Order Code RL33697

CRS Report for Congress

Potential Challenges to U.S. Farm Subsidies in the WTO

Updated April 26, 2007

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Prepared for Members and Committees of Congress

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Summary

Prior to its expiration on January 1, 2004, the World Trade Organization's (WTO's) Peace Clause (Article 13 of the Agreement on Agriculture) provided protection from trade remedy consideration and WTO dispute settlement for domestic farm subsidies provided they met certain compliance conditions. Absent the Peace Clause, challenges to U.S. farm subsidies now appear to confront a lower threshold for success, that of establishing "serious prejudice" under Articles 5(c) and 6.3 of the Agreement on Subsidies and Countervailing Measures (SCM). In particular, the criteria for establishing serious prejudice claims include demonstrating (1) the magnitude of a commodity's subsidies either as a share of returns or as an important determinant in covering production costs; (2) the relevance of the subsidized commodity to world markets as a share of either world production or world trade; and (3) a causal relationship between the subsidy and the adverse effect in the relevant market. Evidence of these criteria favors a successful challenge ruling by a WTO panel, as demonstrated by Brazil's successful WTO challenge of the U.S. cotton program.

A review of current U.S. farm programs measured against these criteria suggests that all major U.S. program crops are potentially vulnerable to WTO challenges. In addition, a review of recent economic analyses suggests that a partial policy reform of the nature suggested by the U.S. Doha-Round Proposal would do little to diminish the causal relationship between U.S. crop subsidies and adverse effects in international markets. Instead, the most clear method for decreasing exposure to WTO legal challenges is through extensive decoupling of U.S. programs — i.e., removing the linkage between payments and producer or consumer behavior. Such decoupling would sever the causality linkage necessary to consummate a successful WTO challenge.

The potential success of WTO challenges against U.S. farm programs is of concern to the U.S. Congress. If such challenges occur and are successful, the WTO remedy likely would imply either the elimination, alteration, or amendment by Congress of the programs in question to remove their adverse effects. Since most governing provisions over U.S. farm programs are statutory, new legislation could be required to implement even minor changes to achieve compliance. Alternately, in light of an adverse ruling the United States could choose to make compensatory payments (under agreement with the challenging country) to offset the alleged injury.

This report provides background regarding the vulnerability of U.S. agricultural support programs to potential WTO dispute settlement challenges. It does not predict which WTO members might challenge U.S. commodity subsidies, nor the likelihood that such challenges will be brought. Instead, this report reviews the general criteria for successfully challenging a farm subsidy program, and then uses available data and published economic analyses to weigh U.S. farm programs against these criteria. For a summary version of this report, see CRS Report RS22522, *Potential Challenges to U.S. Farm Subsidies in the WTO: A Brief Overview*.

Glossary of Acronyms

AA	Agreement on Agriculture (WTO)
ABARE	Australian Bureau of Agricultural and Resource Economics
AD	Anti-Dumping
AMS	Aggregate Measure of Support
CCC	Commodity Credit Corporation
CCP	Counter-Cyclical Payment
CEG	Certificate of Exchange
CVD	Countervailing Duty
DEIP	Dairy Export Incentive Program
DP	Direct Payments (under the 2002 farm bill)
DSB	Dispute Settlement Body (WTO)
DSU	Understanding on Rules and Procedures Governing the Settlement of Disputes (WTO)
EEP	Export Enhancement Program
EU	European Union
FAPRI	Food and Agricultural Policy Research Institute
FSA	Farm Service Agency (USDA)
GATT	General Agreement on Tariffs and Trade
LDP	Loan Deficiency Payment
MILC	Milk Income Loss Contract
MLA	Market Loss Assistance
MLG	Marketing Loan Gain
OECD	Organization for Economic Cooperation and Development
PFC	Production Flexibility Contract payments (under the 1996 farm bill)
RMA	Risk Management Agency (USDA)
SCM	Agreement on Subsidies and Countervailing Measures
TRQ	Tariff-Rate Quota
USDA	U.S. Department of Agriculture
WTO	World Trade Organization

Contents

List of Figures

List of Tables

Potential Challenges to U.S. Farm Subsidies in the WTO

Introduction

The combination of three relatively recent events — the expiration of the World Trade Organization's (WTO's) Peace Clause[1] on January 1, 2004; Brazil's successful challenge of certain provisions of the U.S. cotton program in a WTO dispute settlement proceeding (upheld on appeal in March 2005); and the indefinite suspension of the Doha Round of WTO trade negotiations in July 2006 — have raised concerns among U.S. policymakers that U.S. farm programs could be subject to a new wave of WTO dispute settlement challenges.

Prior to its expiry, the Peace Clause had provided a degree of protection from WTO challenges — under both domestic countervailing duty proceedings and the WTO dispute settlement process — to most domestic agricultural support measures provided they met certain compliance conditions. The success of Brazil in challenging U.S. cotton program provisions within the WTO's dispute settlement process demonstrated the vulnerability of U.S. commodity programs to WTO challenges in the absence of the Peace Clause.[2] Furthermore, those countries most likely to bring new WTO challenges against U.S. commodity programs may feel more inclined to do so in light of the diminished likelihood of further negotiated reductions in U.S. domestic support following the indefinite suspension of the Doha Round of trade talks.

Nevertheless, some trade specialists argue that, despite the indefinite suspension of Doha Round talks and the substantial market distortions linked to several of the major U.S. domestic support programs, a large number of additional WTO challenges of U.S. farm support is unlikely. They contend that the fact-intensive nature of WTO challenges, their extensive costs, and the potential negative consequences in broader geopolitical terms may far outweigh any potential trade gains achieved through WTO litigation or dispute settlement proceedings.[3] In addition, others have argued that there is a large inherent risk involved in bringing a challenge against another country's subsidy program — if the challenge fails, it could legitimize those very programs that it had sought to discipline. Furthermore, some argue that Brazil's

[1] Agreement on Agriculture, Article 13.

[2] For more information, see CRS Report RS22187, *U.S. Agricultural Policy Response to WTO Cotton Decision*, by Randy Schnepf.

[3] For a recent discussion of the legal context for WTO challenges before and after the expiration of the Peace Clause, see Terence P. Stewart and Amy S. Dwyer, "Doha's Plan B: the Current Pause and Prospects for the WTO," paper presented to the Global Business Dialogue, Inc., September 13, 2006; hereafter referred to as Stewart and Dwyer (2006).

successful cotton case is indicative of the substantial investment Brazil has made over the past decade in human and institutional capacity to monitor trade issues and to use the WTO's dispute settlement process in protecting its interests. Few, if any, other developing countries have developed a similar capacity.

The potential success of WTO challenges against U.S. farm programs is of concern to the U.S. Congress. The current 2002 farm bill is set to expire in 2007, at which time Congress is expected to either extend, amend, or rewrite the current farm bill. USDA Secretary Johanns has stated that one of his primary objectives for the next farm bill is to make U.S. farm programs "beyond challenge."[4] If such challenges occur and are successful, the WTO remedy likely would imply either the elimination, alteration, or amendment by Congress of the programs in question to remove their adverse effects. Since most governing provisions over U.S. farm programs are statutory, new legislation could be required to implement even minor changes to achieve compliance. Alternately, in light of an adverse ruling the United States could choose to make compensatory payments (under agreement with the challenging country) to offset the alleged injury.

Report Overview and Disclaimer

This report provides background concerning the potential vulnerability of U.S. domestic agricultural programs to new challenges under current WTO agreements. In addition, it provides a brief summary of the current status of the major ongoing WTO challenges against U.S. agricultural products. However, it is not an official CRS legal analysis of U.S. program vulnerability to WTO challenge, and it does not attempt to predict which WTO members might challenge U.S. commodity subsidies, the likelihood that such challenges will be brought, or the potential outcome of such challenges. Instead, this report reviews the general criteria for successfully challenging a farm subsidy program, then uses available data and published economic analyses to weigh U.S. farm programs against these criteria. As such, it acts as a primer on the issue of the vulnerability of domestic farm programs to WTO challenges, and provides numerous references for those seeking greater detail and more background information.

The report is divided into four sections. The first section briefly summarizes the recent developments concerning ongoing WTO dispute settlement (DS) challenges against U.S. farm programs. The second section reviews some provisions of WTO agreements that would be implicated in potential WTO challenges. A review of both the policy commitments and compliance rules established during the Uruguay Round is important in understanding which particular commodities would be most vulnerable to potential challenges and how a challenge might be framed. This section also includes a discussion of Brazil's successful WTO challenge of certain provisions of the U.S. cotton program, since it is also suggestive of how future cases against U.S. farm programs may be fashioned, as well as being indicative of the policy consequence of such challenges.

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[4] Remarks by Agriculture Secretary Mike Johanns at the Cato Institute's Center for Trade Policy Studies, Washington, DC, USDA News Release No. 0333.06, August 31, 2006.

The third section of the report provides a review of U.S. domestic support, by program and by commodity, with a discussion of how each program fits into the scheme of WTO liberalization commitments. This section includes a review of various crop-specific measures that might suggest farm program vulnerability to a WTO challenge and discusses how U.S. programs could be altered to minimize the threat of challenge.

The final section briefly reviews several broader issues related to WTO challenges of commodity subsidy programs, including likely remedies under successful challenges, defining subsidy criteria under the serious prejudice claim, and potential redesign of farm programs to reduce their vulnerability to WTO DS challenges.

Recent Developments: WTO Challenges of U.S. Farm Programs

Two significant WTO DS cases against U.S. farm programs remain active — the Brazil case (DS267) against certain features of the U.S. cotton program and the Canada case (DS357) against certain features of U.S. farm programs, in general, and more specifically against the U.S. corn program.

Concerning the cotton case, a WTO Appellate Body (AB) issued a final ruling in March 2005 recommending that the United States remove both the prohibited subsidies and the adverse effects defined by the case.[5] In response, the United States eliminated the Step 2 program (August 1, 2006) and indicated that the market loss payments cited in the case have also ended. However, Brazil claims that additional permanent modifications to U.S. farm programs are still needed to fully comply with the WTO ruling. On August 21, 2006, Brazil submitted a request for a WTO compliance panel to review whether the United States has fully complied with panel and AB rulings. A compliance panel was established on October 25, 2006. On January 9, 2007, the compliance panel's chairman announced that work would be finished in July 2007. If the compliance panel finds that the United States has not fully complied with the AB rulings, Brazil could ask a WTO arbitration panel to resume its work that was temporarily suspended in mid-2005. Brazil has claimed the right to retaliate against $3 billion in U.S. exports to Brazil based on the prohibited subsidies, and proposed $1 billion in retaliation based on the actionable subsidies.

On January 8, 2007, Canada requested consultations with the United States under the auspices of the WTO DS process to discuss three explicit charges against U.S. farm programs (all three charges derive directly from the legal precedent of the Brazil cotton case).[6] First, Canada contends that U.S. corn subsidies have caused serious prejudice to Canadian corn producers in the form of market price suppression

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[5] For more information and the U.S. response, see CRS Report RS22187, *U.S. Agricultural Policy Response to WTO Cotton Decision*, by Randy Schnepf.

[6] For more information and the U.S. response, see CRS Report RL33853, *U.S.-Canada WTO Corn Trade Dispute*, by Randy Schnepf.

in Canadian corn markets during the 1996 to 2006 period. Second, Canada argues that the U.S. export credit guarantee program operates as a WTO-illegal export subsidy. Third, Canada claims that U.S. fixed direct payments are not green box compliant and should therefore be included with U.S. amber box payments, in which case the United States would be in violation of its $19.1 billion amber box spending limit for 1999, 2000, 2001, 2004, and 2005. If successfully litigated, this case could affect broader U.S. agricultural policy, since the charges against the U.S. export credit guarantee and direct payment programs extend beyond corn to all major program crops.

Consultations are still ongoing and Canada has not yet requested the formation of a WTO panel. If a WTO panel is requested and ultimately agreed to by the WTO Dispute Settlement Body, it would set in motion the full rules and timetables of the WTO DS process in examining Canada's case. Should any eventual changes in U.S. farm policy be needed to comply with a WTO ruling in Canada's favor, such changes would likely involve action by Congress to produce new legislation. Congress will be revisiting U.S. farm legislation this year and could potentially address some of the issues raised by Canada's WTO challenge.

WTO Commitments, Rules, and Challenges

Overview

The linkage between agricultural subsidies and market distortions has long provided a basis for trade remedy claims.[7] Article VI of the General Agreement on Tariffs and Trade (GATT) of 1947 helped to standardize international trade remedies where claims of dumping and subsidization were alleged. Article XVI of the GATT also addressed subsidies. However, agricultural support policies and their linkage to commodity markets and trade were first addressed in the Uruguay Round (UR) of multilateral trade negotiations in 1994 under the Agreement on Agriculture (AA). This agreement attempted to specify and discipline agricultural support policies, and to develop a process for settling disputes between member countries concerning the use of agricultural subsidies.[8] Both anti-dumping (AD) and countervailing duty (CVD) trade remedies have remained available to member countries of the WTO since its establishment in 1994. However, Article 13 of the AA (the so-called Peace Clause) called for due restraint among WTO members in seeking CVD or WTO dispute settlement claims, particularly if the subsidies in question remained within certain limits as spelled out in the AA and in each member country's schedule of concessions. Article 13 was limited by a sunset provision that fixed its duration to the nine-year implementation period running from January 1, 1995, through December 31, 2003.

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[7] For more information and a general discussion of trade remedies, see CRS Report RL32371, *Trade Remedies: A Primer*, by Vivian C. Jones.

[8] For more information, see CRS Report RL32916, *Agriculture in the WTO: Policy Commitments Made Under the Agreement on Agriculture*, by Randy Schnepf.

As part of WTO membership, countries agreed to disciplines in agricultural support including rules and definitions governing the nature of agricultural support (e.g., market distorting or non-distorting), as well as formal, clearly defined commitments to reduce or limit agricultural support.[9] In addition, WTO members have agreed to formal procedures for resolving disputes concerning compliance with WTO disciplines. This report assumes a general knowledge of WTO rules and procedures; however, those aspects deemed most relevant for understanding potential challenges to U.S. agricultural programs are briefly described below.

WTO Agreements. Within the WTO's multitude of legal texts and supporting documents, the following are most relevant to issues related to agricultural subsidies and challenges to the WTO legality of those subsidies:[10]

- **General Agreement on Tariffs and Trade of 1994 (GATT 1994).** GATT 1994 subsumes the original GATT 1947 under the WTO and includes a series of "understandings" that provide additional precision to the interpretation of earlier GATT 1947 legal texts and rules.
- **Agreement on Agriculture (AA).** The AA provides the legal framework for administering the agricultural policy reforms agreed to in 1994 by members.
- **Country Schedules to the AA.**[11] Each individual member has a unique schedule of concessions and commitments that includes such details as the implementation period for subsidy and tariff reductions or quota expansions, subsidy caps, and other country-specific terms.
- **Agreement on Subsidies and Countervailing Measures (SCM).** The SCM establishes formal definitions and rules for subsidies, including whether they are "prohibited"or "actionable," as well as providing special and additional rules for consultations and dispute settlement.
- **Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).** The DSU establishes a binding dispute settlement system to enforce WTO rules.[12] It is only within the framework of the DSU that a member country may bring a

[9] For more information on WTO AA liberalization commitments as well as notification requirements, special treatment of developing countries, and related issues, see CRS Report RL32916, *Agriculture in the WTO: Policy Commitments Made Under the Agreement on Agriculture*, and CRS Report RL30612, *Agriculture in the WTO: Member Spending on Domestic Support*, both by Randy Schnepf.

[10] For all official WTO legal texts (including those mentioned here), see *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge University Press, ©World Trade Organization, 1999); available at [http://www.wto.org/english/docs_e/legal_e/legal_e.htm].

[11] Each member's schedule of concessions is publicly available at the WTO website at [http://www.wto.org/english/tratop_e/schedules_e/goods_schedules_e.htm].

[12] For more information, see CRS Report RS20088, *Dispute Settlement in the World Trade Organization: An Overview*, by Jeanne Grimmett.

formal challenge against another member country for alleged violation of rules or provisions of the AA or SCM.

Article 13 and Annex 2 from the AA, along with Articles 1, 5, and 6 from the SCM, are included as attachments at the end of this report.

Agricultural Policy Reform Commitments. To limit and reduce the amount of distortive subsidies directed to their agricultural sectors, WTO members have agreed to disciplines in agricultural support in three broad areas — domestic support programs, export subsidies, and market access. Since much of the potential for new challenges of U.S. farm programs involves compliance with these policy reform commitments, each of these broad policy reform areas is briefly discussed below.

Domestic Support. In Article 6 of the AA, domestic support programs were categorized based on their potential to distort commodity markets.[13] Domestic support that is deemed to have a "direct effect" on agricultural markets is measured by an index referred to as the Aggregate Measure of Support (AMS).[14] The AMS combines the monetary value of all non-exempt agricultural support into one overall measure. The AMS includes budgetary outlays in the form of actual or calculated amounts of direct payments to producers under various commodity programs such as marketing loan provisions, input subsidies, and interest subsidies on commodity loan programs, as well as revenue transfers from consumers to producers as a result of policies that distort market prices. Once measured, the AMS is then subject to reductions and a cap. However, to accommodate legitimate domestic policy goals, the AA defined four major categories of domestic support, three of which are eligible for exemption from reduction commitments:[15]

- **Green Box.** This category covers domestic programs deemed to be minimally or non-market distorting, such as agricultural research and extension programs.[16]
- **Blue Box.** This category includes support that is production-limited for either crop or livestock production.[17]
- **Product- and Non-Product-Specific De Minimis Exemptions.** U.S. commodity-specific support that is below 5% of a commodity's value of production is deemed sufficiently benign that it does not

[13] Specific WTO domestic support commitments in dollar values, as well as country-specific notifications of support by program, are presented in CRS Report RL30612, *Agriculture in the WTO: Member Spending on Domestic Support*, by Randy Schnepf.

[14] AMS is defined in the AA, Article 1 (a) and (h). Calculation of the AMS is described in Annex 3 of the AA.

[15] AA Articles 6 and 7.

[16] See Attachment 4, "Agreement on Agriculture, Key Provisions of Annex 2 (the green box)" for criteria for inclusion in the green box.

[17] AA Article 6.5.

have to be included in the AMS calculation.[18] Such commodity-specific support can be evaluated for each individual commodity. Similarly, non-product specific support that is below 5% of the total value of production for all commodities may be exempted from AMS limits. Since the value of U.S. agricultural production averages in excess of $200 billion annually, this latter exemption can cover as much as $10 billion in non-product specific support.

- **Amber Box.** After excluding all of the exempted categories, the remaining AMS support is placed in the Amber Box. U.S. Amber Box AMS has been capped at $19.1 billion since 2000.

Each WTO Member has certain obligations to notify the WTO of spending under each of these domestic support categories (amber box, blue box, de minimis, and green box).[19] The AA is fairly specific on the criteria for designating domestic support programs into the various AMS categories. However, each country makes its own designations and there is not always a clean fit between a domestic program and a WTO AMS category. As a result, disagreement may arise between WTO members over a particular program designation (e.g., exemption status with respect to the AMS) or whether the support under a particular program has been fully counted. Such disagreements may manifest themselves as formal DSU challenges. For example, as part of its WTO cotton case, Brazil successfully challenged the U.S. designation of Production Flexibility Contract (PFC) payments as fully "decoupled" and, therefore, green box compliant.[20] However, increasing tardiness in notifying domestic crop subsidies to the WTO, particularly on the part of those countries with the largest domestic subsidies — the United States, the EU, and Japan — has diminished the ability of third countries to use notifications as a basis for challenge.

Export Subsidies. The AA imposes limits on direct agricultural export subsidies, but not on indirect export subsidies. Indirect methods of export subsidization include government subsidized financing for exports (e.g., export credit guarantees), export promotion and information activities, tax benefits, or other forms of assistance that may lead to lower than normal costs for exported products.[21] WTO members agreed to both volume and value reductions in the use of direct export subsidies from a 1986-90 base period. Each country's schedule specifies both how much can be exported with subsidy as well as the permitted subsidy expenditure for each listed commodity. A WTO member may not initiate new export subsidies for commodities that are not in its country schedule.[22] Because indirect export subsidies are less transparent, but may still provide substantial market support, their use represents a potential source for dispute between nations and may lead to new

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[18] AA Article 6.4.

[19] See CRS Report RL32916 for more information on WTO notification requirements.

[20] Discussed in more detail in section "Brazil's WTO Case Against the U.S. Cotton Program."

[21] Export subsidies are specifically dealt with in Articles 8-12 of the AA. For more information on U.S. agricultural export programs see USDA, Foreign Agricultural Service, "Programs and Opportunities," at [http://www.fas.usda.gov/programs.asp].

[22] AA Article 8.

challenges. For example, as part of the WTO cotton case, the panel found that U.S. export credit guarantees operated as prohibited export subsidies and were permissible only to the extent that they complied with the export subsidy commitments listed in the U.S. country schedule.

Market Access. Market access refers to the extent to which a country permits imports. Within the WTO, market access refers more specifically to the conditions governing tariff and non-tariff measures agreed to by members for the entry of specific goods into their markets.[23] WTO members agreed to bind the maximum tariff rates that may be applied to imported products at base period (1986-88) levels. Member countries are free to apply tariff rates that are below the bound rate, but may never apply a tariff rate in excess of the bound rate without first consulting the other members most likely to be affected by such a change and agreeing on some level of compensation.[24] In addition to the binding of maximum tariff rates, member countries have agreed to reductions in the bound rates as specified in their country schedules. In some countries, a tariff-rate quota (TRQ) was established for "sensitive" products that included a minimum low-tariff, access quota component and a more protected above-quota component. The specific quota and tariff rates for all TRQs are listed in the country schedules. Violations of tariffs and TRQ provisions are challengeable, as are indirect import restrictions in the form of variable import levies, discretionary import licensing, non-tariff measures maintained through state trading enterprises, voluntary export restraints, and most border measures other than ordinary customs duties. However, the Peace Clause did not apply to market access commitments. As a result, the status of WTO legal challenges of market access commitments has not changed with the expiration of the Peace Clause.

WTO Subsidy Challenges Under the Peace Clause

Subsidies Under The SCM Agreement. As mentioned earlier, the Agreement on Subsidies and Countervailing Measures (SCM) establishes formal definitions and rules for subsidies, including whether they are "prohibited" or "actionable," as well as providing for consultations and dispute settlement.

Prohibited Subsidies. The SCM is explicit in its prohibition of subsidies that directly affect trade.[25] Two types of subsidies are prohibited: subsidies contingent upon export performance and subsidies contingent upon the use of domestic over imported goods. These prohibitions apply except as provided in the AA.[26] For example, in the WTO cotton case, U.S. Step 2 cotton payments to exporters were identified as unscheduled export subsidies, while Step 2 cotton payments to domestic users were identified as illegal import substitution subsidies.[27] Thus, both Step 2 payments were subject to the SCM agreement prohibition. In the

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[23] AA Article 4 treats market access, and AA Article 5 treats Special Safeguard Provisions.

[24] GATT 1994 Article 28.

[25] SCM Article 3.

[26] AA Article 3.1.

[27] See later section "Brazil's WTO Case Against U.S. Cotton Program" for details.

WTO's dispute settlement process, prohibited subsidies are treated with greater urgency than are actionable subsidies. If a policy measure is found to constitute a prohibited subsidy under DSU challenge, then the DSU panel "shall recommend that the subsidizing Member withdraw the subsidy without delay."[28]

Actionable Subsidies. Actionable subsidies (i.e., those subsidies that are not expressly prohibited but against which legal action may be taken) are broadly defined in SCM Article 5 as those subsidies (defined in SCM Article 1) which cause:

> ... adverse effects to the interests of other Members, i.e.:
> (a) injury to the domestic industry of another Member ;
> (b) nullification or impairment of benefits accruing directly or indirectly to other Members under GATT 1994 in particular the benefits of concessions bound under Article II of GATT 1994;
> (c) serious prejudice to the interests of another Member.[29]

Trade analysts have argued that the adverse effects criteria represent a lower threshold for achieving successful challenges to agricultural support programs than the injury requirement under a countervailing duty claim. This is because under SCM Article 5, "serious prejudice," but not injury, must be established (discussed below).[30] Prior to its expiration, the Peace Clause had provided protection from trade remedy consideration for actionable subsidies provided that they met certain compliance conditions (discussed in the following section).

The Peace Clause. During the nine-year period from January 1, 1995, through December 31, 2003, Article 13 of the AA, known as the "Due Restraint" or so-called Peace Clause, exempted most domestic commodity support measures from domestic countervailing duty (CVD) and DSU challenge, so long as the support provided for any specific commodity (a) was in compliance with the provisions of Annex 2 of the AA, or (b) was in compliance with the criteria for AMS, green box, blue box, and de minimis from Article 6 of the AA and did not exceed the level of support received during the benchmark 1992 marketing year.[31] In other words, for those agricultural support programs in full compliance with the terms of the AA, the Peace Clause provided relief from domestic CVD and DSU challenge provided the value of the support did not exceed the 1992 spending benchmark.

The intention of the Peace Clause was to allow WTO members sufficient time to comply fully with their policy reform commitments, recognizing that some policies would likely take several years to bring into full compliance due to the dynamics of

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[28] SCM Article 4.7.

[29] SCM Article 5.

[30] The evaluation of WTO legal provisions and their potential relevance to future DSU challenges of agricultural support programs relies heavily on the analysis done in Richard H. Steinberg and Timothy E. Josling, "When the Peace Ends: the Vulnerability of EC and US Agricultural Subsidies to WTO Legal Challenge," *Journal of International Economic Law*, Vol. 6, No. 2, pp. 369-417, July 2003; hereafter referred to as Steinberg and Josling (2003).

[31] See annotated version of AA Article 13 appended to this memo as Appendix B.

each country's internal political process. With the expiry of the Peace Clause, the full substantive and procedural legal apparatus of the WTO may be used to challenge any type of agricultural subsidy — including export subsidies, Amber Box, Blue Box, Green Box, and De Minimis measures — even if a subsidy remains within spending limits defined under the country schedule.

The Peace Clause did not provide protection from DSU challenges to all agricultural policy support measures. Prior to the Peace Clause's expiration, DSU challenges with respect to agricultural commodities could encompass issues arising from noncompliance with WTO commitments, particularly from prohibited subsidies. In addition, DSU challenges could encompass issues arising from violation of other WTO rules, such as those covering dumping or sanitary and phytosanitary measures including emerging issues such as biotech trade disputes. CVD actions also were available for injury resulting from subsidized trade, although, as noted earlier, members were requested to use "due restraint" in seeking countervailing duties. At the time of the Peace Clause expiration, over 128 DSU cases involving agricultural products (including fisheries and forestry) were in some stage of determination.[32]

U.S. trade negotiators have sought to include a new Peace Clause in the negotiating text of the Doha Round in order to protect domestic support programs while a new round of domestic support disciplines is being adopted. However, the proposal for a new Peace Clause has met stiff resistance from nearly all negotiating partners.

Brazil's WTO Case Against the U.S. Cotton Program

On March 21, 2005, the WTO Dispute Settlement Body (DSB) adopted the reports from both the WTO Appellate Body and the original WTO panel hearing Brazil's claims against the U.S. cotton program.[33] Several of the rulings from the cotton case have important implications for future DSU challenges against U.S. farm programs and are briefly summarized below.[34]

First Ruling: Peace Clause Violation. The existence of the Peace Clause did not prevent Brazil from bringing its case against the U.S. cotton program, in part because Brazil thought it could prove that the United States was in violation of the Peace Clause's 1992 spending limit. After reviewing the evidence presented, the panel found that U.S. cotton support levels for each of the marketing years 1999 through 2002 exceeded the Peace Clause's 1992 benchmark spending threshold. As a result, according to the panel the Peace Clause exclusion could not be used to protect the U.S. policy measures. Had Brazil failed to show a violation of the Peace

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[32] Based on CRS review of WTO dispute settlement cases listed chronologically at [http://www.wto.org/english/tratop_e/dispu_e/dispu_status_e.htm].

[33] Refer to WTO case number DS267 for official documentation; available at [http://docsonline.wto.org/gen_home.asp?language=1&_=1].

[34] For more information, see CRS Report RS22187, *U.S. Agricultural Policy Response to WTO Cotton Decision* by Randy Schnepf.

Clause's 1992 support threshold, it is unlikely the panel would have pursued the case further, thus demonstrating the important protection provided to domestic support measures by the now-expired Peace Clause.

A key element of the panel's determination regarding the Peace Clause was that U.S. Production Flexibility Contract (PFC) payments made under the 1996 farm bill and Direct Payments (DP) made under the 2002 farm bill failed to fully meet the Green Box conditions for decoupled income support. Disqualification arises because of planting restrictions on fruits, vegetables, and wild rice. As a result, the panel ruled that they should count against the U.S. 1992 spending benchmark. In its notifications for 1996 through 2001, the United States notified PFC payments as fully decoupled green box support, thereby not counting against the U.S. AMS limit of $19.1 billion.

Although the panel did not declare that PFC and DP payments should be notified as amber box payments, the panel implied as much. This particular finding was not a part of the "serious prejudice" finding that required remedy; however, it establishes a precedent for interpreting the notification status of U.S. direct payments. As such, the ruling represents an obvious vulnerability should another country choose to specifically challenge the notification status of PFC and DP payments. Such a DSU challenge, if successful, would have important implications for the United States' ability to meet its domestic support commitments. What would happen if PFC and DP payments are included as amber box rather than green box? Two economic analyses conclude that the United States would have violated its AMS limit of $19.1 billion during the years 1998, 1999, 2000, 2001, and 2006.[35] New legislation would be necessary to make these direct payments green box compliant.

Second Finding: Prohibited Subsidies. On Sept 8, 2004, the panel found that both the Step 2 cotton program and the export credit guarantee program acted as prohibited subsidies and should be withdrawn (i.e., terminated) within six months of adoption of the panel report by the WTO (or by July 1, 2005, whichever was earlier).[36] Furthermore, the panel found that this applied, not just to cotton, but to all commodities that benefit from U.S. commodity support programs and receive export credit guarantees. As a result, U.S. export credit guarantees for any recipient commodity are subject to previously scheduled export subsidy commitments for that commodity (as listed in the Country Schedule). For the United States, this refers to export subsidies listed under the Export Enhancement Program (EEP) and the Dairy Export Incentive Program (DEIP).[37] Among those commodities eligible for EEP or

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[35] Chad E. Hart, "The WTO Picture After the Cotton Ruling," *Iowa Ag Review*, Vol. 11, No. 2, Spring 2005, pp. 10-11, available at [http://www.card.iastate.edu/iowa_ag_review/spring_05/]; and Daniel A. Sumner, *Boxed In: Conflicts between U.S. Farm Policies and WTO Obligations*, CATO Institute Trade Policy Studies, No. 32, December 5, 2005, available at [http://www.freetrade.org/pubs/ pas/pas.html].

[36] WTO, Panel Report, *United States — Subsidies on Upland Cotton*, paras. 8.3 (b), (c), WT/DS267/R, (September 8, 2004); hereafter referred to as *WTO Upland Cotton Panel Report*.

[37] The United States has scheduled export subsidy reduction commitments for the following thirteen commodities: wheat, coarse grains, rice, vegetable oils, butter and butter oil, skim

(continued...)

DEIP, the panel found that U.S. rice exports received export credit guarantee benefits in excess of its EEP volume commitments. The panel found that all "unscheduled" program commodities, such as cotton, receiving export credit guarantee benefits were also in violation of WTO commitments.

The panel ruling on export credits hinged on a determination that the financial benefits returned to the government failed to cover long-run program expenses, thus implying that they functioned effectively as export subsidies.[38] An amendment to the statute is needed to eliminate the alleged subsidy component of export credit guarantees — i.e., below market user fees due to a 1% cap on user fees for GSM-102 (the primary export credit program). This statutory cap prevents charging higher risk-based fees as recommended by the panel. Other U.S. trade assistance programs, such as the various market development programs, appear to operate within WTO rules; however, if brought under more intensive scrutiny, they could be vulnerable to interpretation charging that they effectively function as export subsidies, which would potentially subject them to scheduled export subsidy commitments.[39]

Third Finding: Serious Prejudice. The panel ruled that the United States should remove the prejudicial effects of price-contingent support measures including marketing loan provisions, Step 2 payments, market loss payments, and counter-cyclical payments. The extent of program change needed for compliance is not clear, particularly since the Step 2 program ended on August 1, 2006, and no market loss payments have been made since 2002. However, Brazil claims the right to impose retaliatory tariffs valued at $1 billion. On August 21, 2006, Brazil requested the establishment of a compliance panel to determine whether current U.S. actions are sufficient to comply with the original WTO rulings and recommendations.[40] Although the United States successfully blocked Brazil's first attempt to form a compliance panel, Brazil's second request on September 28, 2006, resulted in the establishment of a compliance panel.[41]

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[37] (...continued)
milk powder, cheese, other milk products, bovine meat, pigmeat, poultry meat, live dairy cattle, and eggs. For more information on the EEP program and U.S. export subsidy commitments see CRS Report RS20399, *Agricultural Export Programs: The Export Enhancement Program (EEP)*. See also *Export Enhancement Program*, Foreign Agricultural Service, USDA at [http://www.fas.usda.gov/excredits/eep.html].

[38] *WTO Upland Cotton Panel Report*, paras 7.857-7.869.

[39] For more information on USDA market development programs, see [http://www.fas.usda.gov/programs.asp], and CRS Report RL33553, *Agricultural Export and Food Aid Programs*, by Charles Hanrahan.

[40] WTO, Recourse to Article 21.5 of the DSU by Brazil, *United States — Subsidies on Upland Cotton*, WT/DS267/30 (August 21, 2006). For more information, see CRS Report RS22187, *U.S. Agricultural Policy Response to WTO Cotton Decision*, by Randy Schnepf.

[41] WTO, Dispute Settlement Body, "DSB Sets Up Compliance Panel to Review U.S. Implementation of 'Cotton' Rulings," 2006 News Item, September 28, 2006.

Post-Peace-Clause DSU Challenges

Following the expiry of the Peace Clause, both export and domestic subsidies on agricultural products that are otherwise in compliance with WTO commitments may be subject to DSU challenge under various legal provisions of the GATT 1994 and the SCM Agreement.[42] One legal analysis of the potential for post-Peace-Clause DSU challenges, undertaken by Steinberg and Josling, suggests that the most likely avenue for future DSU challenges against the alleged "adverse effects" of U.S. farm programs under SCM Article 5 would be claims of "serious prejudice" as defined in SCM Article 5(c), primarily because this provision contains the lowest threshold that a challenge must meet.[43] SCM Article 6 defines the nature of "serious prejudice" and the cases in which it may be said to exist. In particular, Article 6.3 provides that:

> Serious prejudice in the sense of paragraph (c) of Article 5 may arise in any case where one or several of the following apply:
>
> (a) the effect of the subsidy is to *displace or impede the imports of a like product* of another Member into the market of the subsidizing Member;
>
> (b) the effect of the subsidy is to *displace or impede the exports of a like product* of another Member from a third country market;
>
> (c) the effect of the subsidy is *a significant price undercutting* by the subsidized product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market;
>
> (d) the effect of the subsidy is *an increase in the world market share of the subsidizing Member* in a particular subsidized primary product or commodity as compared to the average share it had during the previous period of three years and this increase follows a consistent trend over a period when subsidies have been granted.[44]

SCM Article 6.4 adds further precision to the nature of market displacement identified in Article 6.3(b) by indicating that displacement may be demonstrated by showing that a change in relative market shares has occurred to the disadvantage of a non-subsidized "like" product.

Steinberg and Josling conclude that the biggest challenge to making a trade remedy claim under SCM Article 6.3 would be to credibly and reliably establish that agricultural subsidies are causing serious prejudice as defined by the above provisions.[45] Steinberg and Josling provide a roadmap for developing a case under these legal provisions including the incorporation of economic and statistical modeling for showing causal linkages between agricultural support policies (i.e., subsidization) and prejudicial market effects as measured by market share, quantity displacement, and/or price suppression. Steinberg and Josling argue that a strong

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[42] For a recent discussion, see Stewart and Dwyer (2006) p. 6; supra note 2.

[43] Steinberg and Josling (2003), p. 371.

[44] SCM Article 6.3 (italics added by CRS).

[45] Steinberg and Josling (2003), p. 389.

prima facie case under the legal standards of SCM Article 6.3 and 6.4 could be made if:

- regression analysis, partial equilibrium modeling, or general equilibrium modeling confirmed each of the relationships being tested, and
- those analyses were complemented by a confirmatory narrative about the relationships in particular markets.

Brazil's successful challenge of the U.S. cotton program followed this general course, but used a serious prejudice argument based on "significant price suppression" in world markets. Econometric model results were included to support the argument of strong adverse policy-to-price linkages.[46] Specifically, the WTO panel cited four main grounds that supported a causal link between the implicated U.S. cotton subsidies and significant price suppression:[47]

- the United States exerts a substantial influence in the world cotton market due to the relative magnitude of U.S. cotton production and exports;
- the relevant U.S. subsidies are price contingent, i.e., linked directly to world prices for upland cotton, thereby insulating U.S. producers from low prices;
- there is a discernible temporal coincidence of suppressed world market prices and the price-contingent U.S. subsidies; and
- there is a divergence between U.S. cotton producers' total costs of production and their revenue from cotton sales, suggesting that it is the U.S. subsidies that permit cotton sales at prices that fail to cover costs.

These same criteria are relevant for evaluating the potential vulnerability to future WTO legal challenges for U.S. commodities. Appendix A provides a brief review of several published economic analyses of the market effects of U.S. agricultural policies. As a general rule, these studies support the idea that U.S. (and other developed country) agricultural support programs negatively influence international market prices and tend to disadvantage third-country trade of non-subsidized "like" products.

The following section reviews actual U.S. program outlays by commodity, as well as various market statistics (e.g., share of world production and trade) for major U.S. program crops that correspond with the causal linkage criteria listed above.

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[46] Sumner, Daniel A. *A Quantitative Simulation Analysis of the Impacts of U.S. Cotton Subsidies on Cotton Prices and Quantities*, Paper presented to the WTO Cotton Panel (DS267). October 26, 2003; available at [http://www.fao.org/es/esc/common/ecg/47647_en_sumner.pdf].

[47] *WTO Upland Cotton Panel Report*, paras 7.1348-7.1353.

U.S. Farm Program Subsidies

Overview

As mentioned earlier, each WTO member country is expected to routinely submit notification reports on the implementation of its specific policy reform commitments, including domestic farm support outlays, to the WTO.[48] The country notifications, along with any other publicly available information on domestic support outlays, provide the basis for evaluating and challenging compliance with WTO commitments. As of this writing, the United States has notified domestic support outlays for only calendar years 1995 through 2001. However, USDA routinely publishes estimates of U.S. farm program support for historical, current, and projected crop years.[49] In building its case against the U.S. cotton program, Brazil made ample use of USDA public data sources. Furthermore, a critical issue for U.S. commodity subsidies with respect to their inclusion in a WTO legal challenge is, not how they were notified to the WTO, but the extent to which they can be linked to a specific commodity.

This section reviews both U.S. domestic support notifications and publicly available USDA data since 1996 to evaluate the potential vulnerability of U.S. farm commodities to new WTO legal challenges. This section begins with a review of U.S. farm support programs, including a discussion of differences between actual USDA outlays and the AMS support levels notified to the WTO. This is followed by an evaluation of domestic support for each of the major U.S. program crops against the criteria for measuring potential linkages between policy and market effects as developed in the first section of this report.

U.S. Domestic Support Outlays and Notifications

The United States operates a wide range and large number of federal programs that both directly and indirectly support U.S. agricultural production. For example, in FY2006, USDA and related agencies (the Food and Drug Administration and the Commodity Futures Trading Commission) received budget authority of an estimated $99.9 billion that included domestic food assistance programs, agricultural research and extension, rural development, conservation, foreign aid, and commodity programs.[50] However, most of these programs and activities are considered minimally production and trade distorting under the terms of the WTO Agreement on Agriculture (AA).

A WTO challenge under SCM Articles 5 or 6.3 appears likely to focus on those programs that are categorized under the WTO criteria as production and trade distorting (i.e., amber box) or that are have been exempted from the amber box under

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[48] For more information see CRS Report RL30612, *Agriculture in the WTO: Member Spending on Domestic Support*, by Randy Schnepf.

[49] USDA, Farm Service Agency, Budget Division, "Table 35, CCC Net Outlays by Commodity and Function," available at [http://www.fsa.usda.gov/dam/bud/bud1.htm].

[50] For more information see CRS Report RL33412, *Agriculture and Related Agencies: FY2007 Appropriations*, Jim Monke coordinator.

the blue box, de minimis, or green box criteria but can be shown to cause adverse effects in certain markets. **Table 1** presents a list of U.S. agricultural support programs by WTO category based on the domestic support notifications submitted by the United States during 1995-2001.

During the 1995-2001 period, the United States notified an annual average of $15.3 billion in domestic spending under the AMS amber box and de minimis categories (**Table 2**). The United States has used the blue box only once (in 1995) since qualifying target-price deficiency payments were eliminated by the 1996 farm bill. During that same 1995-2001 period, the United States notified an annual average of $50 billion in green box support outlays.

The 2002 farm bill (Farm Security and Rural Investment Act of 2002, P.L. 107-171), made some changes to commodity support programs including the creation of two new programs — the Counter-Cyclical Payments (CCP) program and the Milk Income Loss Contract (MILC) program. Neither of these programs has yet been notified as belonging to a particular WTO category. U.S. commodity programs are briefly described below.

Farm Support Programs. Domestic commodity support provisions in the 2002 farm bill include three major payment programs: Direct Payments, Counter-Cyclical Payments (CCP), and benefits under marketing loan provisions — i.e., loan deficiency payments (LDPs), marketing loan gains (MLGs), and certificate exchange gains (CEGs).[51] Over 62% ($110 billion) of USDA CCC outlays were made under these three programs during 1996-2006 (**Table 3**).

CCP payments and marketing loan benefits (LDP, MLG, and CEG) vary with market prices and make outlays when market prices fall below target prices (CCP) or loan rates (marketing loan benefits). Marketing loan benefits have been notified as product-specific AMS support (see **Table 2**, heading 2, "Non-Exempt Direct Payments"). Like marketing loan benefits, CCP payment are specific to a commodity. Unlike marketing loan benefits which depend on actual production, CCP outlays are based on historical base acres and national average prices. As a result, CCP payments are decoupled from producer planting decisions, but do retain a link to market prices. Because CCP payments were not made until calendar 2003, they have yet to be notified to the WTO. However, the commodity-decoupled, but price-linked nature of CCP payments suggests that they would likely be notified as non-product specific AMS support under current WTO criteria. As a result, CCP would likely qualify for exemption from the AMS limit under the non-product-specific de minimis exemption.

Direct payments (DP) are paid annually and are based on historical base acres and yields. As a result, they do not vary annually based on current production or market conditions. DP under the 2002 farm bill are an extension of the Planting Flexibility Contract (PFC) payments of the 1996 farm bill (P.L. 104-127). The

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[51] For more information on U.S. farm programs, see CRS Report RS21999, *Farm Commodity Policy: Programs and Issues for Congress*, and CRS Report RL33271, *Farm Commodity Programs: Direct Payments, Counter-Cyclical Payments, and Marketing Loans*, both by James Monke.

principal difference between DP and PFC payments is that farmers were allowed to adjust their declared base acres and crops at sign-up time for the 2002 farm bill. As a result, the share of DP payments across program crops shifted slightly between the 1996 and 2002 farm bills. The United States has always notified both DP and PFC to the WTO as decoupled green-box support. However, the WTO panel and Appellate Body hearing the cotton case (DS267) found that DP payments are not fully decoupled because of a prohibition on planting fruits, vegetables, and wild rice on payment acres. As a result, the panel ruled that DP payments did not qualify for inclusion in the green box and therefore were counted against the 1992 "Peace Clause" spending limit discussed earlier. This raises the question of whether or not the U.S. will continue to classify direct payments as green box or report them in the future as amber box.

Table 1. Categorized List of U.S. Support Programs, 1995-2001

Green Box Programs — non or minimally production and trade distorting programs exempt from disciplines.

- USDA research, cooperative extension, and economics programs;
- Animal and Plant Health Inspection Service (APHIS) pest and disease programs;
- Food Safety and Inspection Service (FSIS) meat and poultry inspection;
- Agricultural Marketing Service (AMS), Grain Inspection, Packers and Stockyards Administration (GIPSA), and other marketing services, including grading, quality inspection, and market news;
- Domestic food assistance programs, including food stamps, school food, the special supplemental food program for women, infants, and children (WIC), and Section 32 food purchases for domestic assistance;
- Food security commodity reserve;
- Disaster payments for livestock and crop losses due to natural disasters;
- Conservation programs like conservation operations and the Environmental Quality Incentives Program (EQIP);
- Farm credit including Farm Service Agency (FSA) farm ownership and operating loans; and state mediation programs;
- The Conservation Reserve Program (CRP); and
- CCC production flexibility contract payments made under the Agricultural Market Transition Act (AMTA) of 1996.

Blue Box Programs — production limiting programs exempt from disciplines.

- Target price deficiency payments (which ended with 1996 farm law).

Amber Box Programs — potentially production and trade distorting programs that are subject to disciplines. They are defined as either product- or non-product specific.

Product-specific support:

- Dairy price support;
- Sugar price support;
- Peanut price support;
- Benefits under marketing loan provisions; and
- Storage payments.

Non-product specific support:

- Irrigation subsidies on Bureau of Reclamation Projects in 17 Western States;
- Subsidies for grazing livestock on federal land;
- Federal crop and revenue insurance subsidies; and
- Farm storage facility loan subsidies.

Source: U.S. notifications to the WTO; G/AG/N/USA/# for #'s 10, 17, 27, 36, 43, and 51.

Nearly all of the payments made under these three programs — DP, CCP, and marketing loan provisions — are directed to a relatively small number of commodities (see following section). However, several other federal programs provide substantial annual direct support to a broader list of crops. Such programs include livestock grazing subsidies, crop and revenue insurance subsidies, irrigation subsidies, storage payments, and commodity loan interest subsidies. In addition, over $37 billion in emergency assistance payments were made to agricultural producers during FY1996-FY2006. Although most disaster assistance qualifies for the WTO green box exclusion, U.S. emergency payments included $16 billion in *ad hoc* market loss assistance (MLA) payments that were made to grain, oilseed, cotton, tobacco, and dairy producers in response to low farm commodity prices during the 1998-2002 period.[52]

Based on specific AMS criteria, the United States notified support under many of these smaller programs (including MLA payments) as non-commodity-specific domestic support such that they qualified for the de minimis exemption (see **Table 2**, heading 5, "Non-product specific support"). However, in many instances payments from these programs can be linked directly to specific crops using publicly available information sources. For example, MLA payments were based on specific crop yield conditions. Similarly, the United States has notified its crop insurance subsidies as non-commodity-specific support since all crop production is universally eligible for such insurance. However, most crop insurance subsidies (with the exception of adjusted gross revenue insurance) can be linked directly to a specific insured crop.[53]

Government support of crop insurance has expanded greatly in the past decade and is currently available to all crops grown in the United States. As a result, federal crop insurance subsidies have greatly expanded the pool of subsidized commodities in the United States. Crop insurance support is administered by USDA's Risk Management Agency (RMA) and funded through the Federal Crop Insurance Fund rather than from the CCC, therefore crop insurance subsidies are not included in CCC budget tables. Since FY2002, government net outlays (including premium subsidies and government loss-sharing) have averaged over $3 billion annually. However, the recent growth in federal crop insurance subsidies, coupled with projections for continued growth (FAPRI projects federal crop insurance net outlays to exceed $4 billion by 2008 and to reach $4.6 billion by 2015[54]) could potentially bring the crop insurance program under greater scrutiny from WTO competitors.

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[52] For more information on market loss payments, see CRS Report RL31095, *Emergency Funding for Agriculture: A Brief History of Supplemental Appropriations, FY1989-FY2006*, by Ralph Chite.

[53] See USDA, Risk Management Agency's Summary of Business searchable database for crop-specific data; available at [http://www3.rma.usda.gov/apps/sob/].

[54] FAPRI, *2006 U.S. and World Agricultural Outlook*, FAPRI Staff Report 06, January 2006.

Table 2. WTO Notifications of U.S. Domestic Support: Amber Box Categories and De Minimis Exemptions, 1995-2001

AMS Policy category[a]	Base 1986-88	1995	1996	1997	1998	1999	2000	2001	Average 1995-01
					($ million)				
1. Market Price Support[b]	**6,956**	**6,213**	**5,919**	**5,816**	**5,776**	**5,921**	**5,840**	**5,826**	**5,902**
Dairy	5,409	4,693	4,674	4,455	4,332	4,437	4,377	4,483	4,493
Sugar	1,041	1,108	937	1,045	1,093	1,180	1,133	1,032	1,076
Peanuts	347	412	308	315	350	303	330	311	333
Beef[c]	158	0	0	0	0	0	0	0	0
2. Non-Exempt Direct Pmts[d]	**12,393**	**88**	**7**	**578**	**4,437**	**10,403**	**10,567**	**8,435**	**4,931**
Loan Def. Payment	56	0	0	3	2,780	6,210	6,273	5,593	2,980
Marketing-Loan Gain	387	0	0	161	1,039	1,685	733	610	604
Certificate-Exch. Gains	0	0	0	0	6	175	619	1,975	396
Cotton Step 2 payments	0	35	6	416	280	446	237	182	229
Other non-exempt pymnts	2,244	88	7	414	613	2,332	2,943	256	951
3. Total Other Support[e]	**1,995**	**10**	**12**	**80**	**338**	**567**	**457**	**367**	**262**
Storage payments	573	4	0	24	78	144	43	62	51
Interest subsidies	1,599	115	78	141	344	443	466	367	279
NE dairy compact benefits	0	0	0	0	28	55	20	0	15
Fees paid by producers	(177)	(109)	(67)	(84)	(112)	(74)	(72)	(62)	(83)
4. Product-Specific Totals (= 1 + 2 + 3)	**21,343**	**6,311**	**5,937**	**6,475**	**10,550**	**16,891**	**16,865**	**14,628**	**11,094**
5. Non-prod-specific support	**901**	**1,543**	**1,113**	**568**	**4,584**	**7,406**	**7,278**	**6,828**	**4,189**
Crop market loss payments	0	0	0	0	2,811	5,468	5,463	4,640	2626
Crop insurance costs	289	906	633	120	747	1,514	1,396	1,770	1,012
Irrg. subsidies-W. States	543	543	381	348	348	316	316	300	365
Other	69	94	99	100	677	108	103	118	186
For Non-Specific "De Minimis" (DM) Calculations									
5% of value of prod.[f]	7,146	9,505	10,285	10,194	9,544	9,237	9,476	9,925	9,738
6. Total Before Exemptions (= 4 + 5)	**22,245**	**7,855**	**7,051**	**7,042**	**15,134**	**24,297**	**24,143**	**21,456**	**15,283**
7. Exemptions	**1,634**	**(1,642)**	**(1,174)**	**(812)**	**(4,750)**	**(7,435)**	**(7,341)**	**(7,045)**	**(4,314)**
Non-prod-specific DM[f]	(901)	(1,543)	(1,113)	(568)	(4,584)	(7,406)	(7,278)	(6,828)	(4,189)
Prod-specific DM.[f]	(692)	(99)	(61)	(244)	(166)	(29)	(63)	(217)	(126)
Credit in base period[g]	3,228	0	0	0	0	0	0	0	0
8. Total Non-Exempt AMS Outlays (= 6 + 7)	**23,879**	**6,212**	**5,876**	**6,231**	**10,384**	**16,862**	**16,802**	**14,411**	**10,968**
9. AMS Ceiling[h]	**23,879**	**23,083**	**22,287**	**21,491**	**20,695**	**19,899**	**19,103**	**19,103**	**20,809**
10. Unused AMS Ceiling	**—**	**16,869**	**16,390**	**15,253**	**10,303**	**3,037**	**2,301**	**4,690**	**9,835**

Source: USDA/ERS, WTO database at [http://www.ers.usda.gov/briefing/farmpolicy/usnotify.htm] and recent U.S. notifications to the WTO. Reproduced from CRS Report RL30612, *Agriculture in the WTO: Member Spending on Domestic Support*.

Notes for Table 2:

a. Categories correspond to those in official domestic support notifications to the WTO, as shown in Supporting Tables DS: 4, 5, 6, 7, and 9. Domestic support is measured by WTO index called the aggregate measurement of support (AMS).

b. Market price support is total eligible production times the difference between the current administered price and the fixed, 1986-88 world reference price.

c. The United States also notified the value of beef purchases made to offset the effect of the dairy herd buy-out program. No fixed world reference price was used.

d. See Appendix Table 11 of CRS Report RL30612, *Agriculture in the WTO: Member Spending on Domestic Support*, for details on non-exempt direct payments. Support in the 1986-88 base period was defined to include payments related to production reduction programs. Such payments were exempt (excluded) from the AMS reduction commitments after the base period and were notified in Supporting Table DS:3 (blue box). U.S. deficiency payments included in the blue box were re-calculated using a fixed, 1986-88 reference price. The 1995 value in the blue box was $7,030 million. This payment was eliminated after 1995 by the 1996 Farm Act.

e. Product-specific support only.

f. Under the de minimis provision, if the calculated individual product support level or the non-product-specific total is not larger than 5% of its respective total value of production, the support does not have to be included in the current total AMS.

g. For the 1986-88 base period only, countries could increase their AMS by using the higher of the 1986 value or the 1986-88 value. The U.S. increased its AMS by $3,227 million. This was done to give credit for reductions in support already accomplished during the first three years of the Uruguay Round.

h. Under the Uruguay Round Agreement, the AMS commitment ceiling was derived as the 1986-88 base value minus 3.3% per year during 1995 through 2000 (20% divided by six years = 3.33333%).

Program Commodities. Most direct program subsidies are available only for about 25 agricultural commodities. The 2002 farm bill defines two classes of commodities: "covered commodities" and "loan commodities." The classes determine which types of payments are available. For example, DP and CCP payments are available only to the covered commodities, while marketing loan benefits are available to the larger group of loan commodities. *Covered commodities* include wheat, feed grains (corn, grain sorghum, barley, and oats), upland cotton, rice, soybeans, and other oilseeds (sunflower seed, rapeseed, canola, safflower, flaxseed, mustard seed, crambe, and sesame seed). *Loan commodities* include the covered commodities, plus extra long staple cotton, wool, mohair, honey, dry peas, lentils, and small chickpeas. Peanuts are classified separately, but receive payments like the covered commodities.

U.S. dairy and sugar sectors also receive substantial support, but their support is of a less direct nature than cash payments or certificate exchanges. Dairy prices are supported (at a producer liquid milk-equivalent price of $9.90 per hundredweight) through federal purchases of surplus nonfat dry milk, butter, and cheese. In addition, dairy producers also receive a counter-cyclical "milk-income loss contract" (MILC) payment when prices fall below a target price. Although they have yet to be notified, MILC payments are linked to production and market prices (much like loan deficiency payments for crops) and can be expected to qualify as amber box payments. Demand for dairy products is supported by the Dairy Export Incentive Program (DEIP), which subsidizes export of U.S. dairy products. Finally, domestic prices are provided border protection by a system of TRQs for most dairy products.

No direct payments are made to U.S. sugar growers and processors; however, U.S. sugar production is supported indirectly through import quotas, domestic marketing allotments, and non-recourse loans to processors of domestically grown sugar. The non-recourse loan rate varies for refined sugar from sugar cane (18¢ per lb.) and from sugar beets (22.9¢ per lb.). As a result of these indirect support programs, U.S. farm prices for sugar cane and sugar beets are maintained at levels that are substantially above international market prices.

Because of the absence of direct payments, price support under the sugar and dairy programs is defined by the WTO as the difference between the higher protected domestic price and the unprotected international market price times annual production. The relevant parameters for calculating price support were measured at the farm gate and fixed by agreement during the Uruguay Round. As a result, these reference prices do not change, even as world market conditions fluctuate. For dairy, the U.S. administered domestic price of $9.90 per cwt. is compared with the international reference price of $7.25 per cwt. to obtain the difference of $2.65 of subsidy per cwt of domestic milk production. For sugar, the U.S. administered price of 17¢ per lb. is compared with the international reference price of 10.5¢ per lb. to obtain the difference of 6.5¢ of subsidy per lb. of domestic sugar production. WTO-measured support for dairy and sugar varies annually with the volume of domestic production. Because of the indirect nature of government support, USDA direct outlays for dairy and sugar are significantly less than the level of annual AMS support notified to the WTO. Prior to the 2002 farm bill, U.S. peanut support was calculated in a similar manner based on a U.S. administered price of 30.5¢ per lb. and an international price of 18.75¢ per lb. However, the U.S. peanut program was revised as part of the 2002 farm bill such that peanuts are now essentially a "covered commodity" and qualify for both market loan benefits and CCP payments.

The list of commodities that normally do not receive direct support includes meats, poultry, fruits, vegetables, nuts, hay, and nursery products. Producers of these commodities, however, may be affected by the support programs because intervention in one farm sector can influence production and prices in another. For example, program commodities such as corn are feed inputs for livestock. Congress and the Administration often provide periodic assistance to some non-program commodities. For example, the 2002 farm bill provided $94 million to apple growers for 2000 market losses, and $200 million annually to purchase fruits, vegetables, and specialty crops for food assistance under USDA's Section 32 program.[55] Also, many of these programs benefit from other USDA programs including subsidized crop insurance, ad hoc disaster payments, and low-interest loans.

[55] For more information on USDA's Section 32 program, see CRS Report RS20235, *Farm and Food Support Under USDA's Section 32 Program*, by Geoffrey Becker.

Table 3. USDA Net Outlays by Major Programs, 1996 to 2006

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005[a]	2006[a]	Ave.
						$ billions						
Direct Payments[b]	6.0	6.1	6.0	5.0	5.0	4.0	3.9	6.4	5.2	5.2	5.3	5.3
Market Loan Benefits[c]	0.0	0.0	2.0	6.8	7.6	6.2	2.8	1.3	3.5	7.0	2.9	3.6
CCP[d]	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.3	1.1	4.1	4.2	1.1
Ad Hoc Emergency[e]	0.0	0.0	2.8	7.9	8.6	8.5	1.7	3.1	0.6	3.2	1.3	3.4
Conservation	2.1	2.0	1.6	1.6	1.7	1.9	2.0	2.2	2.3	2.8	2.9	2.1
Other[f]	0.0	0.0	0.0	0.1	0.0	0.1	1.9	1.2	0.2	2.1	1.7	0.7
Total CCC Outlays[g]	8.1	8.1	12.4	21.5	22.9	20.7	12.4	16.5	13.0	24.3	18.2	16.2
Crop Insurance Net Govt Outlays[h]	1.8	1.0	1.3	1.7	2.3	2.5	3.0	3.3	3.3	2.9	2.9	2.4

Source: CCC outlays are on a calendar year basis from USDA, ERS, Farm Income and Costs Briefing Room, Farm Sector Income Forecasts; available at [http://www.ers.usda.gov/Briefing/FarmIncome/Data/GP_T6.htm]; crop insurance net government outlays are on a fiscal year basis from USDA, RMA, Summary of Business Online database, available at [http://www3.rma.usda.gov/apps/sob/].

a. Years 2005 and 2006 are forecasts.
b. Includes Direct Payments from the 2002 farm bill and Production Flexibility Contract Payments from the 1996 farm bill.
c. Marketing loan benefits include loan deficiency payments, marketing loan gains, and certificate exchange gains
d. Counter-cyclical payments were not available under the 1996 farm bill, but were started by a provision in the 2002 farm bill.
e. Includes market loss payments and disaster assistance.
f. Includes Milk Income Loss Contract (MILC) payments, peanut quota buyout payments, tobacco transition payments, and other miscellaneous outlays.
g. CCC outlays are on a calendar year basis.
h. Crop insurance subsidies are on a fiscal year basis and include both premium subsidies and loss cost-sharing by the federal government.

Which U.S. Program Crops Might Be Vulnerable to WTO Challenge?

If subsidies are challenged as being in violation of U.S. WTO commitments under SCM Articles 5 and 6.3, the challenges must be specific to commodities. This section uses the criteria discussed in this report's first section — i.e., magnitude of commodity support and linkage to adverse effects in the marketplace — to identify those subsidized U.S. commodities that are potentially vulnerable to WTO legal challenges under current WTO rules.

First, USDA data are used to identify both those crops that depend heavily on government subsidies, and the specific subsidies on which they depend (to the extent that this varies across commodities). Three questions are addressed:

- How important are farm subsidies relative to the commodity's market returns?
- How important are farm subsidies relative to the commodity's costs of production?
- Which programs provide most of the farm subsidies for the commodity?

Second, those commodities identified as depending heavily on government subsidies are evaluated in terms of the potential for their farm subsidies to be linked to adverse effects in international commodity markets.

- How important is U.S. production and trade for an identified commodity relative to world markets?

How Important Are Farm Subsidies Relative to the Commodity's Market Returns? The commodities receiving mandatory federal support are listed in **Table 4** and ranked by the level of subsidy as a share of cash receipts (over the past 10 years beginning with 1996). With the exception of some minor oilseeds, all of the "covered commodities" receive subsidy payments amounting to more than 10% of cash receipts. At the top of the list is rice at 72%, followed by upland cotton at 58%. The other top-ranking crops are sorghum (45%), wheat (34%), barley (30%), corn (25%), sunflower seed (21%), and canola (20%). While these shares are high, they actually understate the situation because they are 10-year averages. Challenges in the WTO likely would identify the years when the subsidies were at their highest levels relative to market revenues. In FY2000, for example, rice and cotton subsidy payments amounted to 174% of cash receipts, and sorghum, wheat and corn payments were respectively 110%, 101%, and 66% of cash receipts.[56] **Figures 2-8** display agricultural subsidies by program for the major covered commodities during fiscal years 1996 through 2005.

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[56] FY2000 subsidy payments are compared with calendar year 2001 cash receipts.

Table 4. Commodity-Specific Program Support and Insurance Subsidy Payments, Yearly Average, FY1996-2005

	Av. Subsidy Payments			Subsidy Payment		Cash Receipts	
Commodity	CCC[a]	Crop Ins.[b]	Total	Period Min	Period Max	Total Value	Subsidy Share of Total Value
	($ millions)						Percent
Rice	981	9	990	450	1,786	1,379	72%
Upland Cotton	2,221	247	2,468	736	6,522	4,229	58%
Sorghum	376	63	439	188	991	984	45%
Wheat	2,024	288	2,312	1,374	5,418	6,798	34%
Barley	171	18	190	86	414	636	30%
Corn	4,390	88	4,478	1,120	10,149	18,024	25%
Oats	19	4	23	9	64	93	25%
Sunflower Seed	47	29	76	0	178	368	21%
Canola	18	10	27	0	60	137	20%
Flaxseed	5	1	6	0	21	49	13%
Dry Peas	5	1	6	0	36	49	12%
Peanuts	73	31	104	0	332	909	11%
Soybeans	1,362	120	1,481	0	3,520	14,772	10%
Rapeseed	0	na	0	0	0	1	5%
Mustard Seed	0	0	0	0	0	8	5%
Safflower Seed	1	1	1	0	4	45	3%
Wool	1	na	1	0	5	26	3%
Honey	4	na	4	0	28	170	2%
Dairy	302	0	302	0	1,769	23,132	1%
Lentils	1	na	0	0	3	0	1%
Mohair	0	0	0	0	0	8	0%
Crambe	0	na	0	0	1	na	na
Chickpeas	0	na	0	0	0	na	na
Sesame	0	na	0	0	0	na	na
Other	17	267	284	57	551	na	na
All Commodities	12,019	1,388	13,407	3,788	25,914	207,092	6%

NA = not available.

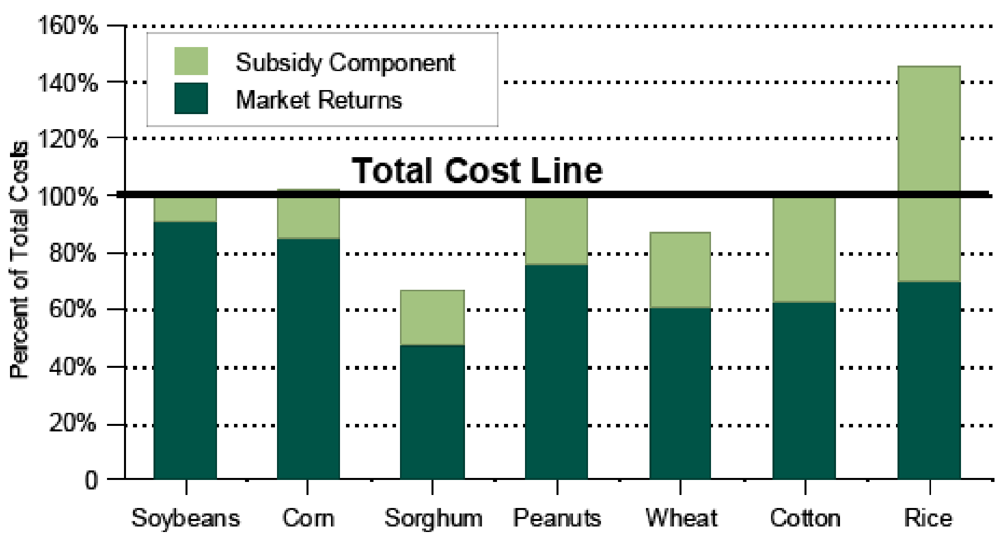
Source: CCC outlays are from USDA, Farm Service Agency, Budget Division, "Table 35, CCC Net Outlays by Commodity and Function"; crop insurance net government outlays are from USDA, RMA, Summary of Business Online database, available at [http://www3.rma.usda.gov/apps/sob/]. Cash receipt data are from USDA, Economic Research Service and are tabulated on a calendar year basis. For lack of correspondence between data sets, FY2000 subsidy payments are compared with calendar year 2001 cash receipts.

a. Government support for the sugar and dairy sectors derive primarily from import restrictions rather than direct payments.
b. Crop insurance subsidies are the excess of indemnity payments over farmer-paid premiums. Hence, it also includes the portion of the total premium that is paid by the government on the farmer's behalf.

How Important Are Farm Subsidies Relative to the Commodity's Costs of Production? Data in **Table 5** show that, on average for the seven major commodities examined, per unit market revenue has covered operating costs but not total costs of production during recent three- to nine-year periods. In declining rank order, per unit market revenue as a share of per unit total costs are: soybeans, 91%; corn, 85%; rice, 70%; peanuts, 76%; cotton, 63%; wheat, 61%; and sorghum, 47%. It is only with the subsidies that these commodities cover their total cost, and even this was not accomplished for sorghum and wheat (see **Figure 1**). In the most extreme case, market revenue for rice amounted to 70% of total costs, but with the addition of subsidies the total revenue amounted to 146% of total cost.

These comparisons suggest that it is only with the aid of subsidies that a substantial portion of U.S. production is made economically sustainable. Unanswered is the question of whether production would decline without the subsidies. Some, and possibly a substantial portion of the lost production from high cost farms that would leave the sector in the absence of subsidies would be offset by increased production from low cost farms that would likely expand their operations. However, the substantial contribution of subsidies toward covering otherwise unmet production costs implies a high chance for adverse rulings for any of the major covered commodities.

Figure 1. U.S. Revenue Components as Share of Total Costs, Selected Program Commodities



Source: Calculated by CRS from USDA data.

Table 5. Commodity Revenue and Cost Per Unit of Production, National Averages for Major Program Crops for Selected Periods

Commodity, Data Time Frame, (Unit of Measure)		Revenue Per Unit: Market[a]	Revenue Per Unit: Federal Subsidy[b]	Revenue Per Unit: Total[c]	Subsidy as Share of Total Revenue	Per Unit of Production: Operating Costs[d]	Per Unit of Production: Total Costs[e]	Share of Total Cost: Market Revenue	Share of Total Cost: Total Revenue
		$/unit	$/unit	$/unit	%	$/unit	$/unit	%	%
Corn	1996-04 (bu)	$2.15	$0.43	$2.58	17%	$1.12	$2.54	85%	102%
Soybeans	1997-04 (bu)	$5.45	$0.62	$6.07	10%	$1.90	$6.00	91%	101%
Wheat	1998-04 (bu)	$2.98	$1.28	$4.26	30%	$1.68	$4.90	61%	87%
Cotton	1997-04 (lb)	$0.51	$0.30	$0.81	37%	$0.43	$0.80	63%	101%
Rice	2000-04 (cwt)	$5.95	$6.53	$12.48	52%	$4.25	$8.56	70%	146%
Sorghum	1996-04 (bu)	$2.01	$0.86	$2.87	30%	$1.71	$4.24	47%	68%
Peanuts	2002-04 (lb)	$0.19	$0.06	$0.25	24%	$0.12	$0.25	76%	100%

Source: Calculations are by the authors based on primary data from the USDA. The time period varies across commodities based on the consistency of program operations and the availability of data. Season average crop price and cost of production data are from USDA, Economic Research Service; CCC commodity subsidy data are from USDA, Farm Service Agency. Crop insurance data are from USDA, Risk Management Agency.

a. Season average farm price.
b. Sum of total fiscal year CCC crop subsidy payments, and crop insurance indemnities not offset by farmer-paid premiums, per unit of total production.
c. Sum of market revenue and federal subsidy payments.
d. Per acre costs divided by yield.
e. Operating costs plus fixed and economic costs divided by yield.

Which Programs Provide Most of the Farm Subsidies for the Commodity? Under the 2002 farm bill, the largest and most stable commodity subsidy payments, on average, are direct payments. Counter-cyclical payments and marketing loan program payments, as well as milk income loss contract payments are the least stable and are large when prices are low. The cotton user marketing program, commonly called the Step 2 program, has been terminated by a change in U.S. law subsequent to the WTO ruling and expenditures drop to zero in FY2007. There are purchase programs for milk and sugar to remove supplies when prices fall below mandated support levels, but costs are comparatively low because price support largely is achieved through import restrictions. **Table 6** shows yearly subsidy expenditures by program.

Table 6. Commodity Subsidy Outlays, by Program, FY2002-FY2007 (forecast)

Program	FY02	FY03	FY04	FY05	FY06F	FY07F
			($ million)			
Direct Payments Program[a]	3,968	3,857	5,278	5,235	4,949	4,170
Counter-Cyclical Payments Program	—[b]	1,743	809	2,772	3,975	3,147
Marketing Loan Program	5,987	4,752	1,047	5,608	5,693	402
Loan Deficiency Payments	*5,345*	*693*	*461*	*3,856*	*4,576*	*351*
Commodity Certificate Gains	*0*	*3,869*	*268*	*1,520*	*1,106*	*32*
Marketing Loan Gains	*642*	*190*	*318*	*232*	*11*	*19*
Milk Income Loss Contract	0	1,796	221	9	515	600
Cotton User Marketing Program	182	455	363	582	312	0
Total CCC Commodity Payments	16,124	17,355	8,765	19,814	21,137	8,721
Dairy Price Support Program	622	698	74	(30)	88	145
Sugar Price Support Program	(130)	(84)	61	(86)	0	0
Total Commodity Purchase Operations	492	614	135	(116)	88	145
Crop Insurance Indemnities in Excess of Farmer-Paid Premiums	1,772	2,892	1,871	1,500	750	na
Total Commodity-Specific Support	18,388	20,861	10,771	21,198	21,975	8,866

Source: Data are from USDA, FSA, CCC Net Outlays by Commodity and Function, July 11, 2006. Numbers for FY2006 and FY2007 are budget forecasts.

a. Direct payments outlays for FY2002 includes funding for the predecessor contract payments program.

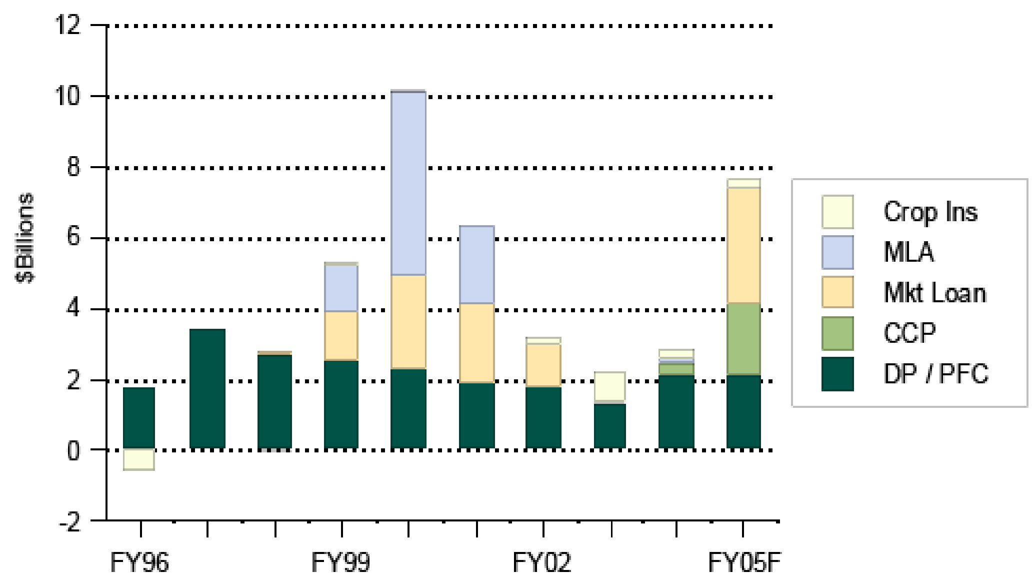
b. The CCP program was created by the 2002 farm bill.

The variation in commodity subsidy payments by crop, by program, and by year are large, as illustrated in **Figures 2-8** and the minimum and maximum ranges of **Table 4**. From FY1996 through FY2005, corn subsidies averaged $4.5 billion per year, but ranged from $1.1 billion in FY1996 to $10.1 billion in FY2000. The abnormally large corn payments in FY2000 were from market loss assistance. Upland cotton subsidies averaged $2.5 billion, but ranged from $0.7 billion to $6.5 billion. Especially large cotton commodity certificate payments were made in FY2003 and FY2005 under the marketing loan program. Wheat, rice, soybeans, and dairy payments also showed considerable variation over the 10-year period.

While crop insurance is available for nearly all crops in most production locations, 68% of the subsidy over the FY2002-FY2006 period went to five crops — corn (20%), wheat (18%), soybeans (16%), cotton (9%), and sorghum (6%) — and

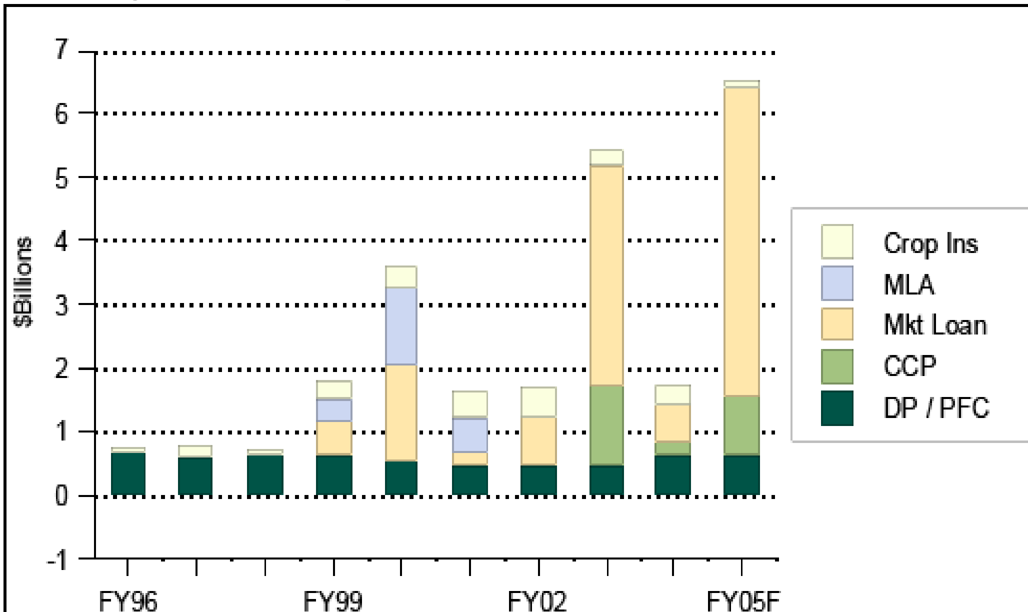
75% of the total crop insurance coverage went to the price- and income-supported crops, while the remaining 25% went to the non-supported crops. When total premiums (including federal contributions) are compared to indemnity payments, the loss ratio was 1.09, giving the overall appearance of approaching actuarial soundness. However, if the federal premium subsidy is excluded, the loss ratio is 2.70 (indemnities were 2.7 times as high as farmer premium payments).

Figure 2. U.S. Corn Subsidies, FY1996 to FY2005F*



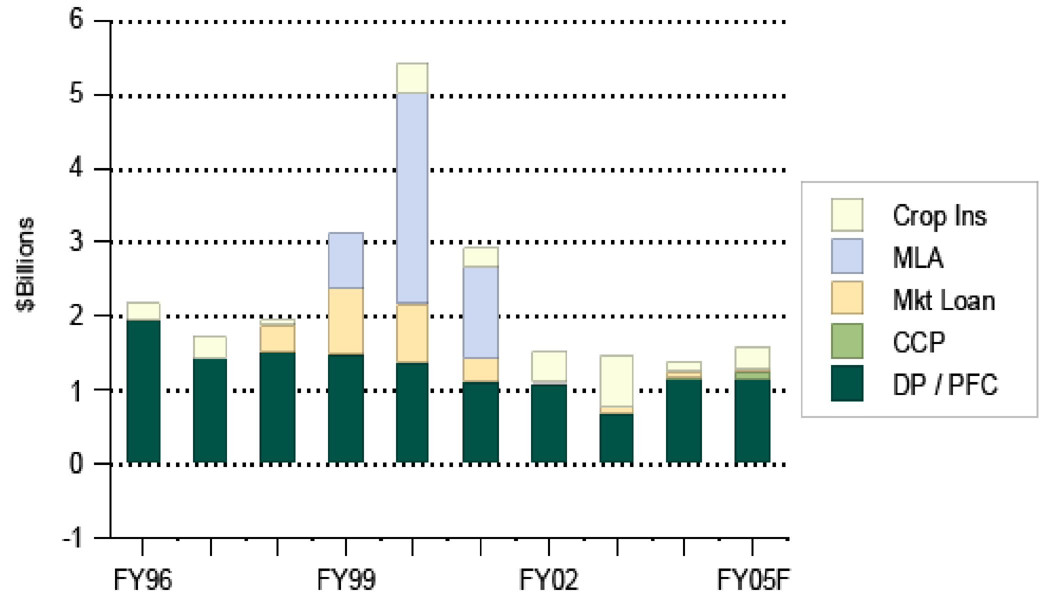
*Forecast. Source: USDA, Farm Service Agency.

Figure 3. U.S. Upland Cotton Subsidies, FY1996 to FY2005F*



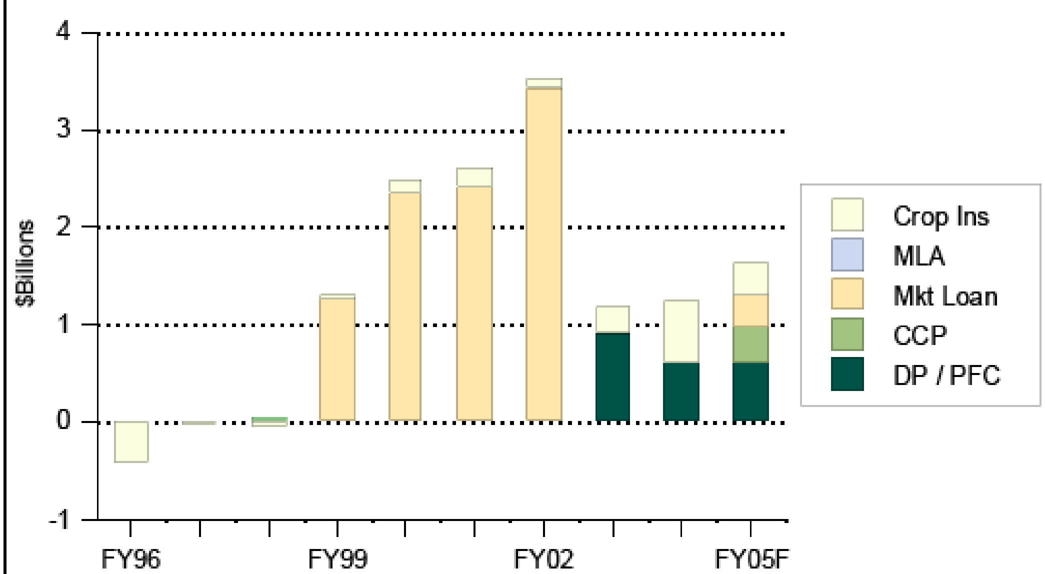
*Forecast. Source: USDA, Farm Service Agency.

Figure 4. U.S. Wheat Subsidies, FY1996 to FY2005F*



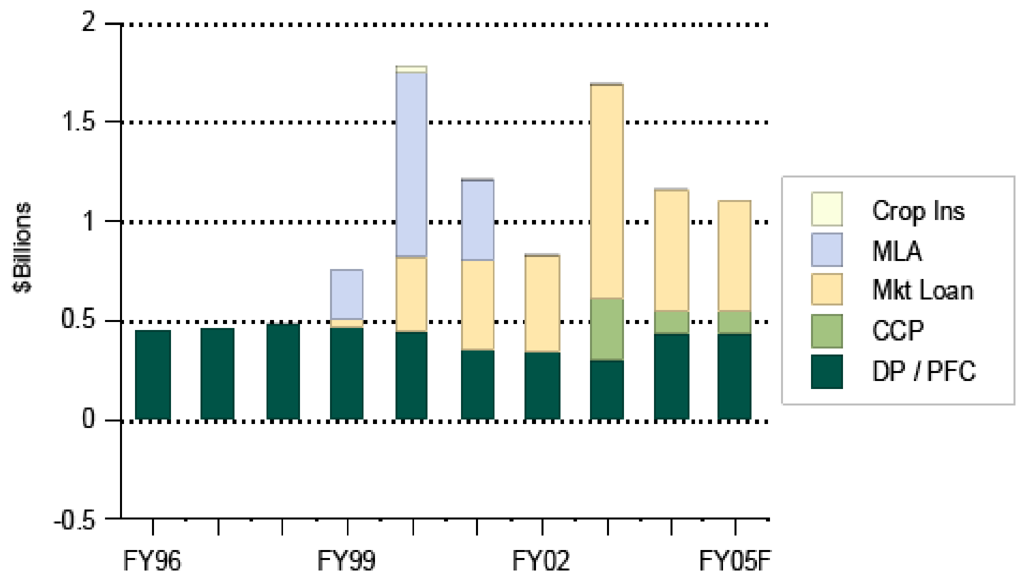
*Forecast. Source: USDA, Farm Service Agency.

Figure 5. U.S. Soybean Subsidies, FY1996 to FY2005F*



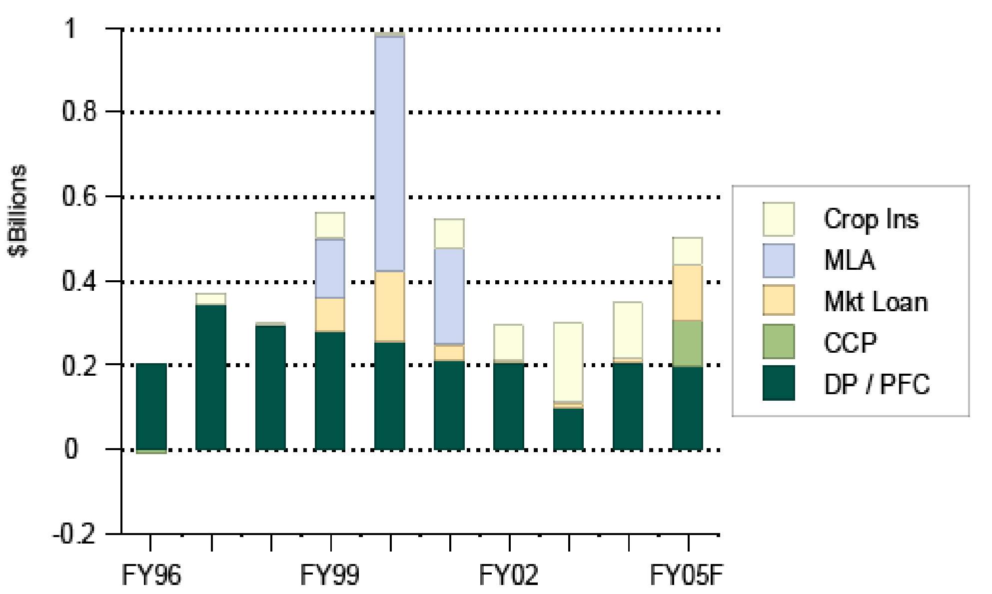
*Forecast. Source: USDA, Farm Service Agency.

Figure 6. U.S. Rice Subsidies, FY1996 to FY2005F*



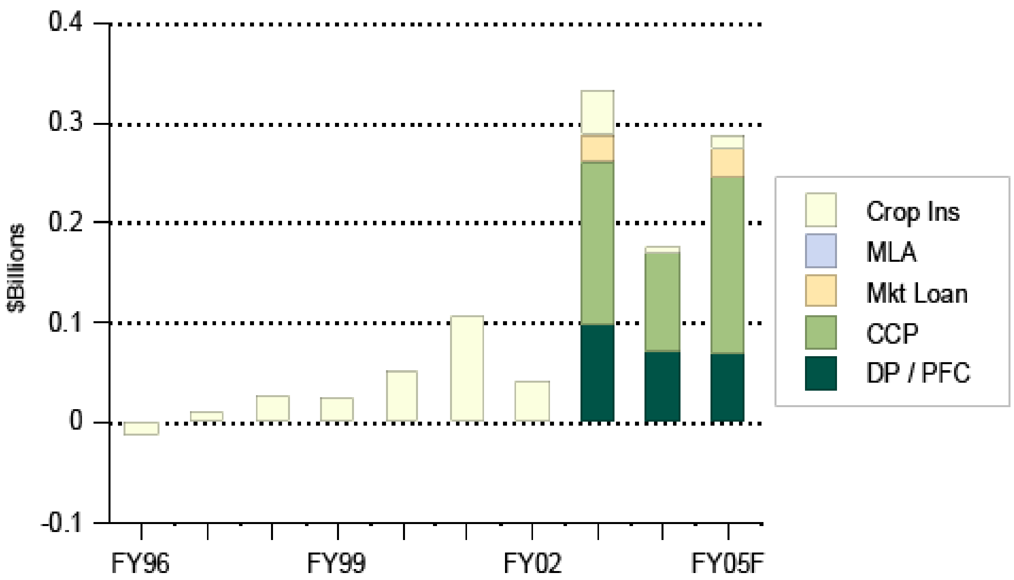
*Forecast.   Source: USDA, Farm Service Agency.

Figure 7. U.S. Grain Sorghum Subsidies, FY1996 to FY2005F*



*Forecast.   Source: USDA, Farm Service Agency.

Figure 8. U.S. Peanut Subsidies, FY1996 to FY2005F*



*Forecast. Source: USDA, Farm Service Agency.

How Important Is U.S. Production and Trade for an Identified Commodity Relative to World Markets? The most heavily subsidized commodities (with the exception of milk) also are this nation's largest agricultural exports. Not only do exports provide a market for a large proportion of U.S. production, these exports are a large proportion of the entire world's exports.

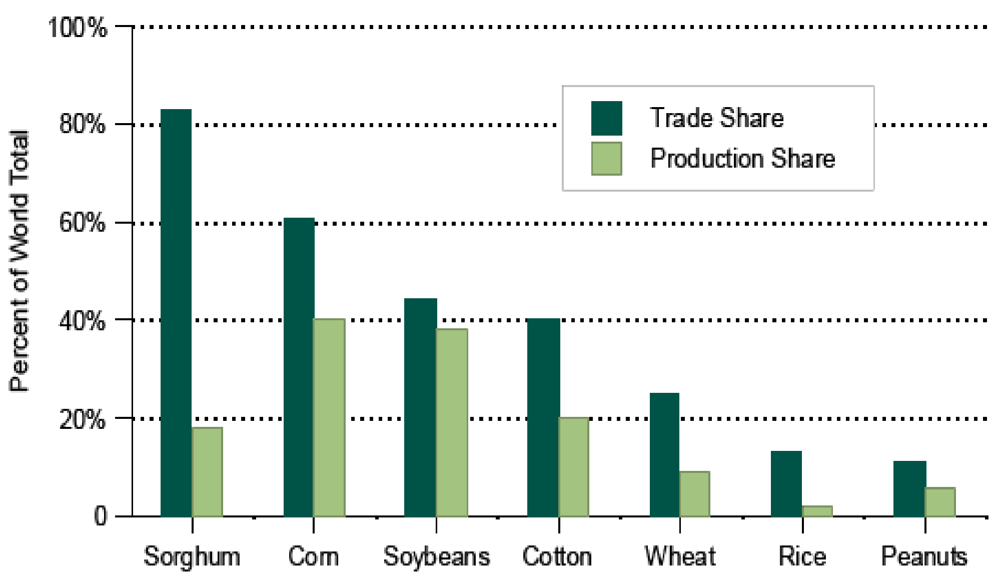
During the 2002 to 2005 period, cotton exports accounted for 70% of U.S. production and 40% of world trade (**Table 7**). Similarly, U.S. rice exports accounted for 52% of U.S. production and 13% of world trade; wheat exports were 50% of U.S. production and 25% of world trade; sorghum exports averaged 47% of U.S. production and 83% of world trade; and soybeans exports averaged 35% of U.S. production and 44% of world trade. **Figure 9** illustrates the large share of world exports held by the United States and begs the question of how this is accomplished when market prices do not cover total costs.

Table 7. U.S. Share of World Production and Trade for Selected Commodities, Yearly Average, 2002-2005

Commodity	Farm Cash Receipts	Farm Value of Exports	U.S. Exports: Share of U.S. Production	U.S. Share of: World Production	World Exports
	($ million)		(percent)	(percent)	
Corn	19,587	3,468	18%	40%	61%
Soybeans	16,631	5,791	35%	38%	44%
Wheat	6,807	3,398	50%	9%	25%
Cotton	5,204	3,644	70%	20%	40%
Rice	1,216	638	52%	2%	13%
Sorghum	869	412	47%	18%	83%
Peanuts	761	92	12%	6%	11%

Source: Calculations are by CRS based on USDA, FSA marketing-year data.

Figure 9. U.S. Share of World Production and Trade, Selected Program Commodities



Source: Calculated by CRS from USDA, Farm Service Agency data.

Marketing Loan Benefits as Export Subsidies

Another important issue surrounds the nature of marketing loan provisions and the contention by other WTO members that their benefits should be classified as prohibited export subsidies. Under U.S. marketing loan provisions, a commodity's loan rate functions as a guaranteed price. If market prices fall below the loan rate, producers of "loan" crops are eligible for additional subsidies as either loan deficiency payments (LDPs), marketing loan gains (MLGs), or certificate exchange gains (CEGs). All of a farmer's production of a "loan crop" is eligible for marketing loan benefits based on current market conditions making the subsidy payments potentially market distorting. When market prices are low, the subsidies arguably encourage greater production in spite of market signals to do just the opposite, in part because the subsidies (on average) help to cover costs that low market returns are unable to cover. Thus, marketing loan benefits, on average, offset what would otherwise be revenue losses and encourage greater production than the market wants.

Other WTO members such as the EU have argued that, if the surplus U.S. production generated by the marketing loan benefits is then exported at a market price that is below the loan rate (and in many cases below the commodities' cost of production), the marketing loan subsidy is "effectively behaving like an export subsidy." Similarly, they contend that the subsidized production displaces imports from other non-subsidizing countries. As a result, critics argue that, because the subsidy provides a benefit to a U.S. commodity that is not available to a competitor's exports of "like-products" in either the U.S. or third-country market, it bears all of the hallmarks of a prohibited export subsidy.

However, under SCM Article 3 an export subsidy must be based specifically on export performance or upon use of domestic over imported goods. "The mere fact that a subsidy is granted to enterprises that export shall not for that reason alone be considered to be an export subsidy."[57] In addition, the United States maintains that all of its farm programs (including the marketing loan provisions) operate within the framework of U.S. commitments to the WTO and are therefore in compliance. Furthermore, since the WTO's establishment in 1995 no WTO member has challenged the benefits obtained by U.S. producers under the marketing loan provisions as prohibited subsidies.

Reducing Vulnerability to WTO Challenge

WTO Remedies

In the event of a successful WTO dispute settlement challenge of a subsidy program, the remedy depends on the nature of the subsidy — prohibited versus actionable — and on the recommendation of the panel hearing the case. Prohibited subsidies are to be withdrawn without delay (SCM Article 4.7). In other words, prohibited subsidies are inconsistent with the WTO obligations of the United States and would have to be eliminated within a time period specified by the panel in its recommendation. If the recommendation is not followed within the specified time frame, then the Dispute Settlement Body (DSB) "shall grant authorization to the complaining Member" to take appropriate retaliatory countermeasures, unless the DSB decides by consensus to reject the request (SCM Article 4.10). The complaining member may also ask for a compliance panel under the DSU, as Brazil has done in the WTO cotton case. On the other hand, the defending member can ask for arbitration of the retaliation request if it thinks it to be excessive (DSU Article 22.6), then the arbitrator will decide whether the countermeasures are appropriate (SCM Article 4.11).

With respect to actionable subsidies, the remedy under a successful challenge of a subsidy causing adverse effects (SCM Article 7.8) is to remove the adverse effects or withdraw the subsidy. Furthermore, SCM Article 7.9 states that if the recommendation is not followed within six months of the adoption of Panel report (or the Appellate Body report on appeal), then in the absence of a compensation agreement, the DSB "shall grant authorization to the complaining Member" to take appropriate retaliatory countermeasures commensurate with the degree and nature of the adverse effects determined to exist. An arbitrator may be asked to determine whether proposed countermeasures are commensurate with the adverse effects.

In lay terms, actionable subsidies causing adverse effects are to be altered so as to remove the adverse effects. The subsidizing party is given some leeway in deciding how to remove the adverse effect. Options would include eliminating the subsidy program, reducing the subsidy amounts, reducing the linkage between the subsidy and the adverse effects (e.g., decoupling), or suffering the consequences of

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[57] SCM Article 3(a), footnote 4.

trade retaliation. Alternately, the subsidizing member could make some sort of mutually acceptable compensatory payment to offset the adverse effects.

What Constitutes an Acceptable Subsidy?

Pedro Camargo Neto — former Secretary of Trade and Production of the Ministry of Agriculture of Brazil during 2000-2002 — suggests that "a country should not be permitted to export production that received trade-distorting support covering production costs."[58] Furthermore, Neto argues that the Doha Round (assuming resumption of negotiations) should produce a negotiated understanding of "serious prejudice" in relation to the effects of domestic trade-distorting support for agriculture in order to avoid further litigation. Neto offers language for clarifying serious prejudice as used in SCM Articles 5(c) and 6.3, "[s]erious prejudice occurs when an agricultural product receives any kind of trade-distorting support of over 10% of the cost of production and reaches the international market with at least a 2% market share."[59]

Mr. Neto's suggested serious prejudice criteria might be viewed as extremely narrow and, as such, would appear to encompass all major U.S. program crops. Serious prejudice criteria, if established within the Doha Round, would be the product of a negotiated understanding and could involve percentage levels substantially larger than suggested by Neto. However, the evidence provided in Tables 5 and 7 suggests that most major U.S. program crops would still remain vulnerable to potential challenge under subsidy percentage levels of 15% to 20% of the cost of production and an international trade share of 10%.

Decoupled Program Support

Several options for decoupling existing farm programs have been considered or discussed as part of the on-going 2007 farm bill debate.[60] These include fully decoupled direct payments, whole-farm revenue-insurance-type programs, and conservation or green payments. A major attraction for such programs is their potential for exclusion from WTO AMS spending limits by qualifying under WTO green box criteria.[61]

Fully Decoupled Direct Payments. Annual payments to a qualifying producer based strictly on historical criteria with no linkage either to current market conditions or to producer behavior would potentially be eligible for inclusion in the green box.[62] As previously noted, the WTO cotton ruling contradicted the U.S. claim that the direct payments made under the 1996 and 2002 farm bills are minimally

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[58] Neto, Pedro Camargo, "An End to Dumping through Domestic Agricultural Support," *Bridges*, No. 8, August 2005, pp. 3-4.

[59] Ibid., p. 4.

[60] For more information see CRS Report RL33037, *Previewing a 2007 Farm Bill*, Jasper Womach coordinator.

[61] See Attachment 4, "AA, Key Provisions of Annex 2" for the specific WTO criteria.

[62] Ibid., see Annex 2, provisions 1, 5, and 6 for specific detail.

production and trade distorting. The ruling found that direct payments are not decoupled from production because fruits, vegetables, and wild rice production are prohibited on payment acres. Unless a legislative change for this problem is adopted, other countries might challenge any categorization other than non-product specific AMS or amber box for the direct payments. Counter-cyclical payments are tied to the same payment acres as direct payments and likely would be categorized the same as direct payments.

Whole Farm Revenue Insurance Type Programs. Current federally subsidized revenue insurance products, offered to producers as part of the federal crop insurance program, indemnify for diminished crop-specific revenue, whether from reduced yield or from low market prices. A possible option for the next farm bill is to expand current programs so that a producer can insure the revenue of the entire farm (possibly including livestock), rather than individual crops. Analysis at Iowa State University indicates that modifications can be made to current revenue insurance products that make them ideally suited to hit congressionally determined revenue targets. In addition, rationalizing commodity, disaster, and crop insurance programs by replacing them with a single-payment program would increase program transparency, eliminate program duplication, reduce administrative costs, and largely eliminate over- and under-compensation of farmers, according to Iowa State University researchers.[63]

Current crop and revenue insurance products are classified as non-product specific amber box under WTO rules because of their linkage to current prices and current planted acres. As a result, they are exempted from AMS limits under the de minimus exclusion. Whether modifications could make them comply with current or new international subsidy rules is uncertain.[64] For example, provision 7(b) of the AA's Annex 2 specifically limits compensation under an income safety-net program to less than 70% of producer's income loss. Presently, a U.S. producer can purchase revenue insurance coverage for up to 90% of losses depending on the particular policy selected.[65]

Green Payments. The term "green payments" refers to providing financial rewards to producers based on the scope or intensity of their conservation activities.[66] A shift from commodity subsidies to green payments is seen by some as attractive because it could provide a new mechanism to support farm income, forge a stronger link between conservation and farm income objectives, and still comply with WTO obligations if the program is not considered to be production and trade distorting.

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[63] Bruce A. Babcock and Chad Hart, *Judging the Performance of the 2002 Farm Bill*, Iowa Ag Review, Spring 2005; available at [http://www.card.iastate.edu/iowa_ag_review].

[64] See Attachment 4, Annex 2, provision 7 (a)-(d) for specific details.

[65] For a potential redesign of U.S. revenue insurance programs to fit within WTO limits, see Bruce A. Babcock and Chad Hart, *How Much "Safety" is Available under the U.S. Proposal to the WTO?*, Center for Agri. and Rural Dev., ISU, Briefing Paper 05-BP 48, November 2005; available at [http://www.card.iastate.edu/publications].

[66] For more information see CRS Report RL32624, *Green Payments in U.S. and European Union Agricultural Policy* by Charles Hanrahan and Jeffrey Zinn.

The Conservation Security Program (CSP), enacted in the last farm bill, is one model for translating the concept of green payments into a program. This program was enacted as the first true entitlement program for conservation, meaning all producers who meet eligibility qualifications would receive payments. However, there is some concern over whether CSP fully qualifies for the green box in accordance with AA, Annex 2, provision 12(b) which states that environmental payments "shall be limited to the extra costs or loss of income" due to requirements of a government program, "including conditions related to production methods or inputs."[67] Thus, any sort of incentive payment associated with green payments may be sufficient to bring the qualification criteria into question.

New Farm Bill

During the past year, Agriculture Secretary Mike Johanns has been advocating that a new farm act should be designed to place U.S. farm policy "beyond challenge." On January 31, 2007, the Administration released a proposal for U.S. farm policy reform that, if incorporated into a new farm act, potentially could alleviate many of Canada's concerns while minimizing the likelihood of future WTO challenges.[68] The proposal includes removal of the planting restriction on base acres receiving direct payments. It also includes adjustments to the export credit guarantee program to make them more compatible with WTO rules. Finally, the proposal includes adjustments to price-contingent commodity programs (i.e., the marketing loan program and the CCP) that would likely make them more WTO compliant and potentially lower the vulnerability to challenges under the "serious prejudice" charge.[69]

Program Buyout

An alternative to program decoupling that has received some attention as part of the 2007 farm bill debate is the idea of program buyout.[70] Under a buyout program, Title I commodity programs would be eliminated entirely, and replaced with either a lump sum payment or a stream of annuity-like payments reflecting a portion of the present discounted value of projected future commodity support under existing law. The proposed buyout payments would be completely decoupled from production and, therefore, notified as WTO green box compliant. Furthermore, by eliminating all price-contingent amber box program payments, the buyout plan would insulate the United States from any future challenges by other WTO members.

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[67] See Attachment 4, Annex 2, provision 12 (a) and (b) for specific details.

[68] USDA News Release No. 0020.07, "Johanns Unveils 2007 Farm Bill Proposals," January 31, 2007; available at [http://www.usda.gov].

[69] For more information, see USDA Farm Bill Fact Sheet, Release No. 0019.07, available at [http://www.usda.gov/].

[70] For examples, see David Orden, "Feasibility of Farm Program Buyouts," background paper on U.S. farm program buyouts, January 23, 2007; available at [http://farmpolicy.typepad.com/farmpolicy/files/orden_buyouts.pdf]; and Sallie James and Daniel Griswold, *Freeing the Farm: A Farm Bill for All Americans*, Trade Policy Analysis No. 34, Cato Institute, April 16, 2007; available at [http://www.freetrade.org/node/609].

Precedents cited for buyout programs include the 2004 buyout of the U.S. tobacco program, and the 2002 buyout of U.S. peanut production quotas. In addition, the recent EU sugar reform includes some buyout dimensions.[71]

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[71] For more information, see European Commission, Agriculture and Rural Development, CAP Reform, "Sugar;" at [http://ec.europa.eu/agriculture/capreform/index_en.htm].

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Appendix A. Review of Economic Studies of Causal Linkage: U.S. Farm Policy vs. World Markets

This appendix reviews several economic studies that have investigated the causality linkage between U.S. agricultural policy support and the adverse world market effects identified in SCM Article 6.3 — i.e., lost market share, quantity displacement, and suppression of market prices. The studies reviewed here are cited in the reference section at the end of this report and include:

- Steinberg and Josling (2003);
- Sumner (2003);
- Sumner (2005);
- FAPRI (2005);
- Oxfam Briefing Paper No. 81 (2005); and
- ABARE (2006).

As a general rule, these studies support the idea that U.S. (and other developed country) agricultural support programs negatively influence international market prices and tend to disadvantage third-country trade of non-subsidized "like" products. While one may disagree with their results, the modeling techniques used in these studies are not out of the mainstream of accepted modeling methodology found in the professional economics literature and as taught in agricultural economics departments at U.S. land-grant universities. They are included here because of both their adequacy as economic analyses and their usefulness in indicating those commodities and programs that are most vulnerable to potential WTO challenge from another WTO member country.

Steinberg and Josling (2003). Steinberg and Josling developed a series of regression models to evaluate the market effects of seven classes of U.S. subsidies for six major commodities (barley, beef, corn, milk, rice, and wheat) based on data for the 1986-2001 period. Their categories of commodity-specific subsidies were based on definitions developed by the Organization for Economic Cooperation and Development (OECD) and included (1) market price support which incorporated the effects of import barriers and export subsidies; (2) payments based on output; (3) payments based on area planted; (4) payments based on historical entitlements; (5) payments based on input use, (6) payments based on input constraints; and (7) payments based on overall farming income.

Steinberg and Josling performed regression analyses for each commodity market using the market share and export volume criteria of Article 6.3(b) and the relative market share criteria of Article 6.4 for the ten largest exporting non-subsidizing WTO members (i.e., potential complainants) as the dependent variable. Each of the subsidy categories was included as an independent variable along with other relevant control variables. A second regression was included that incorporated the subsidies as a single aggregate category. Steinberg and Josling evaluated these regressions for impacts in both U.S. and third-country markets. With respect to the U.S. market, their analyses found a significant negative relationship between U.S. subsidies and imports of non-subsidized third-country product for barley and milk — i.e., higher U.S. subsidies are associated with lower U.S. imports of non-subsidized "like" products. In third-country markets, their regressions found widespread negative effects of U.S. subsidies on both non-subsidized product market share and volume. **Table 8** provides a list of countries affected in third-country markets for each commodity studied. Steinberg and Josling did not evaluate the causal linkage between commodity support and market price changes.

Table 8. Third-Country Markets Impacted by U.S. Subsidies

Subsidized Commodity	Third-Country Markets With Statistically Significant Effects[a]
Barley	Canada[d], Cyprus[b], Japan[b], Mexico[d]
Beef	Colombia[b], Japan[d], Jordan[c], Nicaragua[b], Saudi Arabia[ba]
Corn	Algeria[d], Argentina[b], Canada[d], Costa Rica[d], Ecuador[b], Egypt[b], El Salvador[d], Grenada[c], Guatemala[d], Honduras[d], Indonesia[b], Jamaica[b], Korea[b], Mexico[c], Nicaragua[b], Panama[b], Philippines[d], Senegal[d], Trinidad and Tobago[b], Venezuela[b]
Milk	Algeria[b], Australia[b], Canada[c], Chile[b], China[b], Ecuador[b], Nicaragua[d], Venezuela[c]
Rice	Argentina[b], Australia[b], Brazil[b], Chile[d], China[b], Colombia[d], Costa Rica[d], El Salvador[d], Honduras[c], Indonesia[c], Mexico[d], Nicaragua[d]
Wheat	Algeria[d], Bolivia[c], China[d], Colombia[d], Cyprus[b], Ecuador[b], Egypt[b], Honduras[b], Japan[b], Kenya[b], Korea[b], Morocco[d], Pakistan[d], Tunisia[b], Venezuela[c]

Source: Steinberg and Josling (2003).

a. Statistical significance was tested using a 95% confidence interval.
b. Based on the SCM Article 6.3(b) standard: market share or quantity displacement.
c. Based on the SCM Article 6.4 standard: relative market share.
d. Based on criteria cited in both footnotes (b) and (c).

Sumner (2003). Brazil's successful WTO challenge of the U.S. cotton program included the submission of an econometric simulation model (referred to hereafter as the Sumner cotton model) in conjunction with its "serious prejudice" arguments to evaluate the international market effects of U.S. cotton program support. Unlike Steinberg's and Josling's regression analyses (which directly evaluate the statistical relationship between a dependent and an independent variable while controlling for the effects of other influential factors), a simulation model is a statistical representation of a market complete with supply, demand, trade, and equilibrium (market clearing) price. A simulation model may be used to test the relationship between subsidies and trade flows or market price by comparing a baseline scenario reflecting the status quo against a hypothetical scenario where the subsidies in question are reduced or omitted.

The Sumner cotton model evaluated the market effect of six U.S. subsidy programs — (1) marketing loan benefits, (2) PFC and DP payments, (3) market loss assistance (MLA) payments and Counter-Cyclical Program (CCP) payments, (4) crop insurance subsidies, (5) Step 2 payments, and (6) export credit guarantee subsidies. A seventh aggregate subsidy category also was evaluated. On the supply side of the simulation model, the subsidies influence U.S. producer behavior primarily through net returns per acre for cotton relative to competing crops. On the demand side, subsidies influence the net price paid by buyers of U.S. cotton. The Sumner cotton model was simulated for the removal of all subsidy programs (as well as for each individual component subsidy) for the five-year period 2003-2007. Because the LDP and CCP program payments vary with market conditions, their influence also varied from year to year as market conditions changed. Over the five-year period, the removal of all U.S. cotton subsidies led to an annual average reduction in U.S. cotton production of over 27%, a reduction in U.S. cotton exports of nearly 43%, and an increase in the world cotton price of almost 12%.

Although the United States argued strongly against inclusion of the Sumner cotton model as relevant evidence of serious prejudice (primarily on technical modeling grounds rather than on the substantive value of econometric modeling per se), the panel noted that:

> we observe that the simulations were prepared by experts, and explained to the Panel by experts. The outcomes of the simulations are consistent with the general proposition that subsidies bestowed by member governments have the potential to distort production and trade and the elimination of subsidies would tend to reduce "artificial" incentives for production in the subsidized Member. This is one of the underlying rationales for the establishment of the subsidy disciplines in the SCM agreement.[72]

As a result, it is not unreasonable to assume that the Sumner cotton model results supported, if not directly contributed to, the Panel's general finding in support of Brazil's challenge.

Sumner (2005). In follow-up analyses published by the Cato Institute, Sumner used a similar analytical approach to review the vulnerability to WTO legal challenge of U.S. program subsidies for corn, wheat, rice, and soybeans (cotton was also included for comparative purposes).[73] First, looking at the 2004 to 2006 period Sumner evaluated the magnitude of U.S. crop subsidies by comparing total subsidy outlay to the value of production for each crop. The subsidy's share of production ranged in importance from 5% to 7% for soybeans and 15% to 45% for corn, up to 80% for cotton in 2005 and 78% for rice in 2004 (**Table 9**). In addition, the subsidies were examined in relation to net returns (market revenue minus costs of production). Net returns were evaluated with and without subsidies for 2003 through 2005. For every case, per acre average costs exceeded per acre market returns without subsidies. It is only with the addition of the subsidy that net returns cover costs in 7 out of 12 cases. This preliminary comparison based on a limited number of years would suggest that subsidy payments have had substantial market impact, particularly for rice and corn.

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[72] *WTO Upland Cotton Panel Report*, para. 7.1207.

[73] Sumner, Daniel A. *Boxed In: Conflicts between U.S. Farm Policies and WTO Obligations*, CATO Institute Trade Policy Studies, No. 32, December 5, 2005; available at [http://www.freetrade.org/pubs/pas/pas.html].

Table 9. Evaluating the Importance of U.S. Crop Subsidies

Crop	Subsidy Share of Production (%)			Net Returns					
				Without Subsidy ($/ac)			With Subsidy ($/ac)		
	2004	2005	2006	2003	2004	2005	2003	2004	2005
Corn	14.7	28.8	44.6	-32.4	-37.0	-70.6	-9.1	0.9	34.7
Wheat	21.8	27.4	50.9	-66.2	-47.6	-54.3	-46.9	-17.9	-17.0
Rice	78.1	32.1	39.6	-164.7	-110.3	-108.9	298.7	171.6	85.4
Soybean	5.4	6.9	6.9	-4.9	-20.8	-16.9	16.3	-8.1	7.8
Cotton	22.7	80.3	65.2	na	na	na	na	na	na

na = not available.

Source: From Sumner (2005) based on USDA data.

In addition, Sumner used a stylized version of his cotton model to evaluate the causal linkage between U.S. crop subsidies and international market prices. The model assumed that the extent to which subsidies caused market price suppression depended on:

- the subsidy rate relative to the value of production;
- the degree to which the subsidy provided a production incentive (i.e., the extent of coupling);
- the share of the subsidized production in the relevant world market;
- the share of demand in each market; and
- the supply and demand elasticities in the U.S. and world markets.

Sumner found that U.S. subsidies for corn, wheat, and rice were associated with a substantial degree of market price suppression. Removing U.S. subsidies for these crops resulted in world price increases of 9 to 10% for corn, 6 to 8% for wheat, and 4 to 6% for rice. These rates of change compare with a world price impact of over 12% associated with U.S. cotton subsidies in Sumner (2003).

In his Cato Institute paper, Sumner included several additional, highly relevant observations in regards to potential WTO legal challenges of U.S. commodity programs. *In particular, he observed that challenges based on serious prejudice need not be global in scope, but can be restricted to a specific geographic market or product sub-market.*[74] Sumner argues that such geographically restricted claims may in many instance be stronger and more easily defended than claims that embrace one commodity in the global marketplace. For example, Mexico, Japan, and Taiwan are major markets for subsidized U.S. corn and displacement of corn exports from Argentina is likely and could present the opportunity for a geographically-focused challenge. Similarly, U.S. sales of subsidized wheat into major markets like Japan, China, Mexico, and various Middle Eastern and Asian markets are also potentially

[74] Ibid., p. 23.

vulnerable on a geographic basis from competitor wheat-exporting nations such as Australia, Argentina, and Canada.

With respect to product sub-markets, the United States is a large producer and exporter of all major classes of wheat (hard red winter, soft red winter, white wheat, hard red spring, and durum) and rice varieties (indica and japonica). *Sumner observed that, to the extent that many third-country markets are segmented by a preference for a specific wheat class or rice variety, an analysis focused on a specific class or variety might actually implicate the United States as playing a larger market role in terms of production and export share than for the generic commodity.*[75] Also, evidence of displacement of quantities might be more direct in a localized geographic market. As a specific example, Sumner points out that while the United States has a relatively small share of world rice trade for indica (long-grain) rice, the U.S. share of indica rice trade in Central and Latin America and the Caribbean is significantly larger. Uruguay has recently claimed that U.S. exports to those and other markets hinder its ability to market non-subsidized indica rice that competes directly with heavily subsidized U.S. rice.[76]

Sumner also suggests that the U.S. dairy subsidies "probably create more vulnerability to WTO claims than any remaining farm subsidy."[77] Not only are dairy price supports a substantial portion of U.S. AMS notifications — averaging nearly 41% of total U.S. amber box subsidies notified to the WTO during 1995-2001 (**Table 2**) — but Sumner points out that the

> price discrimination and pooling schemes under the milk marketing orders stimulate overall milk production and divert milk from beverage products that are generally not traded internationally to manufactured dairy products, e.g., cheese, milk powder, and butter, which are the main traded dairy products. The net result is a lower price of the tradable products and displacement of U.S. imports or stimulation of U.S. exports to the detriment of other dairy export competitors such as Australia or New Zealand.[78]

With respect to the U.S. sugar program, Sumner points out that benefits for U.S. sugar producers derive mainly from the import TRQ scheme and that, although the price support scheme contributes more than $1 billion annually to the U.S. AMS (**Table 2**), it provides little additional distortion above that caused by the "WTO-scheduled" TRQ. As such, he concludes that the sugar program does not appear to be a likely candidate for WTO legal challenge in its present form.[79]

Sumner expresses concern that *detailed analysis might reveal prohibited subsidies for commodities supported under smaller programs such as market*

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[75] Ibid.

[76] Ibid.

[77] Ibid.

[78] Ibid., p. 24.

[79] Ibid.

research and development programs, crop insurance, irrigation subsidies, etc.[80] This might occur, for example, if the program provided a benefit to U.S. commodities that is not available to an imported commodity, or to competitor exports of "like-products" in third-country markets.

As a final observation, Sumner notes that two important domestic support programs — irrigation subsidies and subsidized grazing on government-owned land — have been classified as non-product-specific AMS subsidies. As such they have been excluded from the amber box under the de minimis exclusion throughout the 1995-2001 notification period. Sumner suggests that subsidized grazing fees represent low benefits relative to market revenue for the beef sector (the primary beneficiary) and are therefore, unlikely to contribute to WTO violations. With respect to irrigation subsidies, Sumner notes that, although larger in value than grazing fees, they are also generally small in value relative to the revenue of benefitting crops. Furthermore, irrigation subsidies are both difficult to measure and difficult to attribute to a specific crop. For both of these reasons, Brazil chose not to add irrigation subsidies to the list of U.S. programs supporting cotton in the WTO cotton case.

FAPRI (2005). In December 2005, the Food and Agricultural Policy Research Institute (FAPRI) released a report summarizing its analysis of the potential market effects of the U.S. policy reform proposal made as part of the Doha Round of trade negotiations.[81] FAPRI employed a large-scale multi-commodity, multi-country economic simulation model to evaluate the various market effects of hypothetical policy scenarios. In its analysis of the U.S. Doha proposal, FAPRI evaluated several policy reform scenarios including a scenario based on unilateral U.S. policy reform (i.e., no policy changes in other countries) with no offsetting green-box direct payment compensation to producers for loss of program benefits. Specifically, the U.S. proposal offered the following reduction in U.S. domestic support:

- a 60% cut in the total amber box ceiling from $19.1 billion to $7.6 billion;
- a cut in the *de minimis* threshold from 5% to 2.5% of total production value;
- product-specific AMS caps based on 1999-2001 levels; and
- a redefined blue box with an expanded definition to permit inclusion of CCP payments, but with a new ceiling on qualifying subsidies of 2.5% of total production value per commodity (blue box subsidies are presently unlimited).

In addition to the domestic subsidy reduction, several market access concessions were incorporated into the study including the elimination of export subsidies by 2010, substantial reductions of tariff upper bounds, and the expansion of TRQs from current levels by 7.5% of average domestic consumption during 1999-2001. It should be noted that an analysis of the U.S. proposed reduction of 60% in amber box

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[80] Ibid.

[81] FAPRI, *Potential Impacts on U.S. Agriculture of the U.S. October 2005 WTO Proposal*, FAPRI-UMC Report #16-05, December 15, 2005.

support does not compare directly with an analysis of the complete elimination of U.S. farm support as would be needed to investigate their full market effects. However, by studying unilateral U.S. policy reform (i.e., independent of multilateral reform), this partial reform scenario provides, at the least, some indication of the extent to which policy reform can reduce the causal linkage between U.S. farm supports and the adverse market effects of SCM Article 5.

Since there is no unique set of policy adjustments required for the U.S. to meet its proposed support commitments (and the U.S. proposal contained no program-specific recommendations), FAPRI made certain assumptions regarding how support programs would be altered to obtain the proposed 60% reduction in U.S. amber box support. The current regime of U.S. policy parameters offers only a few options with the major policy levers being target prices and loan rates. (Simply reducing absolute spending levels or fully decoupling spending are alternate options not considered by FAPRI.) To remain somewhat neutral regarding the issue of equity across programs and commodities, FAPRI applied uniform percentage cuts to commodity loan rates and target prices so as to achieve the aggregate spending goals.[82] The required cuts included:

- an 11% reduction in commodity loan rates and the milk support price;
- a 16% reduction in sugar loan rates (adopted to avoid public stock accumulation targets under expected import increases);
- a 7% reduction in commodity target prices;
- sugar and butter TRQs were expanded by 7.5% of the 1999-2001 average consumption level; and
- fixed direct payments are assumed to be green-box compliant (in contrast to the non-green-box compliant determination under the WTO cotton case).

Under this scenario of domestic support reductions, USDA Commodity Credit Corporation (CCC) outlays declined by an annual average of $3.5 billion (from $16.5 billion to about $13 billion). Over 80% of the reduction in subsidies was accounted for by three crops — corn (42%), soybeans (19%), and cotton (19%). The majority of the annual average reduction in CCC outlays came from two programs — marketing loan benefits ($1.9 billion) and CCP payments ($1.3 billion). With respect to WTO subsidy categories, U.S. product-specific amber box subsidies declined from an average of $9.4 billion per year in the baseline to $5.0 billion under the scenario, while CCP outlays declined from $3.1 billion to $1.8 billion per year. However, the individual commodity price and trade effects of this limited policy reform scenario were generally very small. Only peanut, rice, and cotton scenario prices exceeded baseline levels by more than 1%. The largest average price change was for peanuts

[82] FAPRI applies a repetitive, stochastic estimation technique to its simulation model that generates 500 outcomes for each scenario. It is these outcomes that are evaluated to ascertain scenario effects. Based on this approach, FAPRI reduced target prices and loan rates for major program crops until the incidence of the stochastic outcomes violating the aggregate spending limit occurred in 5% or less of each scenario's 500 outcomes.

at 2.4%. U.S. annual average export declines under the scenario were greatest for cotton (4.1%) and rice (2.2%).

Part of the relatively small market effects resulting from a 60% cut in the U.S. domestic support ceiling to $7.6 billion results from a significant portion of the reduction being "water" — that is, unused but allowable support under the $19.1 billion ceiling. For example, from 1995 to 2001 U.S. amber box spending averaged $11 billion (see **Table 2**, Total Non-Exempt AMS Outlays). This would suggest that the effective cut in actual domestic spending under the U.S. proposal is a much smaller 31% from $11 billion to $7.6 billion, than the 60% cut in the AMS ceiling. At any rate, the limited market effects resulting under the U.S. Doha-Round proposal, when compared with the more substantial effects found in Steinberg and Josling (2003), Sumner (2003), and Sumner (2005) suggest that a partial policy reform of the nature suggested by the U.S. Doha-Round Proposal would provide only modest decoupling between U.S. commodity subsidies and their adverse effects. As a result, U.S. subsidy programs would appear to remain vulnerable to WTO challenge under SCM Article 5 and 6.3 following a policy reform like the U.S. Doha Proposal.

Oxfam Briefing Paper No. 81 (2005). In a paper from a report series written to inform public debate on development and humanitarian issues, the international development organization, Oxfam, published an assemblage of research results that examined the international market effects of both European Union (EU) and U.S. agricultural subsidies. In the wake of the WTO cotton ruling against the U.S. cotton program, Oxfam claims in its report to reveal additional U.S. (and EU) subsidies that are illegal under WTO rules. While several U.S. commodity groups have questioned the objectivity of a report published by a development organization that advocates on behalf of developing countries, the report and its results are indicative of the type of scrutiny under which U.S. farm support programs are likely to be placed in the post-Peace-Clause trade environment.

Based on a review of previously published work, Oxfam suggests that three major U.S. field crops — corn, rice, and sorghum — are particularly vulnerable to future WTO legal challenge (**Table 10**). According to Oxfam, major exporters of these crops could challenge U.S. domestic subsidy payments under SCM Articles 5(c) and 6.3 (b) and (c) — i.e., serious prejudice due to export displacement and market price suppression; while major importers of those crops from the United States could challenge the U.S. domestic subsidies paid to those crops under SCM Article 5(a) — i.e., injury to the domestic industry of another WTO member. In supporting its arguments, Oxfam cites evidence that, for each crop:

- the United States is a major producer and exporter;
- market returns fail to cover production cost for an average U.S. producer without government subsidies;
- government subsidies provide a substantial portion of annual average returns to each sector; and
- relevant economic analysis exists confirming that U.S. crop subsidies have substantial and significant international market effects, particularly as measured by market price suppression.

Table 10. Potential WTO Cases Against Subsidized U.S. Crops

Crop	Potential plaintiff
Corn	*Major Exporters:* Argentina, Paraguay, and South Africa. *Major Importers:* Columbia, Ecuador, El Salvador, Honduras, Guatemala, Mexico, Peru, and Venezuela
Rice	*Major Exporters:* Guyana, India, Pakistan, Suriname, Thailand, and Uruguay. *Major Importers:* Costa Rica, Ghana, Haiti, Mexico, Peru, Venezuela, and Zambi.
Sorghum	*Major Importers:* Kenya, Mexico, and South Africa.

Source: *Truth or Consequences,* Oxfam Briefing Paper No. 81, November 2005.

ABARE (2006). In September 2006, the Australian Bureau of Agricultural and Resource Economics (ABARE), released a report summarizing its analysis of the potential market and welfare effects of abolishing both U.S. agricultural domestic support as well as all import tariffs on agricultural products.[83] ABARE used a dynamic simulation model of the world economy to evaluate several scenarios involving the elimination of all U.S. farm support programs. By including the removal of border restrictions, the ABARE analysis was able to capture the hypothetical effects of government support on the sugar sector in addition to the usual field crops. The hypothetical effects for the U.S. dairy sector are not reported by ABARE in sufficient detail.

ABARE's simulation results suggested large shifts in production away from program crops and towards non-program crops. The largest declines in U.S. production are projected to occur for sugar (31%), while cotton and rice production experience projected declines of 13% and 11%, respectively. U.S. wheat and corn production decline by 3% each and soybean production is projected to fall 1%. Although the ABARE study does not report projected price changes, the production effects are substantial and would likely have important international market price consequences. ABARE suggests that reduced U.S. production of the scale projected by its results could potentially have a noticeable upward effect on world prices, particularly for those crops where the U.S. plays a major role in international markets.[84] As a result, the ABARE study would appear to confirm the important causal link between U.S. farm policy and international market prices and trade.

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[83] ABARE, *U.S. Agriculture Without Farm Support* by Daniel McDonald, Roneel Nair, Troy Podbury, Belinda Sheldrick, Don Gunasekera, and Brian S. Fisher, Research Report 06.10, September 2006.

[84] Ibid., p. 20.

Appendix B. Agreement on Agriculture, Article 13: Due Restraint (the Peace Clause)[85]

During the implementation period [i.e., the nine-year period January 1, 1995-December 31, 2003], notwithstanding the provisions of GATT 1994 and the Agreement on Subsidies and Countervailing Measures (SCM):

(a) *domestic support measures* that conform fully to the provisions of the Green Box [AA, Annex 2] shall be:
- (i) non-actionable subsidies for purposes of countervailing duties;
- (ii) exempt from actions based on Article XVI of GATT 1994 [dealing with the treatment of general subsidies] and Part III of the SCM [dealing with the treatment of actionable subsidies]; and
- (iii) exempt from actions based on non-violation nullification or impairment of the benefits of tariff concessions accruing to another Member;

(b) *domestic support measures* that conform fully with AA domestic support commitments as reflected in each Member's Schedule, including direct payments that conform to the requirements of Blue Box payments, as well as domestic support within de minimis levels, shall be:
- (i) exempt from the imposition of countervailing duties unless a determination of injury or threat thereof is made in accordance with Article VI of GATT 1994 and Part V of the SCM [i.e., Countervailing Measures], and due restraint shall be shown in initiating any countervailing duty investigations;
- (ii) exempt from actions [as expressed in (a)(ii) above], provided that such measures do not grant support to a specific commodity in excess of that decided during the 1992 marketing year; and
- (iii) exempt from actions based on non-violation nullification or impairment of the benefits of tariff concessions accruing to another Member, provided that such measures do not grant support to a specific commodity in excess of that decided during the 1992 marketing year;

(c) *export subsidies* that conform fully to the provisions of AA Part V, as reflected in each Member's Schedule, shall be:
- (i) subject to countervailing duties only upon a determination of injury or threat thereof based on volume, effect on prices, or consequent impact in accordance with Article VI of GATT 1994 and Part V of the SCM, and due restraint shall be shown in initiating any countervailing duty investigations; and
- (ii) exempt from actions [as expressed in (a)(ii) above].

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[85] Abridged and annotated by CRS. For the official WTO text, see WTO Legal Texts at [http://www.wto.org/english/docs_e/legal_e/legal_e.htm]. For WTO terminology, refer to CRS Report RL32916, *Agriculture in the WTO: Policy Commitments Made Under the Agreement on Agriculture*, by Randy Schnepf.

Appendix C. Agreement on Subsidies and Countervailing Measures; Part I, Article 1: Definition of a Subsidy

PART I: GENERAL PROVISIONS

Article 1: Definition of a Subsidy

1.1 For the purpose of this Agreement, a subsidy shall be deemed to exist if:

(a)(1) there is a financial contribution by a government or any public body within the territory of a Member (referred to in this Agreement as "government"), i.e. where:

(i) a government practice involves a direct transfer of funds (e.g. grants, loans, and equity infusion), potential direct transfers of funds or liabilities (e.g. loan guarantees);

(ii) government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits) ;

(iii) a government provides goods or services other than general infrastructure, or purchases goods;

(iv) a government makes payments to a funding mechanism, or entrusts or directs a private body to carry out one or more of the type of functions illustrated in (i) to (iii) above which would normally be vested in the government and the practice, in no real sense, differs from practices normally followed by governments;

or

(a)(2) there is any form of income or price support in the sense of Article XVI of GATT 1994;

and

(b) a benefit is thereby conferred.

1.2 A subsidy as defined in paragraph 1 shall be subject to the provisions of Part II or shall be subject to the provisions of Part III or V only if such a subsidy is specific in accordance with the provisions of Article 2.

Appendix D. Agreement on Subsidies and Countervailing Measures; Part III: Actionable Subsidies; Articles 5 and 6

PART III: ACTIONABLE SUBSIDIES

Article 5: Adverse Effects

No Member should cause, through the use of any subsidy referred to in paragraphs 1 and 2 of Article 1, adverse effects to the interests of other Members, i.e.:

(a) injury to the domestic industry of another Member ;
(b) nullification or impairment of benefits accruing directly or indirectly to other Members under GATT 1994 in particular the benefits of concessions bound under Article II of GATT 1994 ;
(c) serious prejudice to the interests of another Member.

This Article does not apply to subsidies maintained on agricultural products as provided in Article 13 [the 'Peace Clause'] of the Agreement on Agriculture.

Article 6: Serious Prejudice

6.1 Serious prejudice in the sense of paragraph (c) of Article 5 shall be deemed to exist in the case of:

(a) the total ad valorem subsidization of a product exceeding 5 per cent ;
(b) subsidies to cover operating losses sustained by an industry;
(c) subsidies to cover operating losses sustained by an enterprise, other than one time measures which are non recurrent and cannot be repeated for that enterprise and which are given merely to provide time for the development of long term solutions and to avoid acute social problems;
(d) direct forgiveness of debt, i.e. forgiveness of government held debt, and grants to cover debt repayment.

6.2 Notwithstanding the provisions of paragraph 1, serious prejudice shall not be found if the subsidizing Member demonstrates that the subsidy in question has not resulted in any of the effects enumerated in paragraph 3.

6.3 Serious prejudice in the sense of paragraph (c) of Article 5 may arise in any case where one or several of the following apply:

(a) the effect of the subsidy is to displace or impede the imports of a like product of another Member into the market of the subsidizing Member;
(b) the effect of the subsidy is to displace or impede the exports of a like product of another Member from a third country market;
(c) the effect of the subsidy is a significant price undercutting by the subsidized product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market;
(d) the effect of the subsidy is an increase in the world market share of the subsidizing Member in a particular subsidized primary product or

commodity as compared to the average share it had during the previous period of three years and this increase follows a consistent trend over a period when subsidies have been granted.

6.4 For the purpose of paragraph 3(b), the displacement or impeding of exports shall include any case in which, subject to the provisions of paragraph 7, it has been demonstrated that there has been a change in relative shares of the market to the disadvantage of the non subsidized like product (over an appropriately representative period sufficient to demonstrate clear trends in the development of the market for the product concerned, which, in normal circumstances, shall be at least one year). "Change in relative shares of the market" shall include any of the following situations: (a) there is an increase in the market share of the subsidized product; (b) the market share of the subsidized product remains constant in circumstances in which, in the absence of the subsidy, it would have declined; (c) the market share of the subsidized product declines, but at a slower rate than would have been the case in the absence of the subsidy.

6.5 For the purpose of paragraph 3(c), price undercutting shall include any case in which such price undercutting has been demonstrated through a comparison of prices of the subsidized product with prices of a non subsidized like product supplied to the same market. The comparison shall be made at the same level of trade and at comparable times, due account being taken of any other factor affecting price comparability. However, if such a direct comparison is not possible, the existence of price undercutting may be demonstrated on the basis of export unit values.

6.6 Each Member in the market of which serious prejudice is alleged to have arisen shall, subject to the provisions of paragraph 3 of Annex V, make available to the parties to a dispute arising under Article 7, and to the Panel established pursuant to paragraph 4 of Article 7, all relevant information that can be obtained as to the changes in market shares of the parties to the dispute as well as concerning prices of the products involved.

6.7 Displacement or impediment resulting in serious prejudice shall not arise under paragraph 3 where any of the following circumstances exist during the relevant period:

(a) prohibition or restriction on exports of the like product from the complaining Member or on imports from the complaining Member into the third country market concerned;
(b) decision by an importing government operating a monopoly of trade or state trading in the product concerned to shift, for non commercial reasons, imports from the complaining Member to another country or countries;
(c) natural disasters, strikes, transport disruptions or other force majeure substantially affecting production, qualities, quantities or prices of the product available for export from the complaining Member;
(d) existence of arrangements limiting exports from the complaining Member;
(e) voluntary decrease in the availability for export of the product concerned from the complaining Member (including, inter alia, a situation where firms in the complaining Member have been autonomously reallocating exports of this product to new markets);

(f) failure to conform to standards and other regulatory requirements in the importing country.

6.8 In the absence of circumstances referred to in paragraph 7, the existence of serious prejudice should be determined on the basis of the information submitted to or obtained by the Panel, including information submitted in accordance with the provisions of Annex V.

6.9 This Article does not apply to subsidies maintained on agricultural products as provided in Article 13 [the 'Peace Clause'] of the Agreement on Agriculture.

Appendix E. Agreement on Agriculture, Key Provisions of Annex 2 (the Green Box)[86]

1. Domestic support measures for which exemption from the reduction commitments is claimed shall meet the fundamental requirement that they have no, or at most minimal, trade-distorting effects or effects on production. Accordingly, all measures for which exemption is claimed shall conform to the following basic criteria:

(a) the support in question shall be provided through a publicly-funded government program (including government revenue foregone) not involving transfers from consumers; and,

(b) the support in question shall not have the effect of providing price support to producers;

plus policy-specific criteria and conditions as set out below.

5. Direct payments to producers

Support provided through direct payments (or revenue foregone, including payments in kind) to producers for which exemption from reduction commitments is claimed shall meet the basic criteria set out in paragraph 1 above, plus specific criteria applying to individual types of direct payment as set out in paragraphs 6 through 13 below. Where exemption from reduction is claimed for any existing or new type of direct payment other than those specified in paragraphs 6 through 13, it shall conform to criteria (b) through (e) in paragraph 6, in addition to the general criteria set out in paragraph 1.

6. Decoupled income support

(a) Eligibility for such payments shall be determined by clearly-defined criteria such as income, status as a producer or landowner, factor use or production level in a defined and fixed base period.

(b) The amount of such payments in any given year shall not be related to, or based on, the type or volume of production (including livestock units) undertaken by the producer in any year after the base period.

(c) The amount of such payments in any given year shall not be related to, or based on, the prices, domestic or international, applying to any production undertaken in any year after the base period.

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[86] AA, Annex 2 is available in full at [http://www.wto.org/english/docs_e/legal_e/14-ag_02_e.htm#annII].

(d) The amount of such payments in any given year shall not be related to, or based on, the factors of production employed in any year after the base period.

(e) No production shall be required in order to receive such payments.

7. Government financial participation in income insurance and income safety-net programs

(a) Eligibility for such payments shall be determined by an income loss, taking into account only income derived from agriculture, which exceeds 30 per cent of average gross income or the equivalent in net income terms (excluding any payments from the same or similar schemes) in the preceding three-year period or a three-year average based on the preceding five-year period, excluding the highest and the lowest entry. Any producer meeting this condition shall be eligible to receive the payments.

(b) The amount of such payments shall compensate for less than 70 percent of the producer's income loss in the year the producer becomes eligible to receive this assistance.

(c) The amount of any such payments shall relate solely to income; it shall not relate to the type or volume of production (including livestock units) undertaken by the producer; or to the prices, domestic or international, applying to such production; or to the factors of production employed.

(d) Where a producer receives in the same year payments under this paragraph and under paragraph 8 (relief from natural disasters), the total of such payments shall be less than 100 per cent of the producer's total loss.

12. Payments under environmental programs

(a) Eligibility for such payments shall be determined as part of a clearly-defined government environmental or conservation program and be dependent on the fulfilment of specific conditions under the government program, including conditions related to production methods or inputs.

(b) The amount of payment shall be limited to the extra costs or loss of income involved in complying with the government program.