

**NAFTA AND AGRICULTURE:
Implications for Changes in U.S. Farm Policy**

Gary W. Williams*

TAMRC International Research
Report No. IM-5-01
November 2001

*Professor of Agricultural Economics and Director, Texas Agricultural Market Research Center, Department of Agricultural Economics, Texas A&M University, College Station, Texas 77843-2124.

**NAFTA AND AGRICULTURE:
Implications for Changes in U.S. Farm Policy**

Texas Agricultural Market Research Center (TAMRC) International Research Report No. IM-5-01, November 2001 by Dr. Gary W. Williams.

Abstract: The primary impacts of NAFTA have been to stimulate U.S. imports of specific products from Mexico and to lock in U.S. trade gains achieved through the unilateral liberalization of Mexican agricultural and food trade that began in the mid-1980s. The more open borders and closer linkages among U.S., Canadian, and Mexican markets as a result of NAFTA imply that either less domestic policy intervention or different types of more costly intervention may be required to achieve the same level of price support than otherwise. At the same time, NAFTA implies that some policy choices may be less effective while others are less costly in achieving a given level of price support than in the absence of freer trade under NAFTA.

The Texas Agricultural Market Research Center (TAMRC) has been providing timely, unique, and professional research on a wide range of issues relating to agricultural markets and commodities of importance to Texas and the nation for over thirty years. TAMRC is a market research service of the Texas Agricultural Experiment Station and the Texas Agricultural Extension Service. The main TAMRC objective is to conduct research leading to expanded and more efficient markets for Texas and U.S. agricultural products. Major TAMRC research divisions include International Market Research, Consumer and Product Market Research, Commodity Market Research, Information Systems Research, and Contemporary Market Issues Research.

**NAFTA AND AGRICULTURE:
Implications for Changes in U.S. Farm Policy**

EXECUTIVE SUMMARY

Despite the optimism of proponents and the concerns of critics, NAFTA has had a limited direct impact on either U.S. agricultural trade with Canada and Mexico or the pattern of agricultural production and processing in the United States. NAFTA has primarily stimulated U.S. imports of specific Mexican products and locked in U.S. trade gains achieved through the Mexican unilateral trade liberalization that began in the mid-1980s. By maintaining more open borders among all three countries, however, NAFTA will insure greater direct interaction and response of the agricultural markets in each country to changes in market and economic conditions in any of the other member countries. As a result, the pattern, composition, and growth in U.S. agricultural trade with its NAFTA partners will be increasingly determined by the underlying comparative advantage in each country as affected by a broader range of forces external to those markets than ever before, many of which may be more important to future U.S. agricultural trade with Canada and Mexico than the provisions of NAFTA, including changes in domestic farm policies.

Although NAFTA contains no commitments on changes in domestic farm policies so that there is no direct linkage between NAFTA and changes in U.S. farm policy, the three NAFTA member countries agreed to “endeavor to move toward domestic support policies that are not trade distorting.” In general, policy changes in all three countries since the implementation of NAFTA have been consistent with the concept of less distortion of markets and trade. In the U.S., the FAIR Act of 1996 ended deficiency payments and supply management programs and substituted fully decoupled contract payments (AMTA payments) based on historical acreage and yields designed to decline over 7 years to assist U.S. farmers in adjusting to lower levels of government support. In recent years, however, concerns over low prices and declining farm incomes have led to calls for U.S. farm policy adjustments to reduce the exposure of U.S. farmers to adverse market conditions.

The more open borders and closer linkages among U.S., Canadian, and Mexican markets as a result of NAFTA imply that either less domestic policy intervention or different types of more costly intervention may be required to achieve the same level of price support than otherwise. Also, NAFTA implies that some policy choices may be less effective while others are less costly in achieving a given level of price support than in the absence of freer trade under NAFTA.

For U.S. export commodities, a reduction in import restrictions by member countries under NAFTA increases U.S. market prices and reduces the amount and cost of any type of intervention required to achieve a given level of price support. Elimination of Mexican import barriers under NAFTA also increases the U.S. export demand elasticity which reduces the effectiveness of supply management programs as price support tools while increasing the cost of

a given level of price support. Arbitrage within NAFTA, however, could make attaining and maintaining effective price support more difficult. For example, research by the Food and Agricultural Policy Research Institute (FAPRI) suggests that the adoption of H.R. 2646 (the Farm Security Act of 2001) would increase the production and reduce the prices of grain and cotton modestly. In this case, NAFTA would indirectly reduce the cost of the program to U.S. taxpayers by truncating the downward potential of market prices while increasing the competitive pressure on Canadian and Mexican markets.

For U.S. imported commodities, NAFTA eliminates import quotas as a viable U.S. price support policy option and forces the substitution of policies that shift the support costs from consumers and foreign producers to U.S. taxpayers. Mexican access to the U.S. sugar market under NAFTA, for example, renders the sugar quota ineffective which is forcing forfeitures of nonrecourse sugar loans. As a result, the U.S. Government has resorted to other means of shoring up sugar prices. Access of Mexican sugar to U.S. markets could also render the no-cost sugar marketing controls proposed by H.R. 2646 ineffective as well in supporting price.

NAFTA also implies that U.S. farm policy must be responsive to additional competitive threats and opportunities such as competitive investments by Mexico and Canada in new technology research and development, the enhanced opportunity to promote U.S. exports of agricultural products in Mexico and Canada, and the increased effectiveness of development assistance to Mexico to foster long-term economic growth and market development.

NAFTA AND AGRICULTURE: Implications for Changes in U.S. Farm Policy

One lesson of the last 5 years for U.S. agriculture under the FAIR Act of 1996 is that there can be both benefits and costs from pursuing a more market-oriented policy. While allowing markets to function with less government policy-induced distortions allows producers to reap greater benefits from strong foreign markets, a market-oriented policy also means that producers must suffer the consequences of weak markets, declining world prices, and production surpluses with less help from the government. So, after several years of unexpectedly low prices for most commodities, rising costs of production, and strong international competition, the current debate on a new U.S. farm bill is signaling the possibility of some departure of U.S. agricultural policy from the goal of increased market orientation to include additional protection to producers when markets are soft. Such an adjustment in the direction of U.S. farm policy would run counter to U.S. trade policy, particularly with respect to trade accords like the North American Free Trade Agreement (NAFTA) in which the U.S. participates.

When NAFTA was negotiated in the early 1990s, the focus was on trade policies among the U.S., Canada, and Mexico. While NAFTA's treatment of policies affecting agricultural trade was fairly comprehensive, providing for the eventual elimination of tariffs and quotas and addressing export subsidies, import safeguards, rules of origin, and sanitary and phytosanitary measures, the treatment of domestic farm policies was left for the ongoing multilateral trade negotiations. Nevertheless, the more open borders among the three countries as a result of NAFTA means that domestic farm policy changes in any of the three countries have the potential for greater impact on the domestic agricultural sectors of the other member countries and trade among all member countries than before the implementation of NAFTA.

This paper explores the relationship between NAFTA and U.S. agriculture with the objective of assessing the potential implications of NAFTA for the current debate on changes in U.S. farm policy. After providing some background on NAFTA and the performance of North American agricultural trade since its implementation, this paper analyzes the effects of NAFTA on the U.S. farm policy and the farm policy choice set.

The NAFTA Debate

In contrast to the U.S. experience during the negotiation of a U.S.-Canada Free Trade Agreement (CUSTA) that was implemented in 1989, the negotiations on a North American free trade area that began in 1991 were accompanied by a rancorous debate in the U.S. on the costs and benefits of free trade. Because CUSTA already existed, the debate focused primarily on Mexico and the consequences for the U.S. economy of a free trade area with our less developed neighbor to the south. NAFTA proponents claimed that the agreement would expand trade, boost economic growth, and create a net increase in employment in all three countries. Critics warned, however,

that lower trade barriers would encourage many U.S. industries to move to Mexico to take advantage of the low cost labor and lax enforcement of environmental regulations typical of many developing countries. In the agriculture sector, proponents argued that a NAFTA would open the door to a huge new market in Mexico for U.S. agricultural and food products, especially feedgrains, beef, and processed foods. Opponents of the agreement claimed that the agreement would mainly stimulate Mexican production and exports to the United States and a relocation of U.S. agricultural production and processing to Mexico.

Despite the debate raging the U.S., the governments of the three North American countries pushed ahead with negotiations and announced in the summer of 1992, a little over a year after negotiations began, that an agreement had been reached. With continuing problems in the GATT negotiations, a recently concluded trade agreement between U.S. and Canada (CUSTA), and an apparent strong commitment by Mexico to policy and trade reforms, political leaders in all three countries recognized the potential mutual benefits of creating a free trade area in North America. In simple terms, Mexico wanted some reciprocity from Canada and the U.S. to balance its own unilateral removal of trade restrictions. The U.S., on the other hand, was more interested in creating a counterbalance to the growing economic threat of European harmonization. Canada primarily wanted to be directly involved in determining the rules of North American trade rather than be left to accept the rules that a U.S.-Mexico trade agreement might imply for U.S.-Canada trade through the recently established CUSTA.

NAFTA Provisions on Agriculture

Implemented on January 1, 1994, the NAFTA obligates the three member countries to expand the flow of goods, services, and investment through: (1) a full, phased elimination of import tariffs, (2) an elimination or fullest possible reduction of non-tariff trade barriers, such as import quotas, licenses, and technical barriers to trade; (3) the establishment of clear, binding protection for intellectual property rights; and (4) fair and expeditious dispute settlement procedures. Trade restrictions applied by each country to imports from all other countries were unaffected by the agreement. For agriculture, NAFTA actually created two separate bilateral agreements, one between the U.S. and Mexico and the other between Canada and Mexico, in addition to the already existing CUSTA which was folded into the trilateral accord.

The U.S.-Mexico agreement required the immediate elimination of all import tariffs on about 50% of all agricultural commodities traded between the two countries upon implementation of the agreement (Figure 1). For most of those commodities, however, the import duties were already low or negligible. All remaining tariffs on U.S.-Mexico agricultural trade were to be systematically reduced over 5, 10, or 15 years and in some cases in concert with special safeguard provisions. A small share of U.S.-Mexico agricultural trade (about 10%) was scheduled for liberalization over a five-year period. These products were deemed to be too sensitive for immediate liberalization but not sensitive enough to require more than five years of transition to free trade.

Tariffs for most sensitive products were scheduled for elimination over a 10- or 15-year transition period, some of which were allowed special safeguards in the form of tariff-rate quotas (TRQs) to facilitate the transition to free trade for producers of those products by charging a low or zero duty on imports up to a specified level after which a higher tariff (the current or original) would be applied. Both the within-quota and the over-quota tariffs were scheduled to decline to zero over the specified time period. The initial TRQ levels were determined by average trade levels and were to expand at a 3% annual compounded rate over the transition period. Ten-year TRQs were put in place for U.S. imports of selected Mexican fruits and vegetable and Mexican imports of U.S. hogs, pork, potatoes, and apples. Fifteen-year TRQs were provided for the most economically and politically sensitive products, including U.S. imports of Mexican sugar, peanuts, and frozen concentrated orange juice and Mexican imports of U.S. corn, dry beans, and non-fat dry milk.

Mexico and the U.S. also agreed to the phased elimination of non-tariff barriers to agricultural trade. Mexico agreed to eliminate its import licensing requirements on U.S. products. The U.S. agreed to replace Section 22 (Agricultural Adjustment Act of 1933) quotas on imports from Mexico with TRQs during the transition period. Mexico also became exempt from the U.S. Meat Import Act.

In addition, NAFTA confirmed the right of each country to establish and maintain the level of sanitary and phytosanitary (SPS) protection each considered appropriate to protect human and animal health and plant life. Trade measures related to SPS protection must be based on scientific principles and a risk assessment and not simply result in disguised restrictions to trade.

Rules of origin were included to prevent non-NAFTA countries from taking advantage of the preferential trading arrangements afforded NAFTA countries. To resolve the trade disputes expected to arise among the three member countries, NAFTA created various formal dispute resolution mechanisms. Those most applicable to agricultural trade disputes are related to anti-dumping (AD) and countervailing duty (CVD) laws (Chapter 19 of NAFTA) and to the interpretation or application of NAFTA provisions (Chapter 20 of NAFTA).

The Contribution of NAFTA to U.S. Agricultural Trade with Canada and Mexico

What has been the contribution of NAFTA to recent increases in U.S. agricultural trade with Mexico and Canada? What impact has NAFTA had on U.S. agricultural production and processing and the composition of U.S. agricultural trade with NAFTA countries?

U.S. Agricultural Exports to NAFTA Countries

Has NAFTA boosted the level of U.S. agricultural exports? The data clearly show that U.S. sales of agricultural products to both Mexico and Canada have grown in recent years (Figures 2 and 3). However, NAFTA is not likely the primary reason for several reasons. First, CUSTA had already been in place for five years when NAFTA was implemented and had long-since established the pattern of change in U.S.-Canada agricultural trade. Second, Mexico began unilaterally opening its markets to trade, substantially reducing tariffs and eliminating many non-tariff barriers to trade, a decade before NAFTA was ever implemented. U.S. barriers to agricultural imports from Mexico were also relatively few so that relatively few explicit barriers to U.S.-Mexico trade remained to be eliminated when NAFTA was implemented. Third, NAFTA requires the few remaining trade barriers to be eliminated slowly over 5, 10, or 15 years. Finally, many trade-distorting non-tariff barriers to U.S.-Mexico agricultural trade were not included in the agreement.

Based on a simple trend and structural change analysis, Williams concludes that there has been no significant change in the trend growth in the value of U.S. agricultural exports to Mexico before and after NAFTA (Figure 4). In other words, U.S. agricultural exports to Mexico in the post-NAFTA years have followed the trend established during the pre-NAFTA years as Mexico unilaterally liberalized its trade. A similar analysis of U.S.-Canada agricultural trade leads Williams to conclude that while CUSTA has had a significant impact on the both the level and the rate of growth of U.S. agricultural exports to Canada, NAFTA has had little impact on that trade (Figure 5).

U.S. Agricultural Imports from NAFTA Countries

Has NAFTA boosted U.S. imports of agricultural products from Canada and Mexico? In this case, a trend and structural change analysis by Williams provides a clear indication that NAFTA has indeed increased the rate of growth in U.S. agricultural and food imports from Mexico (see Figure 4). This makes sense because while Mexico had already unilaterally eliminated most of its trade barriers over the decade prior to NAFTA, the U.S. only began eliminating its existing barriers to Mexican imports with the implementation of NAFTA. On the other hand, Williams concludes that U.S. agricultural imports from Canada have been growing at an increasing rate since the early 1980s which has been little affected by either CUSTA or NAFTA (see Figure 5). The U.S.-Canada agricultural trade balance which slid slowly from positive to negative during the 1990s jumped back to a positive level in 1990 following the implementation of CUSTA but slowly slipped from positive to negative once again during the 1990s (Figure 6). CUSTA has forced a one-time upward adjustment in the U.S. agricultural trade balance but has had no effect on the downward trend in that balance.

NAFTA and Agricultural Production and Processing

Has NAFTA driven U.S. agricultural production and processing south to Mexico as some believed would happen? There is little statistical evidence to suggest that NAFTA *per se* has had a substantial impact on either the patterns or trends in agricultural production or processing in North America (Williams). U.S. processed food exports to Mexico and capital investments by U.S. food manufacturing and processing firms in Mexico have been growing in recent years but that growth is actually a continuation of a trend that began well before the implementation of NAFTA. The growth in U.S. capital investments in Mexico represents primarily an expansion of the U.S. food industry into Mexico to take advantage of the growing Mexican market rather than a relocation of U.S. food processing plants and operations to Mexico as a means of lowering costs.

Implications of NAFTA for Changes in U.S. Farm Policy

So despite the optimism of proponents and the concerns of critics, NAFTA has so far had a limited direct impact on either U.S. agricultural trade with Canada and Mexico or the pattern of agricultural production and processing in North America. Over the longer term, NAFTA will likely have some substantial direct effects on U.S. trade primarily with Mexico in specific agricultural products for which relatively restrictive trade barriers remain to be completely eliminated. At the same time, NAFTA will continue to lock in the gains from trade realized by the U.S. both before and since the implementation of NAFTA, helping to prevent Canada and Mexico from resorting to trade barriers in times of economic crises as a means of stabilizing their economies and shifting the burden of adjustment onto U.S. markets.

By maintaining more open borders among all three countries, NAFTA will also insure greater direct interaction and response of the agricultural markets in each country to changes in market and economic conditions in any of the other member countries. As a result, the pattern, composition, and growth in U.S. agricultural trade with its NAFTA partners will be increasingly determined by the underlying comparative advantage in each country as affected by a broader range of forces external to those markets than ever before, many of which may be more important to future U.S. agricultural trade with Canada and Mexico than the provisions of NAFTA, including changes in domestic farm policies.

General Implications of NAFTA for U.S. Farm Policy Changes

Although NAFTA contains no commitments on changes in domestic farm policies so that there is no direct linkage between NAFTA and changes in U.S. farm policy, the three NAFTA member countries agreed to “endeavor to move toward domestic support policies that are not trade

distorting.” Any effects of NAFTA on U.S. farm policy choices and the consequences of those choices for U.S. agricultural markets are likely to be largely indirect or at least limited to specific commodities because NAFTA is likely to have a limited and largely indirect effect on U.S. agricultural trade and markets.

In general, policy changes in all three countries since the implementation of NAFTA have been consistent with the concept of less distortion of markets and trade. In the U.S., the FAIR Act of 1996 ended deficiency payments and supply management programs and substituted fully decoupled contract payments (AMTA payments) based on historical acreage and yields designed to decline over 7 years to assist U.S. farmers in adjusting to lower levels of government support. In recent years, however, concerns over low prices and declining farm incomes have led to calls for U.S. farm policy adjustments to reduce the exposure of U.S. farmers to adverse market conditions. The more open borders and closer linkages among U.S., Canadian, and Mexican markets as a result of NAFTA imply that either less domestic policy intervention or different types of more costly intervention may be required to achieve the same level of price support than otherwise. At the same time, NAFTA implies that some policy choices may be less effective while others are less costly in achieving a given level of price support than in the absence of freer trade under NAFTA.

NAFTA and Changes in U.S. Farm Policy for Exported Commodities

For commodities that the U.S. exports, a reduction in import restrictions by member countries under NAFTA tends to increase U.S. market prices and, therefore, reduces the amount and the cost of any type of intervention required to achieve a given level of price support. Deficiency payments, export subsidies, nonrecourse loans, marketing loans, and similar programs are all less costly given higher U.S. market prices under conditions of freer trade. Because the elimination of import barriers also tends to increase the elasticity of the U.S. export demand, however, NAFTA tends to reduce the general effectiveness of supply management programs like acreage reduction, land diversion, and marketing controls as tools to raise U.S. market prices while increasing the cost of a given level of price support. On the other hand, except for deficiency payment programs, arbitrage within NAFTA could make attaining and maintaining effective price support more difficult. At the same time, NAFTA implies that member countries will share in the adjustments to changes in U.S. farm policies to a greater extent than might be the case without NAFTA.

Under a U.S. deficiency payment program for wheat and feedgrains, for example, the elimination of import restrictions by Mexico under NAFTA would subject Mexican producers to increased competition from greater imports of U.S. grains and result in a drop in the land area devoted to those crops in Mexico, along with accompanying negative impacts on Mexican producer welfare, farm employment, and farm incomes. As illustrated in Figure 7, the Mexican system of import licensing limits imports to $0Q_m$, supports the internal price of grains in Mexico at P_m , and renders the Mexican excess demand for grains inelastic below the internal price (P_m) at the quantity Q_m . When added to the excess demand for U.S. grains by the rest of the world (ED_{row}), the Mexican kinked excess demand results in a kinked total excess demand for U.S. grains (ED_w^*). Under a deficiency payment

program for grains in the U.S., the U.S. excess supply curve (ES_{us}) is likewise kinked below the designated target price level (P_t). The result is a market price level of P_w^* , a deficiency payment of $P_t - P_w^*$, and U.S. exports of $0Q_x^*$. The elimination of the Mexican grain import licensing system under NAFTA results in a downward sloping Mexican excess demand curve for grains once again (ED_m) which forces the total excess demand for U.S. grains to pivot from ED_w^* to ED_w . As a result, the internal Mexican price of grains declines (from P_m to P_w) and Mexican imports of grains increase (from Q_m to Q_m^*) while the world and U.S. market price of grains increases from P_w^* to P_w , reducing the required deficiency payment to $P_t - P_w$, and expanding U.S. exports from Q_x^* to Q_x . Given a deficiency payment program, therefore, NAFTA would facilitate greater U.S. exports, less competition from Mexican producers, higher U.S. market prices, and lower government program costs as a result of the program than would otherwise be the case. Mexican producers would share in the cost of the increased income support for U.S. farmers to some extent in the form of lower prices.

An export subsidy program would have the same effects except in that case, an increase in Canadian exports of the grains to the U.S., unfettered by import controls under NAFTA, to take advantage of higher prices in U.S. markets could make it more difficult and costly for the U.S. to support domestic wheat and feedgrain prices in that way. In essence, the U.S. would end up having to subsidize exports of both U.S. and Canadian grains to achieve its price support goals.

On the other hand, under a supply reduction program or a loan program with loan rates above market prices, the consequences of freer trade under NAFTA would be less severe for Mexico while still reducing U.S. program costs. Figure 8 demonstrates that to raise market price to the desired support level (P_s) given Mexican quantitative restrictions on imports at Q_m , the U.S. supply of grains must be reduced to S_{us}'' from S_{us} which rotates the U.S. excess supply curve (ES_{us}) to ES_{us}'' . With Mexican liberalization of its imports, however, the excess demand curve the U.S. rotates to ED_w from ED_w^* . Consequently, to raise market price to P_s , U.S. supply must be reduced to only S_{us}' rather than S_{us}'' with

a consequent rotation of the U.S. excess supply curve to ES_{us}'' . If the price support was achieved through a non-recourse loan program, Mexican liberalization of its grain imports would require fewer loan defaults (the quantity represented by the distance bc in Figure 8) than with the Mexican import liberalization (the quantity ac in Figure 8). Thus, given a U.S. price support program through supply reduction or nonrecourse loans, an elimination of Mexican wheat and feedgrain import restrictions under NAFTA would mean less import pressure facing Mexican producers, a smaller drop in Mexican prices, and, therefore, a smaller negative impact on Mexican grain production than would be the case under a deficiency payment program. At the same time, loan defaults in the U.S. would decline and/or less supply reduction would be necessary to achieve the given level of support. As with an export subsidy, however, a freer inflow of grains from Canada under NAFTA could again tend to undermine the price support program forcing a larger acreage reduction or more loan defaults to achieve the given level of support.

One version of a new U.S. farm bill currently being considered by the U.S. Congress is House Bill H.R.2646 (the Farm Security Act of 2001). To reduce the exposure of U.S. producers of most grains and cotton to low market prices, H.R. 2646 proposes to add a counter-cyclical payment (CCP) to a

fixed payment (similar to but slightly higher than the AMTA contract payment) whenever the sum of the market price (or the loan rate if higher) and the fixed payment are below a set target price. The target prices are set slightly higher than the levels that prevailed under the 1990 farm bill. Because they are triggered by current prices but do not require recipients to produce the payment crop, the CCPs are considered to be decoupled from production decisions. In theory, decoupled payments to farmers are not trade-distorting because the payments are received whether or not a crop is planted and regardless of the level of farm income. Even so, the payment of CCPs would represent an additional subsidy to U.S. agriculture, designed to support producers in years of low prices, which would boost the competitiveness of U.S. compared to Mexican and Canadian agricultural producers in years of low prices. According to FAPRI, the adoption of H.R. 2646 would increase U.S. net farm income in each year from 2002 to 2010, increase Commodity Credit Corporation (CCC) outlays, and result in modest increases in grain and cotton production and modest declines in their prices. In this case, by removing barriers to trade with Mexico, NAFTA again indirectly acts to reduce the cost of the program to U.S. taxpayers by truncating the downward potential of market prices and increasing the pressure on Canadian and Mexican markets with additional U.S. supplies of grains and cotton. One result might be increased tension over U.S.-Canadian grain trade and growing complaints about the difficulty of selling U.S. grain, particularly wheat, in Canada.

NAFTA and Changes in U.S. Farm Policy for Imported Commodities

For U.S. commodities that compete with imports from Canada or Mexico, NAFTA is likely to play a more direct role in policy choices than is the case for export commodities because the effects of NAFTA on U.S. imports are likely to be more direct. In this case, NAFTA eliminates import quotas as a viable policy option for supporting prices, forcing the substitution of policies that shift the cost of price support from consumers and foreign producers to U.S. taxpayers and eliminating any quota rents or tariff revenues. Whether NAFTA results in any welfare gains depends on the market distorting effects of the domestic price support policies selected to replace the import restrictions.

The U.S. sugar market is a good example of the impact of NAFTA on price support programs for imported commodities. The U.S. sugar program has historically supported prices to sugar producers through an import quota, generating quota rents and implying no budget outlay by the federal government. As illustrated in Figure 9, the U.S. imports sugar from Mexico (m) and the rest of the world (row). In the absence of NAFTA, U.S. sugar imports are limited by an import quota of $Q_{us} = Q_c - Q_s$ (the difference between the U.S. domestic supply and demand for sugar) generating a price P_{us} in the domestic U.S. sugar market, a price P_w in the world sugar market, and exports of Q_{row} to the U.S. by all countries except Mexico, and exports of $Q_{us} - Q_{row}$ to the U.S. from Mexico. The access to the U.S. sugar market granted to Mexico under NAFTA, however, essentially augments the U.S. domestic supply of sugar, increasing the effective supply of sugar available to the U.S. market by the amount available from Mexico at each price (ES_m), depicted in Figure 9 as a shift in the U.S. supply curve from S_{us} to $S_{us} + ES_m$. In turn, the

increase in the supply of sugar available to the U.S. domestic market reduces the U.S. excess demand for sugar by the amount of the excess supply available from Mexico ($ED_{us} - ES_m$) implying a new, lower U.S. excess demand for sugar of ED_{us}^{row} facing the excess supply available from the rest of the world (ES_{row}) which remains subject to the quota. As a result, the U.S. import quota (Q_{us}) is filled by imports from the rest of the world which allows the world price of sugar to rise from P_w to P_w^* . The price of sugar in Mexico, however, rises from P_w to $P_{us,m}$ while the U.S. domestic price of sugar drops to that same level in the absence of any other U.S. price support mechanism. As a result of NAFTA, therefore, U.S. imports of sugar increase from $Q_{us} = Q_c - Q_s$ to $Q_{us}^* = Q_c^* - Q_s^*$ which exceed the U.S. quota by $Q_{us}^* - Q_{us}$, the amount of imports from Mexico ($= Q_c^* - Q_c + Q_s - Q_s^*$). Because U.S. sugar nonrecourse loan rates tend to be higher than the lower U.S. market price of sugar from by the access of Mexican sugar to U.S. markets, NAFTA works to force nonrecourse loan forfeitures as Kennedy argues. Because the Mexican imports cannot be limited and the import quota cannot be further reduced to bolster prices without breaking commitments under NAFTA or WTO, the U.S. Government has had to resort to various means of providing price relief to domestic sugar producers including purchases of sugar and “in kind” (PIK) payments to producers to plow under some of their crop.

H.R. 2646 proposes mandatory sugar marketing controls to limit U.S. supply and support U.S. farm prices. The access to U.S. sugar markets granted to Mexico under NAFTA, however, would likely render such a program largely ineffective on its own. Unless sugar imports from Mexico could be subjected to the marketing controls, other policies, such as decoupled payments to sugar producers, acreage reduction incentives, marketing loans, or continued PIK payments, would be necessary to alleviate the negative consequences for U.S. sugar producers of continued sugar imports from Mexico. Nevertheless, a shift from import controls to a domestic sugar marketing program that provided the same level of price support to U.S. sugar producers would help take sugar off the NAFTA trade irritant list. The Mexican sugar industry is under pressure by growing imports of cheap HFCS from U.S. wet corn millers for use in the Mexican soft drink industry (Jurenas). As a consequence, the Mexican sugar industry has been pressing to expand its sales into the U.S. market. U.S. and Mexico disagree, however, over just how much sugar Mexico can export to the U.S. under NAFTA. Adoption of domestic marketing controls as a substitute for the current import quota would allow greater imports of sugar from all sources, including Mexico.

Other Implications of NAFTA for U.S. Farm Policy Changes

NAFTA has additional implications for U.S. farm policy choices beyond farm price and income support programs. Because NAFTA strengthens the linkage among the markets of the member countries, the performance of U.S. agricultural markets is likely to be impacted by a broader range of forces external to those markets than ever before. Many of those forces may be more important to the future growth and profitability of U.S. agriculture than NAFTA itself. Consequently, U.S. farm policy must be responsive to the additional competitive threat and opportunities that such forces may imply as a result of NAFTA.

Of particular importance to the competitive position of U.S. agriculture is the relative rates of investment in research and the development of new technologies among the three NAFTA countries. Given the more open markets under NAFTA, a relative decline in U.S. investments in new production technology, for example, could result in a more rapid increase in U.S. agricultural imports from Canada and Mexico and slower growth in U.S. exports to both countries than might be expected from just the reduction of trade barriers among the three countries. Málaga, Williams, and Fuller conclude that a decline in U.S. investments in the development of yield-enhancing technologies relative to such investments in Mexico could have a greater impact on the level of U.S. imports of fresh vegetables than the elimination of U.S. vegetable import tariffs. Consequently, NAFTA implies a greater urgency for U.S. agricultural policy to insure an adequate level and growth in investments in research and new technology development to maintain the competitiveness of U.S. agriculture. The return to U.S. agricultural producers of NAFTA-sensitive products from such investments could be particularly high in terms of the limitation on imports or the incentive for exports that such investments might induce.

NAFTA also means that programs to promote the demand for U.S. agricultural and food products in Canada and Mexico are more effective than otherwise would be the case. Given the growth in Mexican per capita incomes, the limited suitable land area for the expansion of agricultural production in Mexico, and the preference provided by NAFTA to U.S. exports, programs to enhance the Mexican demand for U.S. agricultural and food products, in particular, from generic commodities like rice, oilseeds, and meat to branded, higher value food products could pay large dividends to U.S. agriculture over time. Indeed, the primary accomplishment of NAFTA could simply be to allow the U.S. agricultural and food sector to get its foot in the door to potentially important markets in a large developing country. As development occurs in Mexico over time, programs to promote U.S.-produced agricultural and food commodities could help insure that the U.S. agricultural sector has the advantage over its global export competitors in access to a growing Mexican market.

For the same reasons, NAFTA implies that an increase in development assistance to Mexico to foster long-term economic growth could now be particularly effective in boosting Mexican demand for U.S. agricultural and food products while limiting the growth in the available supply of Mexican commodities for export to the U.S. Strong, continued growth in Mexican demand for agricultural and food products would provide the necessary basis for long-term adjustments and investments in U.S. and Mexican agriculture to service a growing Mexican market. Without significant growth in Mexican income and food demand over time, Mexican agricultural and food markets will continue to be serviced primarily by local suppliers with little or no significant increase in capital investments or technology improvements despite NAFTA.

Finally, because freer trade tends to increase the elasticity of U.S. export demand, NAFTA helps reduce the variability of farm prices in response to weather events, changes in macroeconomic conditions, and shifts in foreign agricultural policies. In this sense, NAFTA implies greater effectiveness of policies designed to stabilize farm prices like the CCPs proposed by H.R. 2646.

References

- Food and Agricultural Policy Research Institute (FAPRI), "Analysis of the Grain, Oilseed, and Cotton Provisions of the Agricultural Act of 2001, H.R. 2646," FAPRI-UMC Report #09-01, University of Missouri, Columbia, Missouri, August 2001.
- Jurenas, R., "Sugar Policy Issues," CRS Issue Brief for Congress No. IB95117, Congressional Research Service, The Library of Congress, Washington, D.C., September 4, 2001.
- Kennedy, P.L., "Sugar Policy," *The 2002 Farm Bill: Policy Options and Consequences*, J.L. Outlaw and E.G. Smith, eds., Publication No. 2001-01, Farm Foundation, Oak Brook, Illinois, September 2001.
- Málaga, J.E., G.W. Williams, and S.W. Fuller, "U.S.-Mexico Fresh Vegetable Trade: The Effects of Trade Liberalization and Economic Growth," *Agricultural Economics* 26 (1):45-55, October 2001
- U.S. Department of Agriculture (USDA), "NAFTA Situation and Outlook," Economic Research Service, Report No. WRS-99-1, Washinton, D.C., August 1999.
- U.S. Department of Agriculture (FATUS), "Foreign Agricultural Trade of the U.S. - Database Search," Economic Research Service, Washington, D.C., available online at the following website: <http://www.ers.usda.gov/db/FATUS/>.
- Williams, G.W., "The North American Free Trade Agreement: Effects on U.S. Agriculture and Trade," Texas Agricultural Market Research Center International Market Research Report No. IM-4-01, Department of Agricultural Economics, Texas A&M University, College Station, Texas, November 2001.

Figure 1: NAFTA Schedule of U.S.-Mexico Tariff Elimination

Immediate 1/1/1994	Fifth Year 1/1/1998	Tenth Year 1/1/2003	Fifteenth Year 1/1/2008
United States corn, sorghum barley oranges, apples pears, peaches fresh strawberries beef, pork, poultry Mexico sorghum oranges (12/1-5/30) other citrus fresh strawberries	United States non-durum wheat soyoil oranges (12/1-5/30) cotton Mexico pears, plums, apricots cotton	United States durum wheat, rice limes winter vegetables dairy frozen strawberries Mexico wheat, barley, rice dairy, soymeal/oil hogs/pork, poultry oranges (6/1-11/30) peaches, apples, frozen strawberries potatoes	United States FCOJ winter vegetables sugar peanuts Mexico corn sugar dried beans powdered milk

Source: USDA

Figure 2: U.S. Agricultural Trade with Canada, 1980-2000

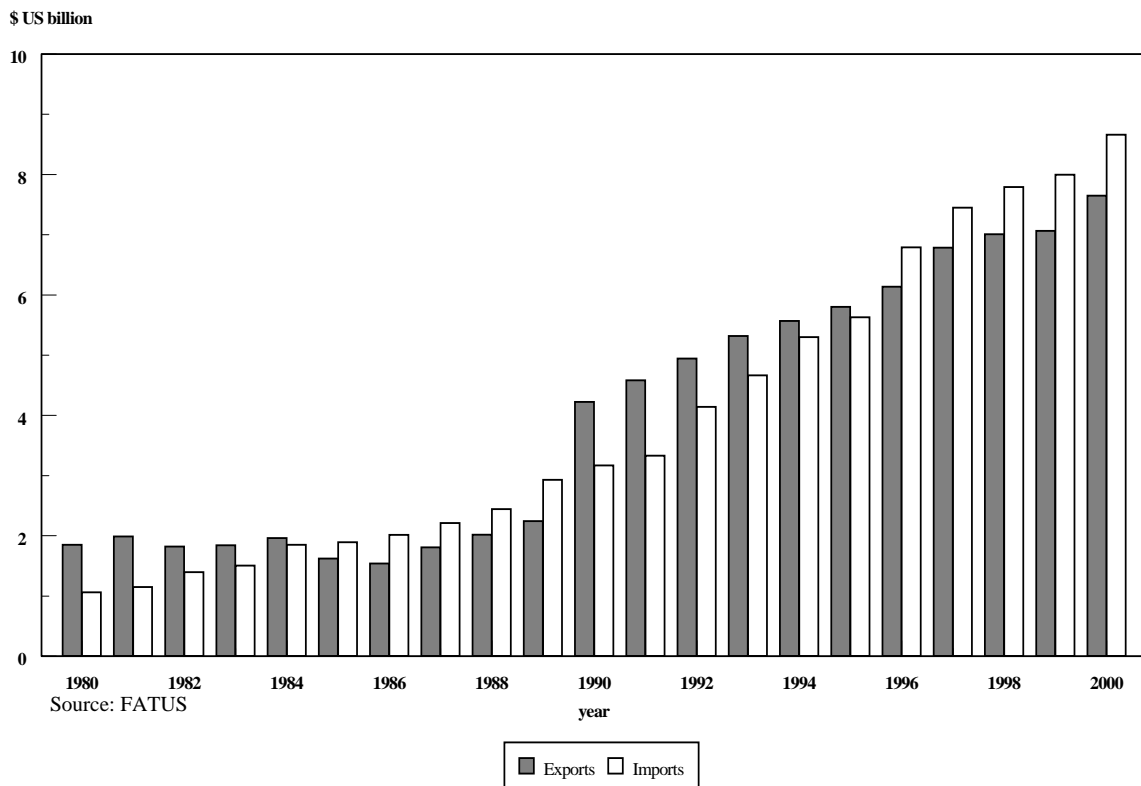


Figure 3: U.S. Agricultural Trade with Mexico, 1986-2000

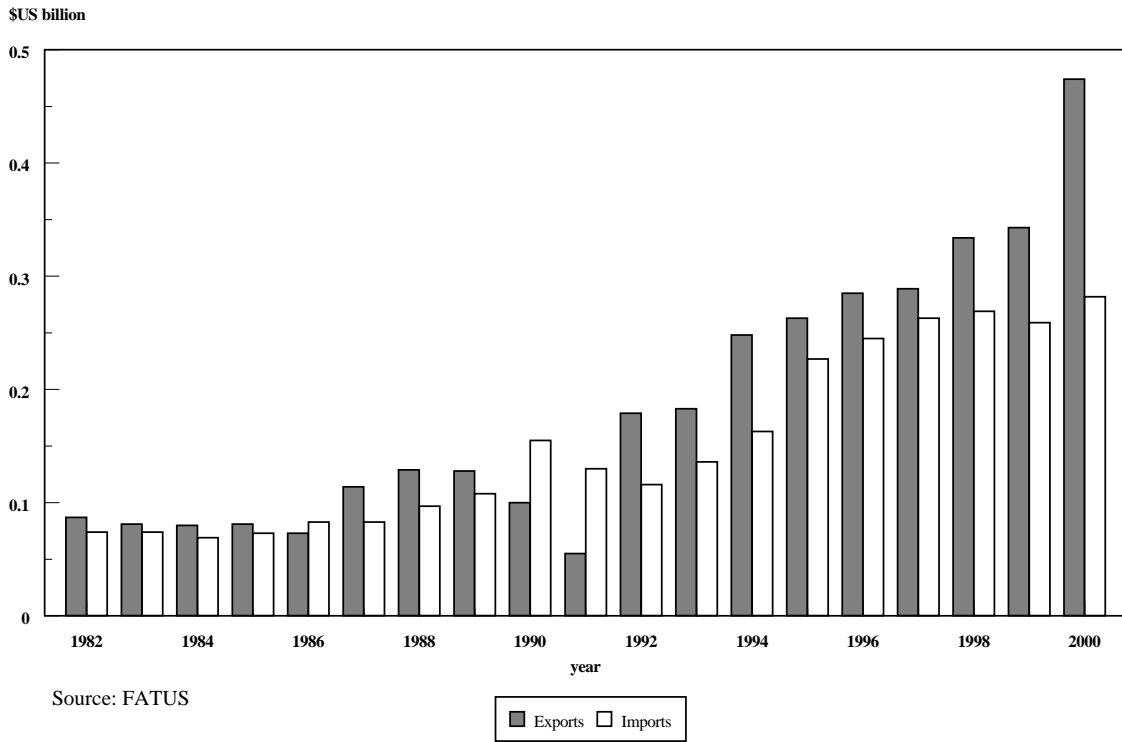


Figure 4: Trend Growth in U.S. Agricultural Trade with Mexico, 1986-2000

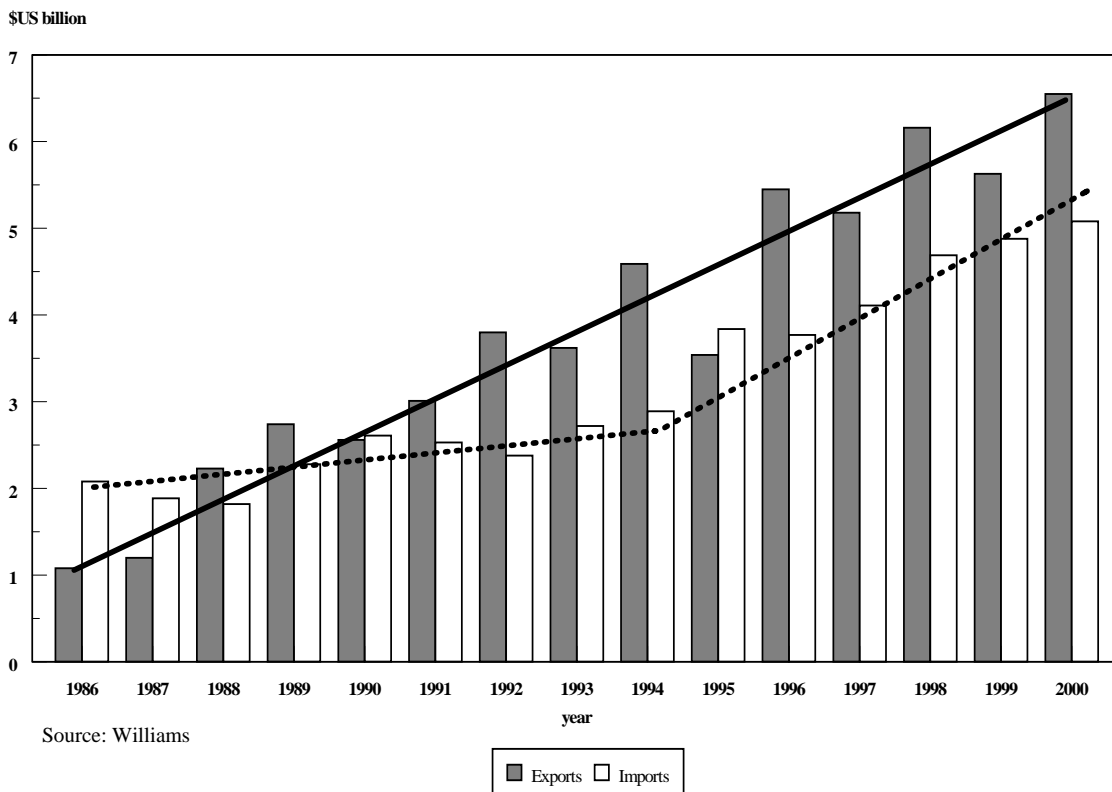


Figure 5: Trend Growth in U.S. Agricultural Trade with Canada, 1980-2000

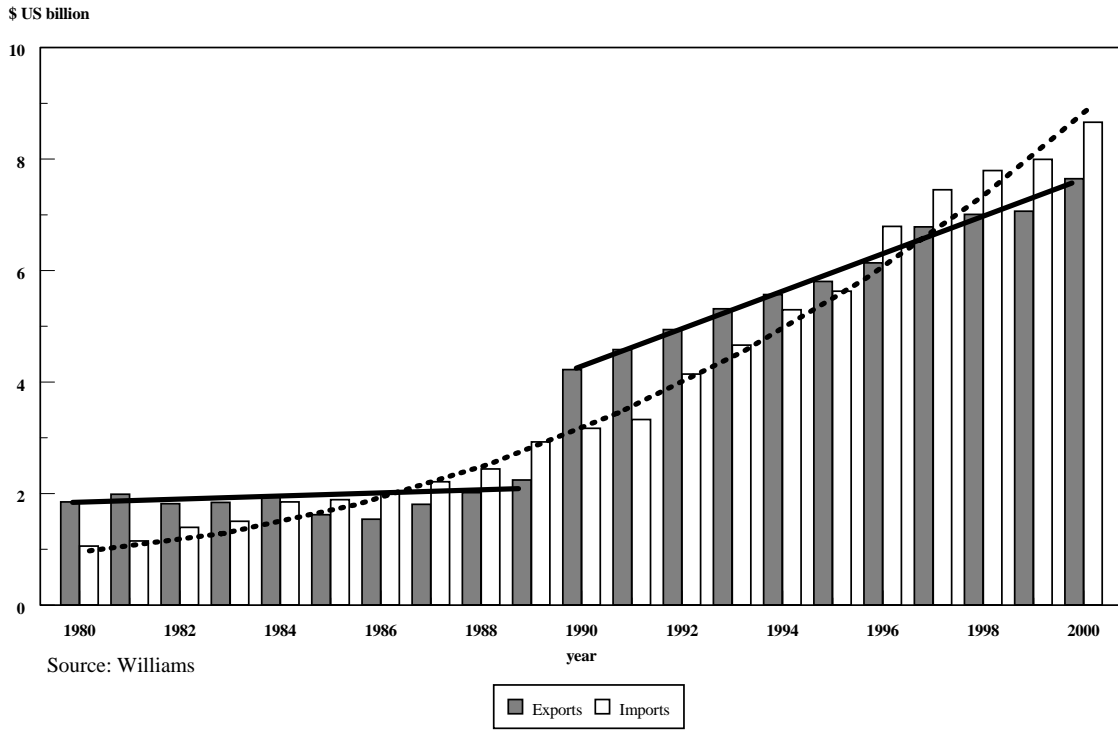


Figure 6: Trend in U.S. Agricultural Balance of Trade with Canada, 1980-2000

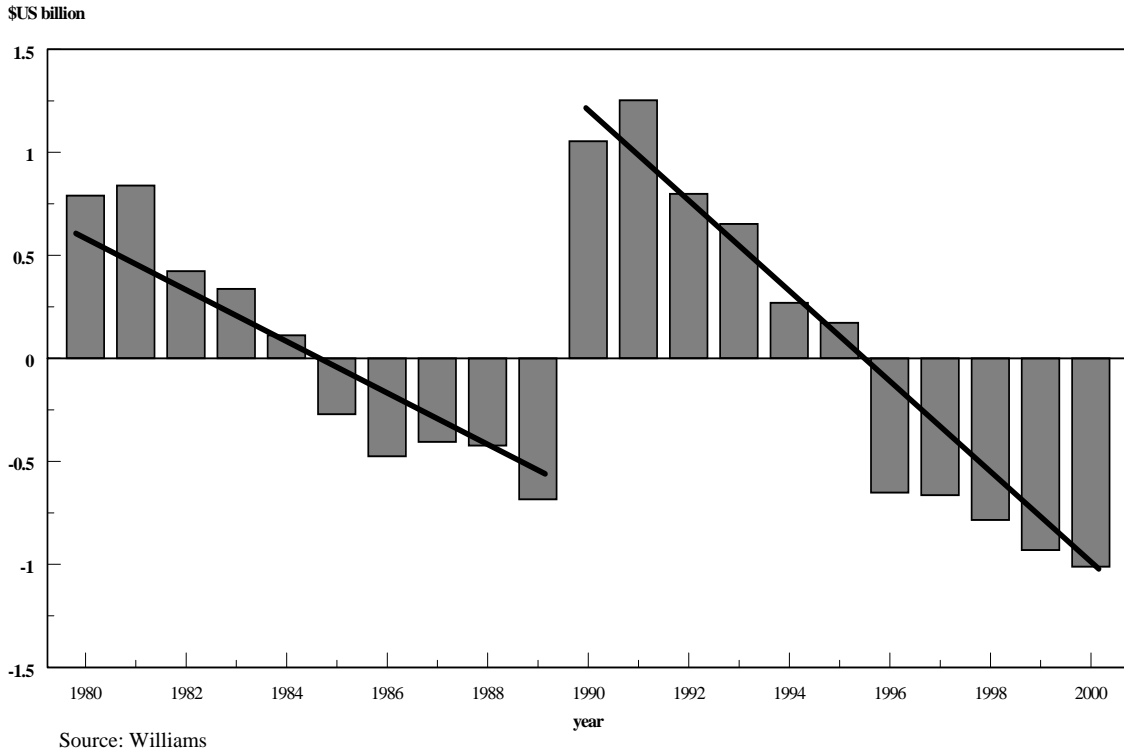


Figure 7. NAFTA and U.S. Farm Policy: Deficiency Payment Example

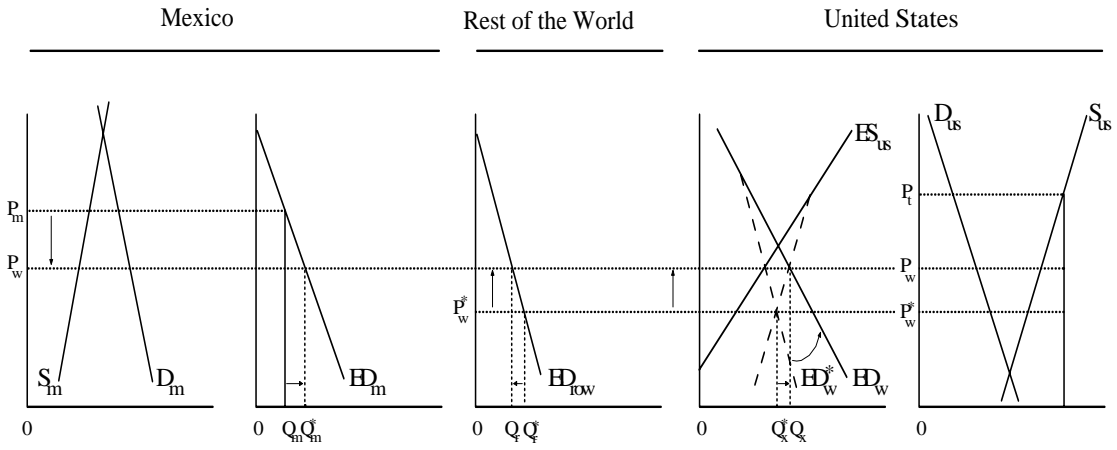


Figure 8. NAFTA and U.S. Farm Policy: Supply Reduction/Nonrecourse Loan Examples

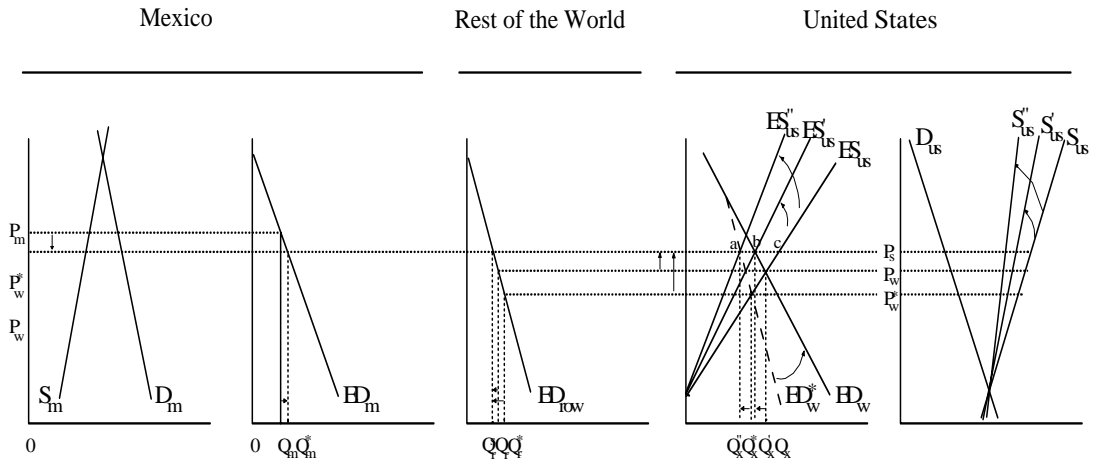


Figure 9. NAFTA and U.S. Farm Policy: Sugar Program Example

