

Regional Trade Agreements and U.S. Agriculture. Mary E. Burfisher and Elizabeth A. Jones, editors. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture. Agriculture Information Bulletin No. 745.

Abstract

Regional trade agreements (RTA's) have become a fixture in the global trade arena. Their advocates contend that RTA's can serve as building blocks for multilateral trade liberalization. Their opponents argue that these trade pacts will divert trade from more efficient nonmember producing countries. This analysis of RTA's finds that U.S. agriculture can benefit from participating in RTA's and may lose when it does not. Agriculture is an important source of potential U.S. gains from RTA's. Regionalism and multilateralism are likely to be mutually reinforcing in agriculture. While the United States, as a global trader with diverse trade partners, potentially can gain more from global free trade than from RTA's, many recent RTA's have been more comprehensive in their liberalization of agricultural trade liberalization than the Uruguay Round. A strong multilateral process can help ensure that RTA's are trade creating, rather than protectionist.

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This overview report summarizes a more comprehensive discussion on the effects of regional trade agreements on U.S. agriculture. The contents of that companion report are shown below. To purchase a copy, call toll-free: 1-800-999-6779. Ask for **Regional Trade Agreements and U.S. Agriculture**, AER-771. Electronic versions of both the overview and the comprehensive report are on the ERS Web site at <http://www.econ.ag.gov>.

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Executive Summary

Regional trade agreements (RTA's) have become an increasingly important part of the global trading system. The United States has become an active participant in RTA's, with memberships in the North American Free Trade Agreement (NAFTA), the Asia Pacific Economic Cooperation (APEC) forum, and the U.S.-Israel Free Trade Agreement. The United States also has trade initiatives in the Caribbean Basin. An important new regional trade agreement is the proposed Free Trade Area of the Americas (FTAA), which would encompass most countries of the Western Hemisphere and help reconcile the proliferation of trade agreements in the Hemisphere into one comprehensive trade pact.

Regional trade agreements have generated intense debate. Advocates for RTA's emphasize their trade-creating effects. By providing for freer trade among members, RTA's can increase welfare by shifting regional production toward the most efficient producers, enabling consumers to purchase goods at lower prices. Opponents of RTA's argue that because most agreements introduce some degree of trade discrimination, they are likely to divert trade from more efficient producers in the rest of the world. A second issue raised by RTA's is their effect on multilateral trade negotiations. Whether RTA's will reinforce or accelerate global trade talks, or act to slow down or derail them is under debate.

This report analyzes the implications of regional trade agreements for U.S. agriculture. Key findings include:

U.S. agriculture can gain from participating in RTA's. By lowering trade barriers among members, the major RTA's in which the United States participates — NAFTA, APEC and, potentially, the FTAA — are expected to benefit U.S. agriculture. In the long term, their trade-creating effects — increased agricultural trade and specialization among RTA partners — will increase the efficiency of U.S. agricultural producers and reduce prices for consumers. These RTA's are expected to improve the U.S. international terms of trade in agriculture, with an increase in U.S. farm export prices relative to import prices.

U.S. agriculture can lose when not a member of RTA's. Expansion of the European Union (EU) is likely to divert agricultural trade and reduce U.S. agricultural exports to the EU and to third markets. But, the current CAP program is probably unsustainable with EU expansion, and potential EU farm program reforms would reduce these negative impacts on the United States. A U.S. decision to remain outside the FTAA would divert trade from U.S. agriculture. However, many expect RTA's to induce economic growth in the Western Hemisphere. If this trade-linked growth occurs, the United States is expected to benefit from the FTAA, even as a nonmember.

Agriculture is an important source of U.S. gains from RTA's. Gains from trade liberalization are roughly proportional to the size of the trade barrier. Because

U.S. agricultural exports still face relatively high trade barriers in world markets, the inclusion of agriculture in trade agreements accounts for much of the U.S. gains from RTA's. Over the past decade, RTA's have become more comprehensive in their treatment of agriculture, in contrast to earlier RTA's, many of which excluded agriculture.

RTA's interact with domestic farm programs. RTA's limit the ability of member countries to maintain independent farm programs. Market arbitrage within a free trade area will tend to unify prices, making members' efforts to use farm support programs to maintain different price levels either ineffective or costly. The conversion of most U.S. farm support into decoupled contract payments is compatible with free trade pacts. At the same time, the reduction in farm support and greater market orientation of many countries' farm sectors over the past decade has made RTA's more likely to include agriculture, increasing the gains from RTA's.

In agriculture, RTA's have both trade-creating and trade-diverting impacts, but trade creation dominates in most RTA's. To date, the empirical evidence shows that the Australia-New Zealand Closer Economic Relations, the Canada-U.S. Trade Agreement, and MERCOSUR (the Common Market of the South, among South American countries) have led to increased agricultural trade with both partners and nonmembers, supporting the view that RTA's can unleash growth in trade that benefits members and nonmembers alike. When fully implemented, NAFTA, APEC, and the FTAA are expected to be net trade creating in agriculture. Only the EU has resulted so far in net agricultural trade diversion. Its expansion to include Central and East European countries is also expected to be trade diverting.

Regionalism and multilateralism are likely to be mutually reinforcing in agriculture. A strong multilateral process can help minimize the negative aspects of RTA's, and make it more likely that RTA's will take shape as trade-creating, rather than protectionist agreements. In turn, the freer agricultural trade already achieved in the Western Hemisphere and committed to in APEC is likely to strengthen efforts to achieve freer trade at the upcoming mini-round.

The United States can potentially gain more from multilateralism than from RTA's. Because the United States is a global trader with diverse trade partners, it can potentially gain more from global free trade than from regional trade agreements. But so far, multilateral talks have fallen far short of achieving free trade, and the gains to the United States from the deeper commitments made by RTA's are expected to exceed those from the Uruguay Round. But the influence of RTA's on the multilateral process is still uncertain, and they hold the potential to harm nonmembers. Because the two processes can provide important, mutually reinforcing influences, their joint pursuit can benefit U.S. agriculture.

REGIONAL TRADE AGREEMENTS AND U.S. AGRICULTURE

AN OVERVIEW

Introduction

The United States has been a strong proponent of a multilateral approach to global trade liberalization. From the perspective of economic theory, this is unambiguously a “first best” strategy. The global reduction of trade barriers raises global welfare as world production shifts toward the most efficient producers, and consumers are able to purchase goods at lower prices. Regional trade agreements (RTA’s), in contrast, can have both positive and negative impacts. By providing for freer trade among members, they can improve resource allocation within the region and generate welfare gains for member countries. But because they introduce some degree of trade discrimination, they can divert trade from more efficient producers in the rest of the world. In general, if trade diversion exceeds trade creation, an RTA reduces global welfare. Concern over the potential for trade diversion is at the root of pessimism regarding RTA’s.

A second issue raised by RTA’s is their relationship to multilateralism. The current proliferation of RTA’s has occurred simultaneously with successful global trade negotiations, which were concluded in 1993 under the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), and have continued in a series of “mini-rounds” for specific sectors, including telecommunications and services. In agriculture, a mini-round of trade liberalization talks is scheduled to begin in

1999 at the World Trade Organization (WTO), the successor organization to the GATT. The current proliferation of RTA’s has generated debate about the dynamics of the relationship between them and the multilateral process of global trade liberalization under the WTO. Will regional trade agreements serve as building blocks for multilateral trade liberalization in the WTO? Will RTA’s have a tendency to expand their membership as they adopt more open economic policies — and will this tendency eventually converge on global free trade? Could these smaller, regional negotiating groups reinforce or even accelerate the multilateral process by making more progress on difficult issues — going narrow and deep instead of wide and shallow? Or will regional trade agreements tend to do the opposite, and act as stumbling blocks to multilateral trade liberalization? Will they entrench protectionist interests that benefit from trade diversion? Will they create “fortresses” that slow or derail multilateral trade negotiations? Uncertainty regarding the effects of regional trade agreements on the multilateral process is a second reason why some argue that regionalism could be detrimental to the global trading system.

Over the past decade, regional integration has gained momentum, with active U.S. participation. The pursuit of regionalism by the United States rests on a view that the trade-creating effects of the current regional agreements are likely to predominate, for a number of reasons. One is that the characteristics of the current

wave of regional agreements tend to reinforce the globalism to which the United States remains committed. Many recent agreements have locked in domestic reforms and the opening of economies, reinforcing the goals of globalism for freer trade, greater market access, and global efficiency gains. Recent agreements stand in contrast to those that proliferated in the 1930's, and again in the 1950's and 1960's, many of which were inward looking, and motivated by protectionism.

Second, the U.S. pursuit of regionalism, particularly in the North American Free Trade Agreement (NAFTA) and in the Asia Pacific Economic Cooperation (APEC) forum has been in part a response to some faltering in the GATT/WTO process. Regionalism represented a second best alternative when prospects for multilateral trade liberalization under the GATT became uncertain in the early 1990's. The U.S. pursuit of regionalism and the prospect of "fortresses" developing on both sides of the Atlantic were credited with helping to bring the Uruguay Round to a successful conclusion. Now, regionalism and multilateralism under the WTO process are both being pursued, consistent with the U.S. view that the two processes are mutually reinforcing. Finally, U.S. participation in regional trade pacts assures the United States of a continued role in regional agreements, which appear likely to move forward with or without U.S. participation.

This report analyzes the implications of regionalism for the United States, focusing on the effects of major RTA's on U.S. agriculture. These are the key questions and findings of this report:

How Will Regional Trade Agreements Affect U.S. Agriculture?

U.S. agriculture can gain from participating in RTA's. By lowering trade barriers among members, the major RTA's in which the United States participates — NAFTA, APEC and, potentially, the Free Trade Area of the Americas (FTAA) — are expected to be trade creating. Increased U.S. agricultural trade and specialization among RTA partners will generate efficiency gains for U.S. farm producers and consumers, although this will lead to some adjustment and change in U.S. agriculture. The U.S. international terms of trade in agriculture are expected to improve, with an increase in farm export prices relative to import prices.

U.S. agriculture can lose when not a member of RTA's. RTA's divert trade by lowering imports from the rest of the world as trade with partners increases. European Union (EU) expansion is likely to divert agricultural trade and reduce U.S. agricultural exports to the EU and to third markets. But, the current Common Agricultural Policy (CAP) program is probably unsustainable with EU expansion, and potential EU farm program reforms would reduce these negative impacts on the United States. A U.S. decision to remain outside the FTAA would divert trade from U.S. agriculture. However, RTA's are expected to induce economic growth in the Western Hemisphere. If this trade-linked growth occurs, the United States will benefit from the FTAA, even as a nonmember. Economic growth in the region will stimulate Latin American agricultural trade with the United States and raise farm incomes, although these effects would be larger if the United States were party to the FTAA.

Agriculture is an important source of U.S. gains from RTA's. Gains from trade liberalization are roughly proportional to the size of the trade barrier. Because agriculture still faces relatively high trade barriers in world markets, its inclusion in trade agreements accounts for much of the U.S. gains from RTA's. Recent RTA's have been more comprehensive in their treatment of agriculture, in contrast to earlier RTA's, many of which excluded agriculture. In APEC, agriculture accounts for 75 percent of total expected U.S. welfare gains from the RTA. With or without U.S. participation in the FTAA, U.S. agricultural trade will increase by more than other sectors due to the hemisphere-wide RTA. In the case of EU expansion, U.S. agriculture will be affected more than other sectors, but these effects will be negative, while effects on U.S. manufacturing will be positive.

RTA's interact with domestic farm programs. RTA's limit the ability of member countries to maintain independent farm programs. Market arbitrage within a free trade area will tend to unify prices, making members' efforts to use farm support programs to maintain different price levels either ineffective or costly. The conversion of most U.S. farm support into decoupled contract payments is compatible with free trade pacts. At the same time, the past decade's reduction in farm support and greater market orientation of many countries' farm sectors have eliminated the inherent conflict between free trade and farm programs, making RTA's more likely to include agriculture, and increasing the gains from RTA's.

Are Regional Trade Agreements Building Blocks or Stumbling Blocks to Multilateralism?

Economywide trade creation effects dominate in major RTA's, raising world welfare. Concern over the size of the trade-diverting impacts of RTA's has been an important argument against regionalism. Case studies of the longrun impacts of four major RTA's (NAFTA, APEC, FTAA, and expanded EU) show that trade-diversion effects are likely to be smaller than trade-creation effects. Because they are expected, on net, to create trade, these RTA's will improve global welfare. These findings suggest that these RTA's will fulfill the intent of the GATT/WTO rules that permit RTA's: their gains from liberalizing internal trade at a pace faster than committed to in the Uruguay Round will outweigh the negative impacts that result from their discrimination against nonmembers.

In agriculture, RTA's have both trade-creating and trade-diverting impacts, but trade creation dominates in most RTA's. The Australia-New Zealand Closer Economic Relations (CER), the Canada-U.S. Free Trade Agreement (CUSTA), and MERCOSUR have led to increased agricultural trade with both partners and nonmembers, supporting the view that RTA's can unleash growth in trade to benefit members and nonmembers alike. When fully implemented, NAFTA, APEC, and the FTAA are expected, on net, to create trade in agriculture. Only the EU has resulted so far in net agricultural trade diversion. Its expansion to include Central and Eastern European countries is also expected to be trade diverting. While trade-creating RTA's are likely to pursue more open markets at multilateral talks, trade-diverting RTA's are less likely to do so.

Recent RTA's have committed to deeper agricultural trade liberalization than agreed to in the Uruguay Round. Smaller regional negotiating groups, the reduction and decoupling of domestic farm support in some RTA's, and a policy paradigm shift in many countries toward more open markets may account for commitments by recent RTA's, particularly in the Western Hemisphere, to a comprehensive liberalization of agricultural trade. This trend is likely to create a stronger constituency for meaningful trade reforms in the upcoming WTO mini-round on agriculture.

Regionalism and multilateralism are likely to be mutually reinforcing in agriculture. A credible multilateral process has already proven to be an important

element in the agricultural trade liberalization achieved in some agreements. In the future, multilateral commitments to reduce protection and support in agriculture could be pivotal in influencing the directions to be taken by APEC and an expanded EU on farm policy reforms and the pace of regional agricultural trade liberalization. In turn, the freer agricultural trade already achieved in the Western Hemisphere and committed to in principle in APEC is likely to strengthen efforts to achieve freer trade at the upcoming mini-round.

What Are the Policy Implications for U.S. Agriculture?

It is important that RTA's achieve their commitments to liberalize agricultural trade. While some recent RTA's have defined a time frame for liberalizing substantially all agricultural trade (NAFTA, MERCOSUR), specific reduction commitments have not been defined in APEC, and the treatment of agriculture in the FTAA is still to be negotiated. Progress in the multilateral talks on reducing barriers to agricultural trade could influence these undefined aspects of RTA's. RTA's that selectively liberalize trade make the trade-diverting effects of RTA's more likely to dominate.

A strong multilateral process can help minimize the negative aspects of RTA's. Studies in this report find that most RTA's have trade-diverting impacts in agriculture, although they are smaller than their trade-creating effects. Protectionist aspects of RTA's include: closed memberships and the adoption by members of common, distorting internal policies, as in the EU; the exclusion of some sensitive agricultural commodities, as in NAFTA; and the adoption of common external tariffs with agricultural tariff escalation, as in the Andean Pact and Central America Common Market (CACM). A strong multilateral process that effectively disciplines the negative aspects of RTA's makes it more likely that RTA's will take shape as trade creating, rather than protectionist agreements.

The United States can potentially gain more from multilateralism than from RTA's. However, multilateral talks have fallen far short of achieving global free trade. Economywide U.S. welfare gains from the Uruguay Round are less than those expected from all RTA's combined. Although the regional initiatives have made significant commitments for opening trade with key U.S. partners, the potential remains for large, additional U.S. welfare gains from achieving global free trade. Agriculture accounts for much of these

gains from free trade, indicating the importance to the United States of pursuing both regional and multilateral agricultural trade initiatives.

Regionalism and Multilateralism: What Do They Mean?

Regionalism

“Regionalism,” “regional trade agreement,” and “regional trade area” are general terms that refer to a commitment among a group of countries to achieve some degree of economic integration. The terms refer to the whole spectrum of levels of economic integration (table 1). The most common type of regional integration is a free trade area, in which internal trade barriers are removed but members maintain independent trade policies toward nonmembers. The free trade agreement among the United States, Canada, and Mexico is an example of a free trade area. The most comprehensive RTA is an economic union, in which members remove all internal trade barriers, permit the free movement of capital and labor, erect common external trade barriers, and unify their fiscal and monetary policies. The EU, as it moves toward the adoption of a common currency, is an example of an economic union.

Two agreements analyzed in this report are not included in table 1. APEC is a regional trade initiative, but not a formal RTA. Likewise, formal negotiation of the FTAA has just begun. The level of economic integration it will achieve is unknown, although it is not

expected to become an economic union. APEC and the FTAA differ from RTA's in some important respects. A key characteristic of both is their inclusion of countries as well as existing trade agreements as components. APEC includes the AFTA and NAFTA agreements, among others; while the FTAA includes NAFTA and MERCOSUR, among others. One role for these initiatives is to reconcile, and possibly to build on, the proliferation of RTA's. While these supranational negotiating initiatives might better be termed free trade networks (Josling, 1998), for convenience they will be referred to as RTA's in this report.

Regional trade agreements have become a significant part of the global trading system. Between 1947 and 1994, 109 regional trade agreements were reported to the GATT, nearly equal to the number of countries that are GATT members (see article by Sheffield, in the companion report). Since 1995, at least 16 new RTA's have been reported to the WTO. RTA's have been established in every region of the world. In the Western Hemisphere, for example, about 40 trade agreements are currently operating, and at least a dozen others are under negotiation (see articles in the companion report by Diao/Somwaru/Raney; and Stout/Ugaz-Pereda). Nearly all WTO members are party to at least one RTA.

RTA's have taken different approaches to reducing barriers to agricultural trade. Most of the recent major RTA's have included agriculture in the removal of internal trade barriers, particularly in the Western Hemisphere (table 2). However, some of the European agreements have only partially liberalized internal agricultural trade. In most recent agreements, most

Table 1 — Selected RTA's and levels of economic integration

Type	Regional trade area	Level of integration
Free trade area	NAFTA, US-Israel FTA, CEFTA, EU-CEE Association Agreements, Australia-New Zealand CER	Members eliminate tariffs among themselves but keep their original tariffs against the rest of the world
Customs union	MERCOSUR, Andean Pact, CACM	Members eliminate tariffs among themselves and adopt a common tariff against the rest of the world
Common market	European Economic Community	Members eliminate tariffs among themselves, adopt a common external tariff, and remove impediments to movements of factors of production across member countries.
Economic union	European Union	Members move beyond the common market to unify their fiscal and monetary policies.

Table 2--Summary of selected RTA's and their agricultural provisions

RTA	Created	Current members	Agricultural provisions
European Union (EU)	1958 (EEC-6)	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom	No internal trade barriers Common Agricultural Policy (unified trade policy and support)
Closer Economic Relations (CER) Agreement	1983	Australia and New Zealand	Free trade in agricultural products
U.S.-Israel FTA	1985	U.S., Israel	Agriculture is covered, but Israel was granted the right to protect infant industries, particularly in agriculture. 1996 Agreement designed to further liberalize agriculture trade particularly U.S. products facing nontariff barriers.
Asia-Pacific Economic Cooperation Forum (APEC)	1989	Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, Philippines, Singapore, South Korea, Taiwan, Thailand, United States. Peru, Russia, and Vietnam became members in 1998.	Goal of free trade in agricultural products by 2010 for developed economies and by 2020 for developing economies.
Southern Common Market (MERCOSUR)	1991	Argentina, Brazil, Uruguay, Paraguay	Nearly all intra-regional tariffs removed, only exempt agricultural product is sugar. Established Common External Tariff, ranging from 0-20 percent for agricultural products (avg. 10 percent)—generally lower than previous tariff levels.
Association of Southeast Asian Nations Free Trade Area (AFTA)	1991	Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar	Transition to FTA with CET planned by 2003. All agricultural products are included.
Central European Free Trade Association (CEFTA)	1992	Hungary, Poland, Czech Republic, Slovakia, Slovenia, Romania	Scheduled to fully liberalize agricultural trade in 1998, postponed until 2000
EU-CEE Association ("Europe") Agreements	1992	EU and Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Bulgaria, Czech Republic, Slovenia	Separate protocol for agriculture: 5-year phase-in for most concessions, limited to tariff decreases and quota increases. Trade in some products, such as grains, not liberalized.
North American Free Trade Agreement (NAFTA)	1994 (CUSTA, 1988)	Canada, Mexico, United States	Most agricultural tariffs between Canada and U.S. eliminated by Jan. 1, 1998; restrictions on sensitive products remain (dairy, poultry, eggs, sugar containing products). Agreement not to use export subsidies in bilateral trade and not to increase or introduce new tariffs. 15-year phase-out of all tariffs, quotas, and licenses that are barriers to U.S.-Mexican agricultural trade. 15-year phase-out of tariffs, quotas, and licenses for most Canadian-Mexican agricultural trade.

Source: Sharon Sheffield, "Agriculture, the GATT and Regional Trade Agreements," in the companion report, AER-771.

farm products are included, although sensitive agricultural products are either given long transition periods or excluded (notably, dairy, poultry, and eggs in NAFTA; sugar in MERCOSUR).

Global agricultural trade has become increasingly regionalized, in some cases in advance of formal regional trade agreements. Thomas Vollrath (see article in the companion report) analyzed the agricultural trade patterns of the 34 member countries of six RTA's. Collectively, these countries accounted for 62 percent of global trade from 1970 to 1995. While their share of global trade is stable, the share of trade within these regions relative to their trade outside the region increased from 30 percent in 1970 to 40 percent by 1995.

Multilateralism

Like regionalism, "multilateralism" is a general term that has several meanings. In this report, we define multilateralism as the multilateral negotiation of global trade liberalization. While multilateralism was strengthened by the completion of the Uruguay Round, full liberalization of global trade has not yet been achieved, and some trade barriers will likely remain for some time. The definition of multilateralism is important when the question is: "How does regionalism relate to multilateralism?" In theory, global free trade is optimal, but this has less policy relevance than a comparison of RTA's, many of which have achieved substantially free trade, with a multilateral process that still contains many remaining trade barriers.

Multilateralism also refers to the lowering of trade barriers on a nondiscriminatory, Most-Favored-Nation (MFN) basis, in which any tariff concessions granted to a partner are also extended to the rest of the world. An example of this is the "open regionalism" approach of APEC. Under open regionalism, members of APEC reduce their import barriers against both other members and the rest of the world. This MFN-based approach by an RTA can benefit all countries, but there is the danger that nonmembers will "free ride" and accept an RTA's tariff reductions without lowering their own barriers.

The Welfare Effects of RTA's

Trade creation, trade diversion, and terms of trade effects constitute the welfare impacts of an RTA (see

appendix on the "Economics of Regionalism"). Trade creation refers to the increased trade within an RTA when internal tariffs are lowered or removed.

Production efficiency increases when a member imports more from a lower cost RTA partner, and its own high-cost domestic production falls. Trade diversion occurs when a member shifts its imports from more efficient, nonmember producers to less efficient partner countries within the RTA. Regional trade agreements are likely to have both trade-creating and trade-diverting impacts, and which effect will dominate depends on many factors.

The effect of RTA's on consumers is also important to consider. Trade creation benefits consumers because they can buy imported goods that are produced at lower cost than the domestic variety. Lower prices, in effect, raise consumer income. Increased income and consumption may cause consumers to import more goods, and through this trade expansion the RTA could even benefit nonmembers.

RTA's also have terms of trade impacts: changes in the supply of and demand for traded goods will lead to changes in export and import prices for both members and nonmembers. An improvement in terms of trade is good for a country; it means a given level of exports buys more imports, which increases consumption and welfare.

Welfare is the sum of trade creation, trade diversion, and terms of trade impacts. In most analyses discussed here, welfare is measured in terms of "equivalent variation," which measures the cost to consumers of the same bundle of goods, before and after entering an RTA. Welfare improves if the bundle of goods costs less as a result of the RTA, but deteriorates if the bundle of goods costs more.

There are other sources of welfare gains from an RTA in addition to the "static" gains described here. RTA's can lead to "dynamic" gains if they stimulate investment, or if trade leads to productivity growth through technology transfers or learning by doing. RTA's can also lead to a rationalization within industries, with fewer companies specializing in production for a larger market, while less efficient producers close down. Studies in this report focus on the static welfare impacts of RTA's, except for the analysis of the FTAA, which links trade with increased investment and productivity growth.

How Major RTA's are Analyzed

The studies in the companion report include two global assessments of RTA's: a historical analysis of the impacts of six RTA's on world agricultural trade during 1970-95, by Thomas Vollrath, and an analysis of the expected impacts of five RTA's on U.S. and global trade and welfare by Mark Gehlhar. There are regional case studies of four RTA's — an expanded EU, APEC, FTAA, and NAFTA. The first three case studies analyze RTA's under alternative assumptions about membership or internal policies, reflecting the current uncertainty about the conditions of their implementation. EU enlargement is analyzed under the assumptions that the support presently provided under its CAP is extended to the Central and Eastern European Countries (CEEC), and alternatively, that significant CAP reforms are implemented simultaneously with enlargement. APEC is analyzed as both a preferential free trade area, and as an MFN-based RTA, in which members adopt "open regionalism" and extend their trade liberalization to both members and nonmembers of APEC. Regional integration in the Western Hemisphere is analyzed under the two assumptions that the United States does and does not join the FTAA. This construction of model experiments provides a measure of potential U.S. gains from the FTAA. In the case of NAFTA, the interactions of the RTA and recent domestic farm program reforms are analyzed.

The global analysis by Mark Gehlhar and most regional analyses use multi-country, computable general equilibrium (CGE) models, which are described in an appendix in the companion report. CGE models are economy-wide and take into account linkages between agriculture and other sectors through intermediate demand and factor markets. These models focus on sectoral resource allocation, production, and trade. They solve for prices, wages, and the real exchange rates that equilibrate product markets, factor markets, and the balance of trade between countries. The analysis of EU expansion by Leetmaa, Jones, and Seeley uses ESIM, a partial equilibrium model of the European agricultural sector. This model has more disaggregation of EU agriculture than is now available in a CGE model, and includes detailed modeling of EU farm programs. Both the CGE models and ESIM provide controlled simulations of the impacts of RTA's only, and do not provide actual long-term projections of the U.S. or world economies.

A Global Assessment of RTA's

In the global analysis, Gehlhar finds that all RTA's combined, including those already being implemented (NAFTA and MERCOSUR) and proposed RTA's (an FTAA that includes the United States, APEC under open regionalism, and EU expansion), will raise world welfare by \$49.6 billion (table 3). Of this total welfare gain, \$47.6 billion is due to APEC (assuming open regionalism), reflecting the large role of APEC's members in the world economy, and the relatively high trade barriers in Asia. RTA's contribute more to world welfare than did the Uruguay Round (UR) of the GATT. This is because RTA's are assumed to achieve full trade liberalization in all sectors, compared with the partial trade liberalization achieved in the Uruguay Round. Yet, even these comprehensive RTA's leave considerable scope for further gains from multilateral trade liberalization. World welfare could increase by an additional \$62 billion under global free trade.

The global analysis identifies some important interactions among RTA's. One example is the conclusion that NAFTA could result in a small reduction in world welfare, although the United States is expected to gain from its membership. Most of the welfare loss would

Table 3—Global and U.S. welfare impacts of regional and multilateral trade liberalization

Trade agreement	Global impact	U.S. impact
<i>Billion dollars</i>		
Uruguay Round	33.7	4.6
NAFTA	-.58	2.32
MERCOSUR	.80	-0.36
FTAA-USA	.34	-.34
FTAA+USA	1.32	3.28
EU Expansion		
(no CAP reform after 1992)	.48	-.6
APEC (preferential trade area)	36.47	11.3
APEC (open regionalism)	16.95	-8.92
Total RTA's	49.62	6.68
Global free trade (after RTA's)	62.0	7.51

Notes: Experiments are conducted sequentially. Results show the incremental welfare impact of individual trade reforms. The net effect of APEC on the U.S. is a \$2.4 billion welfare gain.

Source: Mark Gehlhar, "Multilateral and Regional Trade Reforms: A Global Assessment from a U.S. Perspective," in the companion report.

occur in Asia and stems from policy distortions in Asian agriculture, including high import protection and other farm support. NAFTA slightly increases farm production in Asia, and this movement of additional resources into a highly distorted sector could lower Asian welfare. If Asian countries remove their trade distortions, as committed to under the APEC agreement, global welfare losses due to NAFTA will be eliminated. A second example is the effect that EU enlargement and farm program reforms may have on U.S. gains from APEC. If APEC adopts open regionalism rather than trade preferences, U.S. agriculture would face greater competition in Asian markets from subsidized EU agricultural producers and from other countries. If EU enlargement is accompanied by reduced farm support, as expected, then U.S. benefits from APEC under open regionalism will increase.

Major RTA's Increase World and U.S. Welfare

In table 4, we report the global and U.S. welfare impacts from the regional case studies. An important difference between the regional and the global analyses is that the global analysis, which is sequential, incorporates additional trade liberalization into each base. Regional case studies isolate the impact of a single RTA, and enrich the analysis by incorporating additional sectoral or policy detail in agriculture, or by including the dynamic gains from RTA's. All regional case studies of the prospective effects of RTA's find that in aggregate (but not necessarily in agriculture) their trade-creation effects dominate trade diversion. The size of the trade-diverting impacts of RTA's has been an important element in the debate over RTA's. We find that their trade-diversion effects are smaller than their trade-creation effects. Because they are net trade creating, these RTA's improve global welfare.

While the global welfare impact of an RTA is important, much of the concern about RTA's relates to the distribution of welfare effects between members and nonmembers. Although all RTA's are net trade creating, most have some trade diversion effects that hurt nonmembers. In this report, we find that the United States benefits from the RTA's in which it is a member (NAFTA, APEC, FTAA). Increased trade and low trade diversion generate efficiency gains and raise U.S. welfare. We also find that U.S. welfare may increase even when it is not an RTA member. In the two such cases examined in this report (FTAA without U.S. par-

ticipation, EU expansion), two different factors are important: the economic growth associated with RTA's, and the interaction of trade liberalization with other domestic policy distortions.

RTA's can stimulate foreign investment, capital stock growth, and productivity gains, and this economic growth increases the benefits from free trade. These potential dynamic gains from an RTA are captured in the regional case study of the FTAA by Diao, Somwaru, and Raney. The starting point of the dynamic FTAA analysis is the observation that as a result of market-oriented policy reforms in many Latin American countries in the 1980's, trade has increased and economic growth has accelerated. Assuming that trade and productivity growth are linked, the increased trade under Western Hemisphere RTA's is likely to lead to strong economic growth in the Hemisphere. Economic growth will lead to an expansion of trade that benefits the United States. Western Hemisphere integration (including the Uruguay Round, NAFTA, and MERCOSUR) could lead to a \$5.7-billion increase in U.S. welfare in the short run. U.S. participation in the FTAA could generate additional welfare gains of \$7 billion. The global analysis by Gehlhar concurs that there are costs to the United States from not participating in the FTAA. The static, global analysis does not take into account dynamic productivity increases related to trade, and concludes that U.S. welfare declines if the United States does not participate in the FTAA.

EU expansion provides an example of how domestic policy distortions interact with trade liberalization. (Domestic farm policies and RTA's are discussed in more detail below). In Liapis and Tsigas' analysis of EU expansion, the CEEC is assumed to adopt internal EU policies, including 1992 farm price supports. This would reverse a policy structure within the CEEC countries that previously subsidized manufacturing and taxed agriculture. As the policy incentives are reversed with EU accession, and CEEC manufacturing output declines, U.S. manufacturing will likely gain. U.S. manufacturing gains are likely to be sufficient to outweigh losses to U.S. agriculture, and result in a small, net welfare gain for the United States. The regional analysis finds a small net welfare gain (\$240 million) for the United States from EU expansion while the global analysis finds a small welfare decline (\$600 million). The regional analysis probably overstates the welfare gain to the United States because it assumes that U.S. farm programs are coupled to pro-

duction, so that a declining agricultural sector reduces U.S. subsidy expenditure and contributes to the U.S. welfare gains. Both the global analysis and the regional case study share a key conclusion regarding EU expansion to central and eastern Europe: the aggregate economic impacts on the United States are likely to be small.

U.S. welfare could improve due to its membership in APEC, whether as a preferential trade agreement or under an “open regionalism” agreement. However, U.S. welfare gains are smaller under open regionalism. This is because nonmembers can “free ride” and accept APEC tariff reductions without an obligation to reciprocate. Some of the loss to the United States from free riding occurs in agriculture, which faces greater competition and downward pressures on export prices in the APEC market, compared with a preferential RTA. These terms-of-trade losses account for the relatively smaller gains to the United States from open regionalism. Free riding may not, however, be a stable equilibrium. Coyle and Wang find that free riders’ balance of trade worsens under open regionalism because they become uncompetitive in global markets if they maintain their own tariffs on imported intermediate inputs into consumer or capital goods. This gives non-

APEC countries an incentive to undertake similar trade liberalization. The uncertainty about whether free riding is likely to occur has raised concerns about open regionalism in the APEC framework. Nevertheless, open regionalism is considered to be an ideal form of RTA because it eliminates the possibility of trade diversion.

U.S. Agriculture and Regionalism

We consider the effects of regional trade agreements on U.S. agriculture from two perspectives. First, from a sectoral perspective, we can ask the same questions about the U.S. agricultural sector as we do for the U.S. and the global economies: Is the RTA, on net, trade-creating or trade-diverting? Do terms of trade improve for U.S. agriculture? But, welfare cannot be addressed at the sectoral level because it is an aggregate measure; it represents the sum of RTA impacts that are likely to differ by sector.

Second, we consider the more complex question of the relationship between regionalism and domestic policy, particularly farm support programs. Many countries provide their farmers with price or income support,

Table 4 — Regional case studies: Global and U.S. welfare impacts of selected RTA's

Trade agreement	Model type	Global impact	U.S. impact
<i>Billion dollars</i>			
EU Expansion (no CAP reform after 1992)	CGE (Liapis & Tsigas)	1.6	0.24
EU Expansion + CAP reform	CGE (Liapis & Tsigas)	6.8	0.30
Western Hemisphere integration (FTAA - USA)	Intertemporal dynamic CGE (Diao, Somwaru, Raney)	18.5-174.6 ¹	5.76-42.82 ¹
Western Hemisphere integration (FTAA + USA)	Intertemporal dynamic CGE (Diao, Somwaru, Raney)	26.6-263.2 ¹	12.76-83.86 ¹
Net FTAA effect on U.S.	Intertemporal dynamic CGE (Diao, Somwaru, Raney)	8.1-88.6	7.0-41.04
APEC (Open Regionalism)	Recursive dynamic CGE (Coyle and Wang)	310 ²	38.5 ²
APEC (Preferential Trade Area)	Recursive dynamic CGE (Coyle and Wang)	233 ²	57.1 ²
NAFTA	CGE (Burfisher, Robinson, Thierfelder)	N.A.	0.46

N.A. means scenario was not run by that model, or not able to be calculated given the model structure.

¹ Range of results of the regional case study are from an intertemporal dynamic CGE model. The first numbers are obtained for the short term and the second numbers are for long-term equilibrium. The effects of NAFTA, MERCOSUR, and the Uruguay Round of the GATT are included in both scenarios. The differences between the two scenarios are caused by whether the United States joins the FTAA.

² Results of the regional case study are from a recursive dynamic CGE model. Results reported are for 2020, and take into account the exogenous capital, labor, and productivity growth that occur between 1992 and 2020.

and import protection or export subsidies. How does free trade within a region affect members' domestic farm programs? Conversely, how have RTA's been affected by the unilateral, domestic policy reforms adopted by many countries in the 1990's, particularly in agriculture?

Most Existing RTA's Have Created Trade in Agriculture

Vollrath's historical analysis of agricultural trade during 1970-95 finds that three RTA's — the Australia-New Zealand CER, the CUSTA, and MERCOSUR — have been net trade-creating in agriculture. The ASEAN Free Trade Area (AFTA), whose members are competitive rather than complementary in agricultural

production, displays no evidence of having influenced agricultural trade flows. Of the major RTA's analyzed, only the EU has resulted in agricultural trade diversion. Because the NAFTA and APEC RTA's are not yet fully implemented, it is too soon to assess their impacts on agricultural trade.

U.S. Agriculture Mostly Benefits from Prospective RTA's

U.S. agriculture is expected to gain from its membership in RTA's (NAFTA, APEC, FTAA). Regional case studies found that increased agricultural exports and imports will generate efficiency gains, contributing to welfare gains. Agricultural trade creation is expected to exceed trade diversion and, in NAFTA and APEC,

Table 5--How regional trade agreements affect U.S. agricultural trade

Model	Regional trade agreements excluding the United States			Regional trade agreements including the United States			
	EU expansion + CAP reform	EU expansion (no CAP reform after 1992)	Western Hemisphere integration (FTAA-USA)	Western Hemisphere integration (FTAA+USA)	APEC (Open regionalism)	APEC (preferential trade area)	NAFTA
	ESIM partial equilibrium (Leetmaa, Jones and Seeley) ¹	CGE (Liapis & Tsigas)	Intertemporal dynamic CGE (Diao, Somwaru, Raney) ²	Intemporal dynamic CGE (Diao, Somwaru, Raney) ²	Recursive dynamic CGE (Coyle and Wang) ³		CGE (Burfisher, Robinson, Thierfelder)
<i>Million dollars</i>							
Change in total U.S. ag. imports	—	-15	980	1,810	19,800	14,200	258
Change in total U.S. ag. exports	—	-834	2,530	3,300	75,700	90,500	248
Change in U.S. ag. imports from RTA	—	44	980	2,080	8,000	12,100	270
Change in U.S. ag. exports to RTA	—	-400	1,660	2,800	79,000	101,000	582
Net impact	Likely diverting	Diverting	Creating	Creating	Creating	Creating	Creating
Change in intl. ag. terms of trade	Likely deteriorates	Improves	Shortrun improvement/ longrun decline	Shortrun improvement/ longrun decline	Improves	Improves	Improves

¹The partial equilibrium model does not capture bilateral trade flows. A reduction in EU agricultural imports implies lower U.S. agricultural exports, so the impact on the U.S. is concluded to be "likely trade diverting."

²Results are from an intertemporal dynamic CGE model. The numbers are obtained for the short-term equilibrium. The effects of NAFTA, MERCOSUR, and the Uruguay Round of the GATT are included in both scenarios. The differences between the two scenarios are caused by whether the U.S. joins the FTAA.

³Results of the regional case study are from a recursive dynamic CGE model. Results reported are for 2020, and take into account the exogenous capital, labor, and productivity growth that occur between 1992 and 2020.

U.S. terms of trade in agriculture are likely to improve (table 5). In the FTAA, U.S. agricultural terms of trade may decline in the long run as agricultural productivity gains in Latin American countries increase their competitiveness in third markets — and assuming U.S. trade-linked productivity gains are relatively small — but this economic growth also further stimulates their agricultural trade with the United States.

RTA's in which the United States does not participate have mixed effects on U.S. agriculture. Liapis and Tsigas find that U.S. agriculture is hurt by the trade diversion that results from EU expansion, and U.S. farm exports decline. U.S. agricultural terms of trade improve because increased subsidized production in new EU members causes U.S. agricultural import prices to fall by more than export prices. Leetmaa, Jones, and Seeley find that declining EU agricultural import demand is likely to reduce U.S. farm exports. In the case of the FTAA, economic growth will benefit U.S. agriculture even if the United States does not participate in the FTAA, but it gains more by participating. Diao, Somwaru, and Raney find that U.S. agricultural exports and imports would increase by 6 and 3.2 percent, respectively, if it does not participate, compared with 7.9 and 6.4 percent, respectively, if the United States joins the FTAA. That is, if the United States joins the FTAA, U.S. farmers can achieve an additional 2-percent increase in agricultural exports, and U.S. consumers benefit from an additional 3-percent increase in agricultural imports in the short run.

EU expansion and the FTAA, with and without the United States, both have important effects on increased export competition for the United States in third markets. The expansion of the EU to include the CEEC countries results in lower U.S. agricultural exports to both the EU and third countries. In the case of the FTAA, this competition is likely to become keener if the United States participates in the regional free trade area. This is because the technological advances in our FTAA partners that are linked to trade are likely to be larger if they have greater opportunities to integrate their economies with the U.S. economy through trade and capital investment. (It is assumed that U.S. trade-linked productivity growth is lower than in its less developed partners in the FTAA. Sources of U.S. productivity growth that are not trade-linked are not taken into account in this model.) In the FTAA analysis, the gains in U.S. exports are greater in the short and medium run, compared with the long run, when sustained technological change in our FTAA partners increases

their export supply. While this analysis highlights the effects of an FTAA on increased competition for the United States, it also shows the importance of economic growth and development in these countries for stimulating their demand for U.S. farm exports.

Until recently, agriculture has been excluded or given special treatment in most RTA's. Yet, the comprehensive inclusion of agriculture is a source of much of the expected gains from RTA's. This is because tariffs and nontariff barriers are relatively high in agriculture, and the gains from liberalization are more or less proportional to the size of the initial trade distortions. Coyle and Wang find that agriculture accounts for more than 75 percent of total U.S. welfare gains from APEC because of high initial rates of protection. ASEAN's trade-weighted agricultural import tariff was 43 percent in 1992, China's was 44 percent, and Japan's was 76 percent. Gehlhar also finds that food and agriculture contribute significantly to U.S. terms of trade gains under an APEC preferential agreement. When the relatively high APEC tariff barriers are removed, rising APEC demand for U.S. farm products raises the U.S. agricultural export price and offsets the rising price of manufacturing imports from Asian members of APEC. However, U.S. agriculture contributes a negative terms-of-trade impact if APEC adopts open regionalism because of increased competition from free riders.

Agriculture is affected more than other sectors from regional integration in the Western Hemisphere. Diao, Somwaru, and Raney find that, with or without U.S. participation in the FTAA, U.S. agricultural imports and exports will increase more than trade in other sectors, increasing the share of agriculture in total U.S. trade. In their analysis of EU expansion, Liapis and Tsigas find that its impact on third countries, including the United States, is proportionately greatest in their agricultural sectors. In most cases, agricultural production and exports decline, while non-agricultural exports are hardly affected. Burfisher, Robinson, and Thierfelder find that the greater market orientation of agriculture within NAFTA has increased the allocative efficiency gains from regional free trade. In Mexico, the domestic farm program reforms linked to NAFTA are critical: agriculture can now generate allocative efficiency gains that are large enough to offset terms-of-trade losses, enabling Mexico to achieve a welfare gain, instead of a loss, from NAFTA.

RTA's and Domestic Farm Policy Linkages

The studies in this report focus on four important linkages between RTA's and domestic policy. First, the arbitrage that will occur under regional free trade will create tremendous pressures on RTA members to reduce, decouple, or harmonize their farm support. In effect, RTA's limit the ability of members to maintain independent farm programs that are "coupled" to, or influence, farm production or trade.

Countries have commonly used policies such as input subsidies, guaranteed government purchases or support prices, consumer subsidies, import protection, and export subsidies to achieve such objectives as higher farm prices and rural incomes, and to maintain rural employment. Often, in developing countries, farm subsidies are also linked to overvalued exchange rates and are an attempt to correct an urban bias in domestic policies. Coupled policies become problematic in an RTA: they rely on import controls to be effective or affordable, they undermine the export market of the partner, or they redistribute quota rents to trade partners (table 6). If, for example, a member of an RTA tries to maintain a different price level from its partner through guaranteed prices or government stocks, then imports from the partner country with the lower price will tend to enter its market. Increased imports will drive down the member's domestic price and drive up the costs of its price support policies. If the member country can afford the support program, it in effect

bears at least some of the cost of supporting its partner's producers as well. Domestic production subsidies may be considered to be outside the scope of a regional trade agreement, but by increasing domestic supply, they can in effect reduce the demand for imports from the RTA partner and create tensions within the union.

NAFTA provides an example of the problems resulting from incompatible farm programs because the agreement has both substantially freed regional agricultural trade and allowed the domestic farm programs of its individual members to remain in place. Since NAFTA was signed in 1993, however, all three members have autonomously moved to reduce or eliminate farm support, and most remaining support has been decoupled from production or prices. Before NAFTA, Mexico had a system of guaranteed producer prices for key crops, and provided subsidies to millers that compensated them for the high cost of domestic corn and wheat relative to imports. In the 1980's, Mexico's imports were relatively cheap because of both fixed domestic prices and its overvalued exchange rate. In anticipation of the effects of free trade on its guaranteed price program for corn and beans, Mexico converted its price support programs into direct payments. Burfisher, Robinson, and Thierfelder estimate that Mexico's farm program costs would have increased 135 percent due to increased farm imports under NAFTA if it had not restructured its farm programs. NAFTA members' remaining farm support programs have predictably led to some trade disputes among

Table 6 — Effects of free trade on farm support programs

Support program	Impact of free trade on farm policy
Per unit production subsidy	Subsidy increases domestic supply and lowers import demand from RTA partner.
Guaranteed producer price and consumer subsidy	With fixed producer price, there is no change in domestic supply due to RTA, but cheaper imports from RTA partner drive up cost of subsidizing consumers to purchase domestic product.
Price support through government stocks	High domestic price support induces imports from RTA partner and drives up support costs.
Production or marketing quota	Domestic producers have fixed output, but face lower prices if imports increase under the RTA: quota rents are redistributed to foreigners.
Direct payments	Decoupled policy has no effect on adjustments of production and trade due to RTA.

Source: Adapted from Sumner and Hallstrom (1997).

them.

The EU provides an example of how countries can choose to harmonize their domestic policies as they allow free regional trade. Liapis and Tsigas analyze the expansion of the EU to include the Central and Eastern European countries. In addition to the elimination of internal trade barriers, EU enlargement entails harmonization of trade barriers against third countries, the harmonization of domestic farm policies under the CAP (leading to common prices), and a common budget to finance agricultural support. This common sharing of support costs can lead to unequal and unsustainable fiscal burdens. Liapis and Tsigas find that extending the CAP to the CEEC countries will cost current EU members \$16.2 billion. This will likely create pressures for reforming the CAP as it is extended to new members, and this would reduce the trade-diverting effects of EU expansion on U.S. agriculture.

A second linkage is that the reduction in farm support levels and the greater market orientation of many countries' farm sectors over the past decade have reduced the inherent conflicts between farm support and free trade. Since the mid-1980's, many countries have adopted policy reforms intended to make their farm sectors more market oriented and competitive in global markets. In the Western Hemisphere, in particular, agricultural support has been dramatically reduced, eliminated, or decoupled. On one hand, this likely accounts for the more comprehensive treatment of agriculture in recent RTA's. While earlier RTA's, such as the European Free Trade Area (EFTA),¹ excluded agricultural products, most RTA's formed in the last 10 years treat agriculture more comprehensively, particularly in the Western Hemisphere. In a case study of the U.S.-Israel Free Trade Area Agreement, Michael Kurtzig and Daniel Pick analyze how the treatment of agriculture has evolved over time in a single agreement, including its more comprehensive treatment of more difficult, nontariff trade barriers.

Conversely, by entering into free trade agreements that include agriculture, countries are effectively locking in the reforms that they have implemented in their farm sectors. Market arbitrage within a free trade area acts as a discipline on internal subsidies by making some

ineffective or too costly to restore.

Third, domestic farm policy reforms can increase the efficiency gains that can be achieved under RTA's. Farm policies such as guaranteed prices, government stock holding, and export subsidies tend to insulate farmers from market price signals and prevent the reallocation of resources that is a source of gains from free trade. Burfisher, Robinson, and Thierfelder analyze the separate and combined effects of NAFTA and recent farm program reforms in the United States, Canada, and Mexico. In all three countries, the impacts of farm program reforms alone are greater than the impacts of NAFTA on agricultural output and trade. However, the shift toward decoupled farm programs has caused producers to become more responsive to changing market prices due to NAFTA, and this has increased efficiency gains from the RTA. Under decoupled farm programs, the greater magnitude of agricultural resource reallocation in response to NAFTA leads to larger welfare gains for the United States and Canada. In the case of Mexico, the new farm programs enable Mexico to gain from NAFTA. With a more market-oriented farm sector, Mexico's allocative efficiency gains offset its terms of trade losses from NAFTA. Without farm program reforms, Mexican welfare would have declined under NAFTA. It is the combined effects of NAFTA and farm program reforms that may account for the perception that NAFTA has had large impacts on the region's farm sectors.

Fourth, trade liberalization within an RTA is, in many cases, not the only policy reform being implemented, making the effects of RTA's difficult to isolate. In some countries, economy-wide reforms that include removing or reducing domestic taxes and subsidies and unilateral trade policy reforms pre-date the formation of an RTA. These reforms create the conditions for rapid growth in some regions' trade and economies even before the RTA, and may themselves have built up pressures to open up markets through RTA's. Vollrath's analysis of the effects of RTA's on agricultural trade finds that increased integration and regionalization of trade occurred in both MERCOSUR and APEC prior to formal agreements. In other cases (Australia-New Zealand CER and CUSTA) a sharp rise in intraregional agricultural trade occurred after the agreement. This suggests that those RTA's had an important influence on trade and, according to Vollrath, were net trade creating.

¹The EFTA free trade agreement, established in 1960 and which now includes Iceland, Norway, Switzerland and Liechtenstein, excluded agriculture from the removal of internal trade barriers.

Thomas Worth examines the effects of RTA's on foreign direct investment (FDI) and argues that domestic policy reforms other than regional trade liberalization have been more important in influencing investment in some cases. For example, the enactment of NAFTA did not represent a large policy change for the United States, Canada, or Mexico. Canada and the United States had liberal trade and investment policies before NAFTA. Mexico's reduction in its trade and investment restrictions in 1989 had led to a tripling of U.S. investment in Mexico from 1989 to 1993, but little additional investment occurred after the enactment of NAFTA, due in large part to the currency crisis. In the MERCOSUR countries, the changes in FDI appear to have correlated more with changes in macroeconomic policies than with the formation of an RTA. The case of AFTA is unique in that large increases in FDI and trade in the region led to the trade agreement instead of the other way around. H. Christine Bolling analyzes U.S. FDI in food processing industries in the three major RTA's: EU, MERCOSUR, and NAFTA. Her findings corroborate Worth's argument that joining an RTA does not necessarily bring new FDI: economic growth, market size, and changing consumer tastes have more direct effects on investment, although an RTA can affect these key determinants.

RTA's and Agriculture: Building Blocks or Stumbling Blocks to Multilateralism?

The debate over the role of RTA's as building blocks or stumbling blocks for multilateralism has an immediacy for global agriculture because of the commitment to begin a WTO mini-round on agriculture in 1999. An RTA acts as a building block by either prompting an acceleration in multilateral negotiations, or adding new members and converging on globalism. Stumbling blocks do the opposite. We emphasize a third relationship between RTA's and multilateralism: their complementary and mutually reinforcing impacts in liberalizing agricultural trade.

Sheffield describes the concurrent progress made on agricultural trade liberalization in RTA's and under the Uruguay Round. Until recently, RTA's largely exempted agriculture from regional trade liberalization, with the notable exception of the European Union. But over the past decade, many RTA's, particularly in the Western Hemisphere, have been comprehensive in their liberalization of agriculture, eliminating both tar-

iff and nontariff barriers, and going substantially further than their WTO commitments. By opening their agriculture to regional free trade, member countries' farm sectors are already making adjustments to open markets. This reduces the remaining burden of adjustment posed by multilateral trade reforms, and promises to build a constituency for further agricultural trade liberalization at the mini-round.

The ability of RTA's to omit agriculture was also circumscribed by the Uruguay Round. The exclusion or limited liberalization of agriculture by RTA's was possible in part because of the many other "holes" in the GATT agreement regarding trade restrictions on agricultural products, such as waivers on quantitative import restrictions if they interfered with domestic supply control policies. A significant accomplishment of the Uruguay Round was to close some of these holes by imposing disciplines on agricultural trade barriers and trade-distorting domestic farm policies. Leetmaa, Jones, and Seeley discuss the important role that stronger multilateral disciplines are having in influencing the direction of farm program reforms in the EU. EU expansion and the prospect of extending the CAP to new members from Central and Eastern Europe has the potential to massively increase EU farm program expenditures. Budget pressures are a key factor in instigating a reduction in EU farm subsidies, but the direction of this reform is being defined by the commitment in the Uruguay Round to "decouple," and to reduce the trade-distorting effects of domestic subsidies.

In a second example, Michael Kurtzig and Daniel Pick analyze the 1996 revision of the U.S.-Israel Free Trade Area Agreement to provide for greater access for U.S. agricultural products. The 1996 Agreement on Food and Agriculture (AFA) was motivated partly by Israel's failure to fully implement the terms of the 1985 agreement. It was also an effort to bring the 1985 agreement into compliance with the new rules of the Uruguay Round governing agricultural trade. The AFA dealt mainly with removal of nontariff barriers, which had been permitted by the 1985 agreement but are no longer allowed under the WTO.

The U.S.-Japan beef negotiations offer an additional example of the importance of a credible multilateral process in influencing the successful outcome of a bilateral trade agreement. John Dyck provides a case study of U.S.-Japan beef negotiations: these were narrowly focused discussions that successfully dealt with

nontariff barriers. In 1988, the United States and Japan signed an agreement to phase out Japan's quota system for beef. The agreement is viewed as of major consequence because of the size of Japan's beef imports and because of the length and intensity of the negotiations, which took place sporadically over 20 years. The U.S.-Japan negotiations on beef and the Tokyo Round were closely connected. While there was no formal link between these bilateral talks and the Uruguay Round of the GATT, Dyck argues that the bilateral agreement could only have been achieved with the credible threat of GATT actions against Japan. In the early 1980's, U.S. complaints to the GATT about Japanese trade practices not related to beef were one form of leverage that influenced Japanese decisions on beef. Conversely, Dyck argues that the 1988 agreement may have influenced the outcome of the Uruguay Round, since, for U.S. agriculture, the successful performance of U.S. exports to Japan provided additional evidence that U.S. agriculture could gain from freer world trade.

The Uruguay Round also strengthened the multilateral oversight of RTA's. RTA's represent a major derogation of the most favored nation principle of the GATT. They are allowed under Article 24 of the GATT, which places constraints on RTA's that are intended to foster their trade-creating characteristics, while minimizing their trade-diverting impacts. Article 24 allows RTA's provided that (1) no external tariffs are raised, (2) substantially all barriers to trade between partners are removed, and (3) a "reasonable" time frame is established for the complete implementation of the agreement. GATT treatment of RTA's has been criticized because of the ambiguity of these provisions. For example, it was not clear what constituted "substantially" all trade, nor was it specified whether tariffs referred to applied tariffs or to average or weighted rates. Under a Memorandum of Understanding (MOU) signed during the Uruguay Round, tariff rates and adjustment periods were defined more specifically.

RTA's now must be reported to the WTO Committee on Regional Trade Agreements (CRTA), which was formed in 1996. So far, the CRTA has devoted much of its time to developing a systematic approach to RTA notification and review, as well as identifying areas where greater clarification is required. At the same time, the CRTA has also had to examine the backlog of new or existing RTA's reported since the formation of the WTO. It is too early to say how well the CRTA will be able to perform its surveillance role given the

amount of work and the difficulty in addressing these issues.

The more comprehensive treatment of agriculture in recent RTA's, and their net trade-creating impacts, suggests that RTA's are playing a positive role in liberalizing global trade. Nevertheless, a strong multilateral process is likely to remain important — both to minimize trade-diverting characteristics of RTA's, and to define or constrain the unfinished agendas in some RTA's. In Latin America, for example, RTA's are rapidly proliferating, and the effects of these criss-crossing preferential tariff rates is uncertain. Stout and Ugaz-Pereda analyze agricultural tariffs in four Latin American RTA's, and identify tariff-related issues. In MERCOSUR, the RTA both lowered the agricultural tariffs of Argentina and Brazil against nonmembers, and eliminated tariff escalation, in which tariffs on processed goods are higher than on bulk agricultural products. But, the common external tariff of MERCOSUR was increased in late 1997, at least temporarily, signaling the ability of the members to achieve consensus on raising trade barriers. In Chile, the overlapping tariffs that result from its network of bilateral trade agreements require complicated rules of origin (ROOs). ROOs are particularly difficult to enforce in agriculture because of the homogeneity of bulk agricultural products, and can easily become a form of disguised protection. Both the Andean Pact and the Central American Common Market (CACM) have adopted common external tariffs that provide tariff escalation, making it difficult to compete in their processed food markets. One of the main objectives of an FTAA would be to reconcile and simplify the increasingly complex system of Latin American tariffs.

What APEC will look like when fully implemented is another important question for the global economy. From the U.S. perspective, inclusion of agriculture in APEC is critical because of the high protection rates in East Asia. APEC has set a goal of free trade in agricultural products for developed members by 2010, and for less developed members by 2020, but no interim or staged reductions have been specified. Some members, including Mexico and Chile, already have low agricultural trade barriers and are reducing or eliminating farm support. Other APEC members have continued to protect their agricultural sectors. It is difficult to predict whether APEC will achieve its goals in agriculture. Some of APEC's agricultural trade liberalization will probably coincide with the multilateral negotiations under the mini-round in agriculture. The two

processes are likely to interact: multilateral talks may help to make APEC's agricultural trade liberalization more concrete, while the APEC commitment to free agricultural trade may help to define the goals of the mini-round.

This report (and its companion—AER-771) provides an economic evaluation of major RTA's, but the political economy of regional trade agreements is also important in understanding how they may affect the multilateral process. The political economy characteristics of RTA's are not yet well understood: there are opposing views as to how some important characteristics influence the dynamic path of the RTA. These are the key elements of the debate: Is the motivation for an RTA to open markets, and to complement or lock in other market-oriented policies, or is the RTA protectionist in character? Does an RTA create or strengthen interest groups that benefit from trade diversion and have incentives to lobby against free trade? Organized producer groups can effectively "capture" the national policy agenda, and divert it toward protecting producer interests. As RTA's continue to expand, are large blocs likely to exert market power to improve their terms of trade, and thereby lose the incentive to move toward global free trade? Or are large blocs better able to negotiate global free trade? Is admission to the RTA open, so that any nonmember who is negatively affected by the RTA can eliminate trade diversion impacts by joining? Or, does open admission seduce members into regional initiatives and divert their political energies from multilateral initiatives? Does free trade within the RTA result in deeper integration of policies and institutions, and is this deeper integration around trade-creating or trade-diverting policies?

Whether RTA's are more beneficial for the United States than multilateralism is a fundamental policy issue. Because the United States is a global trader with diverse trade partners, it can potentially gain more from global free trade than from regional trade agreements. But so far, multilateral talks have fallen far short of achieving free trade, and the gains to the United States from the deeper commitments made by RTA's are expected to exceed those from the Uruguay Round. But the influence of RTA's on the multilateral process is still uncertain, and they hold the potential to harm nonmembers. Because the two processes can provide important, mutually reinforcing influences, their joint pursuit can benefit U.S. agriculture.

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Appendix: The Economics of Regional Integration

The concepts of trade creation and trade diversion form the core of economic analyses of RTA's. Trade creation can occur within an RTA. Production efficiency improves when RTA members import more from lower cost RTA partners, and less efficient domestic production falls. Consumption efficiency improves when consumers in an RTA can buy imports at prices that are lower than those for domestic products. As a hypothetical example, assume an RTA is formed between Guatemala, an efficient coffee producer that can produce wheat only with intensive and costly irrigation, and Nicaragua, an efficient wheat producer that can produce coffee only in greenhouses. An RTA creates trade if it results in greater Nicaraguan imports of relatively low-cost Guatemalan coffee, and a shift in Nicaraguan farm production from hot-house coffee into wheat. Guatemala gains if it imports more relatively low-cost Nicaraguan wheat, and grows less of its intensively irrigated domestic wheat. Nicaraguan consumers gain because of the decline in the price of coffee, while Guatemalan consumers gain from the lower price of wheat.

Trade diversion occurs when RTA members shift their imports from more efficient, nonmember producers, to less efficient partner countries within the RTA. This reduces the world's production efficiency, and hurts consumers within the RTA, who now import from high-cost members of the RTA. In the example of Nicaragua and Guatemala, assume that prior to forming an RTA, Nicaragua had identical tariffs on its imports of cocoa from all sources. Assume that at that tariff, Nicaragua imported its cocoa from Mexico,

which produced it at lower cost than Guatemala. After the RTA, trade diversion would occur if Nicaragua shifts its cocoa imports from Mexico to Guatemala. In this case, the removal of Nicaraguan tariffs gives Guatemala's higher cost cocoa an advantage over Mexican cocoa in the Nicaraguan market. Nicaraguan consumers pay less for duty-free cocoa imports under the RTA, but when lost tariff revenue is also accounted for, Nicaragua has net losses from trade diversion.

RTA's can either benefit or harm nonmembers. Efficiency gains and increased real income within the RTA may increase the RTA's demand for imports. This is trade expansion, and it can benefit nonmembers. Conversely, both producers and consumers in nonmember countries are hurt by trade diversion. Production efficiency declines if nonmember countries must now produce goods they formerly imported at lower cost from RTA members. In the case of Mexico and Nicaragua, the shift of Nicaraguan wheat exports to Guatemala reduces export availability for Mexico, and causes Mexico to shift to wheat production and out of cocoa, the crop in which Mexico has an international comparative advantage. Mexico's consumption efficiency declines because it must now pay for higher cost domestic wheat.

Most RTA's have both trade-creating and trade-diverting impacts. Whether the trade-creation or the trade-diversion effect dominates depends on many factors, including production cost differences, rates of initial tariffs, and relative supply and demand responses (app. table 1). For example, if an RTA is formed between two countries with very different costs of production, there would be large potential gains as production shifted to lower cost producers.

Appendix table 1 —An RTA tends to be more trade creating than trade distorting...

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- the larger are unit production costs differences within the RTA
 - the smaller are cost differences between members and nonmembers
 - the higher the pre-RTA tariff
 - the lower the post-RTA tariff that is set between the RTA and nonmembers
 - the greater the member country's supply and demand responsiveness, in the case of trade creation
 - the more competitive the pre-RTA structure of members' economies due to tariffs
 - the larger the initial trade flows between complementary or "natural" partners
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Terms-of-Trade Effects

If the RTA is large enough in world markets to affect the prices of its imports and exports, or if the costs of production increase as production expands, there can also be terms-of-trade effects. “Terms of trade” refers to the relative prices of imports and exports. An RTA is likely to improve the terms of trade for members and lower them for the rest of the world. This is one of the primary concerns that nonmembers have about RTA’s. In the example of the RTA between Nicaragua and Guatemala, decreased Nicaraguan demand for Mexican cocoa might lower its price. Likewise, the shift of Nicaraguan wheat exports to Guatemala could reduce the availability, and raise the price, of Mexico’s wheat imports from Nicaragua. While Nicaragua loses from the diversion of its imports from Mexico to Guatemala, its full cost would be reduced by its improved terms of trade with Mexico. That is, the Nicaraguan wheat export price to Mexico has risen, while its cocoa import price from Mexico has declined. Conversely, the trade diversion causes Mexico’s terms of trade to worsen. Terms-of-trade changes are key to understanding the distributional impacts of an RTA: the costs of trade diversion can be partially, or even fully, borne by nonmembers if their terms of trade deteriorate.

Trade creation, trade diversion, and terms-of-trade effects constitute the welfare impacts of an RTA (app. table 2). Welfare refers to the efficiency of resource use in production, and the ability of consumers to satisfy their preferences.

RTA’s as Building Blocks or Stumbling Blocks to Multilateralism

The effects of RTA’s on the multilateral trade liberalization process have generated intense debate. Just as Viner (1950) influenced the debate over customs unions by articulating the twin concepts of trade creation and trade diversion, Bhagwati (1991) has influenced the debate over regionalism by developing a time path conceptualization of RTA’s as building blocks or stumbling blocks to the multilateral freeing of trade. Building blocks contribute to multilateralism by adding new members or by prompting an acceleration in multilateral trade negotiations. Stumbling blocks do the opposite. Economic theory is still engaged in identifying the characteristics of RTA’s that are likely to make them building blocks or stumbling blocks to multilateralism (app. table 3). For many of the characteristics considered relevant, there are opposing views as to how they influence the dynamic path of the RTA.

Appendix table 2 — Welfare impacts of regional trade agreements

Trade creation	<i>Production</i> shifts to lowest cost producer in RTA
	<i>Consumption</i> shifts from domestic goods to imports from RTA partner
Trade diversion	<i>Production</i> shifts to RTA member, as imports decline from lower cost, nonmember exporter; if an importer, nonmember’s production increases, as RTA exports shift to partner destination
	<i>Consumption</i> by RTA members shifts to imports from higher cost RTA partner; consumption by nonmembers shifts to higher cost domestic products
Terms-of-trade effects	Market size or nonconstant costs affect prices of imports relative to exports

Appendix table 3 — Are regional trade agreements stumbling blocks or building blocks to free trade?

RTA's are building blocks when...

- ...they reinforce or lock in domestic policy reforms
- ...they have open admission and outsiders are motivated to join
- ...they tackle issues that are too deep or complex for multilateral negotiations
- ...as large blocks, they influence negotiations toward free trade
- ...deeper integration of policies and institutions creates trade
- ...non-members receive unconditional MFN status.

RTA's are stumbling blocks when...

- ...they create interest groups that benefit from trade diversion
 - ...they divert political capital from multilateral initiatives
 - ...as large blocks, they exert market power to improve terms of trade for members
 - ...they block additional members to preserve trade gains
 - ...they maintain external trade preferences
 - ...deeper integration of protectionist policies diverts trade.
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