

A Report on Amber Box Support in the United States

by

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Introduction

The ongoing Doha Round of the World Trade Organization (WTO) negotiations includes agricultural support reform in its objectives. Agricultural support has been subcategorized into three pillars: domestic support, market access, and export subsidization. In this report, we are concentrating on the domestic support pillar. The purpose of this report is to provide a detailed analysis of all product-specific agricultural support utilized in the United States during the 1995-2006 period.

The negotiations have concentrated on two areas within domestic support, the total amount of trade-distorting support allowed by each member state and the concentration of that support among various agricultural commodities. Proposals before the WTO have outlined various strategies to limit domestic agricultural support, but no agreement has been reached. The two main proposals for limiting the concentration of domestic support on certain commodities are the G20 and Cairns Group proposal, establishing a base period of 1995-2000 as a limit for product-specific support, and the U.S. proposal, establishing a base period of 1999-2001 for the limit.

Our objectives for this report are to:

- 1) Provide information on U.S. product-specific amber box (or trade-distorting) payments from 1995 to 2006,
- 2) Provide information on U.S. counter-cyclical payments from 2002 to 2006,
- 3) Provide information on U.S. usage of *de minimis* rules from 1995 to 2006,
- 4) Provide a thorough description of U.S. product-specific amber box and counter-cyclical programs,
- 5) Provide information on the gross value of production for U.S. commodities receiving amber box support,
- 6) Compute possible product-specific limits for the U.S. under various base periods,
- 7) Examine the impact of the base periods to see which commodities would be favored under the various base periods, and
- 8) Analyze the responsiveness of U.S. commodities to a change in the level of subsidies.

Description of Amber Box and Counter-cyclical Payment Programs

The United States has utilized a variety of amber box programs over the past 11 years. The following provides a description of the major U.S. agricultural support programs.

Marketing Loan Program: (Source: USDA-ERS, <http://www.ers.usda.gov/Briefing/FarmPolicy/2002malp.htm>)

The Farm Service Agency (FSA) administers commodity loan programs with marketing loan provisions for wheat, rice, corn, grain sorghum, barley, oats, upland cotton, oilseeds, peanuts, mohair, wool, honey, small chickpeas, lentils, and dry peas through the Commodity Credit Corporation (CCC). Commodity loan programs allow producers of designated crops to receive a loan from the government at a commodity-specific loan rate per unit of production by pledging

production as loan collateral. After harvest, a farmer may obtain a loan for all or part of the new commodity production. National loan rates are shown in Table 1.

Table 1. Marketing assistance loan rates

Commodity	Unit	2002-03	2004-07
Wheat	Bushel	\$2.80	\$2.75
Corn	Bushel	\$1.98	\$1.95
Grain sorghum	Bushel	\$1.98	\$1.95
Barley	Bushel	\$1.88	\$1.85
Oats	Bushel	\$1.35	\$1.33
Upland cotton	Pound	\$0.52	\$0.52
Rice	Hundredweight	\$6.50	\$6.50
Soybeans	Bushel	\$5.00	\$5.00
Other oilseeds	Pound	\$0.096	\$0.093
Peanuts	Ton	\$355.00	\$355.00
Graded wool	Pound	\$1.00	\$1.00
Nongraded wool	Pound	\$0.40	\$0.40
Mohair	Pound	\$4.20	\$4.20
Honey	Pound	\$0.60	\$0.60
Small chickpeas	Hundredweight	\$7.56	\$7.43
Lentils	Hundredweight	\$11.94	\$11.72
Dry peas	Hundredweight	\$6.33	\$6.22

Commodity loans may be repaid in three ways:

- At the loan rate plus interest costs (CCC interest cost of borrowing from the U.S. Treasury plus 1 percentage point);
- By forfeiting the pledged crop to the CCC at loan maturity; or
- At the alternative loan repayment rate.

Loan program benefits can also be taken directly as loan deficiency payments.

When market prices are below the loan rate, farmers are allowed to repay the commodity loans at a lower loan repayment rate. Marketing loan repayment rates are based on local, posted county prices (PCPs) for wheat, feed grains, and oilseeds, or on the prevailing world market price for rice and upland cotton. PCPs are calculated (and posted) by the government each day the Federal government is open, except for minor oilseeds which are calculated weekly. Prevailing world market prices for rice and upland cotton are also calculated on a weekly basis. When a farmer repays the loan at a lower PCP or prevailing world market price, the difference between the loan rate and the loan repayment rate, called a marketing loan gain, represents a program benefit to

producers. In addition, any accrued interest on the loan is waived. When a marketing loan gain is received on a given collateralized quantity, that quantity is not eligible for further loan benefits.

Alternatively, eligible farmers may choose to receive marketing loan benefits through direct loan deficiency payments (LDPs) when market prices are lower than commodity loan rates. The LDP option allows the producer to receive the benefits of the marketing loan program without having to take out and subsequently repay a commodity loan. The LDP rate is the amount by which the loan rate exceeds the posted county price or prevailing world market price, and thus is equivalent to the marketing loan gain that could alternatively be obtained for crops under loan. When an LDP is paid on a portion of the crop, that portion cannot subsequently be used as collateral for another marketing loan or LDP.

Producers who elect to use acreage planted to wheat, barley, oats, or triticale for the grazing of livestock are eligible to receive "graze-out" payments in lieu of loan deficiency payments. The payment quantity is determined by multiplying the acreage grazed times the payment yield for direct payments for that covered commodity on the farm. LDPs for triticale use the grazing payment rate and payment yield for wheat on the farm. If there is no wheat yield on the farm, the payment will be constructed based on yields on comparable wheat farms.

The payment limit on marketing loan gains and loan deficiency payments is \$75,000 per person, per crop year. The three-entity rule is retained. Under the three-entity rule an individual can receive a full payment directly and up to a half payment from each of two additional entities. Producers with adjusted gross income over \$2.5 million, averaged over 3 years, are not eligible for payments, unless more than 75% of adjusted gross income from agriculture.

Commodity certificates can be purchased at the posted county price for wheat, feed grains, and oilseeds or at the effective adjusted world price for rice or upland cotton. The certificates are available for producers to use immediately in acquiring crop collateral pledged to the CCC for a commodity loan. These provisions enable producers who are facing payment limits an opportunity to benefit from the lower loan repayment rates.

Counter-cyclical Payment Program: (Source: USDA-ERS, <http://www.ers.usda.gov/Briefing/farmpolicy/CounterCyclicalPay.htm>)

Under this program, counter-cyclical payments (CCPs) are available for covered commodities whenever the effective price is less than the target price. The target prices were established by Congress and are shown in Table 2. The payment amount is equal to the product of the payment rate, the payment acres, and the payment yield.

For example the payment for an individual corn farmer is determined as:

$$\text{Payment rate}_{\text{corn}} = (\text{Target price})_{\text{corn}} \times (\text{Direct payment rate})_{\text{corn}} \times (\text{Higher of commodity price or loan rate})_{\text{corn}}$$

$$\text{CCP}_{\text{corn}} = [(\text{Base acres})_{\text{corn}} \times 0.85] \times (\text{Payment yield})_{\text{corn}} \times (\text{Payment rate})_{\text{corn}}$$

To receive payments on crops covered by the program (wheat, corn, grain sorghum, barley, oats, rice, upland cotton, soybeans, minor oilseeds, and peanuts), a producer enters into an annual agreement. At enrollment, producers must select between two options for determining base acres and between three options for determining payment yield.

Table 2. Target prices

Commodity	Unit	2002-03	2004-07
Wheat	Bushel	\$3.86	\$3.92
Corn	Bushel	\$2.60	\$2.63
Grain sorghum	Bushel	\$2.54	\$2.57
Barley	Bushel	\$2.21	\$2.24
Oats	Bushel	\$1.40	\$1.44
Upland cotton	Pound	\$0.724	\$0.724
Rice	Hundredweight	\$10.50	\$10.50
Soybeans	Bushel	\$5.80	\$5.80
Other oilseeds	Pound	\$0.098	\$0.101
Peanuts	Ton	\$495.00	\$495.00

Farmers must select an option for designating base acres:

1. Choose base acres equal to contract acreage for the commodity that would otherwise have been used for 2002 PFC payments plus average oilseed plantings in 1998 to 2001, so long as base acres do not exceed available cropland, or
2. Update base acres to reflect the 4-year average of acres planted, plus those prevented from planting due to weather conditions, during the 1998 to 2001 crop years.

Each producer must select an option to apply to all covered commodities for both payments and for counter-cyclical payments. Base acres for peanuts can be determined separately, so long as total base acres do not exceed available cropland. Payment acres are equal to 85 percent of base acres for all covered crops.

Owners of farms had a one-time opportunity to select a method for determining base acreage. An owner who failed to make an election shall be considered to have selected 2002 PFC contract acres and, for oilseed base, the 4-year average of oilseed plantings.

Farmers are given almost complete flexibility in deciding which crops to plant. Participating producers are permitted to plant all cropland acreage on the farm to any crop, except for some limitations on planting fruits and vegetables. The land must be kept in agricultural uses (which includes fallow) and farmers must comply with certain conservation and wetland provisions.

Three options are available to farmers to determine payment yields for each individual crop that apply only for counter-cyclical income support payments:

1. Use current program yields,
2. Update yield by adding 70 percent of the difference between program yields and the farm's average yields for the period 1998 to 2001 to program yields, or 93.5 percent of 1998 to 2001 average yields.

Counter-cyclical payments for the crop are made as soon as practicable after the end of crop year for the covered commodity. A payment of up to 35% shall be made in October of the year when the crop is harvested. A second payment of up to 70% minus the first payment shall be made after February 1. The final payment shall be made as soon as practicable after the end of the crop year.

The payment limit on counter-cyclical payments is \$65,000 per person, per crop year, and the three-entity rule is retained. Under the three-entity rule an individual can receive a full payment directly and up to a half payment from each of two additional entities. Producers with adjusted gross income over \$2.5 million, averaged over each of three years, are not eligible for payments unless more than 75 percent of adjusted gross income is from agriculture.

User Marketing Payments for Cotton (known as Step 2): (Source: USDA-ERS, <http://www.ers.usda.gov/briefing/cotton/specialprovisions.htm>)

Step 2 payments were issued to exporters and domestic mill users of U.S. upland cotton in a week following a consecutive 4-week period when the lowest U.S.-Northern Europe price quotation exceeded the Northern Europe price quotation and the AWP did not exceed 134 percent of the U.S. loan rate.

Payments were made in cash or certificates to domestic users on documented raw cotton consumption, and to exporters on documented export shipments, at a payment rate equal to the difference between the U.S.-Northern Europe price and the Northern Europe price during the fourth week of the period.

On February 8, 2006, the President signed legislation that repealed the upland cotton User Marketing Certificate, or "Step 2" Program. Termination was effective August 1, 2006, so payments were possible through the end of the 2005/06 (August-July) marketing year. Repeal of the Step 2 Program terminates export subsidies and import substitution subsidies cited by the World Trade Organization (WTO) in the findings of a dispute settlement panel.

Extra-long Staple Cotton Competitiveness Program: (Source: USDA-ERS, <http://www.ers.usda.gov/briefing/cotton/specialprovisions.htm>)

The ELS competitiveness program issues payments to exporters and domestic mill users of U.S. ELS cotton in a week following a consecutive 4-week period when:

- The lowest Friday-Thursday average for foreign ELS cotton, quoted c.i.f. Northern Europe, (adjusted to U.S. quality and location) is less than the Friday-Thursday average domestic spot price quotation for U.S. ELS cotton (grade 3, staple 44, micronaire 3.5 or higher, uncompressed, free on board warehouse), and

- The lowest foreign quote does not exceed 134 percent of the U.S. ELS loan rate.

Payments are made in cash or certificates to domestic users on documented raw cotton consumption, and to exporters on documented export shipments, at a payment rate equal to the difference between the U.S. price and the Northern Europe price during the fourth week of the period.

Dairy Programs: (Source: USDA-ERS, <http://www.ers.usda.gov/briefing/dairy/policy.htm>)

Under the 2002 Farm Act, the milk support purchase program, which had been operating year-to-year recently, again becomes a multi-year program. The milk support price equals \$9.90 per cwt. The Commodity Credit Corporation (CCC) will buy, at support purchase prices, any butter, cheddar cheese, or nonfat dry milk that is offered to it and meets specifications. The support purchase prices are set to ensure that the price of manufacturing milk averages at least the milk support price of \$9.90 per cwt. The Secretary has authority to adjust the product purchase price if deemed necessary.

The Dairy Export Incentive Program (DEIP) pays cash bonuses that allow dairy product exporters to buy U.S. products and sell them abroad when international prices are below domestic prices. DEIP removes products from the domestic market, helps develop export markets, and plays an important role in milk price support. The DEIP quantities and dollar amounts are subject to World Trade Organization restrictions under the Uruguay Round Agreement on Agriculture.

The 2002 Farm Act establishes a national milk income loss contract (MILC) program to provide income stabilization for dairy producers. A monthly direct payment is to be made to dairy farm operators if the monthly Class I price in Boston (Federal Order 1) is less than \$16.94 per cwt. Payments are to be made on up to 2.4 million pounds of milk per year per organization (based on 2001 U.S. average data, which is the production from about 132 cows). The number of producers per operation does not affect its limit. Under the 2002 Act, the program ended on September 30, 2005. The Agricultural Reconciliation Act of 2005 extended authority for the MILC program with a reduced payment factor through August 2007 of 34 percent of the difference between \$16.94 and the Boston Class I price.

Federal milk marketing orders are intended to help establish and maintain orderly marketing conditions for both milk producers and dairy product consumers. A classified pricing system and pooling are the two key elements of milk marketing orders. Milk marketing orders define the relationship between prices of fluid and manufactured dairy products and a geographic price structure, sometimes called the price surface. The 1996 Farm Act called for several changes in the milk marketing order system, including consolidation of the then existing 31 orders. There are currently 10 Federal milk marketing orders.

The dairy indemnity program makes payments to dairy producers for products that are removed from the market due to pesticide contamination, toxic substances, and chemical residues. The program also pays dairy product manufacturers for the removal of products due to pesticide contamination. Producer payments are calculated as the product of the number of cows milked,

the number of days milk is off the market, the base level of milk production in pounds per cow per day, and the farm price for milk with the same butterfat content. Manufacturer payments are computed as the product of the fair market value of the product and the amount of product removed from the market, less the salvage value for the product.

Peanut Programs: (Source: USDA-ERS,
<http://www.ers.usda.gov/Briefing/farmpolicy/2002peanut.htm>)

The 2002 Farm Act substantially revamped the peanut program. Under previous legislation, the peanut program was a two-tier price support program based on nonrecourse loans. Production for domestic edible consumption was limited to an annually established quota designed to uphold prices at the \$610 per ton quota loan rate. Non-quota ("additional") peanut production was permitted only for export or domestic crush, and was eligible for an "additional" loan rate of \$132 per ton (in 2001). Under the 2002 Farm Act, the marketing quota system is eliminated and peanuts are treated similarly to "program" crops such as grains and cotton—with identical marketing loan provisions available to all peanut producers. Farmers no longer have to own or rent peanut marketing quota rights to produce for domestic edible consumption. Compensation (a "buy-out") is provided to quota holders for elimination of the peanut quota system. All farmers with a history of peanut production during 1998-2001, whether quota-holders or not, are eligible for fixed direct payments and for counter-cyclical payments based on an established target price.

A marketing assistance loan program is available for peanut producers—with or without a history of peanut production—for any quantity of peanuts produced on the farm. The peanut loan rate is fixed at \$355 per ton. Producers can pledge their stored peanuts as collateral for up to 9 months and then repay the loan at a rate that is the lesser of 1) \$355 per ton plus interest or 2) a USDA-determined repayment rate designed to minimize loan forfeiture, government-owned stocks, and storage costs. Alternatively, the producer may forgo the marketing loan and opt for a loan deficiency payment (LDP) at a payment rate equal to the difference between the loan rate and the loan repayment rate.

For producers with a history of peanut production, a direct payment of \$36 per ton of eligible base-period (1998-2001) production is available. Eligible production would equal the product of average or assigned base-period yields (with the option of substituting average 1990-97 county yields for up to three of the base years) and 85 percent of base-period acres ("payment acres") planted to peanuts (with provisions for prevented plantings). These payments are made regardless of current prices or the actual crop planted so long as the farm remains in approved agricultural uses.

Producers with base acreage are also eligible to receive a counter-cyclical payment (CCP) when market prices are below an established target price of \$495 per ton minus the \$36 per ton direct payment. These payments are not related to current production, so long as the farm remains in approved agricultural uses. The payment rate is the difference between the target price and the "effective price," calculated as follows:

$$\text{Payment rate} = (\text{target price}) - (\text{direct payment rate}) - (\text{higher of peanut market price or loan rate})$$

The total counter-cyclical payment to each eligible producer equals the product of the payment acres (85 percent of base acres), the payment yield, and the payment rate specified above:

$$\text{CCP} = 0.85 \times (\text{base acres}) \times (\text{payment yield}) \times (\text{payment rate}).$$

Owners of peanut quota under prior legislation will receive a quota buy-out as compensation for the loss of quota asset value. Payments may be made in five annual installments of \$0.11 per pound (\$220 per short ton) during fiscal years 2002 through 2006, or the quota owner may opt to take the outstanding payment due to them in a lump sum. Buy-out payments are based on the quota owners' 2001 quota, regardless of temporary leases or transfers of quota, so long as the person owned a farm eligible for the peanut quota. Continued eligibility for compensatory payments remain with the established quota owner regardless of their future interest in the farm or whether the person continues to produce peanuts.

Sugar Programs: (Source: USDA-ERS, <http://www.ers.usda.gov/Briefing/farmpolicy/2002sugar.htm>)

The two main elements of U.S. sugar policy are the price support loan program and the Tariff-Rate Quota (TRQ) import system. The loan program supports the U.S. price of sugar. The purpose of the tariff-rate quota system is to ensure an adequate supply of sugar at reasonable prices for both consumers and producers. U.S. commitments under international trade agreements, including the North American Free Trade Agreement (NAFTA), affect the level and allocation of the TRQs. The United States also operates the Refined Sugar and Sugar-Containing Products Re-Export Programs to allow U.S. refiners to be competitive in global refined and sugar-containing products markets.

The primary policy tools available to the U.S. Department of Agriculture (USDA) to assist sugarcane and sugarbeet producers are contained in the *Farm Security and Rural Investment Act of 2002* ("2002 Farm Act"). The U.S. sugar program provides for USDA to make loans available to processors of domestically grown sugar cane at a rate of 18 cents per pound and to processors of domestically grown sugarbeets at the rate of 22.9 cents per pound for refined sugar. The 2002 Farm Act allows processors to obtain loans for "in-process" sugar and syrups at 80 percent of the loan rate.

Loans are taken for a maximum term of 9 months and must be liquidated along with interest charges by the end of the fiscal year in which the loan was made. Unlike most other commodity programs, sugar loans are made to processors and not directly to producers. This is because sugarcane and sugar beets, being bulky and very perishable, must be processed into sugar before they can be traded and stored. To qualify for loans, processors must agree to provide a part of the loan payment to producers, in proportion to the amount of the loan value accounted for by the sugarbeets and sugarcane the producers deliver.

The loans are nonrecourse. This means that when the loan matures, the USDA must accept sugar pledged as collateral as payment in full in lieu of cash repayment of the loan, at the discretion of the processor. "In-process" sugar and syrups must be converted into raw cane or refined beet sugar at no cost to the Commodity Credit Corporation (CCC) before being eligible for forfeiture.

The processor cannot be required to notify the USDA the intention to forfeit the sugar under loan. By forfeiting the sugar, the processor effectively withdraws sugar from the market, thereby reducing excess sugar supply and helping to support the market price of sugar.

The 2002 Farm Act requires the USDA, to the maximum extent possible, to operate the U.S. sugar loan program at no cost to the Federal Government. Specially, this provision means that the USDA must operate the program in order to avoid the forfeiture of sugar to the CCC. In order to discourage forfeiture of nonrecourse loans, the sugar price at the time of loan repayment must be high enough to cover the loan principal plus interest expenses and other costs. The 2002 Farm Act gives the USDA the authority to accept bids from sugarcane and sugarbeet processors to obtain raw cane sugar or refined beet sugar in CCC inventory in exchange for the reduction of the production of raw cane sugar or refined beet sugar. This is one way to control expected excess (or "price-depressing") supplies of sugar. The 2002 Farm Act notes specifically that this authority is in addition to any other authority that the CCC may have under any other law. (For example, the CCC relied on the Cost Reduction Options of the 1985 Farm Security Act (section 1009) for its authority for the Payment-in-Kind (PIK) Diversion Programs for the 2000 and 2001 crop years.)

As another way to guarantee the sugar loan program operates at no cost to the Federal Government, the USDA is required to establish flexible marketing allotments for sugar. The overall quantity of sugar to be allotted for a crop year is determined by subtracting the sum of 1.532 million short tons, raw value (STRV) and carry-in stocks of sugar (including CCC inventory) from the USDA's estimate of sugar consumption and reasonable carryover stocks at the end of the crop year. The USDA is required to adjust allotment quantities to avoid the forfeiture of sugar to the CCC.

The overall allotment quantity is divided between refined beet sugar at 54.35 percent of the overall quantity and raw cane sugar at 45.65 percent of the overall quantity. For cane sugar, Hawaii and Puerto Rico are jointly allotted 325,000 STRV. The mainland cane sugar producing states' (Florida, Louisiana, and Texas) allocations would be assigned based on past marketings of sugar, the ability to market sugar in the current year, and past processing levels. Beet sugar processors are assigned allotments based on their sugar production for the 1998 to 2000 crop years. The 2002 Farm Act provides for a number of contingencies that could require reassignment of allotments during the crop year.

USDA's authority to operate sugar marketing allotments is suspended if the USDA estimates that sugar imports levels for human consumption, not including the Re-export Programs (see below), will exceed 1.532 million STRV such that the overall allotment quantity would have to be reduced. The marketing allotments would remain suspended until such time that imports have been restricted, eliminated, or otherwise reduced to or below the 1.532 million STRV level.

Tobacco Programs: (Source: USDA-ERS, <http://www.ers.usda.gov/Briefing/Tobacco/Policy.htm>)

The Tobacco Transition Act of 2004 terminated the Federal tobacco program beginning with the 2005 season (July 2005 for flue-cured and October 2005 for all other types). As a result,

marketing quotas, price supports, and geographic restrictions on the production and marketing of tobacco ended.

Prior to the 2005 season, the Federal Government had operated programs to support and stabilize tobacco prices since the early 1930s. The programs reduced risks to growers from seasonal and cyclical price changes due to weather, production, and use and ensured a reliable supply of tobacco for industry. The tobacco program operated through two major mechanisms: marketing quotas and price supports. The expenses of the price support operation were paid for through assessments levied against sellers and buyers of tobacco leaf under what was known as the "no-net-cost" provisions of the program.

Market Loss Assistance Payments:

Payments authorized by emergency legislation in 1998-2001. Payments were made to recipients of production flexibility contract payments (the precursors of direct payments under the 2002 farm bill). Similar payments were also authorized for oilseed and dairy producers for selected years. The U.S. Congress provided the market loss assistance payments in response to low commodity prices. For most commodities, the payments were distributed in accordance to base acreage and/or production for the production flexibility contract payments under the 1996 farm bill.

Summary of U.S. Amber Box Support

Since 1995, the United States has used the programs listed above to support its agricultural producers. Following the Uruguay Round Agreement on Agriculture, the United States began to report its agricultural domestic support to the WTO. The U.S. has submitted reports for the 1995 to 2001 crop years, but has not submitted reports for the 2002 to 2006 crop years. The following tables summarize the submitted reports and provide estimates for the years the U.S. has not reported.

Table 3 contains the overall permitted aggregate measure of support (AMS) for the United States. The permitted AMS is the amount of amber box (or trade-distorting) support that the U.S. is allowed is used in the listed years. Current AMS lists the amount of support the U.S. reports against the permitted AMS limit. The row labeled "AMS not adjusted for *de minimis* rule" shows the amount of amber box that would have counted against the AMS limit if the *de minimis* rule were not applied. The *de minimis* rule exempts support if the amount of support was less than five percent of the total value of production for the commodity being supported.

As the table shows, the U.S. was permitted to provide up to \$23.1 billion in amber box support in 1995, with this limit falling to \$19.1 billion in 2000. After 2000, the amber box support limit for the U.S. is held constant at \$19.1 billion. Through the WTO reports, the U.S. has counted levels of support against these limits, from a low of \$5.9 billion in 1996 to a high of \$16.9 billion in 1999. Estimates for the 2002-2006 period show counted amber box support remaining below permitted levels. The *de minimis* rule has assisted the U.S. in meeting the permitted levels. In

the 1999 to 2001 crop years, the U.S. would have violated the amber box support limits if the *de minimis* exemptions had been counted.

The cotton dispute between Brazil and the U.S. highlighted the disagreement between countries about how some agricultural domestic support programs are categorized. In the rulings for the dispute, WTO panels have indicated that some support the U.S. has categorized as exempt green box support should be counted as amber box. Specifically, the direct payment program in the U.S. has come under question. Direct payments can be categorized as green box support if they meet certain requirements such as not being linked to prices and/or production. The U.S. has claimed that their direct payment program meets the green box criteria. The WTO panels have disagreed, due to restrictions on land use as a requirement to receive the payments. Table 4 displays the direct payment amounts by commodity and in total. If these payments are classified as amber box, then the U.S. would have exceeded amber box support limits in several of the years shown.

To provide more detail on the mix of domestic support in the U.S., Table 5 shows various classes of support by type and commodity. U.S. domestic support can be divided into four types: price support, marketing loan support, other commodity-specific support, and non-commodity-specific support. Over the 1995 to 2006 crop years, the U.S. provided price support to three commodity groups: milk and dairy products, sugar, and peanuts. The peanut program, as was mentioned in its description above, was transformed with the 2002 farm bill and is no longer classified as a price support program. Marketing loan support is the most variable part of U.S. domestic support. As the table shows, support from the marketing loan program can range from zero to nearly \$9 billion per year. Low commodity prices in the U.S. in the 1999-2001 and 2004-2005 periods led to significant marketing loan support in those years. Other commodity-specific support includes programs such as the MILC program for dairy and the Step 2 program for cotton. Non-commodity-specific support contains three important U.S. agricultural support programs: crop insurance, market loss assistance payments, and counter-cyclical payments. Non-commodity-specific support has the added advantage of having its *de minimis* exemption based on five percent of the total value of U.S. agricultural production. With the *de minimis* exemption set in this way, the non-commodity-specific support has never counted against the U.S. amber box support limits.

Table 3. Summary of U.S. amber box usage

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(million dollars)											
Permitted AMS	23,083	22,287	21,491	20,695	19,899	19,103	19,103	19,103	19,103	19,103	19,103	19,103
Current AMS												
Reported	6,161	5,898	6,238	10,392	16,862	16,803	14,413					
Estimated								9,735	7,106	11,617	13,299	7,432
AMS not adjusted for <i>de minimis</i> rule												
Reported	7,802	7,052	7,043	15,134	24,297	24,143	21,456					
Estimated								15,141	10,379	18,328	17,751	11,266

Table 4. Direct payments by commodity and year

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(million dollars)										
Barley	137	113	120	115	107	88	83	82	82	81	80
Canola								5	5	5	5
Corn	1,745	3,384	2,632	2,545	2,350	1,895	2,131	2,109	2,108	2,094	2,087
Crambe								0	0	0	0
Flaxseed								1	1	1	1
Mustard Seed								0	0	0	0
Oats	9	8	9	8	8	6	3	3	3	3	3
Peanuts								69	69	69	69
Rapeseed								0	0	0	0
Rice	455	448	477	465	433	352	421	425	426	424	423
Safflower Seed								1	1	1	1
Sesame Seed								0	0	0	0
Sorghum	201	338	287	277	257	209	202	199	198	196	196
Soybeans								602	598	593	591
Sunflower Seed								13	13	13	13
Upland Cotton	698	597	637	613	575	473	618	616	616	608	605
Wheat	1,940	1,396	1,496	1,445	1,337	1,076	1,155	1,143	1,140	1,131	1,127
Total	5,185	6,284	5,657	5,469	5,066	4,099	4,614	5,267	5,260	5,219	5,200

Table 5. Details on U.S. amber box usage

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Price Support	(million dollars)											
Dairy products	4,693	4,674	4,455	4,332	4,437	4,377	4,483	4,529	4,517	4,532	4,691	4,820
Sugar	1,108	937	1,045	1,093	1,180	1,133	1,032	1,269	1,303	1,186	1,114	1,281
Peanuts	412	308	315	350	303	330	311	0	0	0	0	0
Loan Program Benefits												
Corn	0	0	99	1,383	2,414	2,629	1,193	16	77	2,934	4,577	2
Soybeans	0	0	15	1,222	2,336	2,567	3,444	16	1	298	31	3
Wheat	0	0	16	476	950	831	177	16	94	78	20	0
Cotton	0	0	29	536	1,613	566	2,541	885	167	1,810	1,657	1,007
Rice	0	0	0	14	401	598	728	707	503	135	128	0
All other	0	0	3	194	995	453	115	58	25	222	264	11
Other Commodity-Specific												
Dairy payments	0	0	0	228	223	693	0	1,797	221	9	352	325
Cotton user payments	35	6	416	280	446	237	182	455	363	582	372	0
Oilseed payments	0	0	0	0	460	921	0	0	0	0	0	0
All other	10	12	80	441	512	523	395	263	278	339	327	260
Non-Commodity Specific												
Crop insurance	906	636	120	747	1,514	1,396	1,770	2,892	1,871	1,500	759	1,576
Market loss assistance	0	0	0	2,811	5,468	5,463	4,640	0	0	0	0	0
Counter-cyclical payments	0	0	0	0	0	0	0	1,804	544	4,288	3,043	1,566
Water subsidies	543	380	348	348	316	316	300	300	300	300	300	300
All other	94	99	100	677	729	1,111	145	133	114	114	114	114
AMS Before Reductions	7,802	7,052	7,043	15,134	24,297	24,143	21,456	15,141	10,379	18,328	17,751	11,266
De Minimis Reductions	-1,641	-1,155	-804	-4,742	-7,435	-7,341	-7,043	-5,405	-3,272	-6,711	-4,452	-3,834
Current AMS	6,161	5,898	6,238	10,392	16,862	16,803	14,413	9,735	7,106	11,617	13,299	7,432

The market loss assistance and counter-cyclical payments are classified as non-commodity-specific because producers do not have to produce the commodity in the year the payment is received. The payments are tied to historical land bases by commodity and the payments rates are set by commodity. So while these payments can be attributed to a specific commodity, since the producer may produce almost any commodity, the payments can be classified as non-commodity specific. The market loss assistance payments were not part of a formal U.S. farm bill, but were established on a yearly basis by the U.S. Congress in response to low commodity prices. Table 6 details the market loss assistance payment by commodity and year. With the 2002 farm bill, the U.S. Congress created a new program, the counter-cyclical payment program, which formalized the market loss assistance payments. Table 7 shows the counter-cyclical payments since 2002.

Table 6. Market loss assistance payments by commodity and year

	1998	1999	2000	2001
	(million dollars)			
Barley	59	115	114	97
Corn	1,308	2,544	2,545	2,156
Oats	4	8	8	7
Rice	238	464	464	397
Sorghum	141	277	276	236
Upland Cotton	316	613	613	524
Wheat	745	1,445	1,444	1,223
Total	2,811	5,466	5,463	4,640

Table 7. Counter-cyclical payments by commodity and year

	2002	2003	2004	2005	2006
	(million dollars)				
Barley	0	0	53	45	0
Corn	0	0	2,448	1,311	0
Cotton	1,312	392	1,315	1,294	1,371
Oats	0	0	0	0	0
Rice	323	14	160	43	0
Sorghum	0	0	157	156	0
Soybeans	0	0	0	0	0
Wheat	0	0	0	0	0
Peanut	170	139	155	195	195
Total	1,804	544	4,288	3,043	1,566

Exploration of Different Base Periods for Setting WTO Limits

One of the crucial pieces of the WTO negotiations is the setting of the base period for determining agricultural support limits. The following tables contain average product-specific support, average value of production, and average percentage of applied total AMS for the commodities that have received support payments in the United States within the last decade. The averages are computed over two base periods: 1995-2000 and 1999-2001. The G-20 have proposed the 1995-2000 base period, while the U.S. has countered with the 1999-2001 base period.

On the basis of average product-specific support, only one commodity, pork, would have a higher limit under the 1995-2000 base period than under the 1999-2001 base period. Two commodities, beef and rye, have the same average under both base periods. All of other commodities would have a higher limit under the 1999-2001 base period.

On the basis of average value of production, the 1995-2000 base period would provide a higher limit for apples, apricots, barley, corn, cottonseed, cotton, cranberries, pork, honey, mustard, safflower, sunflower, mohair, oats, onions, peanuts, pears, rice, rye, sorghum, soybeans, tobacco, wheat, and wool. Beef, dairy, canola, crambe, flaxseed, rapeseed, sesame, peaches, potatoes, sheep, sugar, and tomatoes would receive a higher limit under the 1999-2001 base period.

On the basis of average percentage of applied total AMS, most commodities would have a higher support limit under the 1999-2001 base period. Only barley, dairy, peanuts, and sugar would have a higher support limit under the 1995-2000 base period. Beef, pork, onions, peaches, pears, potatoes, rye, and tomatoes would have the same support limit under both base periods.

In terms of both average product-specific support and average percentage of applied total AMS, the product-specific limits for most U.S. commodities would be higher using the 1999-2001 base period. Only if the metric of average value of production was used to set the product-specific limits would most U.S. commodities have a higher limit with the 1995-2000 base period. The U.S. meat sector would have the smallest limits, in comparison to the overall size of the sector, as the meat sector has received little support in the past. The dairy and crop sector would have larger limits, with the crop sector limits highly concentrated for corn, soybeans, cotton, wheat, and sugar.

Table 8. Average product-specific support

Commodity	1995-2000	1999-2001
	(\$ million)	
Apples	45.750	91.499
Apricots	0.335	0.669
Barley	33.192	41.968
Beef and Veal	0.000	0.000
Corn	1,175.799	2,193.498
Cottonseed	43.891	87.781
Cotton	762.535	1,983.219
Cranberries	3.290	6.580
Dairy	4,682.056	4,737.943
Hogs/Pork	20.537	0.000
Honey	4.991	9.795
Canola	21.633	48.135
Crambe	0.467	1.082
Flaxseed	6.312	15.901
Mustard	0.171	0.336
Rapeseed	0.031	0.077
Safflower	0.863	1.722
Sesame	0.019	0.038
Sunflower	54.467	119.647
Mohair	0.722	1.369
Oats	15.880	26.497
Onions	1.667	3.333
Peaches	1.094	2.187
Peanut	357.642	363.794
Pears	0.524	1.048
Potatoes	6.598	13.195
Rice	183.995	607.419
Rye	0.000	0.000
Sheep and Lamb	3.833	14.900
Sorghum	50.503	81.158
Soybean	1,302.217	3,357.540
Sugar	1,075.100	1,148.568
Tomatoes	1.208	2.415
Tobacco	234.165	480.671
Wheat	397.730	670.170
Wool	6.958	13.916

Table 9. Average value of production

Commodity	1995-2000	1999-2001
	(\$ million)	
Apples	1,530	1,446
Apricots	35	31
Barley	817	594
Beef and Veal	25,095	27,912
Corn	21,024	18,164
Cottonseed	733	631
Cotton	5,191	3,731
Cranberries	215	108
Dairy	22,146	23,022
Hogs/Pork	10,273	10,005
Honey	145	130
Canola	102	139
Crambe	1	3
Flaxseed	23	38
Mustard	6	5
Rapeseed	0	0
Safflower	56	37
Sesame	0	1
Sunflower	404	304
Mohair	14	8
Oats	236	182
Onions	703	689
Peaches	438	479
Peanut	1,007	956
Pears	281	267
Potatoes	2,669	2,798
Rice	1,495	1,069
Rye	28	22
Sheep and Lamb	118	336
Sorghum	1,247	921
Soybean	14,599	12,426
Sugar	2,066	2,076
Tomatoes	1,724	1,767
Tobacco	2,572	2,099
Wheat	7,669	5,605
Wool	36	16

Table 10. Average percentage of applied total AMS

Commodity	1995-2000	1999-2001
Apples	0.27%	0.54%
Apricots	0.00%	0.00%
Barley	0.24%	0.22%
Beef and Veal	0.00%	0.00%
Corn	7.72%	13.45%
Cottonseed	0.26%	0.52%
Cotton	5.85%	12.71%
Cranberries	0.02%	0.04%
Dairy	54.70%	29.64%
Hogs/Pork	0.00%	0.00%
Honey	0.03%	0.06%
Canola	0.13%	0.29%
Crambe	0.00%	0.01%
Flaxseed	0.04%	0.10%
Mustard	0.00%	0.00%
Rapeseed	0.00%	0.00%
Safflower	0.00%	0.01%
Sesame	0.00%	0.00%
Sunflower	0.30%	0.73%
Mohair	0.00%	0.01%
Oats	0.11%	0.15%
Onions	0.00%	0.00%
Peaches	0.00%	0.00%
Peanut	4.11%	2.26%
Pears	0.00%	0.00%
Potatoes	0.00%	0.00%
Rice	1.05%	3.86%
Rye	0.00%	0.00%
Sheep and Lamb	0.00%	0.05%
Sorghum	0.34%	0.47%
Soybean	8.45%	21.15%
Sugar	12.27%	7.18%
Tomatoes	0.00%	0.00%
Tobacco	1.43%	2.86%
Wheat	2.63%	3.61%
Wool	0.04%	0.08%

Responsiveness of Commodities to Changes in Subsidies

The responsiveness of U.S. commodities to changes in agricultural support depends on many factors. One study which explores the issue in detail is the Food and Agricultural Policy Research Institute (FAPRI) 2005 study that was based on the U.S. proposal for the Doha round of WTO negotiations. The study reports can be found at: <http://www.card.iastate.edu/publications/DBS/PDFFiles/05wp417.pdf>, http://www.fapri.missouri.edu/outreach/publications/2005/FAPRI_UMC_Report_16_05.pdf, and <http://www.afpc.tamu.edu/pubs/3/434/bs-2005-07%20--%20WTO%20study%20.pdf>. Many of the conclusions from that study still hold true. Below is a summary of the conclusions from the FAPRI study (mostly drawn from the analysis of unilateral costs in U.S. agricultural support), combined with some insight based on the current situation in U.S. commodity markets.

The FAPRI study found that lower target prices and marketing loan rates led to reduction in acres planted to the major field crops. Upland cotton suffered the largest losses, while wheat and hay acreage increased. These changes were driven by the relative returns to the crops and the crop's reliance on government support

Both in 2005 and currently, upland cotton is the crop that is most dependent on marketing loan and counter-cyclical payment support. Cuts in support rates directly impact U.S. upland cotton crop returns and those projected lower returns impact cropping decisions. The FAPRI study indicated though that total land dedicated to the 10 major field crops would change only very slightly, roughly a 0.3% change.

In terms of price changes, the FAPRI study showed small price changes to reductions in U.S. agricultural support. Given the small acreage shifts, this result is not surprising. Cotton and rice had the largest projected price movements. A similar story holds for U.S. exports with cotton and rice exports being impacted the most.

For U.S. dairy and livestock, the impacts of reductions in government support are projected to be minimal. This result may be somewhat surprising given dairy's large reported level of AMS support. But the vast majority of dairy's AMS support comes from a dairy price support program that has more WTO impact than producer price impact. The FAPRI study indicated that changing the dairy price support program such that dairy AMS was reduced by \$2 billion would only reduce dairy market receipts by \$185 million.

Given the current higher agricultural prices the U.S. is experiencing today and the projected continuation of those prices, as shown by the commodity futures markets, acreage effects from reductions in government support are likely to be even smaller today than what was projected by

FAPRI in 2005. Thus, the overall impact of reductions in government support on U.S. agriculture will be smaller as well.

Based on the January 2007 FAPRI projections, upland cotton and peanuts are the only commodities that are projected to be receiving support via the marketing loan and counter-cyclical payment programs over the next few years. Thus, they are the commodities that would most likely react to reductions in government support. FAPRI recently released a short-term update (through 2012/13) of their projections. These updated projections show no marketing loan and/or counter-cyclical payments for corn, wheat, soybeans, and rice for the 2007-2012 crop years. Only cotton is expected to receive support via these programs, with marketing loan benefits accruing in 2007 and counter-cyclical payments in all of the years between 2007 and 2012.

The projections also indicate that milk prices will be high enough to prevent payments from the MILC program. The MILC program was set to expire at the end of August 2007, but the U.S. Congress extended the program until the end of the 2007 fiscal year. This extension set the stage for the MILC program to be included in the next farm bill. The dairy price supports are also set to expire at the end of this year, but these will likely be extended as well with the next farm bill.

The U.S. House of Representatives has passed its version of the next farm bill, but the U.S. Senate has not. Thus, the structure of the next farm bill is not known at this time and it is extremely likely that the actual farm bill will have several changes from its predecessor passed by the House of Representatives. But the House-passed farm bill provides some indications on how the U.S. Congress may change U.S. agricultural domestic support. For dairy, the House extended the dairy price supports and MILC program for five years (through 2012). The biggest change in dairy policy was the movement to supporting prices for dairy products, as opposed to supporting milk prices. For the supported crops, much of the current structure of support is continued. Direct payments, counter-cyclical payments, and marketing loans are all continued. Target prices are increased for wheat, barley, oats, soybeans, and other oilseeds. Loan rates are changed for wheat, barley, oats, oilseeds, small chickpeas, and graded wool. Separate loan rates are established for different varieties of rice and barley. Changes are made to the computation of the adjusted world price of cotton used in marketing loan calculations. Agricultural producers are given the option to move to a revenue-based counter-cyclical program with national target revenues based on the target price in the House-passed farm bill. Loan rates for sugar are also increased. While many of these changes would increase the amount of domestic support the U.S. would pay out during a period of low commodity prices, cost estimates from the U.S. Congressional Budget Office show little impact from these changes due to the higher commodity prices projected for the next decade.