Peru	Bahamas	6	1.9	4.1
Peru	Barbado	0.2	1.4	-1.2
Peru	Belgium	141	18.4	122.6
Peru	Belize	0	0.4	-0.4
Peru	Bolivia	13.1	23.2	-10.1
Peru	Brazil	59	225.2	-166.2
Peru	Canada	49	84.9	-35.9
Peru	Chile	41.1	32.1	9.0
Peru	China	77	93.6	-16.6
Peru	Colombi	108.4	78.7	29.7
Peru	Costa.R	15.5	7.8	7.7

Peru	DOMINIC	0.5	8.6	-8.1
Peru	Denmark	6	10.7	-4.7
Peru	EL.SALV	3.1	6.5	-3.4
Peru	Ecuador	74.9	40.7	34.2
Peru	Finland	2	9.1	-7.1
Peru	France	111	84.6	26.4
Peru	Germany	158	91.0	67.0
Peru	Greece	3	9.5	-6.5
Peru	Guateme	0	11.1	-11.1
Peru	Guyana	0	1.1	-1.1
Peru	Haiti	0.2	3.9	-3.7
Peru	Hondura	0.7	4.8	-4.1
Peru	Hong.Ko	7	5.8	1.2
Peru	Iceland	0	0.9	-0.9
Peru	Indones	4	22.1	-18.1
Peru	Ireland	1	5.4	-4.4
Peru	Italy	110	74.2	35.8
Peru	Jamaica	0.2	3.8	-3.6
Peru	Japan	334	106.7	227.3
Peru	Korea.R	108	16.6	91.4
Peru	Malaysi	1	6.2	-5.2
Peru	Mexico	11	134.8	-123.8
Peru	Myanmar	0	2.4	-2.4
Peru	Netherl	32	24.9	7.1
Peru	New.Zea	0.2	6.9	-6.7
Peru	Nicarag	1.6	5.0	-3.4
Peru	Norway	1	9.7	-8.7
Peru	PAPUA.N	0	1.0	-1.0
Peru	Panama	7	7.8	-0.8
Peru	Paragua	0	7.3	-7.3
Peru	Phillip	4.9	8.1	-3.2
Peru	Portuga	14.4	10.6	3.8
Peru	Singapo	1	2.4	-1.4
Peru	Spain	21	44.3	-23.3
Peru	Surinam	0	1.3	-1.3
Peru	Sweden	19	16.3	2.7
Peru	Switzer	15	15.5	-0.5
Peru	TRINIDA	0	8.4	-8.4
Peru	Taiwan	26	10.1	15.9
Peru	Thailan	0	10.6	-10.6
Peru	USA	1152	695.6	456.4
Peru	United.	142	81.2	60.8
Peru	Uruguay	2.4	8.2	-5.8
Peru	Venezue	47	63.9	-16.9
Venezue	Argenti	1.6	95.4	-93.8
Venezue	Austral	1	40.5	-39.5
Venezue	Austria	61	32.3	28.7
Venezue	Bahamas	0	7.8	-7.8
Venezue	Barbado	31	10.5	20.5
Venezue	Belgium	106	47.2	58.8
Venezue	Belize	0	1.2	-1.2
Venezue	Bolivia	0	16.2	-16.2
Venezue	Brazil	278	382.0	-104.0
Venezue	Canada	785	261.2	523.8
Venezue	Chile	240	31.2	208.8
Venezue	China	127	207.7	-80.7
Venezue	Colombi	225	275.2	-50.2
Venezue	Costa.R	122	20.3	101.7
Venezue	DOMINIC	277	60.4	216.6
Venezue	Denmark	79	27.2	51.8
Venezue	EL.SALV	79	16.1	62.9
Venezue	Ecuador	2	59.4	-57.4
Venezue	Finland	1	22.7	-21.7
Venezue	France	233	218.0	15.0

Venezue	Germany	1187	232.2	954.8
Venezue	Greece	5	23.0	-18.0
Venezue	Guatema	74	26.5	47.5
Venezue	Guyana	0	5.8	-5.8
Venezue	Haiti	13	24.1	-11.1
Venezue	Hondura	97	12.9	84.1
Venezue	Hong.Ko	12	12.5	-0.5
Venezue	Iceland	0	2.3	-2.3
Venezue	Indones	0	39.8	-39.8
Venezue	Ireland	0	14.1	-14.1
Venezue	Italy	649	184.7	464.3
Venezue	Jamaica	146	18.0	128.0
Venezue	Japan	371	223.9	147.1
Venezue	Korea.R	10	35.8	-25.8
Venezue	Malaysi	0	12.5	-12.5
Venezue	Mexico	13	305.8	-292.8
Venezue	Myanmar	0	5.4	-5.4
Venezue	Netherl	93	64.0	29.0
Venezue	New.Zea	6	10.7	-4.7
Venezue	Nicarag	5	13.1	-8.1
Venezue	Norway	72	24.7	47.3
Venezue	PAPUA.N	0	1.7	-1.7
Venezue	Panama	118	25.1	92.9
Venezue	Paragua	0	8.6	-8.6
Venezue	Peru	27	64.0	-37.0
Venezue	Philip	0	16.5	-16.5
Venezue	Portuga	21.7	28.1	-6.4
Venezue	Singapo	0	4.7	-4.7
Venezue	Spain	251	115.4	135.6
Venezue	Surinam	3	5.7	-2.7
Venezue	Sweden	172	41.0	131.0
Venezue	Switzer	7	39.3	-32.3
Venezue	TRINIDA	52	81.9	-29.9
Venezue	Taiwan	15	21.3	-6.3
Venezue	Thailan	18.2	23.6	-5.4
Venezue	USA	6830	2271.2	4558.8
Venezue	United.	286	210.9	75.1
Venezue	Uruguay	1	10.1	-9.1

MERCOSUR: 1995 ($ Million)

Importer	Exporter	Actual Imports	Projected Imports	GTC ETC TD
Argenti	Austral	62	208	-146
Argenti	Austria	9	79	-70
Argenti	Bahamas	6	5	1
Argenti	Barbado	0	3	-3
Argenti	Belgium	316	111	205
Argenti	Belize	0	0	0
Argenti	Bolivia	137	47	90
Argenti	Brazil	5570	2127	3443
Argenti	Canada	134	424	-290
Argenti	Chile	1358	560	798
Argenti	China	370	527	-157
Argenti	Colombi	172	137	35
Argenti	Costa.R	10	14	-4
Argenti	Denmark	160	62	98
Argenti	DOMINIC	24	16	8
Argenti	Ecuador	58	34	24
Argenti	EL.SALV	3	6	-3
Argenti	Finland	8	46	-38
Argenti	France	479	559	-80
Argenti	Germany	1010	635	375
Argenti	Greece	103	45	58
Argenti	Guatema	5	20	-15
Argenti	Guyana	0	1	-1
Argenti	Haiti	0	3	-3
Argenti	Hondura	1	6	-5
Argenti	Hong.Ko	296	61	235
Argenti	Iceland	0	4	-4
Argenti	Indones	137	158	-21
Argenti	Ireland	8	31	-23
Argenti	Italy	863	508	355
Argenti	Jamaica	4	5	-1
Argenti	Japan	429	817	-388
Argenti	Korea.R	84	166	-82
Argenti	Malaysi	260	63	197
Argenti	Mexico	210	362	-152
Argenti	Myanmar	0	8	-8
Argenti	Netherl	672	154	518
Argenti	New.Zea	12	39	-27
Argenti	Nicarag	0	4	-4
Argenti	Norway	37	60	-23
Argenti	Panama	1	11	-10
Argenti	PAPUA.N	0	3	-3
Argenti	Paragua	657	80	577
Argenti	Peru	269	79	190
Argenti	Phillip	17	35	-18
Argenti	Portuga	110	62	48
Argenti	Singapo	87	31	56
Argenti	Spain	839	276	563
Argenti	Surinam	0	1	-1
Argenti	Sweden	31	89	-58
Argenti	Switzer	180	91	89
Argenti	Taiwan	238	89	149
Argenti	Thailan	273	110	163
Argenti	TRINIDA	1	17	-16
Argenti	United.	398	534	-136
Argenti	Uruguay	607	507	100
Argenti	USA	1881	4096	-2215
Argenti	Venezue	304	152	152

Importer	Exporter	Actual Imports	Projected Imports	GTC ETC TD
Brazil	Argenti	4041	2109	1932
Brazil	Austral	393	523	-130
Brazil	Austria	201	272	-71
Brazil	Bahamas	10	17	-7
Brazil	Barbado	6	11	-5
Brazil	Belgium	1771	385	1386
Brazil	Belize	1	1	0
Brazil	Bolivia	530	140	390
Brazil	Canada	825	1448	-623
Brazil	Chile	1210	388	822
Brazil	China	1228	1691	-463
Brazil	Colombi	457	933	-476
Brazil	Costa.R	85	44	41
Brazil	Denmark	217	213	4
Brazil	DOMINIC	66	57	9
Brazil	Ecuador	208	109	99
Brazil	EL.SALV	34	18	16
Brazil	Finland	107	156	-49
Brazil	France	1996	1951	45
Brazil	Germany	3487	2200	1287
Brazil	Greece	217	151	66
Brazil	Guatema	61	64	-3
Brazil	Guyana	12	10	2
Brazil	Haiti	7	10	-3
Brazil	Hondura	32	18	14
Brazil	Hong.Ko	413	180	233
Brazil	Iceland	3	12	-9
Brazil	Indones	403	433	-30
Brazil	Ireland	66	107	-41
Brazil	Italy	2039	1758	281
Brazil	Jamaica	47	18	29
Brazil	Japan	3948	2441	1507
Brazil	Korea.R	1388	523	865
Brazil	Malaysi	308	179	129
Brazil	Mexico	622	1117	-495
Brazil	Myanmar	1	24	-23
Brazil	Netherl	1549	535	1014
Brazil	New.Zea	45	96	-51
Brazil	Nicarag	5	12	-7
Brazil	Norway	113	206	-93
Brazil	Panama	92	35	57
Brazil	PAPUA.N	3	7	-4
Brazil	Paragua	1301	179	1122
Brazil	Peru	438	444	-6
Brazil	Philip	275	98	177
Brazil	Portuga	413	225	188
Brazil	Singapo	360	86	274
Brazil	Spain	1135	983	152
Brazil	Surinam	16	10	6
Brazil	Sweden	175	303	-128
Brazil	Switzer	248	316	-68
Brazil	Taiwan	407	264	143
Brazil	Thailan	501	324	177
Brazil	TRINIDA	69	70	-1
Brazil	United.	1535	1864	-329
Brazil	Uruguay	812	226	586
Brazil	USA	9428	14024	-4596
Brazil	Venezue	481	1126	-645

Importer	Exporter	Actual Imports	Projected Imports	GTC	TD
Paragua	Argenti	76	61		15
Paragua	Austral	0	9		-9
Paragua	Austria	0	4		-4
Paragua	Bahamas	0	0		0
Paragua	Barbado	0	0		0
Paragua	Belgium	2	5		-3
Paragua	Belize	0	0		0
Paragua	Bolivia	1	3		-2
Paragua	Brazil	514	136		378
Paragua	Canada	3	21		-18
Paragua	Chile	58	10		48
Paragua	China	27	24		3
Paragua	Colombi	1	7		-6
Paragua	Costa.R	0	1		-1
Paragua	Denmark	3	3		0
Paragua	DOMINIC	0	1		-1
Paragua	Ecuador	3	2		1
Paragua	EL.SALV	0	0		0
Paragua	Finland	1	2		-1
Paragua	France	20	26		-6
Paragua	Germany	95	30		65
Paragua	Greece	0	2		-2
Paragua	Guatema	0	1		-1
Paragua	Guyana	0	0		0
Paragua	Haiti	0	0		0
Paragua	Hondura	0	0		0
Paragua	Hong.Ko	6	3		3
Paragua	Iceland	0	0		0
Paragua	Indones	0	7		-7
Paragua	Ireland	0	1		-1
Paragua	Italy	39	24		15
Paragua	Jamaica	0	0		0
Paragua	Japan	37	37		0
Paragua	Korea.R	0	8		-8
Paragua	Malaysi	1	3		-2
Paragua	Mexico	3	17		-14
Paragua	Myanmar	0	0		0
Paragua	Netherl	43	7		36
Paragua	New.Zea	0	2		-2
Paragua	Nicarag	0	0		0
Paragua	Norway	1	3		-2
Paragua	Panama	0	1		-1
Paragua	PAPUA.N	0	0		0
Paragua	Peru	0	4		-4
Paragua	Phillip	2	1		1
Paragua	Portuga	15	3		12
Paragua	Singapo	1	1		0
Paragua	Spain	32	13		19
Paragua	Surinam	0	0		0
Paragua	Sweden	0	4		-4
Paragua	Switzer	4	4		0
Paragua	Taiwan	39	4		35
Paragua	Thailan	5	5		0
Paragua	TRINIDA	0	1		-1
Paragua	United.	5	25		-20
Paragua	Uruguay	14	3		11
Paragua	USA	60	200		-140
Paragua	Venezue	21	8		13

Importer	Exporter	Actual Imports	Projected Imports	GTC TD
Uruguay	Argenti	282	459	-177
Uruguay	Austral	4	20	-16
Uruguay	Austria	3	8	-5
Uruguay	Bahamas	0	0	0
Uruguay	Barbado	0	0	0
Uruguay	Belgium	8	11	-3
Uruguay	Belize	0	0	0
Uruguay	Bolivia	2	2	0
Uruguay	Brazil	737	206	531
Uruguay	Canada	20	40	-20
Uruguay	Chile	40	24	16
Uruguay	China	85	50	35
Uruguay	Colombi	85	13	72
Uruguay	Costa.R	1	1	0
Uruguay	Denmark	4	6	-2
Uruguay	DOMINIC	1	1	0
Uruguay	Ecuador	7	3	4
Uruguay	EL.SALV	1	1	0
Uruguay	Finland	9	4	5
Uruguay	France	37	53	-16
Uruguay	Germany	118	61	57
Uruguay	Greece	2	4	-2
Uruguay	Guatema	4	2	2
Uruguay	Guyana	0	0	0
Uruguay	Haiti	0	0	0
Uruguay	Hondura	0	1	-1
Uruguay	Hong.Ko	55	6	49
Uruguay	Iceland	0	0	0
Uruguay	Indones	0	15	-15
Uruguay	Ireland	1	3	-2
Uruguay	Italy	74	49	25
Uruguay	Jamaica	0	0	0
Uruguay	Japan	25	77	-52
Uruguay	Korea.R	0	16	-16
Uruguay	Malaysi	0	6	-6
Uruguay	Mexico	19	34	-15
Uruguay	Myanmar	0	1	-1
Uruguay	Netherl	40	15	25
Uruguay	New.Zea	0	4	-4
Uruguay	Nicarag	0	0	0
Uruguay	Norway	9	6	3
Uruguay	Panama	0	1	-1
Uruguay	PAPUA.N	0	0	0
Uruguay	Paragua	25	4	21
Uruguay	Peru	36	7	29
Uruguay	Phillip	1	3	-2
Uruguay	Portuga	5	6	-1
Uruguay	Singapo	5	3	2
Uruguay	Spain	63	26	37
Uruguay	Surinam	0	0	0
Uruguay	Sweden	11	8	3
Uruguay	Switzer	12	9	3
Uruguay	Taiwan	12	9	3
Uruguay	Thailan	6	11	-5
Uruguay	TRINIDA	0	2	-2
Uruguay	United.	98	51	47
Uruguay	USA	179	386	-207
Uruguay	Venezue	11	14	-3

Appendix C : Countries involved in Chapters 5 and 7

Western Hemisphere (WH 28) : EAI (Enterprise for American Initiative)

USA	Canada	Argentina
Bahamas	Barbados	Belize
Bolivia	Brazil	Chile
Colombia	Costa.Rica	Dominican Rp.
Ecuador	El Salvador	Guatemala
Guyana	Haiti	Honduras
Jamaica	Mexico	Nicaragua
Panama	Paraguay	Peru
Suriname	Trinidad.Tbg.	Uruguay
Venezuela		

EC(12)

Belgium-Luxembourg	Denmark	France
Germany	Ireland	Italy
Netherlands	Portugal	Spain
Sweden	United Kingdom	

EU(15) = EC(12) + Austria, Finland and Greece

EFTA (6)

Austria	Finland	Greece
Iceland	Norway	Switzerland

East Asia (11)

Japan	China	Hong.Kong
Indonesia	Korea.RP	Malaysia
Myanmar	Philippines	Singapore
Thailand	Taiwan	

Other Pacific (3)

Australia	New.Zealand	Papau New Guinea

Appendix D : Export-Growth Regression by Countries

Countries	Constant	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
Africa	3.39 (7.33)	0.22 (3.80)	-0.10 (-0.33)	0.32 (14.93)	0.5038	291
Botswana	4.90 (1.04)	-0.0004 (-0.003)	-3.68 (-0.71)	0.34 (2.93)	0.4095	21
Ivory Coast	-2.40 (-0.22)	0.19 (0.60)	-3.59 (-0.34)	0.38 (4.19)	0.5302	25
Keyna	4.96 (3.51)	0.77 (1.12)	0.75 (0.87)	0.33 (3.46)	0.4329	25
Madagasca-r	9.61 (3.58)	-0.20 (-0.56)	11.05 (2.78)	0.71 (0.96)	0.3400	25
Malawi	-2.78 (-0.57)	0.23 (1.71)	-10.76 (-2.07)	0.30 (2.99)	0.3700	25
Maritius	-2.83 (-1.30)	0.40 (2.08)	6.87 (2.59)	0.48 (7.56)	0.8247	25
Morocco	6.46 (4.57)	0.37 (1.75)	0.41 (0.43)	0.08 (1.00)	0.1810	25
Nigeria	3.44 (1.06)	0.05 (0.12)	-1.52 (-1.39)	0.33 (5.48)	0.6261	25
Sierra Leone	17.86 (1.54)	0.06 (0.18)	23.98 (1.36)	0.31 (3.63)	0.4505	25
Swaziland	14.78 (0.59)	-0.28 (-0.48)	13.25 (0.40)	0.52 (3.51)	0.5039	20
Zambia	-2.50 (-0.69)	-0.005 (-0.01)	-18.51 (-1.59)	0.22 (4.46)	0.5527	25
Zimbabwe	5.40 (4.23)	4.23 (0.53)	0.08 (0.13)	0.32 (3.68)	0.4718	25

Countries	Constant	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
America	4.03 (9.67)	0.50 (7.08)	1.07 (2.40)	0.13 (7.94)	0.2371	400
Canada	7.35 (3.02)	-0.63 (-1.28)	1.01 (1.32)	0.25 (3.49)	0.6827	25
Dominican Rep.	5.06 (1.81)	0.58 (1.69)	-1.61 (-0.79)	0.05 (1.03)	0.1592	25
Guatemala	2.39 (3.04)	0.04 (0.17)	-8.28 (-2.77)	0.16 (3.72)	0.6845	25
Honduras	5.29 (5.78)	-0.36 (-1.81)	-6.40 (-2.91)	0.22 (3.35)	0.4981	25
Jamaica	5.11 (2.45)	0.56 (1.68)	0.96 (0.51)	0.07 (1.22)	0.2043	25
Mexico	2.86 (1.19)	0.69 (1.98)	3.87 (1.58)	0.04 (0.35)	0.2406	25
Panama	6.41 (2.01)	-0.16 (-0.46)	-5.54 (-1.08)	0.41 (3.59)	0.5355	25
U.S.A.	6.67 (6.17)	-0.39 (-1.76)	1.76 (2.04)	0.07 (1.62)	0.4648	25
Argentina	1.39 (0.64)	0.94 (3.03)	-5.79 (-1.34)	-0.13 (-2.85)	0.4735	25
Bolivia	3.13 (1.84)	0.41 (1.03)	-5.50 (-0.63)	0.04 (0.95)	0.5067	25
Chile	6.81 (2.14)	-0.004 (-0.009)	-0.76 (-0.24)	0.05 (0.52)	0.0158	25
Colombia	4.41 (2.31)	0.74 (2.01)	2.01 (0.77)	0.12 (1.90)	0.2586	25
Ecuador	0.20 (0.12)	1.08 (2.51)	-2.58 (-0.57)	0.25 (5.55)	0.7086	25
Paraguay	-3.58 (-1.51)	0.91 (4.18)	15.2 (1.50)	0.35 (4.77)	0.6556	25
Peru	5.23 (2.57)	-0.08 (-0.14)	-2.38 (-0.07)	0.05 (0.49)	0.017	25
Venezuela	2.99 (2.17)	0.69 (2.05)	1.68 (1.11)	0.22 (5.17)	0.6484	25

Countries	Constant	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
Asia	5.94 (10.31)	0.10 (1.35)	2.00 (3.00)	0.22 (11.00)	0.3353	295
Hong-Kong	3.90 (2.20)	0.09 (0.54)	3.58 (3.49)	0.34 (3.89)	0.5609	25
India	22.96 (6.53)	-5.11 (-5.14)	-13.5 (-4.24)	0.01 (0.21)	0.5840	25
Iran	8.00 (2.65)	-0.40 (-1.30)	-13.55 (-1.89)	0.25 (5.22)	0.5923	25
Israel	9.30 (2.63)	-0.06 (-0.13)	-0.58 (-0.79)	0.12 (1.61)	0.2256	25
Japan	6.84 (5.19)	0.44 (2.72)	2.41 (1.56)	-0.008 (-0.16)	0.3858	25
Korea	14.19 (2.57)	0.08 (0.31)	-2.41 (-0.47)	0.04 (0.62)	0.0469	25
Nepal	0.35 (0.03)	0.55 (0.44)	-0.40 (-0.06)	0.30 (2.27)	0.2712	20
Philippines	6.35 (4.33)	-0.61 (-1.12)	-9.77 (-1.53)	0.12 (1.56)	0.2501	25
Sri Lanka	5.85 (4.40)	0.004 (0.01)	-1.23 (-0.47)	0.31 (3.85)	0.4946	25
Syria	1.97 (0.56)	0.76 (1.24)	-1.60 (-0.29)	0.45 (4.04)	0.4400	25
Thailand	7.20 (1.64)	0.96 (0.24)	-1.78 (-0.29)	0.22 (2.66)	0.2537	25
Taiwan	7.53 (2.58)	-0.09 (-0.32)	3.54 (1.20)	0.22 (3.41)	0.4143	25

Countries	Constant	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
Europe	5.75 (14.94)	0.21 (3.57)	0.77 (2.37)	0.16 (9.99)	0.1912	510
Austria	2.23 (2.16)	0.53 (3.83)	2.00 (4.08)	0.26 (5.51)	0.7242	25
Belgium	4.00 (3.40)	0.38 (1.86)	1.38 (1.13)	0.24 (4.98)	0.6078	25
Denmark	4.89 (2.75)	-0.20 (-0.98)	5.42 (2.15)	-0.003 (-0.04)	0.2048	25
Finland	8.07 (2.30)	-0.44 (-0.93)	0.59 (0.06)	0.25 (3.01)	0.3934	25
France	6.27 (3.55)	0.24 (0.86)	-1.30 (-0.48)	0.13 (2.22)	0.4285	25
Germany, West	7.92 (6.28)	-0.12 (-1.27)	-0.99 (-1.73)	0.12 (1.55)	0.2086	25
Greece	6.36 (5.38)	-0.16 (-0.54)	-10.58 (-1.95)	0.16 (2.29)	0.4426	25
Iceland	13.82 (4.17)	-1.90 (-3.79)	3.38 (2.18)	-0.006 (-0.09)	0.6188	25
Ireland	9.13 (3.95)	-0.26 (-0.75)	-3.09 (-1.13)	0.119 (1.17)	0.1325	25
Italy	10.75 (6.49)	-0.82 (-2.15)	-5.63 (-3.47)	0.16 (2.76)	0.5858	25
Luxembourg	3.73 (2.55)	-0.11 (-0.28)	-0.01 (-0.01)	0.52 (8.88)	0.7909	25
Netherlands	6.35 (2.23)	0.35 (1.07)	-1.12 (-0.38)	0.14 (2.94)	0.4799	25
Norway	2.91 (2.27)	-0.17 (-0.74)	2.99 (2.46)	0.32 (6.98)	0.7760	25
Poland	4.47 (0.26)	-1.80 (-0.49)	5.21 (0.05)	0.06 (0.35)	0.0921	10
Portugal	4.67 (2.82)	0.61 (2.92)	1.65 (1.01)	0.13 (2.14)	0.4960	25
Spain	7.45 (4.06)	0.17 (0.68)	-1.35 (-0.70)	0.02 (0.38)	0.2641	25
Sweden	5.15 (2.83)	-0.36 (-1.25)	4.38 (1.68)	0.13 (2.09)	0.3273	25
Switzerland	8.50 (4.20)	-0.38 (-1.2)	-4.57 (-1.43)	0.19 (2.27)	0.2950	25
Turkey	6.84 (3.84)	0.53 (1.29)	1.53 (0.55)	-0.003 (-0.08)	0.0960	25
U.K.	7.43 (3.46)	-0.13 (-0.36)	3.62 (1.00)	0.005 (0.07)	0.1478	25

Yugoslavia	3.82 (0.92)	0.71 (0.93)	-21.19 (-1.92)	0.15 (1.59)	0.3966	25

Countries	Constant	Capital Growth	Labor Growth	Export Growth	R-square	# of obs.
Oceania	4.59 (2.37)	-0.51 (-1.70)	4.06 (1.58)	0.17 (3.14)	0.3291	25
Australia	3.57 (1.41)	-0.27 (-0.57)	7.45 (1.96)	0.08 (0.97)	0.2462	25
New Zealand	3.55 (1.09)	-0.63 (-1.63)	4.65 (1.13)	0.20 (2.79)	0.4753	25

Parentheses are the t-statistic

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